

GEOVision Borehole Geophysics depth wheel verification

Performed by Robert Steller on September 23, 2006

	Depth reading in #1	Depth reading out	Depth reading in #2
Depth wheel S/N 101 500 pulse/revolution Circumference = 983mm (3225.07 millifoot)	100.1 feet (30.51 m)	99.95 feet (30.46 m)	100.05 feet (30.50 m)
Depth wheel S/N 102 500 pulse/revolution Circumference = 994mm (3261.15 millifoot)	100.00 feet (30.48) m	100.05 feet (30.50 m)	100.00 feet (30.48) m
Aries winch 200 pulse/revolution Circumference = 305.9mm (1003.51 millifoot)	100.05 feet (30.50) m	100.05 feet (30.50 m)	100.00 feet (30.48) m
Depth wheel S/N 103 500 pulse/revolution Circumference = 1000mm (3.281 feet)			
Comprobe winch 500 pulse/revolution Circumference = 1000mm (3.281 feet)			

All measurements taken with a Stanley 100ft flexible stainless steel tape model number 34-130, and a Keeson 300 foot fiberglass tape, both marked in feet, inches and 1/8ths of inches. Enough cable was spooled off of the winch to allow the cable and tape measures to be laid flat on the parking lot surface side-by-side. A permanent marker was used to mark a 100.0 foot interval on the cable, and the marks were also tagged with electrical tape for visibility. The cable was then spooled back onto the winch. When the first mark was at the top of the measuring wheel, a matching permanent mark was placed, and the recording system (Robertson Micrologger) was set to 0.0 feet depth. The cable was spooled in to the second mark, and the distance was recorded. The recording system was set to 0.0 feet again, and the cable spooled out to the first mark again, and the distance was recorded. The process was repeated one more time to spool the cable back onto the winch, and the distance was recorded.

Estimated accuracy is of these measurements is +/- 0.1 foot or +/- 0.03m.

**GEOVision Suspension PS probe Receiver 1–Receiver 2 (R1-R2)
spacing verification**

Performed by Robert Steller on September 23, 2006

Receiver S/N	R2 center to R1 center hanging dry	R2 center to R1 center hanging submerged	R1 bottom to source center hanging submerged with 1m isolation tube S/N 280068
30086	40.2in 1.02m	40.0in 1.02m	76.0in 1.93m
20042	39.8in 1.01m	39.6in 1.01m	75.7in 1.92m
12008	40.2in 1.02m	40.0in 1.02m	76.0in 1.93m

All measurements taken with a Lufkin 3.7m flexible steel tape model number HV1034DM, marked in mm and 100th of feet. Probe suspended in 3-inch diameter clear PVC pipe, using chain clamp placed between bottom and center of Receiver 2 hard section (See Figure). Probe “bounced” to establish unrestricted hanging length before measurement. Probe allowed to relax for 5 minutes prior to each measurement. Water level set to submerge bottom of Receiver 2 hard section.. Estimated accuracy due to hysteresis in rubber section approximately +/- 0.01’ or +/- 0.003m.



APPENDIX D

BORING GEOPHYSICAL LOGGING

FIELD DATA LOGS



P-S SUSPENSION VELOCITY FIELD LOG

SITE: CALVERT CLIFFS COLA B-40-301 DATE: 6/5/06
CLIENT: SCHNABEL JOB: 8185
AUTHOR: R. STELLER PAGE 1 OF 8

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:

EAK:
BOREHOLE DESIGNATION: B-40-301 LOCATION:

COUNTY: RANGE: TOWNSHIP: SECTION:

BOREHOLE CONSTRUCTION: CASED UNCASD
DIAMETERS AND DEPTH RANGES: 6" 0 TO 40' 20"; 4 1/4" 30 TO 402' 403'
BOREHOLE TOTAL DEPTH AS DRILLED: 402' 403'
CONDUCTOR CASING?: YES DEPTH TO BOTTOM OF CASING; NO
DEPTH TO BEDROCK: NA DEPTH TO WATER TABLE: 2' 30"
BOREHOLE FLUID: WATER; FRESH WATER MUD; SALT WATER MUD
OTHER:
DEPTH TO BOREHOLE FLUID: TIME SINCE LAST CIRCULATION: 1/2 hr

GEOVision

geophysical services

SITE: CALVERT CLIFFS COLA B-40 301 DATE: 6/5/06
 CLIENT: SCHNABEL JOB: 6165
 AUTHOR: R. STELLER PAGE 2 OF 8

LOGGING CREW: R. STELLER
 VEHICLE(S) USED AND MILEAGE: RENTAL
 MOBILIZED FROM: LEXINGTON PAWN DEPARTURE TIME: 7:30
 ARRIVED ON SITE: 8:00
 STANDBY TIME: _____ CAUSE: _____
 LOGGING STARTED: 10:10 LOGGING COMPLETED: 12:30
 STANDBY TIME: _____ CAUSE: _____
 LOGGING STARTED: _____ 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 180023 180024
 RECEIVER S/N 12008 20042 26066 11001 23053

MAINTENANCE PERFORMED ON SITE: _____

EQUIPMENT PROBLEMS OR FAILURES: _____

SUGGESTIONS, ADDITIONS, CHANGES: _____

COMMENTS: _____

GEOVISION SUSPENSION LOGGING FIELD NOTES

SITE: CALVERT CLIFFS COLA 0-4e+3d1 DATE: 6/5/06
 CLIENT: SCHNABEL JOB: 6165
 AUTHOR: R. STELLER PAGE 3 OF 8

DEPTH METERS	DEPTH FEET	UNFILTERED FILE NO.	FILTERED FILE NO.	COMMENTS CASING, WATER, ROCK, ETC
0.5	1.64	1		
1.0	3.28	2		
1.5	4.92	3		
2.0	6.56	4		
2.5	8.20	5		
3.0	9.84	6		
3.5	11.48	7		
4.0	13.12	8		
4.5	14.76	9		
5.0	16.40	10		
5.5	18.04	11		
6.0	19.69	12		
6.5	21.33	13		
7.0	22.97	14		
7.5	24.61	15		
8.0	26.25	16		
8.5	27.89	17		
9.0	29.53	18		
9.5	31.17	19		
10.0	32.81	20		
10.5	34.45	21		
11.0	36.09	22		
11.5	37.73	23		
12.0	39.37	24		
12.5	41.01	25		
13.0	42.65	26		
13.5	44.29	27		
14.0	45.93	28		
14.5	47.57	29		
15.0	49.21	30		
15.5	50.85	31		
16.0	52.49	32		
16.5	54.13	33		
17.0	55.77	34		
17.5	57.41	35		
18.0	59.05	36		
18.5	60.70	37		
19.0	62.34	38		
19.5	63.98	39		
20.0	65.62	40		

GEOVISION SUSPENSION LOGGING FIELD NOTES

SITE: CALVERT CLIFFS COLA 6-401 201 DATE: 6/5/06
 CLIENT: SCHNABEL JOB: 8165
 AUTHOR: R. STELLER PAGE 4 OF 8

DEPTH METERS	DEPTH FEET	UNFILTERED FILE NO.	FILTERED FILE NO.	COMMENTS CASING, WATER, ROCK, ETC
20.5	67.26	41		
21.0	68.90	42		
21.5	70.54	43		
22.0	72.18	44		
22.5	73.82	45		
23.0	75.46	46		
23.5	77.10	47		
24.0	78.74	48		
24.5	80.38	49		
25.0	82.02	50		
25.5	83.66	51		
26.0	85.30	52		
26.5	86.94	53		
27.0	88.58	54		
27.5	90.22	55		
28.0	91.86	56		
28.5	93.50	57		
29.0	95.14	58		
29.5	96.78	59		
30.0	98.43	60		
30.5	100.07	61		
31.0	101.71	62		
31.5	103.35	63		
32.0	104.99	64		
32.5	106.63	65		
33.0	108.27	66		
33.5	109.91	67		
34.0	111.55	68		
34.5	113.19	69		
35.0	114.83	70		
35.5	116.47	71		
36.0	118.11	72		
36.5	119.75	73		
37.0	121.39	74		
37.5	123.03	75		
38.0	124.67	76		
38.5	126.31	77		
39.0	127.95	78		
39.5	129.59	79		
40.0	131.23	80		

GEOVISION SUSPENSION LOGGING FIELD NOTES

SITE: CALVERT CLIFFS COLA 3-4a+ 3a1 DATE: 6/5/06
 CLIENT: SCHNABEL JOB: 6165
 AUTHOR: R. STELLER PAGE 5 OF 8

DEPTH METERS	DEPTH FEET	UNFILTERED FILE NO.	FILTERED FILE NO.	COMMENTS CASING, WATER, ROCK, ETC
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40.5	132.87	81		
41.0	134.51	82		
41.5	136.15	83		
42.0	137.80	84		
42.5	139.44	85		
43.0	141.08	86		
43.5	142.72	87		
44.0	144.36	88		
44.5	146.00	89		
45.0	147.64	90		
45.5	149.28	91		
46.0	150.92	92		
46.5	152.56	93		
47.0	154.20	94		
47.5	155.84	95		
48.0	157.48	96		
48.5	159.12	97		
49.0	160.76	98		
49.5	162.40	99		
50.0	164.04	100		
50.5	165.68	101		
51.0	167.32	102		
51.5	168.96	103		
52.0	170.60	104		
52.5	172.24	105		
53.0	173.88	106		
53.5	175.52	107		
54.0	177.17	108		
54.5	178.81	109		
55.0	180.45	110		
55.5	182.09	111		
56.0	183.73	112		
56.5	185.37	113		
57.0	187.01	114		
57.5	188.65	115		
58.0	190.29	116		
58.5	191.93	117		
59.0	193.57	118		
59.5	195.21	119		
60.0	196.85	120		

GEOVISION SUSPENSION LOGGING FIELD NOTES

SITE: CALVERT CLIFFS COLA B-1st 301 DATE: 6/5/06
 CLIENT: SCHNABEL JOB: 6165
 AUTHOR: R. STELLER PAGE 6 OF 8

DEPTH METERS	DEPTH FEET	UNFILTERED FILE NO.	FILTERED FILE NO.	COMMENTS CASING, WATER, ROCK, ETC
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60.5	198.49	121		
61.0	200.13	122		
61.5	201.77	123		
62.0	203.41	124		
62.5	205.05	125		
63.0	206.69	126		
63.5	208.33	127		
64.0	209.97	128		
64.5	211.61	129		
65.0	213.25	130		
65.5	214.89	131		
66.0	216.54	132		
66.5	218.18	133		
67.0	219.82	134		
67.5	221.46	135		
68.0	223.10	136		
68.5	224.74	137		
69.0	226.38	138		
69.5	228.02	139		
70.0	229.66	140		
70.5	231.30	141		
71.0	232.94	142		
71.5	234.58	143		
72.0	236.22	144		
72.5	237.86	145		
73.0	239.50	146		
73.5	241.14	147		
74.0	242.78	148		
74.5	244.42	149		
75.0	246.06	150		
75.5	247.70	151		
76.0	249.34	152		
76.5	250.98	153		
77.0	252.62	154		
77.5	254.27	155		
78.0	255.91	156		
78.5	257.55	157		
79.0	259.19	158		
79.5	260.83	159		
80.0	262.47	160		

