HR Vertilog

Magnetic Flux Leakage Inspection

Advanced Analysis

Company	Southern California Gas Company
Well	Fernando Fee 32A
Field	Aliso Canyon
County	Los Angeles
State	California
Location:	

Section 27	Township 3N	Range 16W	

Date	Apr. 1, 2016
Service Order	US106646
Recorded by	T.Englehart
Witnessed by	T.McMahon
API Serial No.	04-037-21872

Permanent Datum:	G.L.	Elevation:	1995.000 ft.	Depth	7500.000
Log Measured From:	K.B.	18.900	ft. above Perm. Datum	Btm. Log Interval	6527.000
Drilling Measured From:	K.B.	18.900	ft. above Perm. Datum	Top Log Interval	0.000
				Fluid Type	KCL

Casing Data

Size	Weight	Grade	From	To	Length
13 3/8 inch	54.5 lb/ft	K-55	Surface	990	990.0
8 5/8 inch	36.0 lb/ft	K-55	Surface	3438	3438.0
8 5/8 inch	36.0 lb/ft	N-80	3438	7022	3584.0
7 inch	26.0 lb/ft	N-80	6566	7250	684.0
4 1/2 inch	11.6 lb/ft	N/A	7113	7479	366.0

Software Version 7.4.0.0

Equipment Data

Run	Trip	Tool Type	Tool Series	Serial Number	Position
1	1	HRVRT MFL	4997	PA10409819	LOWER
1	1	HRVRT MFL	4997	QA10409827	UPPER
1	1	HRVRT TELEM	4993		

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

HRVRT analysis depth correlated to caliper log dated 01-Apr-2016.
10.64 ft Hardware - External CSG head response.
976.77 ft Hardware - Bottom of 13.375" external CSG.
Numerous centralizers installed from interval 2195' to 6462'

Joint Interpretation Summary

Joint	From	To	Length	Class	Max Depth	Position	ID/OD
1	9.64	29.47	19.83	Class 1	-	-	-
2	29.47	71.93	42.46	Class 1	-	-	-
3	71.93	113.60	41.67	Class 1	-	-	-
4	113.60	154.46	40.86	Class 1	-	-	-
5	154.46	196.08	41.62	Class 1	-	-	-
6	196.08	238.08	42.00	Class 1	-	-	-
7	238.08	278.70	40.62	Class 1	-	-	-
8	278.70	320.35	41.65	Class 1	-	-	-
9	320.35	362.46	42.11	Class 1	-	-	-
10	362.46	404.04	41.58	Class 1	-	-	-
11	404.04	445.52	41.48	Class 1	-	-	-
12	445.52	487.85	42.33	Class 1	-	-	-
13	487.85	529.02	41.17	Class 1	-	-	-
14	529.02	569.70	40.68	Class 1	-	-	-
15	569.70	611.84	42.14	Class 1	-	-	-
16	611.84	651.77	39.93	Class 1	-	-	-
17	651.77	693.30	41.53	Class 1	-	-	-
18	693.30	731.92	38.62	Class 1	-	-	-
19	731.92	774.85	42.93	Class 1	-	-	-
20	774.85	817.26	42.41	Class 1	-	-	-
21	817.26	859.30	42.04	Class 1	-	-	-
22	859.30	898.03	38.73	Class 1	-	-	-
23	898.03	941.15	43.12	Class 1	-	-	-
24	941.15	982.99	41.84	Class 3	40.0%	978.79	OD
25	982.99	1022.79	39.80	Class 3	40.0%	991.35	OD
26	1022.79	1063.71	40.92	Class 2	25.0%	1055.72	OD
27	1063.71	1105.84	42.13	Class 2	39.0%	1104.52	OD
28	1105.84	1148.05	42.21	Class 1	-	-	-
29	1148.05	1189.19	41.14	Class 1	-	-	-
30	1189.19	1231.51	42.32	Class 1	-	-	-
31	1231.51	1274.97	43.46	Class 1	-	-	-
32	1274.97	1314.90	39.93	Class 1	-	-	-
33	1314.90	1355.40	40.50	Class 1	-	-	-
34	1355.40	1397.34	41.94	Class 1	-	-	-
35	1397.34	1437.95	40.61	Class 1	-	-	-
36	1437.95	1479.21	41.26	Class 1	-	-	-
37	1479.21	1520.73	41.52	Class 1	-	-	-
38	1520.73	1561.78	41.05	Class 2	31.0%	1536.38	OD
39	1561.78	1602.99	41.21	Class 1	-	-	-

