HR Vertilog

Magnetic Flux Leakage Inspection

Advanced Analysis

Company	Southern California Gas Company
Well	69G
Field	Aliso Canyon
County	Los Angeles
State	California
Location:	

Section 27	Township T3N	Range R16W	

Date	Aug. 3, 2016
Service Order	US108851
Recorded by	Aarion Smith
Witnessed by	Jason Fike
API Serial No.	04-037-24225

Permanent Datum:	GL	Elevation: 2366.000 ft.		Depth	8500.000
Log Measured From:	KB	29.000 ft. above Perm. Datum		Btm. Log Interval	7350.000
Drilling Measured From:	KB	29.000 ft. above Perm. Datum		Top Log Interval	0.000
				Fluid Type	KCL

Casing Data

Size	Weight	Grade	From	To	Length
9 5/8 inch	47.0 lb/ft	N80	0	8500	8500.0
13 3/8 inch	54.5 lb/ft	K55	0	853	853.0

Software Version 7.4.0.1

Equipment Data

Run	Trip	Tool Type	Tool Series	Serial Number	Position
1	1	HRVRT MFL	4997	PA10409822	LOWER
1	1	HRVRT MFL	4997	QA10409830	UPPER
1	1	HRVRT TELEM	4993	EA10360726	

Calibration Data

Calibration File Name	4997-9-001-PA10409822-U.CAL
Date of Calibration	06/16/2016 16:01
Calibration Identifier	2C565780-F2F4-4E39-9D7D-50C3EFF227B9
Tool Number	4997-00

Calibrator Number	4997-9-001
Calibrator Size	(9-5/8 In - 238 mm)
Calibration Source File	20160616_125305_MEM.MVL
Calibration Software Rev	Microvision 32-bit 7.3.4.0
Comment	RMA1333

Calibration Data

Calibration File Name	4997-9-001-QA10409830-L.CAL
Date of Calibration	06/16/2016 16:01
Calibration Identifier	2C565780-F2F4-4E39-9D7D-50C3EFF227B9
Tool Number	4997-00
Calibrator Number	4997-9-001
Calibrator Size	(9-5/8 In - 238 mm)
Calibration Source File	20160616_125305_MEM.MVL
Calibration Software Rev	Microvision 32-bit 7.3.4.0
Comment	RMA1333

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

Interpretation

This log correlated to Baker Hughes Caliper log dated Aug-4-2016.

26.51 ft Hardware - External CSG head response.

842.41 ft Hardware - Bottom of 13.375" external CSG.

Numerous centralizers installed throughout. See final report feature list for complete listing.

Joint Interpretation Summary

Joint	From	To	Length	Class	Max Depth	Position	ID/OD
1	25.54	68.49	42.95	Class 1	-	-	-
2	68.49	115.91	47.42	Class 1	-	-	-
3	115.91	162.05	46.14	Class 1	-	-	-
4	162.05	209.32	47.27	Class 1	-	-	-
5	209.32	256.60	47.28	Class 1	-	-	-
6	256.60	302.95	46.35	Class 1	-	-	-
7	302.95	348.87	45.92	Class 1	-	-	-
8	348.87	394.21	45.34	Class 1	-	-	-
9	394.21	438.21	44.00	Class 1	-	-	-
10	438.21	482.97	44.76	Class 1	-	-	-
11	482.97	530.28	47.31	Class 1			

11	482.97	530.28	47.31	Class 1	-	-	-
12	530.28	577.20	46.92	Class 1	-	-	-
13	577.20	624.65	47.45	Class 1	-	-	-
14	624.65	671.94	47.29	Class 1	-	-	-
15	671.94	719.38	47.44	Class 1	-	-	-
16	719.38	764.33	44.95	Class 1	-	-	-
17	764.33	808.99	44.66	Class 1	-	-	-
18	808.99	856.36	47.37	Class 1	-	-	-
19	856.36	903.66	47.30	Class 1	-	-	-
20	903.66	951.13	47.47	Class 1	-	-	-
21	951.13	997.93	46.80	Class 1	-	-	-
22	997.93	1045.01	47.08	Class 1	-	-	-
23	1045.01	1089.36	44.35	Class 1	-	-	-
24	1089.36	1137.15	47.79	Class 1	-	-	-
25	1137.15	1184.63	47.48	Class 1	-	-	-
26	1184.63	1232.08	47.45	Class 1	-	-	-
27	1232.08	1278.15	46.07	Class 1	-	-	-
28	1278.15	1323.67	45.52	Class 1	-	-	-
29	1323.67	1370.87	47.20	Class 1	-	-	-
30	1370.87	1418.30	47.43	Class 1	-	-	-
31	1418.30	1465.13	46.83	Class 1	-	-	-
32	1465.13	1511.98	46.85	Class 1	-	-	-
33	1511.98	1559.41	47.43	Class 1	-	-	-
34	1559.41	1605.61	46.20	Class 1	-	-	-
35	1605.61	1650.42	44.81	Class 1	-	-	-
36	1650.42	1697.38	46.96	Class 1	-	-	-
37	1697.38	1744.85	47.47	Class 1	-	-	-
38	1744.85	1789.25	44.40	Class 1	-	-	-
39	1789.25	1833.69	44.44	Class 1	-	-	-
40	1833.69	1878.75	45.06	Class 1	-	-	-
41	1878.75	1925.51	46.76	Class 1	-	-	-
42	1925.51	1972.06	46.55	Class 1	-	-	-
43	1972.06	2019.05	46.99	Class 1	-	-	-
44	2019.05	2065.30	46.25	Class 1	-	-	-
45	2065.30	2111.99	46.69	Class 1	-	-	-
46	2111.99	2157.82	45.83	Class 1	-	-	-
47	2157.82	2204.29	46.47	Class 1	-	-	-
48	2204.29	2251.75	47.46	Class 1	-	-	-
49	2251.75	2299.25	47.50	Class 1	-	-	-
50	2299.25	2346.32	47.07	Class 1	-	-	-
51	2346.32	2393.59	47.27	Class 1	-	-	-
52	2393.59	2438.09	44.50	Class 1	-	-	-
53	2438.09	2482.52	44.43	Class 1	-	-	-
54	2482.52	2529.98	47.46	Class 1	-	-	-
55	2529.98	2576.55	46.57	Class 1	-	-	-
56	2576.55	2622.50	45.95	Class 1	-	-	-
57	2622.50	2669.88	47.38	Class 1	-	-	-
58	2669.88	2714.17	44.29	Class 1	-	-	-
59	2714.17	2761.58	47.41	Class 1	-	-	-
60	2761.58	2809.05	47.47	Class 1	-	-	-
61	2809.05	2856.36	47.31	Class 1	-	-	-
62	2856.36	2902.80	46.44	Class 1	-	-	-
63	2902.80	2948.11	45.31	Class 1	-	-	-
64	2948.11	2994.90	46.79	Class 1	-	-	-
65	2994.90	3042.41	47.51	Class 1	-	-	-
66	3042.41	3088.00	45.59	Class 1	-	-	-
67	3088.00	3132.50	44.50	Class 1	-	-	-
68	3132.50	3179.83	47.33	Class 1	-	-	-
69	3179.83	3227.12	47.29	Class 1	-	-	-
70	3227.12	3274.37	47.25	Class 1	-	-	-
71	3274.37	3321.72	47.35	Class 1	-	-	-
72	3321.72	3368.58	46.86	Class 1	-	-	-
73	3368.58	3415.86	47.28	Class 1	-	-	-

74	3415.86	3462.65	46.79	Class 1	-	-	-
75	3462.65	3509.98	47.33	Class 1	-	-	-
76	3509.98	3554.70	44.72	Class 1	-	-	-
77	3554.70	3602.03	47.33	Class 1	-	-	-
78	3602.03	3645.83	43.80	Class 1	-	-	-
79	3645.83	3693.29	47.46	Class 1	-	-	-
80	3693.29	3738.77	45.48	Class 1	-	-	-
81	3738.77	3786.23	47.46	Class 1	-	-	-
82	3786.23	3833.31	47.08	Class 1	-	-	-
83	3833.31	3880.66	47.35	Class 1	-	-	-
84	3880.66	3926.20	45.54	Class 1	-	-	-
85	3926.20	3971.98	45.78	Class 1	-	-	-
86	3971.98	4019.21	47.23	Class 1	-	-	-
87	4019.21	4065.18	45.97	Class 1	-	-	-
88	4065.18	4111.29	46.11	Class 1	-	-	-
89	4111.29	4158.88	47.59	Class 1	-	-	-
90	4158.88	4205.25	46.37	Class 1	15.0%	4178.93	OD
91	4205.25	4252.83	47.58	Class 1	-	-	-
92	4252.83	4297.37	44.54	Class 1	17.0%	4279.32	OD
93	4297.37	4344.01	46.64	Class 1	-	-	-
94	4344.01	4391.63	47.62	Class 1	-	-	-
95	4391.63	4438.81	47.18	Class 1	17.0%	4408.38	OD
96	4438.81	4486.09	47.28	Class 1	18.0%	4478.77	OD
97	4486.09	4531.99	45.90	Class 1	-	-	-
98	4531.99	4577.78	45.79	Class 2	21.0%	4564.77	OD
99	4577.78	4621.23	43.45	Class 1	-	-	-
100	4621.23	4668.75	47.52	Class 1	19.0%	4640.86	OD
101	4668.75	4716.20	47.45	Class 1	-	-	-
102	4716.20	4761.60	45.40	Class 2	20.0%	4731.78	OD
103	4761.60	4806.84	45.24	Class 1	-	-	-
104	4806.84	4854.15	47.31	Class 1	18.0%	4847.35	OD
105	4854.15	4901.46	47.31	Class 1	-	-	-
106	4901.46	4948.67	47.21	Class 1	17.0%	4918.26	OD
107	4948.67	4990.48	41.81	Class 2	21.0%	4962.37	OD
108	4990.48	5037.78	47.30	Class 2	20.0%	5021.74	OD
109	5037.78	5084.73	46.95	Class 2	20.0%	5053.45	OD
110	5084.73	5130.77	46.04	Class 2	20.0%	5111.01	OD
111	5130.77	5173.54	42.77	Class 3	44.0%	5144.83	OD
112	5173.54	5219.36	45.82	Class 1	20.0%	5197.62	OD
113	5219.36	5266.51	47.15	Class 2	22.0%	5221.07	OD
114	5266.51	5313.79	47.28	Class 1	18.0%	5292.47	OD
115	5313.79	5360.78	46.99	Class 1	19.0%	5322.57	OD
116	5360.78	5408.07	47.29	Class 1	-	-	-
117	5408.07	5455.47	47.40	Class 1	-	-	-
118	5455.47	5501.23	45.76	Class 1	-	-	-
119	5501.23	5546.96	45.73	Class 1	-	-	-
120	5546.96	5594.46	47.50	Class 1	15.0%	5556.76	OD
121	5594.46	5639.88	45.42	Class 1	-	-	-
122	5639.88	5687.07	47.19	Class 1	-	-	-
123	5687.07	5732.72	45.65	Class 1	-	-	-
124	5732.72	5779.80	47.08	Class 1	-	-	-
125	5779.80	5825.70	45.90	Class 1	-	-	-
126	5825.70	5872.20	46.50	Class 1	-	-	-
127	5872.20	5919.78	47.58	Class 1	-	-	-
128	5919.78	5965.98	46.20	Class 1	-	-	-
129	5965.98	6013.32	47.34	Class 1	-	-	-
130	6013.32	6060.88	47.56	Class 1	-	-	-
131	6060.88	6106.38	45.50	Class 1	-	-	-
132	6106.38	6153.36	46.98	Class 1	-	-	-
133	6153.36	6198.92	45.56	Class 1	-	-	-
134	6198.92	6244.62	45.70	Class 1	-	-	-
135	6244.62	6292.09	47.47	Class 1	-	-	-

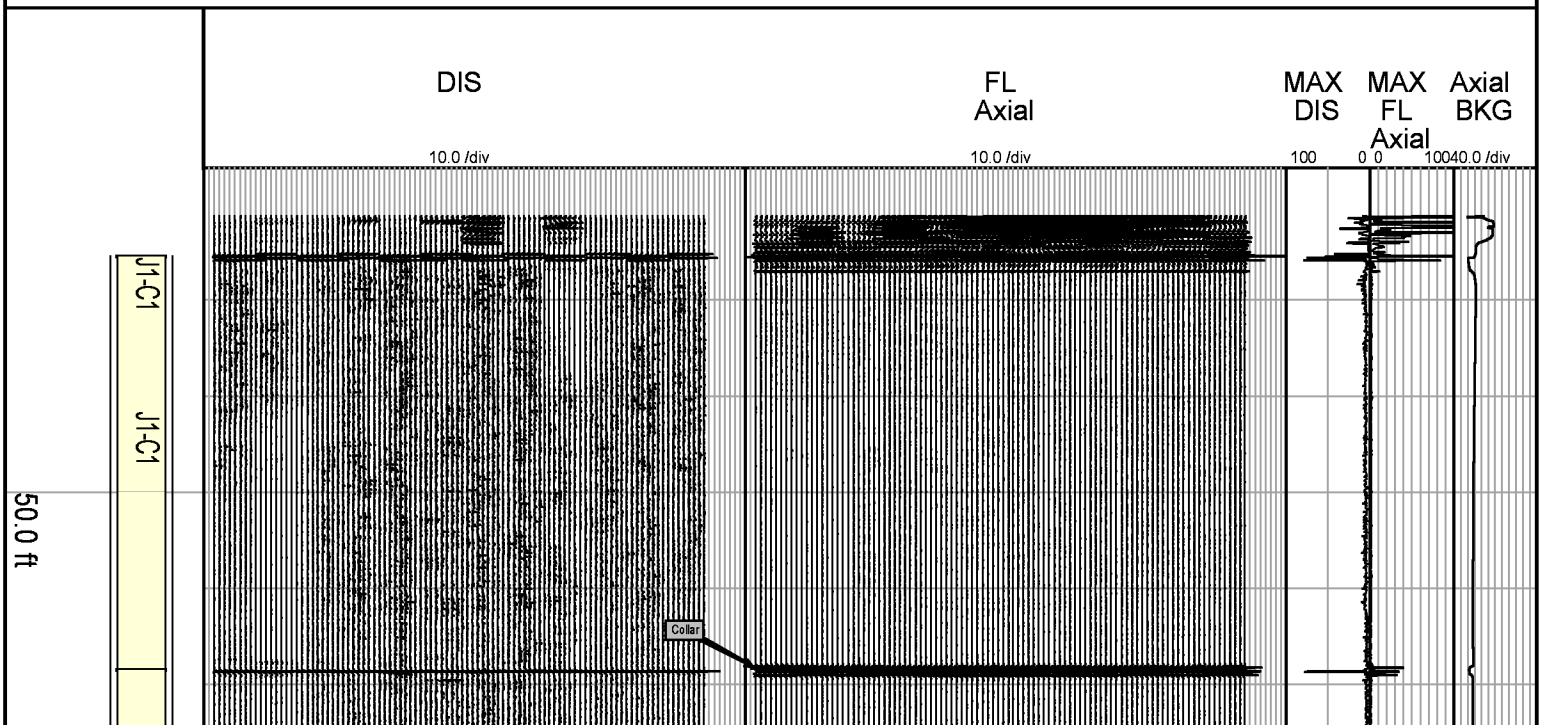
136	6292.09	6336.12	44.03	Class 1	-	-	-
137	6336.12	6383.45	47.33	Class 1	-	-	-
138	6383.45	6430.72	47.27	Class 1	-	-	-
139	6430.72	6478.02	47.30	Class 1	-	-	-
140	6478.02	6525.37	47.35	Class 1	-	-	-
141	6525.37	6572.08	46.71	Class 1	-	-	-
142	6572.08	6620.11	48.03	Class 1	-	-	-
143	6620.11	6666.06	45.95	Class 1	-	-	-
144	6666.06	6712.75	46.69	Class 1	-	-	-
145	6712.75	6759.65	46.90	Class 1	-	-	-
146	6759.65	6807.16	47.51	Class 1	-	-	-
147	6807.16	6854.44	47.28	Class 1	-	-	-
148	6854.44	6899.55	45.11	Class 1	-	-	-
149	6899.55	6947.51	47.96	Class 1	-	-	-
150	6947.51	6992.54	45.03	Class 1	-	-	-
151	6992.54	7039.65	47.11	Class 1	-	-	-
152	7039.65	7085.95	46.30	Class 1	-	-	-
153	7085.95	7132.42	46.47	Class 1	-	-	-
154	7132.42	7179.43	47.01	Class 1	-	-	-
155	7179.43	7226.90	47.47	Class 1	-	-	-
156	7226.90	7272.64	45.74	Class 1	-	-	-
157	7272.64	7318.09	45.45	Class 1	-	-	-
158	7318.09	7333.26	15.17	Class 1	-	-	-

