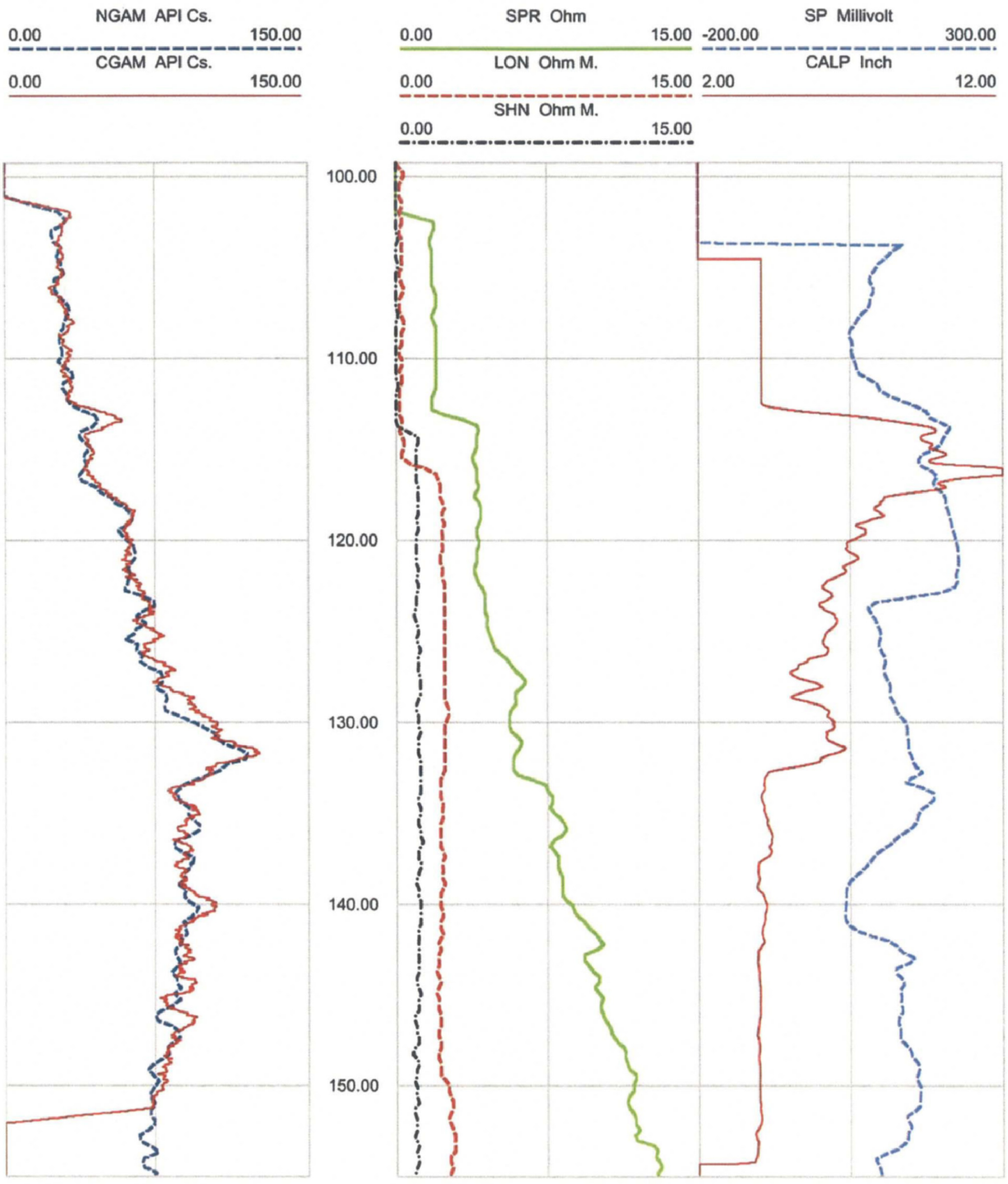
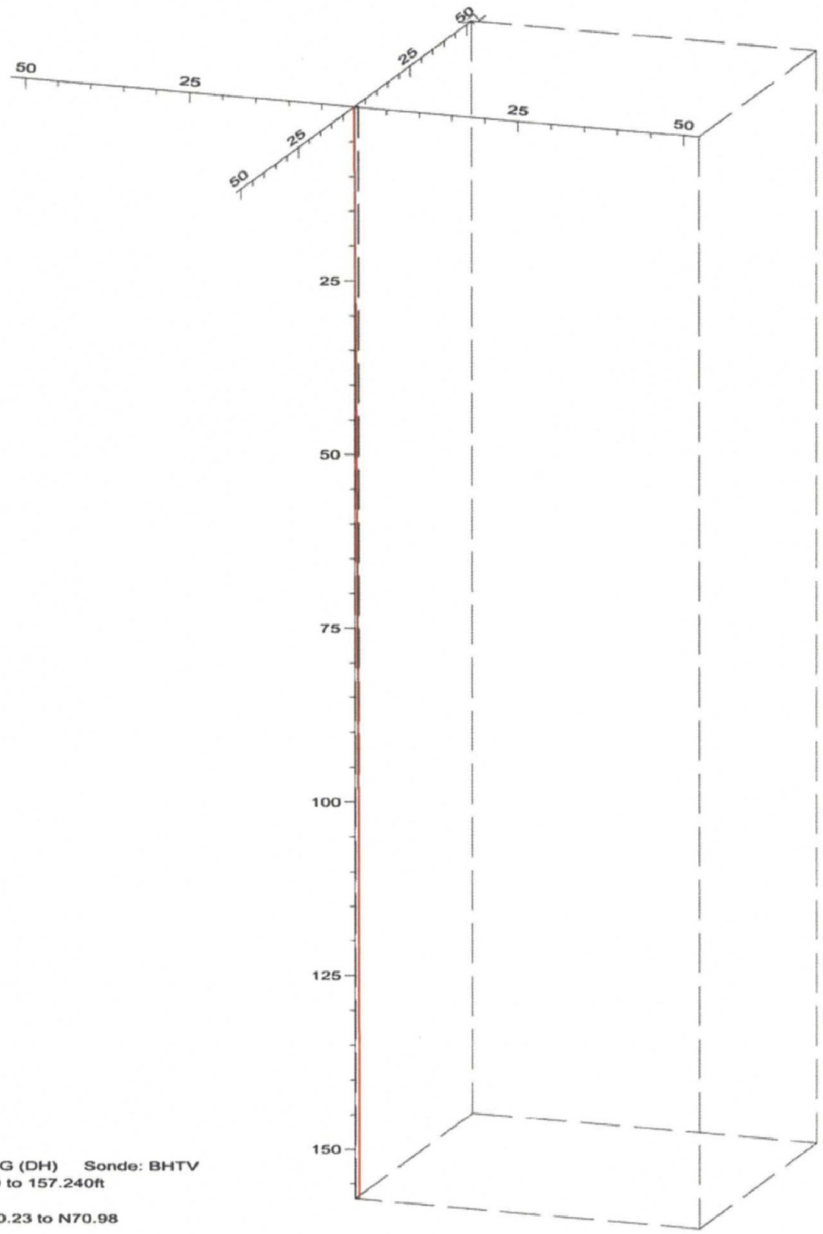


Figure 37. Boring B-704 G (DH) lower section, Caliper, Natural gamma, Resistivity and SP logs

Deviated borehole in orthographic projection, viewed from N161



Borehole: B-704 G (DH) Sonde: BHTV
Zone from: 0.000 to 157.240ft
North ref is true
Mean deviation: 0.23 to N70.98
End coordinates .....
North: 0.204
East : 0.592
Down : 157.141
Azimuth of end: N70.97
Distance start-end: 0.626ft
Viewpoint: N161
Data extrapolated to the surface from 6.000ft

Figure 38. Boring B-704 G (DH), Deviation Projection (dimensions in feet)

