

Depth (feet)	Dip azimuth	Dip	Structure description
262.5	N159	41	Primary-structure Planar Bedding
263.4	N155	28	Primary-structure Planar Bedding
264.2	N158	35	Primary-structure Planar Bedding
264.6	N155	31	Primary-structure Planar Bedding
265.3	N145	33	Primary-structure Planar Bedding
268.6	N161	32	Primary-structure Planar Bedding
271.9	N148	34	Primary-structure Planar Bedding
273.5	N177	32	Primary-structure Planar Bedding
274.1	N144	37	Primary-structure Planar Bedding
275.0	N151	32	Primary-structure Planar Bedding
276.3	N157	28	Primary-structure Planar Bedding
279.0	N141	34	Primary-structure Planar Bedding
283.9	N151	30	Primary-structure Planar Bedding
289.8	N148	27	Primary-structure Planar Bedding
291.3	N157	32	Primary-structure Planar Bedding
299.7	N169	36	Primary-structure Planar Bedding
300.5	N151	26	Primary-structure Planar Bedding
301.2	N163	34	Primary-structure Planar Bedding
302.3	N132	33	Primary-structure Planar Bedding
314.5	N146	34	Primary-structure Planar Bedding
314.9	N148	33	Primary-structure Planar Bedding
315.2	N138	33	Primary-structure Planar Bedding
315.6	N319	53	Fracture Planar Hairline-fracture
315.9	N150	33	Primary-structure Planar Bedding
318.9	N336	53	Fracture Planar Hairline-fracture
319.5	N149	31	Primary-structure Planar Bedding
319.9	N359	54	Fracture Planar Hairline-fracture
320.4	N323	51	Fracture Planar Hairline-fracture
320.6	N341	69	Fracture Planar Hairline-fracture
322.0	N153	32	Primary-structure Planar Bedding
324.4	N159	35	Primary-structure Planar Bedding
329.1	N143	33	Primary-structure Planar Bedding
333.4	N154	38	Primary-structure Planar Bedding
333.7	N002	72	Fracture Discontinuous Hairline-fracture
340.8	N338	80	Fracture Discontinuous Hairline-fracture
343.9	N356	52	Fracture Discontinuous Hairline-fracture



Figure 11. Boring MP-102, Rose Diagram

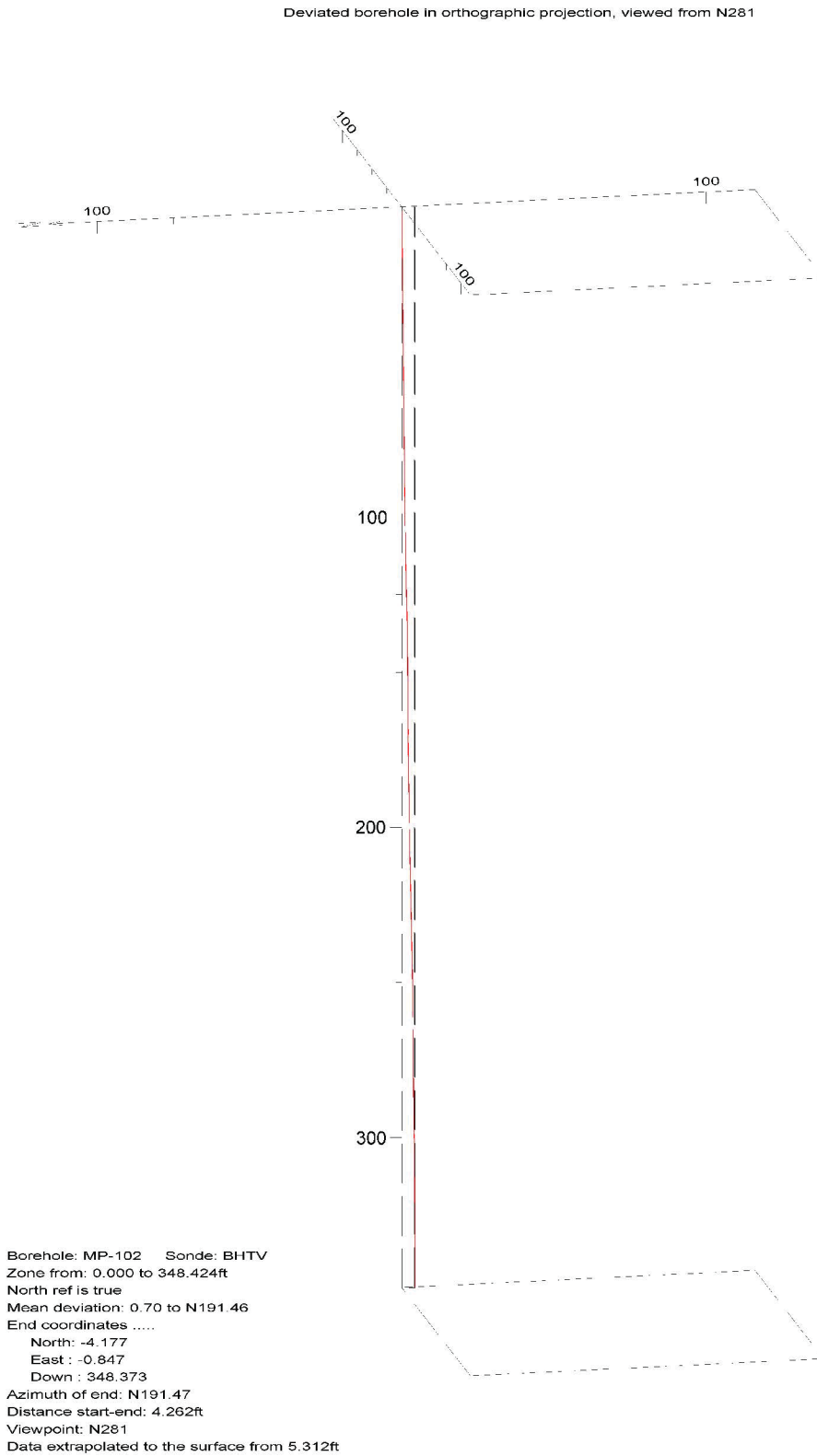


Figure 12. Boring MP-102, Up Deviation Projection

### CLINCH RIVER SMR PROJECT BOREHOLE MP-111 Receiver to Receiver $V_s$ and $V_p$ Analysis

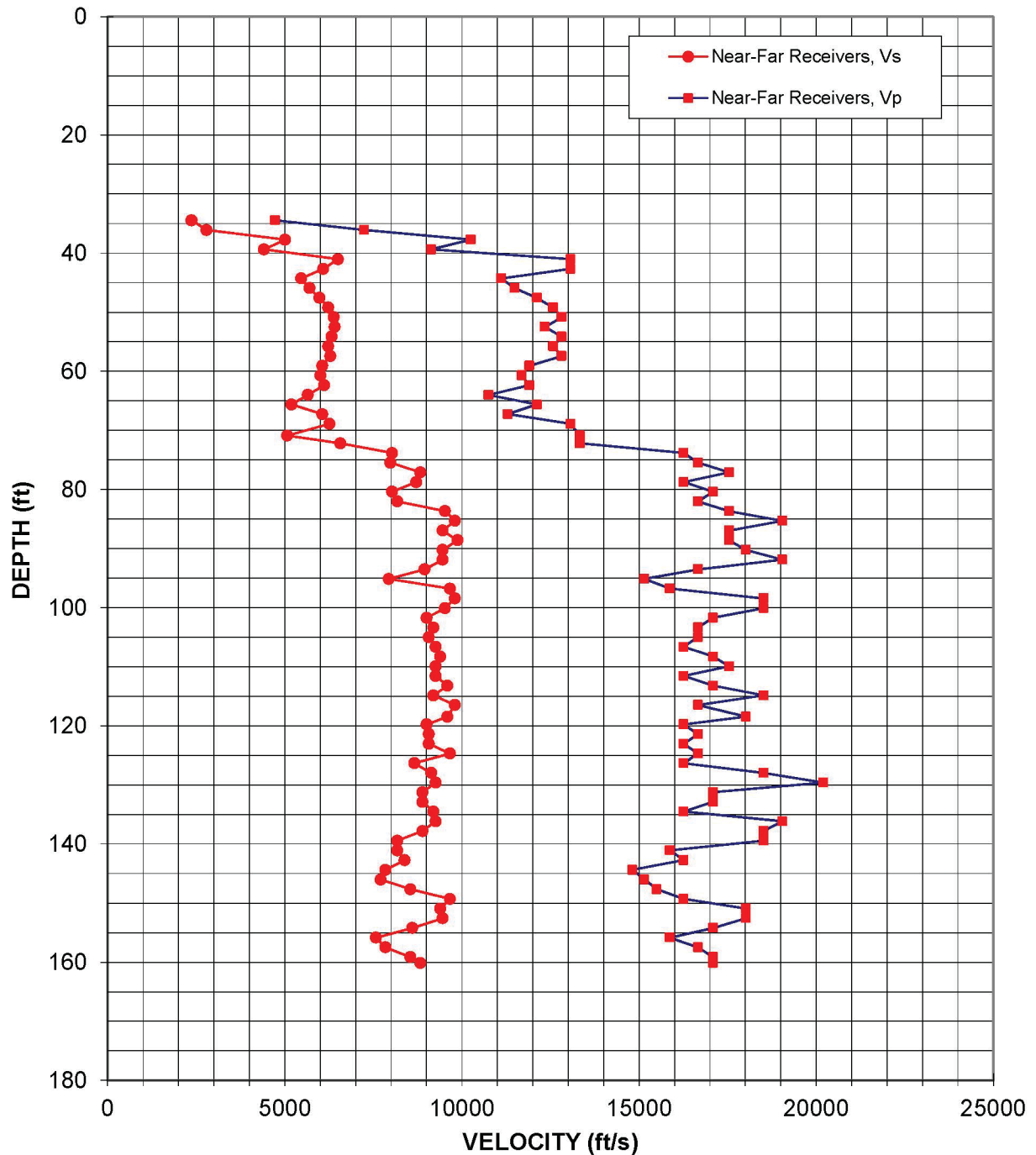


Figure 13: Boring MP-111, Suspension R1-R2 P- and  $S_H$ -wave velocities



Table 9. Boring MP-111, Suspension R1-R2 depths and P- and S<sub>H</sub>-wave velocities

**Summary of Compressional Wave Velocity, Shear Wave Velocity, and Poisson's Ratio  
Based on Receiver-to-Receiver Travel Time Data - Borehole MP-111**

American Units				Metric Units			
Depth at Midpoint Between Receivers	Velocity		Poisson's Ratio	Depth at Midpoint Between Receivers	Velocity		Poisson's Ratio
	V <sub>s</sub>	V <sub>p</sub>			V <sub>s</sub>	V <sub>p</sub>	
(ft)	(ft/s)	(ft/s)		(m)	(m/s)	(m/s)	
34.5	2370	4730	0.33	10.5	720	1440	0.33
36.1	2800	7250	0.41	11.0	850	2210	0.41
37.7	5010	10260	0.34	11.5	1530	3130	0.34
39.4	4420	9130	0.35	12.0	1350	2780	0.35
41.0	6500	13070	0.34	12.5	1980	3980	0.34
42.7	6090	13070	0.36	13.0	1860	3980	0.36
44.3	5460	11110	0.34	13.5	1670	3390	0.34
45.9	5700	11490	0.34	14.0	1740	3500	0.34
47.6	5980	12120	0.34	14.5	1820	3690	0.34
49.2	6230	12580	0.34	15.0	1900	3830	0.34
50.9	6380	12820	0.34	15.5	1940	3910	0.34
52.5	6410	12350	0.32	16.0	1950	3760	0.32
54.1	6320	12820	0.34	16.5	1930	3910	0.34
55.8	6230	12580	0.34	17.0	1900	3830	0.34
57.4	6290	12820	0.34	17.5	1920	3910	0.34
59.1	6060	11900	0.33	18.0	1850	3630	0.33
60.7	6010	11700	0.32	18.5	1830	3560	0.32
62.3	6120	11900	0.32	19.0	1860	3630	0.32
64.0	5650	10750	0.31	19.5	1720	3280	0.31
65.6	5190	12120	0.39	20.0	1580	3690	0.39
67.3	6060	11300	0.30	20.5	1850	3440	0.30
68.9	6260	13070	0.35	21.0	1910	3980	0.35
70.9	5070	13330	0.42	21.6	1550	4060	0.42
72.2	6570	13330	0.34	22.0	2000	4060	0.34
73.8	8030	16260	0.34	22.5	2450	4960	0.34
75.5	7980	16670	0.35	23.0	2430	5080	0.35
77.1	8830	17540	0.33	23.5	2690	5350	0.33
78.7	8710	16260	0.30	24.0	2660	4960	0.30
80.4	8030	17090	0.36	24.5	2450	5210	0.36
82.0	8180	16670	0.34	25.0	2490	5080	0.34
83.7	9520	17540	0.29	25.5	2900	5350	0.29
85.3	9800	19050	0.32	26.0	2990	5810	0.32
86.9	9460	17540	0.30	26.5	2880	5350	0.30
88.6	9880	17540	0.27	27.0	3010	5350	0.27
90.2	9460	18020	0.31	27.5	2880	5490	0.31
91.9	9460	19050	0.34	28.0	2880	5810	0.34
93.5	8950	16670	0.30	28.5	2730	5080	0.30
95.1	7940	15150	0.31	29.0	2420	4620	0.31

**Summary of Compressional Wave Velocity, Shear Wave Velocity, and Poisson's Ratio  
Based on Receiver-to-Receiver Travel Time Data - Borehole MP-111**

American Units				Metric Units			
Depth at Midpoint Between Receivers	Velocity		Poisson's Ratio	Depth at Midpoint Between Receivers	Velocity		Poisson's Ratio
	V <sub>s</sub>	V <sub>p</sub>			V <sub>s</sub>	V <sub>p</sub>	
(ft)	(ft/s)	(ft/s)		(m)	(m/s)	(m/s)	
96.8	9660	15870	0.21	29.5	2940	4840	0.21
98.4	9800	18520	0.31	30.0	2990	5640	0.31
100.1	9520	18520	0.32	30.5	2900	5640	0.32
101.7	9010	17090	0.31	31.0	2750	5210	0.31
103.4	9200	16670	0.28	31.5	2800	5080	0.28
105.0	9070	16670	0.29	32.0	2760	5080	0.29
106.6	9260	16260	0.26	32.5	2820	4960	0.26
108.3	9390	17090	0.28	33.0	2860	5210	0.28
109.9	9260	17540	0.31	33.5	2820	5350	0.31
111.6	9260	16260	0.26	34.0	2820	4960	0.26
113.2	9590	17090	0.27	34.5	2920	5210	0.27
114.8	9200	18520	0.34	35.0	2800	5640	0.34
116.5	9800	16670	0.24	35.5	2990	5080	0.24
118.4	9590	18020	0.30	36.1	2920	5490	0.30
119.8	9010	16260	0.28	36.5	2750	4960	0.28
121.4	9070	16670	0.29	37.0	2760	5080	0.29
123.0	9070	16260	0.27	37.5	2760	4960	0.27
124.7	9660	16670	0.25	38.0	2940	5080	0.25
126.3	8660	16260	0.30	38.5	2640	4960	0.30
128.0	9130	18520	0.34	39.0	2780	5640	0.34
129.6	9260	20200	0.37	39.5	2820	6160	0.37
131.2	8890	17090	0.31	40.0	2710	5210	0.31
132.9	8890	17090	0.31	40.5	2710	5210	0.31
134.5	9200	16260	0.26	41.0	2800	4960	0.26
136.2	9260	19050	0.35	41.5	2820	5810	0.35
137.8	8890	18520	0.35	42.0	2710	5640	0.35
139.4	8180	18520	0.38	42.5	2490	5640	0.38
141.1	8180	15870	0.32	43.0	2490	4840	0.32
142.7	8390	16260	0.32	43.5	2560	4960	0.32
144.4	7840	14810	0.31	44.0	2390	4520	0.31
146.0	7710	15150	0.33	44.5	2350	4620	0.33
147.6	8550	15500	0.28	45.0	2610	4730	0.28
149.3	9660	16260	0.23	45.5	2940	4960	0.23
150.9	9390	18020	0.31	46.0	2860	5490	0.31
152.6	9460	18020	0.31	46.5	2880	5490	0.31
154.2	8600	17090	0.33	47.0	2620	5210	0.33
155.8	7580	15870	0.35	47.5	2310	4840	0.35
157.5	7840	16670	0.36	48.0	2390	5080	0.36
159.1	8550	17090	0.33	48.5	2610	5210	0.33
160.1	8830	17090	0.32	48.8	2690	5210	0.32

