HR Vertilog

Magnetic Flux Leakage Inspection

Advanced Analysis

Company	Southern California Gas Company
Well	Porter # 35
Field	Aliso Canyon Storage Pool
County	Los Angeles
State	California

Location:

Section 27	Township 3N	Range 16W	

Date	Feb. 26, 2016
Service Order	US106087
Recorded by	Matthew J Wood
Witnessed by	Mr.Jeff Sandoval
API Serial No.	37-00722

Permanent Datum:	G.L.	Elevation: 2094.000 ft.		Depth	7852.000
Log Measured From:	K.B.	7.000 ft. above Perm. Datum		Btm. Log Interval	7821.140
Drilling Measured From:	K.B.	2101.000 ft. above Perm. Datum		Top Log Interval	21.010
				Fluid Type	Polymer

Casing Data

Size	Weight	Grade	From	To	Length
7 inch	23.0 lb/ft	J55 (HR Std)	0	3351	3351.0
7 inch	23 lb/ft	N-80	3351	5055	1704.0
7 inch	26 lb/ft	N-80	5055	6616	1561.0
7 inch	29 lb/ft	N-80	6616	7910	1294.0
5 inch	18	N-80 Liner	7877	8142	265.0
2.875	N/A	Liner	7851	8134	283.0
13 3/8 inch	55 lb/ft	N/A	0	505	505.0

Equipment Data

Tool	7 to 9-5/8 Inch HRVRT 96 FL + 96 DIS Tool
Magnetizer	7 to 9-5/8 Inch HRVRT 96 FL + 96 DIS Tool
Telemetry	MUX-DB
Software Version	6.0.0.0

Calibration Data

Calibration File Name	4997-7-001-PA10409816-QA10409824.CAL

Date of Calibration	10/14/2014 15:00
Calibration Identifier	F2ECB25B-FBB1-4305-A362-411F79038733
Tool Number	4997-00
Calibrator Number	4997-7-001
Calibrator Size	(7 In - 178 mm)
Calibration Source File	20141015_072957_MEM.MVL
Calibration Software Rev	Microvision 32-bit 7.0.1.0
Comment	RMA1108

Calibration Data

Calibration File Name	4997-7-001-PA10409816-U.CAL
Date of Calibration	04/03/2015 09:27
Calibration Identifier	B7AF82F3-FAAB-4CE0-9570-44283CC7656D
Tool Number	4997-00
Calibrator Number	4997-7-001
Calibrator Size	(7 In - 178 mm)
Calibration Source File	20150403_083948_MEM.MVL
Calibration Software Rev	Microvision 32-bit 7.3.2.2
Comment	RMA1167

Calibration Data

Calibration File Name	4997-7-001-QA10409824-L.CAL
Date of Calibration	04/03/2015 09:27
Calibration Identifier	B7AF82F3-FAAB-4CE0-9570-44283CC7656D
Tool Number	4997-00
Calibrator Number	4997-7-001
Calibrator Size	(7 In - 178 mm)
Calibration Source File	20150403_083948_MEM.MVL
Calibration Software Rev	Microvision 32-bit 7.3.2.2
Comment	RMA1167

In making interpretations of logs our employees will give customer the benefit of their best judgment. But since all interpretations are opinions based on inferences from electrical or other measurements, we cannot, and we do not guarantee the accuracy or correctness of any interpretation. We shall not be liable or responsible for any loss, cost, damages, or expenses whatsoever incurred or sustained by the customer resulting from any interpretation made by any of our employees.

Remarks

Thank you for choosing Baker Hughes Wireline Services.
The tools zero point was at K.B. 7' ABOVE PD.
This log was put on depth with the 56-MFC log of baker hughes 2/26/2016.
N/A Unknown or unavailable at the time of logging.

Interpretation

HRVRT Analysis was depth correlated to Imaging Caliper logged 26 Feb 2016.

The top joint is a short joint.

The HRVRT encountered a high stick and pull through the collars which may result in some collars with reported elongated lengths.

22.04 ft	Hardware - External Casing Head Response.
508.23 ft	Hardware - Bottom of 13 3/8" External Casing.
3355.79 ft	7" Casing Grade change; 23# J55 above, 23# N80 below.
5058.76 ft	7" Casing Weight change; 23# N80 above, 26# N80 below.
6618.99 ft	7" Casing weight change; 26# N80 above, 29# N80 below.

Perforated Interval - Mechanical perforations, Possible Squeezed. Logged from 7808.5' - 7818'. Refer to casing record.

There were no Centralizers or Scratchers observed through the recorded interval.

Joint Interpretation Summary

Joint	From	To	Length	Class	Max Depth	Position	ID/OD
1	21.01	40.96	19.95	Class 1	-	-	-
2	40.96	81.87	40.91	Class 1	-	-	-
3	81.87	124.90	43.03	Class 1	-	-	-
4	124.90	168.01	43.11	Class 1	-	-	-
5	168.01	211.59	43.58	Class 1	-	-	-
6	211.59	254.70	43.11	Class 1	-	-	-
7	254.70	296.99	42.29	Class 1	-	-	-
8	296.99	340.38	43.39	Class 1	-	-	-
9	340.38	384.84	44.46	Class 1	-	-	-
10	384.84	427.41	42.57	Class 1	-	-	-
11	427.41	470.31	42.90	Class 1	-	-	-
12	470.31	513.74	43.43	Class 1	-	-	-
13	513.74	556.71	42.97	Class 1	15.0%	520.39	OD
14	556.71	599.11	42.40	Class 1	-	-	-
15	599.11	640.49	41.38	Class 1	-	-	-
16	640.49	683.90	43.41	Class 1	-	-	-
17	683.90	727.67	43.77	Class 1	-	-	-
18	727.67	770.36	42.69	Class 1	-	-	-
19	770.36	813.89	43.53	Class 1	-	-	-
20	813.89	856.93	43.04	Class 1	-	-	-
21	856.93	900.42	43.49	Class 1	-	-	-
22	900.42	941.64	41.22	Class 1	-	-	-
23	941.64	982.94	41.30	Class 1	18.0%	975.28	ID
24	982.94	1026.73	43.79	Class 1	-	-	-
25	1026.73	1070.27	43.54	Class 1	-	-	-
26	1070.27	1113.17	42.90	Class 1	-	-	-
27	1113.17	1154.67	41.50	Class 1	-	-	-
28	1154.67	1198.20	43.53	Class 1	-	-	-
29	1198.20	1242.45	44.25	Class 1	-	-	-
30	1242.45	1285.60	43.15	Class 1	-	-	-
31	1285.60	1328.28	42.68	Class 1	-	-	-
32	1328.28	1370.30	42.02	Class 1	-	-	-
33	1370.30	1412.43	42.13	Class 1	-	-	-
34	1412.43	1455.48	43.05	Class 1	-	-	-
35	1455.48	1497.95	42.47	Class 1	-	-	-
36	1497.95	1539.17	41.22	Class 1	-	-	-
37	1539.17	1580.93	41.76	Class 1	-	-	-
38	1580.93	1623.27	42.34	Class 1	-	-	-
39	1623.27	1665.75	42.48	Class 1	-	-	-
40	1665.75	1709.09	43.34	Class 1	-	-	-

41	1709.09	1750.83	41.74	Class	1	-	-	-	
42	1750.83	1792.20	41.37	Class	1	-	-	-	
43	1792.20	1835.45	43.25	Class	1	-	-	-	
44	1835.45	1878.84	43.39	Class	1	-	-	-	
45	1878.84	1921.53	42.69	Class	1	-	-	-	
46	1921.53	1963.44	41.91	Class	1	-	-	-	
47	1963.44	2005.74	42.30	Class	1	-	-	-	
48	2005.74	2048.09	42.35	Class	1	-	-	-	
49	2048.09	2089.96	41.87	Class	1	19.0%	2088.30	OD	
50	2089.96	2132.17	42.21	Class	2	20.0%	2124.34	OD	
51	2132.17	2174.87	42.70	Class	2	32.0%	2136.38	OD	
52	2174.87	2215.40	40.53	Class	1	-	-	-	
53	2215.40	2257.84	42.44	Class	1	17.0%	2245.31	OD	
54	2257.84	2300.41	42.57	Class	1	-	-	-	
55	2300.41	2343.13	42.72	Class	1	-	-	-	
56	2343.13	2385.28	42.15	Class	1	-	-	-	
57	2385.28	2427.43	42.15	Class	1	-	-	-	
58	2427.43	2470.50	43.07	Class	1	-	-	-	
59	2470.50	2512.97	42.47	Class	1	-	-	-	
60	2512.97	2554.93	41.96	Class	1	-	-	-	
61	2554.93	2598.39	43.46	Class	1	-	-	-	
62	2598.39	2640.42	42.03	Class	1	-	-	-	
63	2640.42	2679.14	38.72	Class	1	16.0%	2658.25	OD	
64	2679.14	2721.91	42.77	Class	1	-	-	-	
65	2721.91	2764.09	42.18	Class	1	-	-	-	
66	2764.09	2807.06	42.97	Class	1	-	-	-	
67	2807.06	2849.01	41.95	Class	2	21.0%	2826.16	OD	
68	2849.01	2892.27	43.26	Class	1	-	-	-	
69	2892.27	2935.42	43.15	Class	1	-	-	-	
70	2935.42	2977.43	42.01	Class	1	-	-	-	
71	2977.43	3020.33	42.90	Class	2	22.0%	2981.57	OD	
72	3020.33	3062.54	42.21	Class	1	-	-	-	
73	3062.54	3104.90	42.36	Class	1	-	-	-	
74	3104.90	3147.74	42.84	Class	1	15.0%	3116.57	OD	
75	3147.74	3189.72	41.98	Class	1	16.0%	3182.39	OD	
76	3189.72	3231.67	41.95	Class	1	-	-	-	
77	3231.67	3271.32	39.65	Class	1	-	-	-	
78	3271.32	3313.68	42.36	Class	1	-	-	-	
79	3313.68	3355.79	42.11	Class	1	-	-	-	
80	3355.79	3398.13	42.34	Class	4	85.0%	3396.30	OD	anomaly. Fail
81	3398.13	3441.27	43.14	Class	4	86.0%	3420.03	OD	at 3355-3398'.
82	3441.27	3484.13	42.86	Class	4	61.0%	3463.54	OD	
83	3484.13	3526.71	42.58	Class	1	-	-	-	
84	3526.71	3567.80	41.09	Class	1	-	-	-	
85	3567.80	3610.91	43.11	Class	1	-	-	-	
86	3610.91	3651.72	40.81	Class	1	-	-	-	
87	3651.72	3692.53	40.81	Class	1	-	-	-	
88	3692.53	3734.82	42.29	Class	1	-	-	-	
89	3734.82	3777.78	42.96	Class	1	-	-	-	
90	3777.78	3820.15	42.37	Class	1	-	-	-	
91	3820.15	3862.45	42.30	Class	1	-	-	-	
92	3862.45	3906.01	43.56	Class	1	-	-	-	
93	3906.01	3949.54	43.53	Class	1	-	-	-	
94	3949.54	3993.45	43.91	Class	1	-	-	-	
95	3993.45	4034.21	40.76	Class	1	-	-	-	
96	4034.21	4076.87	42.66	Class	1	-	-	-	
97	4076.87	4119.21	42.34	Class	1	-	-	-	
98	4119.21	4163.02	43.81	Class	1	-	-	-	
99	4163.02	4204.61	41.59	Class	1	-	-	-	
100	4204.61	4247.13	42.52	Class	1	-	-	-	
101	4247.13	4289.06	41.93	Class	1	-	-	-	
102	4289.06	4331.91	42.85	Class	1	-	-	-	
103	4331.91	4375.23	43.32	Class	1	-	-	-	

104	4375.23	4414.79	39.56	Class 1	-	-	-
105	4414.79	4458.32	43.53	Class 1	-	-	-
106	4458.32	4501.90	43.58	Class 1	-	-	-
107	4501.90	4545.14	43.24	Class 1	-	-	-
108	4545.14	4585.85	40.71	Class 1	-	-	-
109	4585.85	4628.75	42.90	Class 1	-	-	-
110	4628.75	4671.20	42.45	Class 1	-	-	-
111	4671.20	4714.13	42.93	Class 1	-	-	-
112	4714.13	4757.35	43.22	Class 1	-	-	-
113	4757.35	4800.25	42.90	Class 1	-	-	-
114	4800.25	4843.64	43.39	Class 1	-	-	-
115	4843.64	4885.03	41.39	Class 1	-	-	-
116	4885.03	4929.40	44.37	Class 1	-	-	-
117	4929.40	4973.68	44.28	Class 1	-	-	-
118	4973.68	5015.12	41.44	Class 1	-	-	-
119	5015.12	5058.76	43.64	Class 1	15.0%	5047.02	OD
120	5058.76	5101.23	42.47	Class 1	-	-	-
121	5101.23	5144.50	43.27	Class 1	-	-	-
122	5144.50	5187.05	42.55	Class 1	-	-	-
123	5187.05	5230.38	43.33	Class 1	-	-	-
124	5230.38	5274.73	44.35	Class 1	-	-	-
125	5274.73	5317.03	42.30	Class 1	-	-	-
126	5317.03	5360.74	43.71	Class 1	16.0%	5358.34	ID
127	5360.74	5404.43	43.69	Class 1	-	-	-
128	5404.43	5438.33	33.90	Class 1	-	-	-
129	5438.33	5481.50	43.17	Class 1	-	-	-
130	5481.50	5525.55	44.05	Class 1	-	-	-
131	5525.55	5567.60	42.05	Class 1	-	-	-
132	5567.60	5602.76	35.16	Class 1	-	-	-
133	5602.76	5646.45	43.69	Class 1	-	-	-
134	5646.45	5688.17	41.72	Class 1	-	-	-
135	5688.17	5728.63	40.46	Class 1	-	-	-
136	5728.63	5773.47	44.84	Class 1	-	-	-
137	5773.47	5811.29	37.82	Class 1	15.0%	5809.12	ID
138	5811.29	5853.37	42.08	Class 1	-	-	-
139	5853.37	5896.22	42.85	Class 1	-	-	-
140	5896.22	5940.29	44.07	Class 1	-	-	-
141	5940.29	5982.72	42.43	Class 1	-	-	-
142	5982.72	6026.16	43.44	Class 2	21.0%	6024.23	ID
143	6026.16	6067.41	41.25	Class 1	-	-	-
144	6067.41	6109.27	41.86	Class 1	-	-	-
145	6109.27	6152.20	42.93	Class 1	16.0%	6150.03	ID
146	6152.20	6193.96	41.76	Class 1	18.0%	6191.30	ID
147	6193.96	6237.44	43.48	Class 1	-	-	-
148	6237.44	6279.45	42.01	Class 1	-	-	-
149	6279.45	6321.90	42.45	Class 1	-	-	-
150	6321.90	6364.59	42.69	Class 1	-	-	-
151	6364.59	6407.91	43.32	Class 1	-	-	-
152	6407.91	6452.41	44.50	Class 1	-	-	-
153	6452.41	6495.07	42.66	Class 1	-	-	-
154	6495.07	6536.03	40.96	Class 1	-	-	-
155	6536.03	6577.82	41.79	Class 1	-	-	-
156	6577.82	6618.99	41.17	Class 1	-	-	-
157	6618.99	6661.42	42.43	Class 1	-	-	-
158	6661.42	6699.15	37.73	Class 1	-	-	-
159	6699.15	6735.69	36.54	Class 1	-	-	-
160	6735.69	6774.12	38.43	Class 1	-	-	-
161	6774.12	6809.39	35.27	Class 1	-	-	-
162	6809.39	6851.66	42.27	Class 1	-	-	-
163	6851.66	6895.35	43.69	Class 1	-	-	-
164	6895.35	6938.38	43.03	Class 1	-	-	-
165	6938.38	6982.42	44.04	Class 1	-	-	-
166	6982.42	7024.99	42.57	Class 1	-	-	-
167	7024.99	7067.73	42.74	Class 1	-	-	-

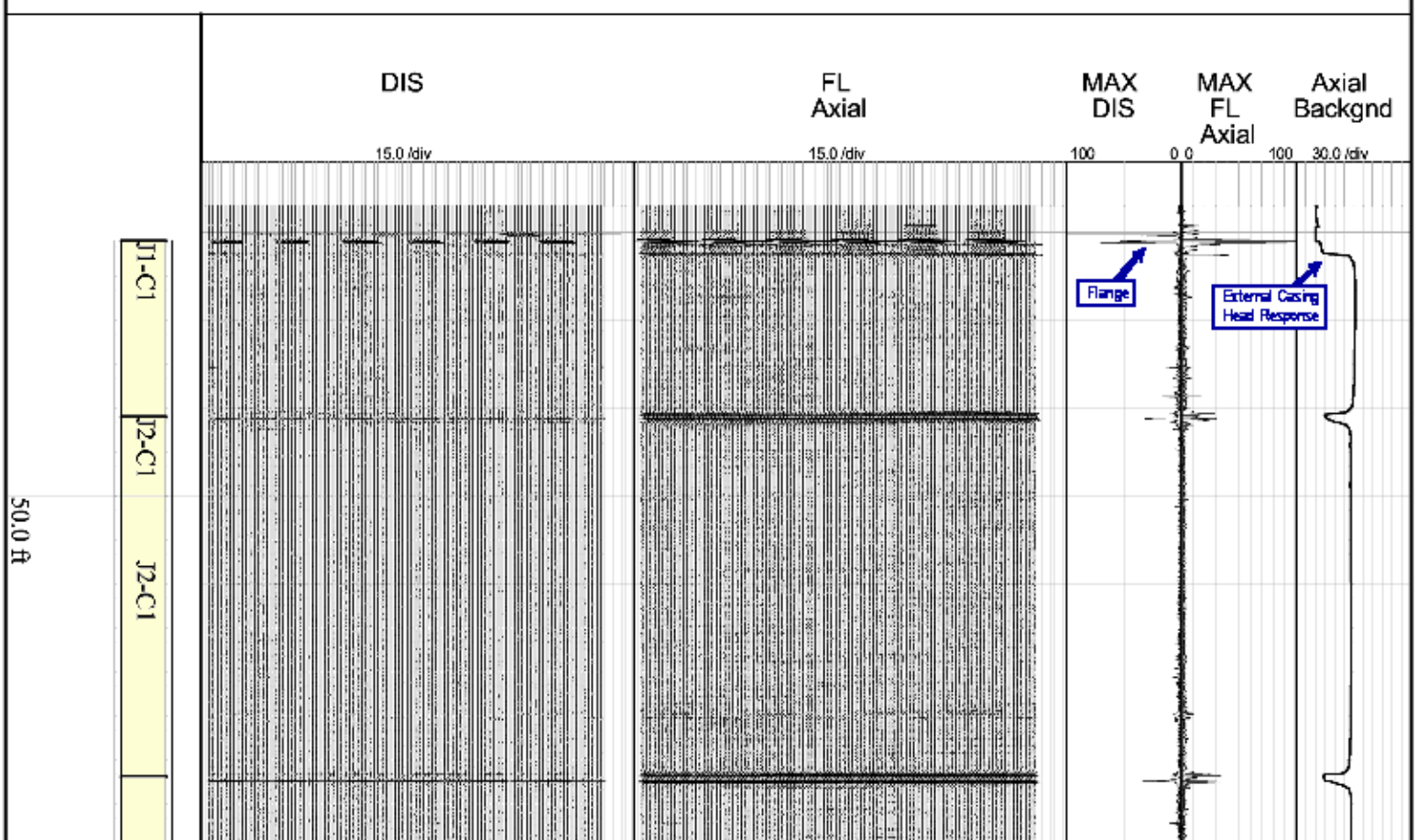
168	7067.73	7110.01	42.28	Class	1	-	-	-
169	7110.01	7150.56	40.55	Class	1	-	-	-
170	7150.56	7193.90	43.34	Class	1	-	-	-
171	7193.90	7237.19	43.29	Class	1	-	-	-
172	7237.19	7270.75	33.56	Class	1	-	-	-
173	7270.75	7315.45	44.70	Class	1	-	-	-
174	7315.45	7356.90	41.45	Class	1	-	-	-
175	7356.90	7401.53	44.63	Class	1	-	-	-
176	7401.53	7444.88	43.35	Class	1	-	-	-
177	7444.88	7485.03	40.15	Class	1	-	-	-
178	7485.03	7527.41	42.38	Class	1	-	-	-
179	7527.41	7569.33	41.92	Class	1	-	-	-
180	7569.33	7613.27	43.94	Class	1	-	-	-
181	7613.27	7656.20	42.93	Class	1	-	-	-
182	7656.20	7699.61	43.41	Class	1	-	-	-
183	7699.61	7742.57	42.96	Class	2	27.0%	7727.40	ID
184	7742.57	7785.74	43.17	Class	1	-	-	-
185	7785.74	7821.14	35.40	Class	1	19.0%	7787.06	ID