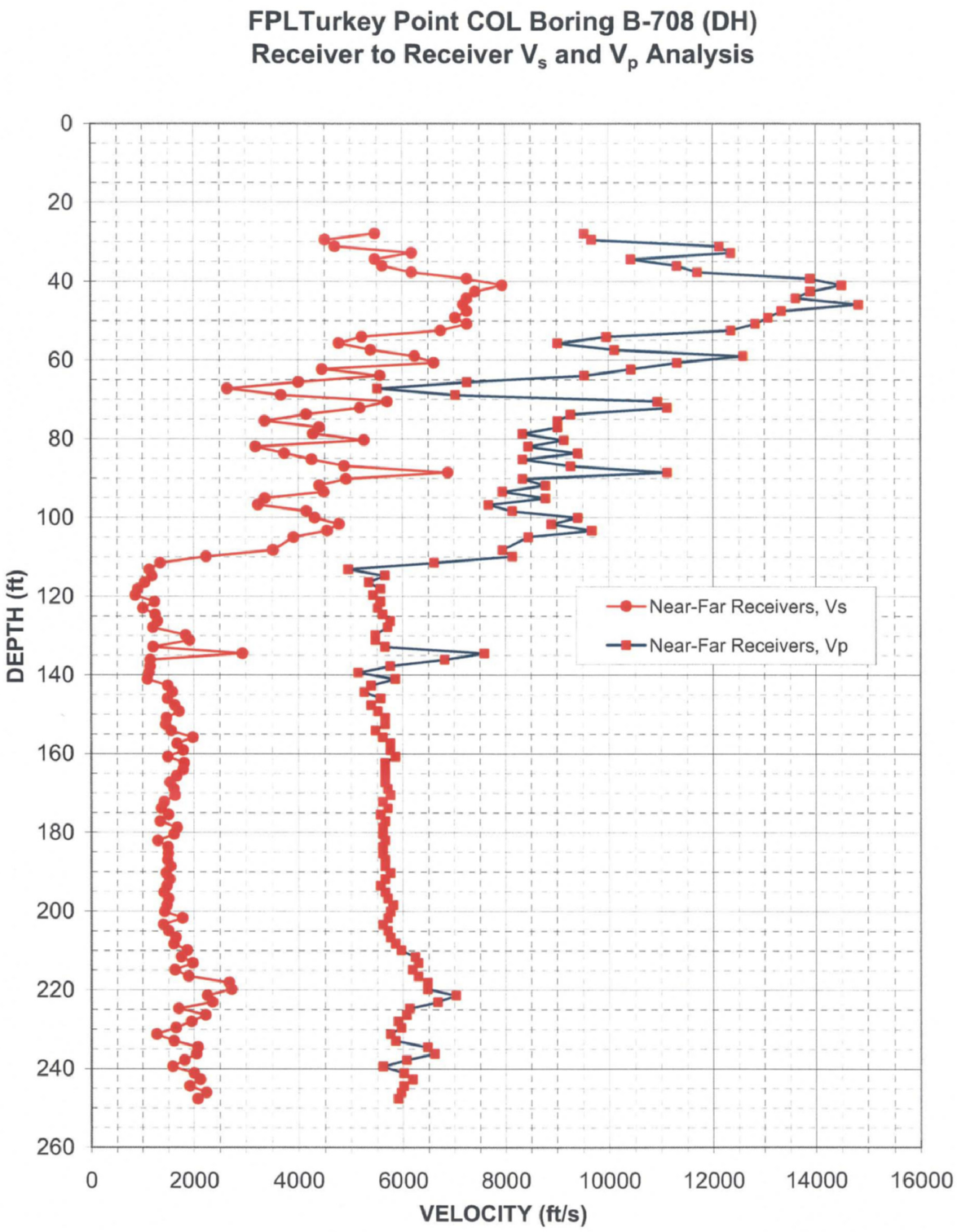


Figure 39: Boring B-708 (DH), Suspension R1-R2 P- and S_H-wave velocities

Depth (feet)	V_s (feet/sec)	V_p (feet/sec)
27.9	5460	9520
29.5	4500	9660
31.2	4690	12120
32.8	6170	12350
34.5	5460	10420
36.1	5600	11300
37.7	6170	11700
39.4	7250	13890
41.0	7940	14490
42.7	7410	13890
44.3	7250	13610
45.9	7170	14810
47.6	7250	13330
49.2	7020	13070
50.9	7250	12820
52.5	6730	12350
54.1	5210	9950
55.8	4760	9010
57.4	5380	10100
59.1	6230	12580
60.7	6600	11300
62.3	4440	10420
64.0	5560	9520
65.6	3990	7250
67.3	2640	5510
68.9	3660	7020
70.5	5700	10930
72.2	5170	11110
73.8	4140	9260
75.5	3350	9010
77.1	4390	9010
78.7	4270	8330
80.4	5250	9130
82.0	3170	8440
83.7	3720	9390
85.3	4250	8330
86.9	4870	9260
88.6	6870	11110
90.2	4900	8330
91.9	4390	8770
93.5	4470	7940
95.1	3350	8770
96.8	3220	7660
98.4	4140	8130
100.1	4300	9390
101.7	4760	8890
103.4	4540	9660
105.0	3900	8440
108.3	3510	7940
109.9	2220	8130
111.6	1330	6600
113.2	1120	4940
114.8	1170	5650
116.5	1030	5330
118.1	900	5560
119.8	850	5420
121.4	1220	5560
123.0	1000	5510
124.7	1230	5600
126.3	1280	5750
128.0	1190	5700
129.9	1830	5460
131.2	1900	5460
132.9	1190	5650
134.5	2920	7580
136.2	1140	6800
137.8	1130	5750
139.4	1110	5130
141.1	1080	5850
142.7	1480	5380
144.4	1560	5250
146.0	1470	5560
147.6	1610	5380
149.3	1700	5510
150.9	1460	5650
152.6	1440	5650
154.2	1540	5460
155.8	1960	5600
157.5	1660	5750
159.1	1770	5750
160.8	1480	5850
162.4	1790	5650
164.0	1770	5650
165.7	1650	5650
167.3	1520	5650
169.0	1590	5700
170.6	1620	5750
172.2	1410	5600
173.9	1350	5700
175.5	1490	5560
177.2	1330	5650
178.8	1660	5600
180.5	1590	5600
182.1	1290	5650
183.7	1480	5600
185.4	1490	5600
187.0	1470	5650
188.7	1530	5650
190.3	1440	5750
191.9	1520	5650
193.6	1460	5560
195.2	1400	5650
196.9	1490	5700
198.5	1460	5800
200.1	1410	5750
201.8	1760	5700
203.4	1390	5600
205.1	1490	5700
206.7	1630	5750
208.3	1590	5850
210.0	1850	5950
211.6	1740	6230
213.3	1960	6290
214.9	1610	6170
216.5	1880	6290
218.2	2670	6470
219.8	2710	6470
221.5	2240	7020
223.1	2340	6670
224.7	1690	6120
226.4	2210	6060
228.0	1930	5900
229.7	1630	5950
231.3	1260	5750
232.9	1590	5850
234.6	2060	6470
236.2	2030	6600
237.9	1800	6060
239.5	1570	5600
241.1	1980	6010
242.8	2110	6170
244.4	1900	6010
246.1	2220	5950
247.7	2060	5900

Table 13. Boring B-708 (DH), Suspension R1-R2 depths and P- and S_H-wave velocities

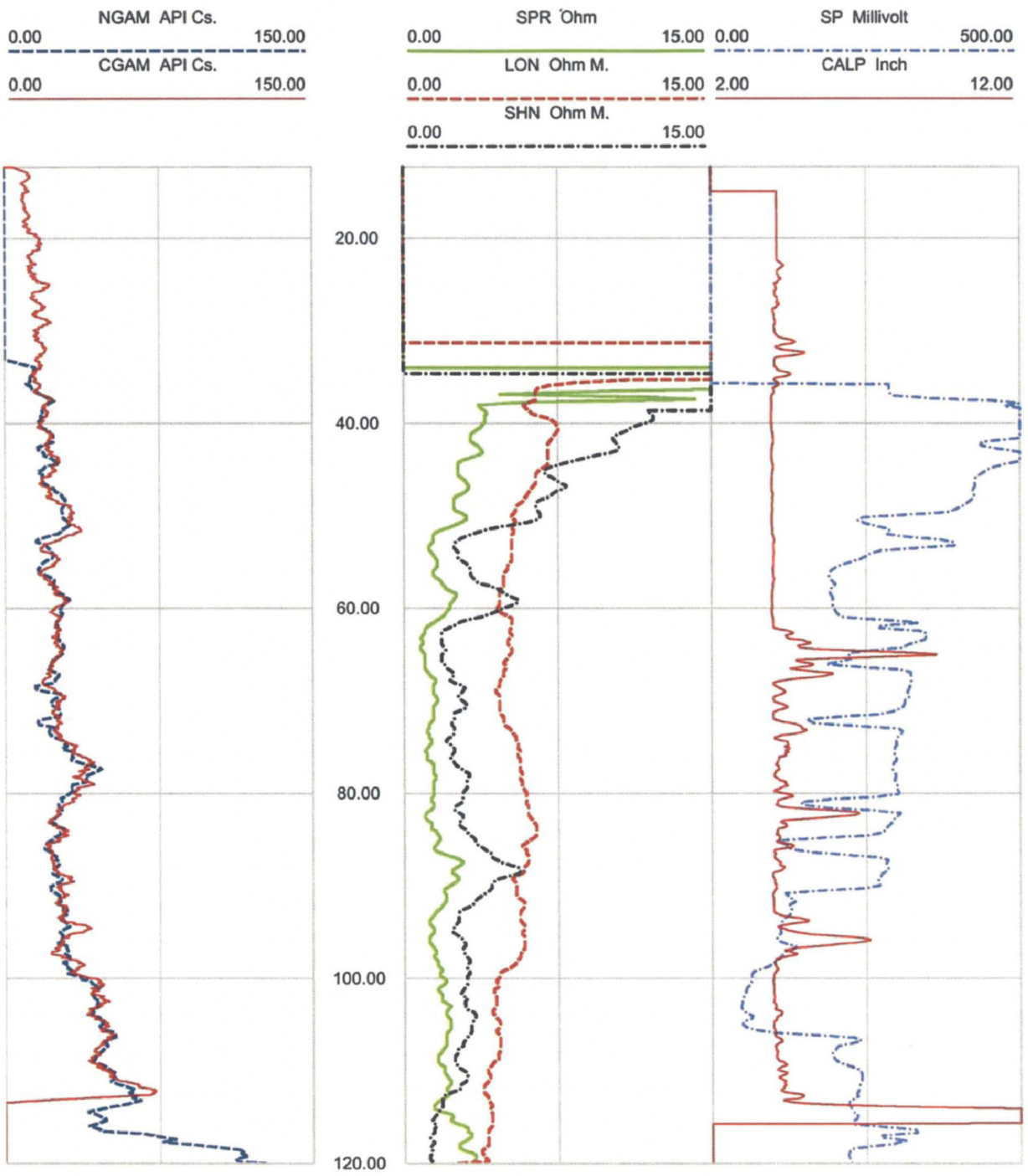


Figure 40. Boring B-708 (DH) upper section, Caliper, Natural gamma, Resistivity and SP logs