40	1602.99	1636.64	33.65	Class	1	-	-	-
41	1636.64	1675.45	38.81	Class	1	-	-	-
42	1675.45	1716.39	40.94	Class	2	26.0%	1683.46	OD
43	1716.39	1753.65	37.26	Class	1	-	-	-
44	1753.65	1788.14	34.49	Class	1	-	-	-
45	1788.14	1829.14	41.00	Class	1	-	-	-
46	1829.14	1868.23	39.09	Class	1	-	-	-
47	1868.23	1907.17	38.94	Class	1	-	-	-
48	1907.17	1947.48	40.31	Class	1	-	-	-
49	1947.48	1989.57	42.09	Class	1	-	-	-
50	1989.57	2030.89	41.32	Class	2	31.0%	1999.44	OD
51	2030.89	2068.14	37.25	Class	2	37.0%	2053.69	OD
52	2068.14	2111.49	43.35	Class	2	35.0%	2086.02	OD
53	2111.49	2154.25	42.76	Class	2	35.0%	2126.49	OD
54	2154.25	2194.61	40.36	Class	2	35.0%	2164.88	OD
55	2194.61	2236.32	41.71	Class	1	-	-	-
56	2236.32	2279.43	43.11	Class	1	-	-	-
57	2279.43	2320.51	41.08	Class	2	32.0%	2282.10	OD
58	2320.51	2363.21	42.70	Class	2	20.0%	2356.23	OD
59	2363.21	2406.31	43.10	Class	1	-	-	-
60	2406.31	2448.20	41.89	Class	2	23.0%	2422.81	OD
61	2448.20	2489.64	41.44	Class	2	20.0%	2488.70	OD
62	2489.64	2529.39	39.75	Class	2	26.0%	2490.39	OD
63	2529.39	2571.67	42.28	Class	2	21.0%	2548.65	OD
64	2571.67	2612.78	41.11	Class	1	-	-	-
65	2612.78	2652.74	39.96	Class	2	24.0%	2621.10	OD
66	2652.74	2693.97	41.23	Class	1	-	-	-
67	2693.97	2734.86	40.89	Class	1	-	-	-
68	2734.86	2775.84	40.98	Class	1	-	-	-
69	2775.84	2817.95	42.11	Class	1	-	-	-
70	2817.95	2859.14	41.19	Class	1	-	-	-
71	2859.14	2901.00	41.86	Class	1	-	-	-
72	2901.00	2940.75	39.75	Class	1	-	-	-
73	2940.75	2982.32	41.57	Class	1	-	-	-
74	2982.32	3020.73	38.41	Class	1	-	-	-
75	3020.73	3061.99	41.26	Class	1	-	-	-
76	3061.99	3103.02	41.03	Class	1	-	-	-
77	3103.02	3144.38	41.36	Class	1	-	-	-
78	3144.38	3184.11	39.73	Class	1	-	-	-
79	3184.11	3225.97	41.86	Class	1	-	-	-
80	3225.97	3265.02	39.05	Class	1	-	-	-
81	3265.02	3304.69	39.67	Class	1	-	-	-
82	3304.69	3345.13	40.44	Class	1	-	-	-
83	3345.13	3383.52	38.39	Class	1	-	-	-
84	3383.52	3424.15	40.63	Class	1	-	-	-
85	3424.15	3464.69	40.54	Class	1	-	-	-
86	3464.69	3504.53	39.84	Class	2	22.0%	3469.95	OD
87	3504.53	3546.85	42.32	Class	1	-	-	-
88	3546.85	3586.13	39.28	Class	1	-	-	-
89	3586.13	3627.99	41.86	Class	1	-	-	-
90	3627.99	3667.80	39.81	Class	1	-	-	-
91	3667.80	3708.57	40.77	Class	1	-	-	-
92	3708.57	3750.35	41.78	Class	1	-	-	-
93	3750.35	3792.18	41.83	Class	1	-	-	-
94	3792.18	3833.34	41.16	Class	1	-	-	-
95	3833.34	3872.97	39.63	Class	1	-	-	-
96	3872.97	3913.56	40.59	Class	1	-	-	-
97	3913.56	3955.39	41.83	Class	2	21.0%	3936.31	OD
98	3955.39	3997.42	42.03	Class	1	-	-	-
99	3997.42	4038.47	41.05	Class	1	-	-	-
100	4038.47	4079.15	40.68	Class	1	-	-	-
101	4079.15	4121.63	42.48	Class	1	-	-	-
102	4121.63	4160.56	38.93	Class	1	-	-	-