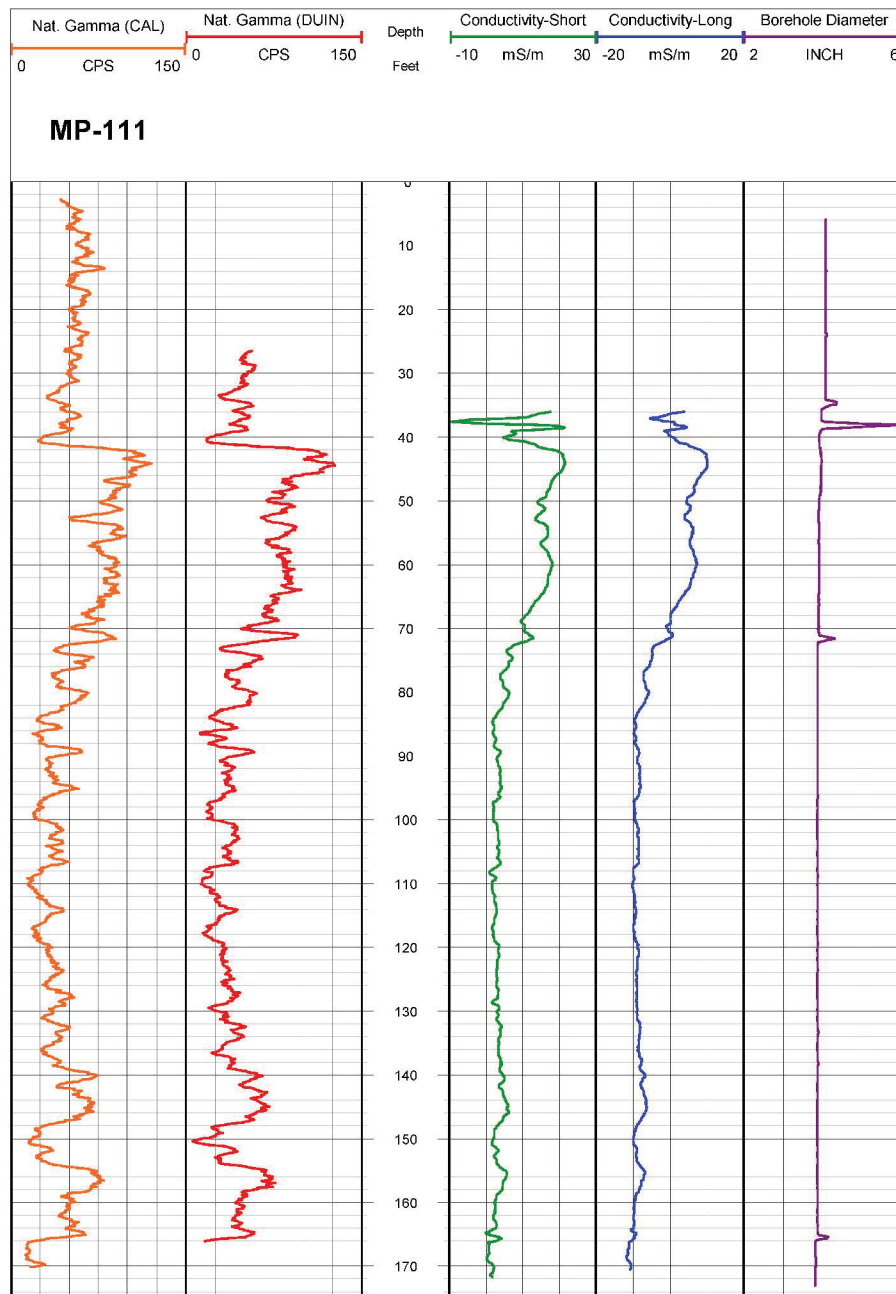


Figure 14. Boring MP-111, Induction, Natural Gamma and Caliper logs

Table 10. Boring MP-111, Acoustic Televiewer Feature depth, dip azimuth, dip and description

Depth (feet)	Dip azimuth	Dip	Structure description
35.0	N325	59	Fracture Planar Hairline-fracture
35.1	N166	35	Primary-structure Planar Bedding
36.2	N157	43	Primary-structure Planar Bedding
36.9	N159	40	Primary-structure Planar Bedding
37.7	N331	43	Fracture Planar Open-fracture
37.7	N165	39	Primary-structure Planar Bedding
39.0	N155	35	Primary-structure Planar Bedding
40.0	N152	34	Primary-structure Planar Bedding
40.8	N329	38	Fracture Discontinuous Hairline-fracture
40.8	N159	31	Primary-structure Planar Bedding
41.5	N158	37	Primary-structure Planar Bedding
41.8	N157	83	Fracture Discontinuous Hairline-fracture
42.2	N162	35	Primary-structure Planar Bedding
42.8	N159	33	Primary-structure Planar Bedding
44.2	N162	34	Primary-structure Planar Bedding
45.3	N160	32	Primary-structure Planar Bedding
46.0	N162	33	Primary-structure Planar Bedding
46.7	N163	34	Primary-structure Planar Bedding
47.8	N157	35	Primary-structure Planar Bedding
48.6	N148	35	Primary-structure Planar Bedding
49.6	N354	49	Fracture Discontinuous Hairline-fracture
50.0	N159	34	Primary-structure Planar Bedding
51.0	N159	33	Primary-structure Planar Bedding
51.5	N337	63	Fracture Discontinuous Hairline-fracture
51.6	N166	31	Primary-structure Planar Bedding
52.0	N332	68	Fracture Discontinuous Hairline-fracture
52.2	N339	60	Fracture Discontinuous Hairline-fracture
52.7	N156	32	Primary-structure Planar Bedding
53.1	N334	50	Fracture Discontinuous Hairline-fracture
53.9	N159	34	Primary-structure Planar Bedding
54.8	N162	35	Primary-structure Planar Bedding
55.3	N162	33	Primary-structure Planar Bedding
56.0	N156	34	Primary-structure Planar Bedding
56.5	N343	52	Fracture Discontinuous Hairline-fracture
56.7	N167	35	Primary-structure Planar Bedding
57.6	N158	35	Primary-structure Planar Bedding
58.4	N156	34	Primary-structure Planar Bedding



Depth (feet)	Dip azimuth	Dip	Structure description
59.0	N169	34	Primary-structure Planar Bedding
60.1	N158	32	Primary-structure Planar Bedding
60.8	N163	35	Primary-structure Planar Bedding
61.7	N170	37	Primary-structure Planar Bedding
62.1	N158	29	Primary-structure Planar Bedding
63.2	N165	37	Primary-structure Planar Bedding
64.2	N160	37	Primary-structure Planar Bedding
64.7	N156	36	Primary-structure Planar Bedding
65.9	N165	33	Primary-structure Planar Bedding
66.4	N157	37	Primary-structure Planar Bedding
66.6	N349	48	Fracture Discontinuous Hairline-fracture
67.1	N327	51	Fracture Discontinuous Hairline-fracture
67.4	N160	33	Primary-structure Planar Bedding
68.3	N163	37	Primary-structure Planar Bedding
68.8	N166	33	Primary-structure Planar Bedding
69.5	N160	40	Primary-structure Planar Bedding
69.6	N335	46	Fracture Planar Hairline-fracture
70.4	N154	29	Primary-structure Planar Bedding
71.8	N153	28	Fracture Planar Open-fracture
72.6	N165	31	Primary-structure Planar Bedding
73.0	N160	31	Primary-structure Planar Bedding
73.0	N319	71	Fracture Discontinuous Hairline-fracture
74.3	N163	33	Primary-structure Planar Bedding
75.2	N159	31	Primary-structure Planar Bedding
76.0	N164	35	Primary-structure Planar Bedding
76.7	N157	32	Primary-structure Planar Bedding
77.5	N160	35	Primary-structure Planar Bedding
78.4	N154	35	Primary-structure Planar Bedding
79.6	N161	34	Primary-structure Planar Bedding
80.4	N161	32	Primary-structure Planar Bedding
80.9	N159	34	Primary-structure Planar Bedding
81.9	N160	34	Primary-structure Planar Bedding
82.5	N160	33	Primary-structure Planar Bedding
83.6	N153	45	Primary-structure Planar Bedding
84.2	N168	46	Primary-structure Planar Bedding
85.4	N344	50	Fracture Discontinuous Hairline-fracture
85.6	N162	35	Primary-structure Planar Bedding
86.4	N339	41	Fracture Discontinuous Hairline-fracture
86.6	N147	36	Primary-structure Planar Bedding

Depth (feet)	Dip azimuth	Dip	Structure description
87.1	N158	31	Primary-structure Planar Bedding
88.3	N156	32	Primary-structure Planar Bedding
89.7	N145	33	Primary-structure Planar Bedding
90.3	N167	31	Primary-structure Planar Bedding
91.3	N154	35	Primary-structure Planar Bedding
91.4	N153	29	Primary-structure Planar Bedding
92.0	N158	34	Primary-structure Planar Bedding
92.9	N161	33	Primary-structure Planar Bedding
93.3	N160	36	Primary-structure Planar Bedding
94.5	N161	30	Primary-structure Planar Bedding
94.6	N347	37	Fracture Discontinuous Hairline-fracture
95.3	N146	63	Fracture Discontinuous Hairline-fracture
95.7	N157	34	Primary-structure Planar Bedding
96.4	N154	33	Primary-structure Planar Bedding
97.2	N158	31	Primary-structure Planar Bedding
98.1	N149	34	Primary-structure Planar Bedding
98.2	N330	34	Fracture Discontinuous Hairline-fracture
99.3	N155	33	Primary-structure Planar Bedding
100.2	N152	36	Primary-structure Planar Bedding
100.9	N157	30	Primary-structure Planar Bedding
101.4	N158	35	Primary-structure Planar Bedding
102.0	N163	31	Primary-structure Planar Bedding
103.2	N144	31	Primary-structure Planar Bedding
104.2	N149	37	Primary-structure Planar Bedding
105.5	N152	27	Primary-structure Planar Bedding
106.3	N152	30	Primary-structure Planar Bedding
106.8	N153	32	Primary-structure Planar Bedding
108.0	N158	32	Primary-structure Planar Bedding
108.4	N158	32	Primary-structure Planar Bedding
108.8	N159	36	Fracture Planar Hairline-fracture
109.0	N157	33	Primary-structure Planar Bedding
109.2	N145	31	Primary-structure Planar Bedding
109.7	N158	32	Primary-structure Planar Bedding
110.5	N156	29	Primary-structure Planar Bedding
111.1	N335	48	Fracture Discontinuous Hairline-fracture
111.4	N161	26	Primary-structure Planar Bedding
112.4	N331	57	Fracture Discontinuous Hairline-fracture
112.6	N156	33	Primary-structure Planar Bedding
114.5	N149	33	Primary-structure Planar Bedding

Depth (feet)	Dip azimuth	Dip	Structure description
116.2	N156	31	Primary-structure Planar Bedding
116.6	N339	55	Fracture Discontinuous Hairline-fracture
116.7	N156	30	Primary-structure Planar Bedding
117.4	N156	28	Primary-structure Planar Bedding
118.3	N160	34	Primary-structure Planar Bedding
119.6	N169	46	Primary-structure Planar Bedding
120.4	N164	36	Primary-structure Planar Bedding
120.8	N171	33	Primary-structure Planar Bedding
121.4	N151	34	Primary-structure Planar Bedding
122.1	N158	33	Primary-structure Planar Bedding
122.9	N160	32	Primary-structure Planar Bedding
123.9	N336	55	Fracture Discontinuous Hairline-fracture
124.1	N153	33	Primary-structure Planar Bedding
125.0	N157	33	Primary-structure Planar Bedding
126.0	N155	32	Primary-structure Planar Bedding
127.0	N158	29	Primary-structure Planar Bedding
127.2	N334	65	Fracture Discontinuous Hairline-fracture
127.8	N161	33	Primary-structure Planar Bedding
128.7	N152	35	Primary-structure Planar Bedding
129.3	N139	29	Primary-structure Planar Bedding
130.6	N161	35	Primary-structure Planar Bedding
131.4	N150	39	Primary-structure Planar Bedding
132.4	N159	28	Primary-structure Planar Bedding
133.3	N157	31	Primary-structure Planar Bedding
133.8	N165	50	Primary-structure Planar Bedding
135.1	N163	32	Primary-structure Planar Bedding
136.0	N160	26	Primary-structure Planar Bedding
136.6	N153	28	Primary-structure Planar Bedding
137.2	N155	25	Primary-structure Planar Bedding
138.2	N156	37	Primary-structure Planar Bedding
138.6	N335	58	Fracture Discontinuous Hairline-fracture
139.0	N148	35	Primary-structure Planar Bedding
140.3	N154	46	Primary-structure Planar Bedding
141.1	N153	46	Primary-structure Planar Bedding
142.1	N160	41	Primary-structure Planar Bedding
143.1	N156	45	Primary-structure Planar Bedding
144.5	N163	37	Primary-structure Planar Bedding
145.4	N158	35	Primary-structure Planar Bedding
146.2	N160	32	Primary-structure Planar Bedding

Depth (feet)	Dip azimuth	Dip	Structure description
147.0	N160	30	Primary-structure Planar Bedding
147.9	N156	31	Primary-structure Planar Bedding
148.8	N157	47	Primary-structure Planar Bedding
150.0	N162	39	Primary-structure Planar Bedding
150.8	N142	34	Primary-structure Planar Bedding
152.1	N338	47	Fracture Discontinuous Hairline-fracture
152.2	N155	36	Primary-structure Planar Bedding
153.3	N141	43	Primary-structure Planar Bedding
153.6	N163	30	Primary-structure Planar Bedding
153.8	N161	39	Primary-structure Planar Bedding
154.5	N332	56	Fracture Discontinuous Hairline-fracture
154.8	N159	33	Primary-structure Planar Bedding
155.6	N154	37	Primary-structure Planar Bedding
156.9	N141	36	Primary-structure Planar Bedding
158.8	N151	38	Primary-structure Planar Bedding
160.5	N147	37	Primary-structure Planar Bedding
162.5	N344	40	Fracture Planar Hairline-fracture
163.0	N155	36	Primary-structure Planar Bedding
164.3	N164	37	Primary-structure Planar Bedding
164.8	N161	32	Primary-structure Planar Bedding
165.5	N159	32	Fracture Planar Open-fracture
166.3	N155	42	Primary-structure Planar Bedding
167.6	N158	32	Primary-structure Planar Bedding
169.6	N129	41	Primary-structure Planar Bedding
170.0	N147	35	Primary-structure Planar Bedding
171.3	N155	30	Primary-structure Planar Bedding