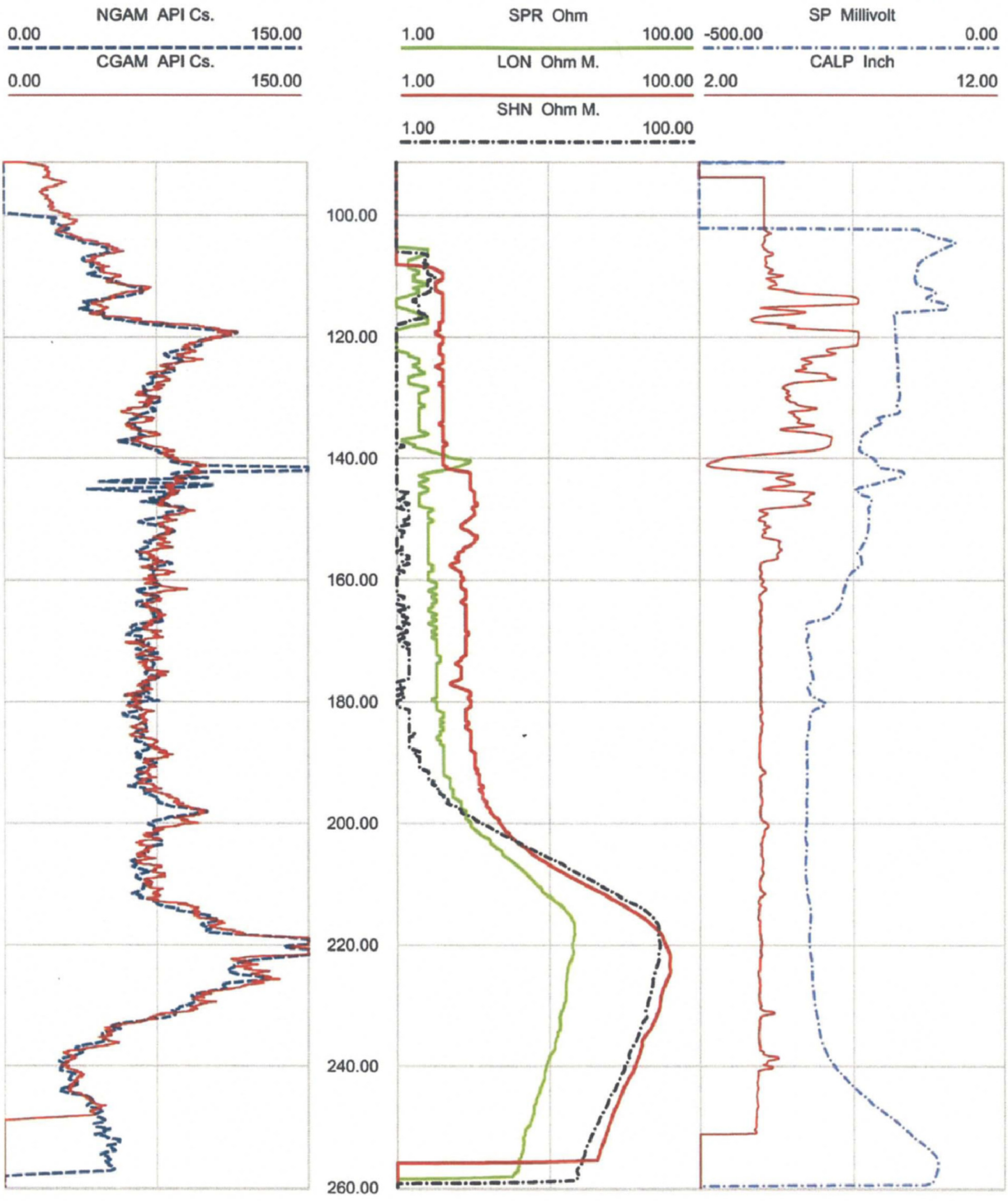
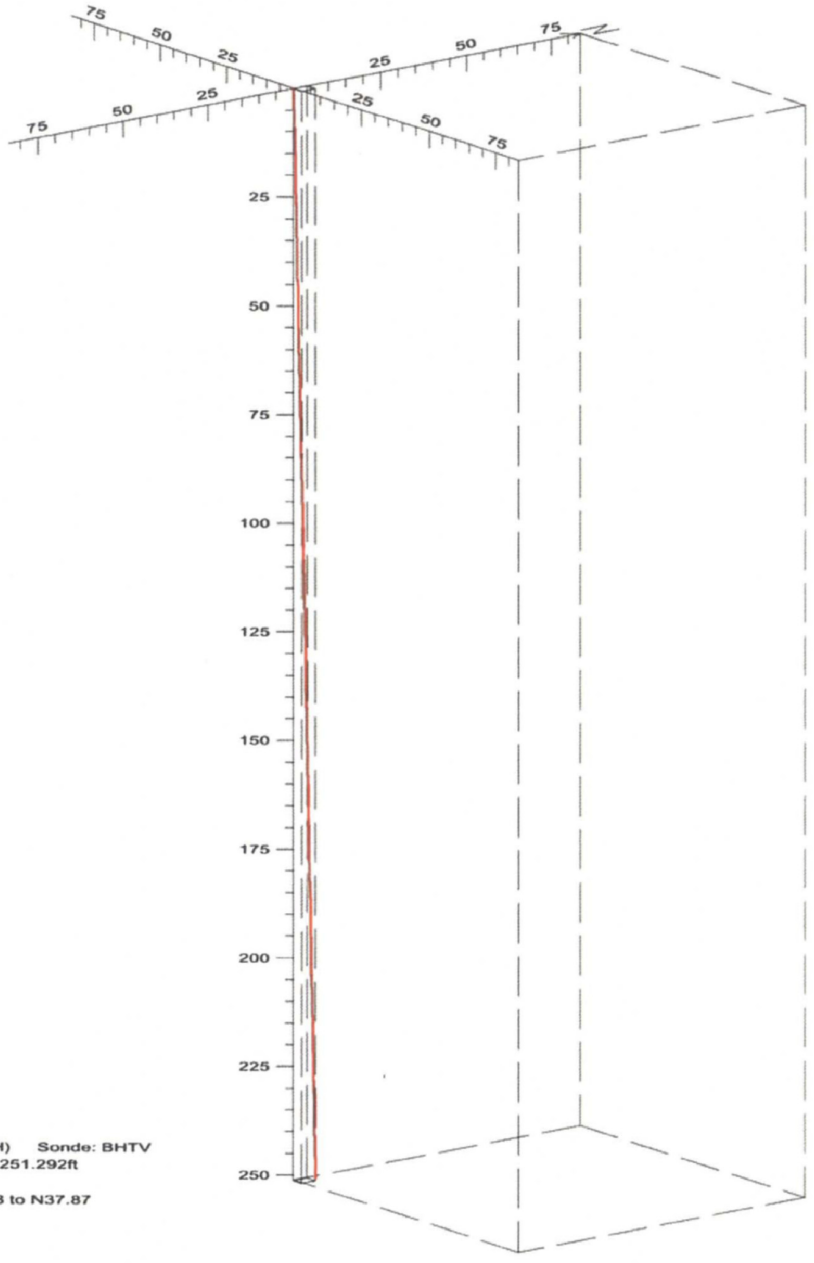


Figure 41. Boring B-708 (DH) lower section, Caliper, Natural gamma, Resistivity and SP logs

Deviated borehole in orthographic projection, viewed from N128



Borehole: B-708 (DH) Sonde: BHTV
Zone from: 0.000 to 251.292ft
North ref is true
Mean deviation: 1.13 to N37.87
End coordinates .....
North: 3.915
East : 3.044
Down : 251.212
Azimuth of end: N37.87
Distance start-end: 4.959ft
Viewpoint: N128
Data extrapolated to the surface from 25.012ft

Figure 42. Boring B-708 (DH), Deviation Projection (dimensions in feet)