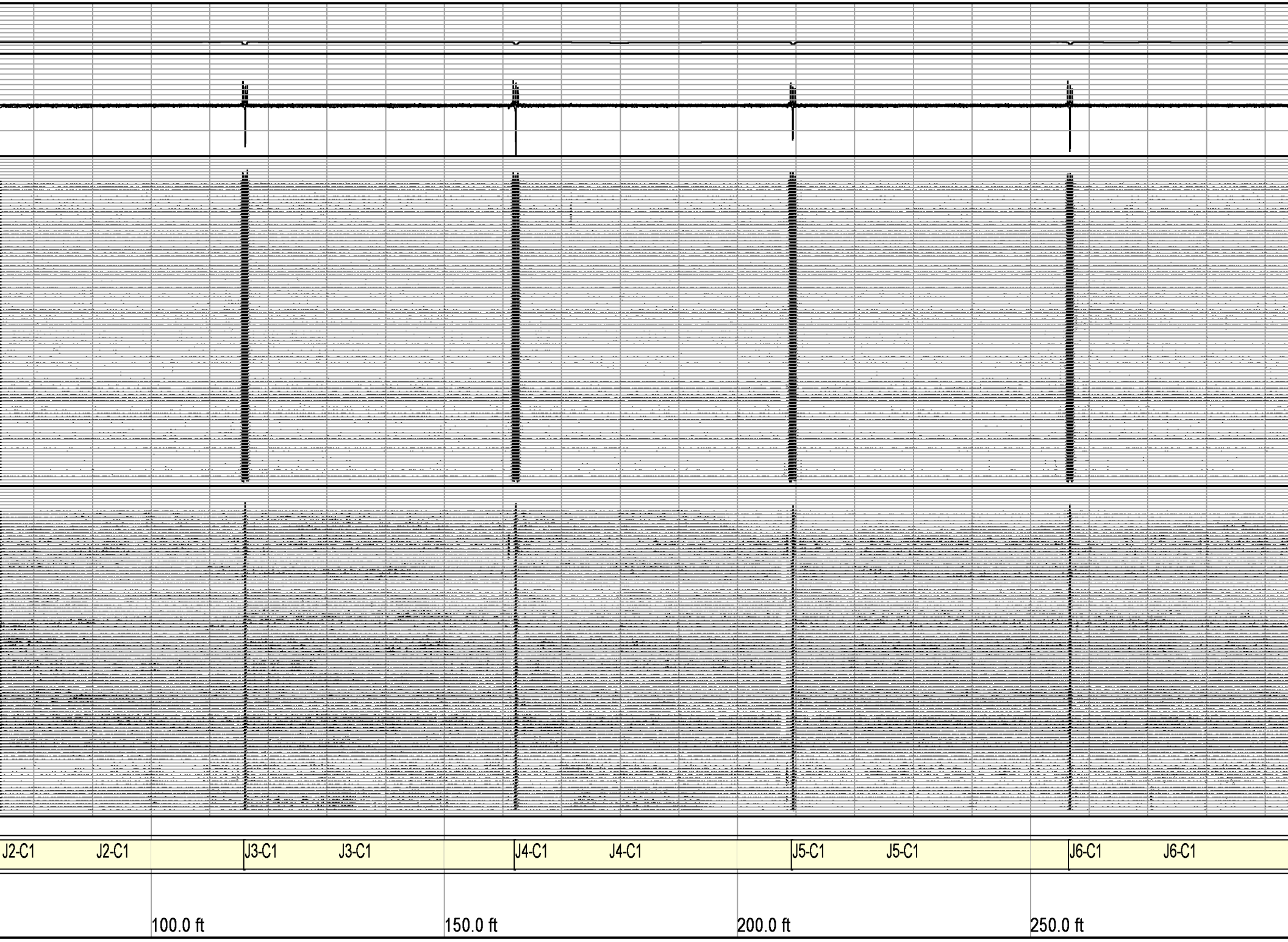
Southern California Gas Company 69G

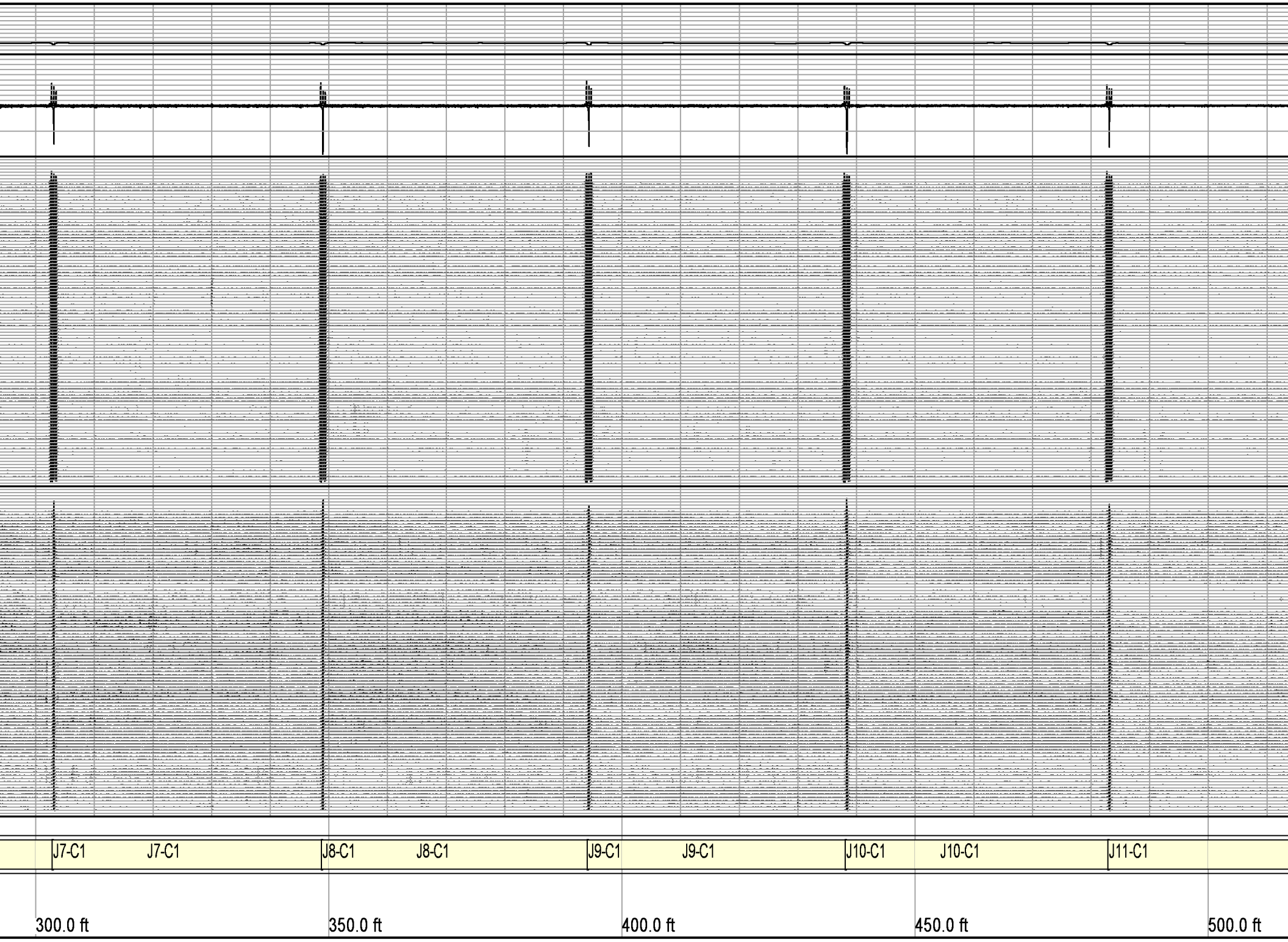
File 20160803_143355_RSP_0_0_0_0_0.mvl

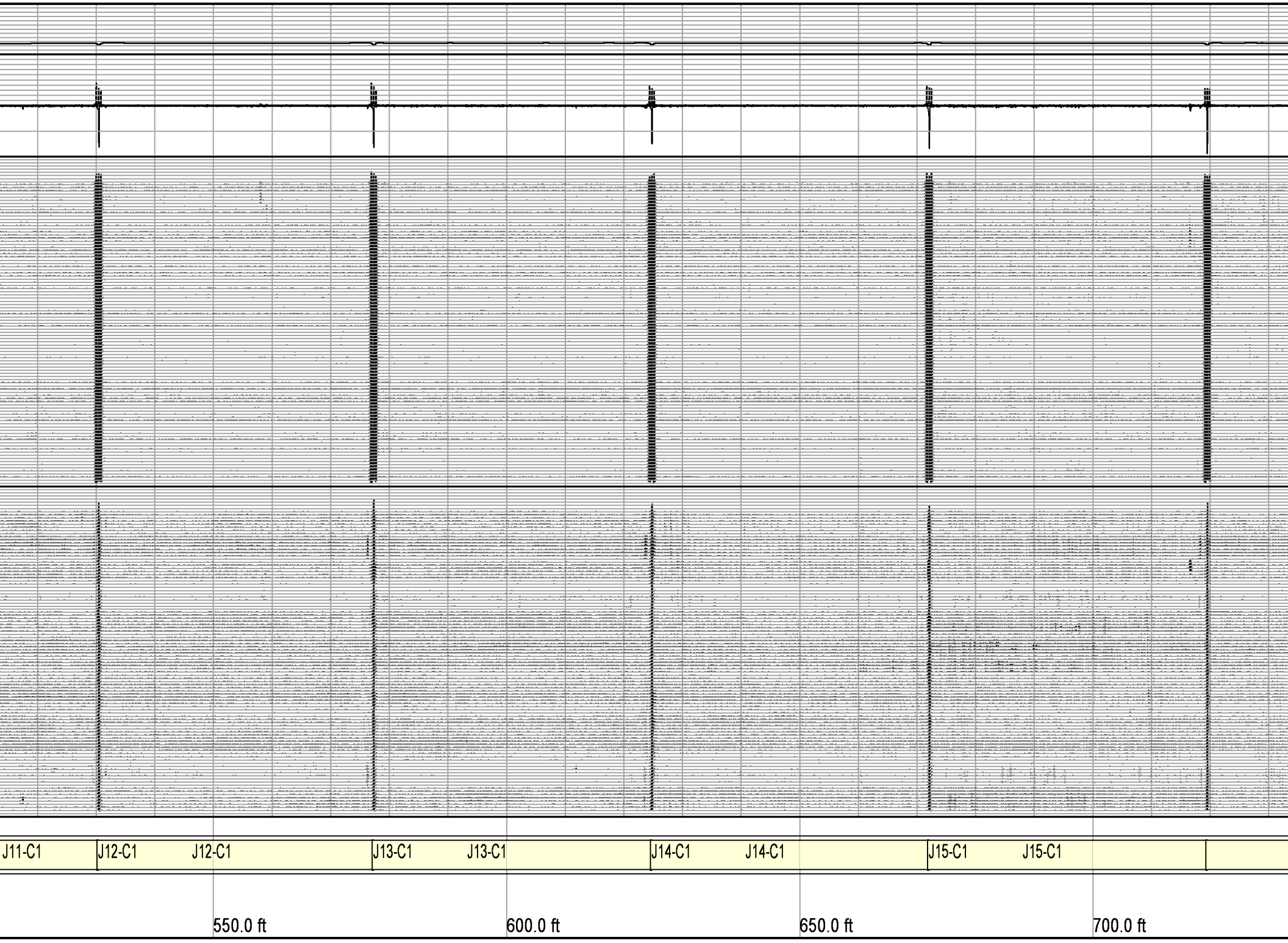
Main Log
5"/100'

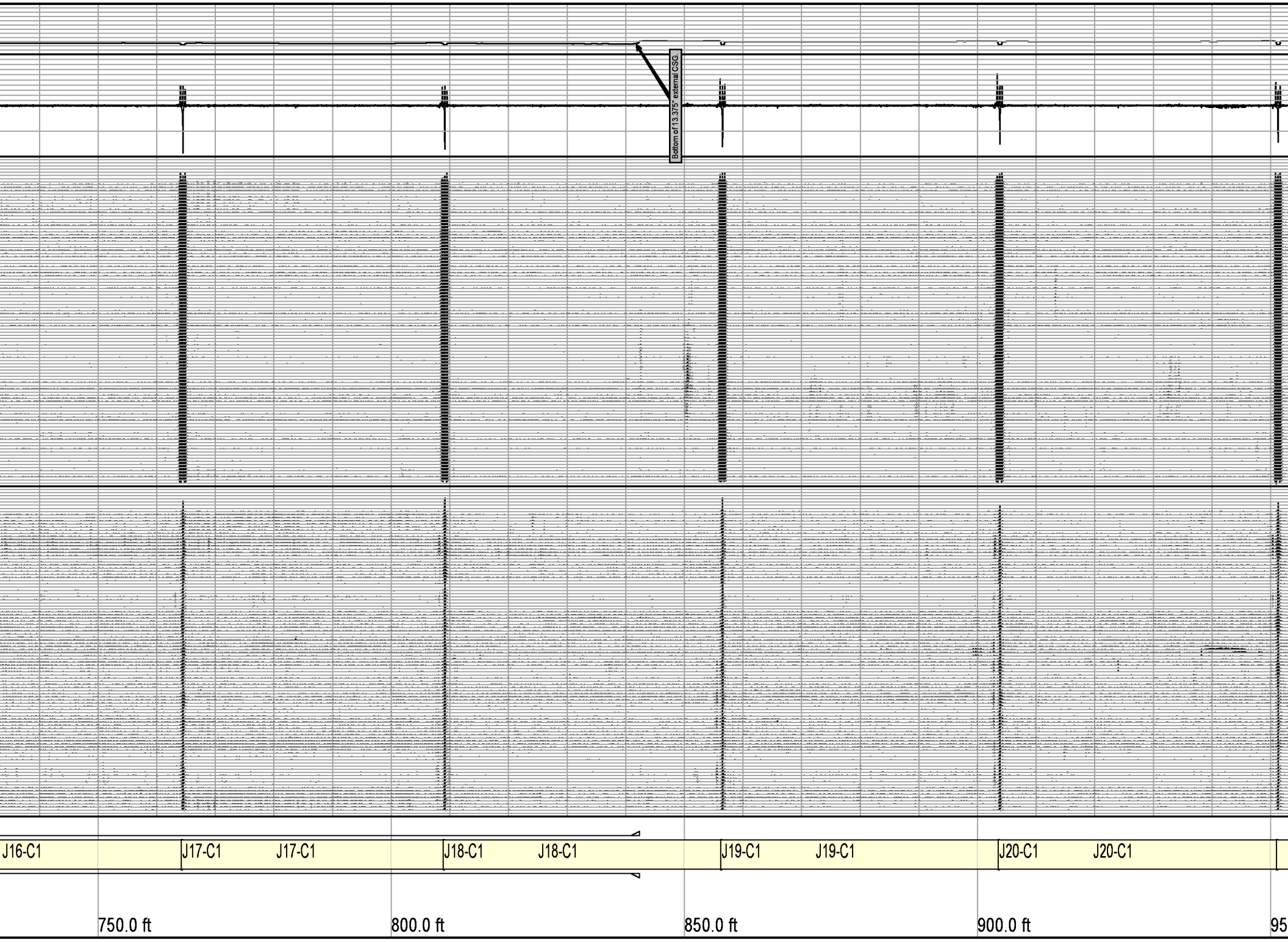
Class 1	Class 2	Class 3	Class 4
0 - 20%	20 - 40%	40 - 60%	60 - 100%

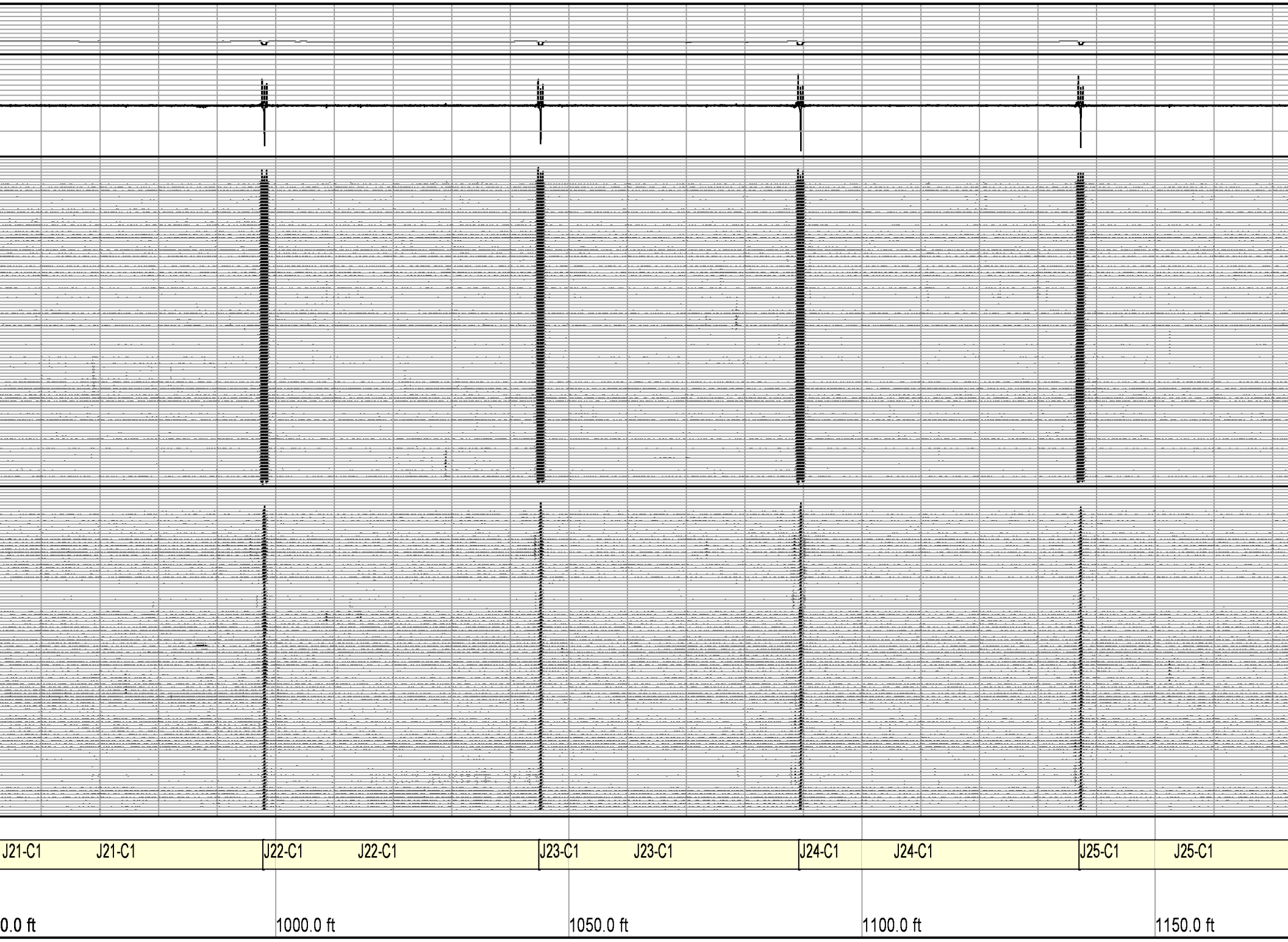


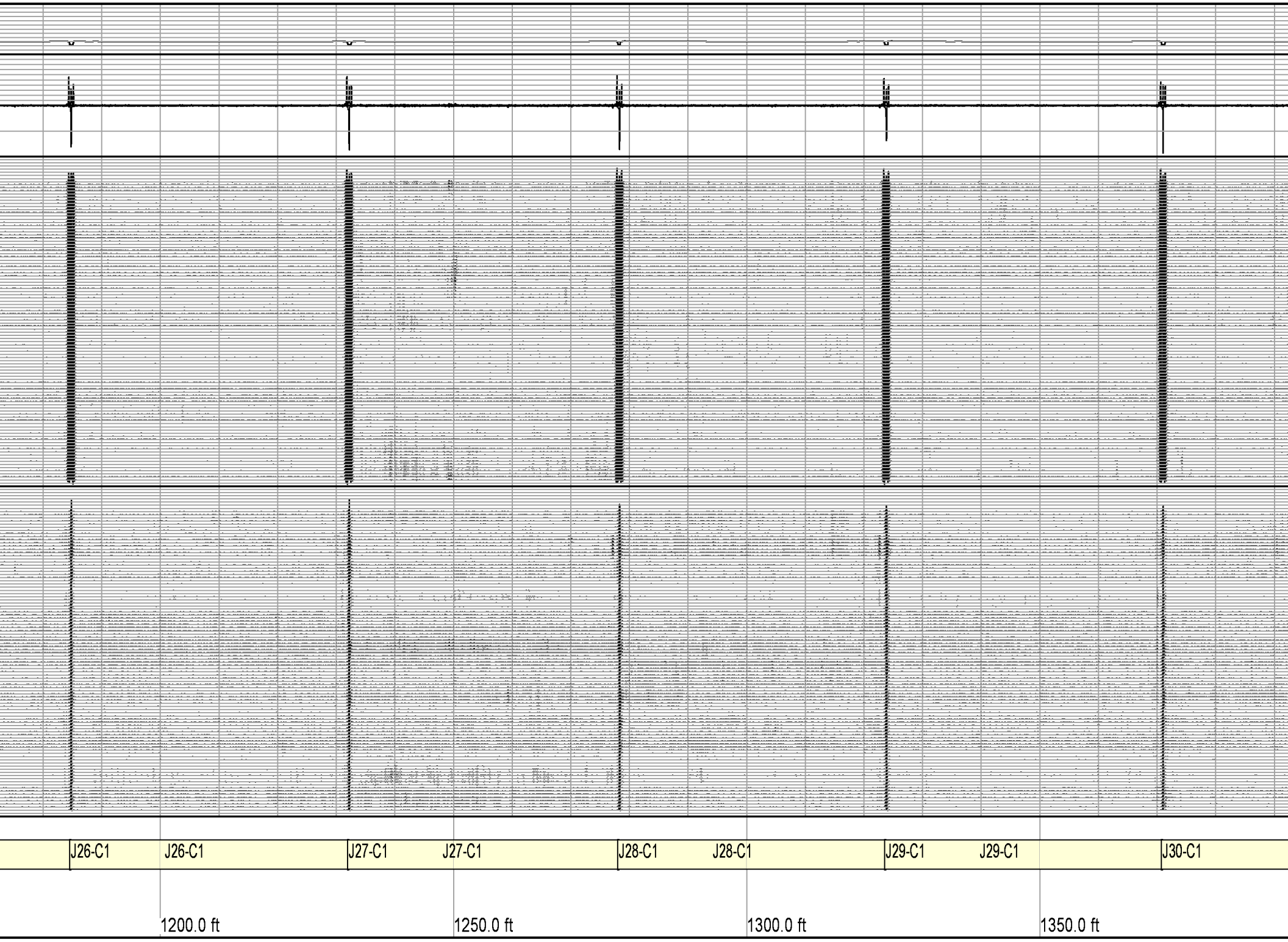

J2-C1
J2-C1
J3-C1
J3-C1
J4-C1
J4-C1
J5-C1
J5-C1
J6-C1
J6-C1
100.0 ft
150.0 ft
200.0 ft
250.0 ft