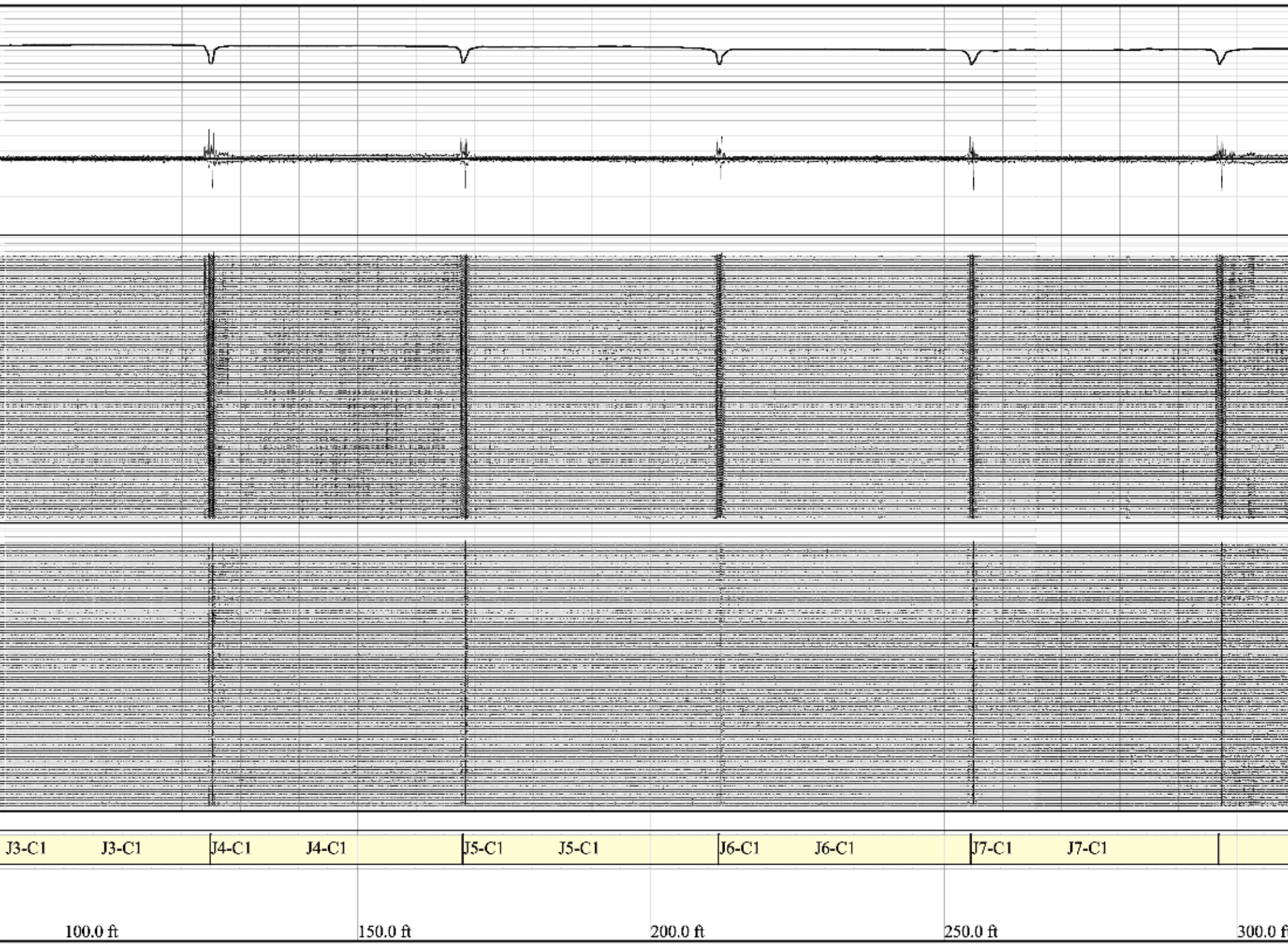
Southern California Gas Company Porter # 35

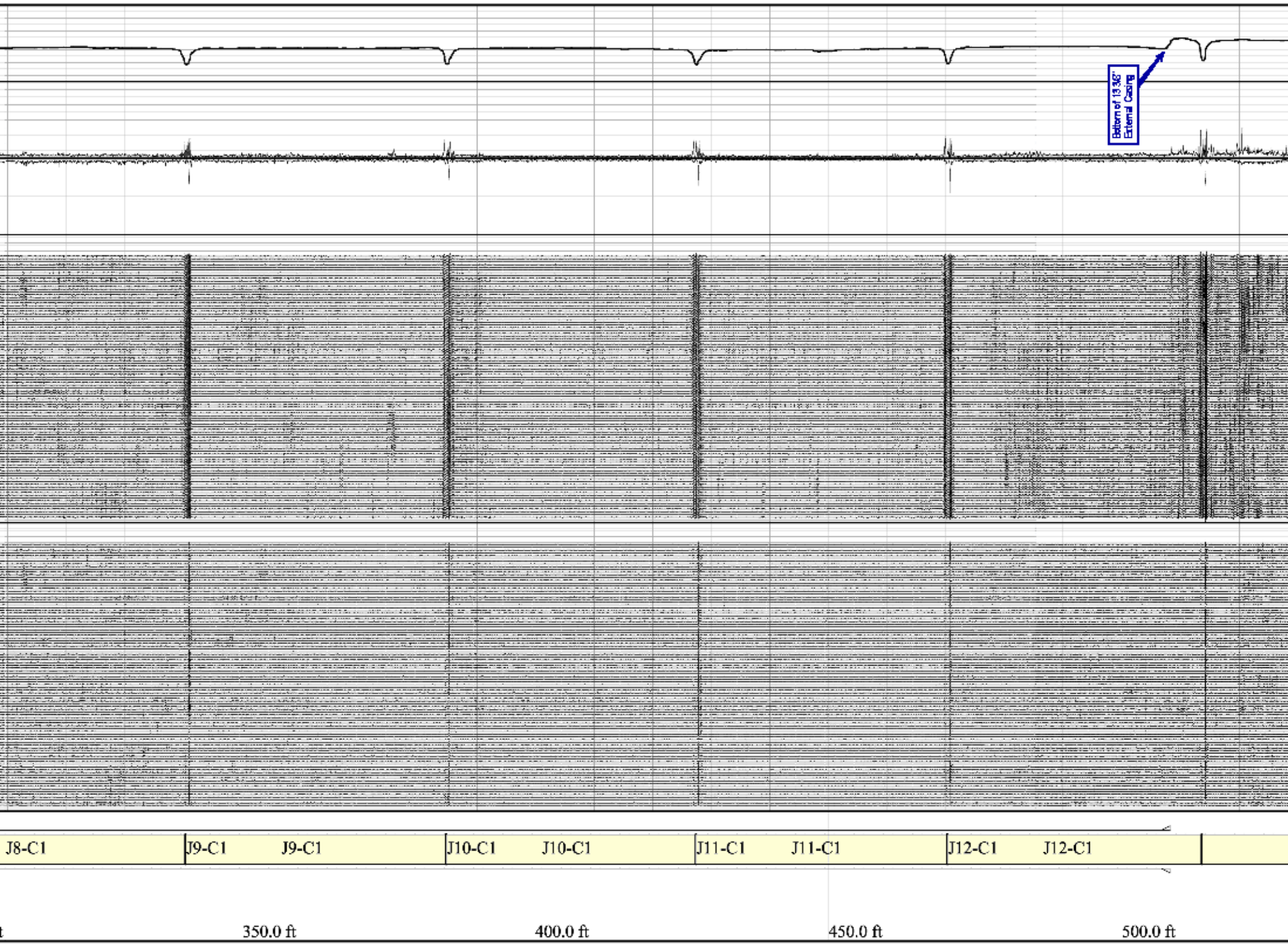
File 20160226_161504_RSP_0_0_0_0_0.mvl

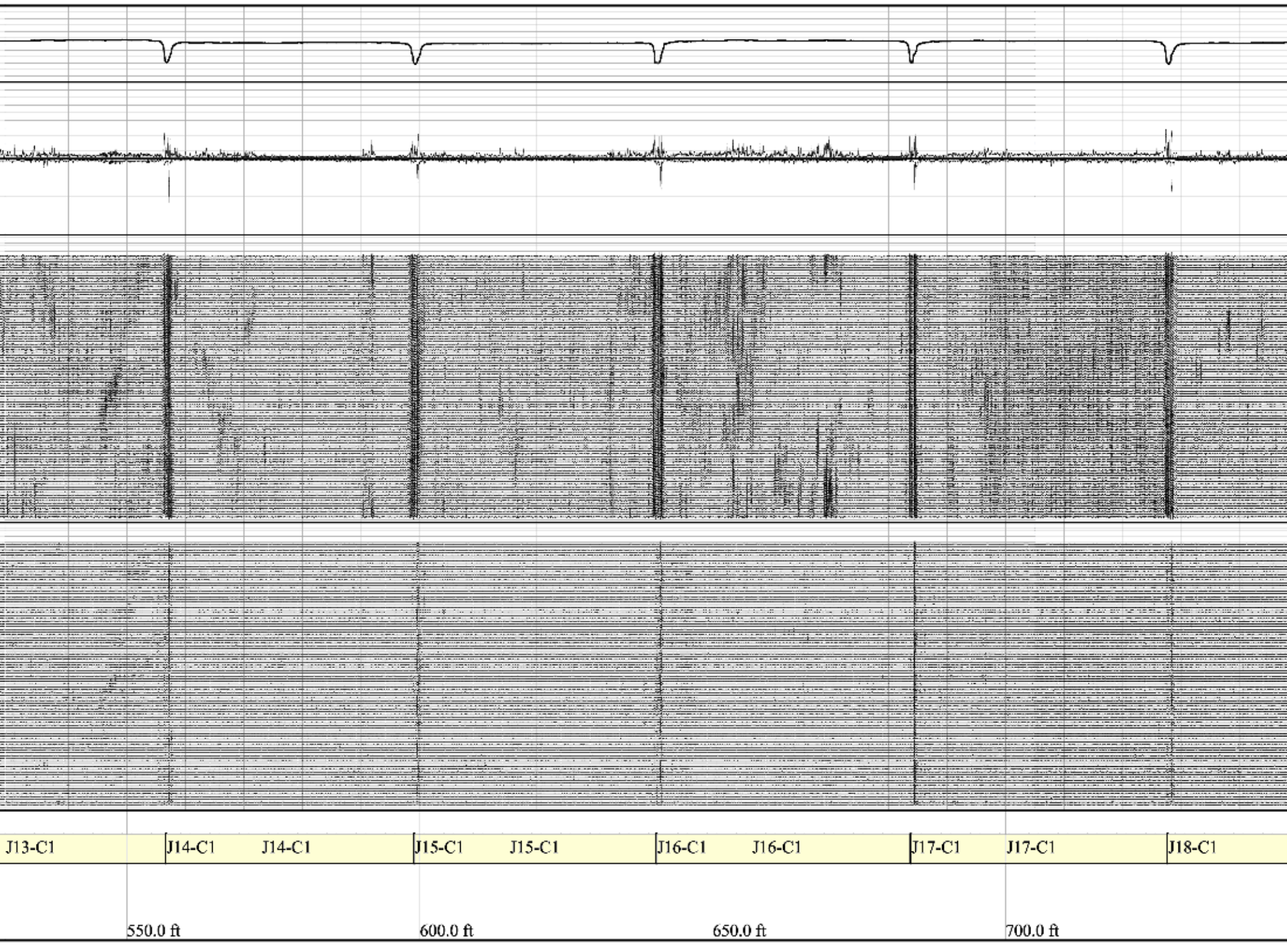
Main Log
5" / 100'

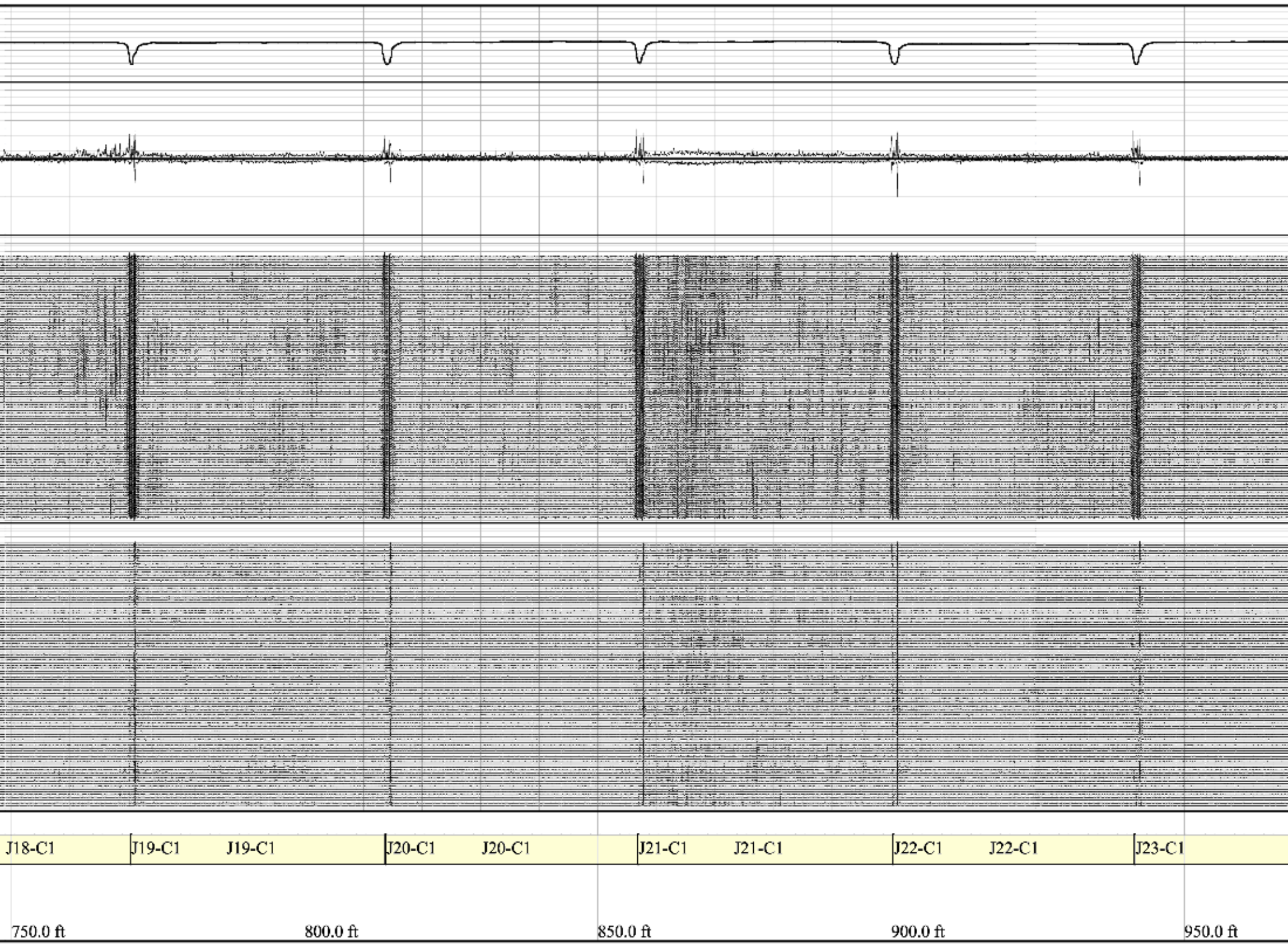
Class 1 0 - 20% | Class 2 20 - 40% | Class 3 40 - 60% | Class 4 60 - 100%

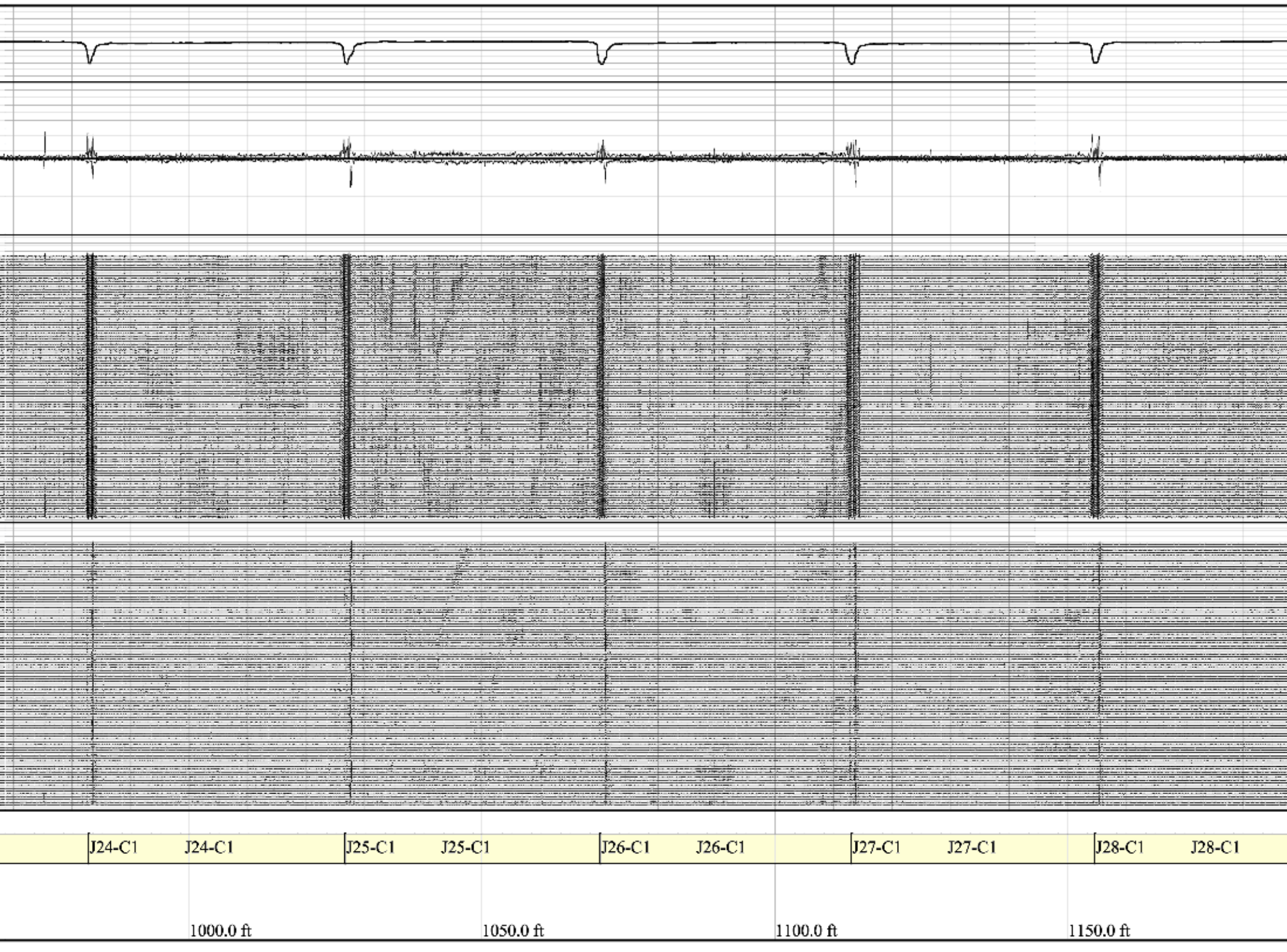


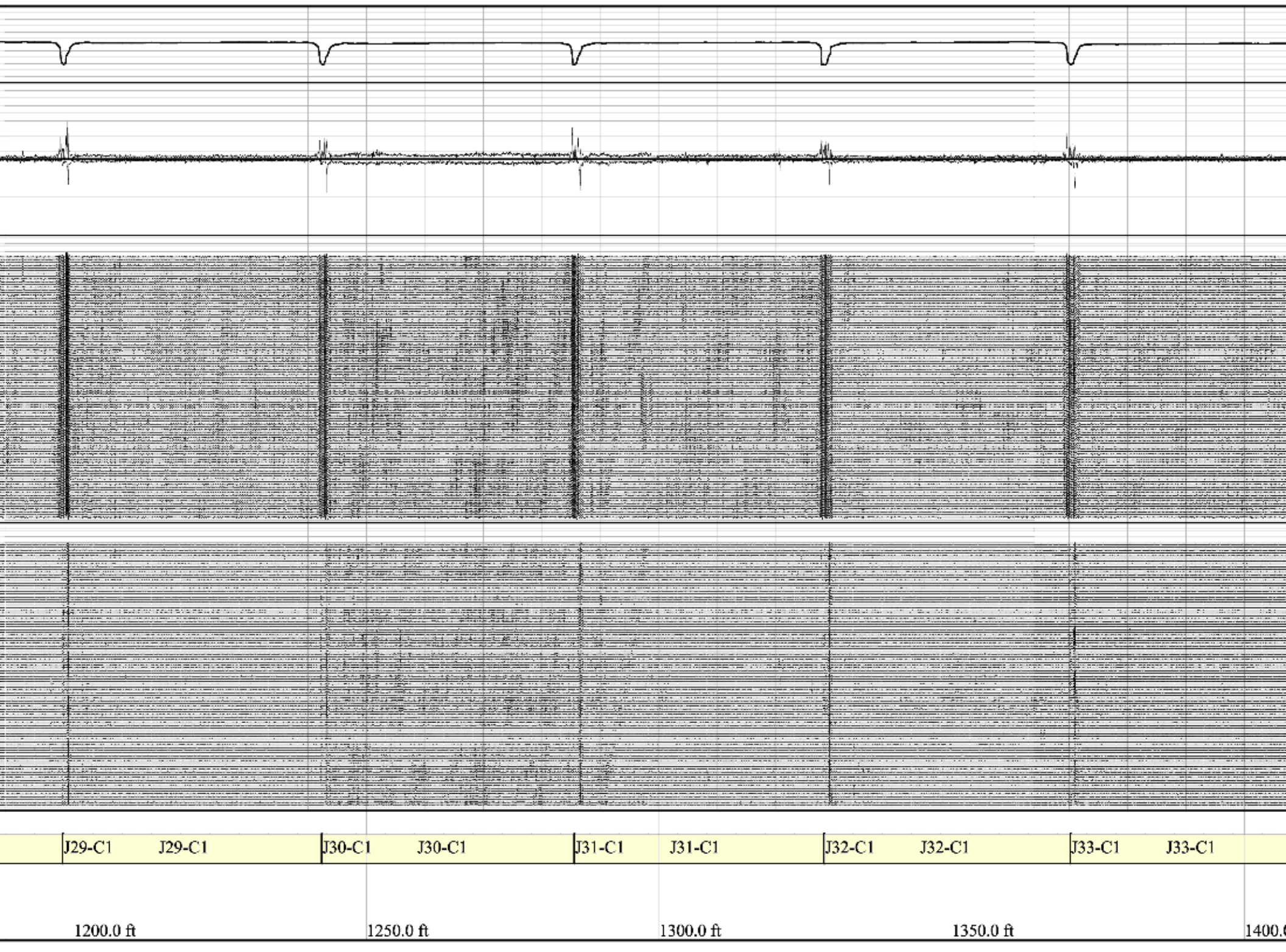

J3-C1
J3-C1
J4-C1
J4-C1
J5-C1
J5-C1
J6-C1
J6-C1
J7-C1
J7-C1
100.0 ft
150.0 ft
200.0 ft
250.0 ft
300.0 f