GEOVISION SUSPENSION LOGGING FIELD NOTES

SITE: CALVERT CLIFFS COLA 6-48-301 DATE: 6/5/06
 CLIENT: SCHNABEL JOB: 6165
 AUTHOR: R. STELLER PAGE 7 OF 8

DEPTH METERS	DEPTH FEET	UNFILTERED FILE NO.	FILTERED FILE NO.	COMMENTS CASING, WATER, ROCK, ETC
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80.5	264.11	161		
81.0	265.75	162		
81.5	267.39	163		
82.0	269.03	164		
82.5	270.67	165		
83.0	272.31	166		
83.5	273.95	167		
84.0	275.59	168		
84.5	277.23	169		
85.0	278.87	170		
85.5	280.51	171		
86.0	282.15	172		
86.5	283.79	173		
87.0	285.43	174		
87.5	287.07	175		
88.0	288.71	176		
88.5	290.35	177		
89.0	291.99	178		
89.5	293.64	179		
90.0	295.28	180		CHANGE ↓
90.5	296.92	181		
91.0	298.56	182		
91.5	300.20	183		
92.0	301.84	184		
92.5	303.48	185		
93.0	305.12	186		
93.5	306.76	187		
94.0	308.40	188		
94.5	310.04	189		
95.0	311.68	190		
95.5	313.32	191		
96.0	314.96	192		
96.5	316.60	193		
97.0	318.24	194		
97.5	319.88	195		
98.0	321.52	196		
98.5	323.16	197		
99.0	324.80	198		
99.5	326.44	199		
100.0	328.08	200		

GEOVISION SUSPENSION LOGGING FIELD NOTES

SITE: CALVERT CLIFFS COLA E-401 301 DATE: 6/5/06
 CLIENT: SCHNABEL JOB: 6165
 AUTHOR: R. STELLER PAGE 8 OF 8

DEPTH METERS	DEPTH FEET	UNFILTERED FILE NO.	FILTERED FILE NO.	COMMENTS CASING, WATER, ROCK, ETC
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100.5	329.72	201		
101.0	331.38	202		
101.5	333.01	203		
102.0	334.65	204		
102.5	336.29	205		
103.0	337.93	206		
103.5	339.57	207		
104.0	341.21	208		
104.5	342.85	209		
105.0	344.49	210		
105.5	346.13	211		
106.0	347.77	212		
106.5	349.41	213		
107.0	351.05	214		
107.5	352.69	215		
108.0	354.33	216		
108.5	355.97	217		
109.0	357.61	218		
109.5	359.25	219		
110.0	360.89	220		
110.5	362.53	221		
111.0	364.17	222		
111.5	365.81	223		
112.0	367.45	224		
112.5	369.09	225		
113.0	370.73	226		
113.5	372.38	227		
114.0	374.02	228		
114.5	375.66	229		
115.0	377.30	230		
115.5	378.94	231		
116.0	380.58	232		
116.5	382.22	233		
117.0	383.86	234		
117.5	385.50	235		
118.0	387.14	236		
118.5	388.78	237		
119.0	390.42	238		
119.5	392.06			
120.0	393.70			

*Bottom MEASUREMENTS
Hit Bottom @ 119.2m = TIP @ 4032'*



B-301 ACOUSTIC TELEVIEWER FIELD LOG

SITE: CCNPP COLA DATE: 6/5/2006
CLIENT: SCHNABEL JOB: 8185
AUTHOR: R. STELLER PAGE 1 OF 2

CONTACT: RUBEN TARUSELLI OFFICE PHONE: _____
CELL PHONE: 703-906-1797
CONTACT: _____ OFFICE PHONE: _____
PHONE: _____
CONTACT: _____ PHONE: _____
PHONE: _____
CONTACT: _____ PHONE: _____
PHONE: _____
DRILLER: _____ PHONE: _____
COMPANY: _____ PHONE: _____

DIRECTIONS TO SITE: _____

GENERAL SITE CONDITIONS/LOCATION: _____

BOREHOLE DESIGNATION: B-301 LOCATION: _____

COUNTY: _____ RANGE: _____ TOWNSHIP: _____ SECTION: _____
BOREHOLE CONSTRUCTION: CASED _____ UNCASED
DIAMETERS AND DEPTH RANGES: 6" 0 TO 20'; 4 3/4" 20' TO 405'
BOREHOLE TOTAL DEPTH AS DRILLED: 403'
CONDUCTOR CASING?: YES _____ DEPTH TO BOTTOM OF CASING _____; NO
DEPTH TO BEDROCK: NR DEPTH TO WATER TABLE: ~30'
BOREHOLE FLUID: WATER _____; FRESH WATER MUD ; SALT WATER MUD _____
OTHER: _____
DEPTH TO BOREHOLE FLUID: 0 TIME SINCE LAST CIRCULATION: ~4 HR.

GE Vision

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SITE: CCNPP COLA B-301 DATE: 6/5/2008
 CLIENT: SCHNABEL JOB: 8165
 AUTHOR: R. STELLER PAGE 2 OF 2

LOGGING CREW: R. STELLER
 VEHICLE(S) USED AND MILEAGE: RENTAL
 MOBILIZED FROM: LEWISTON PARK DEPARTURE TIME: 7:30
 ARRIVED ON SITE: 8:00
 STANDBY TIME: _____ CAUSE: _____
 LOGGING STARTED: 13:05 LOGGING COMPLETED: 13:50

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

PROBE TILT TEST 88.2 BRUNTON TILT 88°
 PROBE AZIMUTH TEST 336.2 BRUNTON AZIMUTH 337° Probe heading 0.3°

PROBE OFFSET	OPTICAL 1.88M(6.17FT)	ACOUSTIC 1.44M(4.72FT)
CASING STICK-UP	-	1.50 FT
DEPTH REF. OFFSET	-	3.22 FT

LOG NAME	START DEPTH	START TIME	END DEPTH	END TIME
<u>9301-A-001-121</u>	<u>0</u>	<u>13:05</u>	<u>402.5'</u>	<u>13:50</u>

MAINTENANCE PERFORMED ON SITE: _____

EQUIPMENT PROBLEMS OR FAILURES: _____

SUGGESTIONS, ADDITIONS, CHANGES: _____

SITE: CCNPP COLA 15-301 DATE: 6/9/2008
 CLIENT: SCHNABEL JOB: 6185
 AUTHOR: R. STELLER PAGE 2 OF 2

WINGH: COMPROBE SILVER OYO OTHER _____
 MICROLOGGER 5301 OTHER _____
 ELOG PROBE 5490 OTHER _____

PROBE OFFSET	2.50M(8.20 FT)
CASING STICK-UP	-1.50
DEPTH REF. OFFSET	6.70 FT.

LOG NAME	START DEPTH	START TIME	END DEPTH	END TIME
BT341 (Block up) P 01	14:20	402'	1.7'	14:15:02
BT341 (Block up) P 02	15:14	402'	1.7'	15:09

MAINTENANCE PERFORMED ON SITE: _____

EQUIPMENT PROBLEMS OR FAILURES: _____

SUGGESTIONS, ADDITIONS, CHANGES: _____



B-301 CALIPER FIELD LOG

SITE: CCNPP COLA DATE: 6/5/2008
 CLIENT: SCHNABEL JOB: 8185
 AUTHOR: R. STELLER PAGE 1 OF 2

CONTACT: RUBEN TARUSELLI OFFICE PHONE: _____
 CELL PHONE: 708-906-1797
 CONTACT: _____ OFFICE PHONE: _____
 PHONE: _____
 CONTACT: _____ PHONE: _____
 PHONE: _____
 CONTACT: _____ PHONE: _____
 PHONE: _____
 DRILLER: _____ PHONE: _____
 COMPANY: _____ PHONE: _____

GENERAL SITE CONDITIONS/LOCATION: _____

BOREHOLE DESIGNATION: B-301 LOCATION: _____

COUNTY: _____ RANGE: _____ TOWNSHIP: _____ SECTION: _____
 BOREHOLE CONSTRUCTION: CASED _____ UNCASD
 DIAMETERS AND DEPTH RANGES: 6 1/4" 0 TO 40 3/8" 4 1/4" 30' TO 40 3/8'
 BOREHOLE TOTAL DEPTH AS DRILLED: 40 3/8'
 CONDUCTOR CASING?: YES _____ DEPTH TO BOTTOM OF CASING _____; NO
 DEPTH TO BEDROCK: NA DEPTH TO WATER TABLE: 230'
 BOREHOLE FLUID: WATER _____; FRESH WATER MUD ; SALT WATER MUD _____
 OTHER: _____
 DEPTH TO BOREHOLE FLUID: 0 TIME SINCE LAST CIRCULATION: 6 HR.

LOGGING CREW: R. STELLER
 VEHICLE(S) USED AND MILEAGE: RENTAL
 MOBILIZED FROM: LESLINGTON PARK DEPARTURE TIME: 7:30
 ARRIVED ON SITE: 8:00
 STANDBY TIME: _____ CAUSE: _____
 LOGGING STARTED: 11:20 LOGGING COMPLETED: 17:05



P-S SUSPENSION VELOCITY FIELD LOG

SITE: CALVERT CLIFFS COLA E-304 DATE: 6/1/06
CLIENT: SCHNABEL JOB: 6185
AUTHOR: R. STELLER PAGE 1 OF 5

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:

EA#:
BOREHOLE DESIGNATION: LOCATION:

COUNTY: RANGE: TOWNSHIP: SECTION:
BOREHOLE CONSTRUCTION: CASED UNCASED
DIAMETERS AND DEPTH RANGES: 4 7/8" 0 TO 300'
BOREHOLE TOTAL DEPTH AS DRILLED: 90'
CONDUCTOR CASING?: YES DEPTH TO BOTTOM OF CASING; NO
DEPTH TO BEDROCK: N/A DEPTH TO WATER TABLE: 60'
BOREHOLE FLUID: WATER; FRESH WATER MUD; SALT WATER MUD
OTHER:

DEPTH TO BOREHOLE FLUID: TIME SINCE LAST CIRCULATION: 2 HRS

GEOVision

geophysical services

SITE: CALVERT CLIFFS COLA 8-204 DATE: 6/1/06
 CLIENT: SCHNABEL JOB: 6165
 AUTHOR: R. STELLER PAGE 2 OF 5

LOGGING CREW: R. STELLER
 VEHICLE(S) USED AND MILEAGE: RENTAL
 MOBILIZED FROM: LEWISTON PARK DEPARTURE TIME: 6:00
 ARRIVED ON SITE: 7:00
 STANDBY TIME: ~ CAUSE: DOCUMENTATION, PROB ON SITE
 LOGGING STARTED: 11:00 LOGGING COMPLETED: 13:30
 STANDBY TIME: _____ CAUSE: _____
 LOGGING STARTED: 14:05 LOGGING COMPLETED: 15:35
 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 180023 180024
 RECEIVER S/N 12008 20042 28068 11001 23053

MAINTENANCE PERFORMED ON SITE: _____
Geo. Data. Folds: 09-112
Correlation Data
 EQUIPMENT PROBLEMS OR FAILURES: 6 Files: 201-311

SUGGESTIONS, ADDITIONS, CHANGES: _____

COMMENTS: 200 on 15014 = +0.03 m (0.095 ft) more late
200 on 28068 = 0.3 ft.