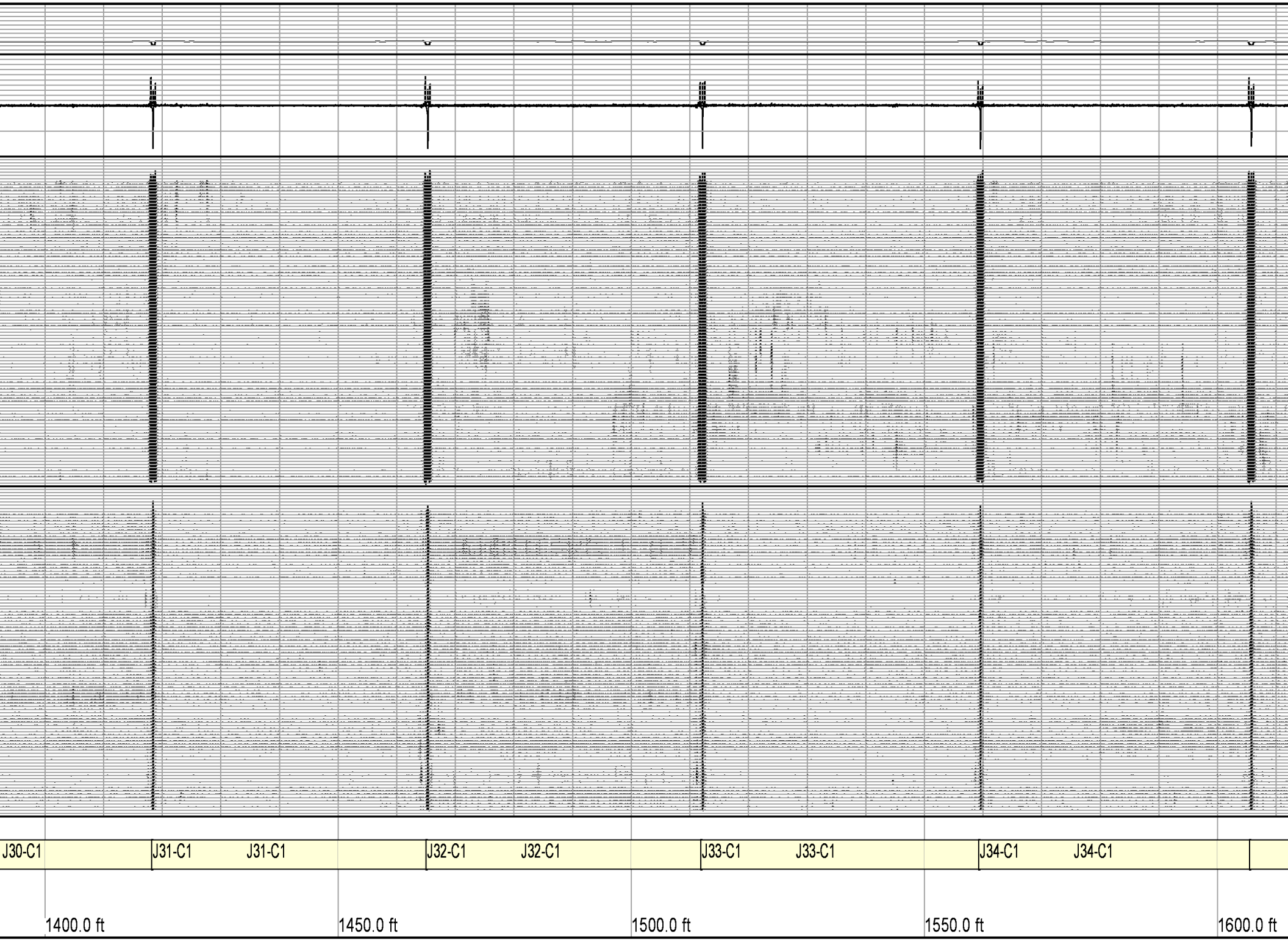

J7-C1
J7-C1
J8-C1
J8-C1
J9-C1
J9-C1
J10-C1
J10-C1
J11-C1
300.0 ft
350.0 ft
400.0 ft
450.0 ft
500.0 ft

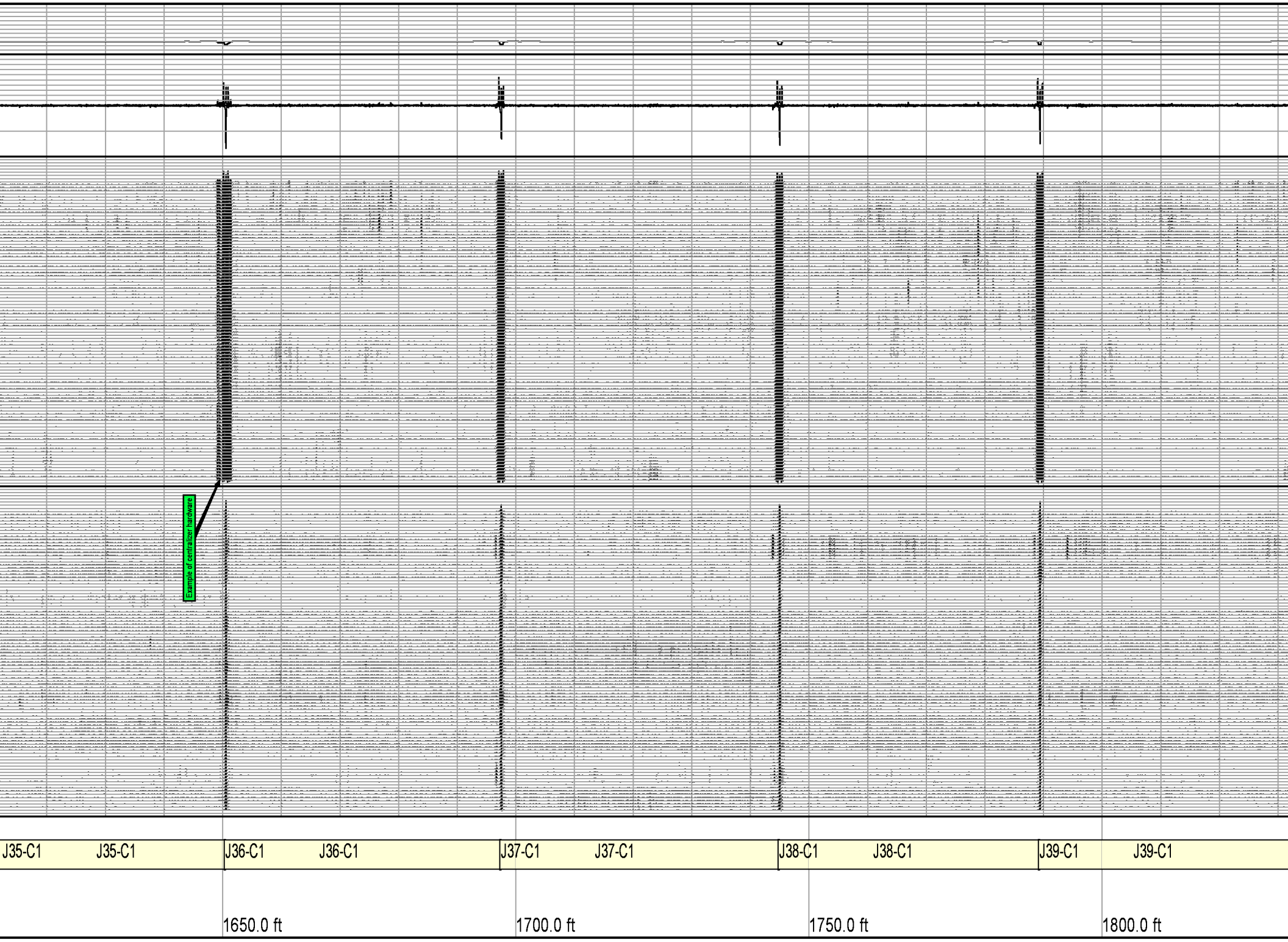

J11-C1
J12-C1
J12-C1
J13-C1
J13-C1
J14-C1
J14-C1
J15-C1
J15-C1
550.0 ft
600.0 ft
650.0 ft
700.0 ft

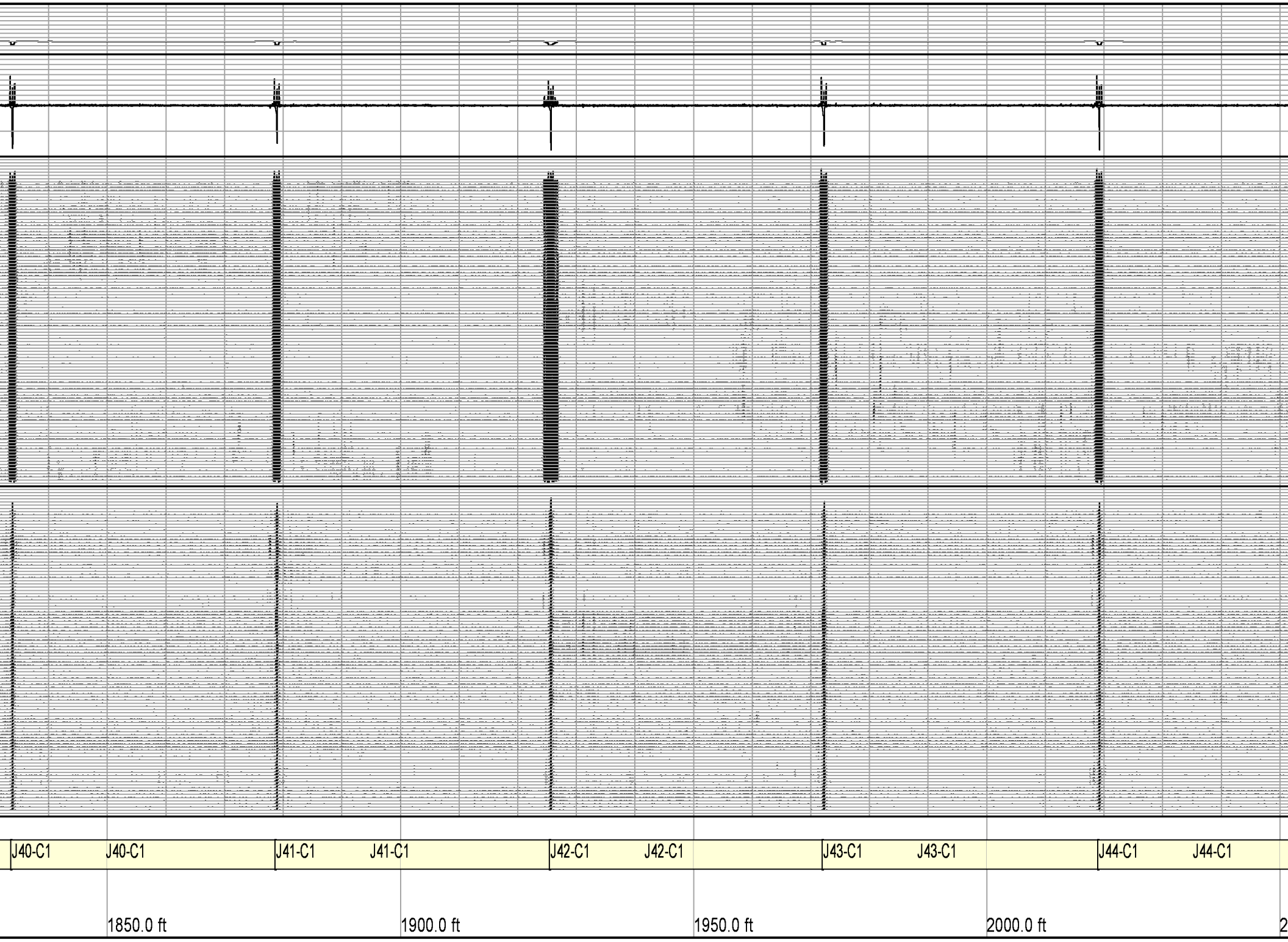

Bottom of 13.375" external CSG
J16-C1
J17-C1
J17-C1
J18-C1
J18-C1
J19-C1
J19-C1
J20-C1
J20-C1
750.0 ft
800.0 ft
850.0 ft
900.0 ft
95

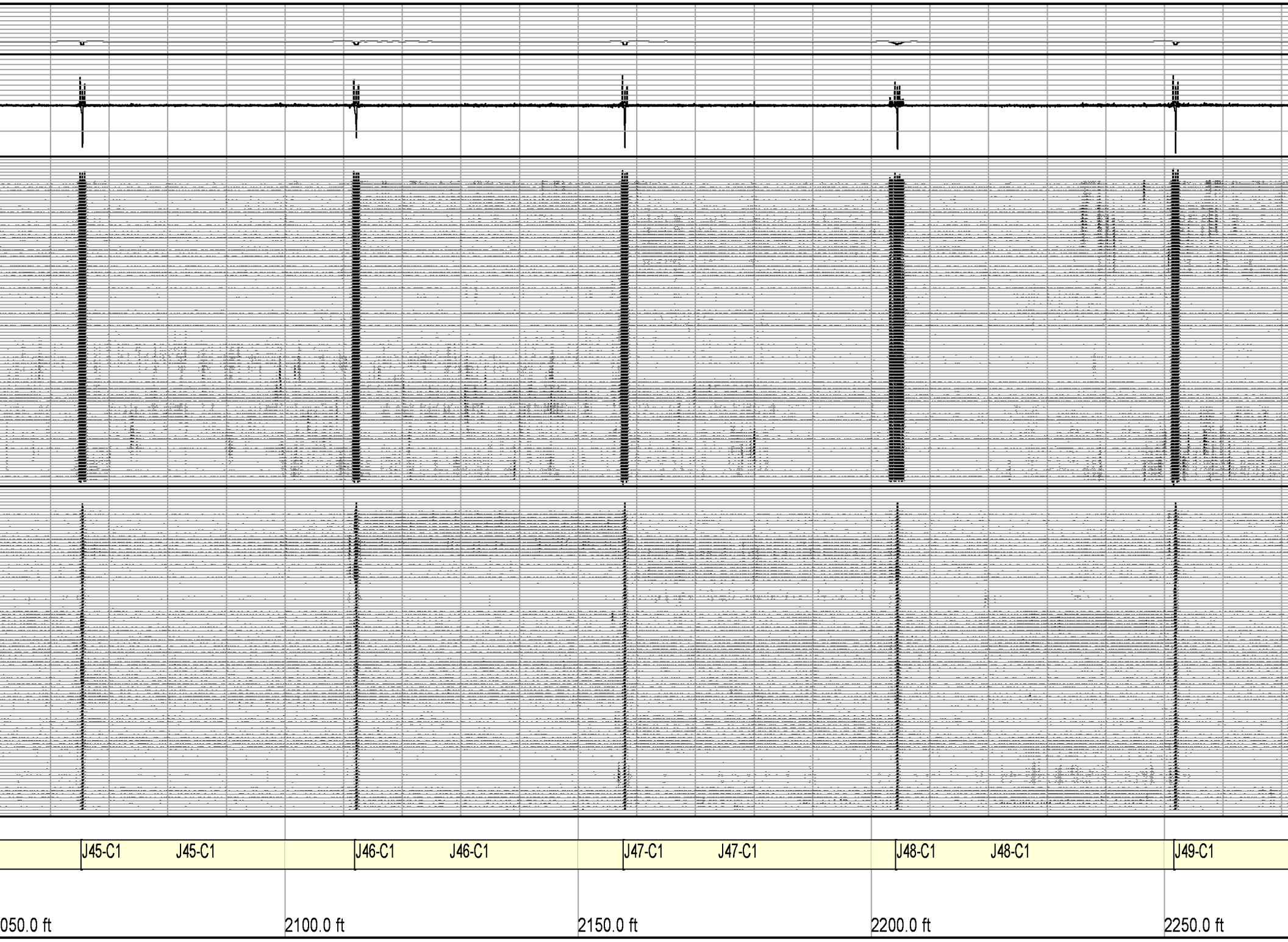

J21-C1
J21-C1
J22-C1
J22-C1
J23-C1
J23-C1
J24-C1
J24-C1
J25-C1
J25-C1
0.0 ft
1000.0 ft
1050.0 ft
1100.0 ft
1150.0 ft

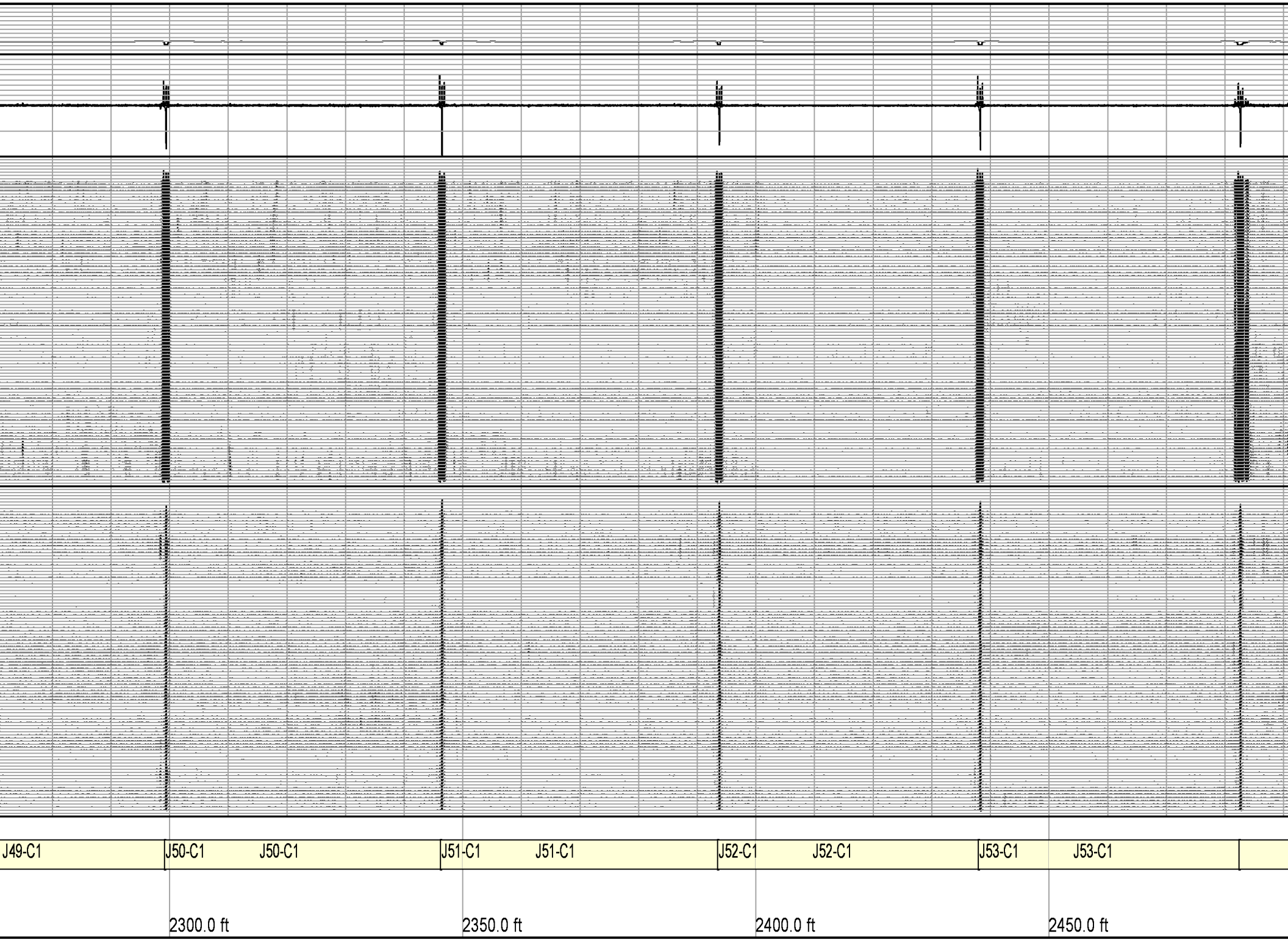

J26-C1
J26-C1
J27-C1
J27-C1
J28-C1
J28-C1
J29-C1
J29-C1
J30-C1
1200.0 ft
1250.0 ft
1300.0 ft
1350.0 ft