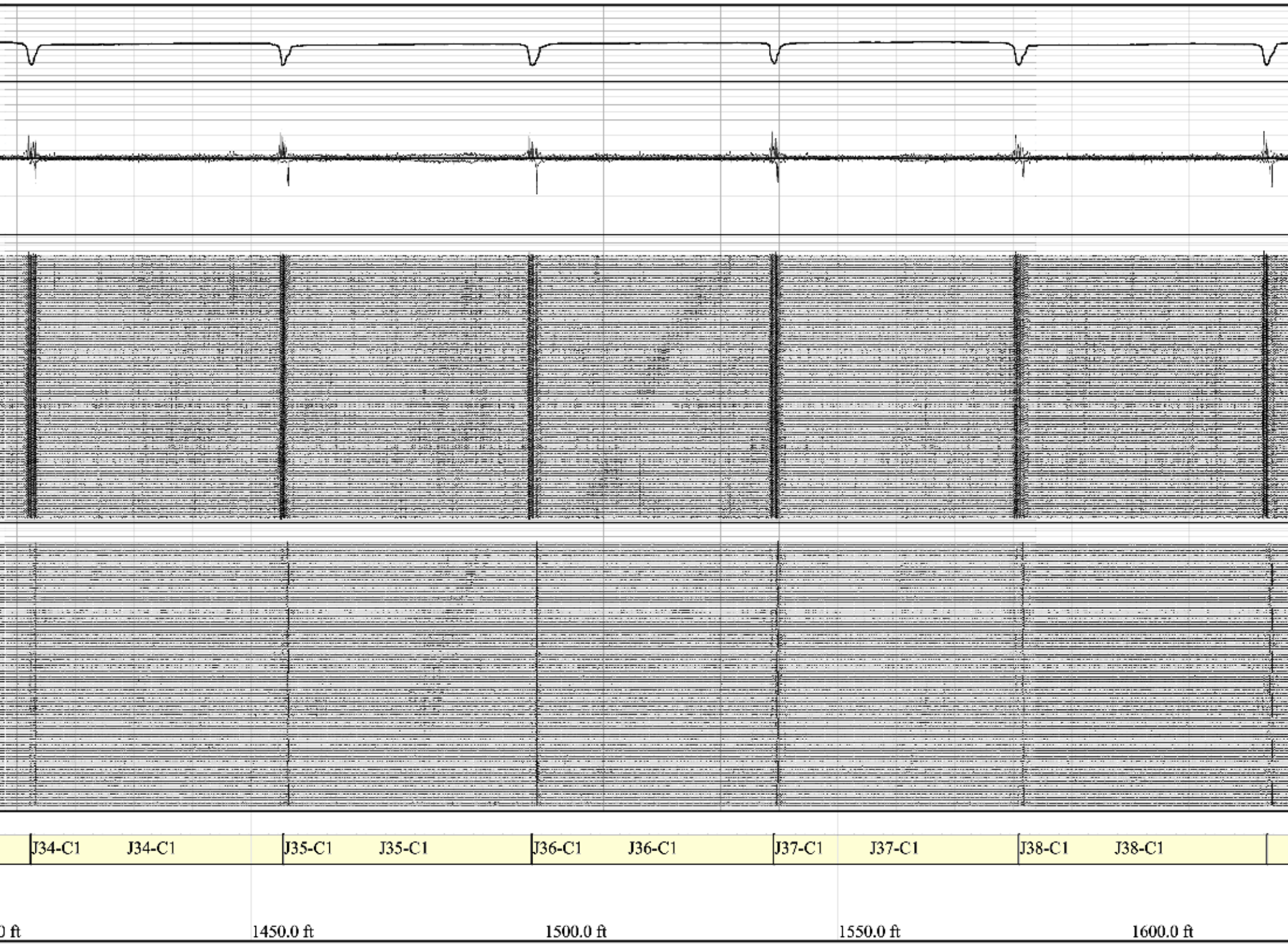

Bottom of 13.3/8" External Casing
J8-C1
J9-C1
J9-C1
J10-C1
J10-C1
J11-C1
J11-C1
J12-C1
J12-C1
350.0 ft
400.0 ft
450.0 ft
500.0 ft

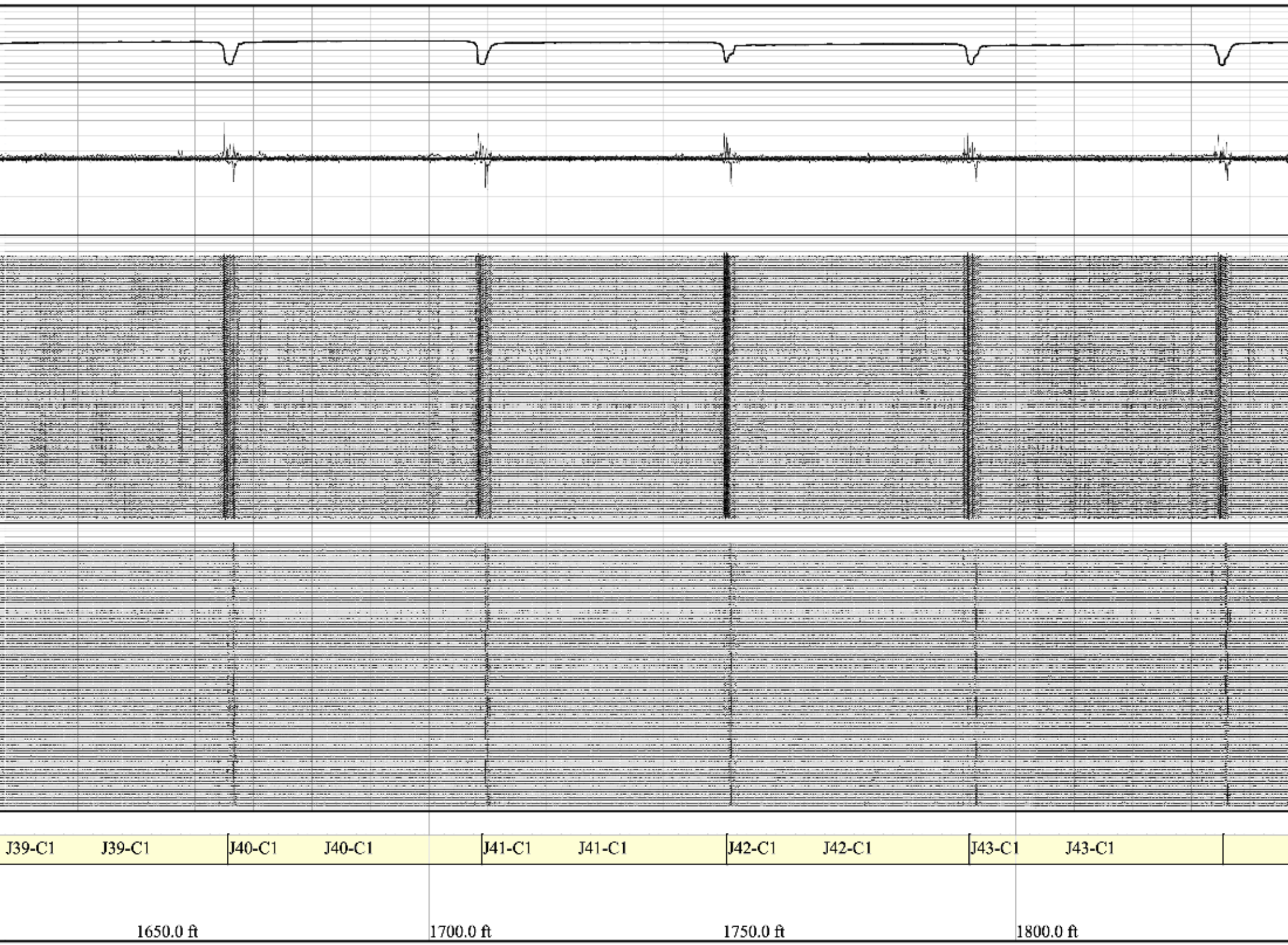

J13-C1
J14-C1
J14-C1
J15-C1
J15-C1
J16-C1
J16-C1
J17-C1
J17-C1
J18-C1
550.0 ft
600.0 ft
650.0 ft
700.0 ft

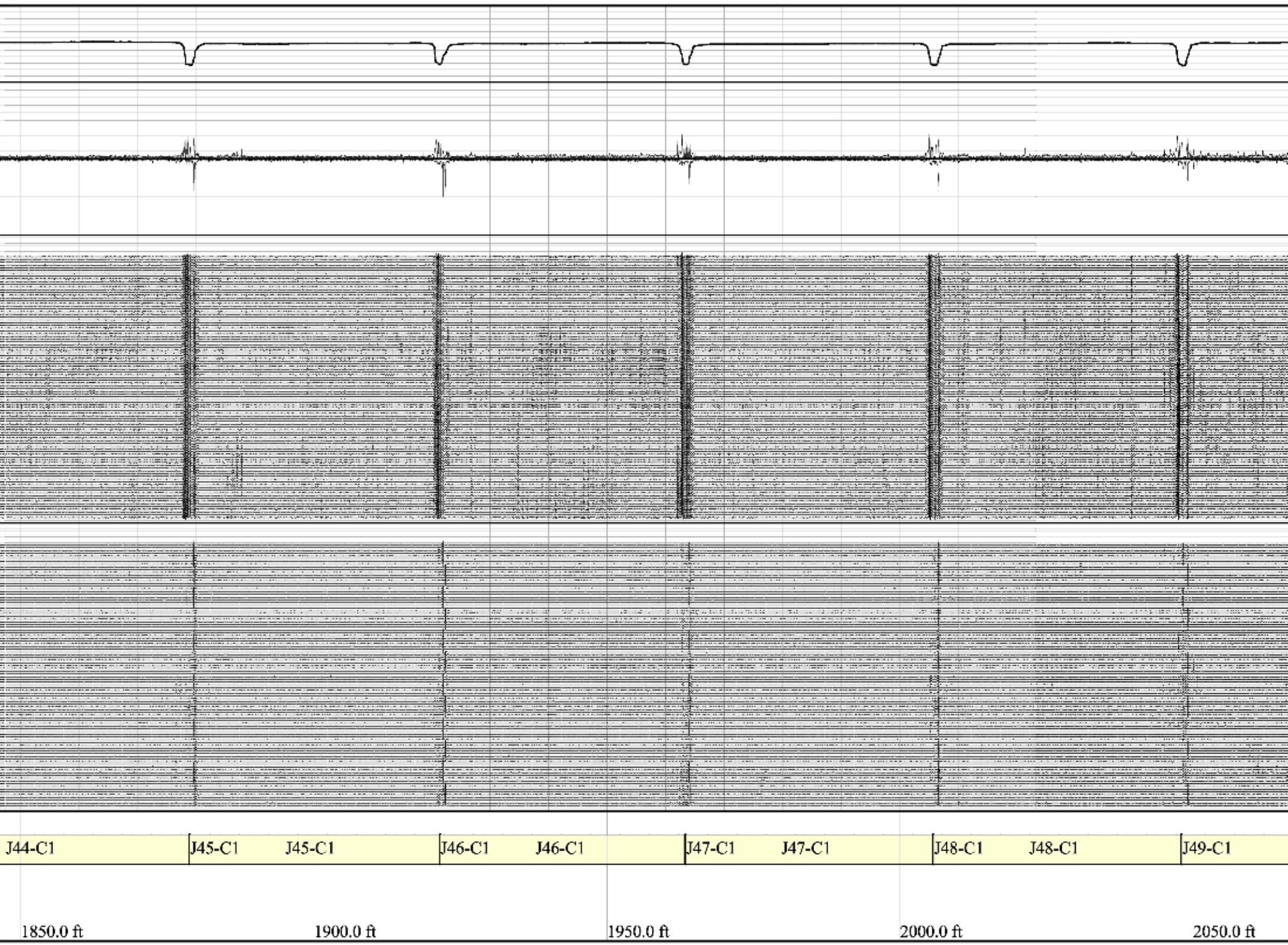

J18-C1
J19-C1
J19-C1
J20-C1
J20-C1
J21-C1
J21-C1
J22-C1
J22-C1
J23-C1
750.0 ft
800.0 ft
850.0 ft
900.0 ft
950.0 ft

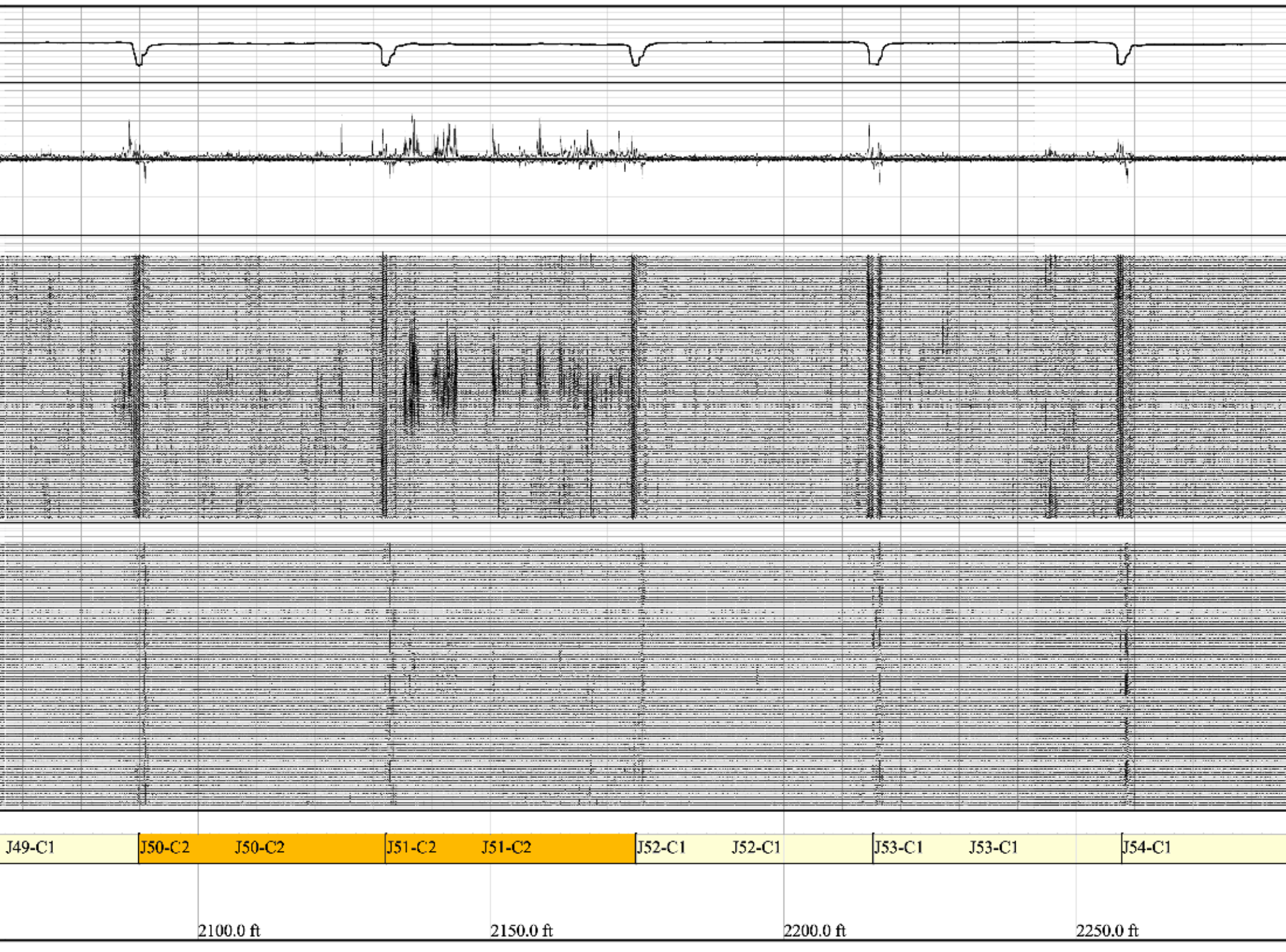

J24-C1
J24-C1
J25-C1
J25-C1
J26-C1
J26-C1
J27-C1
J27-C1
J28-C1
J28-C1
1000.0 ft
1050.0 ft
1100.0 ft
1150.0 ft

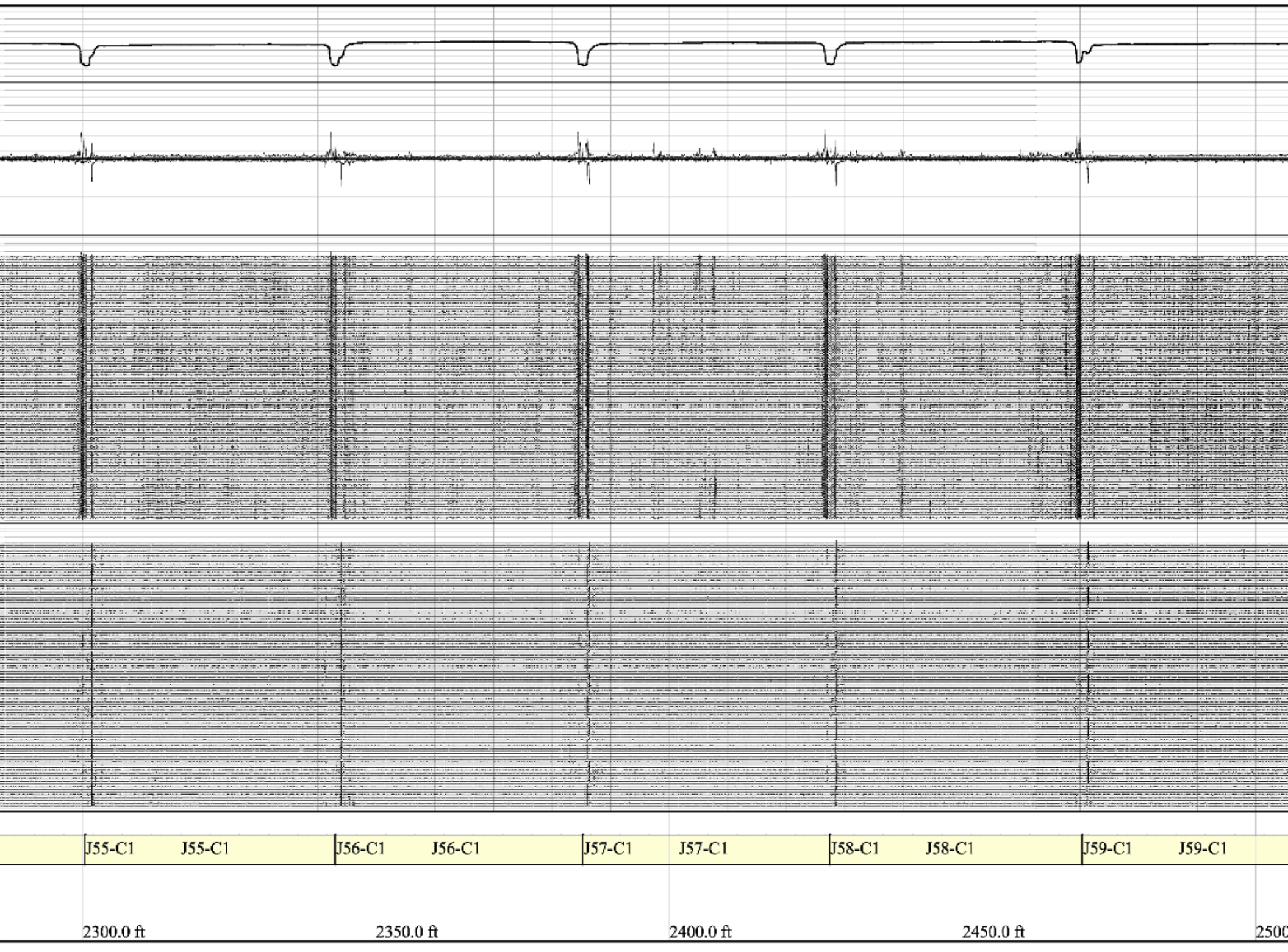

J29-C1
J29-C1
J30-C1
J30-C1
J31-C1
J31-C1
J32-C1
J32-C1
J33-C1
J33-C1
1200.0 ft
1250.0 ft
1300.0 ft
1350.0 ft

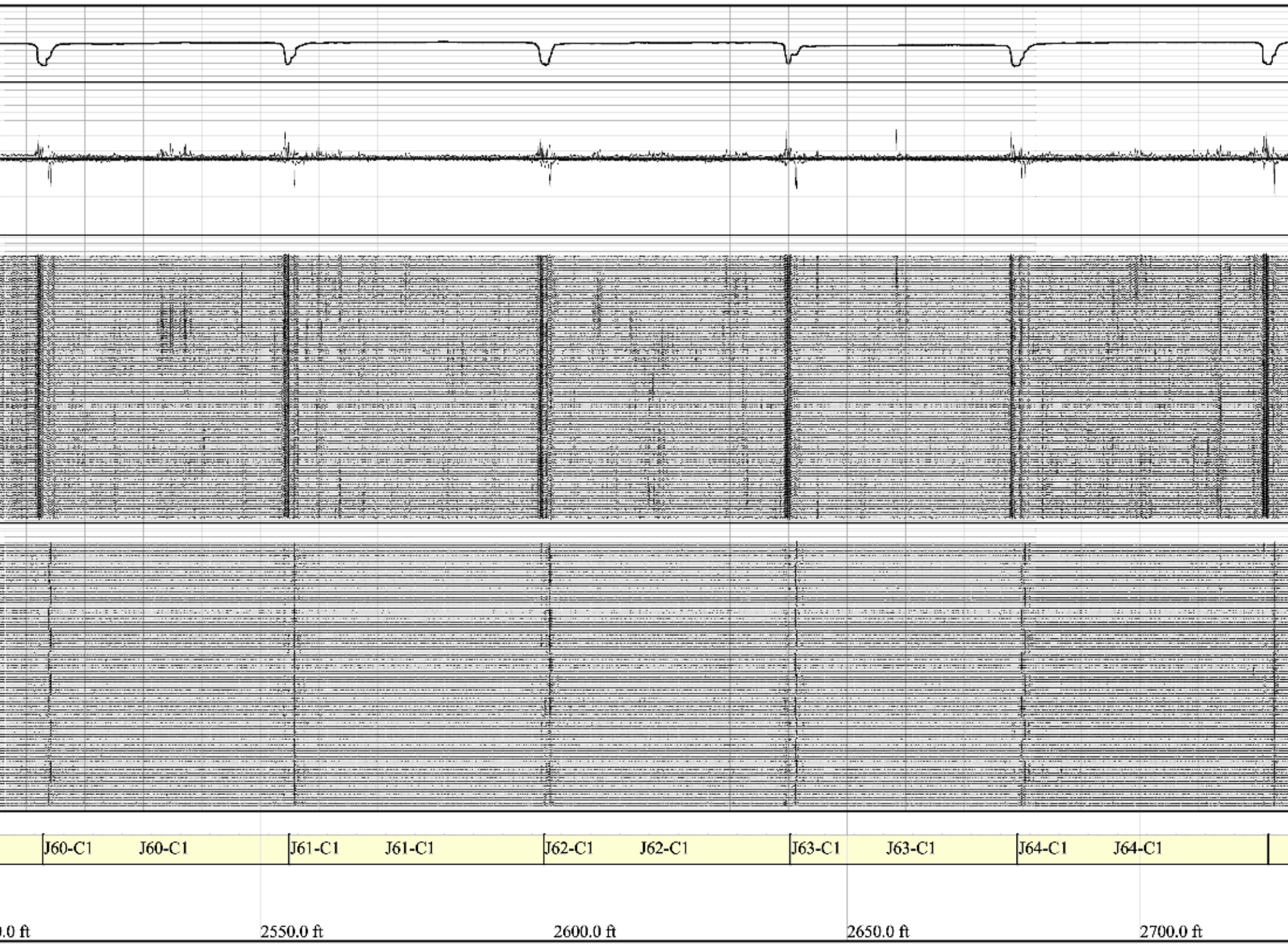

J34-C1
J34-C1
J35-C1
J35-C1
J36-C1
J36-C1
J37-C1
J37-C1
J38-C1
J38-C1
0 ft
1450.0 ft
1500.0 ft
1550.0 ft
1600.0 ft