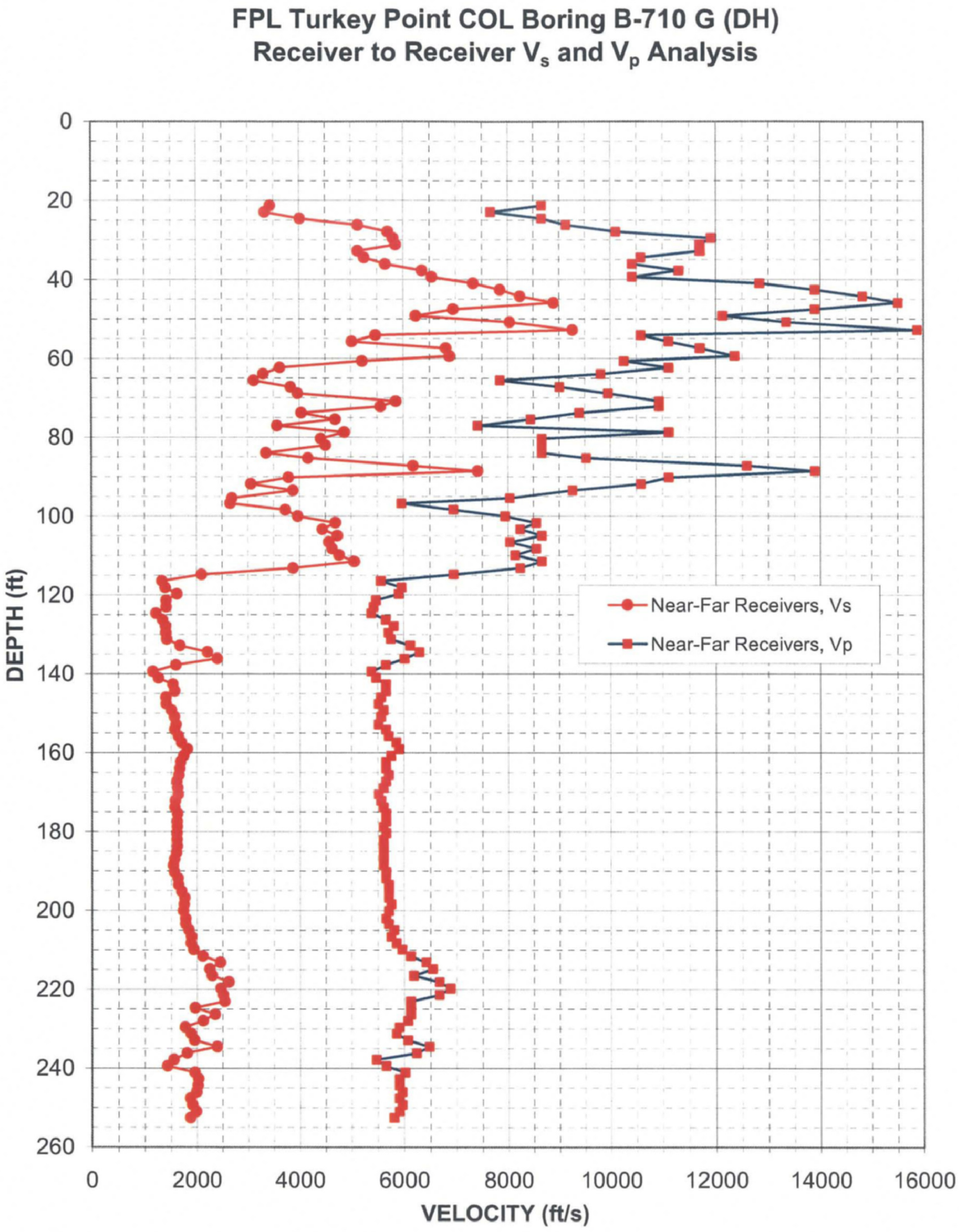


Figure 43: Boring B-710 G (DH), Suspension R1-R2 P- and S_H-wave velocities

Depth (feet)	V_s (feet/sec)	V_p (feet/sec)
21.3	3440	8660
23.0	3330	7660
24.6	4020	8660
26.3	5130	9130
27.9	5700	10100
29.5	5800	11900
31.2	5850	11700
32.8	5130	11700
34.5	5250	10580
36.1	5650	10420
37.7	6350	11300
39.4	6540	10420
41.0	7330	12820
42.7	7840	13890
44.3	8230	14810
45.9	8890	15500
47.6	6940	13890
49.2	6230	12120
50.9	8030	13330
52.8	9260	15870
54.1	5460	10580
55.8	5010	11110
57.4	6800	11700
59.4	6870	12350
60.7	5210	10260
62.3	3620	11110
64.0	3300	9800
65.6	3120	7840
67.3	3830	9010
68.9	3970	9950
70.9	5850	10930
72.2	5560	10930
73.8	4040	9390
75.5	4690	8440
77.1	3570	7410
78.7	4870	11110
80.4	4420	8660
82.0	4500	8660
84.0	3350	8660
85.3	4170	9520
87.3	6170	12580
88.6	7410	13890
90.2	3790	11110
91.9	3060	10580
93.5	3880	9260
95.5	2690	8030
96.8	2660	5950
98.4	3720	6940
100.1	3970	7940
101.7	4690	8550
103.4	4440	8230
105.0	4730	8660
106.6	4570	8030
108.3	4630	8550
109.9	4760	8130
111.6	5050	8660
113.2	3880	8230
114.8	2100	6940
116.5	1330	5560
118.1	1390	5950
119.8	1620	5900
121.4	1410	5460
123.0	1410	5420
124.7	1210	5380
126.3	1340	5650
128.0	1390	5800
129.6	1400	5700
131.2	1420	5750
132.9	1680	6120
134.5	2210	6290
136.2	2400	6010
137.8	1590	5650
139.4	1150	5380
141.1	1260	5460
142.7	1540	5650
144.4	1570	5650
146.0	1400	5560
147.6	1410	5510
149.3	1510	5600
150.9	1560	5560
152.9	1590	5510
154.2	1570	5650
155.8	1640	5700
157.5	1700	5850
159.1	1810	5900
160.8	1750	5750
162.4	1680	5650
164.0	1670	5650
165.7	1650	5700
167.3	1610	5650
169.0	1630	5600
170.6	1640	5510
172.2	1580	5560
173.9	1570	5600
175.5	1620	5650
177.5	1610	5650
178.8	1620	5600
180.5	1610	5650
182.1	1610	5600
183.7	1620	5600
185.4	1600	5600
187.0	1560	5600
188.7	1540	5600
190.3	1560	5650
191.9	1630	5650
193.6	1640	5700
195.2	1700	5700
196.9	1760	5700
198.5	1750	5750
200.1	1740	5700
202.1	1780	5650
203.4	1780	5700
205.1	1840	5800
206.7	1890	5750
208.3	1880	5850
210.0	1930	5950
211.6	2110	6120
213.3	2450	6410
214.9	2240	6540
216.5	2290	6170
218.2	2610	6670
219.8	2460	6870
221.5	2510	6670
223.1	2530	6120
224.7	1960	6120
226.4	2350	6120
228.0	2120	6060
229.7	1770	5900
231.3	1880	5850
232.9	1950	6060
234.6	2390	6470
236.2	1810	6230
237.9	1550	5460
239.5	1420	5650
241.1	1960	6010
242.8	2030	5900
244.4	2010	5900
246.1	1990	5950
247.7	1870	5900
249.3	1910	5950
251.0	1980	5900
252.6	1870	5800

Table 14. Boring B-710 G (DH), Suspension R1-R2 depths and P- and S_H-wave velocities