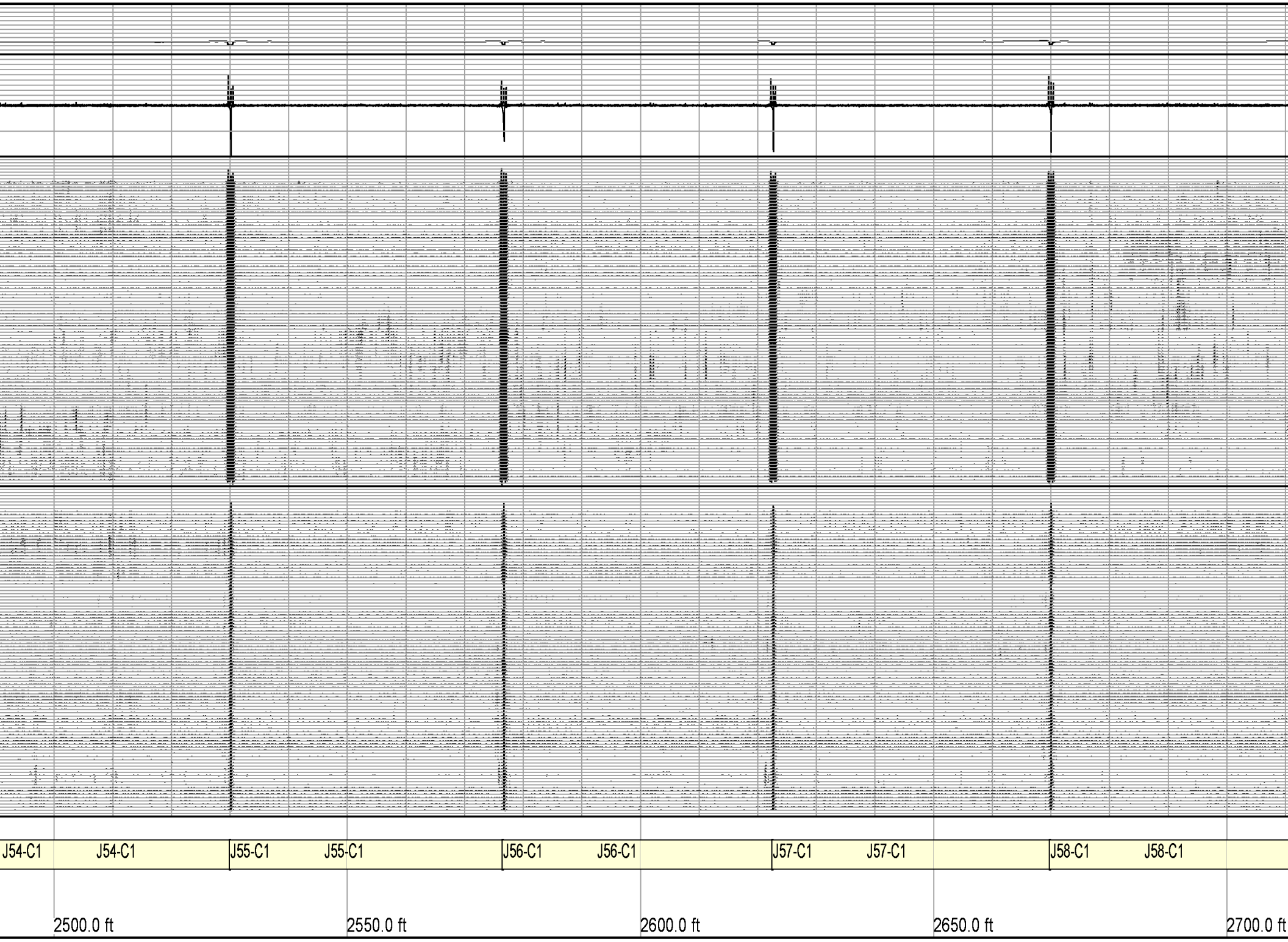

J30-C1
J31-C1
J31-C1
J32-C1
J32-C1
J33-C1
J33-C1
J34-C1
J34-C1
1400.0 ft
1450.0 ft
1500.0 ft
1550.0 ft
1600.0 ft

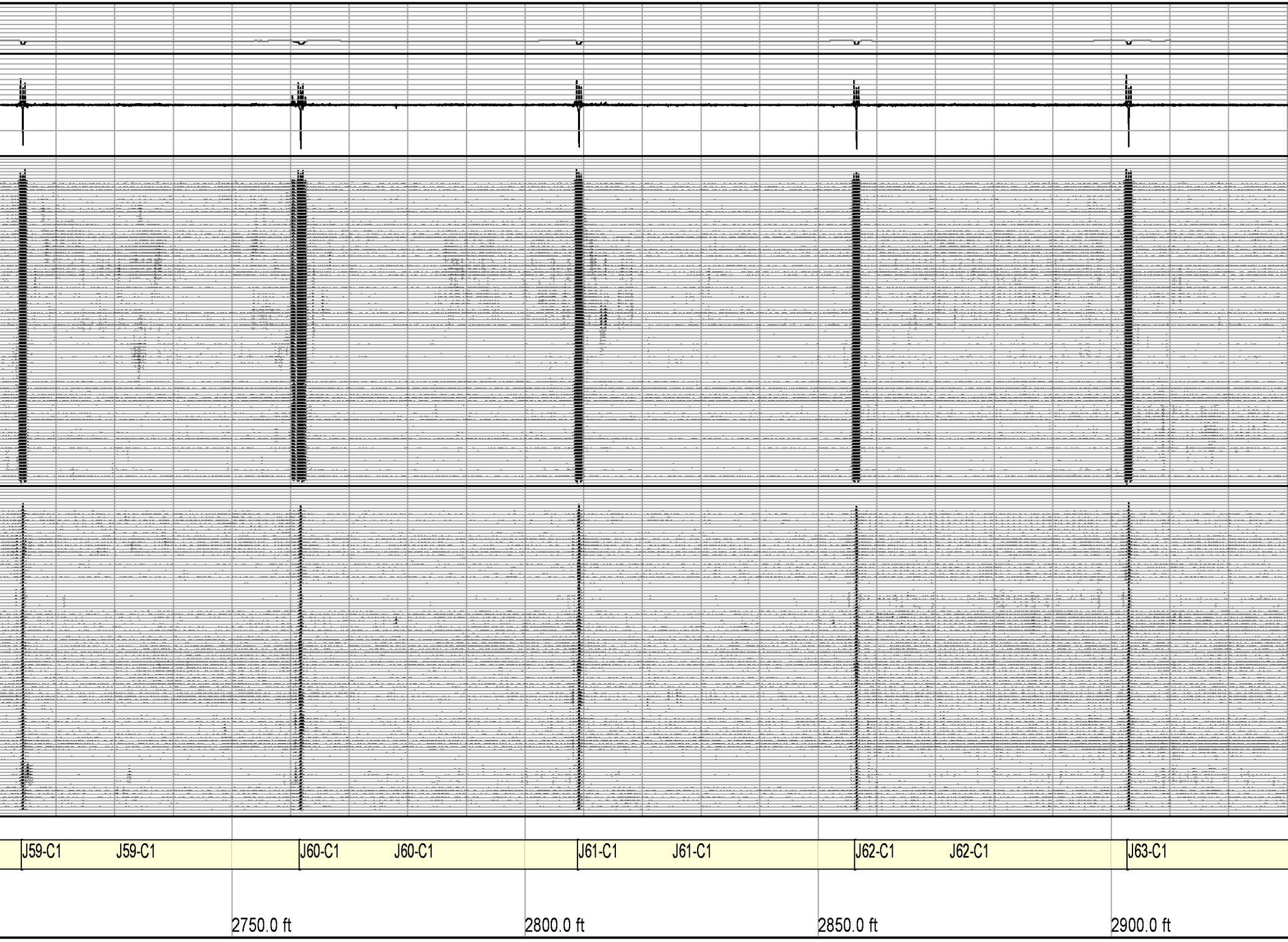

Example of centralizer hardware
J35-C1
J35-C1
J36-C1
J36-C1
J37-C1
J37-C1
J38-C1
J38-C1
J39-C1
J39-C1
1650.0 ft
1700.0 ft
1750.0 ft
1800.0 ft

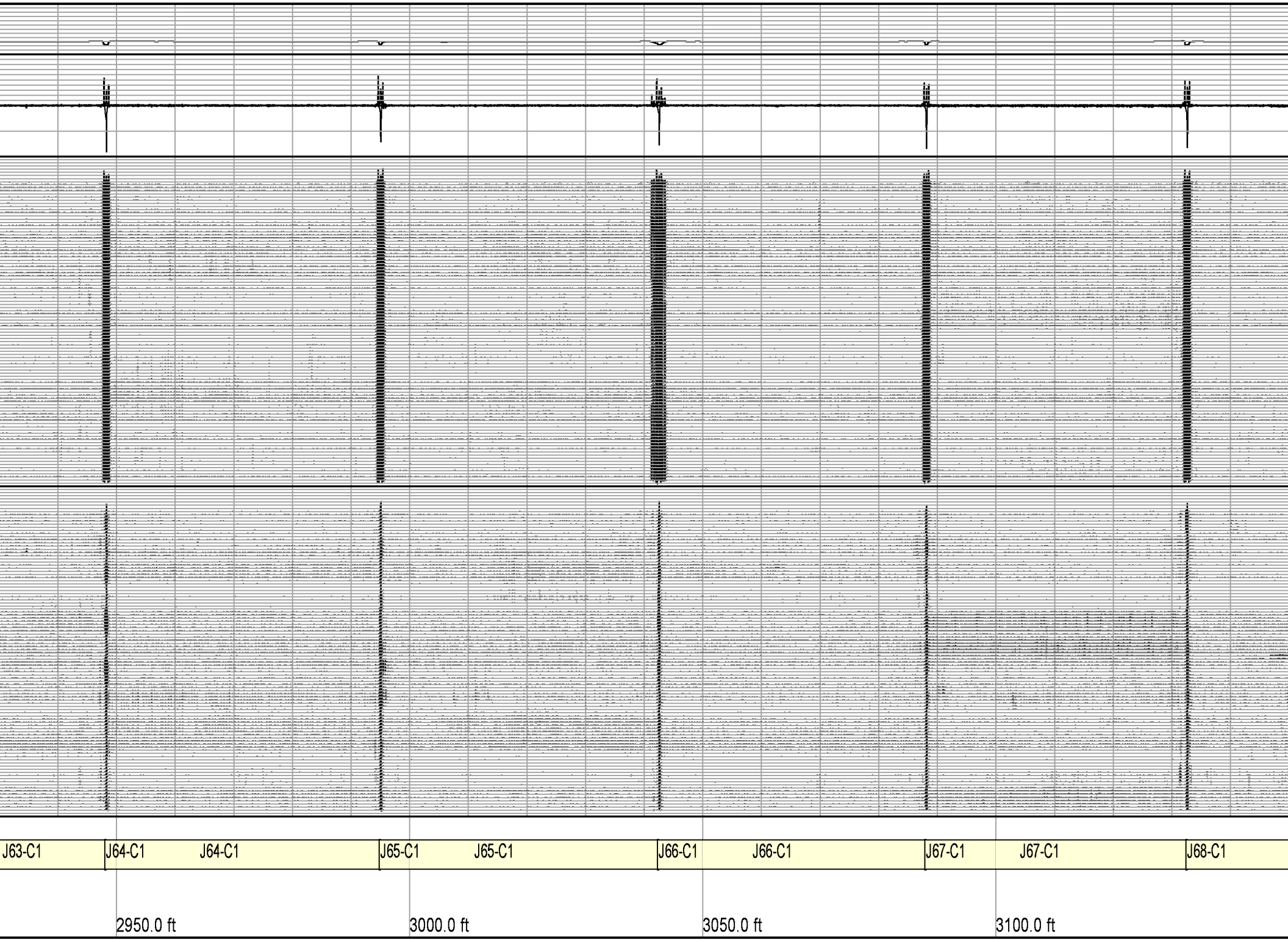

J40-C1
J40-C1
J41-C1
J41-C1
J42-C1
J42-C1
J43-C1
J43-C1
J44-C1
J44-C1
1850.0 ft
1900.0 ft
1950.0 ft
2000.0 ft

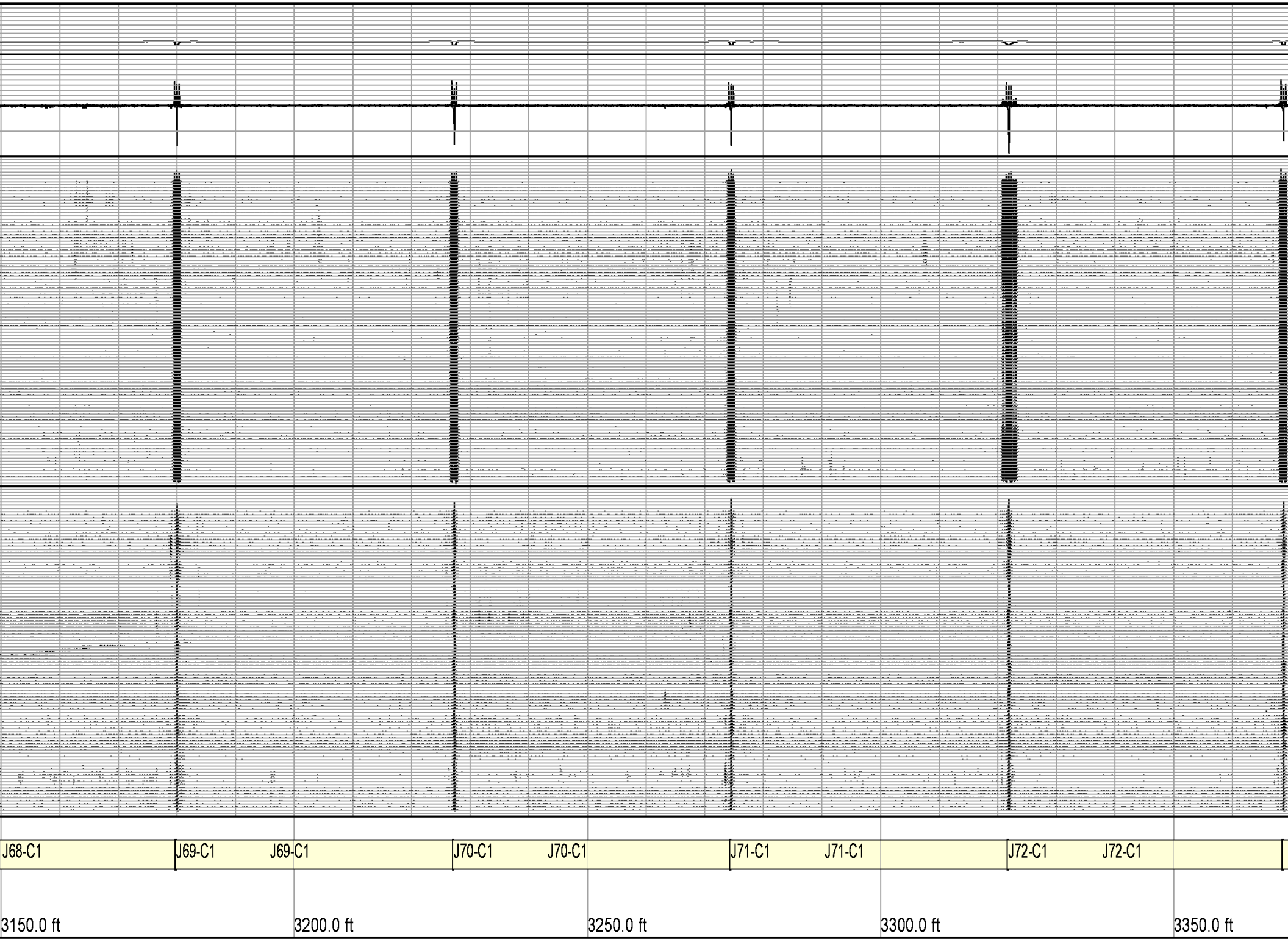

J45-C1
J45-C1
J46-C1
J46-C1
J47-C1
J47-C1
J48-C1
J48-C1
J49-C1
050.0 ft
2100.0 ft
2150.0 ft
2200.0 ft
2250.0 ft


J49-C1
J50-C1
J50-C1
J51-C1
J51-C1
J52-C1
J52-C1
J53-C1
J53-C1
2300.0 ft
2350.0 ft
2400.0 ft
2450.0 ft


J54-C1
J54-C1
J55-C1
J55-C1
J56-C1
J56-C1
J57-C1
J57-C1
J58-C1
J58-C1
2500.0 ft
2550.0 ft
2600.0 ft
2650.0 ft
2700.0 ft


J59-C1
J59-C1
J60-C1
J60-C1
J61-C1
J61-C1
J62-C1
J62-C1
J63-C1
2750.0 ft
2800.0 ft
2850.0 ft
2900.0 ft


J63-C1
J64-C1
J64-C1
J65-C1
J65-C1
J66-C1
J66-C1
J67-C1
J67-C1
J68-C1
2950.0 ft
3000.0 ft
3050.0 ft
3100.0 ft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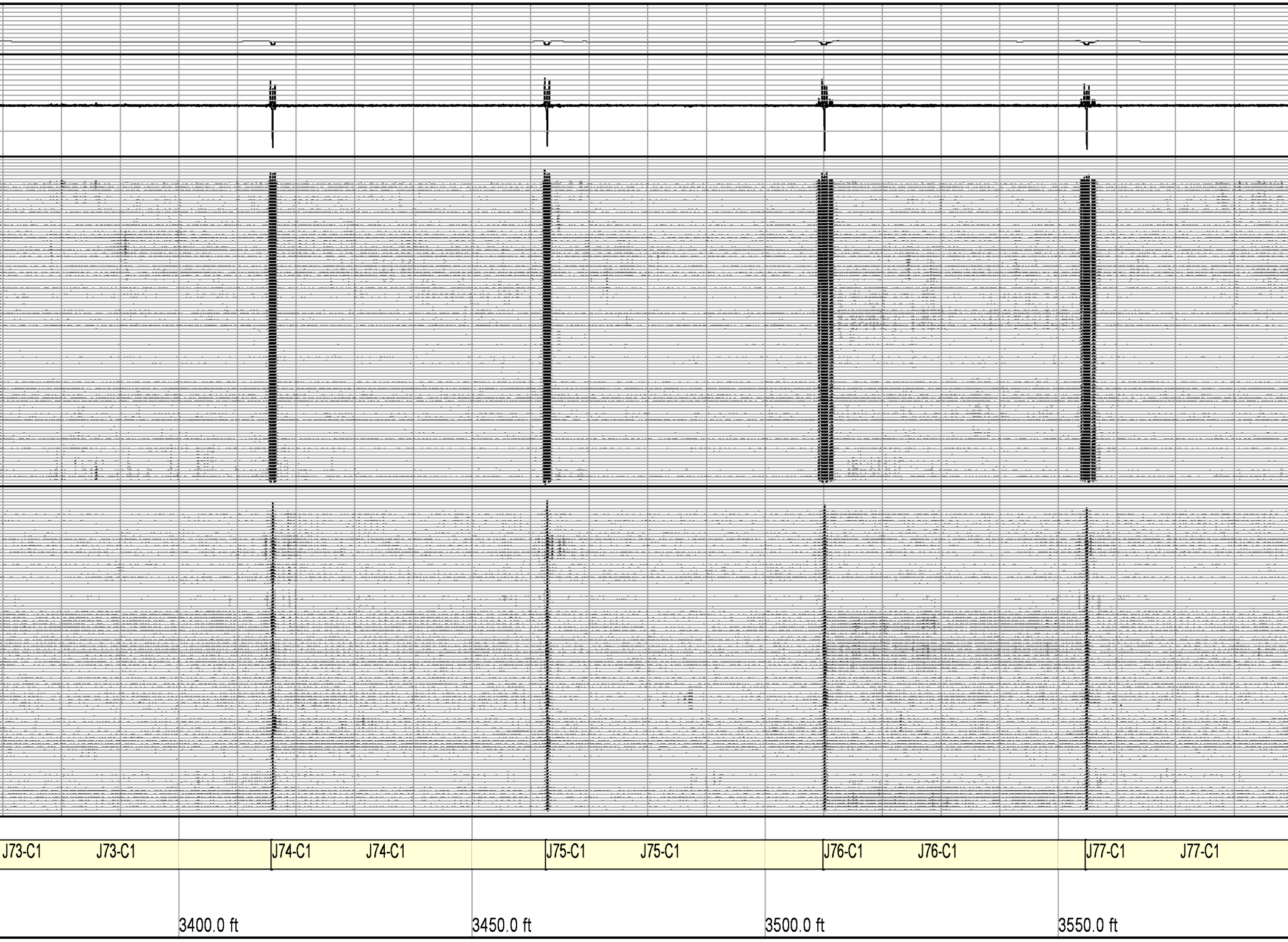
J69-C1
J69-C1
J70-C1
J70-C1
J71-C1
J71-C1
J72-C1
J72-C1
3150.0 ft
3200.0 ft
3250.0 ft
3300.0 ft
3350.0 ft