GEOVISION SUSPENSION LOGGING FIELD NOTES

SITE: CALVERT CLIFFS COLA G-304 DATE: 6/1/06
 CLIENT: SCHNABEL JOB: 6165
 AUTHOR: R. STELLER PAGE 5 OF 5

DEPTH METERS	DEPTH FEET	UNFILTERED FILE NO.	FILTERED FILE NO.	COMMENTS CASING, WATER, ROCK, ETC
0.5	1.64	01	201	
1.0	3.28	2	202	
1.5	4.92	3	203	
2.0	6.56	4	204	
2.5	8.20	5	205	
3.0	9.84	6	206	
3.5	11.48	7	207	
4.0	13.12	8	208	
4.5	14.76	9	209	
5.0	16.40	10	210	
5.5	18.04	11	211	
6.0	19.68	12 12	212 213	
6.5	21.33	13	214	
7.0	22.97	14	215	
7.5	24.61	15	216	
8.0	26.25	16	217	
8.5	27.89	17	218	
9.0	29.53	18	219	
9.5	31.17	19	220	
10.0	32.81	20	221	
10.5	34.45	21	222	500 yd / 1/2
11.0	36.09	22	223	
11.5	37.73	23	224	
12.0	39.37	24	225	
12.5	41.01	25	226	
13.0	42.65	26	227	
13.5	44.29	27	228	
14.0	45.93	28	229	
14.5	47.57	29	230	
15.0	49.21	30	231	
15.5	50.85	31	232	
16.0	52.49	32	233	
16.5	54.13	33	234	
17.0	55.77	34	235	
17.5	57.41	35	236	
18.0	59.05	36	237	
18.5	60.69	37	238	
19.0	62.33	38	239	
19.5	63.97	39	240	CLEANER
20.0	65.62	40	241	

GEOVISION SUSPENSION LOGGING FIELD NOTES

SITE: CALVERT CLIFFS COLA B-304 DATE: 12/1/06
 CLIENT: SCHNABEL JOB: 6165
 AUTHOR: R. STELLER PAGE: 4 OF 5

ROBERTSON

DEPTH METERS	DEPTH FEET	UNFILTERED FILE NO. %	FILTERED FILE NO.	COMMENTS CASING, WATER, ROCK, ETC
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20.5	67.26	A2	242	
21.0	68.90	A3	243	
21.5	70.54	A4	244	
22.0	72.18	A5	245	
22.5	73.82	A6	246	
23.0	75.46	A7	247	
23.5	77.10	A8	248	
24.0	78.74	A9	249	
24.5	80.38	A0	250	
25.0	82.02	B1	251	
25.5	83.66	B2	252	
26.0	85.30	B3	253	
26.5	86.94	B4	254	
27.0	88.58	B5	255	
27.5	90.22	B6	256	
28.0	91.86	B7	257	
28.5	93.50	B8	258	1/2 140 m/s
29.0	95.14	B9	259	
29.5	96.78	C0	260	
30.0	98.43	C1	261	
30.5	100.07	C2	262	
31.0	101.71	C3	263	CLIPPED
31.5	103.35	C4	264	
32.0	104.99	C5	265	
32.5	106.63	C6	266	CLIPPED
33.0	108.27	C7	267	
33.5	109.91	C8	268	
34.0	111.55	C9	269	CLIPPED
34.5	113.19	D0	270	
35.0	114.83	D1	271	
35.5	116.47	D2	272	CLIPPED
36.0	118.11	D3	273	
36.5	119.75	D4	274	
37.0	121.39	D5	275	
37.5	123.03	D6	276	
38.0	124.67	D7	277	
38.5	126.31	D8	278	
39.0	127.95	D9	279	
39.5	129.59	E0	280	
40.0	131.23	E1	281	

GEOVISION SUSPENSION LOGGING FIELD NOTES

SITE: CALVERT CLIFFS COLA B-304 DATE: 6/1/06
 CLIENT: SCHNABEL JOB: B165
 AUTHOR: R. STELLER PAGE: 5 OF 5

CYD ROBERTSON

DEPTH METERS	DEPTH FEET	UNFILTERED FILE NO.	FILTERED FILE NO.	COMMENTS CASING, WATER, ROCK, ETC
40.5	132.87	82	282	
41.0	134.51	83	283	
41.5	136.15	84	284 <i>cutted</i>	
42.0	137.80	85	285 *	
42.5	139.44	86	286 *	
43.0	141.08	87	287 *	
43.5	142.72	88	288 *	
44.0	144.36	89	289 *	
44.5	146.00	90	290 *	
45.0	147.64	91	291 *	
45.5	149.28	92	292 *	
46.0	150.92	93	293	
46.5	152.56	94	294	
47.0	154.20	95	295	
47.5	155.84	96	296	
48.0	157.48	97	297	
48.5	159.12	98	298	
49.0	160.76	99	299	
49.5	162.40	100	300 <i>CLIPED</i>	
50.0	164.04	101	301 *	<i>NO DATA & NO LABEL</i>
50.5	165.68	102	302 *	
51.0	167.32	103	303	
51.5	168.96	104	304	
52.0	170.60	105	305	
52.5	172.24	106	306	
53.0	173.88	107	307	
53.5	175.52	108	308	
54.0	177.17	109	309	
54.5	178.81	110	310	
55.0	180.45	111	311	
55.5	182.09	112		<i>DISCONTINUED 55.4m (TYPE 113.9)</i>
56.0	183.73			<i>END AT 55.8m (TYPE 113.2)</i>
56.5	185.37			
57.0	187.01			<i>Bottom measured?</i>
57.5	188.65			
58.0	190.29			
58.5	191.93			
59.0	193.57			
59.5	195.21			
60.0	196.85			

GE Vision

geophysical services

SITE: GRAND GULF COL B-304 DATE: 6/1/2008
 CLIENT: WLA JOB: 6242
 AUTHOR: R. STELLER PAGE 2 OF 2

LOGGING CREW: R. STELLER
 VEHICLE(S) USED AND MILEAGE: RENTAL
 MOBILIZED FROM: LEMINSTER PARK DEPARTURE TIME: 6:00
 ARRIVED ON SITE: 7:00
 STANDBY TIME: _____ CAUSE: _____
 LOGGING STARTED: 16:10 LOGGING COMPLETED: _____

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

PROBE TILT TEST 85.2° BRUNTON TILT 84° PROBE HANGING 0.4°
 PROBE AZIMUTH TEST 292.3° BRUNTON AZIMUTH 288°

PROBE OFFSET	OPTICAL 1.88M(6.17FT)	ACOUSTIC 1.44M(4.72FT)
CASING STICK-UP	-	- 1.50'
DEPTH REF. OFFSET		3.92 FT ✓

LOG NAME	START DEPTH	START TIME	END DEPTH	END TIME
B304 PROBE CAL	2.0	16:10	02	16:12
B304 AS DEPTH	0.0	16:20	14'	17:20
B304 POS CAL	1.0	17:22	-1.0	17:24
B304 FLOG DEPTH	40.5	18:00	195.4	18:20
B304 FLOG UP 01	195.4	18:25	20.2	18:45

MAINTENANCE PERFORMED ON SITE: _____

EQUIPMENT PROBLEMS OR FAILURES: ELOG DOWN AND ELOG UP DIFFER
IN DEPTH BY A 10' DUE TO LOG UP WITH NEAREST DEPTH?
CAUSE IN ANALYSIS.

SUGGESTIONS, ADDITIONS, CHANGES: Each EXTENSION 32.8'
Stick-up = 1.50' PROBE vertically = 9.2' STICK 9.2 - 1.5 = 7.7'
- 6.45m



B-304 CALIPER FIELD LOG

SITE: CCNPP COLA DATE: 6/2/2008
CLIENT: SCHNABEL JOB: 6185
AUTHOR: R. STELLER PAGE 1 OF 2

CONTACT: RUBEN TARUSELLI OFFICE PHONE: _____
CELL PHONE: 703-906-1797
CONTACT: _____ OFFICE PHONE: _____
PHONE: _____
CONTACT: _____ PHONE: _____
PHONE: _____
CONTACT: _____ PHONE: _____
PHONE: _____
DRILLER: _____ PHONE: _____
COMPANY: _____ PHONE: _____

GENERAL SITE CONDITIONS/LOCATION: _____

BOREHOLE DESIGNATION: B-304 LOCATION: _____

COUNTY: _____ RANGE: _____ TOWNSHIP: _____ SECTION: _____
BOREHOLE CONSTRUCTION: CASED _____ UNCASD
DIAMETERS AND DEPTH RANGES: 4.25" 0 TO 200' ; _____ TO _____
BOREHOLE TOTAL DEPTH AS DRILLED: 200'
CONDUCTOR CASING?: YES _____ DEPTH TO BOTTOM OF CASING _____ ; NO
DEPTH TO BEDROCK: NA DEPTH TO WATER TABLE: 265'
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: LEXINGTON PARK DEPARTURE TIME: 10:15
ARRIVED ON SITE: 10:45
STANDBY TIME: _____ CAUSE: _____
LOGGING STARTED: 11:30 LOGGING COMPLETED: 12:40

SITE: CCNPP COLA

R- 304

DATE: 6 / 2 / 2008

CLIENT: SCHNABEL

JOB: 8165

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	1.50	ARMS
DEPTH REF. OFFSET		5.32 FT	

LOG NAME	START DEPTH	START TIME	END DEPTH	END TIME
B 304 TEST CAL 01	0	11:25 20:15	0	11:30 20:18
B 304 CAL UP 01	188' 45"	11:33 20:20	0	11:53 20:44
B 304 TEST CAL 02	0	11:55 20:42	0	12:00 20:50
B 304 TEST CAL 03	0	12:05	0	12:10
B 304 CAL UP 02	189'	12:13	0	12:33
B 304 CAL TEST CAL	0	12:40	0	12:45

CALIBRATION PLATE S/N 201

FILE NAME	AS BUILT		
	1.968 IN (50 MM)	3.837 IN (100 MM)	8.000 IN (203.2 MM)
AS MEAS. B 304 TEST CAL 01	1.97	3.92	8.06
AS MEAS. B 304 TEST CAL 02	1.92	3.87	7.88
AS MEAS. B 304 TEST CAL 03	1.97	3.97	8.00
AS MEAS. B 304 TEST CAL 04	1.96	3.76	8.00
AS MEAS.			
AS MEAS.			