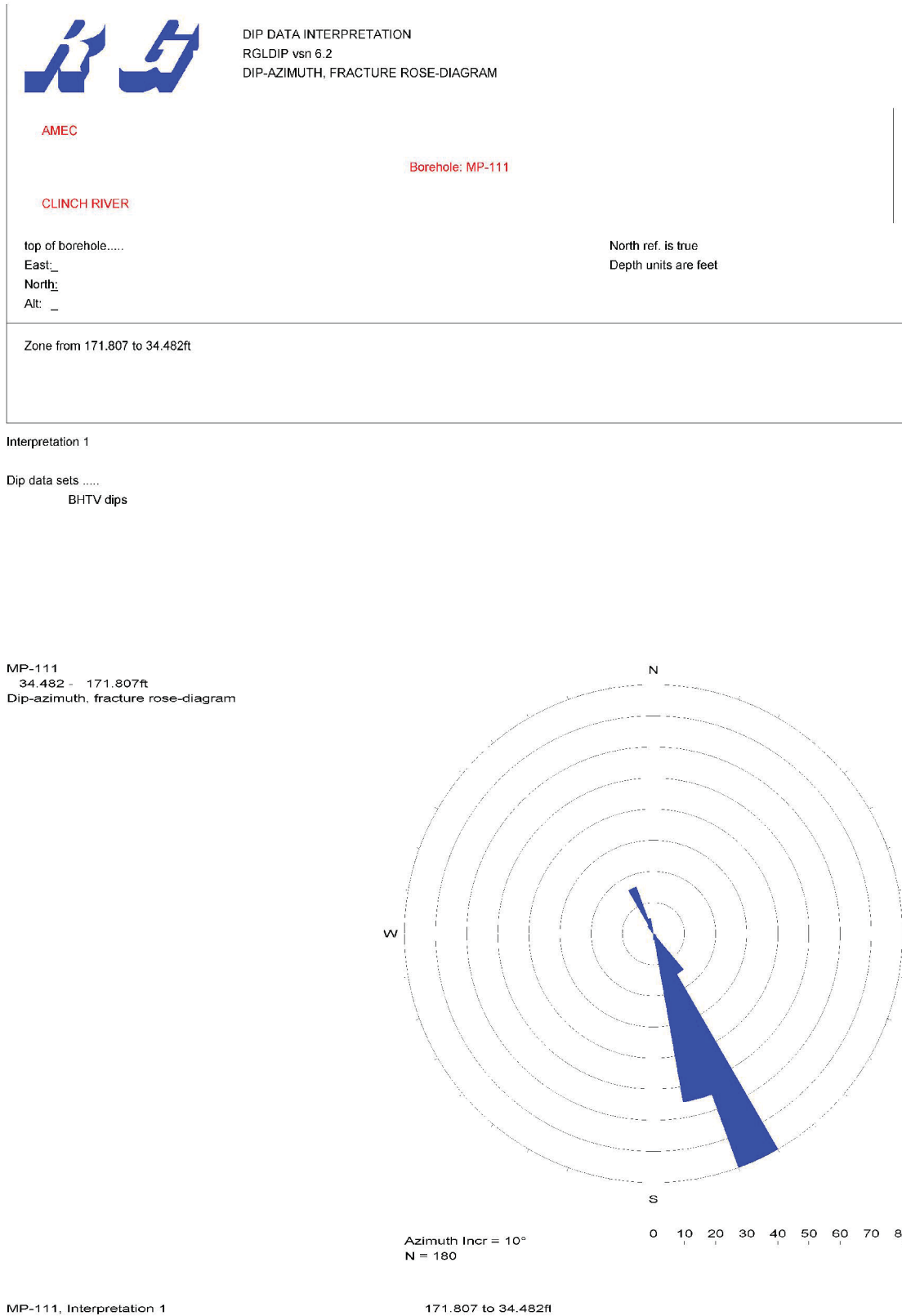


Figure 15. Boring MP-111, Rose Diagram

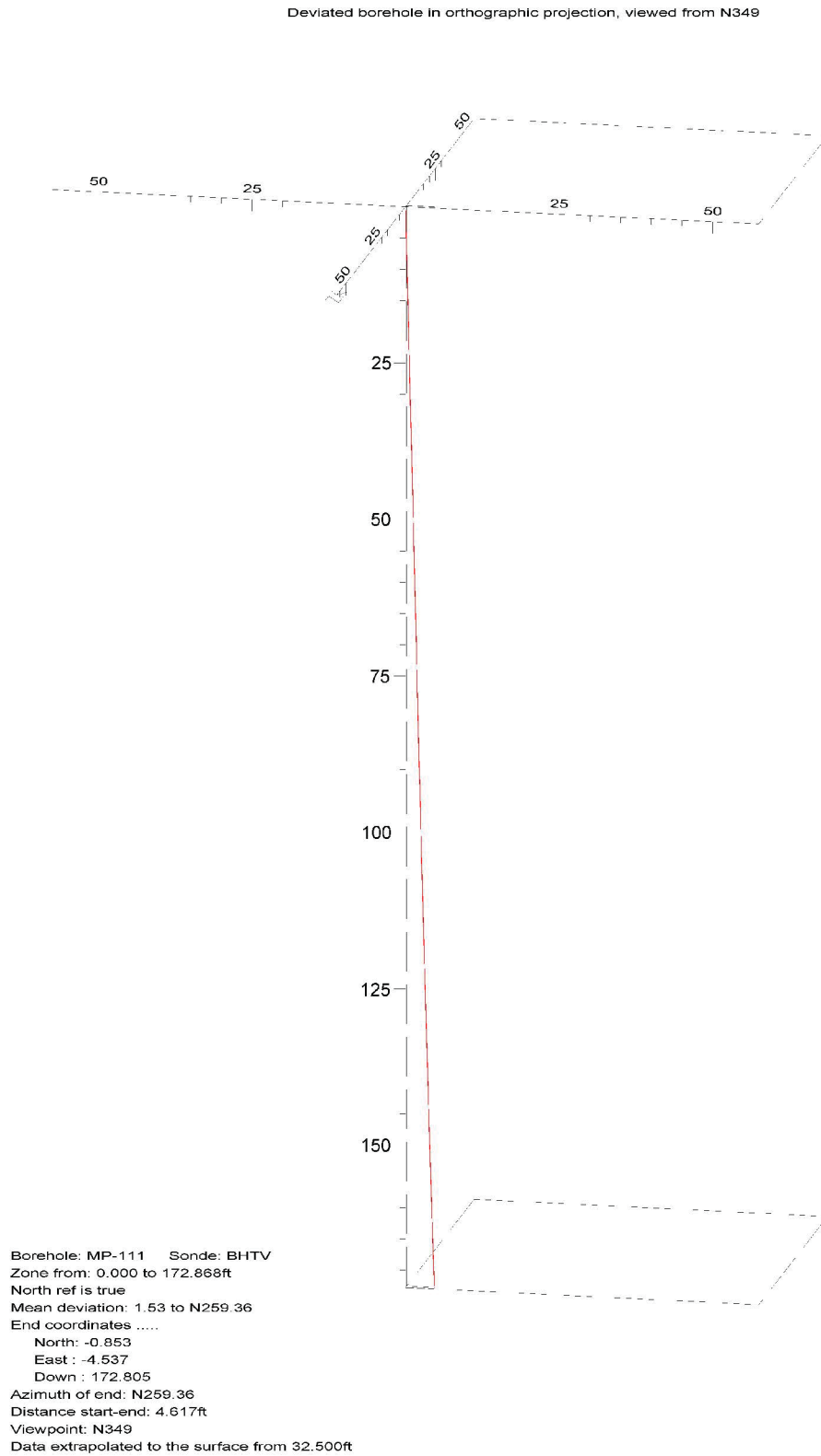


Figure 16. Boring MP-111, Up Deviation Projection

# CLINCH RIVER SMR PROJECT BOREHOLE MP-111 PS Receiver to Receiver $V_s$ and $V_p$ Analysis

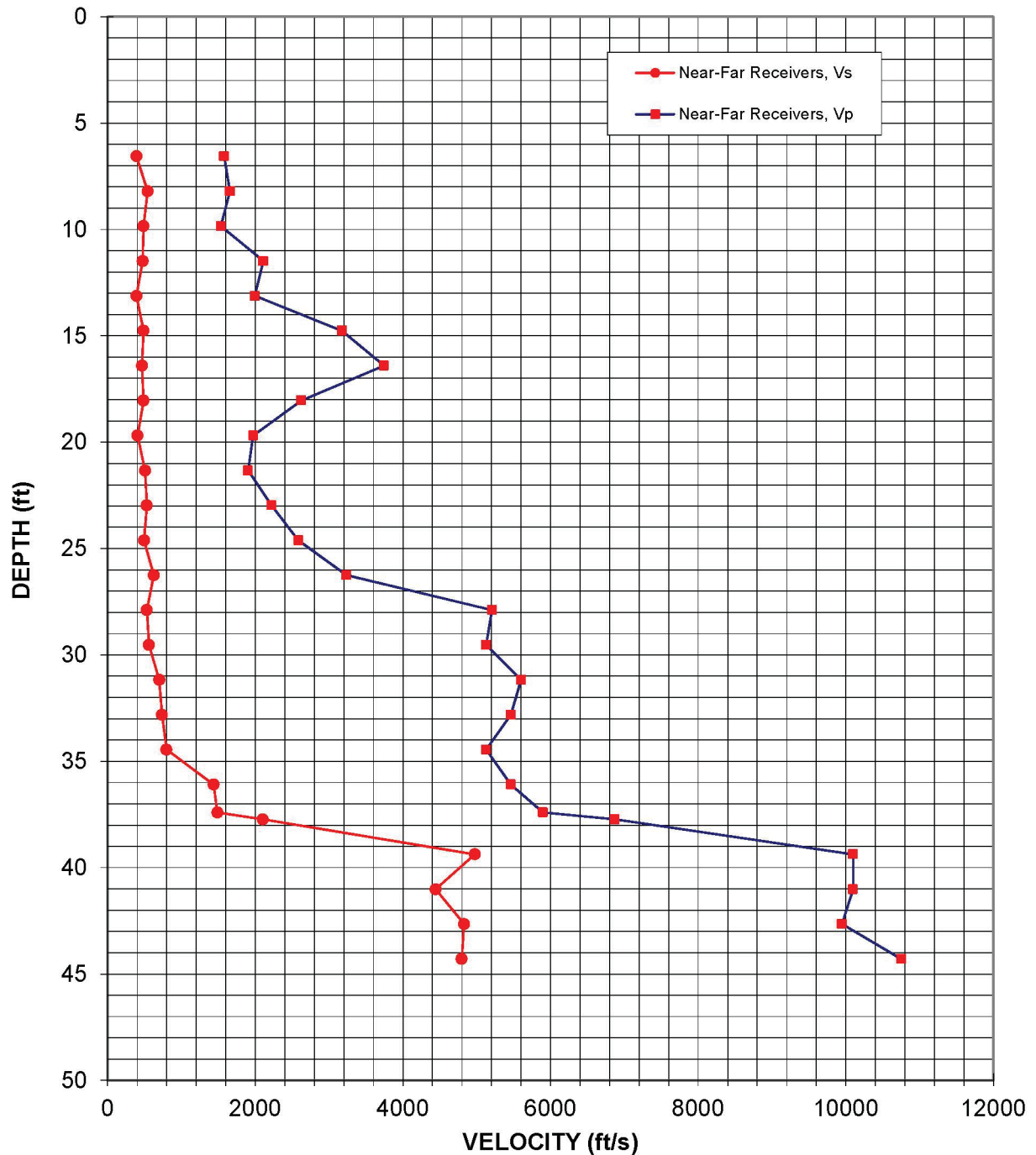


Figure 17: Boring MP-111PS, Suspension R1-R2 P- and  $S_H$ -wave velocities

Table 11. Boring MP-111PS, Suspension R1-R2 depths and P- and S<sub>H</sub>-wave velocities

**Summary of Compressional Wave Velocity, Shear Wave Velocity, and Poisson's Ratio  
Based on Receiver-to-Receiver Travel Time Data - Borehole MP-111 PS**

American Units				Metric Units			
Depth at Midpoint Between Receivers	Velocity		Poisson's Ratio	Depth at Midpoint Between Receivers	Velocity		Poisson's Ratio
	V <sub>s</sub>	V <sub>p</sub>			V <sub>s</sub>	V <sub>p</sub>	
(ft)	(ft/s)	(ft/s)		(m)	(m/s)	(m/s)	
6.6	390	1580	0.47	2.0	120	480	0.47
8.2	540	1660	0.44	2.5	170	510	0.44
9.8	490	1540	0.44	3.0	150	470	0.44
11.5	470	2110	0.47	3.5	140	640	0.47
13.1	390	2000	0.48	4.0	120	610	0.48
14.8	490	3170	0.49	4.5	150	970	0.49
16.4	470	3750	0.49	5.0	140	1140	0.49
18.0	490	2620	0.48	5.5	150	800	0.48
19.7	410	1970	0.48	6.0	120	600	0.48
21.3	510	1900	0.46	6.5	150	580	0.46
23.0	530	2220	0.47	7.0	160	680	0.47
24.6	490	2580	0.48	7.5	150	790	0.48
26.3	630	3240	0.48	8.0	190	990	0.48
27.9	530	5210	0.49	8.5	160	1590	0.49
29.5	560	5130	0.49	9.0	170	1560	0.49
31.2	700	5600	0.49	9.5	210	1710	0.49
32.8	740	5460	0.49	10.0	220	1670	0.49
34.5	800	5130	0.49	10.5	240	1560	0.49
36.1	1440	5460	0.46	11.0	440	1670	0.46
37.4	1490	5900	0.47	11.4	450	1800	0.47
37.7	2100	6870	0.45	11.5	640	2090	0.45
39.4	4980	10100	0.34	12.0	1520	3080	0.34
41.0	4440	10100	0.38	12.5	1350	3080	0.38
42.7	4830	9950	0.35	13.0	1470	3030	0.35
44.3	4800	10750	0.38	13.5	1460	3280	0.38

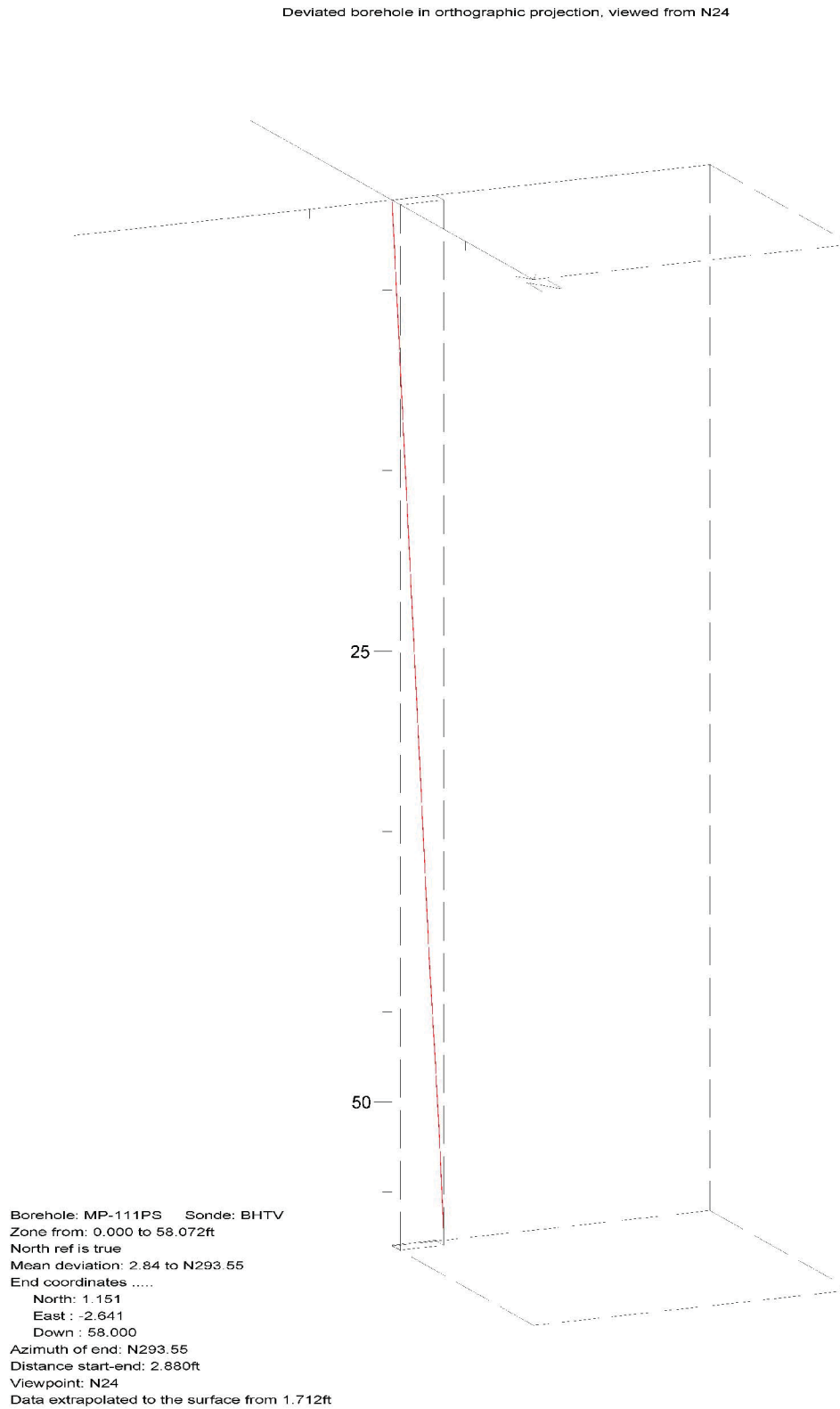


Figure 18. Boring MP-111PS, Up Deviation Projection

### CLINCH RIVER SMR PROJECT BOREHOLE MP-112 Receiver to Receiver $V_s$ and $V_p$ Analysis

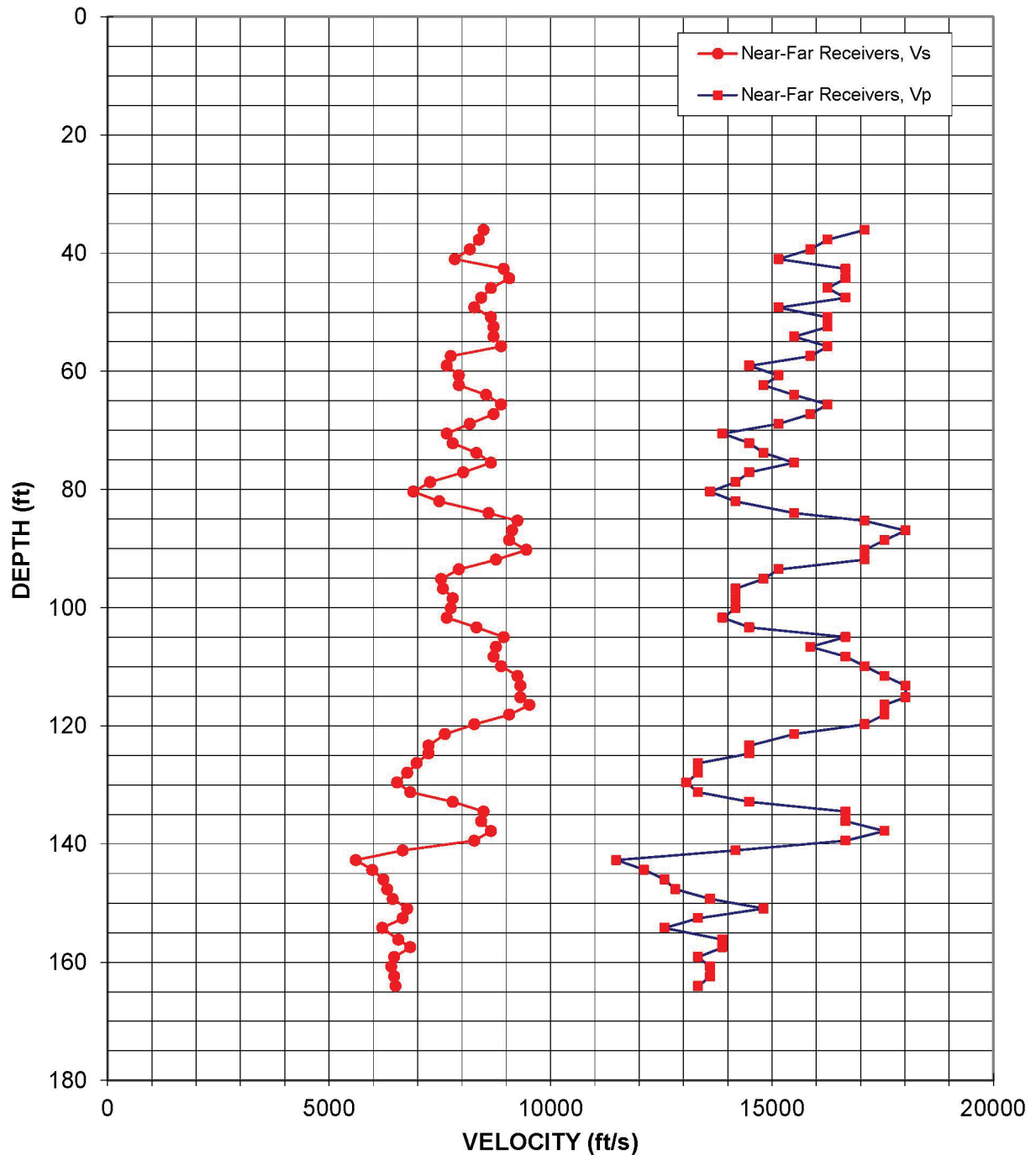


Figure 19: Boring MP-112, Suspension R1-R2 P- and  $S_H$ -wave velocities

Table 12. Boring MP-112, Suspension R1-R2 depths and P- and S<sub>H</sub>-wave velocities