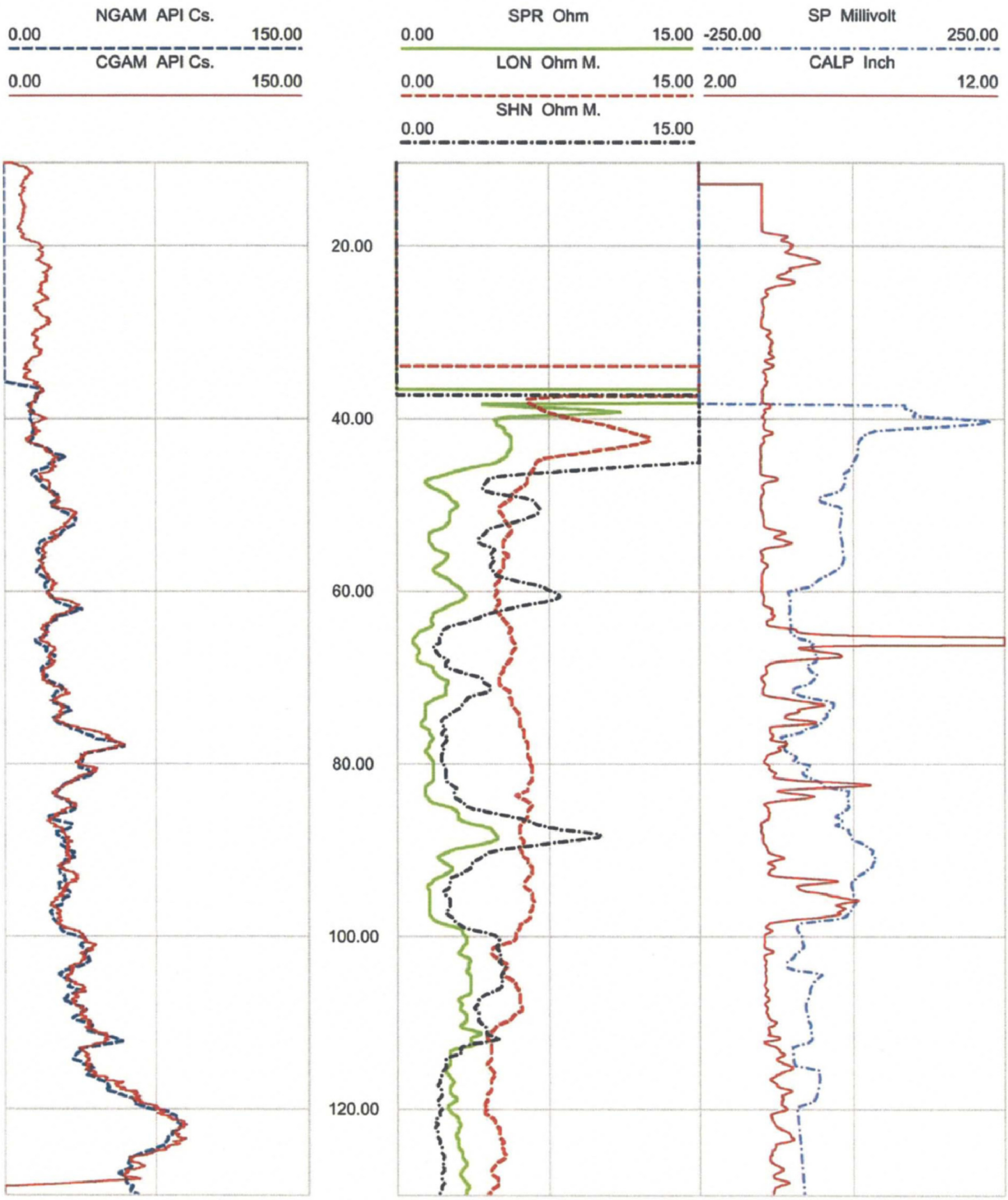


Figure 44. Boring B-710 G (DH) upper section, Caliper, Natural gamma, Resistivity and SP logs

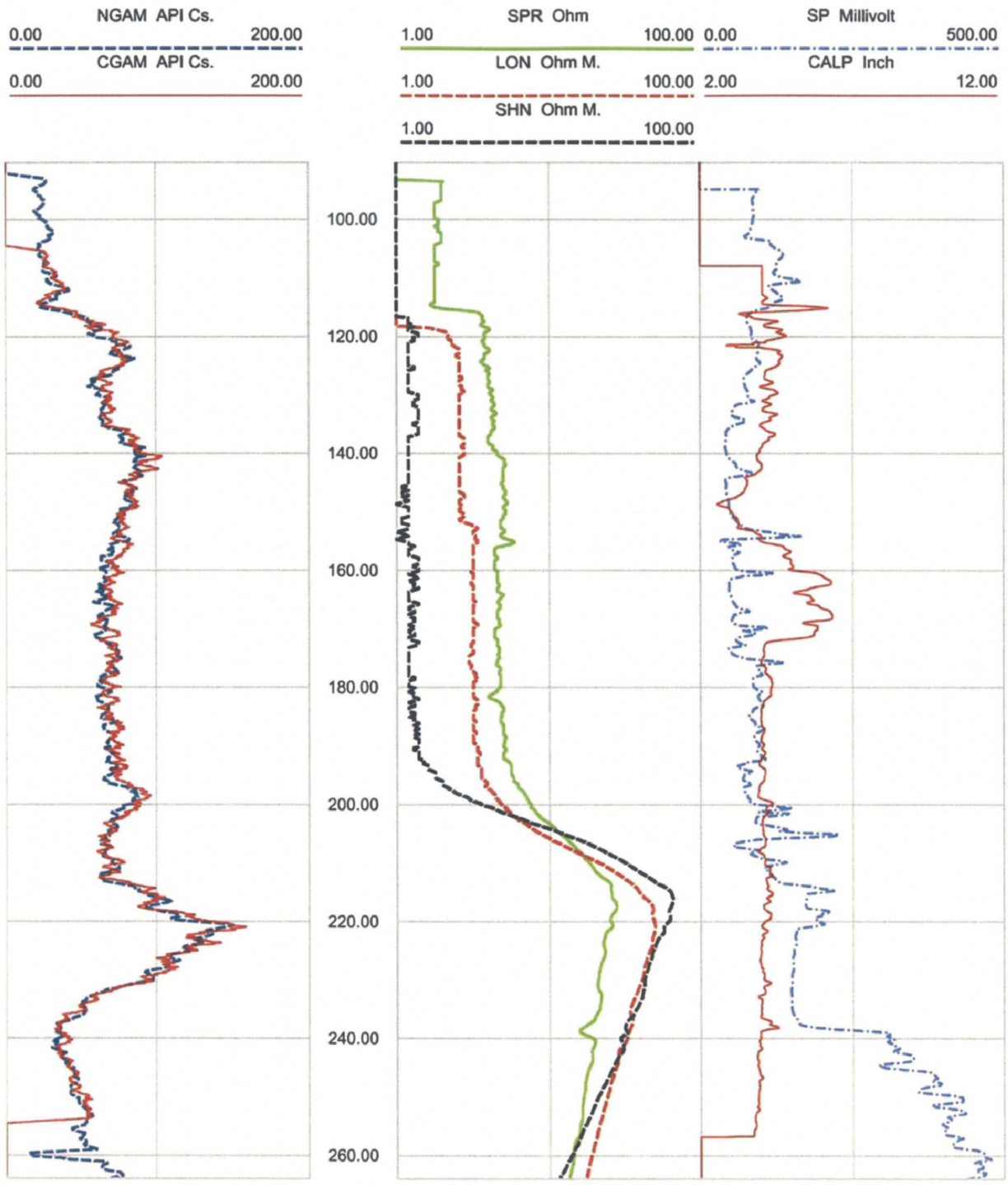
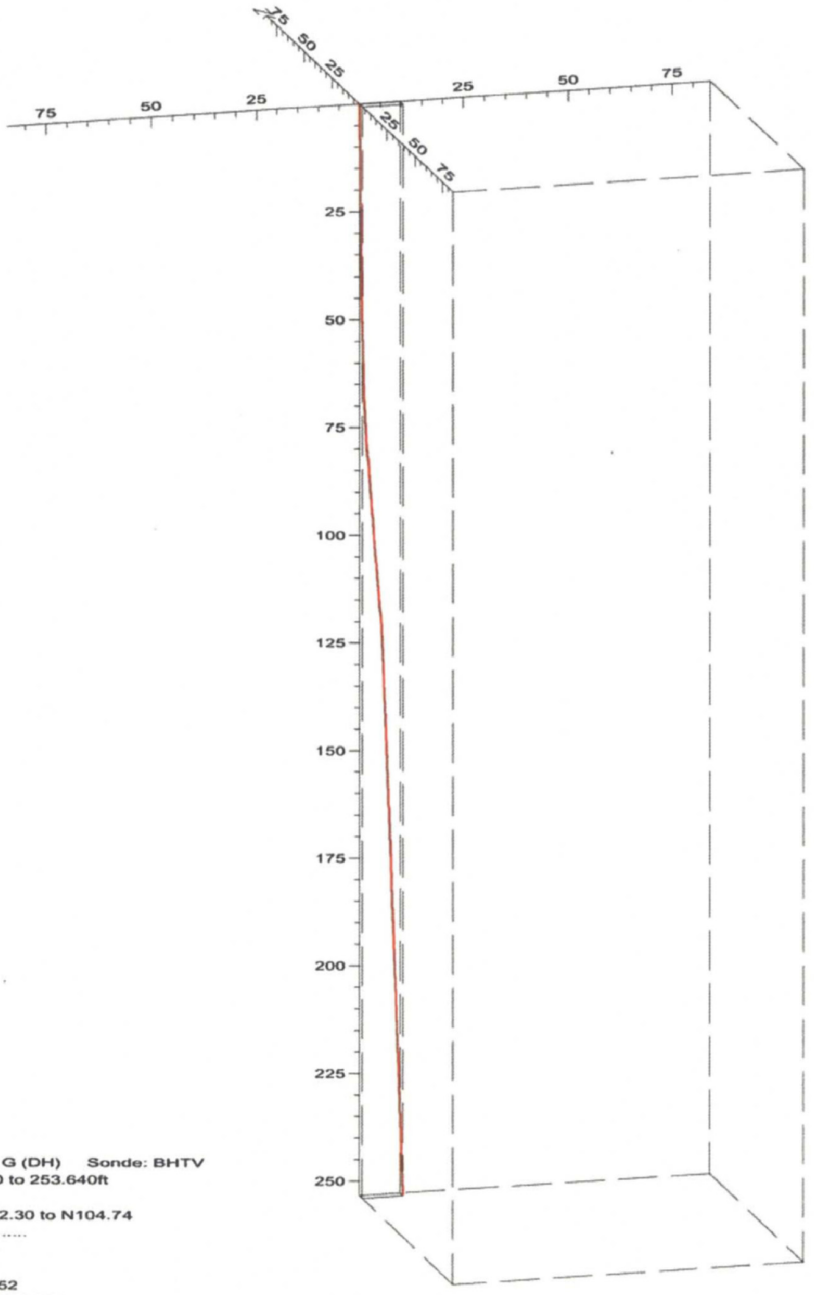