1.96 3.93 8.00
~~1.94 3.96 8.04~~
 1.97 3.95 8.03

MAINTENANCE PERFORMED ON SITE:

EQUIPMENT PROBLEMS OR FAILURES:

SUGGESTIONS, ADDITIONS, CHANGES:



P-S SUSPENSION VELOCITY FIELD LOG

SITE: CALVERT CLIFFS COLA B-307 DATE: 6/15/06
CLIENT: SCHNABEL JOB: 6165
AUTHOR: R. STELLER PAGE 1 OF 5

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:

EA#:
BOREHOLE DESIGNATION: B-307 LOCATION:

COUNTY: RANGE: TOWNSHIP: SECTION:
BOREHOLE CONSTRUCTION: CASED UNCASED [checked]
DIAMETERS AND DEPTH RANGES: 4 1/4" 20' TO 200'
BOREHOLE TOTAL DEPTH AS DRILLED: 200'
CONDUCTOR CASING?: YES DEPTH TO BOTTOM OF CASING: NO [checked]
DEPTH TO BEDROCK: 140' DEPTH TO WATER TABLE:
BOREHOLE FLUID: WATER; FRESH WATER MUD [checked]; SALT WATER MUD;
OTHER:
DEPTH TO BOREHOLE FLUID: 0 TIME SINCE LAST CIRCULATION: 1/2 hr

GEO Vision

geophysical services

SITE: CALVERT CLIFFS COLA B-307 DATE: 6/15/06
 CLIENT: SCHNABEL JOB: 6166
 AUTHOR: R. STELLER PAGE 2 OF 5

LOGGING CREW: R. STELLER
 VEHICLE(S) USED AND MILEAGE: RENTAL
 MOBILIZED FROM: LEHNSON PARK DEPARTURE TIME: 17:00
 ARRIVED ON SITE: 10:30
 STANDBY TIME: _____ CAUSE: _____
 LOGGING STARTED: _____ LOGGING COMPLETED: _____
 STANDBY TIME: _____ CAUSE: _____
 LOGGING STARTED: 20:30 LOGGING COMPLETED: 21:05
 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 25056 11001 23053 30096

MAINTENANCE PERFORMED ON SITE: _____

EQUIPMENT PROBLEMS OR FAILURES: _____

SUGGESTIONS, ADDITIONS, CHANGES: _____

COMMENTS: DEPTH OFFSET = 8.14' - 1.5' = (net) 22.06m

GEOVISION SUSPENSION LOGGING FIELD NOTES

SITE: CALVERT CLIFFS COLA E-307 DATE: 6/15/06
 CLIENT: SCHNABEL JOB: 6165
 AUTHOR: R. STELLER PAGE 3 OF 6

DEPTH METERS	DEPTH FEET	UNFILTERED FILE NO.	FILTERED FILE NO.	COMMENTS CASING, WATER, ROCK, ETC
0.5	1.64	1		
1.0	3.28	2		
1.5	4.92	3		
2.0	6.56	4		
2.5	8.20	5		
3.0	9.84	6		
3.5	11.48	7		
4.0	13.12	8		
4.5	14.76	9		
5.0	16.40	10		
5.5	18.04	11		
6.0	19.68	12		
6.5	21.32	13		
7.0	22.97	14		
7.5	24.61	15		
8.0	26.25	16		
8.5	27.89	17		
9.0	29.53	18		
9.5	31.17	19		
10.0	32.81	20		
10.5	34.45	21		
11.0	36.09	22		
11.5	37.73	23		
12.0	39.37	24		
12.5	41.01	25		
13.0	42.65	26		
13.5	44.29	27		
14.0	45.93	28		
14.5	47.57	29		
15.0	49.21	30		
15.5	50.85	31		
16.0	52.49	32		
16.5	54.13	33		
17.0	55.77	34		
17.5	57.41	35		
18.0	59.05	36		
18.5	60.70	37		
19.0	62.34	38		
19.5	63.98	39		
20.0	65.62	40		

GEOVISION SUSPENSION LOGGING FIELD NOTES

SITE: CALVERT CLIFFS COLA B-307

DATE: 6/15/06

CLIENT: SCHNABEL

JOB: B165

AUTHOR: R. STELLER

PAGE 4 OF 5

DEPTH METERS	DEPTH FEET	UNFILTERED FILE NO.	FILTERED FILE NO.	COMMENTS CASING, WATER, ROCK, ETC
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20.5	67.26	4		
21.0	68.90	42		
21.5	70.54	43		
22.0	72.18	44		
22.5	73.82	45		
23.0	75.46	46		
23.5	77.10	47		
24.0	78.74	48		
24.5	80.38	49		
25.0	82.02	50		
25.5	83.66	51		
26.0	85.30	52		
26.5	86.94	53		
27.0	88.58	54		
27.5	90.22	55		
28.0	91.86	56		
28.5	93.50	57		
29.0	95.14	58		
29.5	96.78	59		
30.0	98.43	60		
30.5	100.07	61		
31.0	101.71	62		
31.5	103.35	63		
32.0	104.99	64		
32.5	106.63	65		
33.0	108.27	66		
33.5	109.91	67		
34.0	111.55	68		
34.5	113.19	69		
35.0	114.83	70		
35.5	116.47	71		
36.0	118.11	72		
36.5	119.75	73		
37.0	121.39	74		
37.5	123.03	75		
38.0	124.67	76		
38.5	126.31	77		
39.0	127.95	78		
39.5	129.59	79		
40.0	131.23	80		

GEOVISION SUSPENSION LOGGING FIELD NOTES

SITE: CALVERT CLIFFS COLA B-307 DATE: 6/15/06
 CLIENT: SCHNABEL JOB: 6165
 AUTHOR: R. STELLER PAGE 5 OF 5

DEPTH METERS	DEPTH FEET	UNFILTERED FILE NO.	FILTERED FILE NO.	COMMENTS CASING, WATER, ROCK, ETC
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40.5	132.87	81		
41.0	134.51	82		
41.5	136.15	83		
42.0	137.80	84		
42.5	139.44	85		
43.0	141.08	86		
43.5	142.72	87		
44.0	144.36	88		
44.5	146.00	89		
45.0	147.64	90		
45.5	149.28	91		
46.0	150.92	92		
46.5	152.56	93		
47.0	154.20	94		
47.5	155.84	95		
48.0	157.48	96		
48.5	159.12	97		
49.0	160.76	98		
49.5	162.40	99		
50.0	164.04	100		
50.5	165.68	101		
51.0	167.32	102		
51.5	168.96	103		
52.0	170.60	104		
52.5	172.24	105		
53.0	173.88	106		
53.5	175.52	107		
54.0	177.17	108		
54.5	178.81	109		
55.0	180.45	110		
55.5	182.09	111		
56.0	183.73	112		
56.5	185.37	113		
57.0	187.01	114		Bottom measurement ?
57.5	188.65			HIT Bottom @ 57.3m → TIP AT 200.1'
58.0	190.29			
58.5	191.93			
59.0	193.57			
59.5	195.21			
60.0	196.85			



B-307 CALIPER FIELD LOG

SITE: CCNPP COLA DATE: 6/15/2008
CLIENT: SCHNABEL JOB: 6165
AUTHOR: R. STELLER PAGE 1 OF 2

CONTACT: RUBEN TARUSELLI OFFICE PHONE: _____
CELL PHONE: 703-906-1797
CONTACT: _____ OFFICE PHONE: _____
PHONE: _____
CONTACT: _____ PHONE: _____
PHONE: _____
CONTACT: _____ PHONE: _____
PHONE: _____
DRILLER: _____ PHONE: _____
COMPANY: _____ PHONE: _____

GENERAL SITE CONDITIONS/LOCATION: _____

BOREHOLE DESIGNATION: B-307 LOCATION: _____

COUNTY: _____ RANGE: _____ TOWNSHIP: _____ SECTION: _____

BOREHOLE CONSTRUCTION: CASED _____ UNCASD

DIAMETERS AND DEPTH RANGES: 6" 0 TO 60' ; 4 1/4" 20' TO 200'

BOREHOLE TOTAL DEPTH AS DRILLED: 200'

CONDUCTOR CASING?: YES _____ DEPTH TO BOTTOM OF CASING _____ ; NO

DEPTH TO BEDROCK: 10' DEPTH TO WATER TABLE: _____

BOREHOLE FLUID: WATER _____ ; FRESH WATER MUD ; SALT WATER MUD _____

OTHER: _____

DEPTH TO BOREHOLE FLUID: 0' TIME SINCE LAST CIRCULATION: 2 hr

LOGGING CREW: R. STELLER

VEHICLE(S) USED AND MILEAGE: RENTAL

MOBILIZED FROM: LEWISTON Ave DEPARTURE TIME: 17:00

ARRIVED ON SITE: 18:30

STANDBY TIME: _____ CAUSE: _____

LOGGING STARTED: 21:25 LOGGING COMPLETED: 22:15

SITE: CCNPP COLA B-307 DATE: 6/15/2006
 CLIENT: SCHNABEL JOB: 8185
 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	- <u>1.5'</u>	ARMS - _____
DEPTH REF. OFFSET		<u>5.02'</u>	

LOG NAME	START DEPTH	START TIME	END DEPTH	END TIME
<u>B307 TERCAL 01</u>	<u>0</u>	<u>21:25</u>	<u>0</u>	<u>21:35</u>
<u>B307 CALLO 01</u>	<u>17.0</u>	<u>21:45</u>	<u>-0.5</u>	<u>22:05</u>
<u>B307 TERCAL 02</u>	<u>0</u>	<u>22:10</u>	<u>0</u>	<u>22:15</u>

CALIBRATION PLATE S/N 201		AS BUILT		
		1.985 IN (50 MM)	3.937 IN (100 MM)	8.000 IN 203.2 MM
AS MEAS.	<u>B307 TERCAL 01</u>	<u>1.99</u>	<u>3.94</u>	<u>8.01</u>
AS MEAS.	<u>B307 CALLO 02</u>	<u>1.98</u>	<u>3.97</u>	<u>7.99</u>
AS MEAS.				
AS MEAS.				
AS MEAS.				
AS MEAS.				