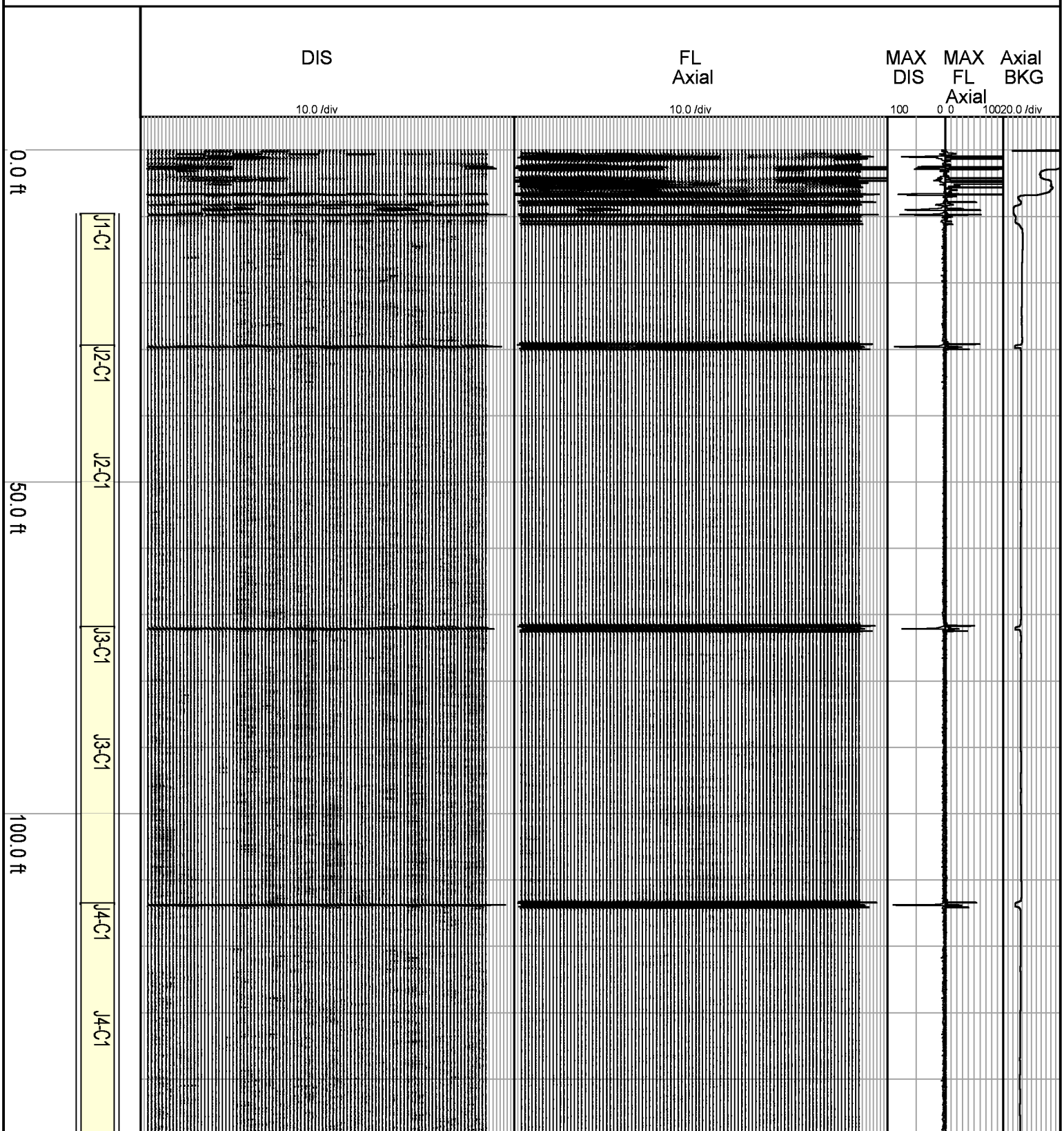
102	4121.66	4160.56	38.90	Class	1			
103	4160.56	4202.34	41.78	Class	2	23.0%	4167.29	OD
104	4202.34	4244.34	42.00	Class	1	-	-	-
105	4244.34	4284.72	40.38	Class	1	-	-	-
106	4284.72	4325.22	40.50	Class	1	-	-	-
107	4325.22	4366.78	41.56	Class	1	-	-	-
108	4366.78	4405.47	38.69	Class	1	-	-	-
109	4405.47	4444.93	39.46	Class	1	-	-	-
110	4444.93	4487.19	42.26	Class	1	-	-	-
111	4487.19	4528.02	40.83	Class	1	-	-	-
112	4528.02	4567.77	39.75	Class	1	-	-	-
113	4567.77	4609.47	41.70	Class	1	-	-	-
114	4609.47	4652.54	43.07	Class	1	-	-	-
115	4652.54	4695.28	42.74	Class	1	-	-	-
116	4695.28	4736.43	41.15	Class	1	-	-	-
117	4736.43	4778.72	42.29	Class	1	-	-	-
118	4778.72	4817.64	38.92	Class	1	-	-	-
119	4817.64	4855.15	37.51	Class	1	-	-	-
120	4855.15	4891.61	36.46	Class	1	-	-	-
121	4891.61	4933.45	41.84	Class	1	-	-	-
122	4933.45	4975.53	42.08	Class	1	-	-	-
123	4975.53	5015.17	39.64	Class	1	-	-	-
124	5015.17	5055.80	40.63	Class	1	-	-	-
125	5055.80	5097.27	41.47	Class	1	-	-	-
126	5097.27	5134.72	37.45	Class	1	-	-	-
127	5134.72	5175.98	41.26	Class	1	-	-	-
128	5175.98	5217.97	41.99	Class	1	-	-	-
129	5217.97	5261.00	43.03	Class	1	-	-	-
130	5261.00	5303.70	42.70	Class	1	-	-	-