Figure 45. Boring B-710 G (DH) lower section, Caliper, Natural gamma, Resistivity and SP logs

Deviated borehole in orthographic projection, viewed from N195



Borehole: B-710 G (DH) Sonde: BHTV
Zone from: 0.000 to 253.640ft
North ref is true
Mean deviation: 2.30 to N104.74
End coordinates .....
North: -2.593
East : 9.858
Down : 253.352
Azimuth of end: N104.74
Distance start-end: 10.193ft
Viewpoint: N195
Data extrapolated to the surface from 24.000ft

Figure 46. Boring B-710 G (DH), Deviation Projection (dimensions in feet)

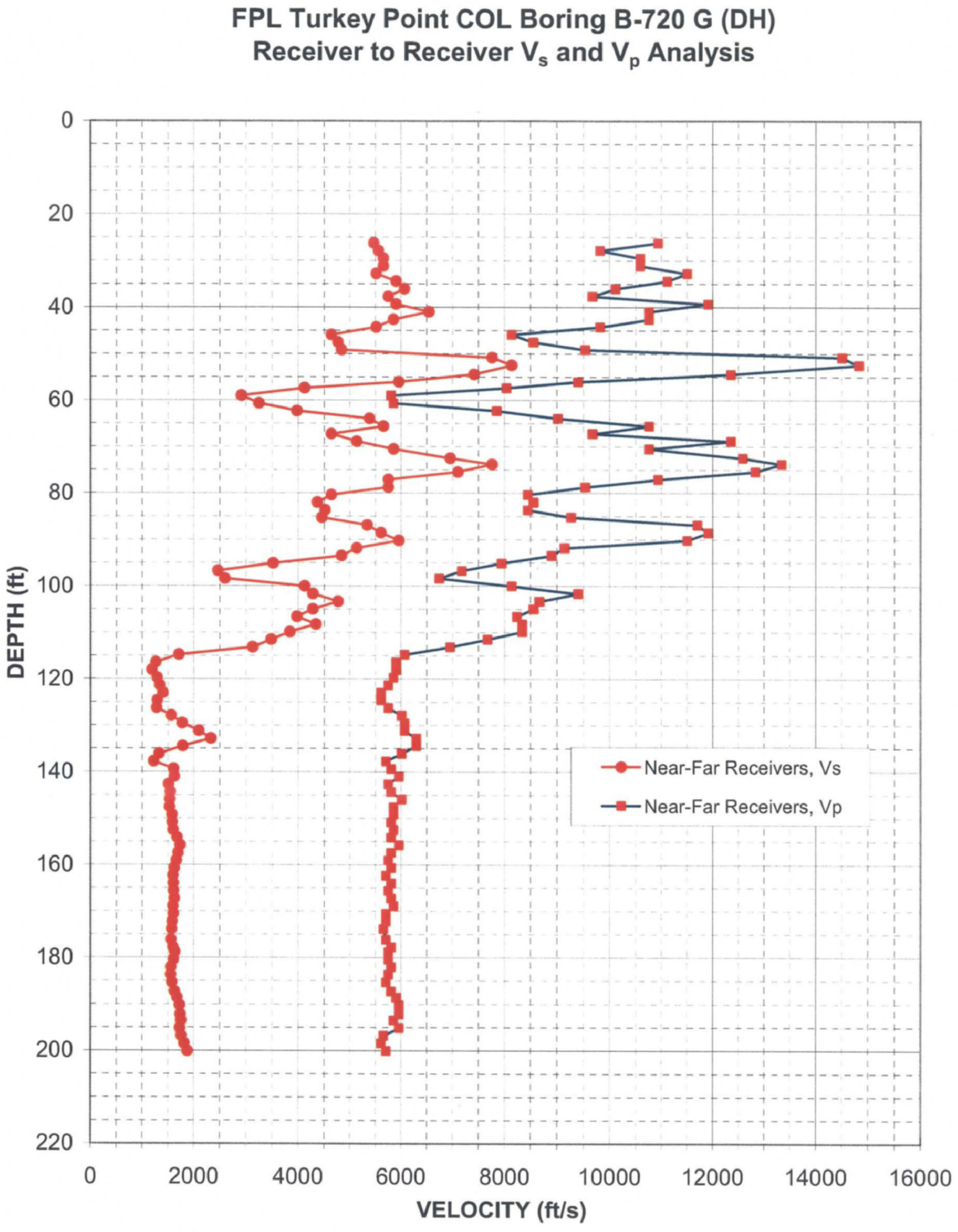


Figure 47: Boring B-720 G (DH), Suspension R1-R2 P- and S_H-wave velocities

Depth (feet)	V_s (feet/sec)	V_p (feet/sec)
26.3	5460	10930
27.9	5560	9800
29.5	5650	10580
31.2	5650	10580
32.8	5510	11490
34.5	5900	11110
36.1	6060	10100
37.7	5750	9660
39.4	5900	11900
41.0	6540	10750
42.7	5850	10750
44.3	5510	9800
45.9	4630	8130
47.6	4760	8550
49.2	4830	9520
50.9	7750	14490
52.5	8130	14810
54.5	7410	12350
56.1	5950	9390
57.4	4120	8030
59.1	2900	5800
60.7	3240	5850
62.3	3970	7840
64.0	5380	9010
65.6	5650	10750
67.3	4630	9660
68.9	5130	12350
70.5	5850	10750
72.5	6940	12580
73.8	7750	13330
75.5	7090	12820
77.1	5750	10930
78.7	5750	9520
80.4	4630	8440
82.0	4360	8550
83.7	4500	8440
85.3	4440	9260
86.9	5330	11700
88.6	5600	11900
90.2	5950	11490
91.9	5130	9130
93.5	4830	8890
95.1	3510	7940
96.8	2450	7170
98.4	2580	6730
100.1	4120	8130
101.7	4270	9390
103.4	4760	8660
105.0	4270	8550
106.6	3970	8230
108.3	4330	8330
109.9	3830	8330
111.6	3470	7660
113.2	3120	6940
114.8	1700	6060
116.5	1250	5900
118.1	1180	5900
119.8	1280	5850
121.4	1330	5750
123.0	1390	5600
124.7	1280	5600
126.3	1270	5750
128.0	1550	6010
129.6	1760	6060
131.2	2080	6060
132.9	2310	6290
134.5	1770	6290
136.2	1320	6010
137.8	1210	5700
139.4	1590	5800
141.1	1610	5950
142.7	1500	5750
144.4	1530	5800
146.0	1520	6010
147.6	1520	5850
149.3	1560	5850
150.9	1570	5800
152.6	1590	5850
154.2	1660	5800
155.8	1720	5950
157.5	1680	5800
159.1	1650	5750
160.8	1610	5800
162.4	1580	5700
164.0	1590	5800
165.7	1590	5750
167.3	1610	5800
169.0	1580	5850
170.6	1590	5700
172.2	1570	5700
173.9	1560	5650
176.2	1550	5700
177.8	1580	5800
178.8	1620	5750
180.5	1590	5750
182.1	1550	5800
183.7	1540	5750
185.4	1560	5700
187.3	1620	5800
188.7	1670	5900
190.3	1710	5950
192.3	1730	5950
193.6	1740	5850
195.2	1720	5950
196.9	1750	5650
198.5	1800	5600
200.1	1860	5700

Table 15. Boring B-720 G (DH), Suspension R1-R2 depths and P- and S_H-wave velocities