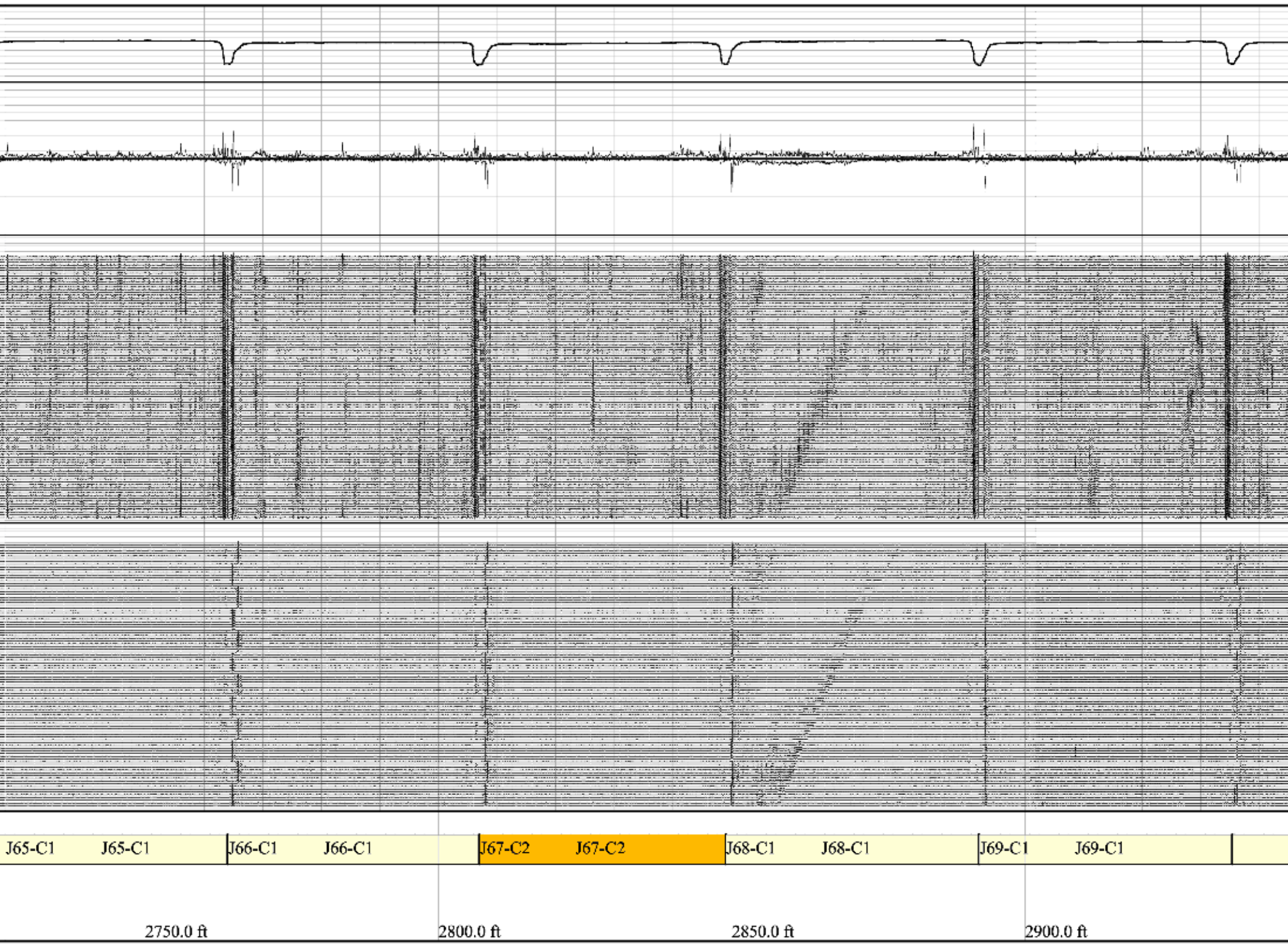

J39-C1
J39-C1
J40-C1
J40-C1
J41-C1
J41-C1
J42-C1
J42-C1
J43-C1
J43-C1
1650.0 ft
1700.0 ft
1750.0 ft
1800.0 ft

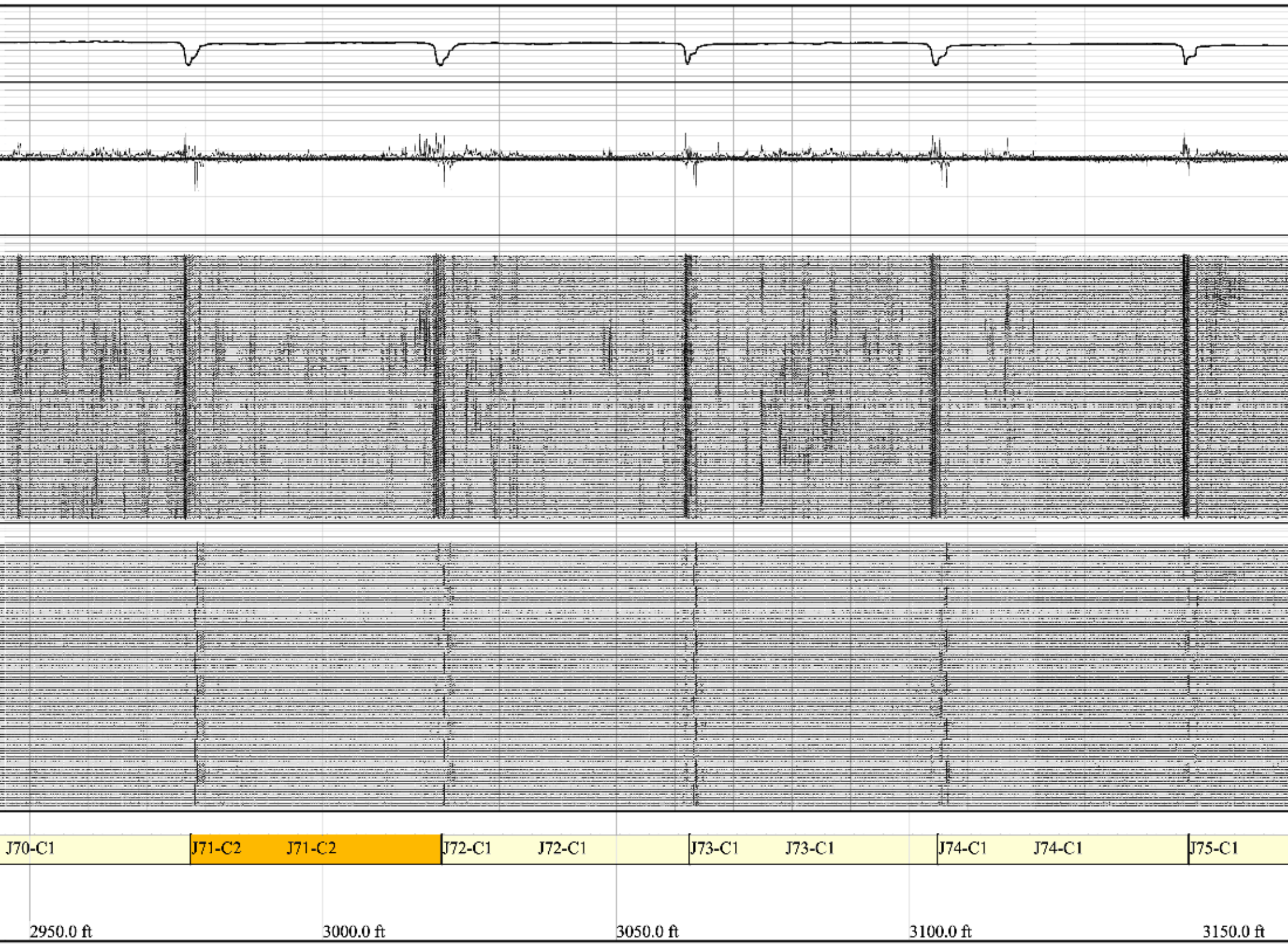

J44-C1
J45-C1
J45-C1
J46-C1
J46-C1
J47-C1
J47-C1
J48-C1
J48-C1
J49-C1
1850.0 ft
1900.0 ft
1950.0 ft
2000.0 ft
2050.0 ft

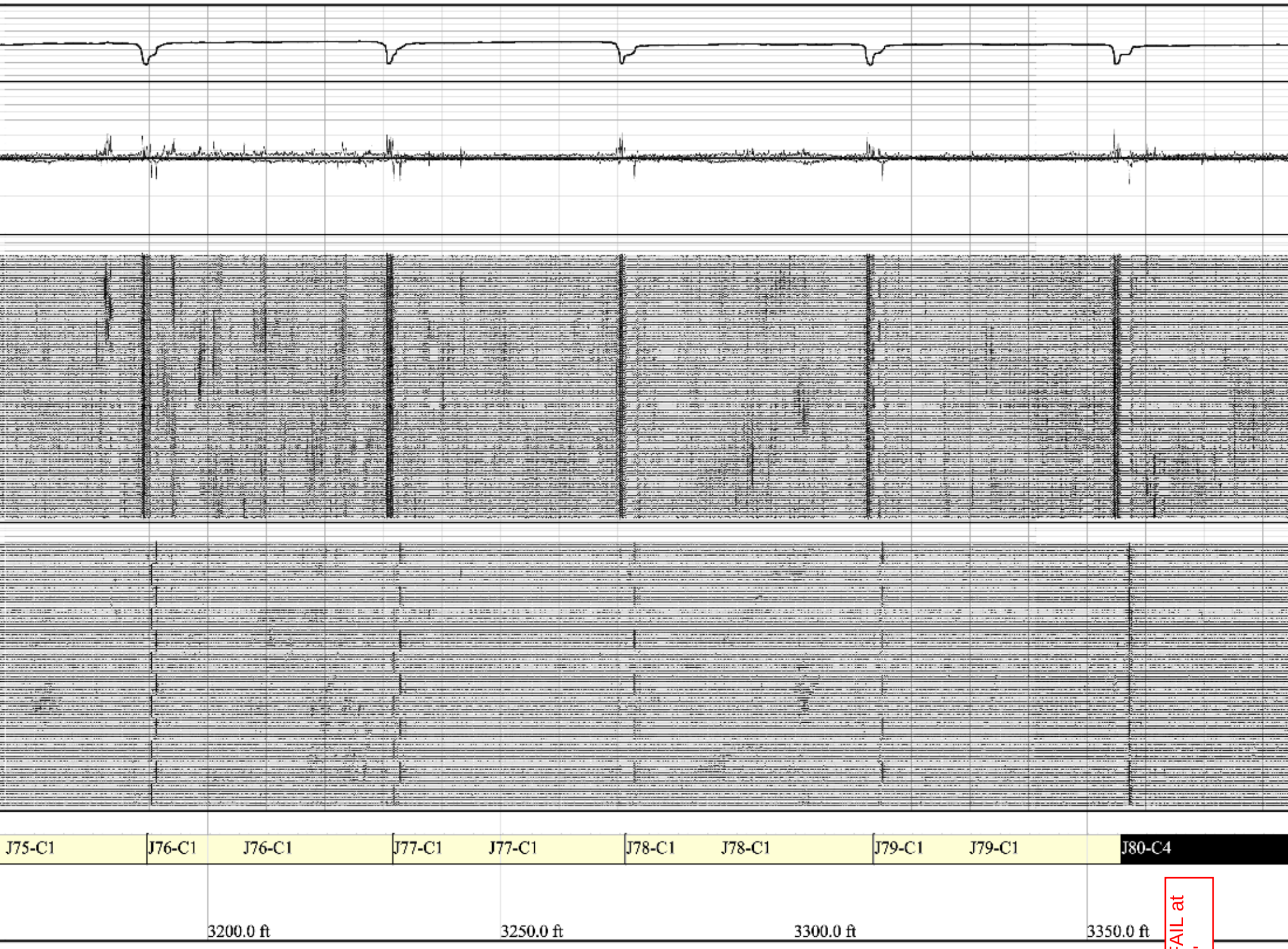

J49-C1
J50-C2
J50-C2
J51-C2
J51-C2
J52-C1
J52-C1
J53-C1
J53-C1
J54-C1
2100.0 ft
2150.0 ft
2200.0 ft
2250.0 ft

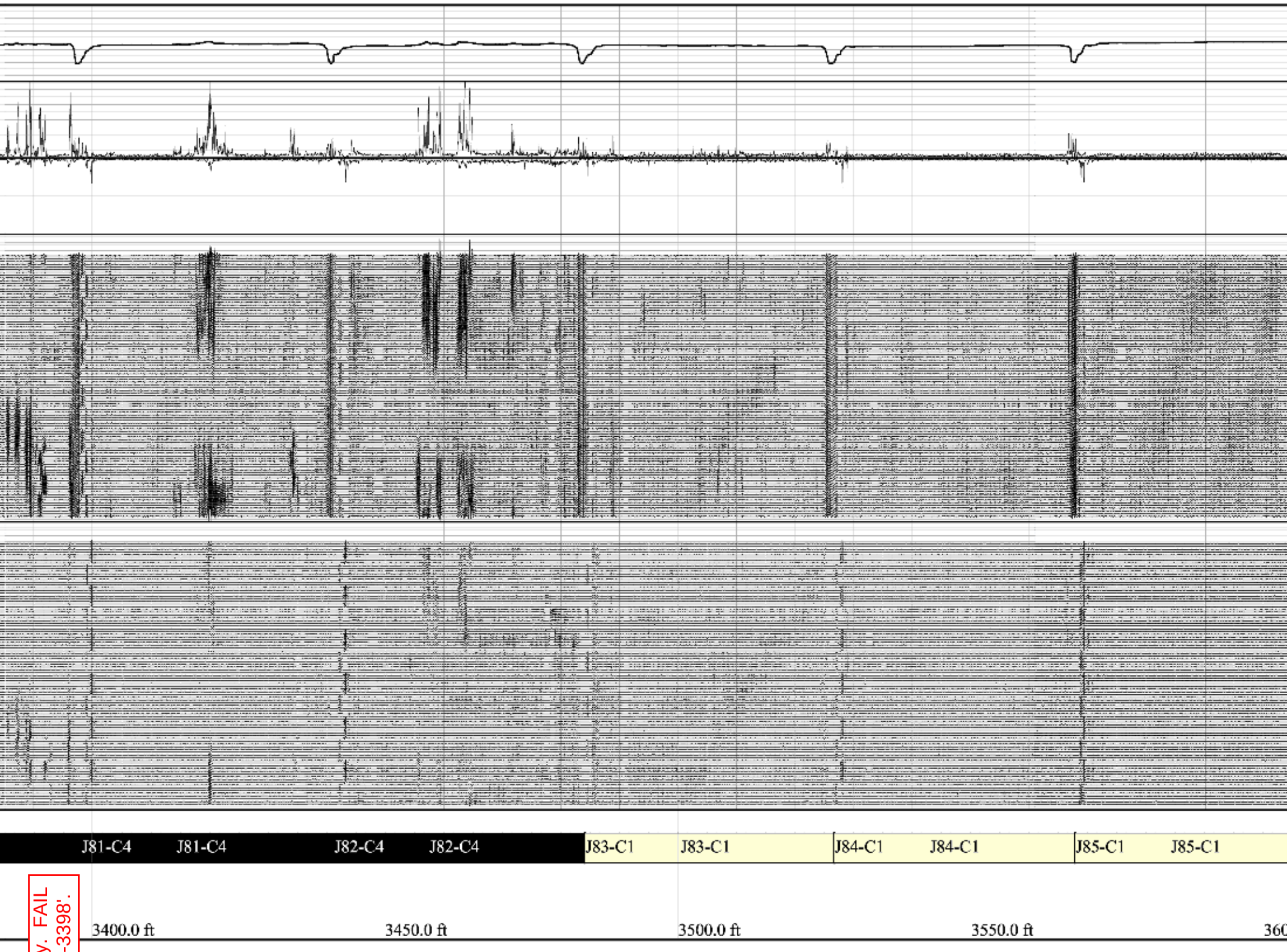

J55-C1
J55-C1
J56-C1
J56-C1
J57-C1
J57-C1
J58-C1
J58-C1
J59-C1
J59-C1
2300.0 ft
2350.0 ft
2400.0 ft
2450.0 ft


J60-C1
J60-C1
J61-C1
J61-C1
J62-C1
J62-C1
J63-C1
J63-C1
J64-C1
J64-C1
2550.0 ft
2600.0 ft
2650.0 ft
2700.0 ft

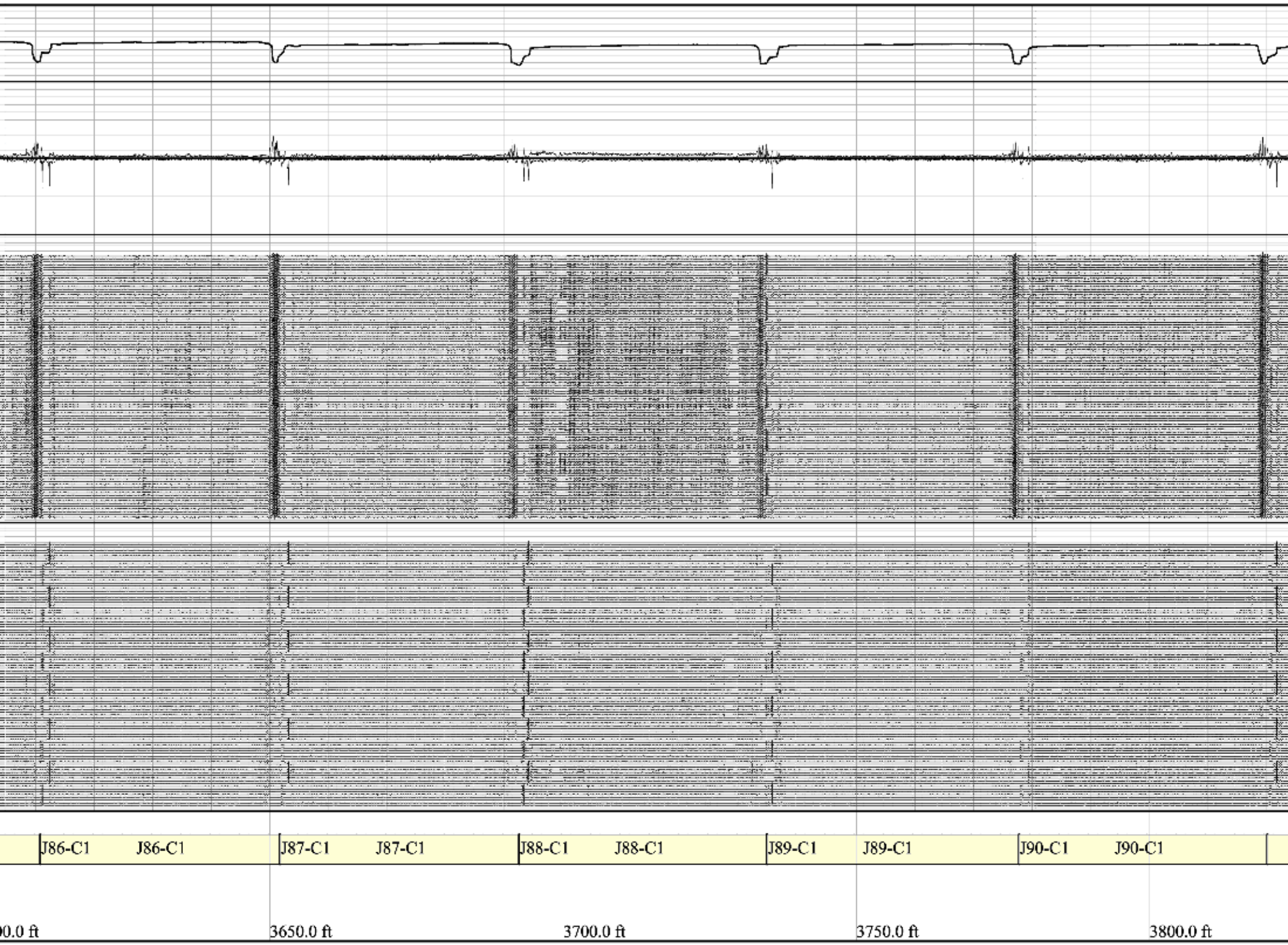

J65-C1
J65-C1
J66-C1
J66-C1
J67-C2
J67-C2
J68-C1
J68-C1
J69-C1
J69-C1
2750.0 ft
2800.0 ft
2850.0 ft
2900.0 ft