MAINTENANCE PERFORMED ON SITE: _____

EQUIPMENT PROBLEMS OR FAILURES: _____

SUGGESTIONS, ADDITIONS, CHANGES: _____



B-307 ELOG FIELD LOG

SITE: CCNPP COLA DATE: 6/15/2008
CLIENT: SCHNABEL JOB: 6165
AUTHOR: R. STELLER PAGE 1 OF 2

CONTACT: RUBEN TARUSELLI OFFICE PHONE: _____
CELL PHONE: 703-908-1797
CONTACT: _____ OFFICE PHONE: _____
PHONE: _____
CONTACT: _____ PHONE: _____
PHONE: _____
CONTACT: _____ PHONE: _____
PHONE: _____
DRILLER: _____ PHONE: _____
COMPANY: _____ PHONE: _____

GENERAL SITE CONDITIONS/LOCATION: _____

BOREHOLE DESIGNATION: B-307 LOCATION: _____

COUNTY: _____ RANGE: _____ TOWNSHIP: _____ SECTION: _____
BOREHOLE CONSTRUCTION: CASED _____ UNCASD
DIAMETERS AND DEPTH RANGES: 6" 0 TO 20'; 4 1/4" 20' TO 200'
BOREHOLE TOTAL DEPTH AS DRILLED: 200'
CONDUCTOR CASING?: YES _____ DEPTH TO BOTTOM OF CASING _____; NO
DEPTH TO BEDROCK: N/A DEPTH TO WATER TABLE: _____
BOREHOLE FLUID: WATER _____; FRESH WATER MUD ; SALT WATER MUD _____;
OTHER: _____
DEPTH TO BOREHOLE FLUID: 0 TIME SINCE LAST CIRCULATION: 4 HR

LOGGING CREW: R. STELLER
VEHICLE(S) USED AND MILEAGE: RENTAL
MOBILIZED FROM: LEXINGTON DRIVE DEPARTURE TIME: 17:00
ARRIVED ON SITE: 0:30
STANDBY TIME: _____ CAUSE: _____
LOGGING STARTED: 22:27 LOGGING COMPLETED: 22:50

SITE: CCNPP COLA B-307 DATE: 6/15/2006
 CLIENT: SCHNABEL JOB: 6165
 AUTHOR: R. STELLER PAGE 2 OF 2

WINCH: _____
 MICROLOGGER 5301 OTHER _____
 ELOG PROBE 5480 OTHER _____

PROBE OFFSET	2.50M(8.20 FT)
CASING STICK-UP	1.5
DEPTH REF. OFFSET	6.7 FT

LOG NAME	START DEPTH	START TIME	END DEPTH	END TIME
B307 ELOG 1.1.01	2.00'	22:27	4.05'	22:50

MAINTENANCE PERFORMED ON SITE: _____

EQUIPMENT PROBLEMS OR FAILURES: _____

SUGGESTIONS, ADDITIONS, CHANGES: _____



DEVIATION
B-307 ACOUSTIC TELEVIEWER FIELD LOG

SITE: CCNPP COLA DATE: 6/15/2008
CLIENT: SCHNABEL JOB: 6165
AUTHOR: R. STELLER PAGE 1 OF 2

CONTACT: RUBEN TARUBELLI OFFICE PHONE: _____
CELL PHONE: 703-908-1797
CONTACT: _____ OFFICE PHONE: _____
PHONE: _____
CONTACT: _____ PHONE: _____
PHONE: _____
CONTACT: _____ PHONE: _____
PHONE: _____
DRILLER: _____ PHONE: _____
COMPANY: _____ PHONE: _____

DIRECTIONS TO SITE: _____

GENERAL SITE CONDITIONS/LOCATION: _____

BOREHOLE DESIGNATION: B-307 LOCATION: _____

COUNTY: _____ RANGE: _____ TOWNSHIP: _____ SECTION: _____
BOREHOLE CONSTRUCTION: CASED _____ UNCASD
DIAMETERS AND DEPTH RANGES: 1" 0 TO 20'; 1 3/4" 20 TO 200'
BOREHOLE TOTAL DEPTH AS DRILLED: 200
CONDUCTOR CASING?: YES _____ DEPTH TO BOTTOM OF CASING _____; NO
DEPTH TO BEDROCK: NT DEPTH TO WATER TABLE: _____
BOREHOLE FLUID: WATER _____; FRESH WATER MUD ; SALT WATER MUD _____;
OTHER: _____
DEPTH TO BOREHOLE FLUID: 0 TIME SINCE LAST CIRCULATION: 2 HRS

GE Vision

geophysical services

SITE: CCNPP COLA B-307 DATE: 6/15/2006
 CLIENT: SCHNABEL JOB: 8165
 AUTHOR: R. STELLER PAGE 2 OF 2

LOGGING CREW: R. STELLER
 VEHICLE(S) USED AND MILEAGE: RENTAL
 MOBILIZED FROM: L. WASHINGTON PARK DEPARTURE TIME: 17:00
 ARRIVED ON SITE: 18:30
 STANDBY TIME: _____ CAUSE: _____
 LOGGING STARTED: 23:30 LOGGING COMPLETED: _____

WINCH: COMPROBE SILVER OYO OTHER Coloq. n. & YII
 MICROLOGGER 5301 OTHER MGNYII
 TELEVIEWER OPTICAL #5117 ACOUSTIC #5174 OTHER Clut & DWZ

PROBE TILT TEST 27.7 BRUNTON TILT 83 hanging 0.6'
 PROBE AZIMUTH TEST 282.1 BRUNTON AZIMUTH 27.6

PROBE OFFSET	OPTICAL 1.88M(6.17FT)	ACOUSTIC 1.44M(4.72FT)
CASING STICK-UP	-	-
DEPTH REF. OFFSET	-	-

2800e -1.5'

LOG NAME	START DEPTH	START TIME	END DEPTH	END TIME
<u>B-307</u>				
<u>B-307 DEPTH LOG</u>	<u>0</u>	<u>18:30</u>	<u>195</u>	<u>12:15</u>

MAINTENANCE PERFORMED ON SITE: _____

 EQUIPMENT PROBLEMS OR FAILURES: _____

 SUGGESTIONS, ADDITIONS, CHANGES: _____

B-318 BORING GEOPHYSICS FIELD LOG SUMMARY

SITE: CCNPP COLA DATE: 6/4/2006
 CLIENT: SCHNABEL JOB: 6185
 AUTHOR: R. STELLER PAGE 1 OF 2

CONTACT: RUBEN TARUSELLI PHONE: 703-908-1797

BOREHOLE CONSTRUCTION: CASED _____ UNCASED
 DIAMETERS AND DEPTH RANGES: 4 1/2" 0 TO 201 ; _____ TO _____
 BOREHOLE TOTAL DEPTH AS DRILLED: 201'
 CONDUCTOR CASING?: YES _____ DEPTH TO BOTTOM OF CASING _____ ; NO
 DEPTH TO BEDROCK: _____
 BOREHOLE FLUID: WATER _____ ; FRESH WATER MUD ; SALT WATER MUD _____

LOGGING CREW: R. STELLER

LOG TYPE	FILE NAME	DEPTH RANGE	DATE	TIMES
RA PS	001-116	1.6 - 190.3	6/4/06	14:30 - 16:00
DEFINITION	B318/ANOMALI B1	0 - 86.4	6/4/06	16:20 - 16:50
DEFINITION	B318/ANOMALI B2	83.5 - 190.5	6/4/06	16:00 - 16:32
BLG/A/ANOM	B318/BLG/ANOMI	18.0 - 197.0	6/4/06	19:05 - 19:24
BLG/A/ANOM	B318/BLG/ANOMI	197.0 - 200.0	6/4/06	19:25 - 19:45
ANOMIA	B318/ANOMIA UP 02	10.0 - 0	6/4/06	19:50 - 20:00
3 ANOM C/L	B318/ANOMIA C/L	0	6/4/06	20:15 - 20:18
3 ANOM C/L	B318/ANOMIA C/L	195.0 - 0	6/4/06	20:25 - 20:44
3 ANOM C/L	B318/ANOMIA C/L	0	6/4/06	20:46 - 20:50



P-S SUSPENSION VELOCITY FIELD LOG

SITE: CALVERT CLIFFS COLA B-318 DATE: 6/4/06
CLIENT: SCHNABEL JOB: 6165
AUTHOR: R. STELLER PAGE 1 OF 5

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:

EA#:
BOREHOLE DESIGNATION: B-318 LOCATION:

COUNTY: RANGE: TOWNSHIP: SECTION:
BOREHOLE CONSTRUCTION: CASED UNCASD
DIAMETERS AND DEPTH RANGES: 4 1/2" 0 TO 200' TO
BOREHOLE TOTAL DEPTH AS DRILLED: 200' 201'
CONDUCTOR CASING?: YES DEPTH TO BOTTOM OF CASING; NO
DEPTH TO BEDROCK: 10' DEPTH TO WATER TABLE: 6'
BOREHOLE FLUID: WATER; FRESH WATER MUD; SALT WATER MUD
OTHER:
DEPTH TO BOREHOLE FLUID: 0 TIME SINCE LAST CIRCULATION: 1/2 hr

GEOVision

geophysical services

SITE: CALVERT CLIFFS COLA 6-718 DATE: 6/4/06
 CLIENT: SCHNABEL JOB: 6165
 AUTHOR: R. STELLER PAGE 2 OF 5

LOGGING CREW: R. STELLER
 VEHICLE(S) USED AND MILEAGE: CENTRA
 MOBILIZED FROM: LEWISTON PARK DEPARTURE TIME: 1:00 PM
 ARRIVED ON SITE: 13:30
 STANDBY TIME: _____ CAUSE: _____
 LOGGING STARTED: 14:30 LOGGING COMPLETED: 16:00
 STANDBY TIME: _____ CAUSE: _____
 LOGGING STARTED: _____ 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 18029 RG 180023 160024
 RECEIVER S/N 12008 20042 26089 11001 23053

MAINTENANCE PERFORMED ON SITE: _____

EQUIPMENT PROBLEMS OR FAILURES: _____

SUGGESTIONS, ADDITIONS, CHANGES: _____

COMMENTS: _____

GEOVISION SUSPENSION LOGGING FIELD NOTES

SITE: CALVERT CLIFFS COLA 6-319 DATE: 6/4/06
 CLIENT: SCHNABEL JOB: 6165
 AUTHOR: R. STELLER PAGE 3 OF 5

DEPTH METERS	DEPTH FEET	UNFILTERED FILE NO.	FILTERED FILE NO.	COMMENTS CASING, WATER, ROCK, ETC
0.5	1.64	1		
1.0	3.28	2		
1.5	4.92	3		
2.0	6.56	4		
2.5	8.20	5		
3.0	9.84	6		
3.5	11.48	7		
4.0	13.12	8		
4.5	14.76	9		
5.0	16.40	10		
5.5	18.04	11		
6.0	19.68	12		
6.5	21.33	13		
7.0	22.97	14		
7.5	24.61	15		
8.0	26.25	16		
8.5	27.89	17		
9.0	29.53	18		
9.5	31.17	19		
10.0	32.81	20		
10.5	34.45	21		
11.0	36.09	22		
11.5	37.73	23		
12.0	39.37	24		
12.5	41.01	25		
13.0	42.65	26		
13.5	44.29	27		
14.0	45.93	28		
14.5	47.57	29		
15.0	49.21	30		
15.5	50.85	31		
16.0	52.49	32		
16.5	54.13	33		
17.0	55.77	34		
17.5	57.41	35		
18.0	59.05	36		
18.5	60.70	37		
19.0	62.34	38		
19.5	63.98	39		
20.0	65.62	40		