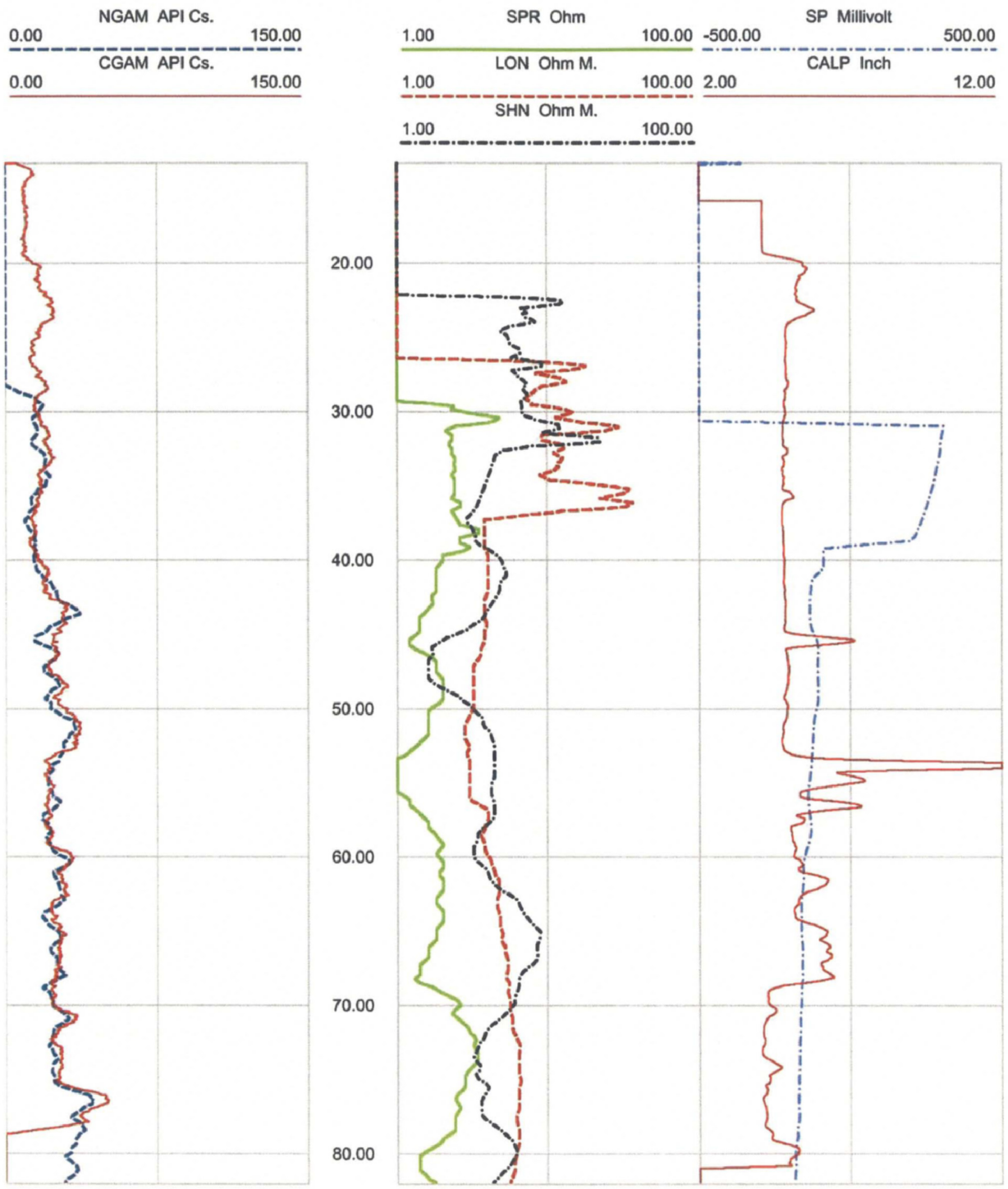


Figure 48. Boring B-720 G (DH) upper section, Caliper, Natural gamma, Resistivity and SP logs

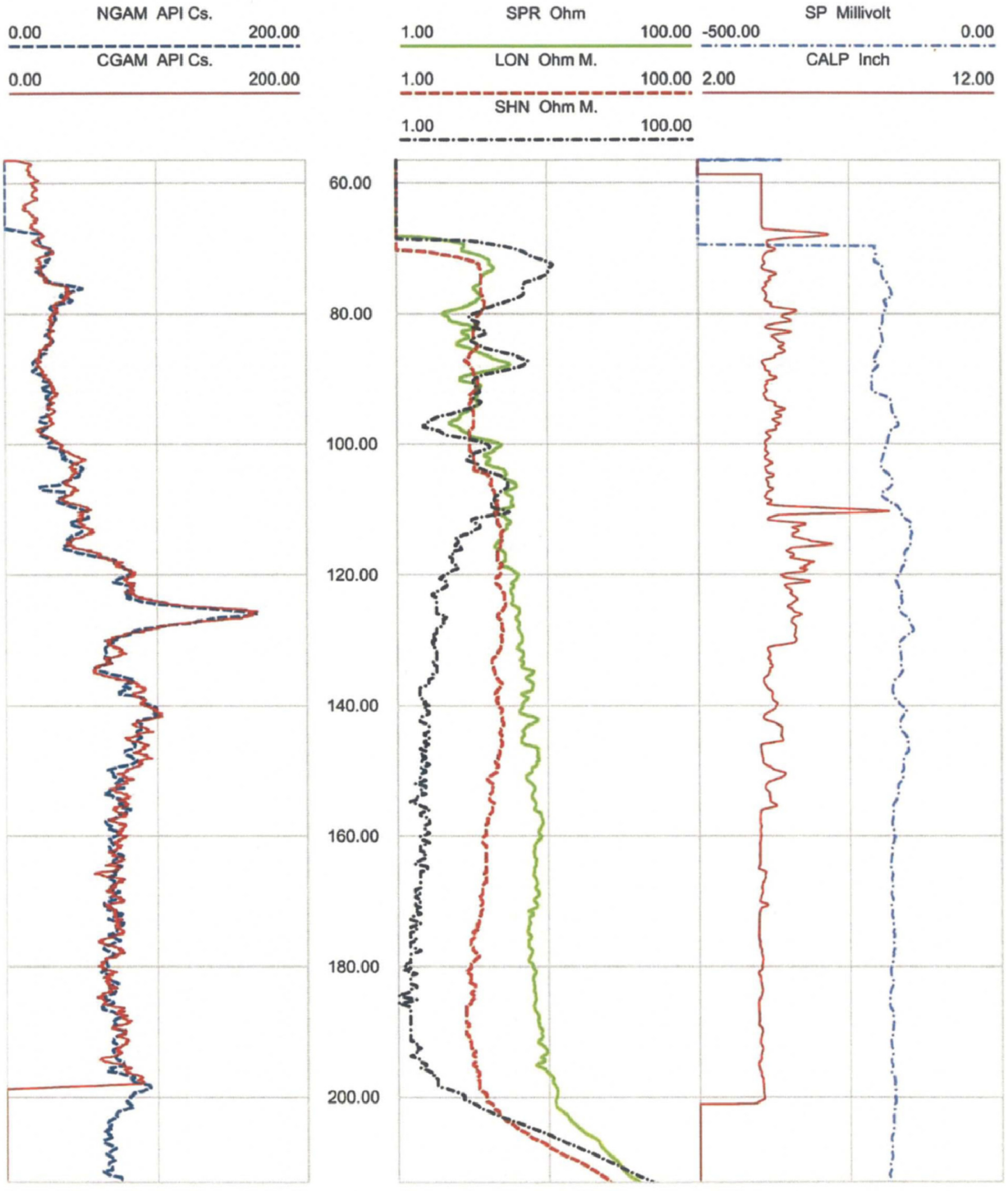
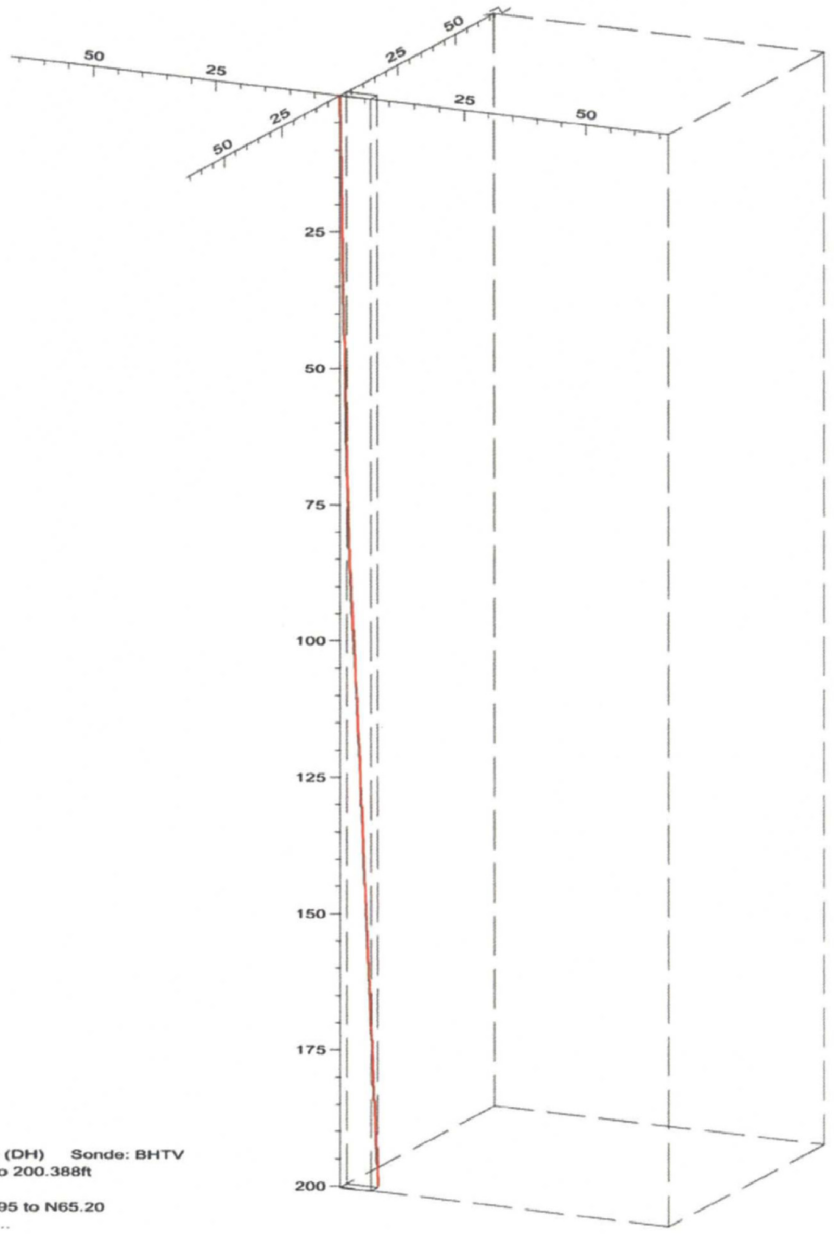