**Summary of Compressional Wave Velocity, Shear Wave Velocity, and Poisson's Ratio  
Based on Receiver-to-Receiver Travel Time Data - Borehole MP-112**

American Units				Metric Units			
Depth at Midpoint Between Receivers	Velocity		Poisson's Ratio	Depth at Midpoint Between Receivers	Velocity		Poisson's Ratio
	V <sub>s</sub>	V <sub>p</sub>			V <sub>s</sub>	V <sub>p</sub>	
(ft)	(ft/s)	(ft/s)		(m)	(m/s)	(m/s)	
36.1	8490	17090	0.34	11.0	2590	5210	0.34
37.7	8390	16260	0.32	11.5	2560	4960	0.32
39.4	8180	15870	0.32	12.0	2490	4840	0.32
41.0	7840	15150	0.32	12.5	2390	4620	0.32
42.7	8950	16670	0.30	13.0	2730	5080	0.30
44.3	9070	16670	0.29	13.5	2760	5080	0.29
45.9	8660	16260	0.30	14.0	2640	4960	0.30
47.6	8440	16670	0.33	14.5	2570	5080	0.33
49.2	8280	15150	0.29	15.0	2520	4620	0.29
50.9	8660	16260	0.30	15.5	2640	4960	0.30
52.5	8710	16260	0.30	16.0	2660	4960	0.30
54.1	8710	15500	0.27	16.5	2660	4730	0.27
55.8	8890	16260	0.29	17.0	2710	4960	0.29
57.4	7750	15870	0.34	17.5	2360	4840	0.34
59.1	7660	14490	0.31	18.0	2340	4420	0.31
60.7	7940	15150	0.31	18.5	2420	4620	0.31
62.3	7940	14810	0.30	19.0	2420	4520	0.30
64.0	8550	15500	0.28	19.5	2610	4730	0.28
65.6	8890	16260	0.29	20.0	2710	4960	0.29
67.3	8710	15870	0.28	20.5	2660	4840	0.28
68.9	8180	15150	0.29	21.0	2490	4620	0.29
70.5	7660	13890	0.28	21.5	2340	4230	0.28
72.2	7800	14490	0.30	22.0	2380	4420	0.30
73.8	8330	14810	0.27	22.5	2540	4520	0.27
75.5	8660	15500	0.27	23.0	2640	4730	0.27
77.1	8030	14490	0.28	23.5	2450	4420	0.28
78.7	7290	14180	0.32	24.0	2220	4320	0.32
80.4	6910	13610	0.33	24.5	2110	4150	0.33
82.0	7490	14180	0.31	25.0	2280	4320	0.31
84.0	8600	15500	0.28	25.6	2620	4730	0.28
85.3	9260	17090	0.29	26.0	2820	5210	0.29
86.9	9130	18020	0.33	26.5	2780	5490	0.33
88.6	9070	17540	0.32	27.0	2760	5350	0.32
90.2	9460	17090	0.28	27.5	2880	5210	0.28
91.9	8770	17090	0.32	28.0	2670	5210	0.32
93.5	7940	15150	0.31	28.5	2420	4620	0.31
95.1	7530	14810	0.33	29.0	2300	4520	0.33



**Summary of Compressional Wave Velocity, Shear Wave Velocity, and Poisson's Ratio  
Based on Receiver-to-Receiver Travel Time Data - Borehole MP-112**

American Units				Metric Units			
Depth at Midpoint Between Receivers	Velocity		Poisson's Ratio	Depth at Midpoint Between Receivers	Velocity		Poisson's Ratio
	V <sub>s</sub>	V <sub>p</sub>			V <sub>s</sub>	V <sub>p</sub>	
(ft)	(ft/s)	(ft/s)		(m)	(m/s)	(m/s)	
96.8	7580	14180	0.30	29.5	2310	4320	0.30
98.4	7800	14180	0.28	30.0	2380	4320	0.28
100.1	7750	14180	0.29	30.5	2360	4320	0.29
101.7	7660	13890	0.28	31.0	2340	4230	0.28
103.4	8330	14490	0.25	31.5	2540	4420	0.25
105.0	8950	16670	0.30	32.0	2730	5080	0.30
106.6	8770	15870	0.28	32.5	2670	4840	0.28
108.3	8710	16670	0.31	33.0	2660	5080	0.31
109.9	8890	17090	0.31	33.5	2710	5210	0.31
111.6	9260	17540	0.31	34.0	2820	5350	0.31
113.2	9320	18020	0.32	34.5	2840	5490	0.32
115.2	9320	18020	0.32	35.1	2840	5490	0.32
116.5	9520	17540	0.29	35.5	2900	5350	0.29
118.1	9070	17540	0.32	36.0	2760	5350	0.32
119.8	8280	17090	0.35	36.5	2520	5210	0.35
121.4	7620	15500	0.34	37.0	2320	4730	0.34
123.4	7250	14490	0.33	37.6	2210	4420	0.33
124.7	7250	14490	0.33	38.0	2210	4420	0.33
126.3	6980	13330	0.31	38.5	2130	4060	0.31
128.0	6770	13330	0.33	39.0	2060	4060	0.33
129.6	6540	13070	0.33	39.5	1990	3980	0.33
131.2	6840	13330	0.32	40.0	2080	4060	0.32
132.9	7800	14490	0.30	40.5	2380	4420	0.30
134.5	8490	16670	0.32	41.0	2590	5080	0.32
136.2	8440	16670	0.33	41.5	2570	5080	0.33
137.8	8660	17540	0.34	42.0	2640	5350	0.34
139.4	8280	16670	0.34	42.5	2520	5080	0.34
141.1	6670	14180	0.36	43.0	2030	4320	0.36
142.7	5600	11490	0.34	43.5	1710	3500	0.34
144.4	5980	12120	0.34	44.0	1820	3690	0.34
146.0	6230	12580	0.34	44.5	1900	3830	0.34
147.6	6320	12820	0.34	45.0	1930	3910	0.34
149.3	6440	13610	0.36	45.5	1960	4150	0.36
150.9	6770	14810	0.37	46.0	2060	4520	0.37
152.6	6670	13330	0.33	46.5	2030	4060	0.33
154.2	6200	12580	0.34	47.0	1890	3830	0.34
156.2	6570	13890	0.36	47.6	2000	4230	0.36
157.5	6840	13890	0.34	48.0	2080	4230	0.34
159.1	6470	13330	0.35	48.5	1970	4060	0.35



**Summary of Compressional Wave Velocity, Shear Wave Velocity, and Poisson's Ratio  
Based on Receiver-to-Receiver Travel Time Data - Borehole MP-112**

American Units			
Depth at Midpoint Between Receivers	Velocity		Poisson's Ratio
	V <sub>s</sub>	V <sub>p</sub>	
(ft)	(ft/s)	(ft/s)	
160.8	6410	13610	0.36
162.4	6470	13610	0.35
164.0	6500	13330	0.34

Metric Units			
Depth at Midpoint Between Receivers	Velocity		Poisson's Ratio
	V <sub>s</sub>	V <sub>p</sub>	
(m)	(m/s)	(m/s)	
49.0	1950	4150	0.36
49.5	1970	4150	0.35
50.0	1980	4060	0.34

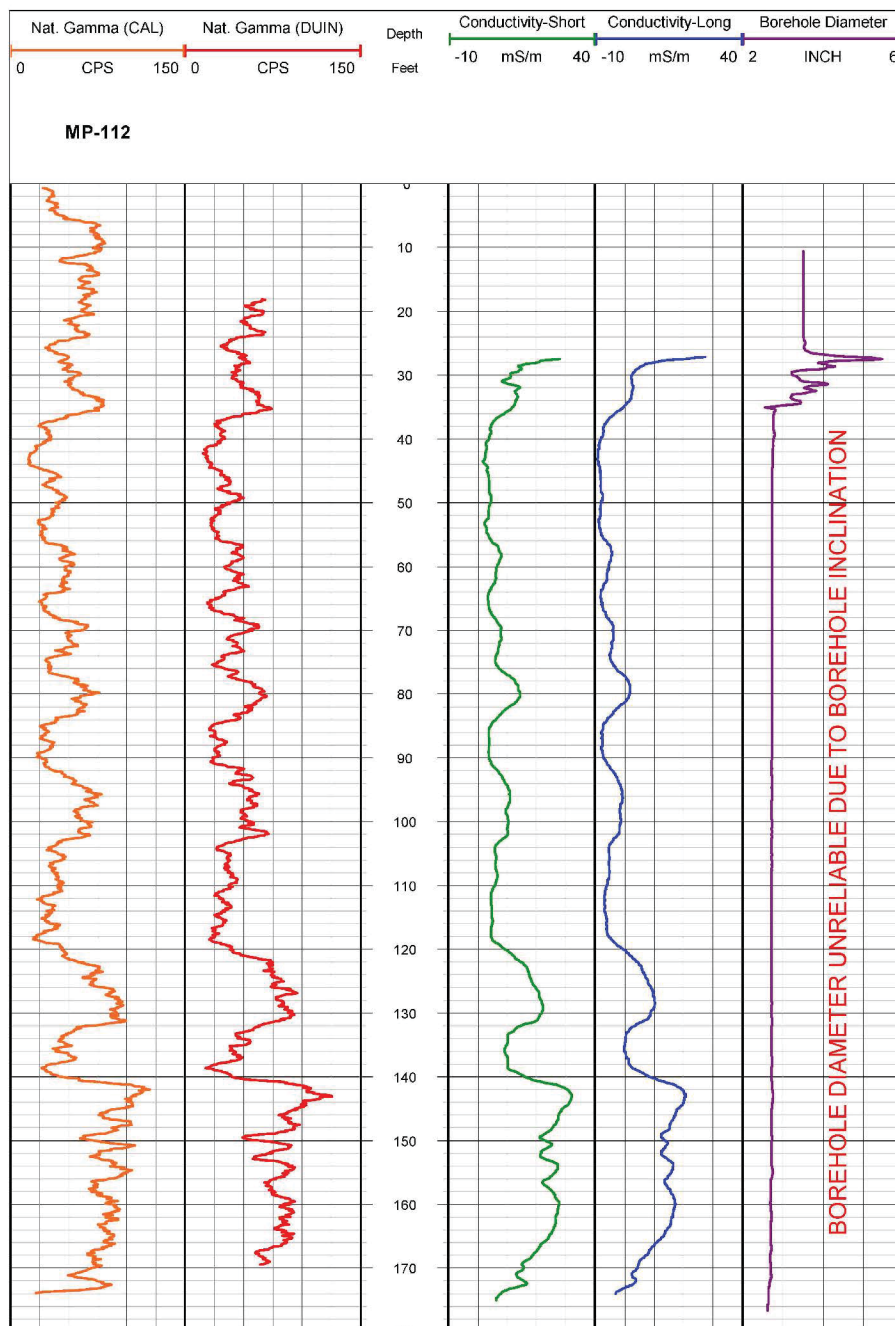


Figure 20. Boring MP-112, Induction, Natural Gamma and Caliper logs

Table 13. Boring MP-112, Acoustic Televiewer Feature depth, dip azimuth, dip and description

Depth (feet)	Dip azimuth	Dip	Structure description
28.4	N148	47	Primary-structure Planar Bedding
30.3	N151	36	Primary-structure Planar Bedding
31.5	N114	28	Fracture Planar Open-fracture
32.0	N142	31	Primary-structure Planar Bedding
32.9	N142	35	Primary-structure Planar Bedding
33.9	N152	32	Primary-structure Planar Bedding
34.5	N130	40	Fracture Planar Open-fracture
34.9	N145	40	Fracture Planar Open-fracture
35.9	N153	33	Primary-structure Planar Bedding
37.1	N151	38	Primary-structure Planar Bedding
37.5	N153	37	Primary-structure Planar Bedding
38.4	N327	59	Fracture Discontinuous Hairline-fracture
38.6	N154	35	Primary-structure Planar Bedding
39.2	N146	35	Primary-structure Planar Bedding
40.4	N153	39	Primary-structure Planar Bedding
41.2	N317	45	Fracture Irregular Hairline-fracture
41.8	N153	41	Primary-structure Planar Bedding
42.3	N152	38	Primary-structure Planar Bedding
43.3	N145	33	Primary-structure Planar Bedding
44.2	N157	32	Fracture Planar Open-fracture
44.9	N158	40	Primary-structure Planar Bedding
45.2	N161	38	Primary-structure Planar Bedding
45.8	N152	37	Primary-structure Planar Bedding
46.7	N156	37	Primary-structure Planar Bedding
48.3	N156	34	Primary-structure Planar Bedding
48.5	N326	51	Fracture Discontinuous Hairline-fracture
49.4	N156	37	Primary-structure Planar Bedding
50.6	N148	36	Primary-structure Planar Bedding
51.9	N148	38	Primary-structure Planar Bedding
52.4	N148	31	Primary-structure Planar Bedding
53.4	N149	27	Primary-structure Planar Bedding
54.1	N341	38	Fracture Irregular Hairline-fracture
54.4	N158	36	Primary-structure Planar Bedding
55.3	N153	35	Primary-structure Planar Bedding
56.1	N323	49	Fracture Discontinuous Hairline-fracture
56.8	N157	38	Primary-structure Planar Bedding
57.7	N157	39	Primary-structure Planar Bedding

Depth (feet)	Dip azimuth	Dip	Structure description
58.5	N155	37	Primary-structure Planar Bedding
59.2	N158	38	Primary-structure Planar Bedding
60.0	N149	37	Primary-structure Planar Bedding
60.8	N157	40	Primary-structure Planar Bedding
61.5	N154	39	Primary-structure Planar Bedding
62.0	N330	39	Fracture Discontinuous Hairline-fracture
62.4	N153	45	Primary-structure Planar Bedding
63.2	N150	39	Primary-structure Planar Bedding
64.2	N158	32	Primary-structure Planar Bedding
64.9	N336	46	Fracture Planar Hairline-fracture
65.1	N331	54	Fracture Discontinuous Hairline-fracture
65.5	N147	37	Primary-structure Planar Bedding
65.9	N155	39	Primary-structure Planar Bedding
66.9	N156	36	Primary-structure Planar Bedding
67.6	N157	38	Primary-structure Planar Bedding
69.0	N148	38	Primary-structure Planar Bedding
70.0	N152	33	Primary-structure Planar Bedding
71.3	N145	34	Primary-structure Planar Bedding
73.3	N157	34	Primary-structure Planar Bedding
74.1	N156	37	Primary-structure Planar Bedding
74.8	N157	35	Primary-structure Planar Bedding
76.2	N155	37	Primary-structure Planar Bedding
77.9	N150	32	Primary-structure Planar Bedding
78.6	N153	34	Primary-structure Planar Bedding
80.1	N157	35	Primary-structure Planar Bedding
80.8	N157	35	Primary-structure Planar Bedding
81.4	N154	35	Primary-structure Planar Bedding
82.9	N151	36	Primary-structure Planar Bedding
84.5	N149	31	Primary-structure Planar Bedding
88.3	N338	47	Fracture Planar Hairline-fracture
90.2	N145	29	Primary-structure Planar Bedding
92.4	N149	35	Primary-structure Planar Bedding
93.1	N155	34	Primary-structure Planar Bedding
94.6	N158	31	Primary-structure Planar Bedding
95.4	N157	33	Primary-structure Planar Bedding
96.3	N146	31	Primary-structure Planar Bedding
97.1	N151	34	Primary-structure Planar Bedding
97.7	N158	34	Primary-structure Planar Bedding
98.6	N151	34	Primary-structure Planar Bedding

Depth (feet)	Dip azimuth	Dip	Structure description
99.4	N161	31	Primary-structure Planar Bedding
100.1	N155	34	Primary-structure Planar Bedding
101.6	N153	36	Primary-structure Planar Bedding
102.5	N153	33	Primary-structure Planar Bedding
104.3	N150	32	Primary-structure Planar Bedding
105.4	N155	33	Primary-structure Planar Bedding
105.9	N152	36	Primary-structure Planar Bedding
107.5	N156	36	Primary-structure Planar Bedding
108.6	N154	35	Primary-structure Planar Bedding
110.2	N156	40	Primary-structure Planar Bedding
111.3	N151	39	Primary-structure Planar Bedding
112.5	N159	35	Primary-structure Planar Bedding
114.6	N150	29	Primary-structure Planar Bedding
116.3	N146	31	Primary-structure Planar Bedding
118.7	N151	35	Primary-structure Planar Bedding
119.3	N319	53	Fracture Irregular Hairline-fracture
119.4	N151	38	Primary-structure Planar Bedding
120.6	N150	35	Primary-structure Planar Bedding
121.6	N150	31	Primary-structure Planar Bedding
122.9	N153	33	Primary-structure Planar Bedding
123.7	N151	35	Primary-structure Planar Bedding
125.2	N156	34	Primary-structure Planar Bedding
126.3	N150	32	Primary-structure Planar Bedding
127.8	N152	38	Primary-structure Planar Bedding
129.5	N157	36	Primary-structure Planar Bedding
130.0	N153	35	Primary-structure Planar Bedding
130.8	N158	37	Primary-structure Planar Bedding
131.5	N155	33	Primary-structure Planar Bedding
132.7	N158	37	Primary-structure Planar Bedding
134.5	N158	29	Primary-structure Planar Bedding
135.0	N155	32	Primary-structure Planar Bedding
135.8	N333	54	Fracture Planar Hairline-fracture
136.8	N160	33	Primary-structure Planar Bedding
138.0	N144	33	Primary-structure Planar Bedding
138.8	N145	32	Primary-structure Planar Bedding
139.7	N152	34	Primary-structure Planar Bedding
140.7	N324	50	Fracture Discontinuous Hairline-fracture
141.1	N150	33	Primary-structure Planar Bedding
142.0	N157	34	Primary-structure Planar Bedding