GEOVISION SUSPENSION LOGGING FIELD NOTES

SITE: CALVERT CLIFFS COLA 3-319

DATE: 6/4/06

CLIENT: SCHNABEL

JOB: 6185

AUTHOR: R. STELLER

PAGE 4 OF 5

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

20.5	67.26	41		
21.0	68.90	42		
21.5	70.54	43		
22.0	72.18	44		
22.5	73.82	45		
23.0	75.46	46		
23.5	77.10	47		
24.0	78.74	48		
24.5	80.38	49		
25.0	82.02	50		
25.5	83.66	51		
26.0	85.30	52		
26.5	86.94	53		
27.0	88.58	54		
27.5	90.22	55		
28.0	91.86	56		
28.5	93.50	57		
29.0	95.14	58		
29.5	96.78	59		
30.0	98.43	60		
30.5	100.07	61		
31.0	101.71	62		
31.5	103.35	63		
32.0	104.99	64		
32.5	106.63	65		
33.0	108.27	66		
33.5	109.91	67		
34.0	111.55	68		
34.5	113.19	69		
35.0	114.83	70		
35.5	116.47	71		
36.0	118.11	72		
36.5	119.75	73		
37.0	121.39	74		
37.5	123.03	75		
38.0	124.67	76		
38.5	126.31	77		
39.0	127.95	78		
39.5	129.59	79		
40.0	131.23	80		

GEOVISION SUSPENSION LOGGING FIELD NOTES

SITE: CALVERT CLIFFS COLA B- 11A DATE: 6/4/06
 CLIENT: SCHNABEL JOB: 6165
 AUTHOR: R. STELLER PAGE 5 OF 5

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

40.5	132.87	8c		
41.0	134.51	8d		
41.5	136.15	8e		
42.0	137.80	8f		
42.5	139.44	8g		
43.0	141.08	8h		
43.5	142.72	8i		
44.0	144.36	8j		
44.5	146.00	8k		
45.0	147.64	8l		
45.5	149.28	8m		
46.0	150.92	8n		
46.5	152.56	8o		
47.0	154.20	8p		
47.5	155.84	8q		
48.0	157.48	8r		
48.5	159.12	8s		
49.0	160.76	8t		
49.5	162.40	8u		
50.0	164.04	8v		
50.5	165.68	8w		
51.0	167.32	8x		
51.5	168.96	8y		
52.0	170.60	8z		
52.5	172.24	9a		
53.0	173.88	9b		
53.5	175.52	9c		
54.0	177.17	9d		
54.5	178.81	9e		
55.0	180.45	9f		
55.5	182.09	9g		
56.0	183.73	9h		
56.5	185.37	9i		
57.0	187.01	9j		Bottom measurement?
57.5	188.65	9k		
58.0	190.29	9l		Bottom @ 58.2m
58.5	191.93			
59.0	193.57			
59.5	195.21			
60.0	196.85			



B-318 ACQUIC TELEVIEWER FIELD LOG

SITE: GRAND GULF COL CLIFF CLIFF COLA DATE: 6/4/2006
CLIENT: WLA SCHNABER JOB: 6242 6/6/5
AUTHOR: R. STELLER PAGE 1 OF 2

CONTACT: JIM HENGISH OFFICE PHONE: 601-437-7354
CELL PHONE: 415-488-7382
CONTACT: OFFICE PHONE:
PHONE:
CONTACT: PHONE:
PHONE:
CONTACT: PHONE:
PHONE:
DRILLER: PHONE:
COMPANY: PHONE:

DIRECTIONS TO SITE:

GENERAL SITE CONDITIONS/LOCATION:

BOREHOLE DESIGNATION: B-318 LOCATION: _____

COUNTY: _____ RANGE: _____ TOWNSHIP: _____ SECTION: _____
BOREHOLE CONSTRUCTION: CASED UNCASED
DIAMETERS AND DEPTH RANGES: 4 1/2 0 TO 450' 20" TO _____
BOREHOLE TOTAL DEPTH AS DRILLED: 201'
CONDUCTOR CASING?: YES _____ DEPTH TO BOTTOM OF CASING _____; NO
DEPTH TO BEDROCK: NA DEPTH TO WATER TABLE: 490' ?
BOREHOLE FLUID: WATER ; FRESH WATER MUD ; SALT WATER MUD _____;
OTHER: _____
DEPTH TO BOREHOLE FLUID: _____ TIME SINCE LAST CIRCULATION: 1 1/2 hrs

GE Vision

geophysical services

SITE: GRAND GULF COL B-318 DATE: 6/4/2006
 CLIENT: WLA JOB: 6242 GULF
 AUTHOR: R. STELLER PAGE 2 OF 2

LOGGING CREW: R. STELLER
 VEHICLE(S) USED AND MILEAGE: RENTAL
 MOBILIZED FROM: LEXINGTON PARK DEPARTURE TIME: 8:00 AM
 ARRIVED ON SITE: 12:30
 STANDBY TIME: _____ CAUSE: _____
 LOGGING STARTED: 16:30 LOGGING COMPLETED: 20:00

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

PROBE TILT TEST 87.6 BRUNTON TILT 88.0 HANGING 0-20°
 PROBE AZIMUTH TEST 34.2 BRUNTON AZIMUTH 37.0

PROBE OFFSET	OPTICAL 1.88M(6.17FT)	ACOUSTIC 1.44M(4.72FT)
CASING STICK-UP	-	- 1.50FT
DEPTH REF. OFFSET	-	- 3.28'

ELUG (8.2 FT)
 - 1.50
 + 32.8
 39.5'

LOG NAME	START DEPTH	START TIME	END DEPTH	END TIME
5301 ELUG 01	0'	16:30	16.4'	16:50
5301 ELUG 02	13.5	16:50	16.5	16:52
5301 ELUG 03	16.0	17:05	19.7	19:24
5301 ELUG 04	19.1	19:25	20'	19:45
5301 ELUG 05	20	19:50	0'	20:00

MAINTENANCE PERFORMED ON SITE: _____

EQUIPMENT PROBLEMS OR FAILURES: _____

SUGGESTIONS, ADDITIONS, CHANGES: _____



B 318 CALIPER FIELD LOG

SITE: CCNPP COLA DATE: 6/4 /2006
CLIENT: SCHNABEL JOB: B165
AUTHOR: R. STELLER PAGE 1 OF 2

CONTACT: RUBEN TARUSELLI OFFICE PHONE: _____
CELL PHONE: 703-906-1787
CONTACT: _____ OFFICE PHONE: _____
PHONE: _____
CONTACT: _____ PHONE: _____
PHONE: _____
CONTACT: _____ PHONE: _____
PHONE: _____
DRILLER: _____ PHONE: _____
COMPANY: _____ PHONE: _____

GENERAL SITE CONDITIONS/LOCATION: _____

BOREHOLE DESIGNATION: _____ LOCATION: _____

COUNTY: _____ RANGE: _____ TOWNSHIP: _____ SECTION: _____
BOREHOLE CONSTRUCTION: CASED _____ UNCASD
DIAMETERS AND DEPTH RANGES: 4 1/4 0 TO 201' ; _____ TO _____
BOREHOLE TOTAL DEPTH AS DRILLED: 201
CONDUCTOR CASING?: YES _____ DEPTH TO BOTTOM OF CASING _____ ; NO
DEPTH TO BEDROCK: _____ DEPTH TO WATER TABLE: _____
BOREHOLE FLUID: WATER _____ ; FRESH WATER MUD ; SALT WATER MUD _____ ;
OTHER: _____
DEPTH TO BOREHOLE FLUID: _____ TIME SINCE LAST CIRCULATION: 4 hrs

LOGGING CREW: R. STELLER
VEHICLE(S) USED AND MILEAGE: RENTAL
MOBILIZED FROM: LEWISTON PLAZA DEPARTURE TIME: 13:00
ARRIVED ON SITE: 13:30
STANDBY TIME: _____ CAUSE: _____
LOGGING STARTED: 20:15 LOGGING COMPLETED: 21:50

SITE: CCNPP COLA D-318 DATE: 6/4/2008
 CLIENT: SCHNABEL JOB: 6165
 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
CABING STICK-UP	ARMS -	<u>1.50</u>	ARMS -
DEPTH REF. OFFSET		<u>2.32'</u>	

LOG NAME	START DEPTH	START TIME	END DEPTH	END TIME
<u>B318-TEST-CAL-01</u>	<u>0</u>	<u>20:15</u>	<u>0</u>	<u>20:18</u>
<u>B318-CAL-UP-01</u>	<u>195'</u>	<u>20:26</u>	<u>0</u>	<u>20:44</u>
<u>B318-TEST-CAL-02</u>	<u>0</u>	<u>20:46</u>	<u>0</u>	<u>20:50</u>

FILE NAME	AS BUILT		
	1.968 IN (50 MM)	3.937 IN (100 MM)	8.000 IN 203.2 MM
AS MEAS. <u>B318-TEST-CAL-01</u>	<u>1.96</u>	<u>3.97</u>	<u>8.00</u>
AS MEAS. <u>B318-TEST-CAL-02</u>	<u>1.97</u>	<u>3.95</u>	<u>8.03</u>
AS MEAS.			
AS MEAS.			
AS MEAS.			
AS MEAS.			

MAINTENANCE PERFORMED ON SITE: _____

EQUIPMENT PROBLEMS OR FAILURES: _____

SUGGESTIONS, ADDITIONS, CHANGES: _____



P-S SUSPENSION VELOCITY FIELD LOG

SITE: CALVERT CLIFFS COLA B-325 DATE: 6/13/06
CLIENT: SCHNABEL JOB: 6165
AUTHOR: R. STELLER PAGE 1 OF 5

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:

EAP:
BOREHOLE DESIGNATION: R-325 LOCATION:

COUNTY: RANGE: TOWNSHIP: SECTION:

BOREHOLE CONSTRUCTION: CASIED UNCASIED [checked]

DIAMETERS AND DEPTH RANGES: 4 1/2" 0 TO 200' ; TO

BOREHOLE TOTAL DEPTH AS DRILLED: 200'

CONDUCTOR CASING?: YES DEPTH TO BOTTOM OF CASING ; NO [checked]

DEPTH TO BEDROCK: N/A DEPTH TO WATER TABLE:

BOREHOLE FLUID: WATER ; FRESH WATER MUD [checked] ; SALT WATER MUD

OTHER:

DEPTH TO BOREHOLE FLUID: 0 TIME SINCE LAST CIRCULATION: 1/2 HR

GEOVision

geophysical services

SITE: CALVERT CLIFFS COLA B-323 DATE: 6/12/06
 CLIENT: SCHNABEL JOB: 8185
 AUTHOR: R. STELLER PAGE 2 OF 5

LOGGING CREW: R. STELLER
 VEHICLE(S) USED AND MILEAGE: Personal
 MOBILIZED FROM: LEWINGTON PARK DEPARTURE TIME: 7:00
 ARRIVED ON SITE: 7:30
 STANDBY TIME: _____ CAUSE: _____
 LOGGING STARTED: _____ LOGGING COMPLETED: _____
 STANDBY TIME: _____ CAUSE: _____
 LOGGING STARTED: 09:50 LOGGING COMPLETED: 11:00
 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 18029 RG 180023 180024
 RECEIVER S/N 12008 20042 28086 11001 23053 30080