131	5303.70	5346.03	42.33	Class	1	-	-	-
132	5346.03	5388.18	42.15	Class	1	-	-	-
133	5388.18	5428.82	40.64	Class	1	-	-	-
134	5428.82	5470.47	41.65	Class	1	-	-	-
135	5470.47	5512.13	41.66	Class	1	-	-	-
136	5512.13	5554.10	41.97	Class	1	-	-	-
137	5554.10	5596.51	42.41	Class	1	-	-	-
138	5596.51	5636.53	40.02	Class	1	-	-	-
139	5636.53	5678.08	41.55	Class	1	-	-	-
140	5678.08	5719.76	41.68	Class	1	-	-	-
141	5719.76	5762.33	42.57	Class	1	-	-	-
142	5762.33	5801.27	38.94	Class	1	-	-	-
143	5801.27	5843.37	42.10	Class	1	-	-	-
144	5843.37	5885.74	42.37	Class	1	-	-	-
145	5885.74	5927.95	42.21	Class	2	21.0%	5897.41	ID
146	5927.95	5966.08	38.13	Class	1	-	-	-
147	5966.08	6007.80	41.72	Class	1	-	-	-
148	6007.80	6049.20	41.40	Class	1	-	-	-
149	6049.20	6090.96	41.76	Class	1	-	-	-
150	6090.96	6132.68	41.72	Class	1	-	-	-
151	6132.68	6175.70	43.02	Class	1	-	-	-
152	6175.70	6218.05	42.35	Class	1	-	-	-
153	6218.05	6254.19	36.14	Class	1	-	-	-
154	6254.19	6296.08	41.89	Class	1	-	-	-
155	6296.08	6338.21	42.13	Class	1	-	-	-
156	6338.21	6379.09	40.88	Class	1	-	-	-
157	6379.09	6421.27	42.18	Class	1	-	-	-
158	6421.27	6463.56	42.29	Class	1	-	-	-
159	6463.56	6503.38	39.82	Class	1	-	-	-
160	6503.38	6532.35	28.97	Class	1	-	-	-