J73-C1
J73-C1
J74-C1
J74-C1
J75-C1
J75-C1
J76-C1
J76-C1
J77-C1
J77-C1
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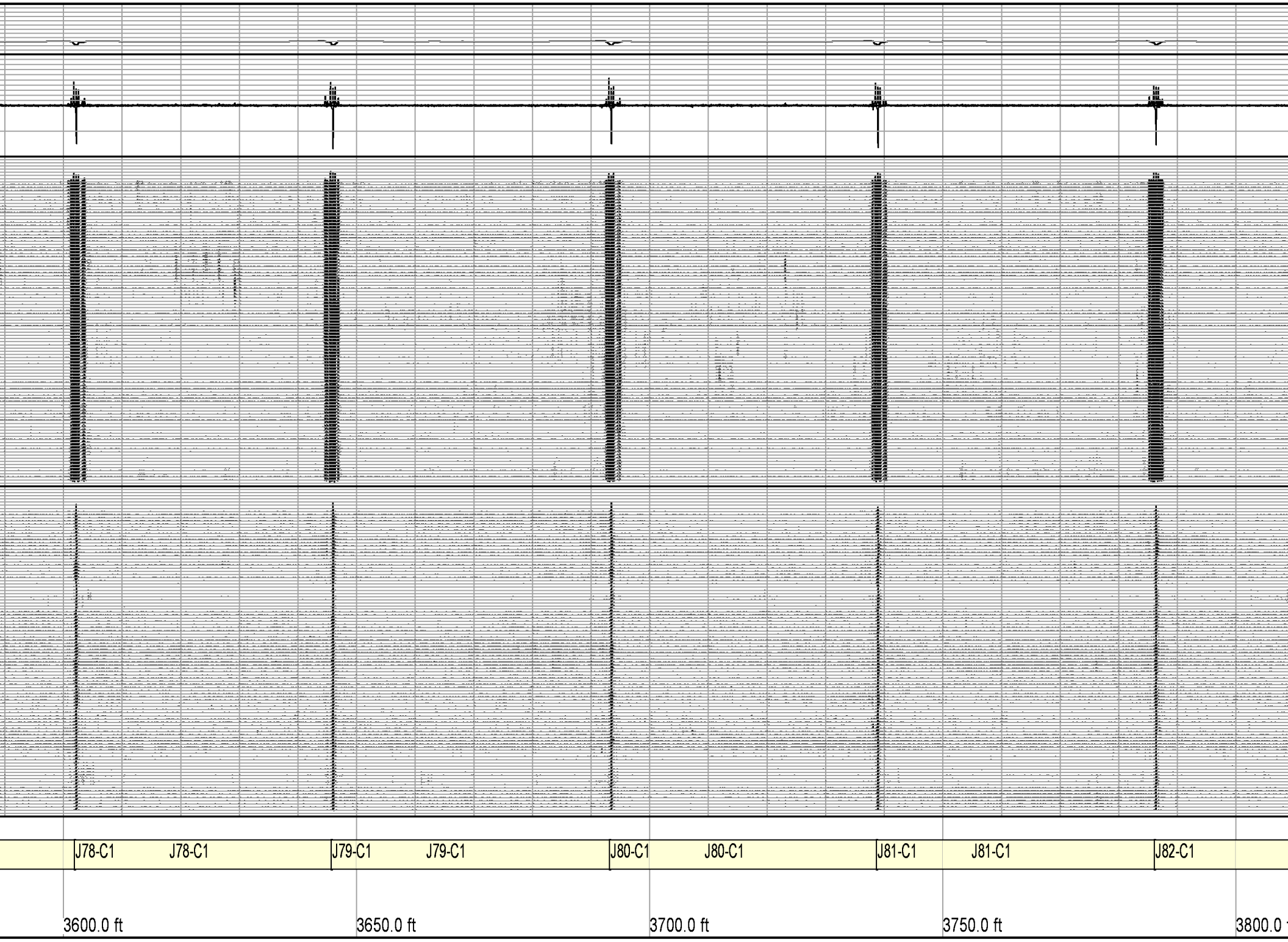
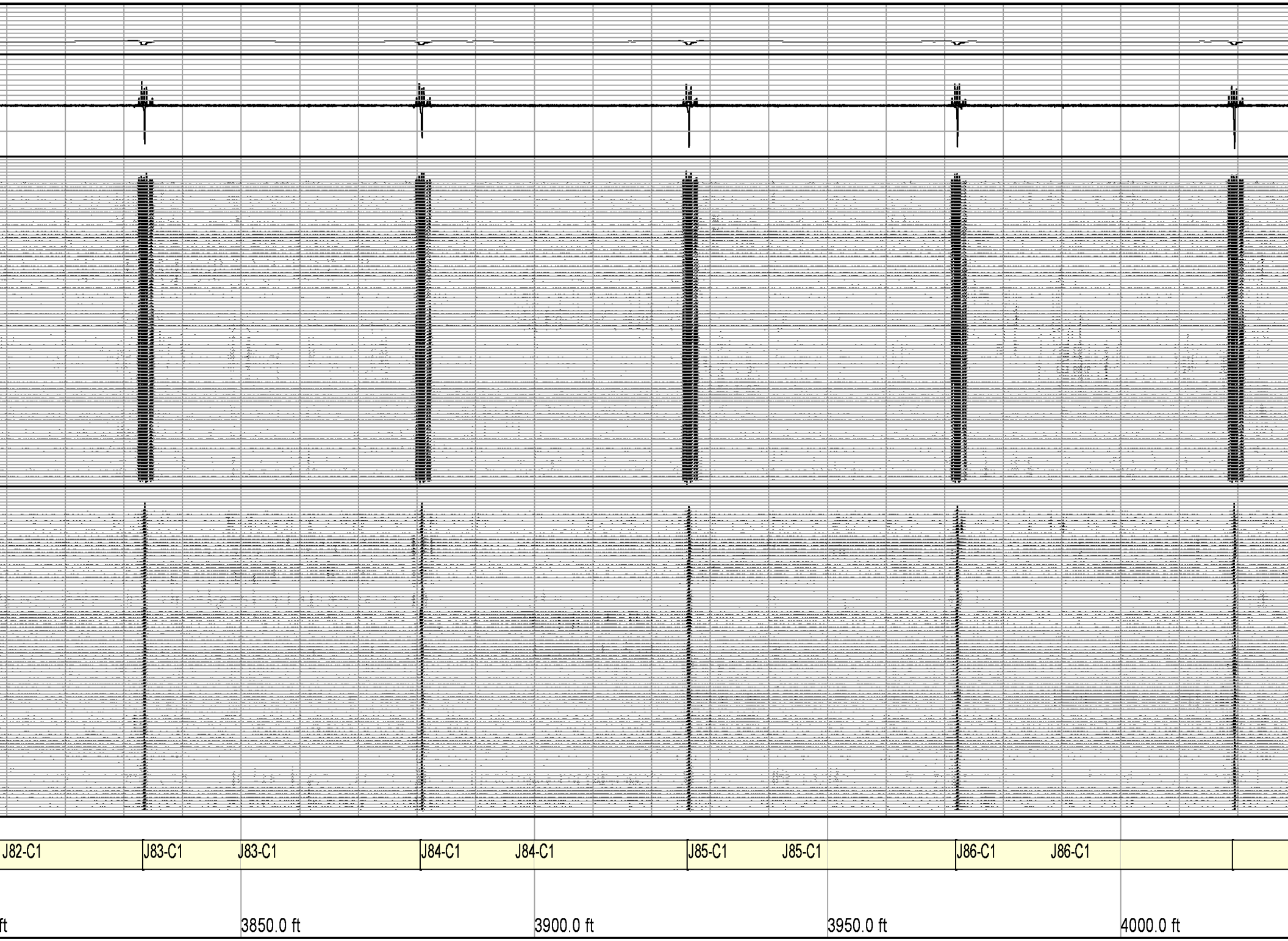
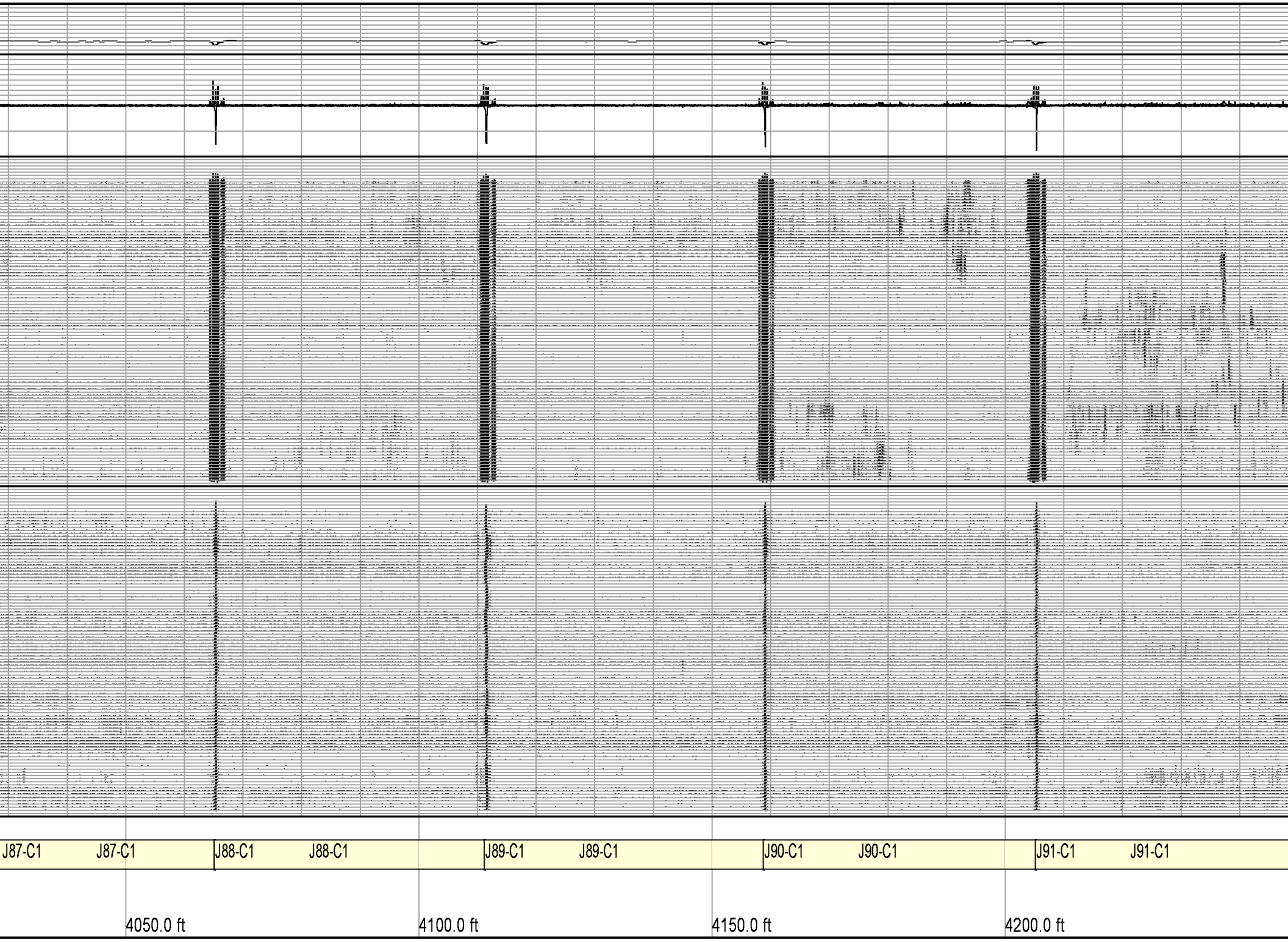
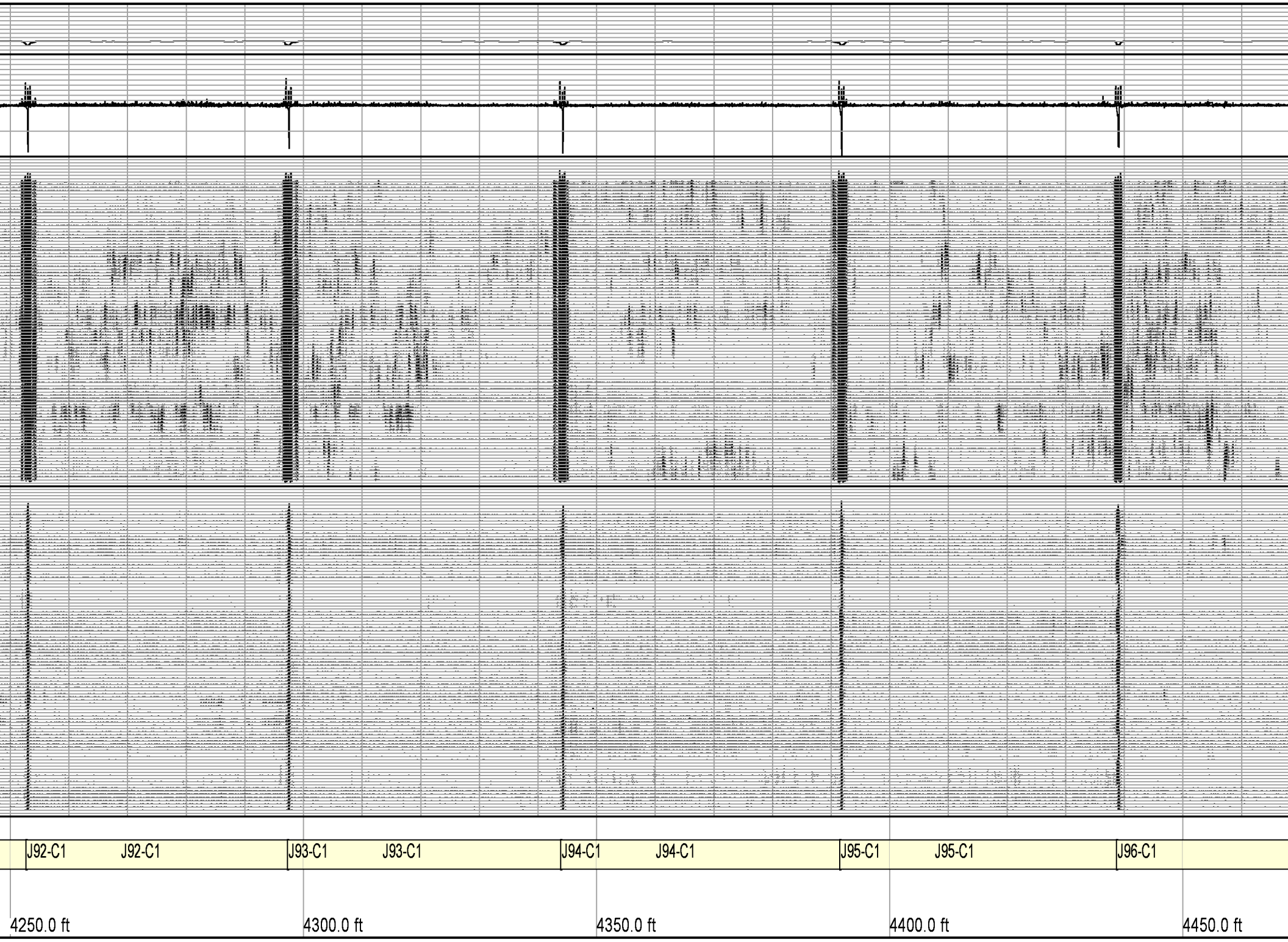
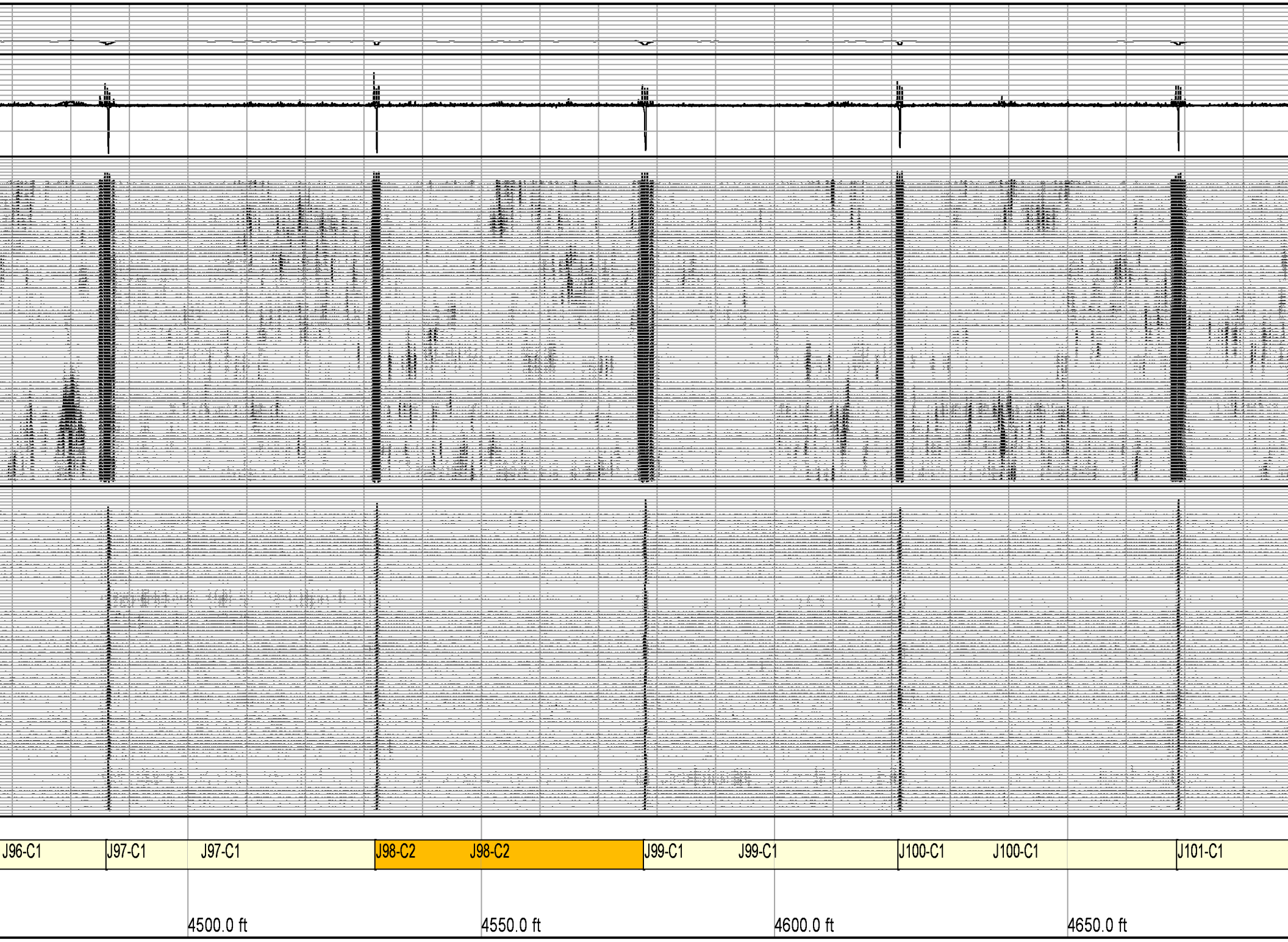
3450.0 ft
3500.0 ft
3550.0 ft