Depth (feet)	Dip azimuth	Dip	Structure description
143.1	N153	32	Primary-structure Planar Bedding
144.8	N163	34	Primary-structure Planar Bedding
145.8	N158	33	Primary-structure Planar Bedding
147.2	N156	34	Primary-structure Planar Bedding
147.9	N148	30	Primary-structure Planar Bedding
149.2	N328	60	Fracture Planar Hairline-fracture
149.7	N149	31	Primary-structure Planar Bedding
150.7	N150	30	Primary-structure Planar Bedding
151.3	N156	32	Primary-structure Planar Bedding
151.6	N343	52	Fracture Discontinuous Hairline-fracture
152.6	N156	34	Primary-structure Planar Bedding
154.1	N157	34	Primary-structure Planar Bedding
155.1	N157	33	Primary-structure Planar Bedding
156.9	N153	30	Primary-structure Planar Bedding
158.2	N153	32	Primary-structure Planar Bedding
159.4	N150	31	Primary-structure Planar Bedding
160.4	N167	34	Primary-structure Planar Bedding
161.8	N152	38	Primary-structure Planar Bedding
163.0	N153	35	Primary-structure Planar Bedding
167.3	N162	34	Primary-structure Planar Bedding
168.3	N157	35	Primary-structure Planar Bedding
169.6	N164	34	Primary-structure Planar Bedding
170.8	N337	58	Fracture Planar Hairline-fracture
172.8	N160	33	Fracture Planar Open-fracture
173.2	N151	34	Primary-structure Planar Bedding
174.8	N155	34	Primary-structure Planar Bedding



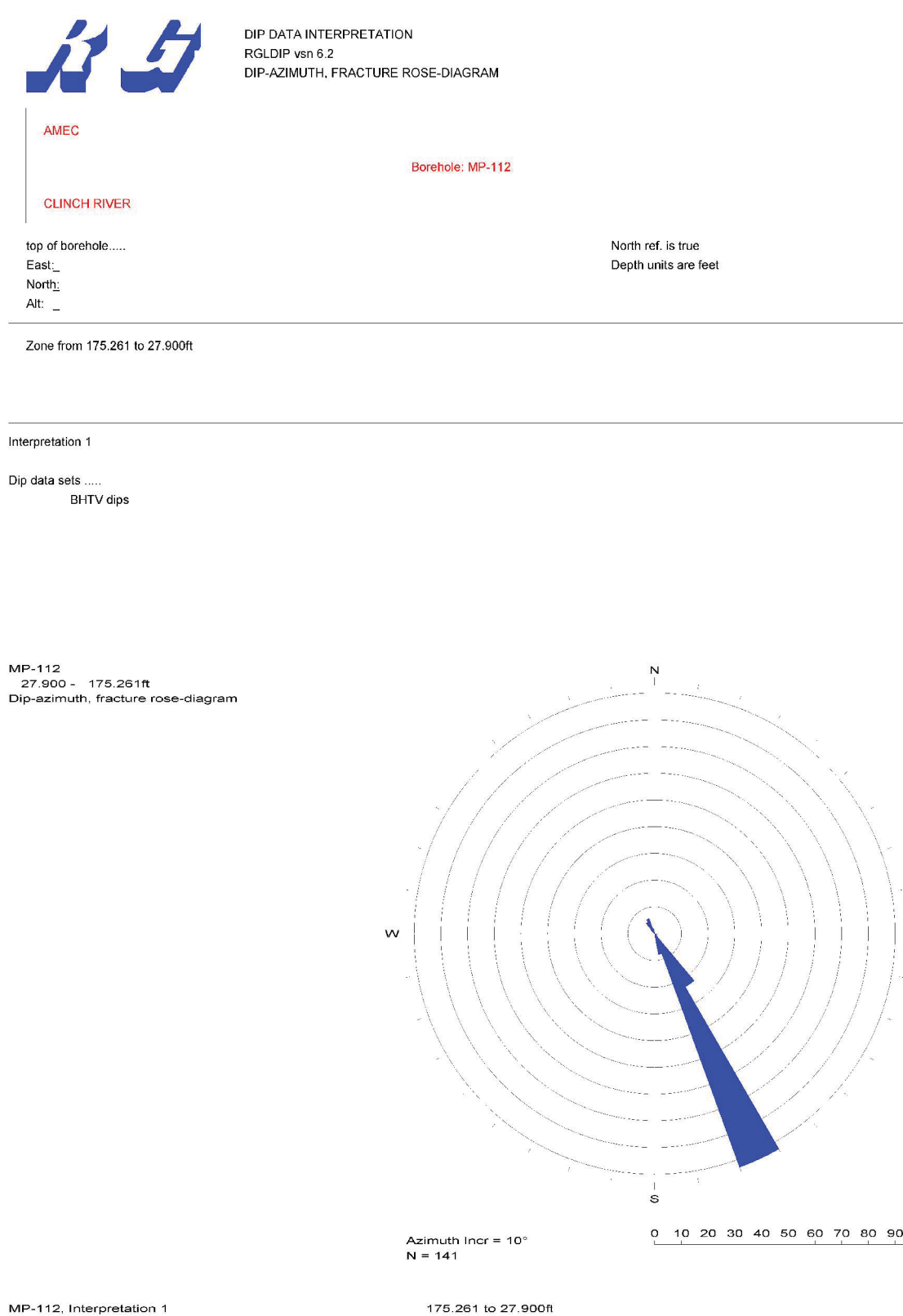
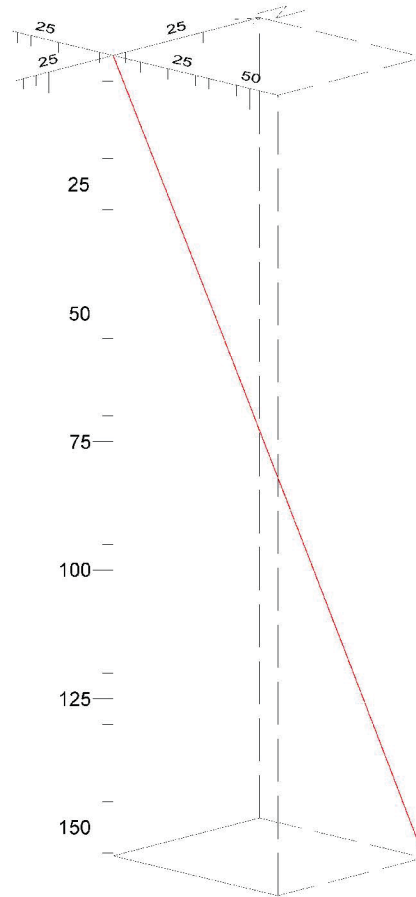


Figure 21. Boring MP-112, Rose Diagram

Deviated borehole in orthographic projection, viewed from N136



Borehole: MP-112    Sonde: BHTV  
Zone from: 0.000 to 176.276ft  
North ref is true  
Mean deviation: 28.05 to N46.49  
End coordinates .....  
    North: 57.069  
    East : 60.110  
    Down : 155.571  
Azimuth of end: N46.49  
Distance start-end: 82.886ft  
Viewpoint: N136  
Data extrapolated to the surface from 24.004ft

Figure 22. Boring MP-112, Up Deviation Projection



### CLINCH RIVER SMR PROJECT BOREHOLE MP-113 Receiver to Receiver $V_s$ and $V_p$ Analysis

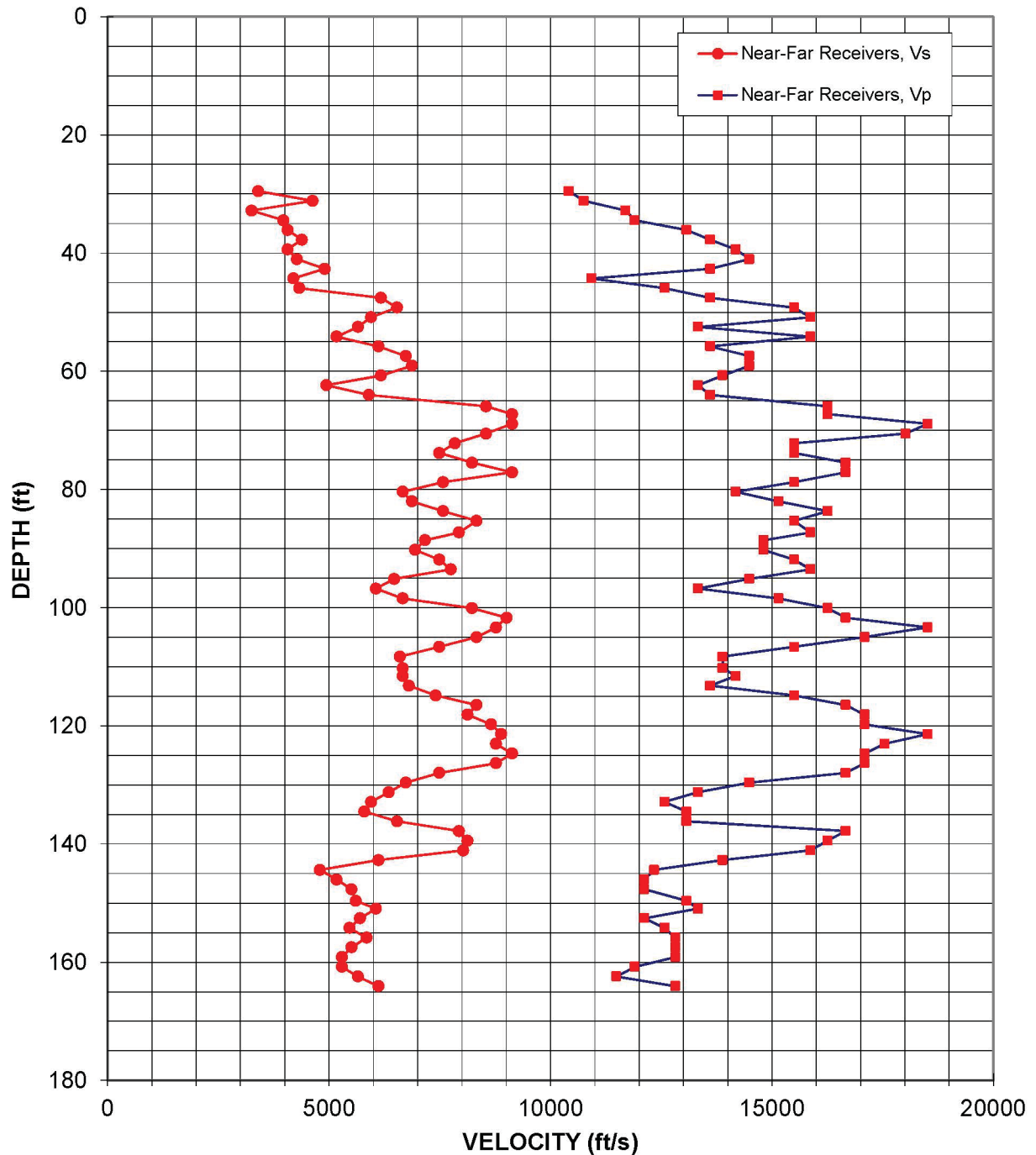


Figure 23: Boring MP-113, Suspension R1-R2 P- and  $S_H$ -wave velocities

Table 14. Boring MP-113, Suspension R1-R2 depths and P- and S<sub>H</sub>-wave velocities

**Summary of Compressional Wave Velocity, Shear Wave Velocity, and Poisson's Ratio  
Based on Receiver-to-Receiver Travel Time Data - Borehole MP-113**

American Units				Metric Units			
Depth at Midpoint Between Receivers	Velocity		Poisson's Ratio	Depth at Midpoint Between Receivers	Velocity		Poisson's Ratio
	V <sub>s</sub>	V <sub>p</sub>			V <sub>s</sub>	V <sub>p</sub>	
(ft)	(ft/s)	(ft/s)		(m)	(m/s)	(m/s)	
26.3	-	-	-	8.0	-	-	-
27.9	-	-	-	8.5	-	-	-
29.5	3400	10420	0.44	9.0	1040	3180	0.44
31.2	4630	10750	0.39	9.5	1410	3280	0.39
32.8	3250	11700	0.46	10.0	990	3560	0.46
34.5	3970	11900	0.44	10.5	1210	3630	0.44
36.1	4070	13070	0.45	11.0	1240	3980	0.45
37.7	4390	13610	0.44	11.5	1340	4150	0.44
39.4	4070	14180	0.46	12.0	1240	4320	0.46
41.0	4270	14490	0.45	12.5	1300	4420	0.45
42.7	4900	13610	0.43	13.0	1490	4150	0.43
44.3	4190	10930	0.41	13.5	1280	3330	0.41
45.9	4330	12580	0.43	14.0	1320	3830	0.43
47.6	6170	13610	0.37	14.5	1880	4150	0.37
49.2	6540	15500	0.39	15.0	1990	4730	0.39
50.9	5950	15870	0.42	15.5	1810	4840	0.42
52.5	5650	13330	0.39	16.0	1720	4060	0.39
54.1	5170	15870	0.44	16.5	1580	4840	0.44
55.8	6120	13610	0.37	17.0	1860	4150	0.37
57.4	6730	14490	0.36	17.5	2050	4420	0.36
59.1	6870	14490	0.35	18.0	2090	4420	0.35
60.7	6170	13890	0.38	18.5	1880	4230	0.38
62.3	4940	13330	0.42	19.0	1510	4060	0.42
64.0	5900	13610	0.38	19.5	1800	4150	0.38
65.9	8550	16260	0.31	20.1	2610	4960	0.31
67.3	9130	16260	0.27	20.5	2780	4960	0.27
68.9	9130	18520	0.34	21.0	2780	5640	0.34
70.5	8550	18020	0.35	21.5	2610	5490	0.35
72.2	7840	15500	0.33	22.0	2390	4730	0.33
73.8	7490	15500	0.35	22.5	2280	4730	0.35
75.5	8230	16670	0.34	23.0	2510	5080	0.34
77.1	9130	16670	0.29	23.5	2780	5080	0.29
78.7	7580	15500	0.34	24.0	2310	4730	0.34
80.4	6670	14180	0.36	24.5	2030	4320	0.36
82.0	6870	15150	0.37	25.0	2090	4620	0.37
83.7	7580	16260	0.36	25.5	2310	4960	0.36
85.3	8330	15500	0.30	26.0	2540	4730	0.30

**Summary of Compressional Wave Velocity, Shear Wave Velocity, and Poisson's Ratio  
Based on Receiver-to-Receiver Travel Time Data - Borehole MP-113**

American Units				Metric Units			
Depth at Midpoint Between Receivers	Velocity		Poisson's Ratio	Depth at Midpoint Between Receivers	Velocity		Poisson's Ratio
	V <sub>s</sub>	V <sub>p</sub>			V <sub>s</sub>	V <sub>p</sub>	
(ft)	(ft/s)	(ft/s)		(m)	(m/s)	(m/s)	
87.3	7940	15870	0.33	26.6	2420	4840	0.33
88.6	7170	14810	0.35	27.0	2180	4520	0.35
90.2	6940	14810	0.36	27.5	2120	4520	0.36
91.9	7490	15500	0.35	28.0	2280	4730	0.35
93.5	7750	15870	0.34	28.5	2360	4840	0.34
95.1	6470	14490	0.38	29.0	1970	4420	0.38
96.8	6060	13330	0.37	29.5	1850	4060	0.37
98.4	6670	15150	0.38	30.0	2030	4620	0.38
100.1	8230	16260	0.33	30.5	2510	4960	0.33
101.7	9010	16670	0.29	31.0	2750	5080	0.29
103.4	8770	18520	0.36	31.5	2670	5640	0.36
105.0	8330	17090	0.34	32.0	2540	5210	0.34
106.6	7490	15500	0.35	32.5	2280	4730	0.35
108.3	6600	13890	0.35	33.0	2010	4230	0.35
110.2	6670	13890	0.35	33.6	2030	4230	0.35
111.6	6670	14180	0.36	34.0	2030	4320	0.36
113.2	6800	13610	0.33	34.5	2070	4150	0.33
114.8	7410	15500	0.35	35.0	2260	4730	0.35
116.5	8330	16670	0.33	35.5	2540	5080	0.33
118.1	8130	17090	0.35	36.0	2480	5210	0.35
119.8	8660	17090	0.33	36.5	2640	5210	0.33
121.4	8890	18520	0.35	37.0	2710	5640	0.35
123.0	8770	17540	0.33	37.5	2670	5350	0.33
124.7	9130	17090	0.30	38.0	2780	5210	0.30
126.3	8770	17090	0.32	38.5	2670	5210	0.32
128.0	7490	16670	0.37	39.0	2280	5080	0.37
129.6	6730	14490	0.36	39.5	2050	4420	0.36
131.2	6350	13330	0.35	40.0	1940	4060	0.35
132.9	5950	12580	0.36	40.5	1810	3830	0.36
134.5	5800	13070	0.38	41.0	1770	3980	0.38
136.2	6540	13070	0.33	41.5	1990	3980	0.33
137.8	7940	16670	0.35	42.0	2420	5080	0.35
139.4	8130	16260	0.33	42.5	2480	4960	0.33
141.1	8030	15870	0.33	43.0	2450	4840	0.33
142.7	6120	13890	0.38	43.5	1860	4230	0.38
144.4	4800	12350	0.41	44.0	1460	3760	0.41
146.0	5170	12120	0.39	44.5	1580	3690	0.39
147.6	5510	12120	0.37	45.0	1680	3690	0.37
149.6	5600	13070	0.39	45.6	1710	3980	0.39