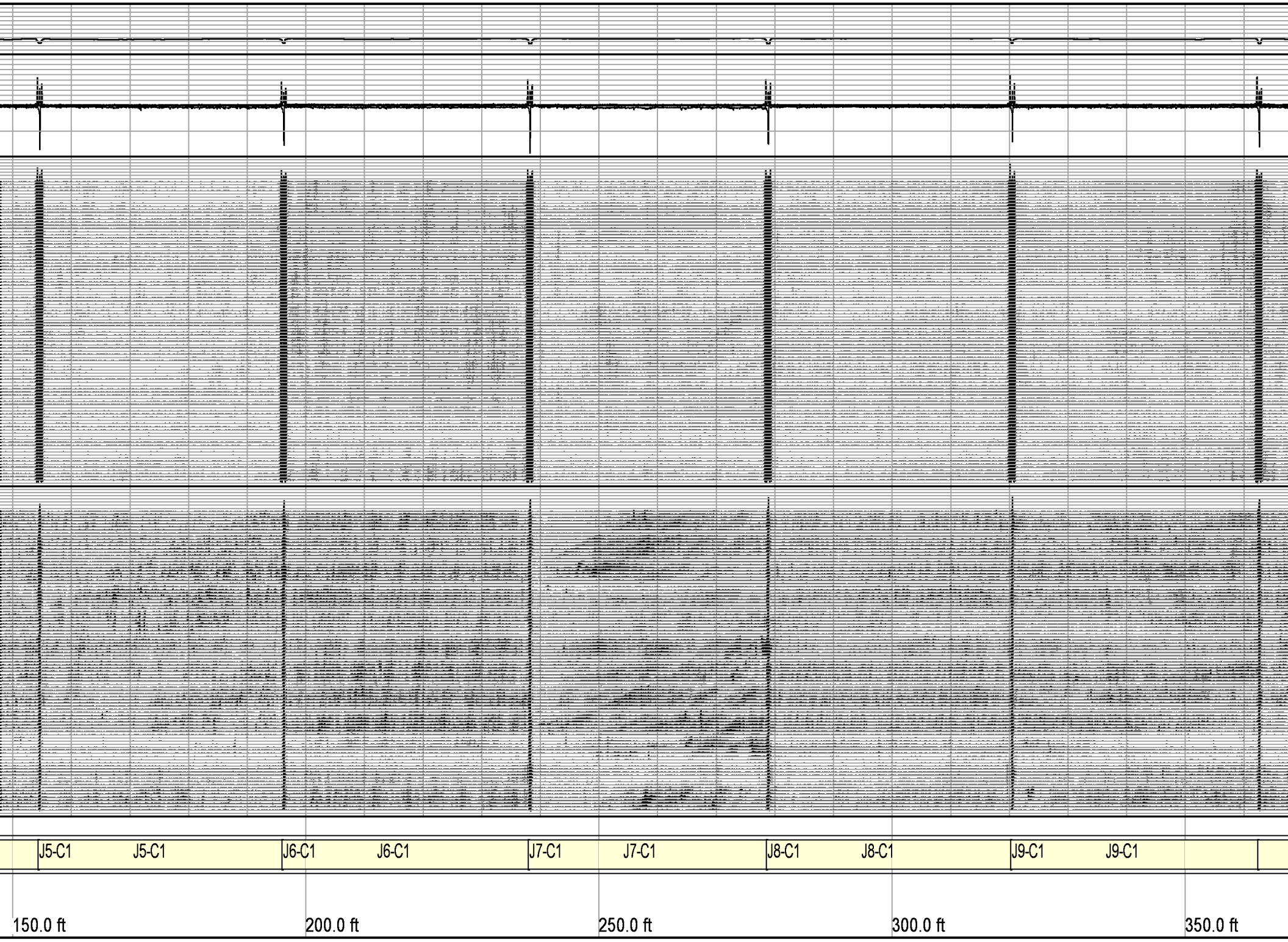
Southern California Gas Company Fernando Fee 32A