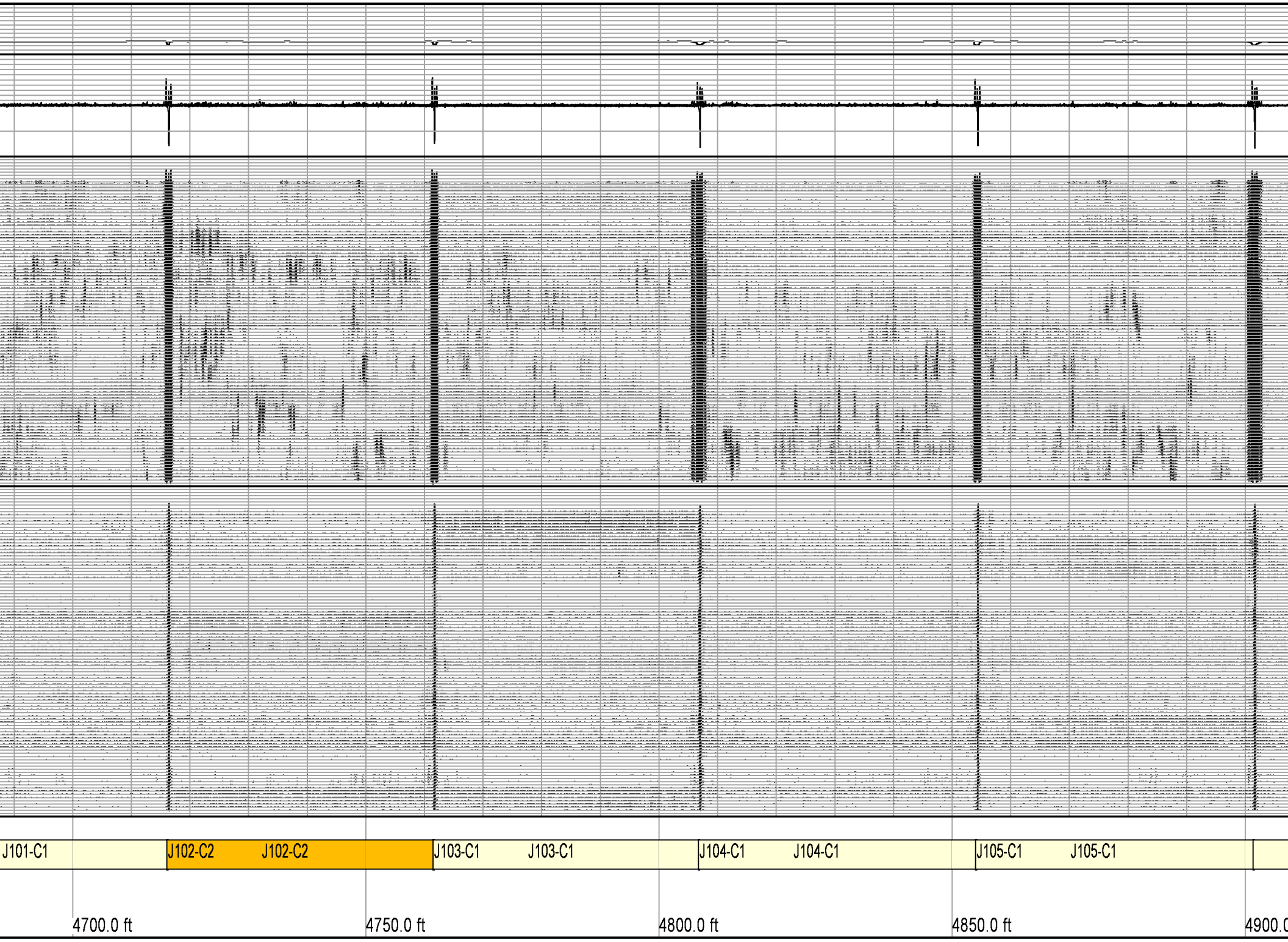

J78-C1
J78-C1
J79-C1
J79-C1
J80-C1
J80-C1
J81-C1
J81-C1
J82-C1
3600.0 ft
3650.0 ft
3700.0 ft
3750.0 ft

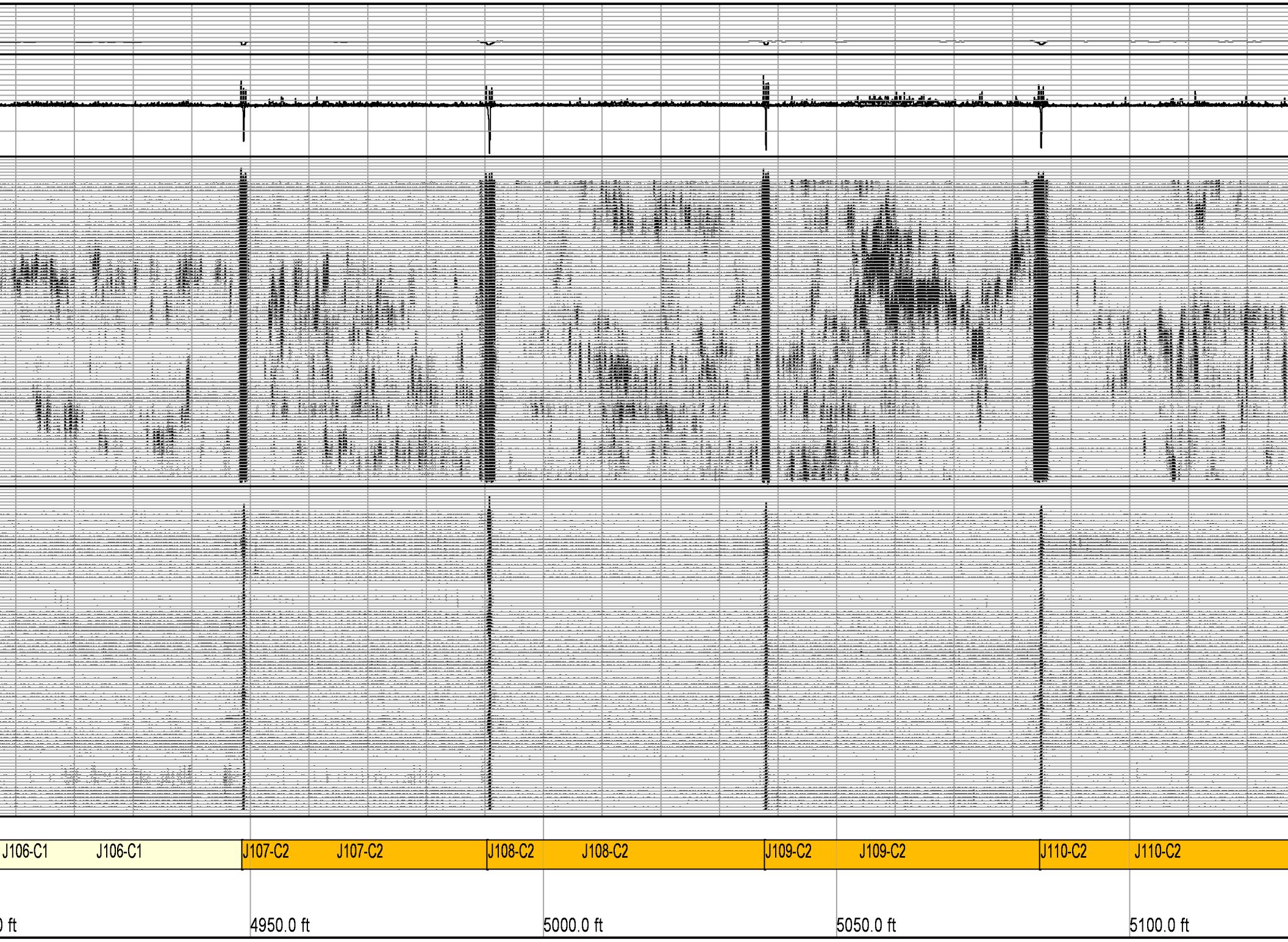

J82-C1
J83-C1
J83-C1
J84-C1
J84-C1
J85-C1
J85-C1
J86-C1
J86-C1
ft
3850.0 ft
3900.0 ft
3950.0 ft
4000.0 ft

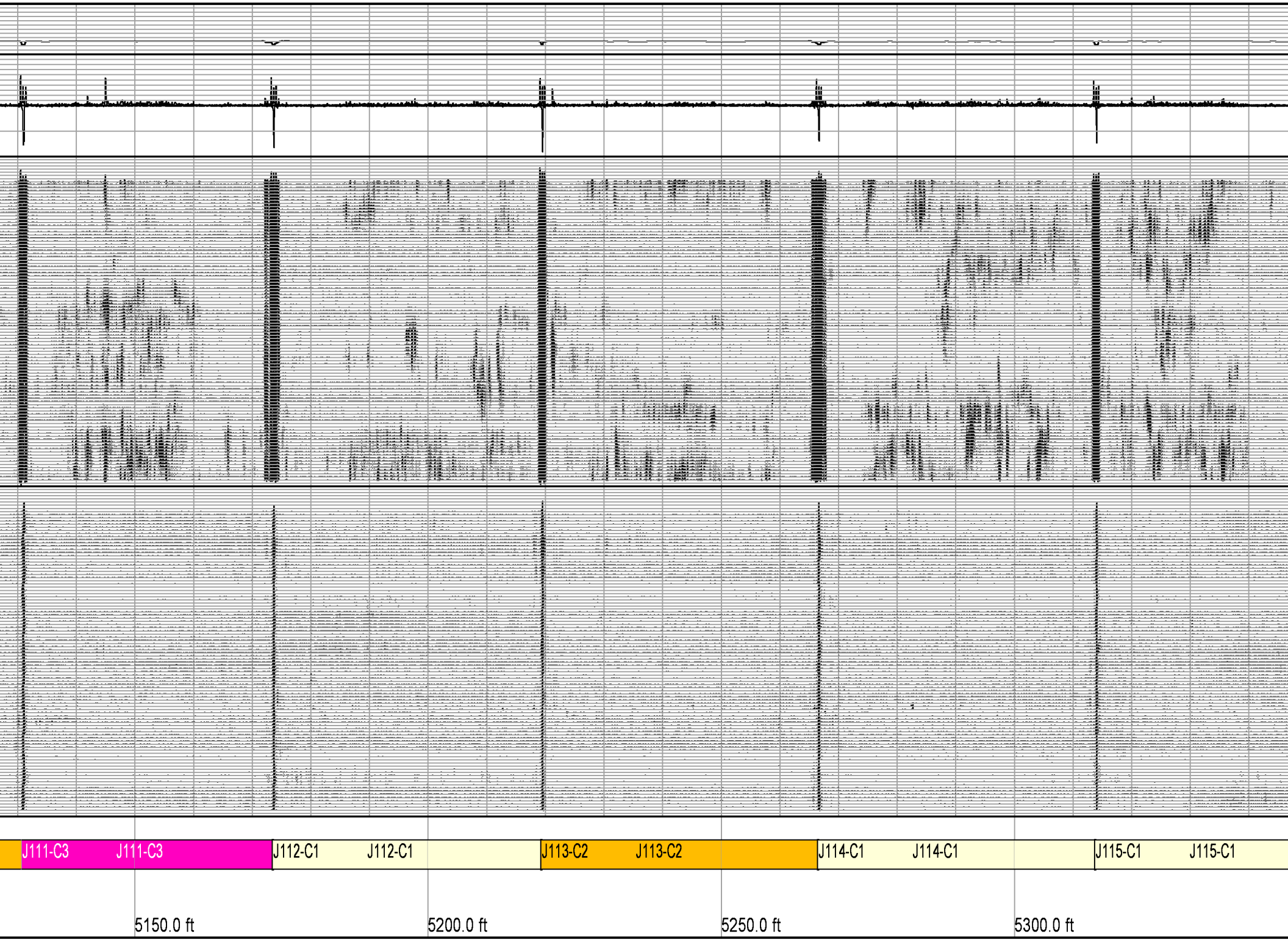

J87-C1
J87-C1
J88-C1
J88-C1
J89-C1
J89-C1
J90-C1
J90-C1
J91-C1
J91-C1
4050.0 ft
4100.0 ft
4150.0 ft
4200.0 ft


J92-C1
J92-C1
J93-C1
J93-C1
J94-C1
J94-C1
J95-C1
J95-C1
J96-C1
4250.0 ft
4300.0 ft
4350.0 ft
4400.0 ft
4450.0 ft


J96-C1
J97-C1
J97-C1
J98-C2
J98-C2
J99-C1
J99-C1
J100-C1
J100-C1
J101-C1
4500.0 ft
4550.0 ft
4600.0 ft
4650.0 ft


J101-C1
J102-C2
J102-C2
J103-C1
J103-C1
J104-C1
J104-C1
J105-C1
J105-C1
4700.0 ft
4750.0 ft
4800.0 ft
4850.0 ft
4900.0


J106-C1
J106-C1
J107-C2
J107-C2
J108-C2
J108-C2
J109-C2
J109-C2
J110-C2
J110-C2
0 ft
4950.0 ft
5000.0 ft
5050.0 ft
5100.0 ft


J111-C3
J111-C3
J112-C1
J112-C1
J113-C2
J113-C2
J114-C1
J114-C1
J115-C1
J115-C1
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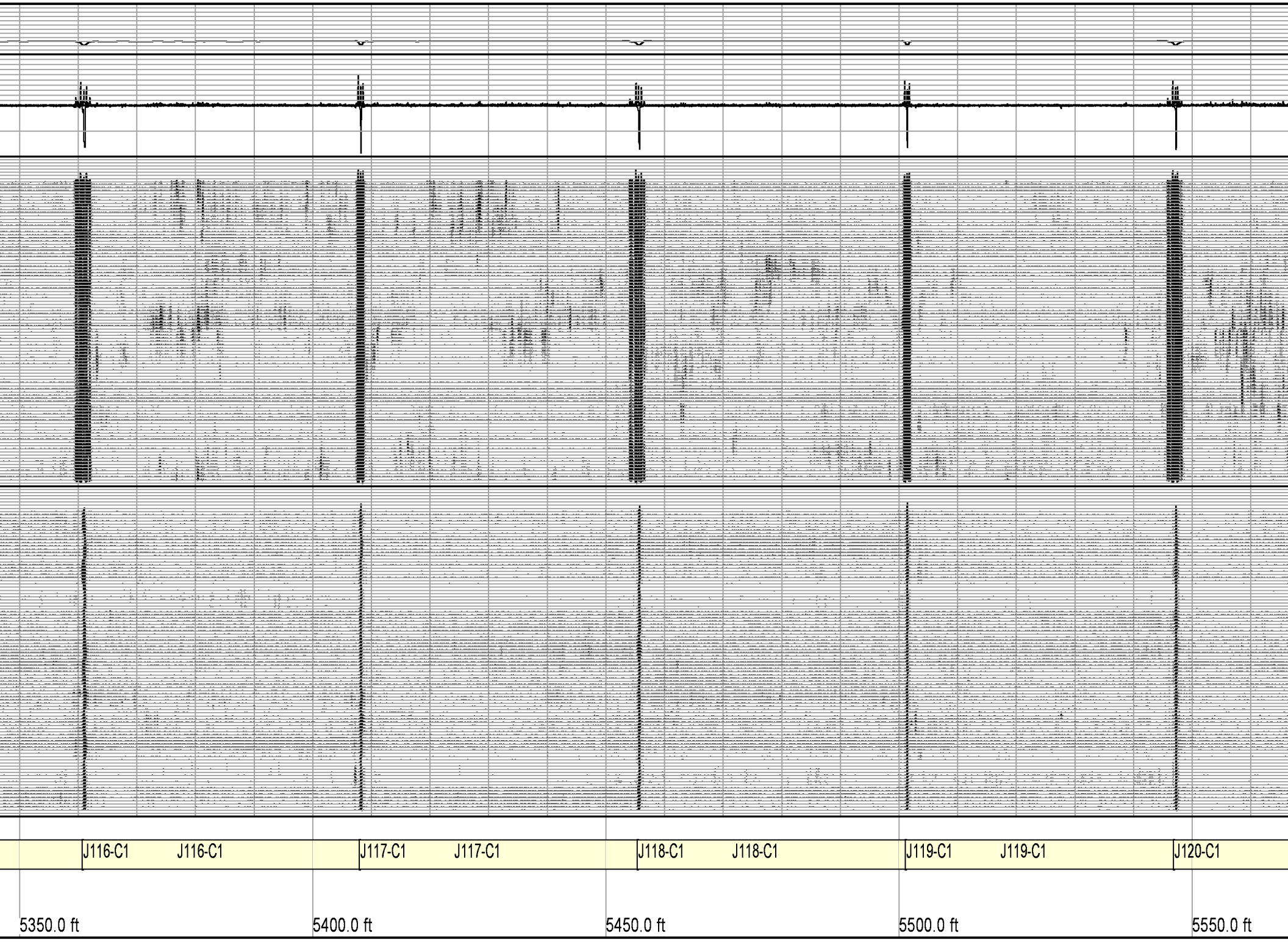
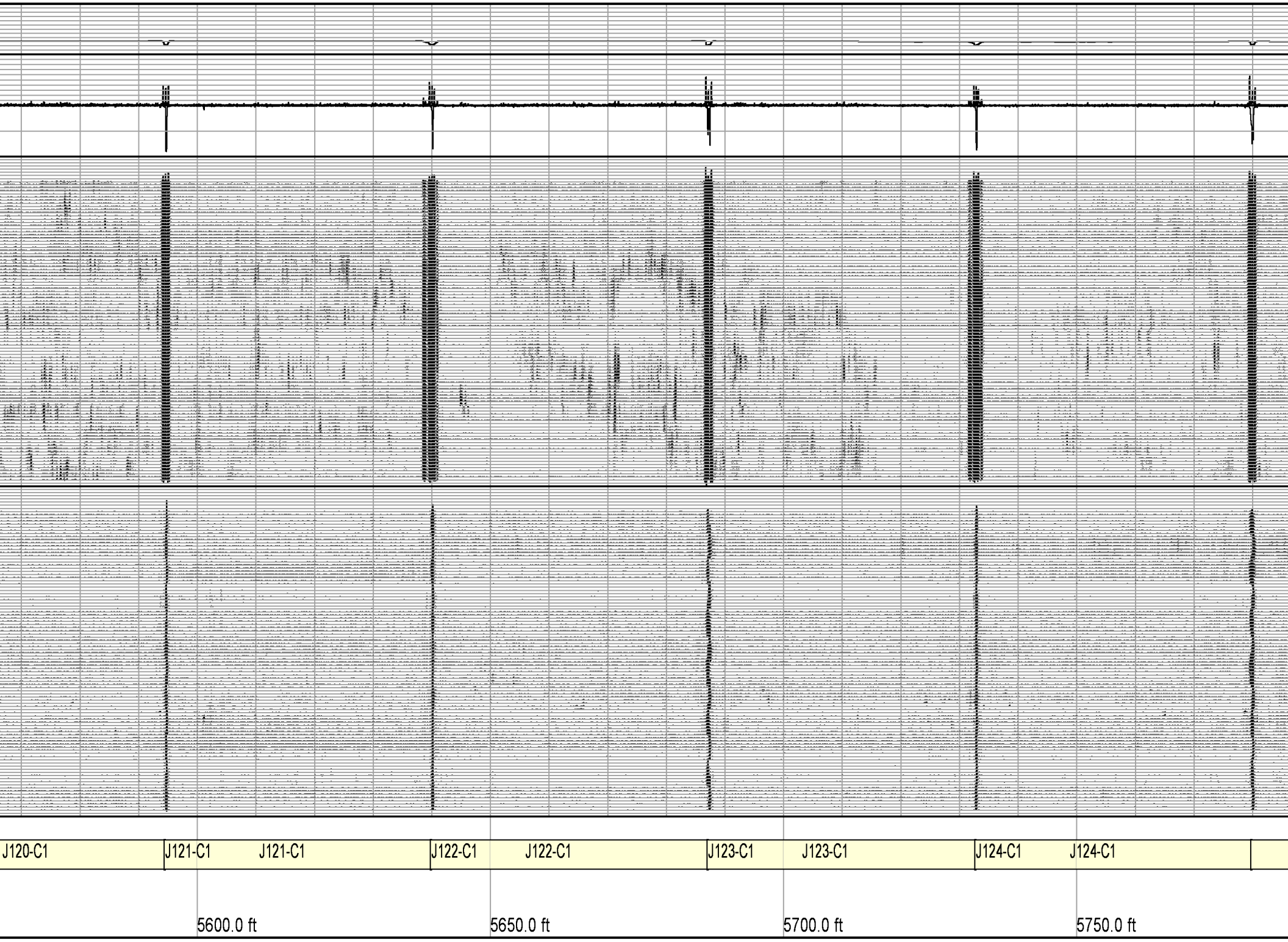
5200.0 ft
5250.0 ft
5300.0 ft


J116-C1
J116-C1
J117-C1
J117-C1
J118-C1
J118-C1
J119-C1
J119-C1
J120-C1
5350.0 ft
5400.0 ft
5450.0 ft
5500.0 ft
5550.0 ft