MAINTENANCE PERFORMED ON SITE: _____

EQUIPMENT PROBLEMS OR FAILURES: _____

SUGGESTIONS, ADDITIONS, CHANGES: _____

COMMENTS: map box = 1.7' x 5.18m. TOOL = 8.10' - 0.40'
-1.96m depth TO TOP OF TOOL
ROUND TO 2.04m

GEOVISION SUSPENSION LOGGING FIELD NOTES

SITE: CALVERT CLIFFS COLA B-523 DATE: 6/13/06
 CLIENT: SCHNABEL JOB: B165
 AUTHOR: R. STELLER PAGE 5 OF 5

DEPTH METERS	DEPTH FEET	UNFILTERED FILE NO.	FILTERED FILE NO.	COMMENTS CASING, WATER, ROCK, ETC
0.5	1.64	01		
1.0	3.28	2		
1.5	4.92	3		
2.0	6.56	4		
2.5	8.20	5		
3.0	9.84	6		
3.5	11.48	7		
4.0	13.12	8		
4.5	14.76	9		
5.0	16.40	10		
5.5	18.04	11		
6.0	19.69	12		
6.5	21.33	13		
7.0	22.97	14		
7.5	24.61	15		
8.0	26.25	16		
8.5	27.89	17		
9.0	29.53	18		
9.5	31.17	19		
10.0	32.81	20		
10.5	34.45	21		
11.0	36.09	22		
11.5	37.73	23		
12.0	39.37	24		
12.5	41.01	25		
13.0	42.65	26		
13.5	44.29	27		
14.0	45.93	28		
14.5	47.57	29		
15.0	49.21	30		
15.5	50.85	31		
16.0	52.49	32		
16.5	54.13	33		
17.0	55.77	34		
17.5	57.41	35		
18.0	59.05	36		
18.5	60.70	37		
19.0	62.34	38		
19.5	63.98	39		
20.0	65.62	40		

GEOVISION SUSPENSION LOGGING FIELD NOTES

SITE: CALVERT CLIFFS COLA B-323 DATE: 6/13/06
 CLIENT: SCHNABEL JOB: 8165
 AUTHOR: R. STELLER PAGE 4 OF 5

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

20.5	67.26	41		
21.0	68.90	42		
21.5	70.54	43		
22.0	72.18	44		
22.5	73.82	45		
23.0	75.46	46		
23.5	77.10	47		
24.0	78.74	48		
24.5	80.38	49		
25.0	82.02	50		
25.5	83.66	51		
26.0	85.30	52		
26.5	86.94	53		
27.0	88.58	54		
27.5	90.22	55		
28.0	91.86	56		
28.5	93.50	57		
29.0	95.14	58		
29.5	96.78	59		
30.0	98.43	60		
30.5	100.07	61		
31.0	101.71	62		
31.5	103.35	63		
32.0	104.99	64		
32.5	106.63	65		
33.0	108.27	66		
33.5	109.91	67		
34.0	111.55	68		
34.5	113.19	69		
35.0	114.83	70		
35.5	116.47	71		
36.0	118.11	72		
36.5	119.75	73		
37.0	121.39	74		
37.5	123.03	75		
38.0	124.67	76		
38.5	126.31	77		
39.0	127.95	78		
39.5	129.59	79		
40.0	131.23	80		

GEOVISION SUSPENSION LOGGING FIELD NOTES

SITE: CALVERT CLIFFS COLA

E-322

DATE:

6/13/06

CLIENT: SCHNABEL

JOB: 6165

AUTHOR: R. STELLER

PAGE

5

OF 5

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

40.5	132.87	81		
41.0	134.51	82		
41.5	136.15	83		
42.0	137.80	84		
42.5	139.44	85		
43.0	141.08	86		
43.5	142.72	87		
44.0	144.36	88		
44.5	146.00	89		
45.0	147.64	90		
45.5	149.28	91		
46.0	150.92	92		
46.5	152.56	93		
47.0	154.20	94		
47.5	155.84	95		
48.0	157.48	96		
48.5	159.12	97		
49.0	160.76	98		
49.5	162.40	99		
50.0	164.04	100		
50.5	165.68	101		
51.0	167.32	102		
51.5	168.96	103		
52.0	170.60	104		
52.5	172.24	105		
53.0	173.88	106		
53.5	175.52	107		
54.0	177.17	108		
54.5	178.81	109		
55.0	180.45	110		
55.5	182.09	111		
56.0	183.73	112		
56.5	185.37	113		
57.0	187.01	114		BOTTOM REACHED?
57.5	188.65	115		
58.0	190.29	116		W/C BOTTOM @ SB 3m - T/C 2024' 2
58.5	191.93			
59.0	193.57			
59.5	195.21			
60.0	196.85			



B-323 CALIPER FIELD LOG

SITE: CCNPP COLA DATE: 6 / 13 / 2006
 CLIENT: SCHNABEL JOB: 6165
 AUTHOR: R. STELLER PAGE 1 OF 2

CONTACT: <u>RUBEN TARUSELLI</u>	OFFICE PHONE: _____
	CELL PHONE: <u>703-908-1797</u>
CONTACT: _____	OFFICE PHONE: _____
	PHONE: _____
CONTACT: _____	PHONE: _____
	PHONE: _____
CONTACT: _____	PHONE: _____
	PHONE: _____
DRILLER: _____	PHONE: _____
COMPANY: _____	PHONE: _____

GENERAL SITE CONDITIONS/LOCATION: _____

BOREHOLE DESIGNATION: B-323 LOCATION: _____
 COUNTY: _____ RANGE: _____ TOWNSHIP: _____ SECTION: _____
 BOREHOLE CONSTRUCTION: CASED _____ UNCASD
 DIAMETERS AND DEPTH RANGES: 4.45 0 TO 200 ; _____ TO _____
 BOREHOLE TOTAL DEPTH AS DRILLED: 200
 CONDUCTOR CASING?: YES _____ DEPTH TO BOTTOM OF CASING _____ ; NO
 DEPTH TO BEDROCK: NA DEPTH TO WATER TABLE: _____
 BOREHOLE FLUID: WATER _____ ; FRESH WATER MUD ; SALT WATER MUD _____
 OTHER: _____
 DEPTH TO BOREHOLE FLUID: _____ TIME SINCE LAST CIRCULATION: 2 1/2 hr

LOGGING CREW: R. STELLER
 VEHICLE(S) USED AND MILEAGE: RENTAL
 MOBILIZED FROM: L. STANTON Park DEPARTURE TIME: 7:00
 ARRIVED ON SITE: 7:10
 STANDBY TIME: _____ CAUSE: _____
 LOGGING STARTED: 11:20 LOGGING COMPLETED: _____

SITE: CCNPP COLA 13-323 DATE: 6/13/2008
 CLIENT: SCHNABEL JOB: 6165
 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	<u>1.7</u>	ARMS
DEPTH REF. OFFSET		<u>5.12</u>	

LOG NAME	START DEPTH	START TIME	END DEPTH	END TIME
<u>6213CAL01</u>	<u>0</u>	<u>11:15</u>	<u>0</u>	<u>11:25</u>
<u>6213CAL01</u>	<u>203.5</u>	<u>11:40</u>	<u>0</u>	<u>12:02</u>
<u>6213CAL02</u>	<u>0</u>	<u>12:05</u>	<u>0</u>	<u>12:08</u>

FILE NAME	* AS BUILT		
	1.000 IN (50 MM)	3.937 IN (100 MM)	8.000 IN 203.2 MM
AS MEAS. <u>6213CAL01</u>	<u>1.96</u>	<u>5.94</u>	<u>7.95</u>
AS MEAS. <u>6213CAL02</u>	<u>2.00</u>	<u>5.92</u>	<u>8.02</u>
AS MEAS.			
AS MEAS.			
AS MEAS.			
AS MEAS.			

MAINTENANCE PERFORMED ON SITE: _____

EQUIPMENT PROBLEMS OR FAILURES: _____

SUGGESTIONS, ADDITIONS, CHANGES: _____

SITE: CCNPP COLA G-323 DATE: 6/13/2006
 CLIENT: SCHNABEL JOB: 6165
 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	- 1.5' + 32.8
DEPTH REF. OFFSET	34.5' TO WIRE TOP.

LOG NAME	START DEPTH	START TIME	END DEPTH	END TIME
B23646 vP01	201.5'	12:27	18.3'	12:47

MAINTENANCE PERFORMED ON SITE: _____

EQUIPMENT PROBLEMS OR FAILURES: _____

SUGGESTIONS, ADDITIONS, CHANGES: _____



B-323 ^{DEVIATION} ACOUSTIC TELEVIEWER FIELD LOG

SITE: CCNPP COLA DATE: 1 / 2006
CLIENT: SCHNABEL JOB: 6165
AUTHOR: R. STELLER PAGE 1 OF 2

CONTACT: RUBEN TARUSELLI OFFICE PHONE: _____
CELL PHONE: 703-906-1787
CONTACT: _____ OFFICE PHONE: _____
PHONE: _____
CONTACT: _____ PHONE: _____
PHONE: _____
CONTACT: _____ PHONE: _____
PHONE: _____
DRILLER: _____ PHONE: _____
COMPANY: _____ PHONE: _____

DIRECTIONS TO SITE: _____

GENERAL SITE CONDITIONS/LOCATION: _____

BOREHOLE DESIGNATION: B-323 LOCATION: _____

COUNTY: _____ RANGE: _____ TOWNSHIP: _____ SECTION: _____

BOREHOLE CONSTRUCTION: CASED _____ UNCASD

DIAMETERS AND DEPTH RANGES: 4 1/2 0 TO 203 ; _____ TO _____

BOREHOLE TOTAL DEPTH AS DRILLED: 203

CONDUCTOR CASING?: YES _____ DEPTH TO BOTTOM OF CASING _____ ; NO

DEPTH TO BEDROCK: NA DEPTH TO WATER TABLE: _____

BOREHOLE FLUID: WATER _____ ; FRESH WATER MUD ; SALT WATER MUD _____ ;

OTHER: _____

DEPTH TO BOREHOLE FLUID: 0 TIME SINCE LAST CIRCULATION: 5 HRS

GE Vision

geophysical services

SITE: CCNPP COLA B-223 DATE: 6/13/2006
 CLIENT: SCHNABEL JOB: 6165
 AUTHOR: R. STELLER PAGE 2 OF 2

LOGGING CREW: R. STELLER
 VEHICLE(S) USED AND MILEAGE: RENTAL
 MOBILIZED FROM: _____ DEPARTURE TIME: _____
 ARRIVED ON SITE: _____
 STANDBY TIME: _____ CAUSE: _____
 LOGGING STARTED: _____ LOGGING COMPLETED: _____