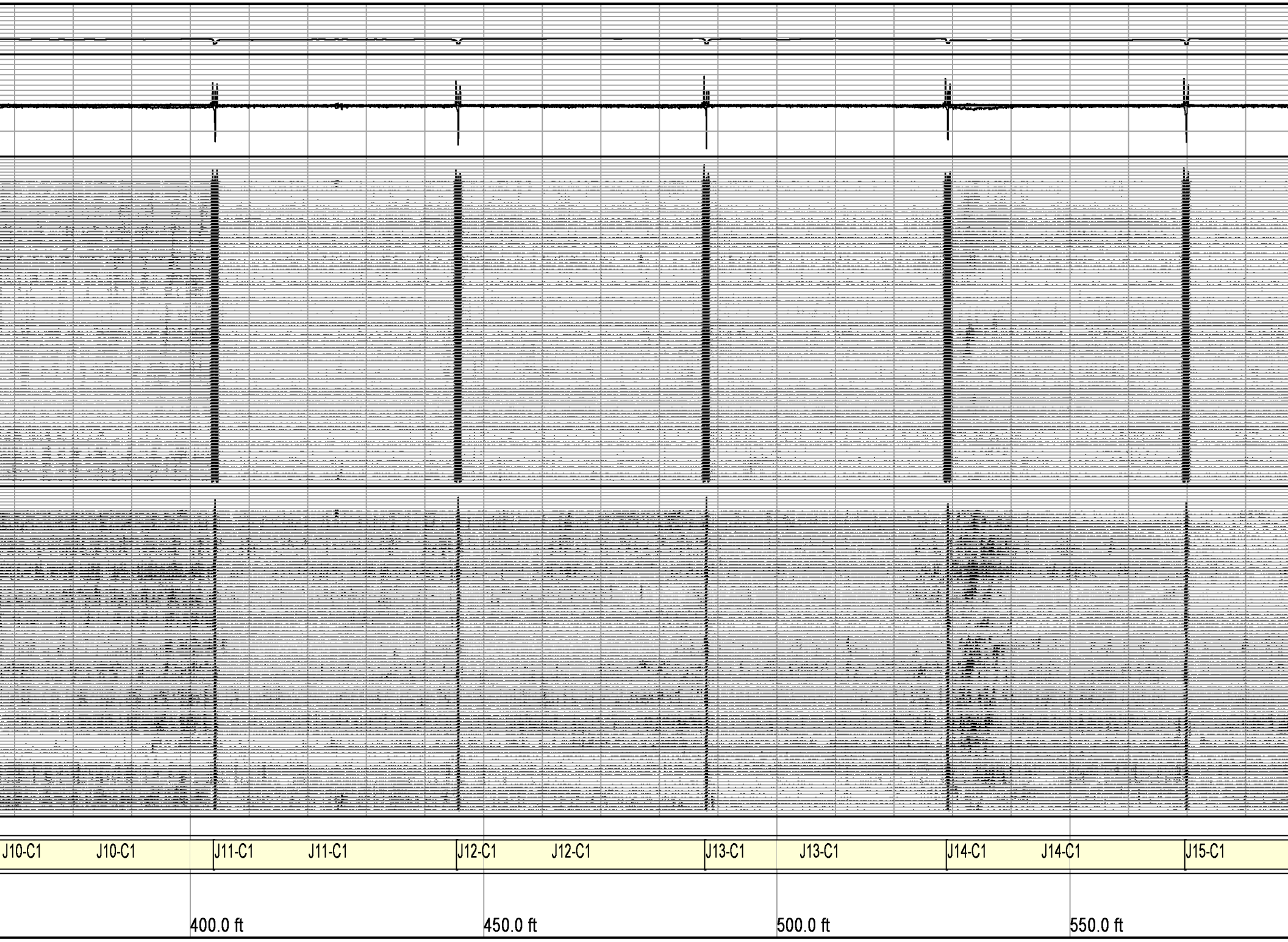
File 20160401_081654_RSP_0_0_0_0.mvl