Figure 49. Boring B-720 G (DH) lower section, Caliper, Natural gamma, Resistivity and SP logs

Deviated borehole in orthographic projection, viewed from N155



Borehole: B-720 G (DH) Sonde: BHTV
Zone from: 0.000 to 200.388ft
North ref is true
Mean deviation: 1.95 to N65.20
End coordinates .....
North: 2.855
East : 6.178
Down : 200.248
Azimuth of end: N65.20
Distance start-end: 6.806ft
Viewpoint: N155
Data extrapolated to the surface from 20.000ft

Figure 50. Boring B-720 G (DH), Deviation Projection (dimensions in feet)

APPENDIX A

SUSPENSION VELOCITY MEASUREMENT QUALITY ASSURANCE SUSPENSION SOURCE TO RECEIVER ANALYSIS RESULTS

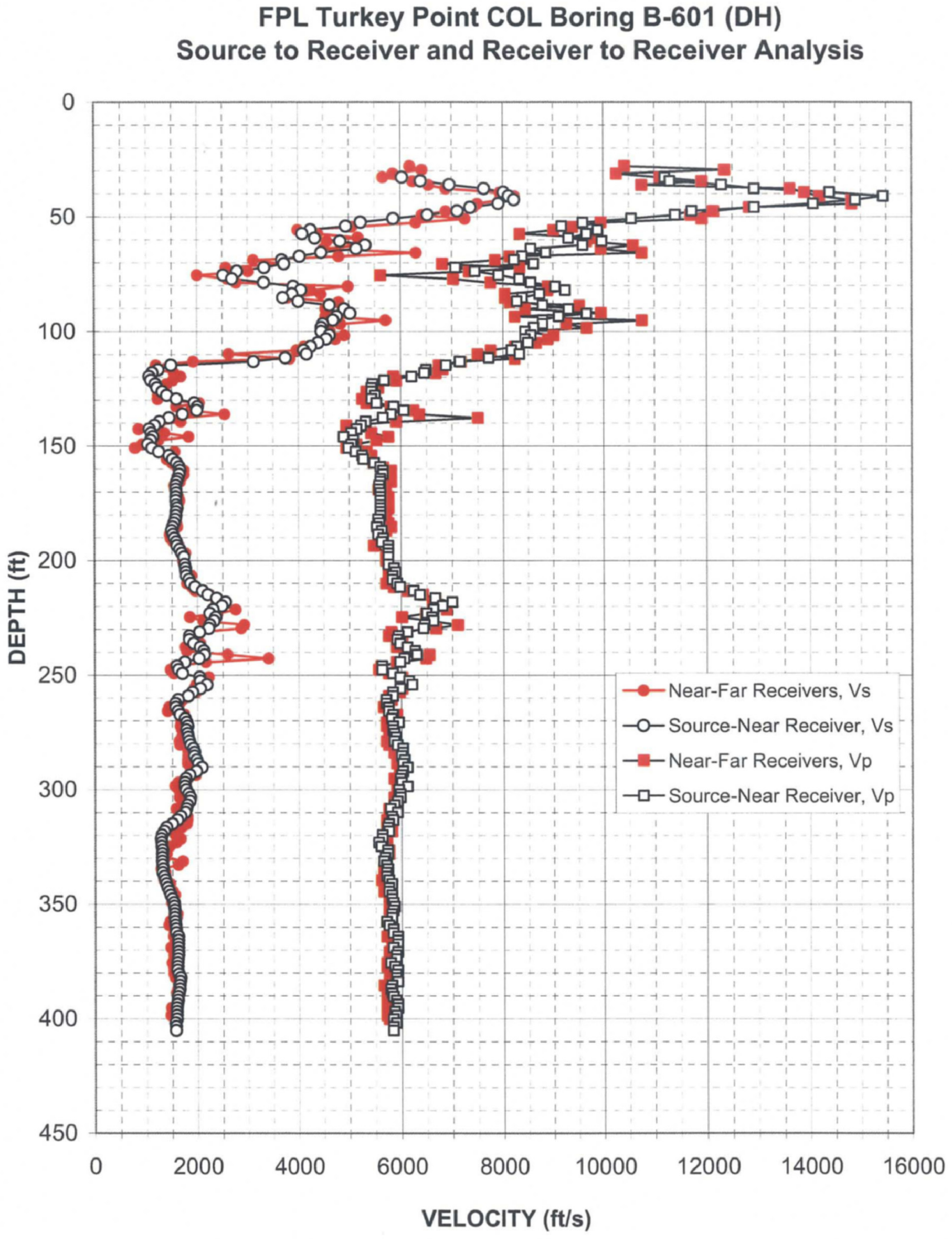


Figure A-1. Boring B-601 (DH), R1 - R2 high resolution analysis and S - R1 quality assurance analysis P- and S_H-wave data

Depth (feet)	V_s (feet/sec)	V_p (feet/sec)	Depth (feet)	V_s (feet/sec)	V_p (feet/sec)	Depth (feet)	V_s (feet/sec)	V_p (feet/sec)
32.7	6030	11200	114.7	1490	6880	196.8	1690	5750
34.4	6390	11300	116.7	1230	6490	198.4	1730	5750
36.0	6960	12290	118.0	1120	6460	201.7	1750	5750
37.6	7630	12920	119.7	1060	6210	203.3	1760	5860
39.3	8010	14390	121.3	1090	5680	205.0	1770	5890
40.9	8120	15440	122.9	1180	5460	206.6	1780	5830
42.6	8220	14890	124.6	1210	5430	208.2	1830	5830
44.2	7910	14070	126.2	1320	5430	209.9	1870	5920
45.8	7360	12920	127.9	1400	5500	211.5	1950	5970
47.5	7110	11720	129.5	1590	5430	213.2	2100	6240
49.1	6530	11410	131.1	1950	5530	214.8	2210	6360
50.8	5860	10550	132.8	2010	5860	216.4	2380	6660
52.4	5230	9590	134.4	2000	6060	218.1	2550	6990
54.0	4950	9170	136.1	1720	5810	219.7	2480	6810
55.7	4250	9890	137.7	1450	5650	221.4	2310	6630
57.3	4080	9660	139.3	1260	5320	223.0	2240	6490
59.3	4340	9310	141.0	1160	5230	224.7	2360	6590
60.6	4830	9970	142.6	1060	5150	226.3	2330	6630
62.2	5320	9590	144.3	1100	5040	227.9	2240	6460
63.9	5150	8550	145.9	1130	4890	229.6	2220	6430
65.5	4460	8850	147.6	1080	5080	231.2	2040	6120
67.2	4030	8380	149.2	1030	5040	232.9	1840	5940
68.8	3680	8220	150.8	1110	4980	234.5	1840	5920
70.5	3720	8610	152.5	1240	5130	236.1	1920	5970
72.1	3330	7070	154.1	1450	5250	237.8	2060	6120
73.7	2790	7450	155.8	1520	5280	239.4	2120	6270
75.4	2520	7910	157.4	1590	5480	241.1	2140	6300
77.0	2690	8330	159.0	1640	5600	242.7	2030	6060
78.7	3320	8550	160.7	1660	5650	244.3	1750	5970
80.3	3910	9040	162.3	1640	5650	246.0	1590	5630
81.9	4060	9240	164.3	1620	5600	247.6	1630	5630
83.6	3880	8730	165.6	1590	5600	249.3	1700	5830
85.2	3700	8380	167.2	1580	5580	250.9	2040	5970
86.9	4010	8270	168.9	1580	5580	252.5	2060	6150
88.5	4620	8790	170.5	1590	5600	254.2	2180	6210
90.1	4910	9310	172.2	1580	5600	255.8	2060	5970
92.1	5020	9660	173.8	1580	5600	257.5	1900	5830
93.4	4760	9110	175.8	1590	5600	259.1	1810	5830
95.1	4690	8790	177.1	1600	5600	260.7	1610	5700
96.7	4490	8790	178.7	1580	5600	262.4	1560	5700
98.3	4460	8610	180.4	1580	5600	264.0	1570	5750
100.0	4460	8440	182.0	1570	5550	265.7	1610	5750
101.6	4620	8550	183.6	1540	5580	267.3	1650	5830
103.3	4550	8440	185.3	1510	5530	268.9	1750	5810
104.9	4400	8500	186.9	1490	5630	270.6	1780	5940
106.5	4250	8270	188.6	1520	5550	272.2	1800	5830
108.2	4110	8170	190.2	1550	5650	273.9	1780	5830
109.8	4160	8330	191.8	1590	5630	275.5	1800	5860
111.5	3750	7720	193.5	1600	5750	277.1	1810	5890
113.1	3120	7150	195.1	1650	5750	278.8	1830	5860

Table A-1. Boring B-601 (DH), S - R1 quality assurance analysis P- and S_H-wave data