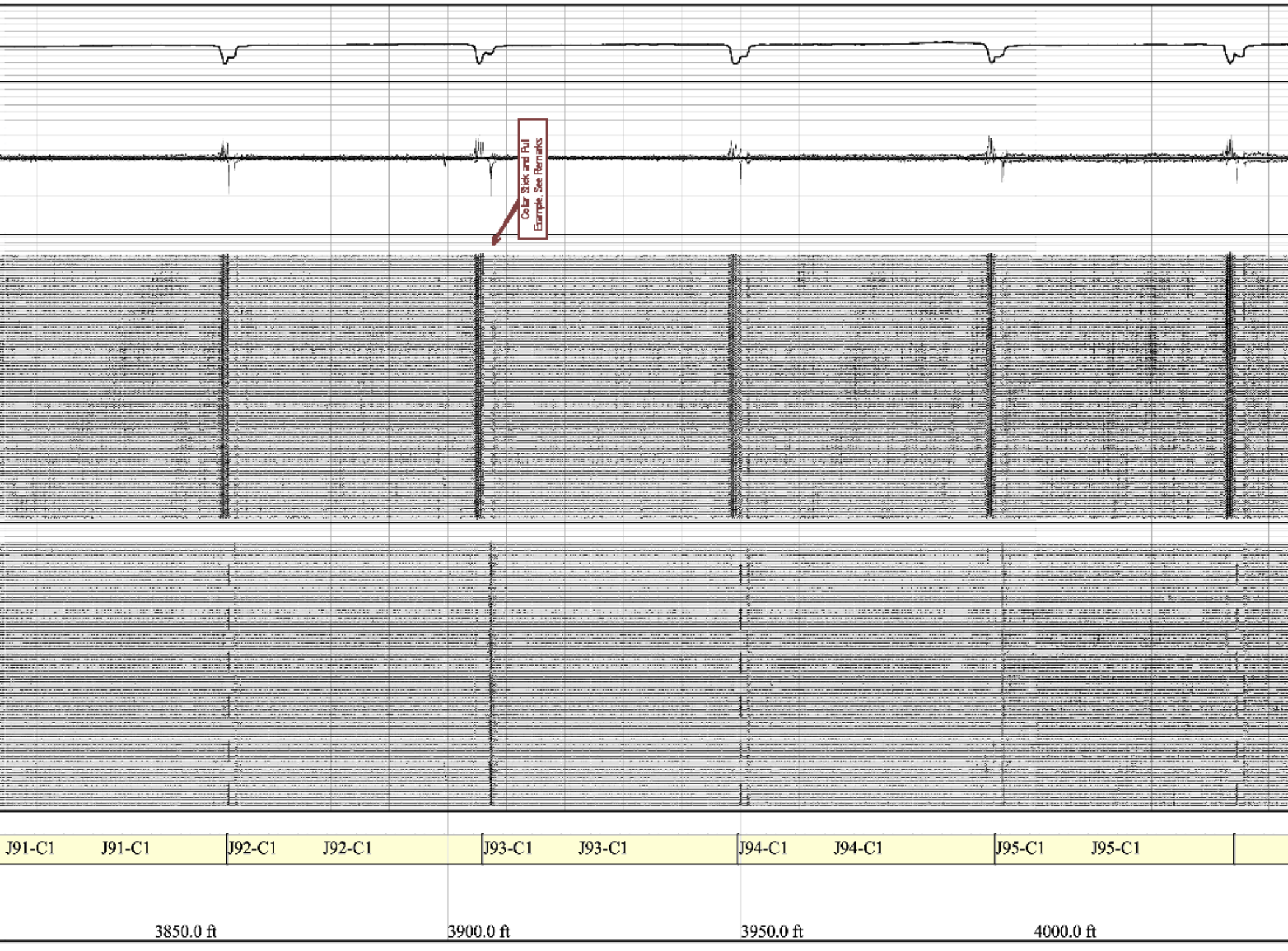

J70-C1
J71-C2
J71-C2
J72-C1
J72-C1
J73-C1
J73-C1
J74-C1
J74-C1
J75-C1
2950.0 ft
3000.0 ft
3050.0 ft
3100.0 ft
3150.0 ft

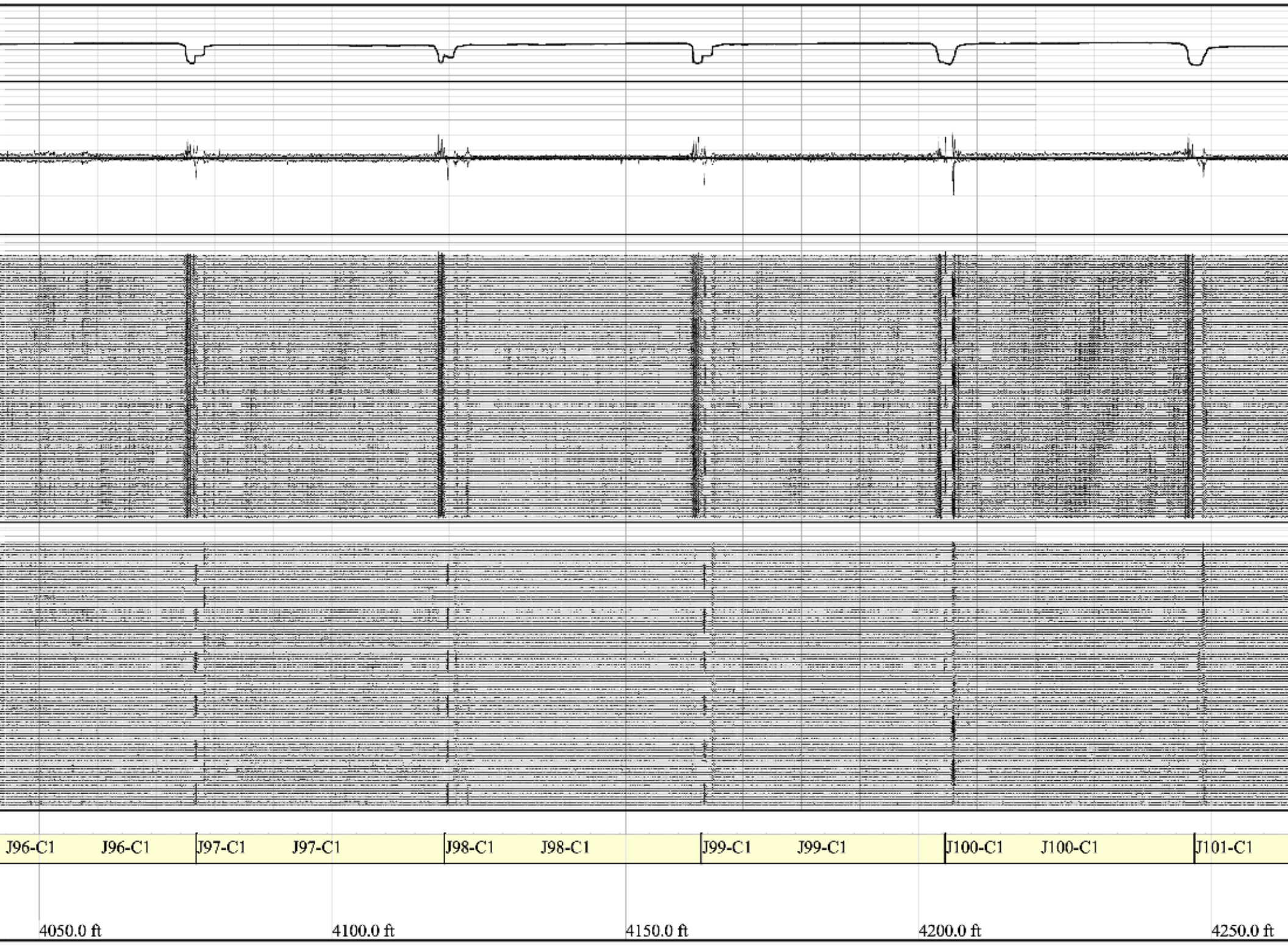

J75-C1
J76-C1
J76-C1
J77-C1
J77-C1
J78-C1
J78-C1
J79-C1
J79-C1
J80-C4
3200.0 ft
3250.0 ft
3300.0 ft
3350.0 ft
anomaly. FAIL at 3355-3398'

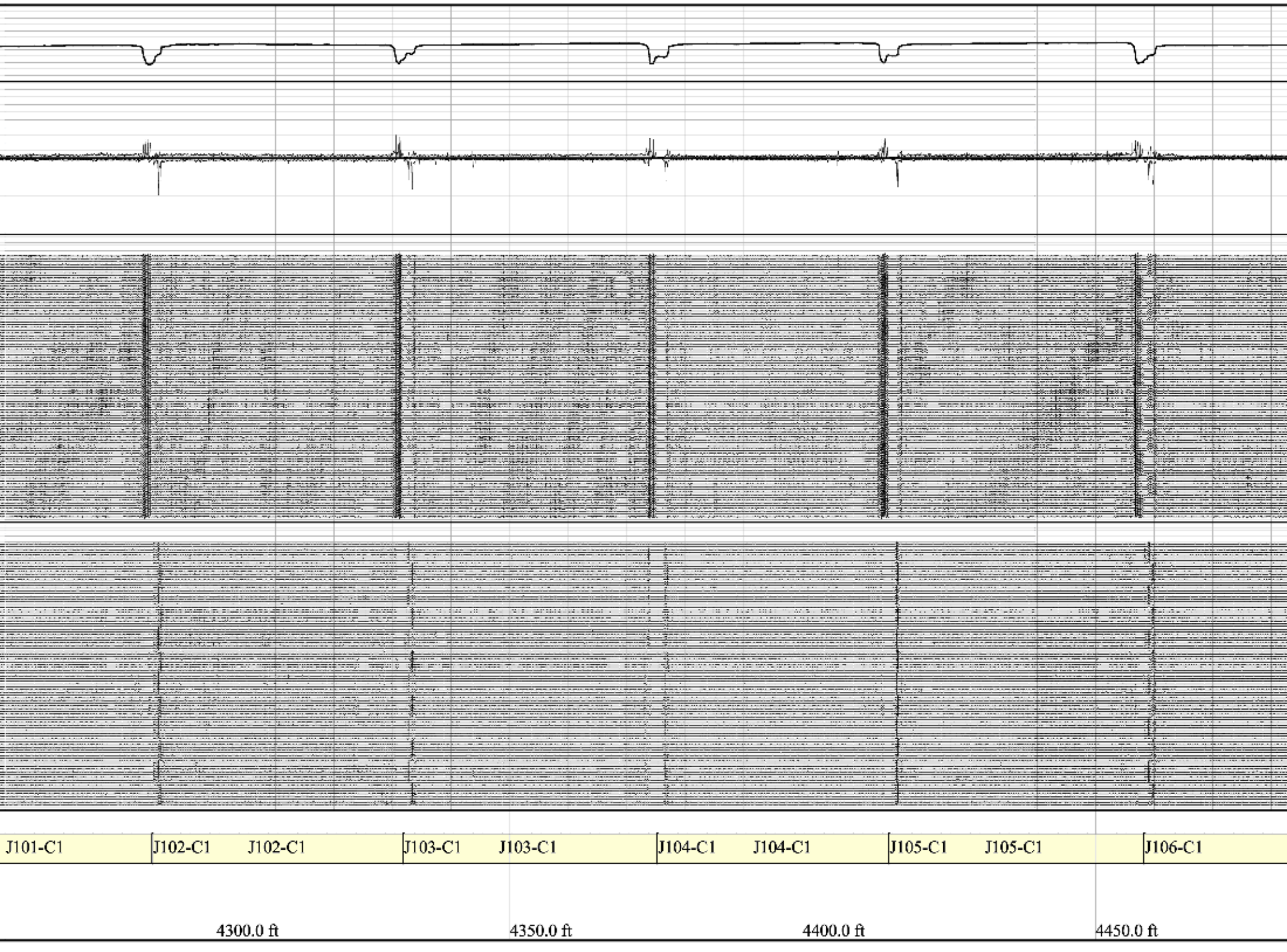


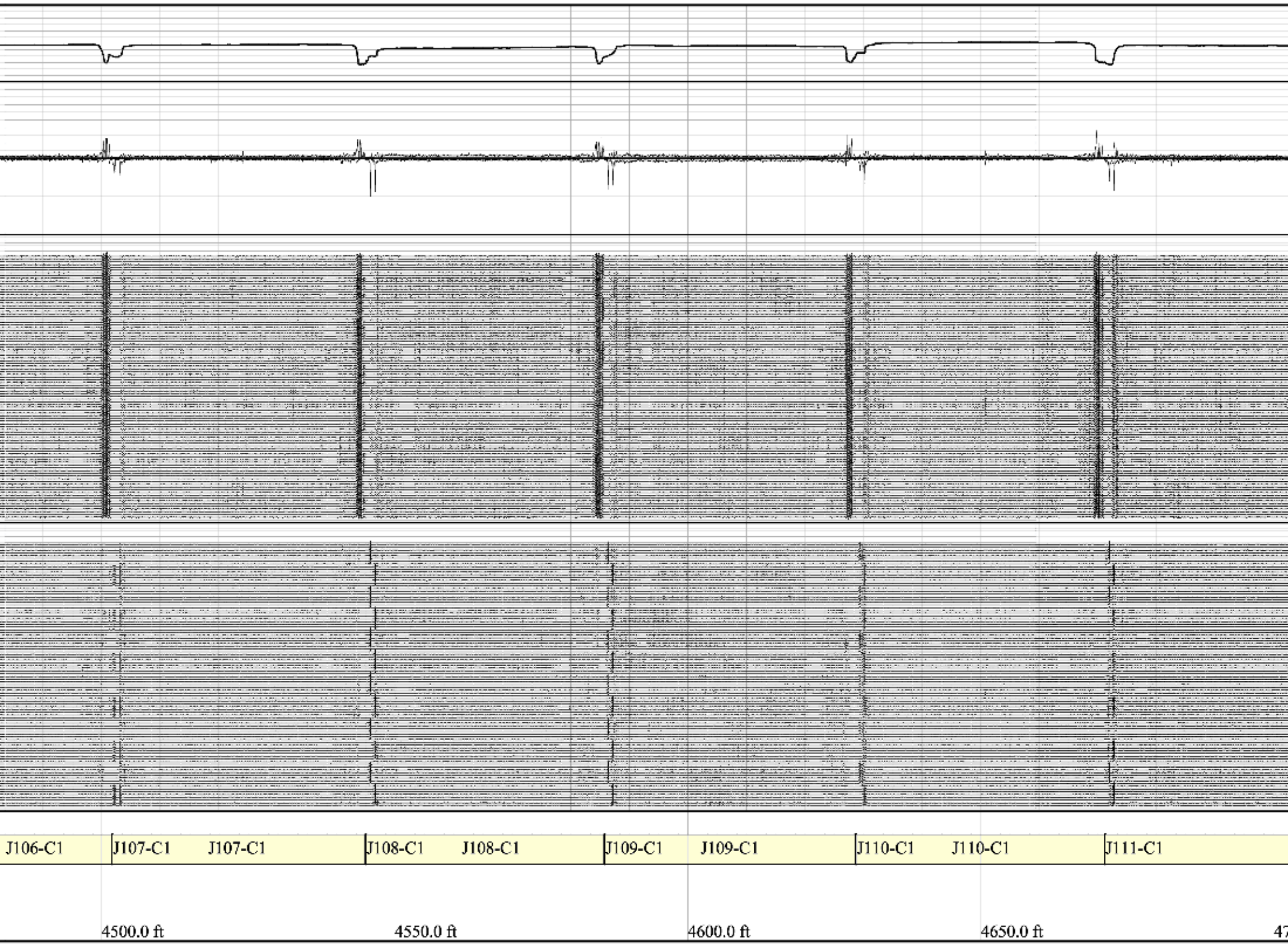
anomaly. FAIL
at 3355-3398'.

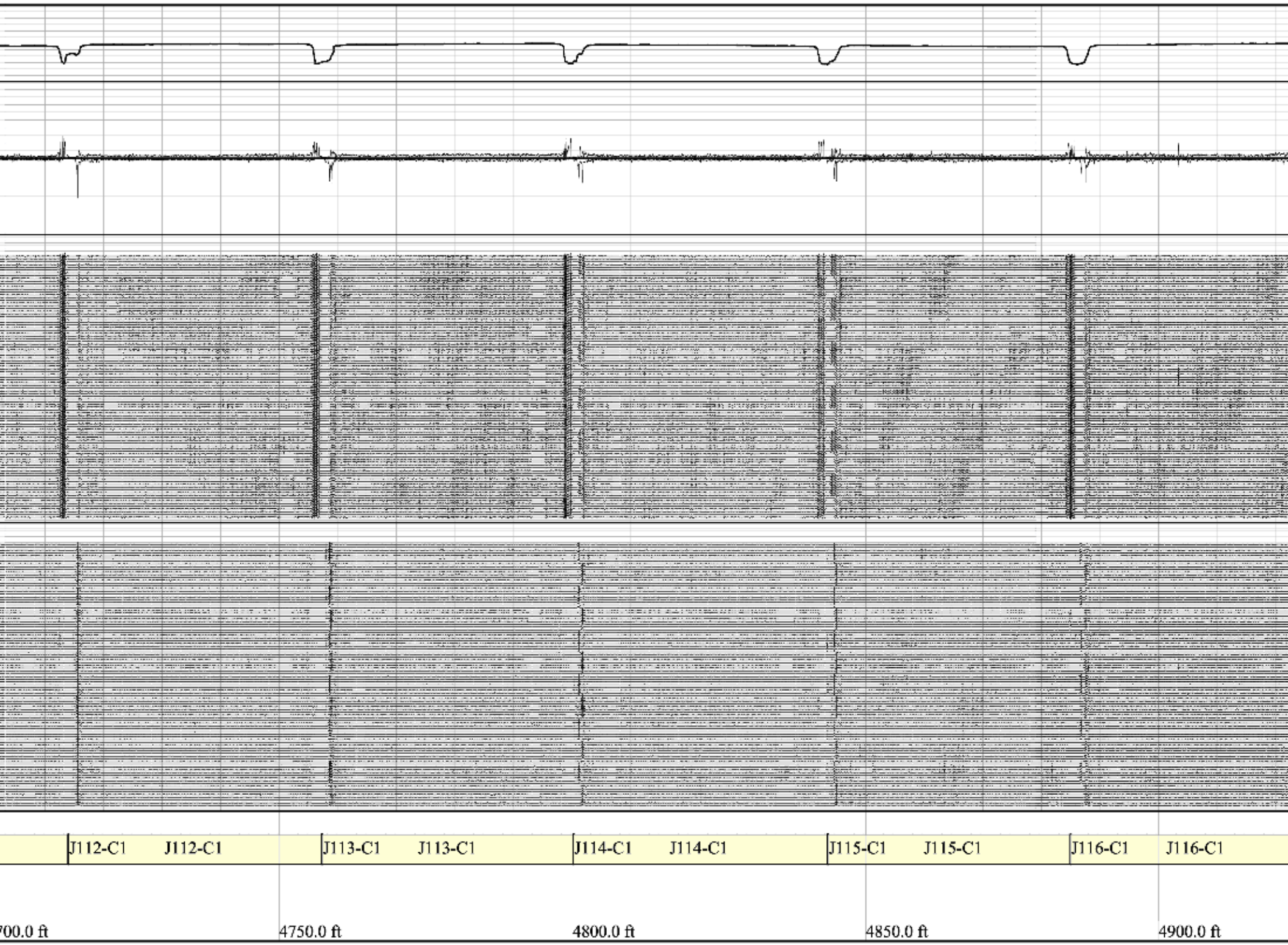

J86-C1
J86-C1
J87-C1
J87-C1
J88-C1
J88-C1
J89-C1
J89-C1
J90-C1
J90-C1
0.0 ft
3650.0 ft
3700.0 ft
3750.0 ft
3800.0 ft

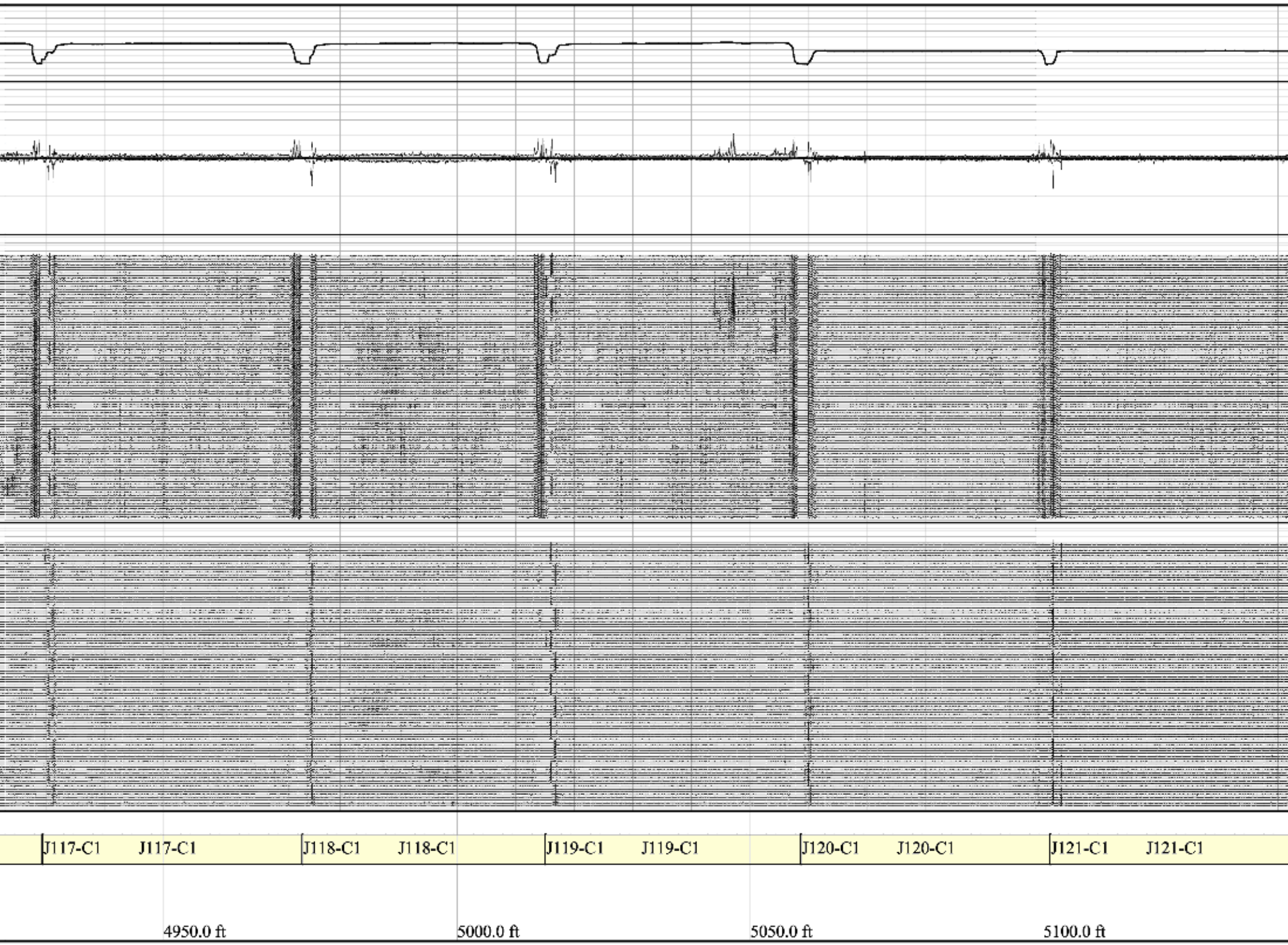

Color Stick and Pull
Example, See Remarks
J91-C1
J91-C1
J92-C1
J92-C1
J93-C1
J93-C1
J94-C1
J94-C1
J95-C1
J95-C1
3850.0 ft
3900.0 ft
3950.0 ft
4000.0 ft