**Summary of Compressional Wave Velocity, Shear Wave Velocity, and Poisson's Ratio  
Based on Receiver-to-Receiver Travel Time Data - Borehole MP-113**

American Units				Metric Units			
Depth at Midpoint Between Receivers	Velocity		Poisson's Ratio	Depth at Midpoint Between Receivers	Velocity		Poisson's Ratio
	V <sub>s</sub>	V <sub>p</sub>			V <sub>s</sub>	V <sub>p</sub>	
(ft)	(ft/s)	(ft/s)		(m)	(m/s)	(m/s)	
150.9	6060	13330	0.37	46.0	1850	4060	0.37
152.6	5700	12120	0.36	46.5	1740	3690	0.36
154.2	5460	12580	0.38	47.0	1670	3830	0.38
155.8	5850	12820	0.37	47.5	1780	3910	0.37
157.5	5510	12820	0.39	48.0	1680	3910	0.39
159.1	5290	12820	0.40	48.5	1610	3910	0.40
160.8	5290	11900	0.38	49.0	1610	3630	0.38
162.4	5650	11490	0.34	49.5	1720	3500	0.34
164.0	6120	12820	0.35	50.0	1860	3910	0.35

**Notes:**        "-" means no data available at that particular interval of depth.

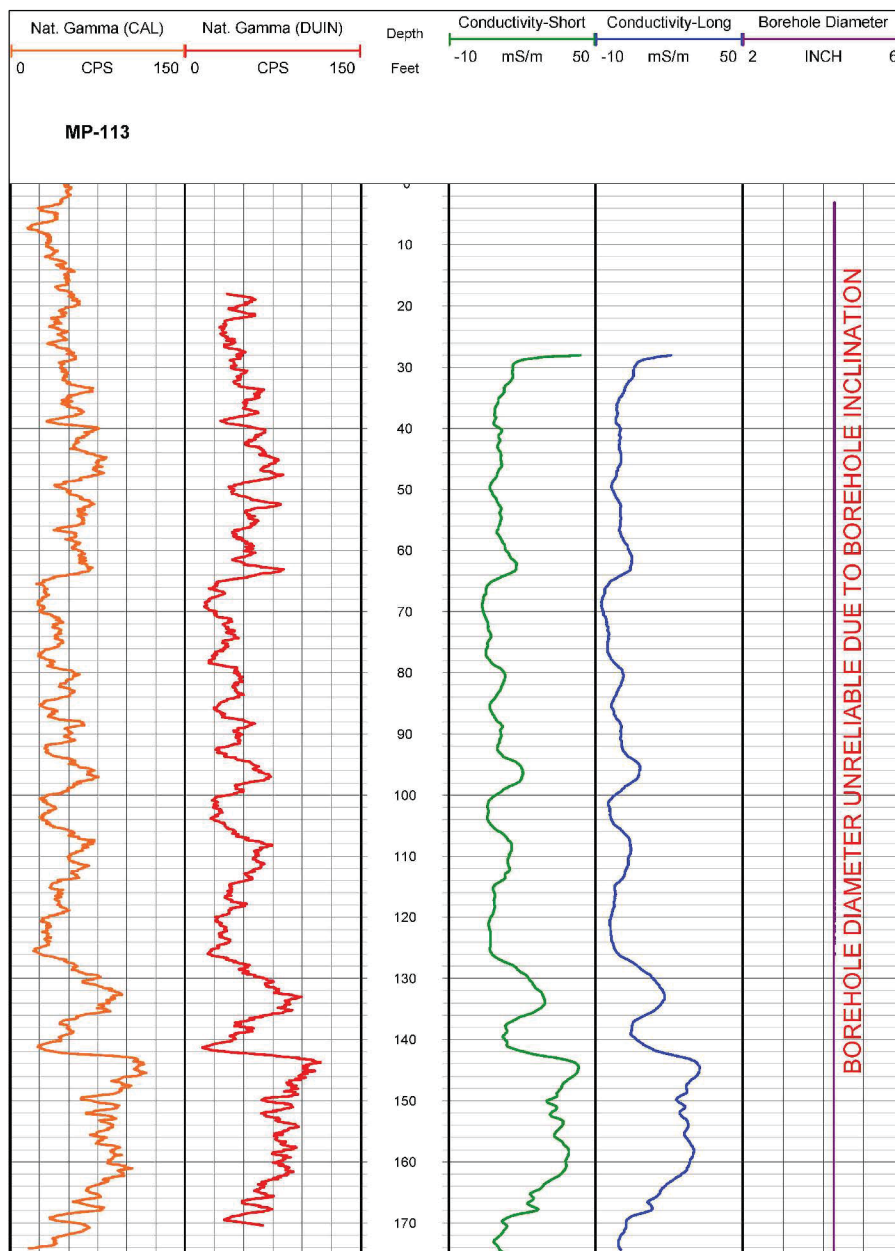


Figure 24. Boring MP-113, Induction, Natural Gamma and Caliper logs



Table 15. Boring MP-113, Acoustic Televiewer Feature depth, dip azimuth, dip and description

Depth (feet)	Dip azimuth	Dip	Structure description
27.7	N158	42	Fracture Planar Open-fracture
27.9	N157	38	Fracture Planar Hairline-fracture
28.6	N155	32	Fracture Planar Open-fracture
29.2	N160	36	Primary-structure Planar Bedding
30.0	N166	36	Primary-structure Planar Bedding
30.7	N156	33	Primary-structure Planar Bedding
31.1	N345	52	Fracture Discontinuous Hairline-fracture
31.3	N164	34	Primary-structure Planar Bedding
31.5	N158	50	Fracture Planar Open-fracture
32.6	N161	37	Primary-structure Planar Bedding
33.2	N145	36	Primary-structure Planar Bedding
34.0	N162	56	Fracture Planar Hairline-fracture
36.0	N167	34	Primary-structure Planar Bedding
36.9	N155	37	Primary-structure Planar Bedding
38.7	N159	33	Primary-structure Planar Bedding
39.2	N159	37	Primary-structure Planar Bedding
39.8	N149	40	Primary-structure Planar Bedding
43.2	N142	33	Primary-structure Planar Bedding
45.8	N153	89	Fracture Discontinuous Hairline-fracture
46.1	N156	23	Fracture Planar Hairline-fracture
46.5	N164	46	Primary-structure Planar Bedding
47.8	N154	30	Primary-structure Planar Bedding
50.2	N152	36	Primary-structure Planar Bedding
50.8	N156	29	Primary-structure Planar Bedding
51.1	N153	26	Primary-structure Planar Bedding
53.1	N159	31	Primary-structure Planar Bedding
53.6	N326	73	Fracture Discontinuous Hairline-fracture
55.0	N156	26	Primary-structure Planar Bedding
58.7	N160	22	Primary-structure Planar Bedding
63.0	N141	25	Primary-structure Planar Bedding
70.1	N154	32	Primary-structure Planar Bedding
73.9	N163	33	Primary-structure Planar Bedding
80.7	N155	29	Primary-structure Planar Bedding
82.4	N156	30	Primary-structure Planar Bedding
83.1	N159	28	Primary-structure Planar Bedding
84.2	N149	26	Primary-structure Planar Bedding
91.7	N153	35	Primary-structure Planar Bedding

Depth (feet)	Dip azimuth	Dip	Structure description
92.0	N336	40	Fracture Discontinuous Hairline-fracture
96.1	N150	26	Primary-structure Planar Bedding
96.8	N149	28	Primary-structure Planar Bedding
98.2	N147	30	Primary-structure Planar Bedding
100.0	N158	27	Primary-structure Planar Bedding
102.3	N342	42	Fracture Discontinuous Hairline-fracture
104.9	N340	54	Fracture Discontinuous Hairline-fracture
105.4	N330	48	Fracture Planar Hairline-fracture
112.3	N152	25	Primary-structure Planar Bedding
116.1	N155	23	Primary-structure Planar Bedding
122.3	N147	25	Primary-structure Planar Bedding
134.8	N360	43	Fracture Discontinuous Hairline-fracture
135.2	N160	34	Primary-structure Planar Bedding
136.1	N146	24	Primary-structure Planar Bedding
141.5	N314	45	Fracture Irregular Hairline-fracture
142.2	N327	41	Fracture Planar Hairline-fracture
151.6	N160	16	Primary-structure Planar Bedding
153.4	N155	30	Primary-structure Planar Bedding
159.3	N162	21	Primary-structure Planar Bedding
168.3	N154	26	Fracture Planar Open-fracture
172.6	N149	25	Primary-structure Planar Bedding

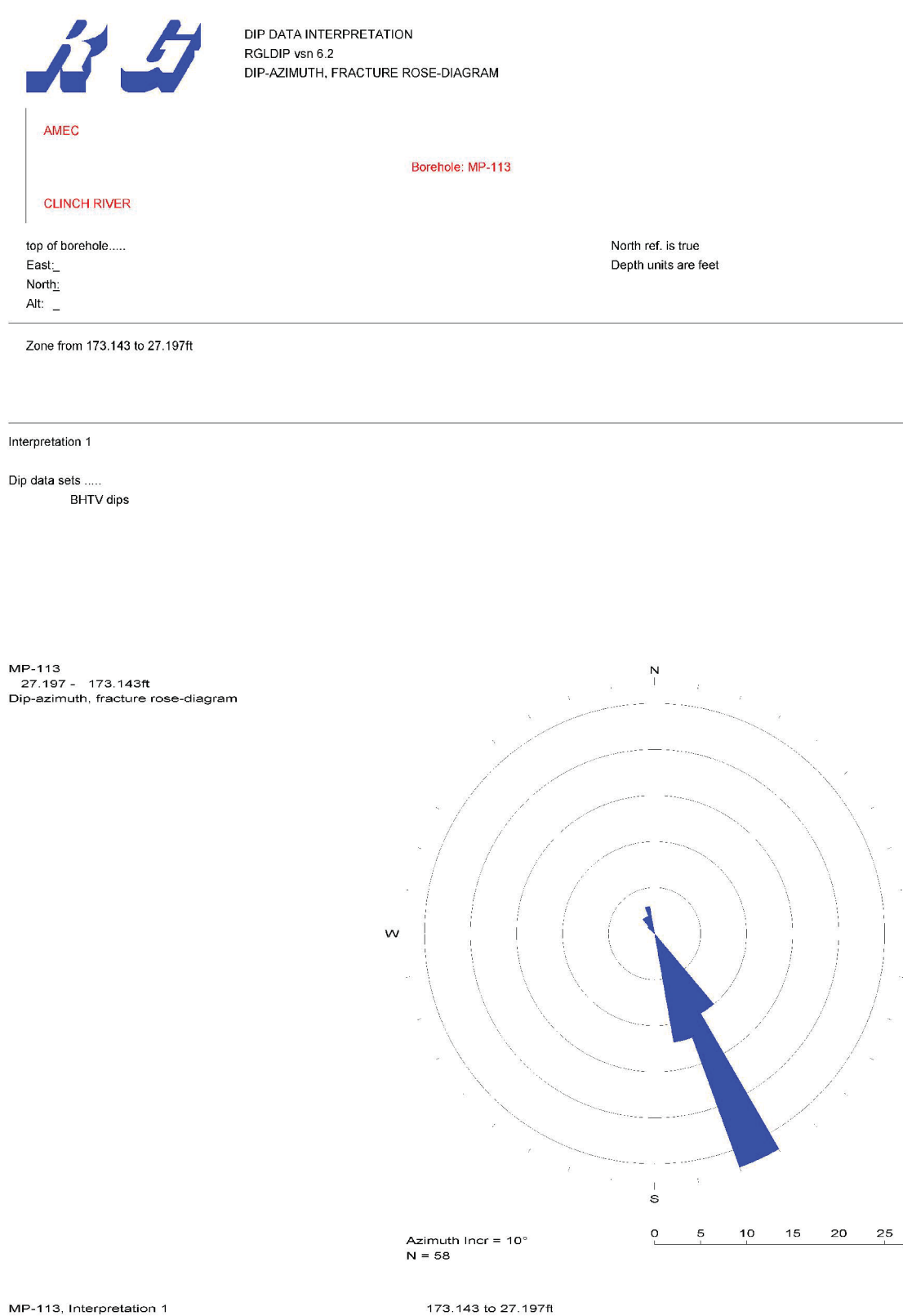
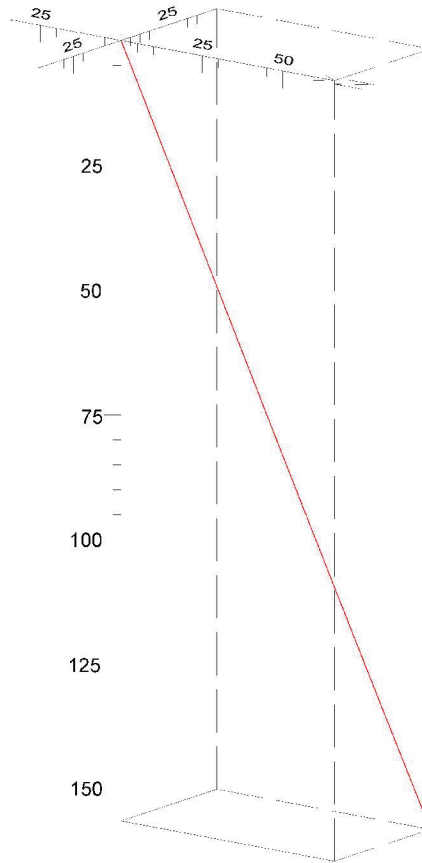


Figure 25. Boring MP-113, Rose Diagram



Deviated borehole in orthographic projection, viewed from N53



Borehole: MP-113    Sonde: BHTV  
Zone from: 0.000 to 177.120ft  
North ref is true  
Mean deviation: 27.95 to N322.57  
End coordinates .....  
    North: 65.916  
    East : -50.450  
    Down : 156.462  
Azimuth of end: N322.57  
Distance start-end: 83.007ft  
Viewpoint: N53  
Data extrapolated to the surface from 24.936ft

Figure 26. Boring MP-113, Up Deviation Projection

### CLINCH RIVER SMR PROJECT BOREHOLE MP-120 Receiver to Receiver $V_s$ and $V_p$ Analysis

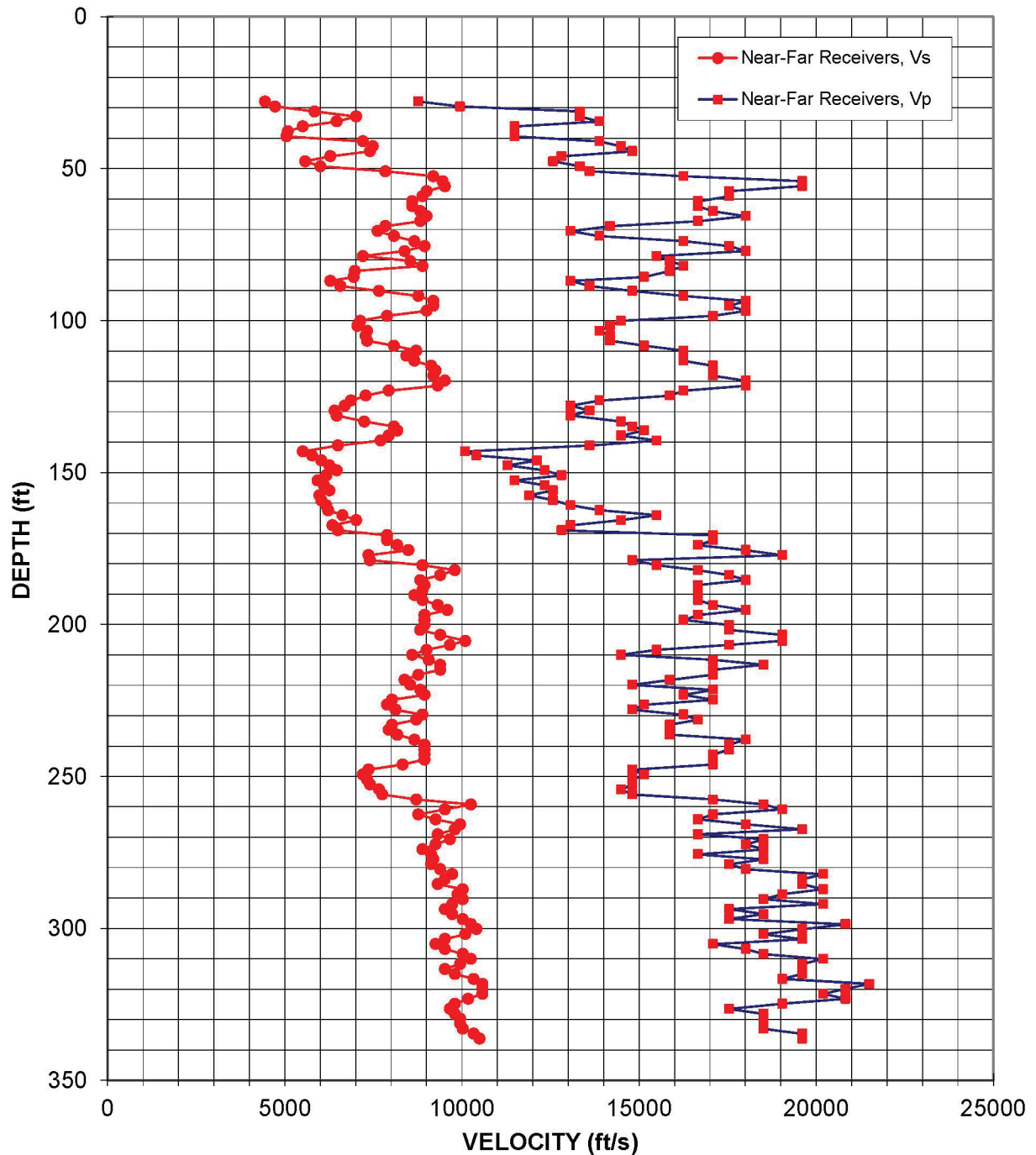


Figure 27: Boring MP-120, Suspension R1-R2 P- and  $S_H$ -wave velocities

Table 16. Boring MP-120, Suspension R1-R2 depths and P- and S<sub>H</sub>-wave velocities