J120-C1
J121-C1
J121-C1
J122-C1
J122-C1
J123-C1
J123-C1
J124-C1
J124-C1
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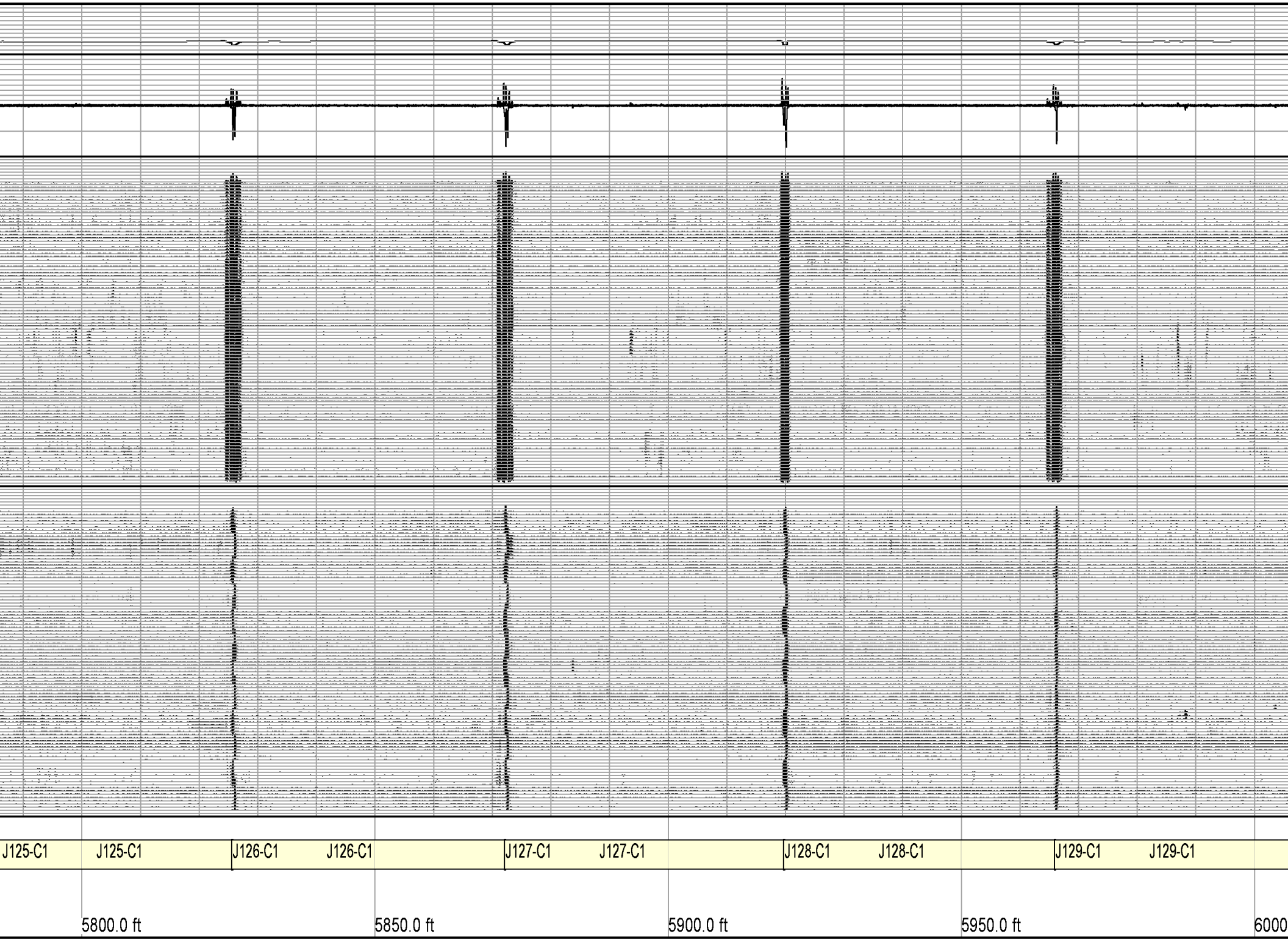
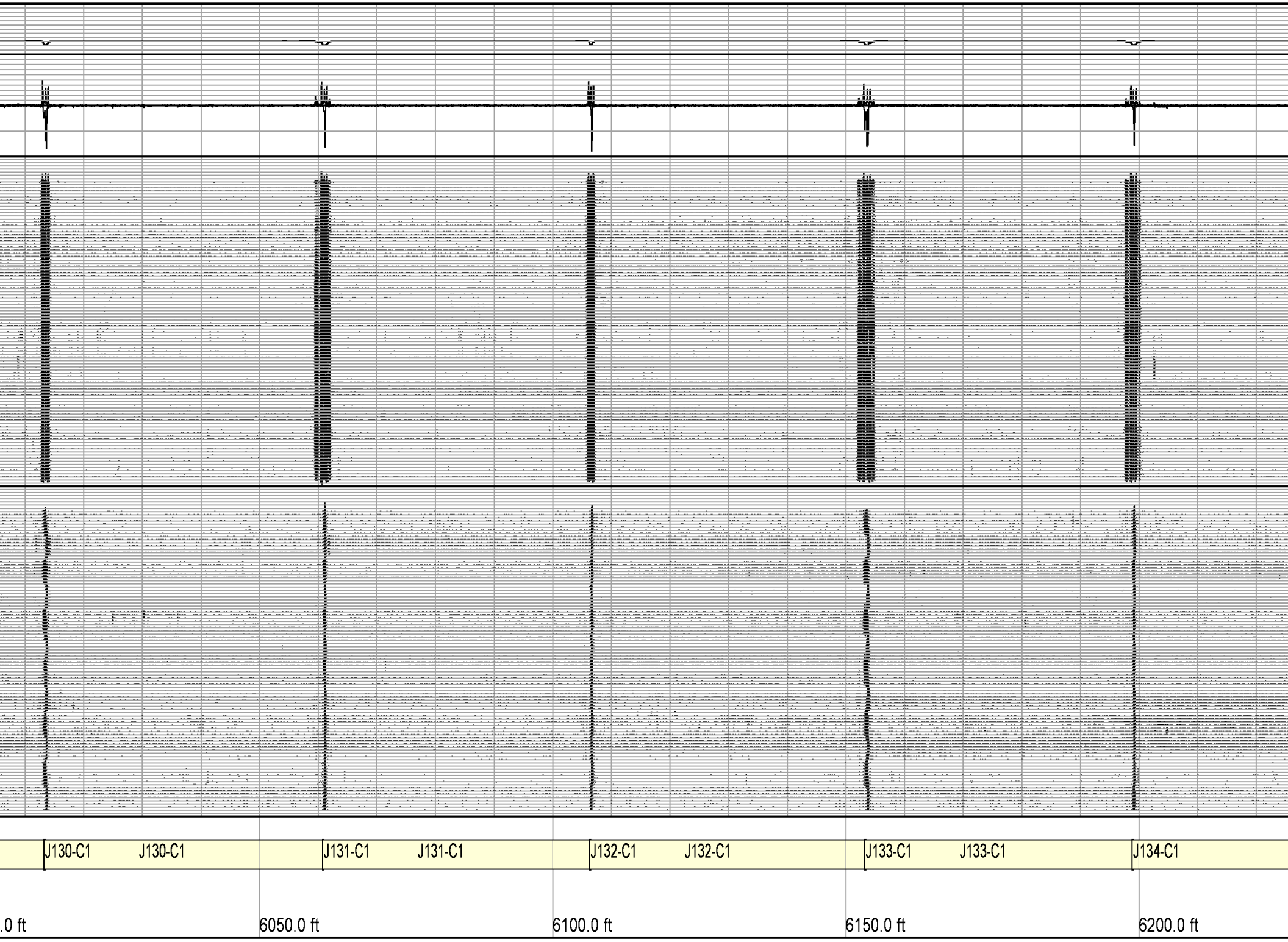
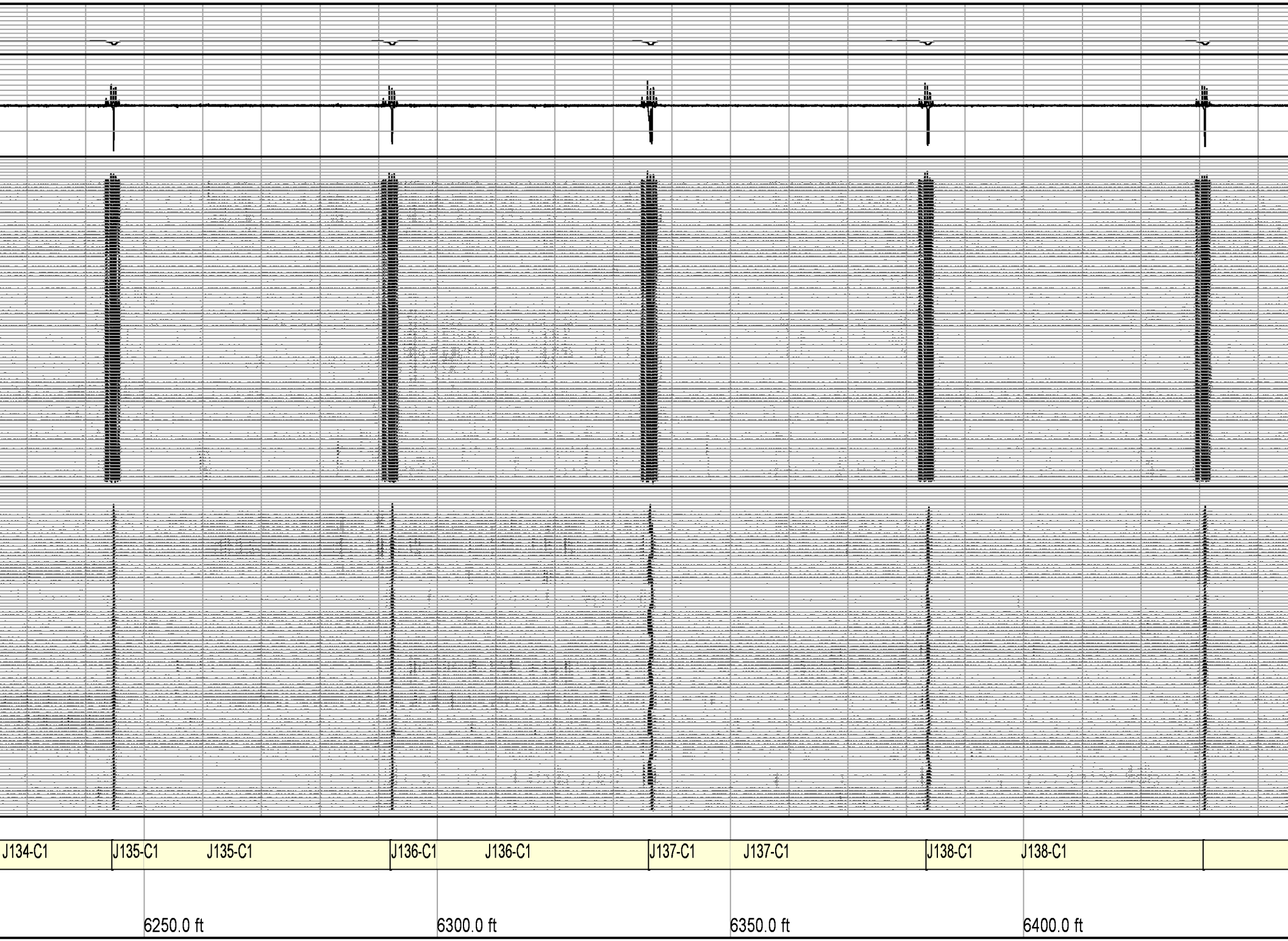
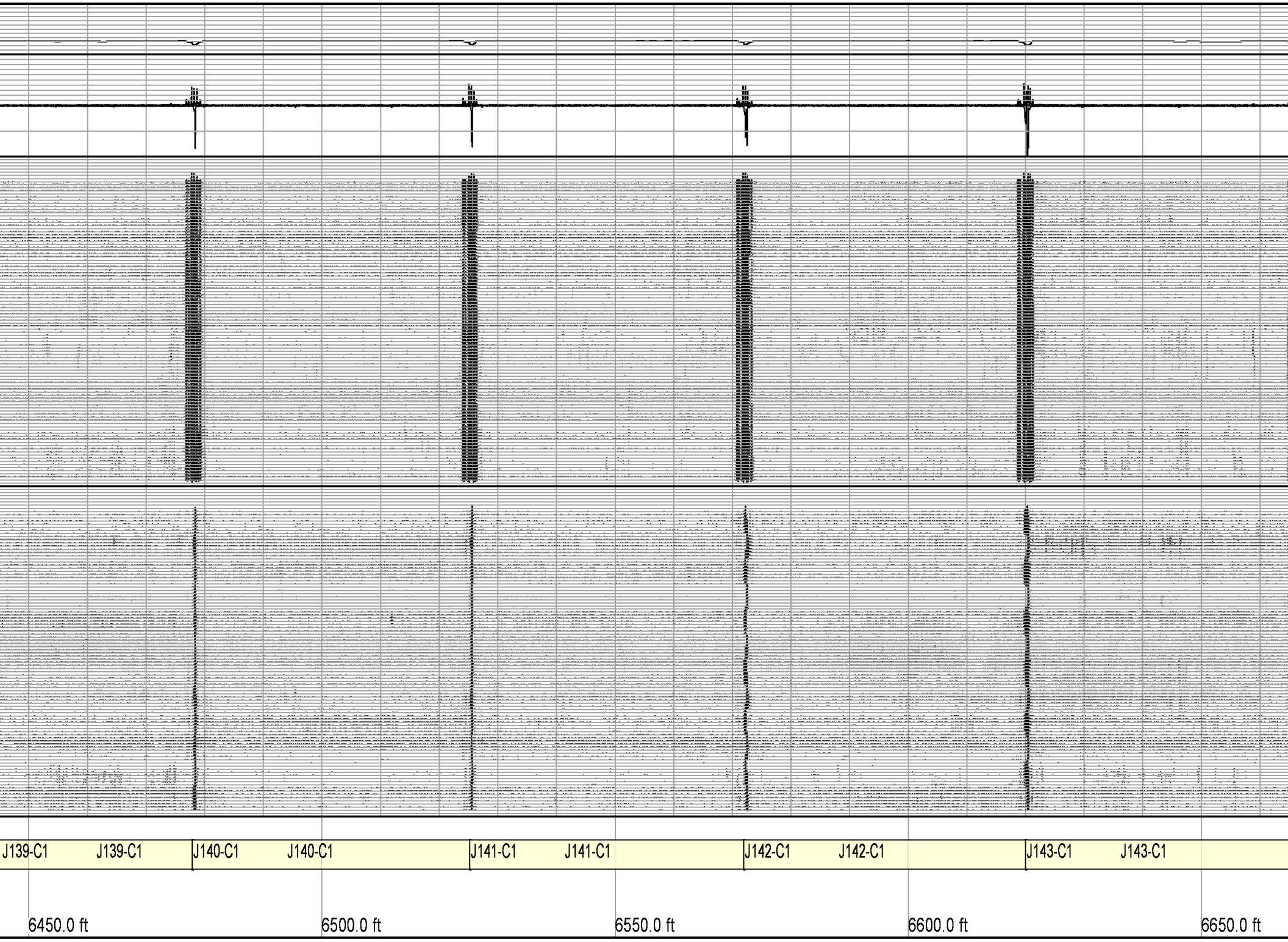
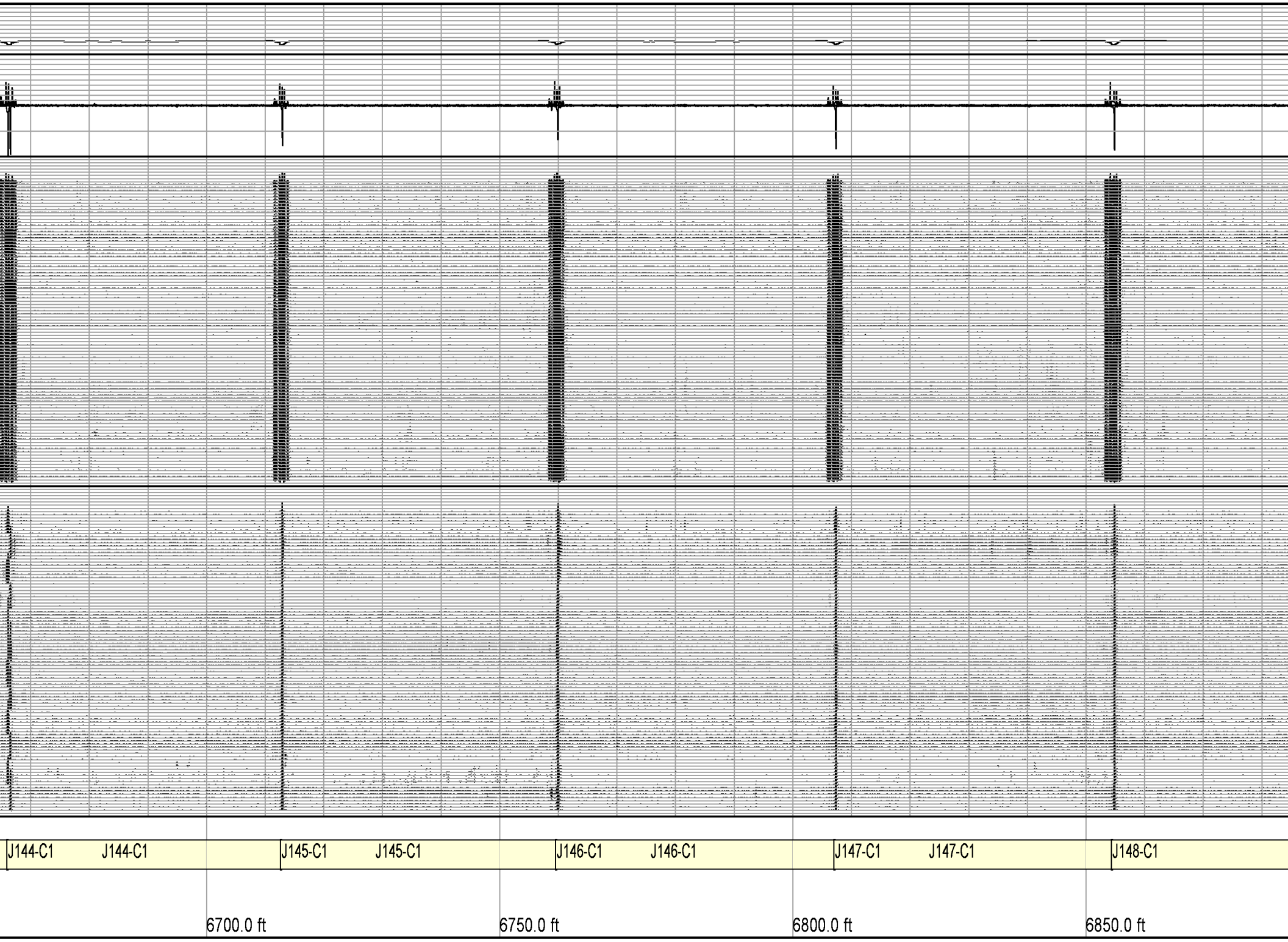
5700.0 ft
5750.0 ft