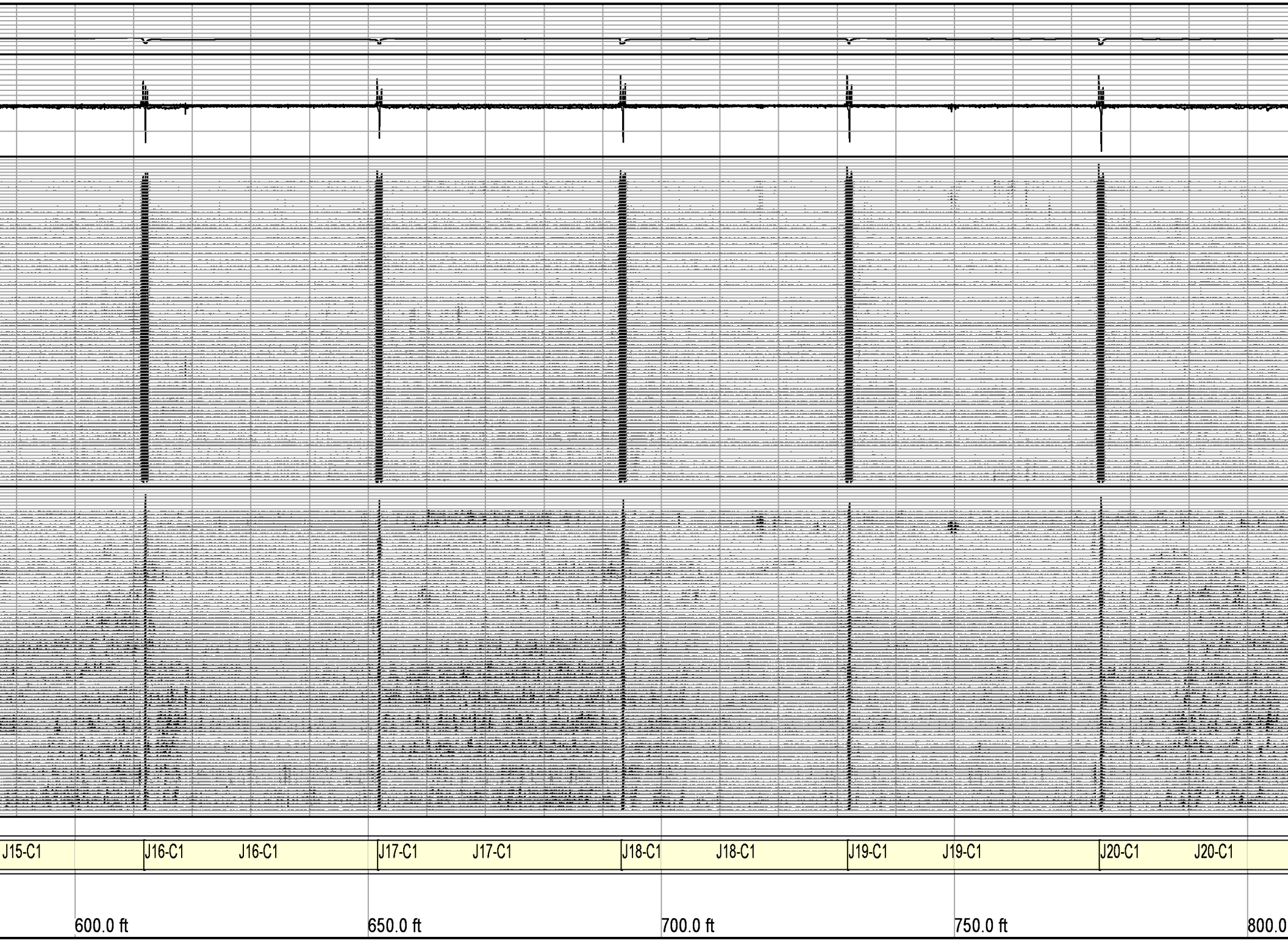
Main Log
5"/100'