**Summary of Compressional Wave Velocity, Shear Wave Velocity, and Poisson's Ratio  
Based on Receiver-to-Receiver Travel Time Data - Borehole MP-120**

American Units				Metric Units			
Depth at Midpoint Between Receivers	Velocity		Poisson's Ratio	Depth at Midpoint Between Receivers	Velocity		Poisson's Ratio
	V <sub>s</sub>	V <sub>p</sub>			V <sub>s</sub>	V <sub>p</sub>	
(ft)	(ft/s)	(ft/s)		(m)	(m/s)	(m/s)	
27.9	4440	8770	0.33	8.5	1350	2670	0.33
29.5	4730	9950	0.35	9.0	1440	3030	0.35
31.2	5850	13330	0.38	9.5	1780	4060	0.38
32.8	7020	13330	0.31	10.0	2140	4060	0.31
34.5	6470	13890	0.36	10.5	1970	4230	0.36
36.1	5510	11490	0.35	11.0	1680	3500	0.35
37.7	5090	11490	0.38	11.5	1550	3500	0.38
39.4	5050	11490	0.38	12.0	1540	3500	0.38
41.0	7210	13890	0.32	12.5	2200	4230	0.32
42.7	7490	14490	0.32	13.0	2280	4420	0.32
44.3	7410	14810	0.33	13.5	2260	4520	0.33
45.9	6290	12820	0.34	14.0	1920	3910	0.34
47.6	5580	12580	0.38	14.5	1700	3830	0.38
49.2	6010	13330	0.37	15.0	1830	4060	0.37
50.9	7840	13610	0.25	15.5	2390	4150	0.25
52.5	9200	16260	0.26	16.0	2800	4960	0.26
54.1	9460	19610	0.35	16.5	2880	5980	0.35
55.8	9520	19610	0.35	17.0	2900	5980	0.35
57.4	9010	17540	0.32	17.5	2750	5350	0.32
59.1	8890	17540	0.33	18.0	2710	5350	0.33
60.7	8600	16670	0.32	18.5	2620	5080	0.32
62.3	8600	16670	0.32	19.0	2620	5080	0.32
64.0	8830	17090	0.32	19.5	2690	5210	0.32
65.6	9010	18020	0.33	20.0	2750	5490	0.33
67.3	8830	16670	0.30	20.5	2690	5080	0.30
68.9	7840	14180	0.28	21.0	2390	4320	0.28
70.5	7620	13070	0.24	21.5	2320	3980	0.24
72.2	8080	13890	0.24	22.0	2460	4230	0.24
73.8	8660	16260	0.30	22.5	2640	4960	0.30
75.5	8950	17540	0.32	23.0	2730	5350	0.32
77.1	8390	18020	0.36	23.5	2560	5490	0.36
78.7	7210	15500	0.36	24.0	2200	4730	0.36
80.4	8550	15870	0.30	24.5	2610	4840	0.30
82.0	8890	16260	0.29	25.0	2710	4960	0.29
83.7	6980	15870	0.38	25.5	2130	4840	0.38
85.6	6940	15150	0.37	26.1	2120	4620	0.37
86.9	6290	13070	0.35	26.5	1920	3980	0.35

**Summary of Compressional Wave Velocity, Shear Wave Velocity, and Poisson's Ratio  
Based on Receiver-to-Receiver Travel Time Data - Borehole MP-120**

American Units				Metric Units			
Depth at Midpoint Between Receivers	Velocity		Poisson's Ratio	Depth at Midpoint Between Receivers	Velocity		Poisson's Ratio
	V <sub>s</sub>	V <sub>p</sub>			V <sub>s</sub>	V <sub>p</sub>	
(ft)	(ft/s)	(ft/s)		(m)	(m/s)	(m/s)	
88.6	6570	13610	0.35	27.0	2000	4150	0.35
90.2	7660	14810	0.32	27.5	2340	4520	0.32
91.9	8770	16260	0.29	28.0	2670	4960	0.29
93.5	9200	18020	0.32	28.5	2800	5490	0.32
95.1	9200	17540	0.31	29.0	2800	5350	0.31
96.8	9010	18020	0.33	29.5	2750	5490	0.33
98.4	7890	17090	0.36	30.0	2400	5210	0.36
100.1	7130	14490	0.34	30.5	2170	4420	0.34
101.7	7050	14180	0.34	31.0	2150	4320	0.34
103.4	7330	13890	0.31	31.5	2230	4230	0.31
105.0	7290	14180	0.32	32.0	2220	4320	0.32
106.6	7330	14180	0.32	32.5	2230	4320	0.32
108.3	8080	15150	0.30	33.0	2460	4620	0.30
109.9	8710	16260	0.30	33.5	2660	4960	0.30
111.6	8440	16260	0.32	34.0	2570	4960	0.32
113.2	8660	16260	0.30	34.5	2640	4960	0.30
114.8	9130	17090	0.30	35.0	2780	5210	0.30
116.5	9260	17090	0.29	35.5	2820	5210	0.29
118.1	9200	17090	0.30	36.0	2800	5210	0.30
119.8	9520	18020	0.31	36.5	2900	5490	0.31
121.4	9320	18020	0.32	37.0	2840	5490	0.32
123.0	7940	16260	0.34	37.5	2420	4960	0.34
124.7	7290	15870	0.37	38.0	2220	4840	0.37
126.3	6870	13890	0.34	38.5	2090	4230	0.34
128.0	6700	13070	0.32	39.0	2040	3980	0.32
129.6	6410	13610	0.36	39.5	1950	4150	0.36
131.2	6470	13070	0.34	40.0	1970	3980	0.34
133.2	7250	14490	0.33	40.6	2210	4420	0.33
134.8	8080	14810	0.29	41.1	2460	4520	0.29
136.2	8180	15150	0.29	41.5	2490	4620	0.29
137.8	7940	14490	0.29	42.0	2420	4420	0.29
139.4	7710	15500	0.34	42.5	2350	4730	0.34
141.1	6500	13610	0.35	43.0	1980	4150	0.35
143.0	5510	10100	0.29	43.6	1680	3080	0.29
144.4	5770	10420	0.28	44.0	1760	3180	0.28
146.0	6030	12120	0.34	44.5	1840	3690	0.34
147.6	6260	11300	0.28	45.0	1910	3440	0.28
149.3	6470	12350	0.31	45.5	1970	3760	0.31
150.9	6170	12820	0.35	46.0	1880	3910	0.35



**Summary of Compressional Wave Velocity, Shear Wave Velocity, and Poisson's Ratio  
Based on Receiver-to-Receiver Travel Time Data - Borehole MP-120**

American Units				Metric Units			
Depth at Midpoint Between Receivers	Velocity		Poisson's Ratio	Depth at Midpoint Between Receivers	Velocity		Poisson's Ratio
	V <sub>s</sub>	V <sub>p</sub>			V <sub>s</sub>	V <sub>p</sub>	
(ft)	(ft/s)	(ft/s)		(m)	(m/s)	(m/s)	
152.6	5930	11490	0.32	46.5	1810	3500	0.32
154.2	6120	12350	0.34	47.0	1860	3760	0.34
155.8	6260	12580	0.34	47.5	1910	3830	0.34
157.5	5980	11900	0.33	48.0	1820	3630	0.33
159.1	6030	12580	0.35	48.5	1840	3830	0.35
160.8	6170	13070	0.36	49.0	1880	3980	0.36
162.4	6230	13890	0.37	49.5	1900	4230	0.37
164.0	6630	15500	0.39	50.0	2020	4730	0.39
165.7	7020	14490	0.35	50.5	2140	4420	0.35
167.3	6350	13070	0.35	51.0	1940	3980	0.35
169.0	6500	12820	0.33	51.5	1980	3910	0.33
170.6	7890	17090	0.36	52.0	2400	5210	0.36
172.2	7890	17090	0.36	52.5	2400	5210	0.36
173.9	8180	16670	0.34	53.0	2490	5080	0.34
175.5	8490	18020	0.36	53.5	2590	5490	0.36
177.2	7370	19050	0.41	54.0	2250	5810	0.41
178.8	7410	14810	0.33	54.5	2260	4520	0.33
180.5	8890	15500	0.26	55.0	2710	4730	0.26
182.1	9800	16670	0.24	55.5	2990	5080	0.24
183.7	9390	17540	0.30	56.0	2860	5350	0.30
185.4	8830	18020	0.34	56.5	2690	5490	0.34
187.0	8950	16670	0.30	57.0	2730	5080	0.30
188.7	8890	16670	0.30	57.5	2710	5080	0.30
190.3	8660	16670	0.32	58.0	2640	5080	0.32
191.9	8890	16670	0.30	58.5	2710	5080	0.30
193.6	9320	17090	0.29	59.0	2840	5210	0.29
195.2	9590	18020	0.30	59.5	2920	5490	0.30
196.9	8950	16670	0.30	60.0	2730	5080	0.30
198.5	8950	16260	0.28	60.5	2730	4960	0.28
200.1	8950	17540	0.32	61.0	2730	5350	0.32
201.8	8830	17540	0.33	61.5	2690	5350	0.33
203.4	9390	19050	0.34	62.0	2860	5810	0.34
205.4	10100	19050	0.30	62.6	3080	5810	0.30
206.7	9660	17540	0.28	63.0	2940	5350	0.28
208.3	9010	15500	0.25	63.5	2750	4730	0.25
210.0	8600	14490	0.23	64.0	2620	4420	0.23
211.6	9070	17090	0.30	64.5	2760	5210	0.30
213.3	9390	18520	0.33	65.0	2860	5640	0.33
214.9	9390	17090	0.28	65.5	2860	5210	0.28

**Summary of Compressional Wave Velocity, Shear Wave Velocity, and Poisson's Ratio  
Based on Receiver-to-Receiver Travel Time Data - Borehole MP-120**

American Units				Metric Units			
Depth at Midpoint Between Receivers	Velocity		Poisson's Ratio	Depth at Midpoint Between Receivers	Velocity		Poisson's Ratio
	V <sub>s</sub>	V <sub>p</sub>			V <sub>s</sub>	V <sub>p</sub>	
(ft)	(ft/s)	(ft/s)		(m)	(m/s)	(m/s)	
216.5	8770	17090	0.32	66.0	2670	5210	0.32
218.2	8390	15870	0.31	66.5	2560	4840	0.31
219.8	8550	14810	0.25	67.0	2610	4520	0.25
221.5	8830	17090	0.32	67.5	2690	5210	0.32
223.1	8950	16260	0.28	68.0	2730	4960	0.28
224.7	8030	17090	0.36	68.5	2450	5210	0.36
226.4	7890	15150	0.31	69.0	2400	4620	0.31
228.0	8130	14810	0.28	69.5	2480	4520	0.28
229.7	8890	16260	0.29	70.0	2710	4960	0.29
231.3	8710	16670	0.31	70.5	2660	5080	0.31
232.9	8030	15870	0.33	71.0	2450	4840	0.33
234.6	7940	15870	0.33	71.5	2420	4840	0.33
236.2	8180	15870	0.32	72.0	2490	4840	0.32
237.9	8660	18020	0.35	72.5	2640	5490	0.35
239.5	8950	17540	0.32	73.0	2730	5350	0.32
241.1	8950	17540	0.32	73.5	2730	5350	0.32
242.8	8950	17090	0.31	74.0	2730	5210	0.31
244.4	8950	17090	0.31	74.5	2730	5210	0.31
246.1	8330	17090	0.34	75.0	2540	5210	0.34
247.7	7370	14810	0.34	75.5	2250	4520	0.34
249.3	7210	15150	0.35	76.0	2200	4620	0.35
251.0	7330	14810	0.34	76.5	2230	4520	0.34
252.6	7410	14810	0.33	77.0	2260	4520	0.33
254.3	7660	14490	0.31	77.5	2340	4420	0.31
255.9	7750	14810	0.31	78.0	2360	4520	0.31
257.6	8710	17090	0.32	78.5	2660	5210	0.32
259.2	10260	18520	0.28	79.0	3130	5640	0.28
260.8	9520	19050	0.33	79.5	2900	5810	0.33
262.5	8770	17090	0.32	80.0	2670	5210	0.32
264.1	9260	16670	0.28	80.5	2820	5080	0.28
265.8	9950	18020	0.28	81.0	3030	5490	0.28
267.4	9800	19610	0.33	81.5	2990	5980	0.33
269.0	9320	16670	0.27	82.0	2840	5080	0.27
270.7	9660	18520	0.31	82.5	2940	5640	0.31
272.3	9260	18020	0.32	83.0	2820	5490	0.32
274.0	8890	18520	0.35	83.5	2710	5640	0.35
275.6	9130	16670	0.29	84.0	2780	5080	0.29
277.2	9200	18520	0.34	84.5	2800	5640	0.34
278.9	9130	17540	0.31	85.0	2780	5350	0.31



**Summary of Compressional Wave Velocity, Shear Wave Velocity, and Poisson's Ratio  
Based on Receiver-to-Receiver Travel Time Data - Borehole MP-120**

American Units				Metric Units			
Depth at Midpoint Between Receivers	Velocity		Poisson's Ratio	Depth at Midpoint Between Receivers	Velocity		Poisson's Ratio
	V <sub>s</sub>	V <sub>p</sub>			V <sub>s</sub>	V <sub>p</sub>	
(ft)	(ft/s)	(ft/s)		(m)	(m/s)	(m/s)	
280.5	9390	18020	0.31	85.5	2860	5490	0.31
282.2	9730	20200	0.35	86.0	2970	6160	0.35
283.8	9520	19610	0.35	86.5	2900	5980	0.35
285.4	9320	19610	0.35	87.0	2840	5980	0.35
287.1	10030	20200	0.34	87.5	3060	6160	0.34
288.7	9880	19050	0.32	88.0	3010	5810	0.32
290.4	10030	18520	0.29	88.5	3060	5640	0.29
292.0	9730	20200	0.35	89.0	2970	6160	0.35
293.6	9520	17540	0.29	89.5	2900	5350	0.29
295.3	9730	18520	0.31	90.0	2970	5640	0.31
296.9	10030	17540	0.26	90.5	3060	5350	0.26
298.6	10260	20830	0.34	91.0	3130	6350	0.34
300.2	10420	19610	0.30	91.5	3180	5980	0.30
301.8	10100	18520	0.29	92.0	3080	5640	0.29
303.5	9520	19610	0.35	92.5	2900	5980	0.35
305.1	9260	17090	0.29	93.0	2820	5210	0.29
306.8	9520	18020	0.31	93.5	2900	5490	0.31
308.4	10030	18520	0.29	94.0	3060	5640	0.29
310.0	10260	20200	0.33	94.5	3130	6160	0.33
311.7	9950	19610	0.33	95.0	3030	5980	0.33
313.3	9520	19610	0.35	95.5	2900	5980	0.35
315.0	9800	19610	0.33	96.0	2990	5980	0.33
316.6	10340	19050	0.29	96.5	3150	5810	0.29
318.2	10580	21510	0.34	97.0	3230	6550	0.34
319.9	10580	20830	0.33	97.5	3230	6350	0.33
321.5	10580	20200	0.31	98.0	3230	6160	0.31
323.2	10180	20830	0.34	98.5	3100	6350	0.34
324.8	9800	19050	0.32	99.0	2990	5810	0.32
326.4	9660	17540	0.28	99.5	2940	5350	0.28
328.1	9800	18520	0.31	100.0	2990	5640	0.31
329.7	9950	18520	0.30	100.5	3030	5640	0.30
331.4	9950	18520	0.30	101.0	3030	5640	0.30
333.0	10030	18520	0.29	101.5	3060	5640	0.29
334.7	10340	19610	0.31	102.0	3150	5980	0.31
336.3	10500	19610	0.30	102.5	3200	5980	0.30