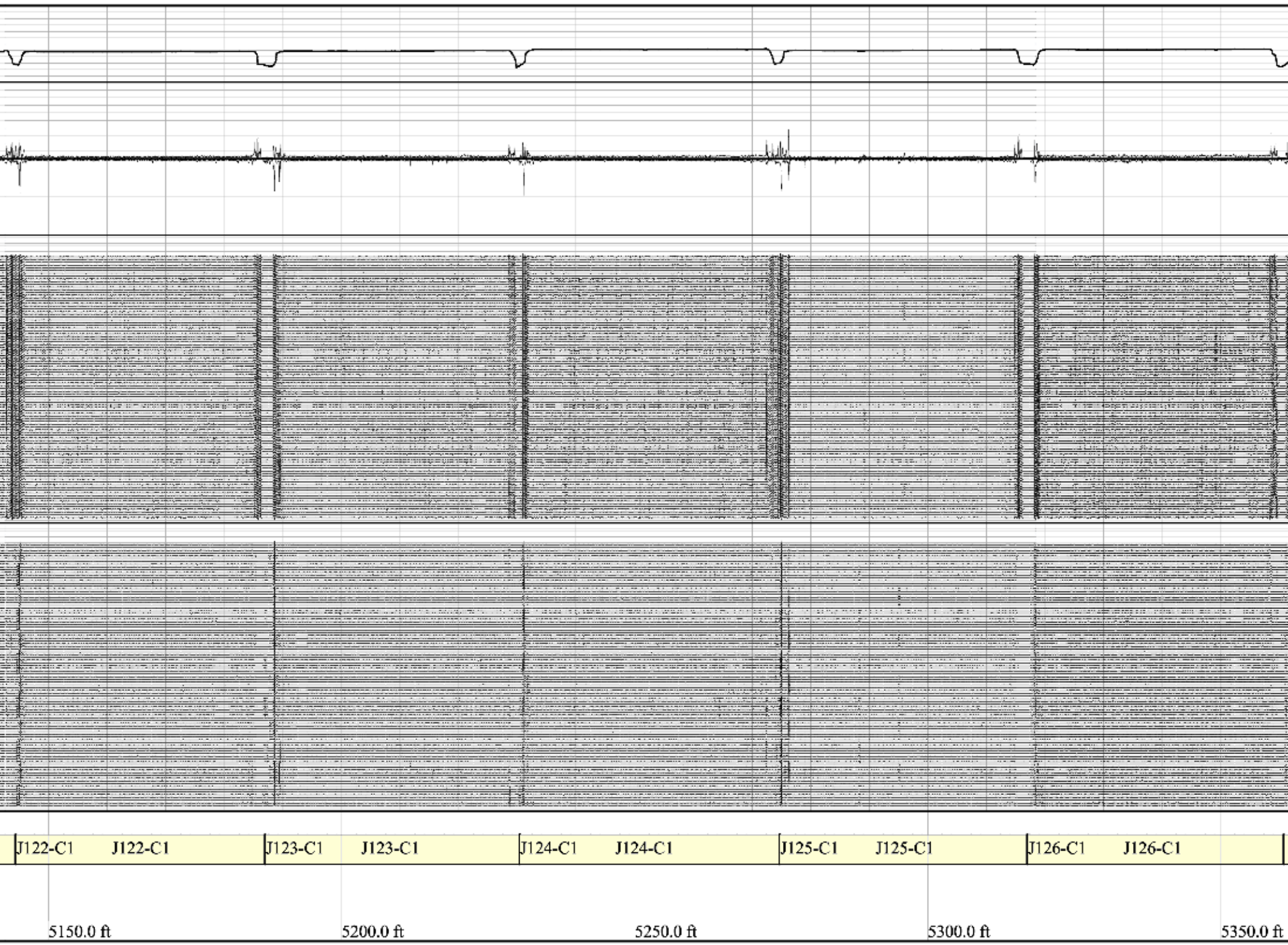

J96-C1
J96-C1
J97-C1
J97-C1
J98-C1
J98-C1
J99-C1
J99-C1
J100-C1
J100-C1
J101-C1
4050.0 ft
4100.0 ft
4150.0 ft
4200.0 ft
4250.0 ft

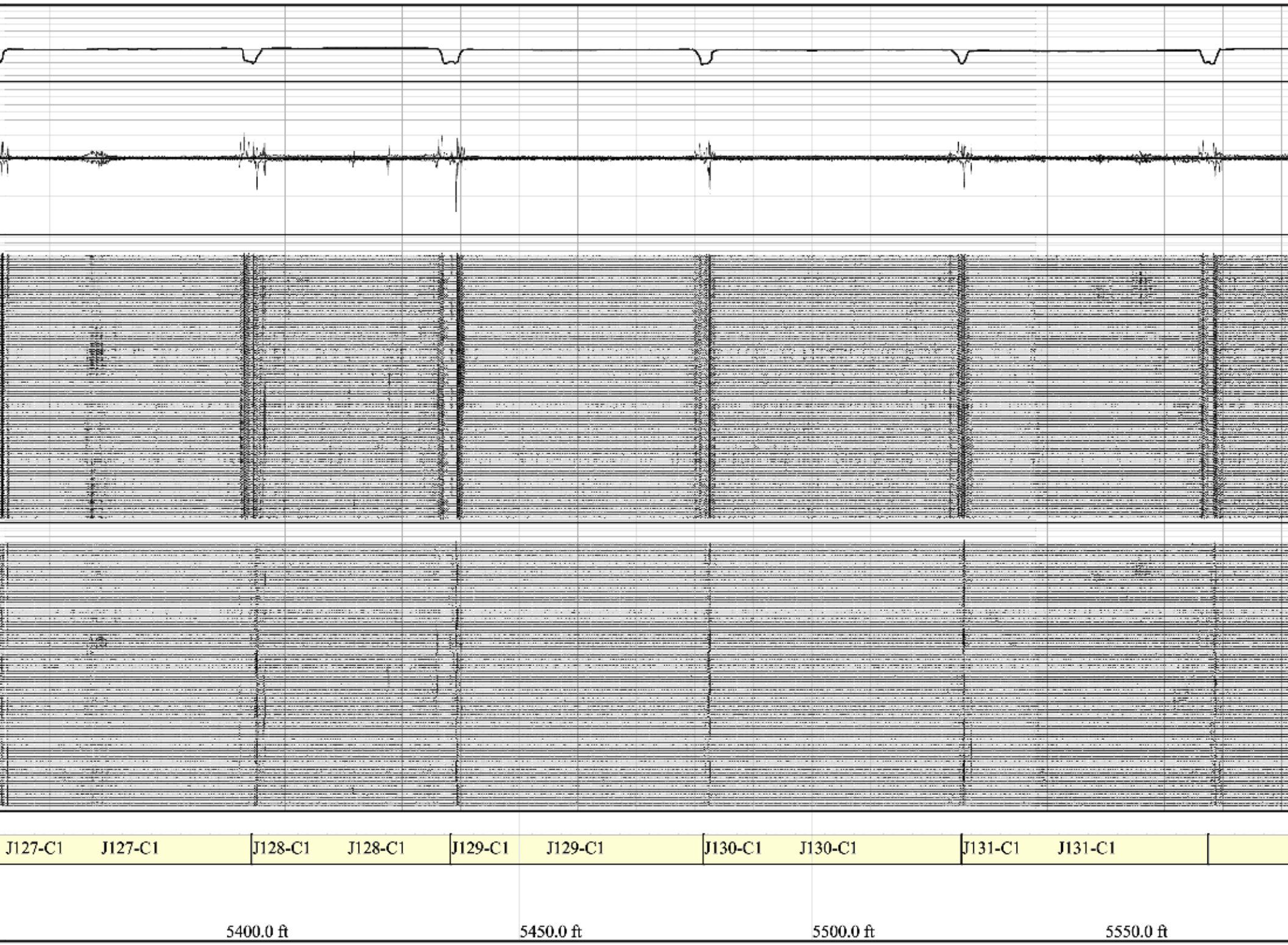

J101-C1
J102-C1
J102-C1
J103-C1
J103-C1
J104-C1
J104-C1
J105-C1
J105-C1
J106-C1
4300.0 ft
4350.0 ft
4400.0 ft
4450.0 ft

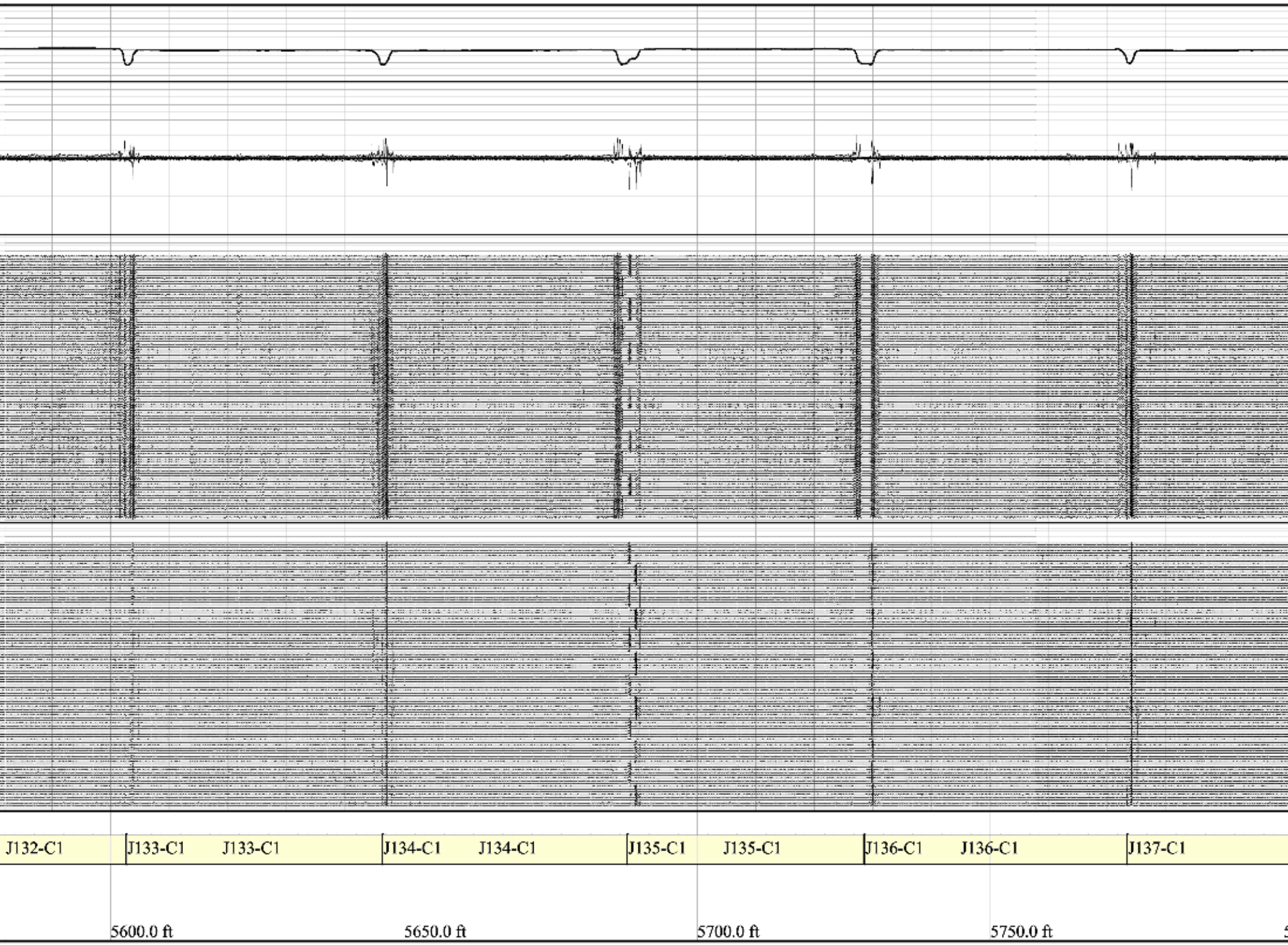

J106-C1
J107-C1
J107-C1
J108-C1
J108-C1
J109-C1
J109-C1
J110-C1
J110-C1
J111-C1
4500.0 ft
4550.0 ft
4600.0 ft
4650.0 ft

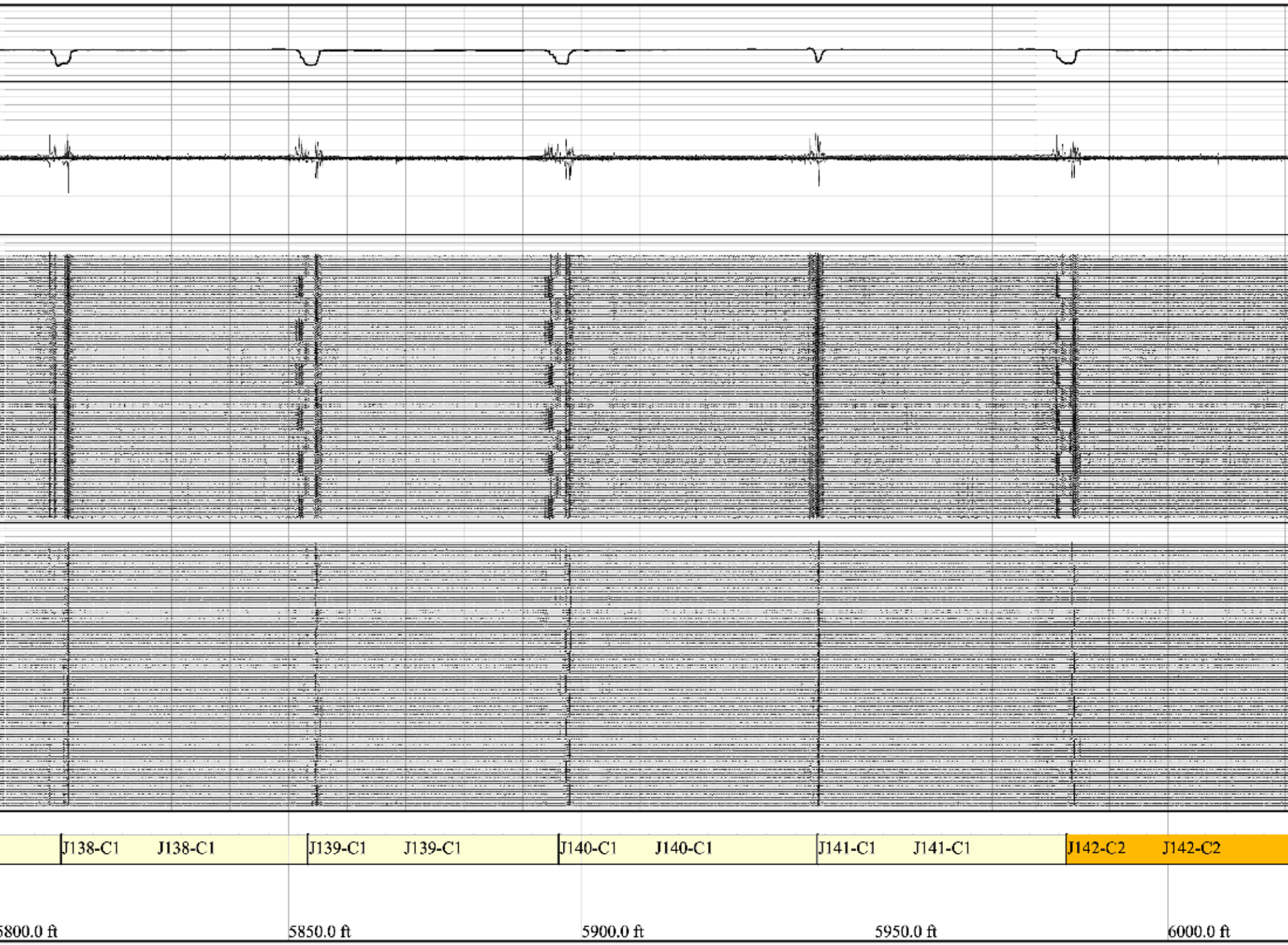

J112-C1
J112-C1
J113-C1
J113-C1
J114-C1
J114-C1
J115-C1
J115-C1
J116-C1
J116-C1
700.0 ft
4750.0 ft
4800.0 ft
4850.0 ft
4900.0 ft

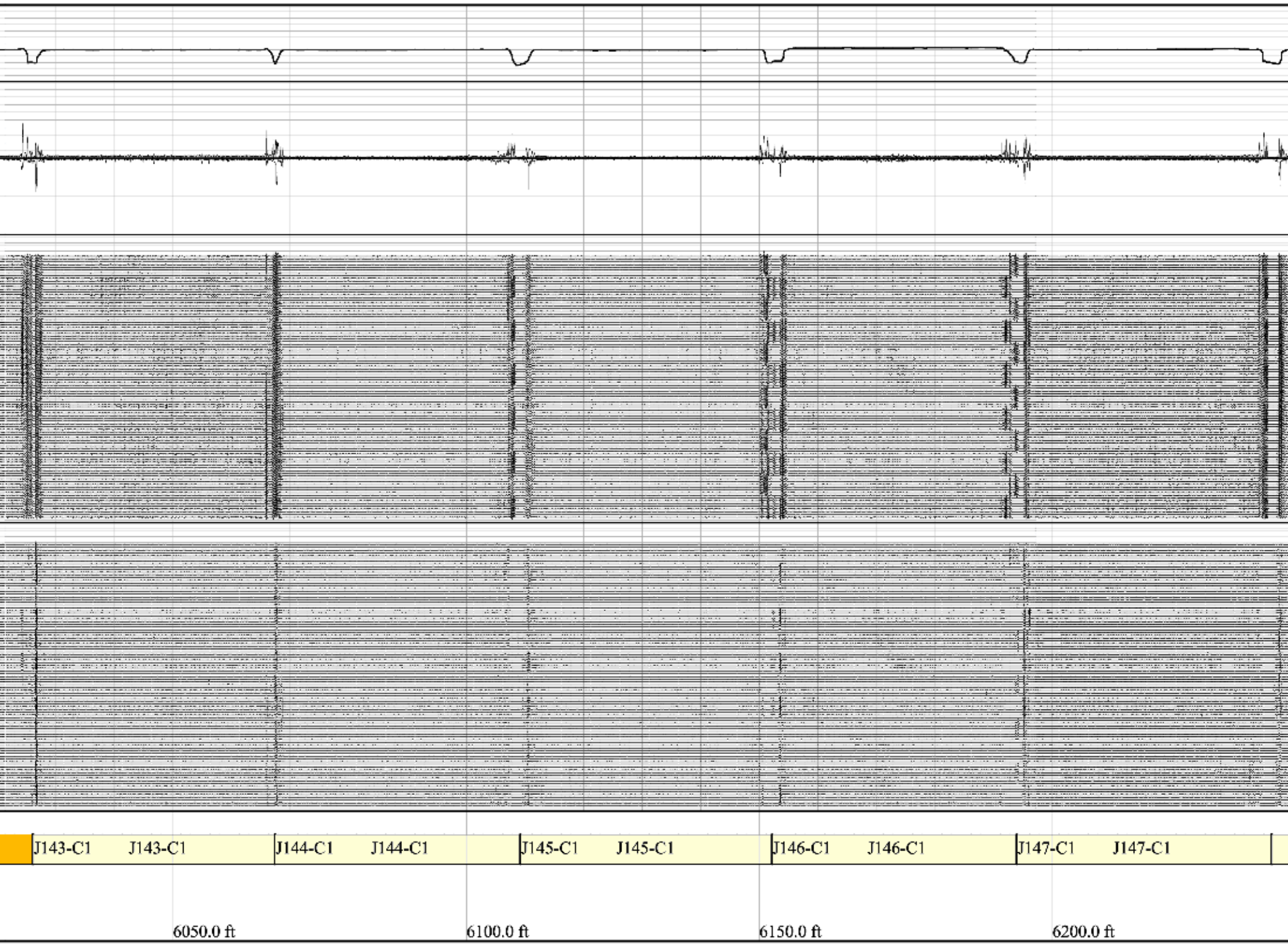

J117-C1
J117-C1
J118-C1
J118-C1
J119-C1
J119-C1
J120-C1
J120-C1
J121-C1
J121-C1
4950.0 ft
5000.0 ft
5050.0 ft
5100.0 ft