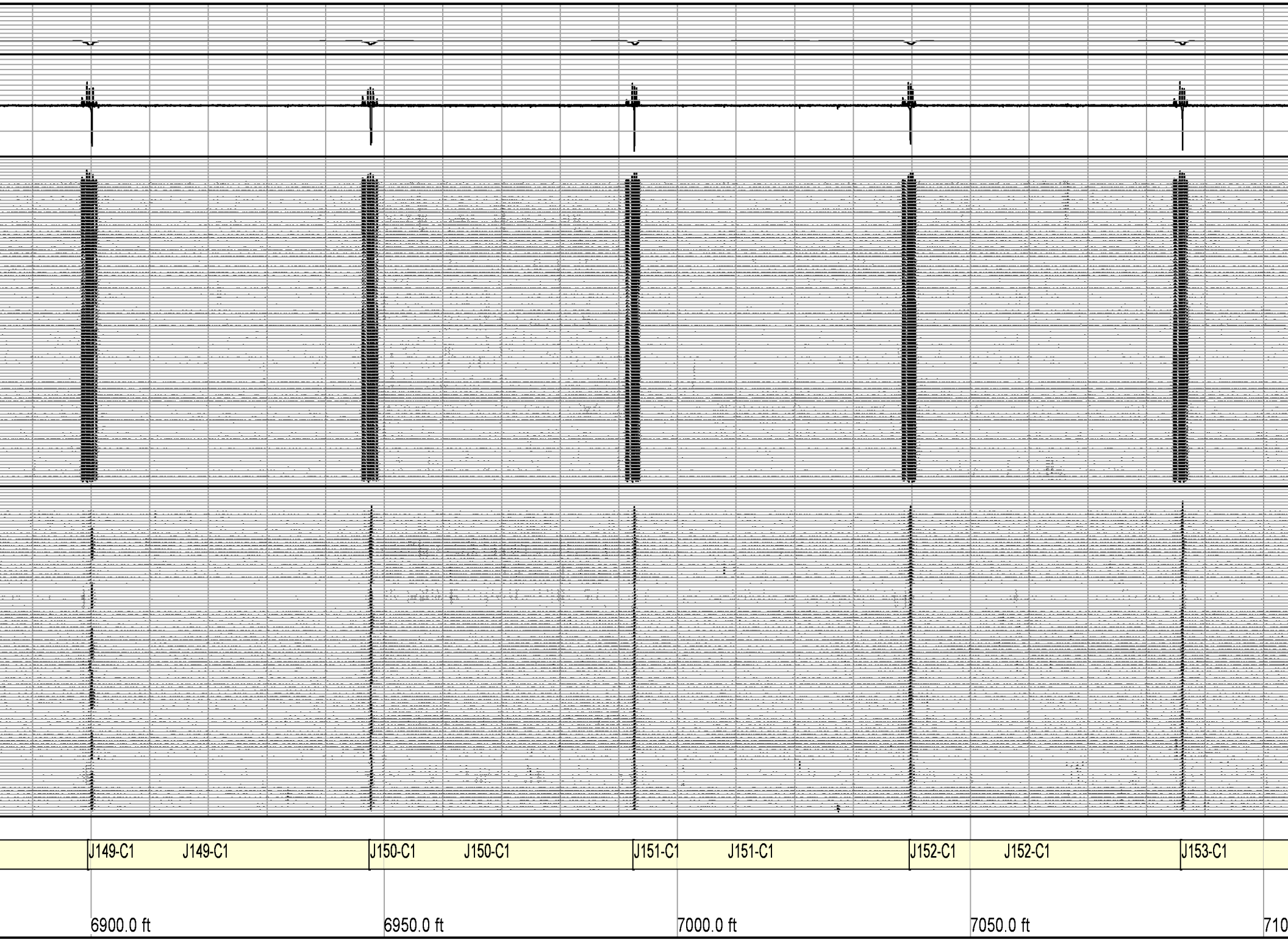

J125-C1
J125-C1
J126-C1
J126-C1
J127-C1
J127-C1
J128-C1
J128-C1
J129-C1
J129-C1
5800.0 ft
5850.0 ft
5900.0 ft
5950.0 ft
6000

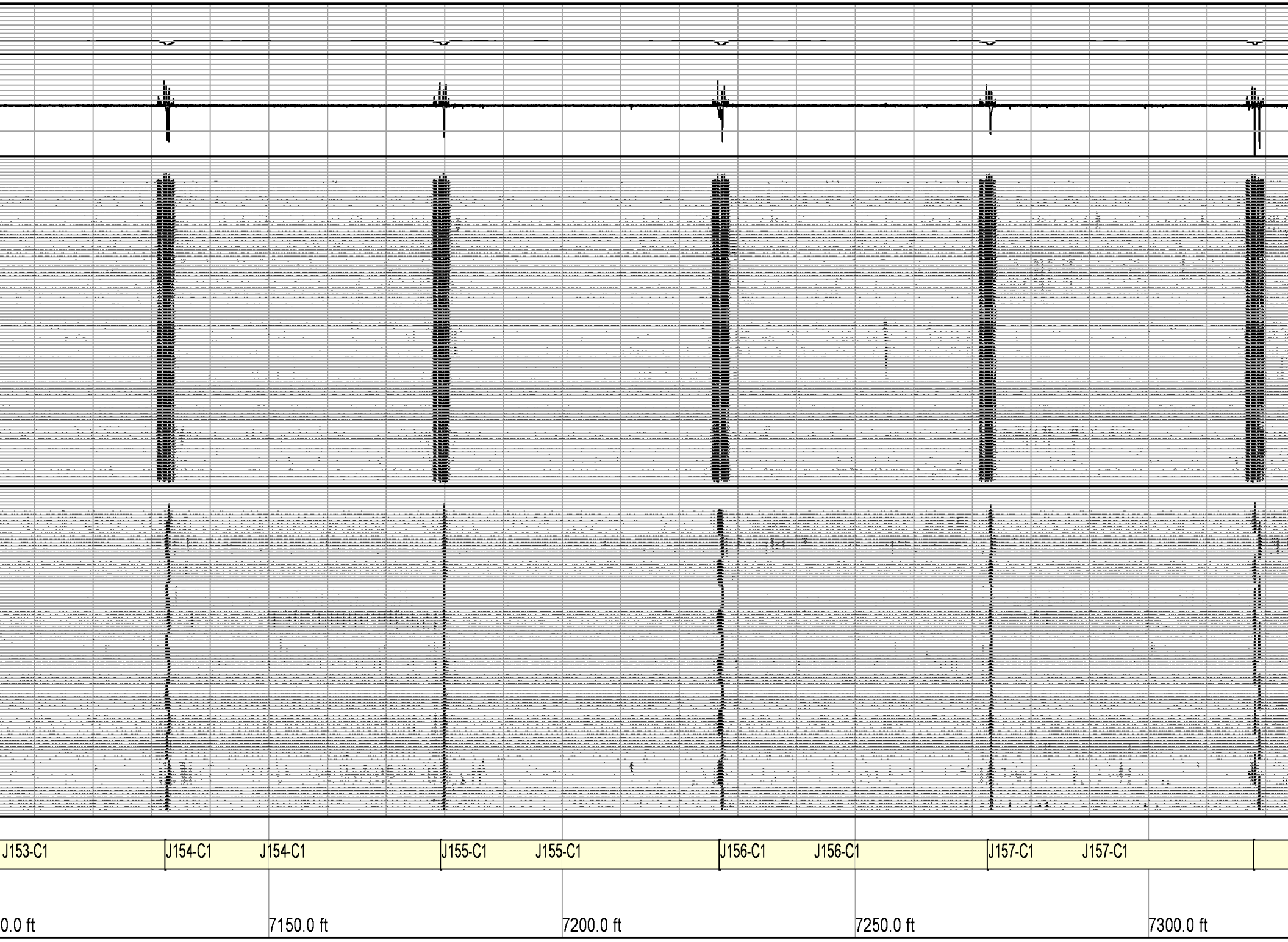

J130-C1
J130-C1
J131-C1
J131-C1
J132-C1
J132-C1
J133-C1
J133-C1
J134-C1
.0 ft
6050.0 ft
6100.0 ft
6150.0 ft
6200.0 ft


J134-C1
J135-C1
J135-C1
J136-C1
J136-C1
J137-C1
J137-C1
J138-C1
J138-C1
6250.0 ft
6300.0 ft
6350.0 ft
6400.0 ft


J139-C1
J139-C1
J140-C1
J140-C1
J141-C1
J141-C1
J142-C1
J142-C1
J143-C1
J143-C1
6450.0 ft
6500.0 ft
6550.0 ft
6600.0 ft
6650.0 ft


J144-C1
J144-C1
J145-C1
J145-C1
J146-C1
J146-C1
J147-C1
J147-C1
J148-C1
6700.0 ft
6750.0 ft
6800.0 ft
6850.0 ft


J149-C1
J149-C1
J150-C1
J150-C1
J151-C1
J151-C1
J152-C1
J152-C1
J153-C1
6900.0 ft
6950.0 ft
7000.0 ft
7050.0 ft
710


J153-C1
J154-C1
J154-C1
J155-C1
J155-C1
J156-C1
J156-C1
J157-C1
J157-C1
0.0 ft
7150.0 ft
7200.0 ft
7250.0 ft
7300.0 ft

Southern California Gas Company 69G
File 20160803_143355_RSP_0_0_0_0_0.mvl

Joint Summary

Southern California Gas Company
Aliso Canyon
69G

Identifier	Start Log Depth	Joint Length	Diameter	Wall Thickness	Weight	Max ML Depth	Max ML Position	Min Burst Pressure	Joint Depth Class
	ft	ft	in	in	lb/ft	%	ft	psi	
JT-1	25.54	42.96	9.625	0.472	47.0	0			1
JT-2	68.49	47.42	9.625	0.472	47.0	0			1
JT-3	115.91	46.13	9.625	0.472	47.0	0			1
JT-4	162.05	47.27	9.625	0.472	47.0	0			1
JT-5	209.32	47.28	9.625	0.472	47.0	0			1
JT-6	256.60	46.35	9.625	0.472	47.0	0			1
JT-7	302.95	45.92	9.625	0.472	47.0	0			1
JT-8	348.87	45.35	9.625	0.472	47.0	0			1
JT-9	394.21	44.00	9.625	0.472	47.0	0			1
JT-10	438.21	44.75	9.625	0.472	47.0	0			1
JT-11	482.97	47.32	9.625	0.472	47.0	0			1
JT-12	530.28	46.92	9.625	0.472	47.0	0			1
JT-13	577.20	47.45	9.625	0.472	47.0	0			1
JT-14	624.65	47.29	9.625	0.472	47.0	0			1
JT-15	671.94	47.44	9.625	0.472	47.0	0			1
JT-16	719.38	44.95	9.625	0.472	47.0	0			1
JT-17	764.33	44.66	9.625	0.472	47.0	0			1
JT-18	808.99	47.37	9.625	0.472	47.0	0			1
JT-19	856.36	47.30	9.625	0.472	47.0	0			1
JT-20	903.66	47.47	9.625	0.472	47.0	0			1
JT-21	951.13	46.80	9.625	0.472	47.0	0			1
JT-22	997.93	47.08	9.625	0.472	47.0	0			1
JT-23	1045.01	44.35	9.625	0.472	47.0	0			1
JT-24	1089.36	47.79	9.625	0.472	47.0	0			1
JT-25	1137.15	47.48	9.625	0.472	47.0	0			1
JT-26	1184.63	47.44	9.625	0.472	47.0	0			1
JT-27	1232.08	46.07	9.625	0.472	47.0	0			1
JT-28	1278.15	45.52	9.625	0.472	47.0	0			1
JT-29	1323.67	47.20	9.625	0.472	47.0	0			1
JT-30	1370.87	47.43	9.625	0.472	47.0	0			1
JT-31	1418.30	46.83	9.625	0.472	47.0	0			1
JT-32	1465.13	46.84	9.625	0.472	47.0	0			1
JT-33	1511.98	47.43	9.625	0.472	47.0	0			1
JT-34	1559.41	46.20	9.625	0.472	47.0	0			1
JT-35	1605.61	44.80	9.625	0.472	47.0	0			1
JT-36	1650.42	46.96	9.625	0.472	47.0	0			1
JT-37	1697.38	47.47	9.625	0.472	47.0	0			1
JT-38	1744.85	44.40	9.625	0.472	47.0	0			1
JT-39	1789.25	44.43	9.625	0.472	47.0	0			1
JT-40	1833.69	45.06	9.625	0.472	47.0	0			1
JT-41	1878.75	46.76	9.625	0.472	47.0	0			1
JT-42	1925.51	46.55	9.625	0.472	47.0	0			1
JT-43	1972.06	46.99	9.625	0.472	47.0	0			1
JT-44	2019.05	46.25	9.625	0.472	47.0	0			1
JT-45	2065.30	46.69	9.625	0.472	47.0	0			1
JT-46	2111.99	45.82	9.625	0.472	47.0	0			1
JT-47	2157.82	46.47	9.625	0.472	47.0	0			1
JT-48	2204.29	47.46	9.625	0.472	47.0	0			1
JT-49	2251.75	47.50	9.625	0.472	47.0	0			1
JT-50	2299.25	47.07	9.625	0.472	47.0	0			1
JT-51	2346.32	47.27	9.625	0.472	47.0	0			1
JT-52	2393.59	44.50	9.625	0.472	47.0	0			1
JT-53	2438.09	44.43	9.625	0.472	47.0	0			1
JT-54	2482.52	47.46	9.625	0.472	47.0	0			1
JT-55	2529.98	46.56	9.625	0.472	47.0	0			1
JT-56	2576.55	45.95	9.625	0.472	47.0	0			1

JT-57	2622.50	47.38	9.625	0.472	47.0	0			1
JT-58	2669.88	44.29	9.625	0.472	47.0	0			1
JT-59	2714.17	47.41	9.625	0.472	47.0	0			1
JT-60	2761.58	47.47	9.625	0.472	47.0	0			1
JT-61	2809.05	47.30	9.625	0.472	47.0	0			1
JT-62	2856.36	46.44	9.625	0.472	47.0	0			1

Joint Summary

Southern California Gas Company
Aliso Canyon
69G

Identifier	Start Log Depth	Joint Length	Diameter	Wall Thickness	Weight	Max ML Depth	Max ML Position	Min Burst Pressure	Joint Depth Class
	ft	ft	in	in	lb/ft	%	ft	psi	
JT-63	2902.80	45.32	9.625	0.472	47.0	0			1
JT-64	2948.11	46.79	9.625	0.472	47.0	0			1
JT-65	2994.90	47.51	9.625	0.472	47.0	0			1
JT-66	3042.41	45.59	9.625	0.472	47.0	0			1
JT-67	3088.00	44.50	9.625	0.472	47.0	0			1
JT-68	3132.50	47.33	9.625	0.472	47.0	0			1
JT-69	3179.83	47.30	9.625	0.472	47.0	0			1
JT-70	3227.12	47.25	9.625	0.472	47.0	0			1
JT-71	3274.37	47.35	9.625	0.472	47.0	0			1
JT-72	3321.72	46.86	9.625	0.472	47.0	0			1
JT-73	3368.58	47.27	9.625	0.472	47.0	0			1
JT-74	3415.86	46.80	9.625	0.472	47.0	0			1
JT-75	3462.65	47.32	9.625	0.472	47.0	0			1
JT-76	3509.98	44.72	9.625	0.472	47.0	0			1
JT-77	3554.70	47.32	9.625	0.472	47.0	0			1
JT-78	3602.03	43.80	9.625	0.472	47.0	0			1
JT-79	3645.83	47.46	9.625	0.472	47.0	0			1
JT-80	3693.29	45.47	9.625	0.472	47.0	0			1
JT-81	3738.77	47.46	9.625	0.472	47.0	0			1
JT-82	3786.23	47.08	9.625	0.472	47.0	0			1
JT-83	3833.31	47.35	9.625	0.472	47.0	0			1
JT-84	3880.66	45.54	9.625	0.472	47.0	0			1
JT-85	3926.20	45.78	9.625	0.472	47.0	0			1
JT-86	3971.98	47.23	9.625	0.472	47.0	0			1
JT-87	4019.21	45.96	9.625	0.472	47.0	0			1
JT-88	4065.18	46.12	9.625	0.472	47.0	0			1
JT-89	4111.29	47.59	9.625	0.472	47.0	0			1
JT-90	4158.88	46.37	9.625	0.472	47.0	15	4178.93	8699	1
JT-91	4205.25	47.58	9.625	0.472	47.0	0			1
JT-92	4252.83	44.55	9.625	0.472	47.0	17	4279.32	8706	1
JT-93	4297.37	46.64	9.625	0.472	47.0	0			1
JT-94	4344.01	47.61	9.625	0.472	47.0	0			1
JT-95	4391.63	47.19	9.625	0.472	47.0	17	4408.38	8671	1
JT-96	4438.81	47.27	9.625	0.472	47.0	18	4478.77	8665	1
JT-97	4486.09	45.90	9.625	0.472	47.0	0			1
JT-98	4531.99	45.79	9.625	0.472	47.0	21	4564.77	8636	2
JT-99	4577.78	43.45	9.625	0.472	47.0	0			1
JT-100	4621.23	47.52	9.625	0.472	47.0	19	4640.86	8686	1
JT-101	4668.75	47.45	9.625	0.472	47.0	0			1
JT-102	4716.20	45.39	9.625	0.472	47.0	20	4731.78	8578	2
JT-103	4761.60	45.25	9.625	0.472	47.0	0			1
JT-104	4806.84	47.30	9.625	0.472	47.0	18	4847.35	8648	1
JT-105	4854.15	47.32	9.625	0.472	47.0	0			1
JT-106	4901.46	47.20	9.625	0.472	47.0	17	4918.26	8720	1
JT-107	4948.67	41.82	9.625	0.472	47.0	21	4962.37	8588	2
JT-108	4990.48	47.30	9.625	0.472	47.0	20	5021.74	8679	2
JT-109	5037.78	46.94	9.625	0.472	47.0	20	5053.45	8352	2
JT-110	5084.73	46.04	9.625	0.472	47.0	20	5111.01	8553	2
JT-111	5130.77	42.77	9.625	0.472	47.0	44	5144.89	7726	3
JT-112	5173.54	45.82	9.625	0.472	47.0	20	5197.62	8681	1
JT-113	5219.36	47.15	9.625	0.472	47.0	22	5221.07	8685	2
JT-114	5266.51	47.28	9.625	0.472	47.0	18	5292.47	8555	1
JT-115	5313.79	46.99	9.625	0.472	47.0	19	5322.57	8641	1
JT-116	5360.78	47.28	9.625	0.472	47.0	0			1
JT-117	5408.07	47.40	9.625	0.472	47.0	0			1
JT-118	5455.47	45.77	9.625	0.472	47.0	0			1

JT-119	5501.23	45.73	9.625	0.472	47.0	0			1
JT-120	5546.96	47.50	9.625	0.472	47.0	15	5556.76	8765	1
JT-121	5594.46	45.41	9.625	0.472	47.0	0			1
JT-122	5639.88	47.19	9.625	0.472	47.0	0			1
JT-123	5687.07	45.65	9.625	0.472	47.0	0			1
JT-124	5732.72	47.08	9.625	0.472	47.0	0			1

Joint Summary

Southern California Gas Company
Aliso Canyon
69G

Identifier	Start Log Depth	Joint Length	Diameter	Wall Thickness	Weight	Max ML Depth	Max ML Position	Min Burst Pressure	Joint Depth Class
	ft	ft	in	in	lb/ft	%	ft	psi	
JT-125	5779.80	45.90	9.625	0.472	47.0	0			1
JT-126	5825.70	46.50	9.625	0.472	47.0	0			1
JT-127	5872.20	47.58	9.625	0.472	47.0	0			1
JT-128	5919.78	46.20	9.625	0.472	47.0	0			1
JT-129	5965.98	47.33	9.625	0.472	47.0	0			1
JT-130	6013.32	47.57	9.625	0.472	47.0	0			1
JT-131	6060.88	45.50	9.625	0.472	47.0	0			1
JT-132	6106.38	46.98	9.625	0.472	47.0	0			1
JT-133	6153.36	45.56	9.625	0.472	47.0	0			1
JT-134	6198.92	45.70	9.625	0.472	47.0	0			1
JT-135	6244.62	47.47	9.625	0.472	47.0	0			1
JT-136	6292.09	44.03	9.625	0.472	47.0	0			1
JT-137	6336.12	47.33	9.625	0.472	47.0	0			1
JT-138	6383.45	47.27	9.625	0.472	47.0	0			1
JT-139	6430.72	47.30	9.625	0.472	47.0	0			1
JT-140	6478.02	47.35	9.625	0.472	47.0	0			1
JT-141	6525.37	46.71	9.625	0.472	47.0	0			1
JT-142	6572.08	48.03	9.625	0.472	47.0	0			1
JT-143	6620.11	45.95	9.625	0.472	47.0	0			1
JT-144	6666.06	46.69	9.625	0.472	47.0	0			1
JT-145	6712.75	46.90	9.625	0.472	47.0	0			1
JT-146	6759.65	47.51	9.625	0.472	47.0	0			1
JT-147	6807.16	47.28	9.625	0.472	47.0	0			1
JT-148	6854.44	45.10	9.625	0.472	47.0	0			1
JT-149	6899.55	47.96	9.625	0.472	47.0	0			1
JT-150	6947.51	45.03	9.625	0.472	47.0	0			1
JT-151	6992.54	47.11	9.625	0.472	47.0	0			1
JT-152	7039.65	46.30	9.625	0.472	47.0	0			1
JT-153	7085.95	46.47	9.625	0.472	47.0	0			1
JT-154	7132.42	47.01	9.625	0.472	47.0	0			1
JT-155	7179.43	47.47	9.625	0.472	47.0	0			1
JT-156	7226.90	45.74	9.625	0.472	47.0	0			1
JT-157	7272.64	45.45	9.625	0.472	47.0	0			1
JT-158	7318.09	15.17	9.625	0.472	47.0	0			1