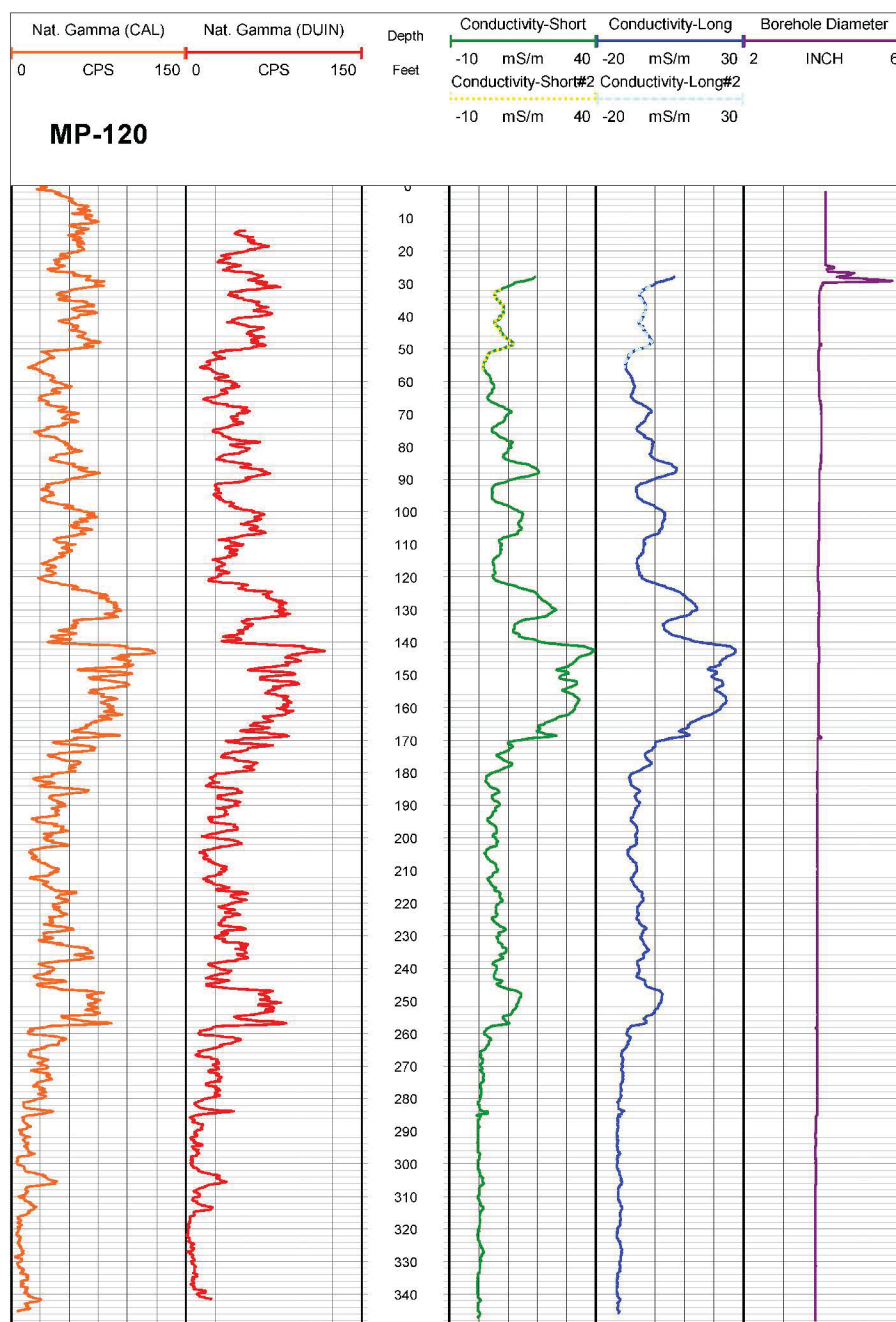


Figure 28. Boring MP-120, Induction, Natural Gamma and Caliper logs

Table 17. Boring MP-120, Acoustic Televiwer Feature depth, dip azimuth, dip and description

Depth (feet)	Dip azimuth	Dip	Structure description
26.0	N355	61	Fracture Planar Hairline-fracture
26.8	N145	42	Primary-structure Planar Bedding
27.7	N167	37	Primary-structure Planar Bedding
29.0	N162	31	Primary-structure Planar Bedding
30.2	N175	38	Primary-structure Planar Bedding
30.9	N174	36	Primary-structure Planar Bedding
31.9	N153	33	Primary-structure Planar Bedding
32.8	N345	54	Fracture Planar Hairline-fracture
33.3	N167	32	Primary-structure Planar Bedding
33.5	N168	28	Primary-structure Planar Bedding
33.6	N334	47	Fracture Planar Hairline-fracture
34.3	N168	32	Primary-structure Planar Bedding
34.5	N160	32	Primary-structure Planar Bedding
34.5	N356	57	Fracture Planar Hairline-fracture
35.7	N181	35	Primary-structure Planar Bedding
35.8	N345	69	Fracture Planar Hairline-fracture
36.8	N320	58	Fracture Discontinuous Hairline-fracture
37.0	N149	31	Primary-structure Planar Bedding
37.2	N325	68	Fracture Discontinuous Hairline-fracture
38.0	N323	56	Fracture Discontinuous Hairline-fracture
38.0	N165	28	Primary-structure Planar Bedding
38.3	N148	38	Primary-structure Planar Bedding
39.2	N156	29	Primary-structure Planar Bedding
40.0	N335	55	Fracture Discontinuous Hairline-fracture
40.0	N156	31	Primary-structure Planar Bedding
40.6	N146	31	Primary-structure Planar Bedding
41.0	N143	32	Primary-structure Planar Bedding
41.5	N326	66	Fracture Discontinuous Hairline-fracture
41.8	N160	30	Primary-structure Planar Bedding
43.0	N157	28	Primary-structure Planar Bedding
43.8	N151	31	Primary-structure Planar Bedding
44.0	N333	41	Fracture Discontinuous Hairline-fracture
44.7	N143	34	Primary-structure Planar Bedding
45.7	N153	33	Primary-structure Planar Bedding
46.5	N150	34	Primary-structure Planar Bedding
47.2	N155	32	Primary-structure Planar Bedding
48.0	N321	65	Fracture Discontinuous Hairline-fracture

Depth (feet)	Dip azimuth	Dip	Structure description
48.3	N156	29	Fracture Planar Open-fracture
48.4	N154	31	Primary-structure Planar Bedding
48.7	N150	36	Primary-structure Planar Bedding
49.8	N146	29	Primary-structure Planar Bedding
50.8	N159	36	Primary-structure Planar Bedding
52.8	N152	35	Primary-structure Planar Bedding
54.9	N147	31	Primary-structure Planar Bedding
56.7	N156	30	Primary-structure Planar Bedding
57.8	N151	30	Primary-structure Planar Bedding
59.0	N153	29	Primary-structure Planar Bedding
60.5	N155	33	Primary-structure Planar Bedding
61.3	N146	31	Primary-structure Planar Bedding
61.9	N145	28	Primary-structure Planar Bedding
62.6	N152	32	Primary-structure Planar Bedding
63.9	N149	31	Primary-structure Planar Bedding
64.5	N158	34	Primary-structure Planar Bedding
65.6	N155	31	Primary-structure Planar Bedding
66.2	N152	26	Primary-structure Planar Bedding
66.8	N157	35	Primary-structure Planar Bedding
68.1	N152	28	Primary-structure Planar Bedding
68.7	N157	33	Primary-structure Planar Bedding
69.0	N152	36	Primary-structure Planar Bedding
69.7	N146	34	Primary-structure Planar Bedding
70.2	N155	35	Primary-structure Planar Bedding
71.3	N152	31	Primary-structure Planar Bedding
71.8	N150	37	Primary-structure Planar Bedding
72.8	N150	36	Primary-structure Planar Bedding
73.9	N159	36	Primary-structure Planar Bedding
75.0	N333	49	Fracture Discontinuous Hairline-fracture
75.2	N149	31	Primary-structure Planar Bedding
75.7	N316	34	Fracture Irregular Hairline-fracture
76.8	N333	51	Fracture Discontinuous Hairline-fracture
76.9	N147	32	Primary-structure Planar Bedding
77.7	N151	39	Primary-structure Planar Bedding
78.1	N155	37	Primary-structure Planar Bedding
78.8	N159	32	Primary-structure Planar Bedding
79.2	N149	34	Primary-structure Planar Bedding
79.3	N342	41	Fracture Discontinuous Hairline-fracture
80.1	N155	35	Primary-structure Planar Bedding



Depth (feet)	Dip azimuth	Dip	Structure description
80.2	N336	50	Fracture Discontinuous Hairline-fracture
81.8	N145	31	Primary-structure Planar Bedding
83.1	N154	31	Primary-structure Planar Bedding
84.5	N158	34	Primary-structure Planar Bedding
85.1	N150	32	Primary-structure Planar Bedding
86.3	N159	35	Primary-structure Planar Bedding
87.7	N150	34	Primary-structure Planar Bedding
88.2	N151	34	Primary-structure Planar Bedding
88.8	N152	35	Primary-structure Planar Bedding
89.7	N156	36	Primary-structure Planar Bedding
91.1	N157	39	Primary-structure Planar Bedding
93.8	N162	35	Primary-structure Planar Bedding
95.6	N331	45	Fracture Irregular Hairline-fracture
96.2	N158	34	Primary-structure Planar Bedding
97.6	N146	32	Primary-structure Planar Bedding
98.4	N332	48	Fracture Planar Hairline-fracture
98.5	N162	31	Primary-structure Planar Bedding
99.7	N153	29	Primary-structure Planar Bedding
100.6	N162	31	Primary-structure Planar Bedding
101.9	N151	39	Primary-structure Planar Bedding
102.7	N162	36	Primary-structure Planar Bedding
103.4	N148	30	Primary-structure Planar Bedding
105.0	N151	31	Primary-structure Planar Bedding
107.0	N152	34	Primary-structure Planar Bedding
107.5	N155	33	Primary-structure Planar Bedding
109.5	N156	32	Primary-structure Planar Bedding
111.3	N160	34	Primary-structure Planar Bedding
112.1	N158	34	Primary-structure Planar Bedding
113.0	N146	33	Primary-structure Planar Bedding
114.8	N158	34	Primary-structure Planar Bedding
115.7	N147	29	Primary-structure Planar Bedding
117.0	N156	37	Primary-structure Planar Bedding
118.4	N156	39	Primary-structure Planar Bedding
119.9	N335	50	Fracture Irregular Hairline-fracture
120.3	N329	40	Fracture Planar Hairline-fracture
121.7	N164	32	Fracture Planar Hairline-fracture
122.7	N156	35	Primary-structure Planar Bedding
123.8	N160	31	Primary-structure Planar Bedding
124.5	N160	33	Primary-structure Planar Bedding

Depth (feet)	Dip azimuth	Dip	Structure description
125.2	N154	32	Primary-structure Planar Bedding
126.3	N156	32	Primary-structure Planar Bedding
127.2	N155	33	Primary-structure Planar Bedding
127.9	N149	28	Primary-structure Planar Bedding
128.6	N161	36	Primary-structure Planar Bedding
129.3	N164	36	Primary-structure Planar Bedding
130.1	N165	38	Primary-structure Planar Bedding
130.8	N166	46	Primary-structure Planar Bedding
131.8	N166	30	Primary-structure Planar Bedding
132.4	N162	35	Primary-structure Planar Bedding
134.3	N151	30	Primary-structure Planar Bedding
135.0	N314	68	Fracture Planar Hairline-fracture
135.3	N152	31	Primary-structure Planar Bedding
135.8	N148	34	Primary-structure Planar Bedding
136.6	N328	50	Fracture Discontinuous Hairline-fracture
136.8	N149	33	Primary-structure Planar Bedding
137.7	N151	31	Primary-structure Planar Bedding
138.3	N139	36	Primary-structure Planar Bedding
138.4	N325	45	Fracture Discontinuous Hairline-fracture
139.1	N327	49	Fracture Discontinuous Hairline-fracture
139.2	N136	33	Primary-structure Planar Bedding
140.0	N153	33	Primary-structure Planar Bedding
140.8	N154	31	Primary-structure Planar Bedding
141.8	N147	29	Primary-structure Planar Bedding
142.5	N156	31	Primary-structure Planar Bedding
143.6	N155	34	Primary-structure Planar Bedding
144.9	N157	35	Primary-structure Planar Bedding
145.5	N154	30	Primary-structure Planar Bedding
146.5	N159	31	Primary-structure Planar Bedding
147.4	N146	35	Primary-structure Planar Bedding
148.8	N156	31	Primary-structure Planar Bedding
148.9	N328	59	Fracture Planar Hairline-fracture
149.3	N152	36	Primary-structure Planar Bedding
149.9	N328	55	Fracture Planar Hairline-fracture
150.0	N152	27	Primary-structure Planar Bedding
150.8	N156	31	Primary-structure Planar Bedding
152.0	N152	34	Primary-structure Planar Bedding
153.1	N157	31	Primary-structure Planar Bedding
153.8	N148	32	Primary-structure Planar Bedding



Depth (feet)	Dip azimuth	Dip	Structure description
154.3	N339	57	Fracture Discontinuous Hairline-fracture
154.3	N150	28	Primary-structure Planar Bedding
156.5	N148	29	Primary-structure Planar Bedding
157.1	N145	29	Primary-structure Planar Bedding
158.0	N159	31	Primary-structure Planar Bedding
160.3	N156	26	Primary-structure Planar Bedding
161.2	N169	32	Primary-structure Planar Bedding
161.9	N150	33	Primary-structure Planar Bedding
163.5	N160	31	Primary-structure Planar Bedding
164.6	N154	33	Primary-structure Planar Bedding
165.0	N152	34	Primary-structure Planar Bedding
165.4	N150	34	Primary-structure Planar Bedding
166.3	N161	33	Primary-structure Planar Bedding
166.9	N152	29	Primary-structure Planar Bedding
167.1	N339	50	Fracture Discontinuous Hairline-fracture
167.8	N147	40	Primary-structure Planar Bedding
168.8	N146	35	Fracture Planar Open-fracture
168.9	N156	36	Fracture Planar Open-fracture
169.1	N155	31	Primary-structure Planar Bedding
171.3	N152	32	Primary-structure Planar Bedding
172.2	N150	33	Primary-structure Planar Bedding
172.8	N153	31	Primary-structure Planar Bedding
174.0	N153	30	Primary-structure Planar Bedding
174.9	N148	31	Primary-structure Planar Bedding
175.9	N151	34	Primary-structure Planar Bedding
176.7	N157	31	Primary-structure Planar Bedding
177.7	N153	31	Primary-structure Planar Bedding
178.7	N145	35	Primary-structure Planar Bedding
180.3	N154	34	Primary-structure Planar Bedding
182.0	N152	30	Primary-structure Planar Bedding
183.4	N144	41	Primary-structure Irregular Bedding
184.7	N162	29	Primary-structure Planar Bedding
186.2	N154	29	Primary-structure Planar Bedding
187.0	N154	33	Primary-structure Planar Bedding
187.4	N163	28	Primary-structure Planar Bedding
187.8	N335	60	Fracture Discontinuous Hairline-fracture
188.2	N149	32	Primary-structure Planar Bedding
188.6	N137	46	Primary-structure Planar Bedding
189.6	N155	29	Primary-structure Planar Bedding

Depth (feet)	Dip azimuth	Dip	Structure description
190.3	N161	31	Primary-structure Planar Bedding
191.2	N159	41	Primary-structure Planar Bedding
191.6	N330	72	Fracture Discontinuous Hairline-fracture
192.5	N156	30	Primary-structure Planar Bedding
193.6	N161	30	Primary-structure Planar Bedding
195.7	N152	34	Primary-structure Planar Bedding
196.6	N150	30	Primary-structure Planar Bedding
197.6	N149	35	Primary-structure Planar Bedding
198.2	N152	34	Primary-structure Planar Bedding
199.4	N159	27	Primary-structure Planar Bedding
200.3	N159	34	Primary-structure Planar Bedding
201.4	N160	36	Primary-structure Planar Bedding
201.9	N156	33	Primary-structure Planar Bedding
202.8	N161	32	Primary-structure Planar Bedding
203.7	N162	31	Primary-structure Planar Bedding
204.6	N160	33	Primary-structure Planar Bedding
205.2	N154	29	Primary-structure Planar Bedding
206.0	N153	31	Primary-structure Planar Bedding
206.1	N324	53	Fracture Discontinuous Hairline-fracture
207.1	N158	32	Primary-structure Planar Bedding
211.1	N318	52	Fracture Planar Hairline-fracture
211.7	N151	33	Primary-structure Planar Bedding
212.7	N153	36	Primary-structure Planar Bedding
213.3	N158	30	Primary-structure Planar Bedding
213.9	N154	33	Primary-structure Planar Bedding
214.1	N164	40	Primary-structure Planar Bedding
215.1	N156	32	Primary-structure Planar Bedding
215.7	N321	52	Fracture Discontinuous Hairline-fracture
217.2	N148	35	Primary-structure Planar Bedding
219.6	N156	35	Primary-structure Planar Bedding
220.0	N151	29	Primary-structure Planar Bedding
220.5	N161	32	Primary-structure Planar Bedding
221.4	N155	33	Primary-structure Planar Bedding
222.4	N152	30	Primary-structure Planar Bedding
223.6	N153	33	Primary-structure Planar Bedding
224.5	N156	27	Primary-structure Planar Bedding
225.2	N157	27	Primary-structure Planar Bedding
225.6	N146	30	Primary-structure Planar Bedding
225.8	N330	57	Fracture Discontinuous Hairline-fracture