WINCH: COMPROBE _____ SILVER _____ OYO _____ OTHER may II
 MICROLOGGER 5301 _____ OTHER may II
 TELEVIEWER OPTICAL #5117 _____ ACOUSTIC #5174 _____ OTHER see 50128 OBSERVATION

PROBE TILT TEST 88.9 BRUNTON TILT 89
 PROBE AZIMUTH TEST 253 BRUNTON AZIMUTH 250

PROBE OFFSET	OPTICAL 1.88M(6.17FT)	ACOUSTIC 1.44M(4.72FT)
CASING STICK-UP	_____	<u>1.80</u>
DEPTH REF. OFFSET	_____	<u>-1.5</u>

ø end of HOSE

LOG NAME	START DEPTH	START TIME	END DEPTH	END TIME
<u>B-223 DE-UP 01</u>	<u>190.0</u>	<u>14:23</u>	<u>190'</u>	<u>14:25</u>
<u>B-223 DE-UP 02</u>	<u>190.0</u>	<u>14:40</u>	<u>0</u>	<u>15:30</u>

MAINTENANCE PERFORMED ON SITE: W/C BOTTOM @ 190.1' (TOP OF PROBE)
200 @ 200 - 2.13'

EQUIPMENT PROBLEMS OR FAILURES: _____

SUGGESTIONS, ADDITIONS, CHANGES: _____



P-S SUSPENSION VELOCITY FIELD LOG

SITE: CALVERT CLIFFS COLA B-401 DATE: 6/28/06
CLIENT: SCHNABEL JOB: 6165
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:

EAS:
BOREHOLE DESIGNATION: B-401 LOCATION:

COUNTY: RANGE: TOWNSHIP: SECTION:

BOREHOLE CONSTRUCTION: CASED UNCASED [checked]

DIAMETERS AND DEPTH RANGES: 4 1/2" 0 TO 420' ; TO

BOREHOLE TOTAL DEPTH AS DRILLED: 420'

CONDUCTOR CASING?: YES DEPTH TO BOTTOM OF CASING ; NO [checked]

DEPTH TO BEDROCK: NA DEPTH TO WATER TABLE:

BOREHOLE FLUID: WATER ; FRESH WATER MUD [checked] ; SALT WATER MUD ;

OTHER:

DEPTH TO BOREHOLE FLUID: [checked] TIME SINCE LAST CIRCULATION: 1/4 HR

GEOVision

geophysical services

SITE: CALVERT CLIFFS COLA B-401 DATE: 6/28/06
 CLIENT: SCHNABEL JOB: 6165
 AUTHOR: R. STELLER PAGE 2 OF 8

LOGGING CREW: R. STELLER, C. CASTLE
 VEHICLE(S) USED AND MILEAGE: 15722
 MOBILIZED FROM: Lebanon Park DEPARTURE TIME: 8:30
 ARRIVED ON SITE: 9:00
 STANDBY TIME: _____ CAUSE: _____
 LOGGING STARTED: 12:05 LOGGING COMPLETED: 14:37
 STANDBY TIME: _____ CAUSE: _____
 LOGGING STARTED: _____ 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 18014 18028 RG 160023 180024
 RECEIVER S/N 12008 20042 28066 11001 23053 30086

MAINTENANCE PERFORMED ON SITE: _____

EQUIPMENT PROBLEMS OR FAILURES: _____

SUGGESTIONS, ADDITIONS, CHANGES: _____

COMMENTS: 2500 = B.H. - 1.5' = 2485' = 2.02m, 2.04m ON BIT

GEOVISION SUSPENSION LOGGING FIELD NOTES

SITE: CALVERT CLIFFS COLA 6-461 DATE: 6/28/06
 CLIENT: SCHNABEL JOB: 6165
 AUTHOR: R. STELLER PAGE 5 OF 5

DEPTH METERS	DEPTH FEET	UNFILTERED FILE NO.	FILTERED FILE NO.	COMMENTS CASING, WATER, ROCK, ETC
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0.5	1.64	1		
1.0	3.28	2		
1.5	4.92	3		
2.0	6.56	4		
2.5	8.20	5		
3.0	9.84	6		
3.5	11.48	7		
4.0	13.12	8		
4.5	14.76	9		
5.0	16.40	10		
5.5	18.04	11		
6.0	19.69	12		
6.5	21.33	13		
7.0	22.97	14		
7.5	24.61	15		
8.0	26.25	16		
8.5	27.89	17		
9.0	29.53	18		
9.5	31.17	19		
10.0	32.81	20		
10.5	34.45	21		
11.0	36.09	22		
11.5	37.73	23		
12.0	39.37	24		
12.5	41.01	25		
13.0	42.65	26		
13.5	44.29	27		
14.0	45.93	28		
14.5	47.57	29		
15.0	49.21	30		
15.5	50.85	31		
16.0	52.49	32		
16.5	54.13	33		
17.0	55.77	34		
17.5	57.41	35		
18.0	59.05	36		
18.5	60.70	37		
19.0	62.34	38		
19.5	63.98	39		
20.0	65.62	40		

GEOVISION SUSPENSION LOGGING FIELD NOTES

SITE: CALVERT CLIFFS COLA B- 401 DATE: 6/28/10
 CLIENT: SCHNABEL JOB: 6165
 AUTHOR: R. STELLER PAGE 4 OF 8

DEPTH METERS	DEPTH FEET	UNFILTERED FILE NO.	FILTERED FILE NO.	COMMENTS CASING, WATER, ROCK, ETC
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20.5	67.26	41		
21.0	68.90	42		
21.5	70.54	43		
22.0	72.18	44		
22.5	73.82	45		
23.0	75.46	46		
23.5	77.10	47		
24.0	78.74	48		
24.5	80.38	49		
25.0	82.02	50		
25.5	83.66	51		
26.0	85.30	52		
26.5	86.94	53		
27.0	88.58	54		
27.5	90.22	55		
28.0	91.86	56		
28.5	93.50	57		
29.0	95.14	58		
29.5	96.78	59		
30.0	98.43	60		
30.5	100.07	61		
31.0	101.71	62		
31.5	103.35	63		
32.0	104.99	64		
32.5	106.63	65		
33.0	108.27	66		
33.5	109.91	67		
34.0	111.55	68		
34.5	113.19	69		
35.0	114.83	70		
35.5	116.47	71		
36.0	118.11	72		
36.5	119.75	73		
37.0	121.39	74		
37.5	123.03	75		
38.0	124.67	76		
38.5	126.31	77		
39.0	127.95	78		
39.5	129.59	79		
40.0	131.23	80		

GEOVISION SUSPENSION LOGGING FIELD NOTES

SITE: CALVERT CLIFFS COLA B-AD1 DATE: 6/22/06
 CLIENT: SCHNABEL JOB: 6165
 AUTHOR: R. STELLER PAGE 5 OF 8

DEPTH METERS	DEPTH FEET	UNFILTERED FILE NO.	FILTERED FILE NO.	COMMENTS CASING, WATER, ROCK, ETC
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40.5	132.87	81		
41.0	134.51	82		
41.5	136.15	83		
42.0	137.80	84		
42.5	139.44	85		
43.0	141.08	86		
43.5	142.72	87		
44.0	144.36	88		
44.5	146.00	89		
45.0	147.64	90		
45.5	149.28	91		
46.0	150.92	92		
46.5	152.56	93		
47.0	154.20	94		
47.5	155.84	95		
48.0	157.48	96		
48.5	159.12	97		
49.0	160.76	98		
49.5	162.40	99		
50.0	164.04	100		
50.5	165.68	101		
51.0	167.32	102		
51.5	168.96	103		
52.0	170.60	104		
52.5	172.24	105		
53.0	173.88	106		
53.5	175.52	107		
54.0	177.17	108		
54.5	178.81	109		
55.0	180.45	110		
55.5	182.09	111		
56.0	183.73	112		
56.5	185.37	113		
57.0	187.01	114		
57.5	188.65	115		
58.0	190.29	116		
58.5	191.93	117		
59.0	193.57	118		
59.5	195.21	119		
60.0	196.85	120		

GEOVISION SUSPENSION LOGGING FIELD NOTES

SITE: CALVERT CLIFFS COLA B-401 DATE: 6/28/06
 CLIENT: SCHNABEL JOB: 6165
 AUTHOR: R. STELLER PAGE 6 OF 8

DEPTH METERS	DEPTH FEET	UNFILTERED FILE NO.	FILTERED FILE NO.	COMMENTS CASING, WATER, ROCK, ETC
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60.5	198.49	121		
61.0	200.13	122		
61.5	201.77	123		
62.0	203.41	124		
62.5	205.05	125		
63.0	206.69	126		
63.5	208.33	127		
64.0	209.97	128		
64.5	211.61	129		
65.0	213.25	130		
65.5	214.90	131		
66.0	216.54	132		
66.5	218.18	133		
67.0	219.82	134		
67.5	221.46	135		
68.0	223.10	136		
68.5	224.74	137		
69.0	226.38	138		
69.5	228.02	139		
70.0	229.66	140		
70.5	231.30	141		
71.0	232.94	142		
71.5	234.58	143		
72.0	236.22	144		
72.5	237.86	145		
73.0	239.50	146		
73.5	241.14	147		
74.0	242.78	148		
74.5	244.42	149		
75.0	246.06	150		
75.5	247.70	151		
76.0	249.34	152		
76.5	250.98	153		
77.0	252.62	154		
77.5	254.27	155		
78.0	255.91	156		
78.5	257.55	157		
79.0	259.19	158		
79.5	260.83	159		
80.0	262.47	160		

GEOVISION SUSPENSION LOGGING FIELD NOTES

SITE: CALVERT CLIFFS COLA 6-20 DATE: 6/28/06
 CLIENT: SCHNABEL JOB: 6165
 AUTHOR: R. STELLER PAGE 7 OF 8

DEPTH METERS	DEPTH FEET	UNFILTERED FILE NO.	FILTERED FILE NO.	COMMENTS CASING, WATER, ROCK, ETC
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80.5	264.11	161		
81.0	265.76	162		
81.5	267.39	163		
82.0	269.03	164		
82.5	270.67	165		
83.0	272.31	166		
83.5	273.95	167		
84.0	275.59	168		
84.5	277.23	169		
85.0	278.87	170		
85.5	280.51	171		
86.0	282.15	172		
86.5	283.79	173		
87.0	285.43	174		
87.5	287.07	175		
88.0	288.71	176		
88.5	290.35	177		
89.0	291.99	178		
89.5	293.64	179		
90.0	295.28	180		
90.5	296.92	181		
91.0	298.56	182		
91.5	300.20	183		
92.0	301.84	184		
92.5	303.48	185		
93.0	305.12	186		
93.5	306.76	187		
94.0	308.40	188		
94.5	310.04	189		
95.0	311.68	190		
95.5	313.32	191		
96.0	314.96	192		
96.5	316.60	193		
97.0	318.24	194		
97.5	319.88	195		
98.0	321.52	196		
98.5	323.16	197		
99.0	324.80	198		
99.5	326.44	199		
100.0	328.08	200		