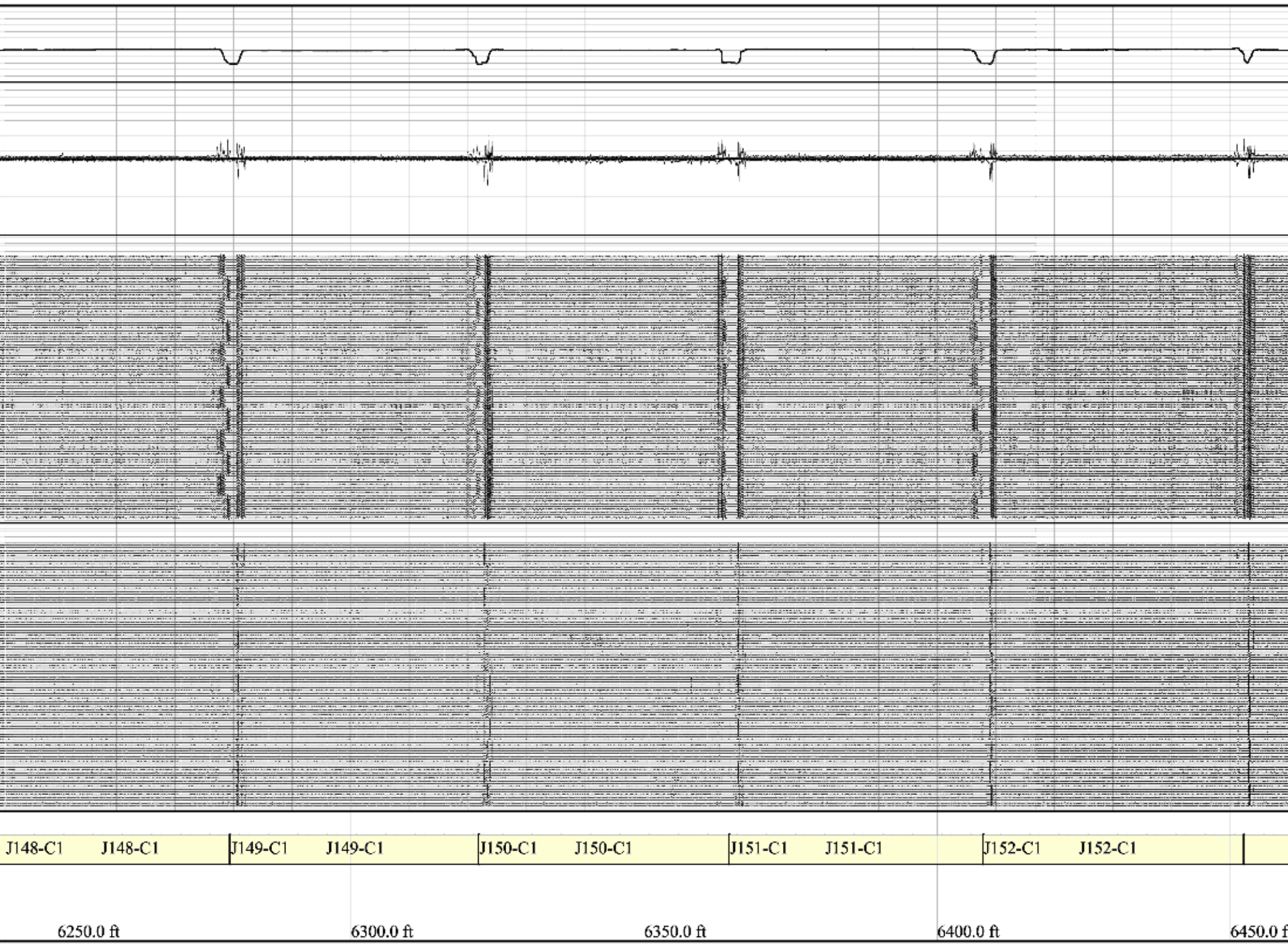

J122-C1
J122-C1
J123-C1
J123-C1
J124-C1
J124-C1
J125-C1
J125-C1
J126-C1
J126-C1
5150.0 ft
5200.0 ft
5250.0 ft
5300.0 ft
5350.0 ft

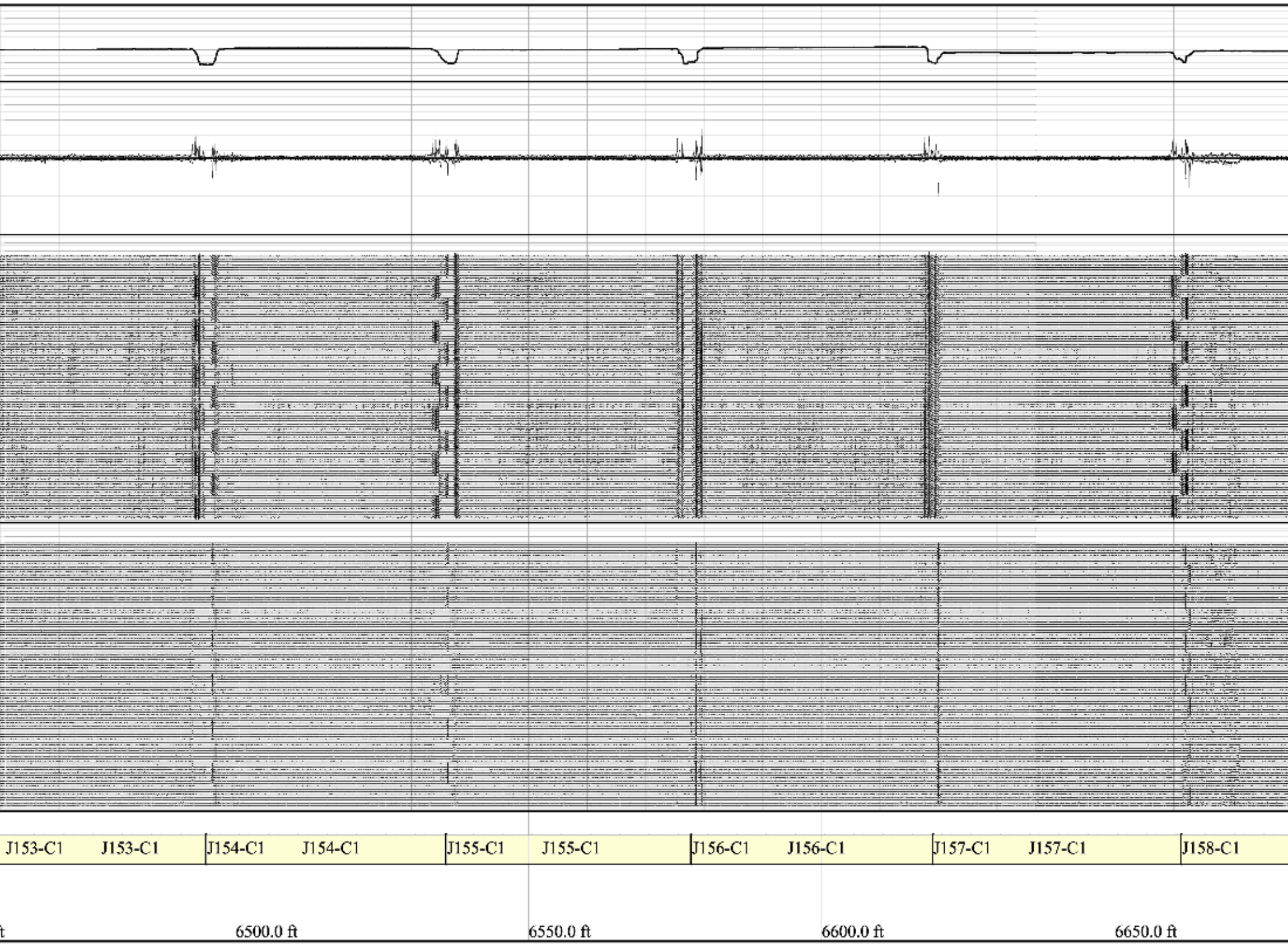

J127-C1
J127-C1
J128-C1
J128-C1
J129-C1
J129-C1
J130-C1
J130-C1
J131-C1
J131-C1
5400.0 ft
5450.0 ft
5500.0 ft
5550.0 ft

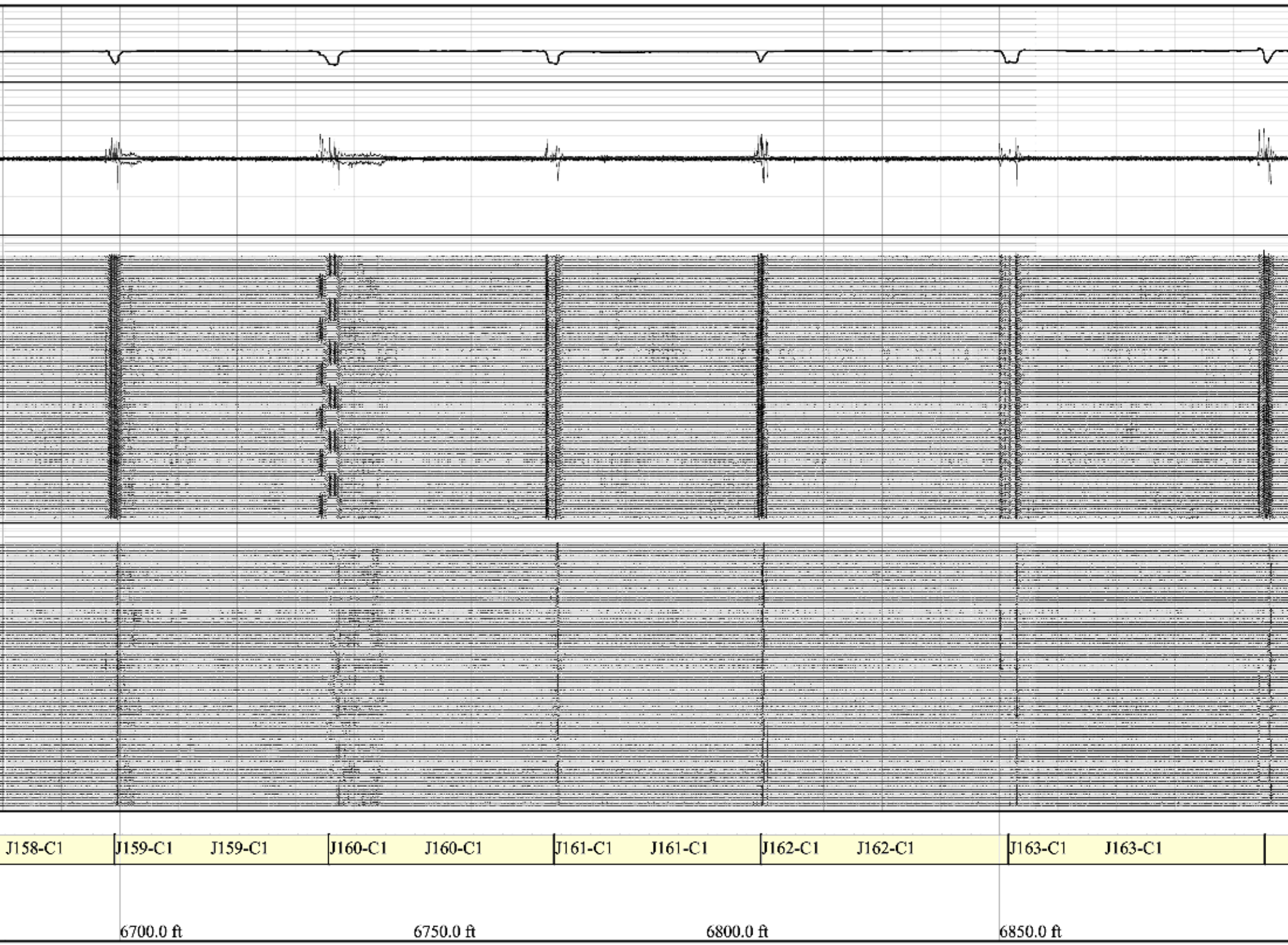

J132-C1
J133-C1
J133-C1
J134-C1
J134-C1
J135-C1
J135-C1
J136-C1
J136-C1
J137-C1
5600.0 ft
5650.0 ft
5700.0 ft
5750.0 ft

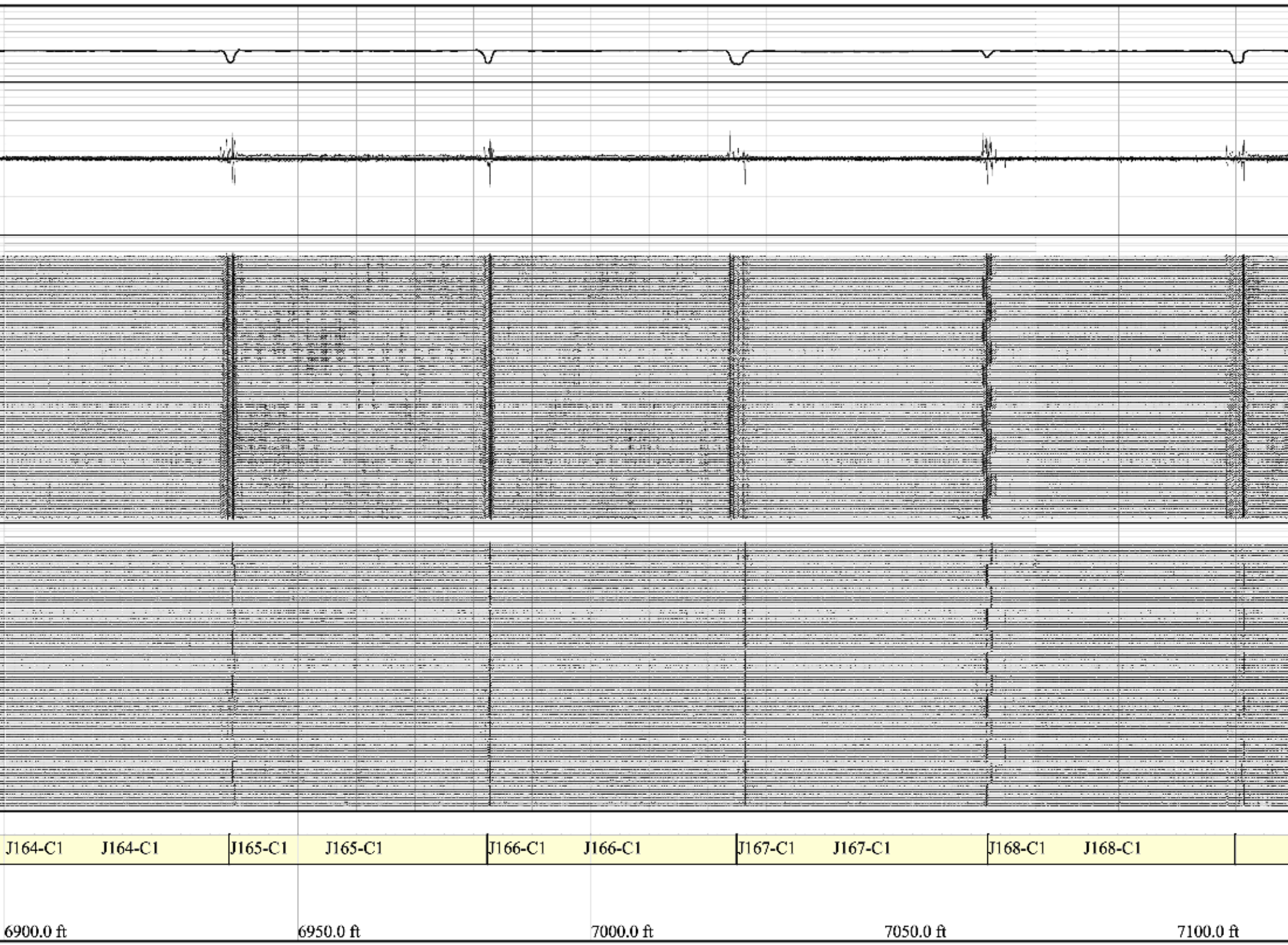

J138-C1
J138-C1
J139-C1
J139-C1
J140-C1
J140-C1
J141-C1
J141-C1
J142-C2
J142-C2
5800.0 ft
5850.0 ft
5900.0 ft
5950.0 ft
6000.0 ft

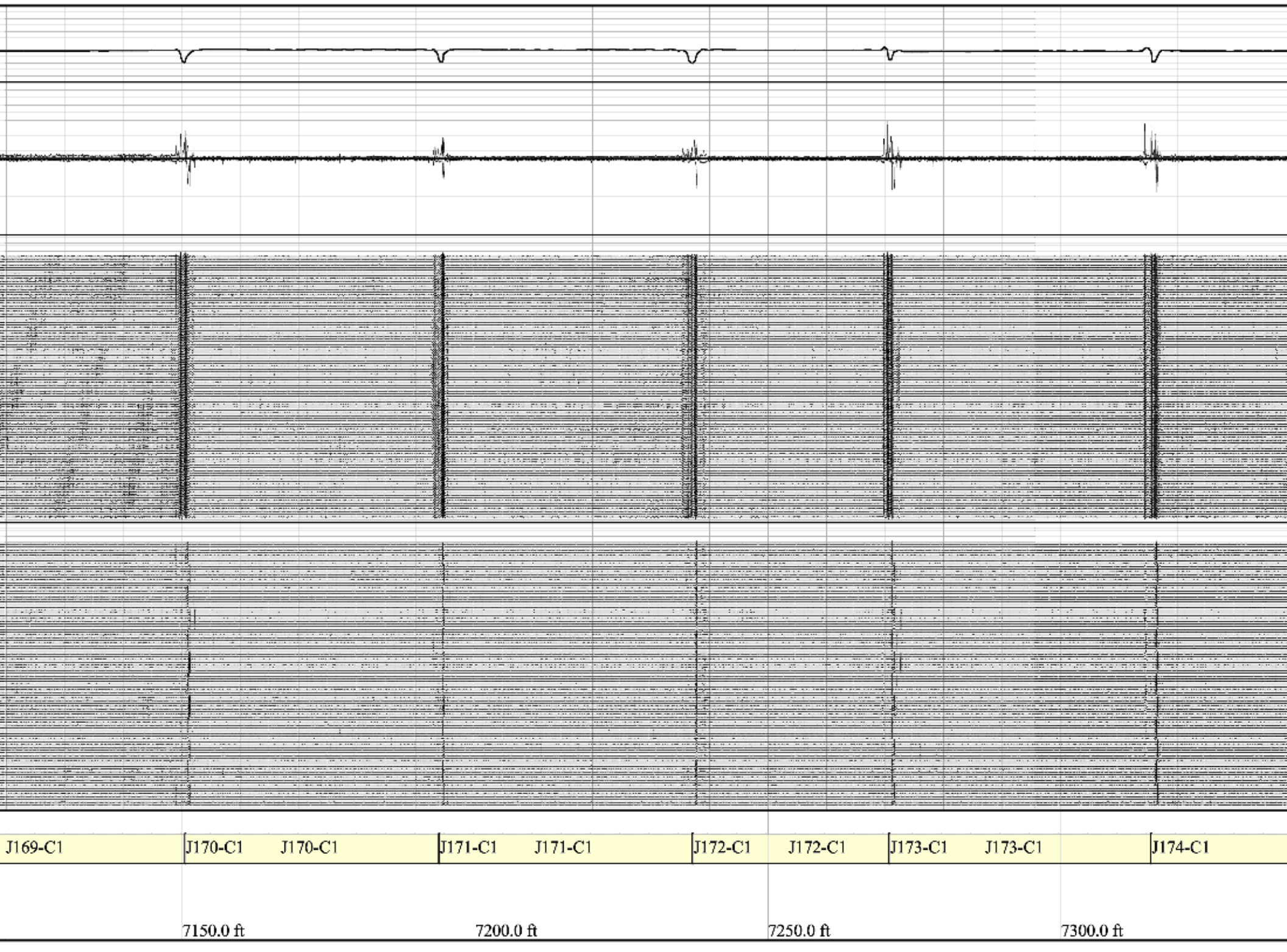

J143-C1
J143-C1
J144-C1
J144-C1
J145-C1
J145-C1
J146-C1
J146-C1
J147-C1
J147-C1
6050.0 ft
6100.0 ft
6150.0 ft
6200.0 ft

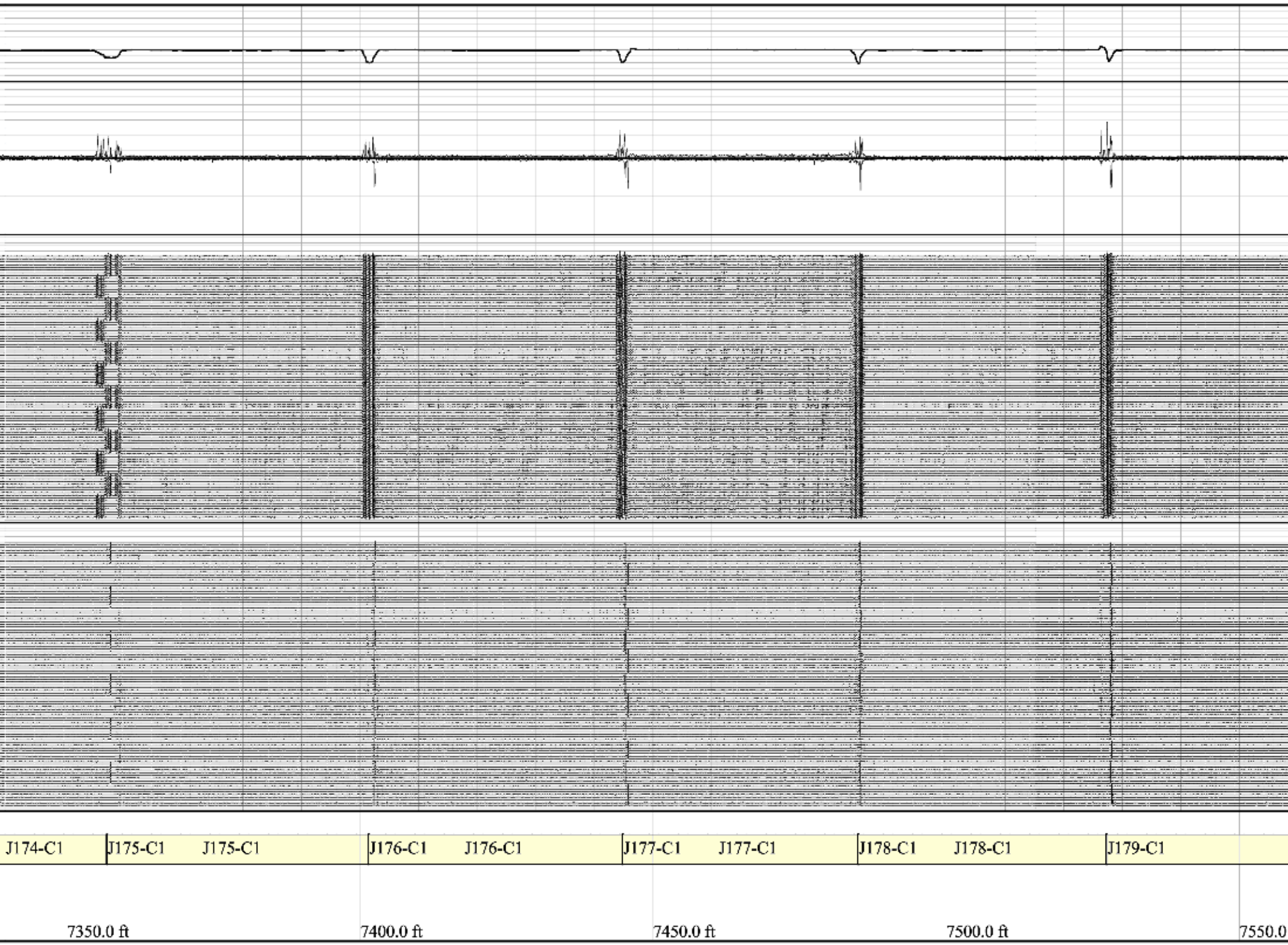

J148-C1
J148-C1
J149-C1
J149-C1
J150-C1
J150-C1
J151-C1
J151-C1
J152-C1
J152-C1
6250.0 ft
6300.0 ft
6350.0 ft
6400.0 ft
6450.0 f

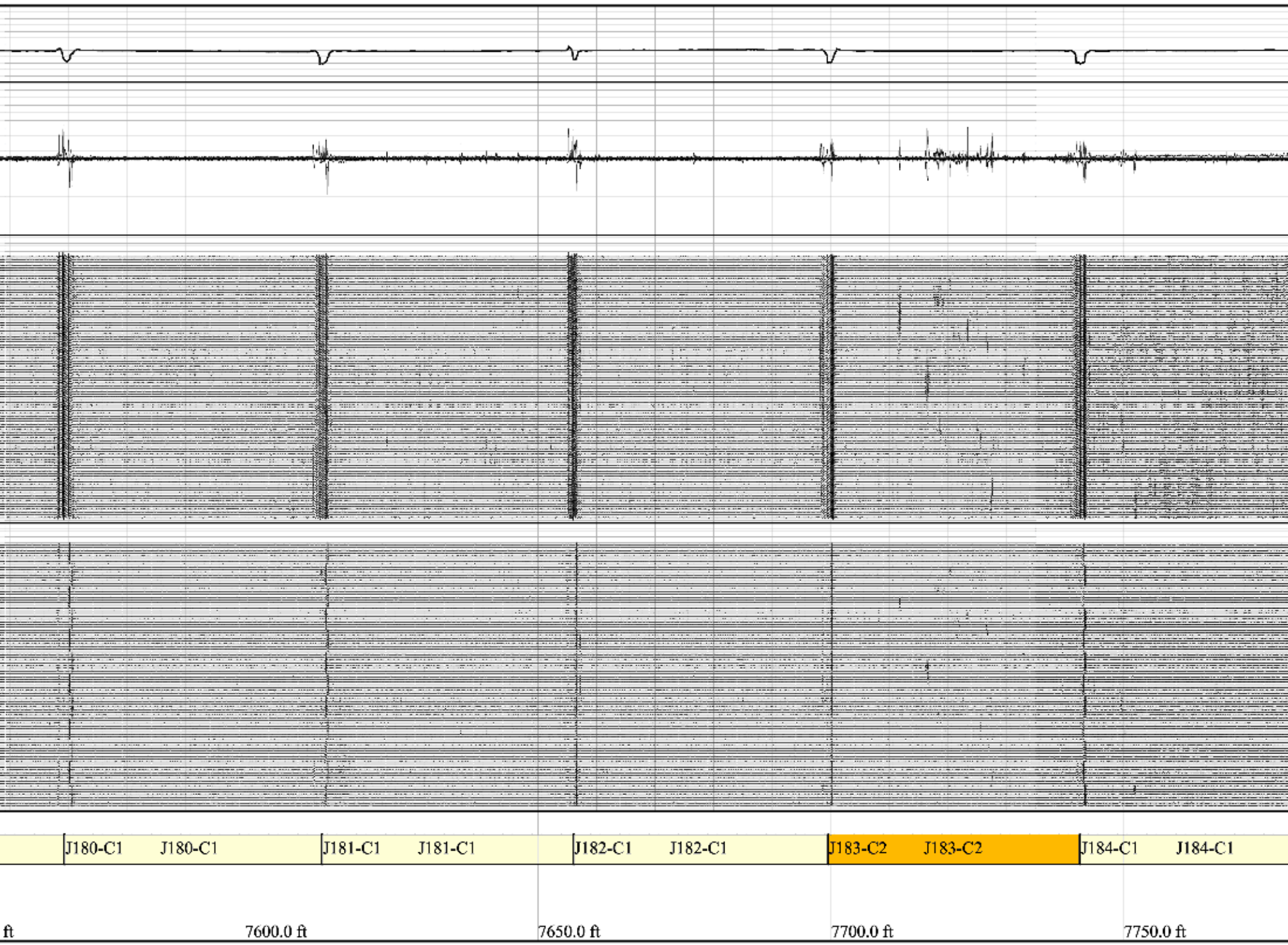

J153-C1
J153-C1
J154-C1
J154-C1
J155-C1
J155-C1
J156-C1
J156-C1
J157-C1
J157-C1
J158-C1
6500.0 ft
6550.0 ft
6600.0 ft
6650.0 ft

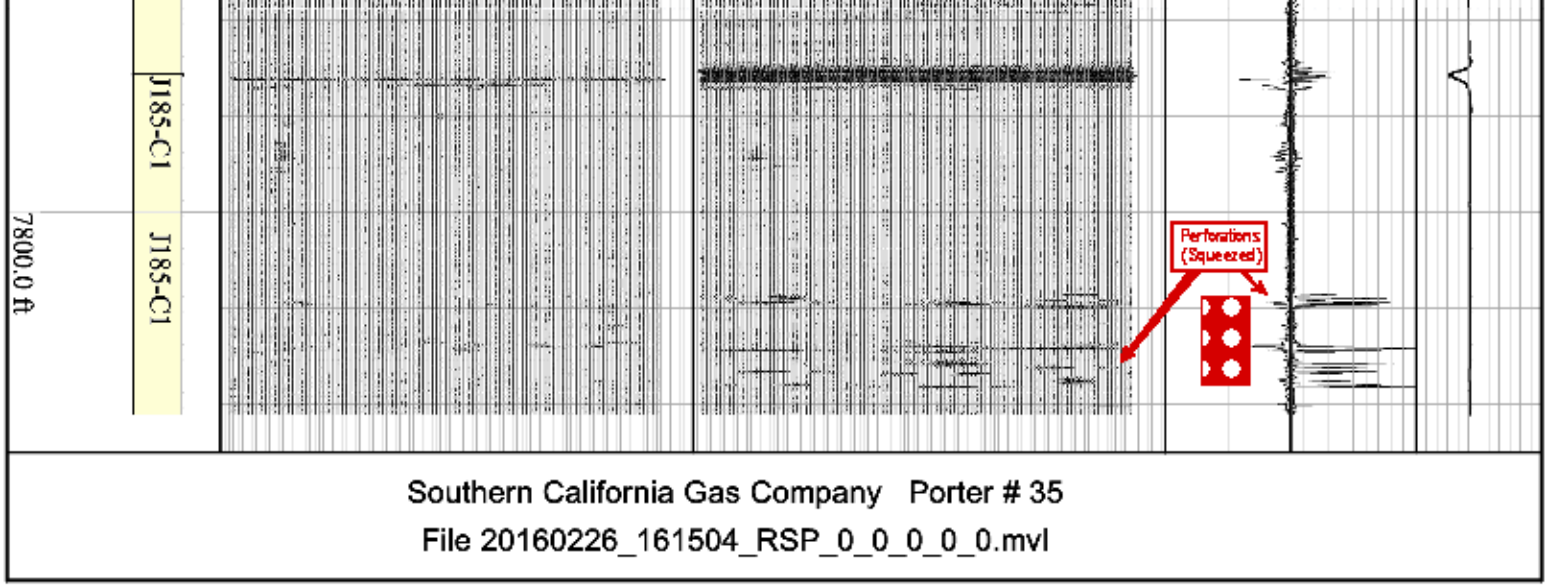

J158-C1
J159-C1
J159-C1
J160-C1
J160-C1
J161-C1
J161-C1
J162-C1
J162-C1
J163-C1
J163-C1
6700.0 ft
6750.0 ft
6800.0 ft
6850.0 ft


J164-C1
J164-C1
J165-C1
J165-C1
J166-C1
J166-C1
J167-C1
J167-C1
J168-C1
J168-C1
6900.0 ft
6950.0 ft
7000.0 ft
7050.0 ft
7100.0 ft


J169-C1
J170-C1
J170-C1
J171-C1
J171-C1
J172-C1
J172-C1
J173-C1
J173-C1
J174-C1
7150.0 ft
7200.0 ft
7250.0 ft
7300.0 ft


J174-C1
J175-C1
J175-C1
J176-C1
J176-C1
J177-C1
J177-C1
J178-C1
J178-C1
J179-C1
7350.0 ft
7400.0 ft
7450.0 ft
7500.0 ft
7550.0


J180-C1
J180-C1
J181-C1
J181-C1
J182-C1
J182-C1
J183-C2
J183-C2
J184-C1
J184-C1
ft
7600.0 ft
7650.0 ft
7700.0 ft
7750.0 ft



Joint Summary

Southern California Gas Company
Aliso Canyon Storage Pool
Porter # 35

Identifier	Start Log Depth	Joint Length	Diameter	Weight	Max ML Depth	Max ML Position	Min Burst Pressure	Joint Depth Class
	ft	ft	in	lb/ft	%	ft	psi	
JT-1	21.01	19.95	7.000	23.0	0			1
JT-2	40.96	40.91	7.000	23.0	0			1
JT-3	81.87	43.02	7.000	23.0	0			1
JT-4	124.90	43.11	7.000	23.0	0			1
JT-5	168.01	43.58	7.000	23.0	0			1
JT-6	211.59	43.11	7.000	23.0	0			1
JT-7	254.70	42.29	7.000	23.0	0			1
JT-8	296.99	43.39	7.000	23.0	0			1
JT-9	340.38	44.47	7.000	23.0	0			1
JT-10	384.84	42.57	7.000	23.0	0			1
JT-11	427.41	42.90	7.000	23.0	0			1
JT-12	470.31	43.43	7.000	23.0	0			1
JT-13	513.74	42.97	7.000	23.0	15	520.39	5746	1
JT-14	556.71	42.40	7.000	23.0	0			1
JT-15	599.11	41.38	7.000	23.0	0			1
JT-16	640.49	43.41	7.000	23.0	0			1
JT-17	683.90	43.77	7.000	23.0	0			1
JT-18	727.67	42.69	7.000	23.0	0			1
JT-19	770.36	43.53	7.000	23.0	0			1
JT-20	813.89	43.04	7.000	23.0	0			1
JT-21	856.93	43.49	7.000	23.0	0			1
JT-22	900.42	41.22	7.000	23.0	0			1
JT-23	941.64	41.30	7.000	23.0	18	975.28	5830	1
JT-24	982.94	43.79	7.000	23.0	0			1
JT-25	1026.73	43.54	7.000	23.0	0			1
JT-26	1070.27	42.90	7.000	23.0	0			1

JT-27	1113.17	41.50	7.000	23.0	0			1
JT-28	1154.67	43.54	7.000	23.0	0			1
JT-29	1198.20	44.25	7.000	23.0	0			1

Identifier	Start Log Depth	Joint Length	Diameter	Weight	Max ML Depth	Max ML Position	Min Burst Pressure	Joint Depth Class
	ft	ft	in	lb/ft	%	ft	psi	
JT-30	1242.45	43.14	7.000	23.0	0			1
JT-31	1285.60	42.68	7.000	23.0	0			1
JT-32	1328.28	42.02	7.000	23.0	0			1
JT-33	1370.30	42.14	7.000	23.0	0			1
JT-34	1412.43	43.04	7.000	23.0	0			1
JT-35	1455.48	42.47	7.000	23.0	0			1
JT-36	1497.95	41.22	7.000	23.0	0			1
JT-37	1539.17	41.77	7.000	23.0	0			1
JT-38	1580.93	42.33	7.000	23.0	0			1
JT-39	1623.27	42.49	7.000	23.0	0			1
JT-40	1665.75	43.34	7.000	23.0	0			1
JT-41	1709.09	41.74	7.000	23.0	0			1
JT-42	1750.83	41.37	7.000	23.0	0			1
JT-43	1792.20	43.25	7.000	23.0	0			1
JT-44	1835.45	43.39	7.000	23.0	0			1
JT-45	1878.84	42.70	7.000	23.0	0			1
JT-46	1921.53	41.91	7.000	23.0	0			1
JT-47	1963.44	42.30	7.000	23.0	0			1
JT-48	2005.74	42.35	7.000	23.0	0			1
JT-49	2048.09	41.88	7.000	23.0	19	2088.42	5371	1
JT-50	2089.96	42.20	7.000	23.0	20	2124.34	5815	2
JT-51	2132.17	42.70	7.000	23.0	32	2136.38	5286	2
JT-52	2174.87	40.53	7.000	23.0	0			1
JT-53	2215.40	42.45	7.000	23.0	17	2245.31	5779	1
JT-54	2257.84	42.57	7.000	23.0	0			1
JT-55	2300.41	42.71	7.000	23.0	0			1
JT-56	2343.13	42.15	7.000	23.0	0			1
JT-57	2385.28	42.15	7.000	23.0	0			1
JT-58	2427.43	43.07	7.000	23.0	0			1

Identifier	Start Log Depth	Joint Length	Diameter	Weight	Max ML Depth	Max ML Position	Min Burst Pressure	Joint Depth Class
	ft	ft	in	lb/ft	%	ft	psi	
JT-59	2470.50	42.48	7.000	23.0	0			1
JT-60	2512.97	41.96	7.000	23.0	0			1
JT-61	2554.93	43.45	7.000	23.0	0			1
JT-62	2598.39	42.04	7.000	23.0	0			1
JT-63	2640.42	38.72	7.000	23.0	16	2658.25	5744	1
JT-64	2679.14	42.77	7.000	23.0	0			1
JT-65	2721.91	42.18	7.000	23.0	0			1
JT-66	2764.09	42.97	7.000	23.0	0			1
JT-67	2807.06	41.95	7.000	23.0	21	2826.16	5720	2
JT-68	2849.01	43.26	7.000	23.0	0			1
JT-69	2892.27	43.15	7.000	23.0	0			1
JT-70	2935.42	42.01	7.000	23.0	0			1
JT-71	2977.43	42.89	7.000	23.0	22	2981.57	5758	2
JT-72	3020.33	42.21	7.000	23.0	0			1
JT-73	3062.54	42.37	7.000	23.0	0			1
JT-74	3104.90	42.83	7.000	23.0	15	3116.57	5784	1
JT-75	3147.74	41.98	7.000	23.0	16	3182.39	5704	1
JT-76	3189.72	41.95	7.000	23.0	0			1
JT-77	3231.67	39.65	7.000	23.0	0			1
JT-78	3271.32	42.36	7.000	23.0	0			1
JT-79	3313.68	42.11	7.000	23.0	0			1
JT-80	3355.79	42.34	7.000	23.0	85	3396.30	0	4
JT-81	3398.13	43.14	7.000	23.0	86	3420.03	0	4
JT-82	3441.27	42.86	7.000	23.0	61	3463.54	5360	4
JT-83	3484.13	42.59	7.000	23.0	0			1
JT-84	3526.71	41.09	7.000	23.0	0			1
JT-85	3567.80	43.11	7.000	23.0	0			1
JT-86	3610.91	40.81	7.000	23.0	0			1
JT-87	3651.72	40.81	7.000	23.0	0			1

anomaly.
FAIL at
3355-3398'

Identifier	Start Log Depth	Joint Length	Diameter	Weight	Max ML Depth	Max ML Position	Min Burst Pressure	Joint Depth Class
	ft	ft	in	lb/ft	%	ft	psi	
JT-88	3692.53	42.30	7.000	23.0	0			1
JT-89	3734.82	42.96	7.000	23.0	0			1
JT-90	3777.78	42.36	7.000	23.0	0			1
JT-91	3820.15	42.31	7.000	23.0	0			1
JT-92	3862.45	43.56	7.000	23.0	0			1
JT-93	3906.01	43.53	7.000	23.0	0			1
JT-94	3949.54	43.92	7.000	23.0	0			1
JT-95	3993.45	40.76	7.000	23.0	0			1
JT-96	4034.21	42.66	7.000	23.0	0			1

JT-97	4076.87	42.34	7.000	23.0	0	1
JT-98	4119.21	43.81	7.000	23.0	0	1
JT-99	4163.02	41.59	7.000	23.0	0	1
JT-100	4204.61	42.52	7.000	23.0	0	1
JT-101	4247.13	41.93	7.000	23.0	0	1
JT-102	4289.06	42.85	7.000	23.0	0	1
JT-103	4331.91	43.32	7.000	23.0	0	1
JT-104	4375.23	39.56	7.000	23.0	0	1
JT-105	4414.79	43.53	7.000	23.0	0	1
JT-106	4458.32	43.59	7.000	23.0	0	1
JT-107	4501.90	43.24	7.000	23.0	0	1
JT-108	4545.14	40.72	7.000	23.0	0	1
JT-109	4585.85	42.89	7.000	23.0	0	1
JT-110	4628.75	42.45	7.000	23.0	0	1
JT-111	4671.20	42.93	7.000	23.0	0	1
JT-112	4714.13	43.22	7.000	23.0	0	1
JT-113	4757.35	42.90	7.000	23.0	0	1
JT-114	4800.25	43.38	7.000	23.0	0	1
JT-115	4843.64	41.40	7.000	23.0	0	1
JT-116	4885.03	44.36	7.000	23.0	0	1

Identifier	Start Log Depth	Joint Length	Diameter	Weight	Max ML Depth	Max ML Position	Min Burst Pressure	Joint Depth Class
	ft	ft	in	lb/ft	%	ft	psi	
JT-117	4929.40	44.29	7.000	23.0	0			1
JT-118	4973.68	41.44	7.000	23.0	0			1
JT-119	5015.12	43.64	7.000	23.0	15	5047.02	8063	1
JT-120	5058.76	42.47	7.000	26.0	0			1
JT-121	5101.23	43.27	7.000	26.0	0			1
JT-122	5144.50	42.54	7.000	26.0	0			1
JT-123	5187.05	43.33	7.000	26.0	0			1
JT-124	5230.38	44.35	7.000	26.0	0			1
JT-125	5274.73	42.30	7.000	26.0	0			1
JT-126	5317.03	43.71	7.000	26.0	16	5358.34	8967	1
JT-127	5360.74	43.69	7.000	26.0	0			1
JT-128	5404.43	33.91	7.000	26.0	0			1
JT-129	5438.33	43.17	7.000	26.0	0			1
JT-130	5481.50	44.06	7.000	26.0	0			1
JT-131	5525.55	42.04	7.000	26.0	0			1
JT-132	5567.60	35.17	7.000	26.0	0			1
JT-133	5602.76	43.69	7.000	26.0	0			1
JT-134	5646.45	41.72	7.000	26.0	0			1
JT-135	5688.17	40.46	7.000	26.0	0			1
JT-136	5728.63	44.84	7.000	26.0	0			1
JT-137	5773.47	37.83	7.000	26.0	15	5809.12	9149	1

JT-138	5811.29	42.08	7.000	26.0	0			1
JT-139	5853.37	42.85	7.000	26.0	0			1
JT-140	5896.22	44.06	7.000	26.0	0			1
JT-141	5940.29	42.44	7.000	26.0	0			1
JT-142	5982.72	43.44	7.000	26.0	21	6024.23	8808	2
JT-143	6026.16	41.25	7.000	26.0	0			1
JT-144	6067.41	41.86	7.000	26.0	0			1
JT-145	6109.27	42.93	7.000	26.0	16	6150.03	9141	1

Southern California Gas Company
Aliso Canyon Storage Pool
Porter # 35

Identifier	Start Log Depth	Joint Length	Diameter	Weight	Max ML Depth	Max ML Position	Min Burst Pressure	Joint Depth Class
	ft	ft	in	lb/ft	%	ft	psi	
JT-146	6152.20	41.76	7.000	26.0	18	6191.30	9174	1
JT-147	6193.96	43.48	7.000	26.0	0			1
JT-148	6237.44	42.00	7.000	26.0	0			1
JT-149	6279.45	42.46	7.000	26.0	0			1
JT-150	6321.90	42.69	7.000	26.0	0			1
JT-151	6364.59	43.32	7.000	26.0	0			1
JT-152	6407.91	44.50	7.000	26.0	0			1
JT-153	6452.41	42.66	7.000	26.0	0			1
JT-154	6495.07	40.95	7.000	26.0	0			1
JT-155	6536.03	41.79	7.000	26.0	0			1
JT-156	6577.82	41.17	7.000	26.0	0			1
JT-157	6618.99	42.42	7.000	29.0	0			1
JT-158	6661.42	37.74	7.000	29.0	0			1
JT-159	6699.15	36.54	7.000	29.0	0			1
JT-160	6735.69	38.43	7.000	29.0	0			1
JT-161	6774.12	35.27	7.000	29.0	0			1
JT-162	6809.39	42.26	7.000	29.0	0			1
JT-163	6851.66	43.70	7.000	29.0	0			1
JT-164	6895.35	43.03	7.000	29.0	0			1
JT-165	6938.38	44.04	7.000	29.0	0			1
JT-166	6982.42	42.57	7.000	29.0	0			1
JT-167	7024.99	42.74	7.000	29.0	0			1
JT-168	7067.73	42.28	7.000	29.0	0			1
JT-169	7110.01	40.55	7.000	29.0	0			1
JT-170	7150.56	43.34	7.000	29.0	0			1
JT-171	7193.90	43.29	7.000	29.0	0			1
JT-172	7237.19	33.56	7.000	29.0	0			1
JT-173	7270.75	44.70	7.000	29.0	0			1
JT-174	7315.45	41.45	7.000	29.0	0			1

Southern California Gas Company
Aliso Canyon Storage Pool
Porter # 35

Identifier	Start Log Depth	Joint Length	Diameter	Weight	Max ML Depth	Max ML Position	Min Burst Pressure	Joint Depth Class
	ft	ft	in	lb/ft	%	ft	psi	
JT-175	7356.90	44.63	7.000	29.0	0			1
JT-176	7401.53	43.35	7.000	29.0	0			1
JT-177	7444.88	40.15	7.000	29.0	0			1
JT-178	7485.03	42.38	7.000	29.0	0			1
JT-179	7527.41	41.92	7.000	29.0	0			1
JT-180	7569.33	43.94	7.000	29.0	0			1
JT-181	7613.27	42.93	7.000	29.0	0			1
JT-182	7656.20	43.40	7.000	29.0	0			1
JT-183	7699.61	42.96	7.000	29.0	27	7727.40	10031	2
JT-184	7742.57	43.18	7.000	29.0	0			1
JT-185	7785.74	35.40	7.000	29.0	19	7787.06	10349	1