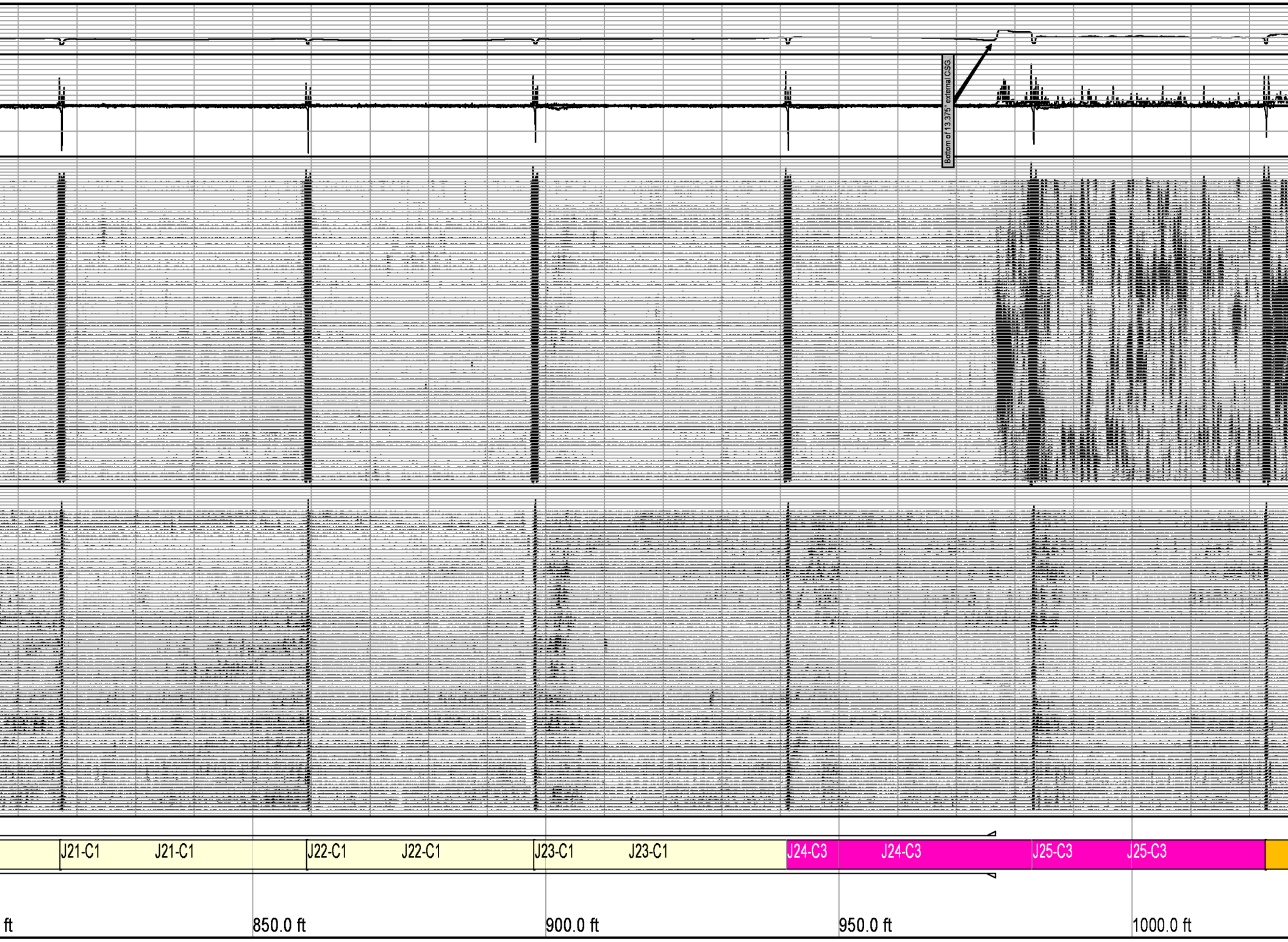
Class 1	Class 2	Class 3	Class 4
0 - 20%	20 - 40%	40 - 60%	60 - 100%

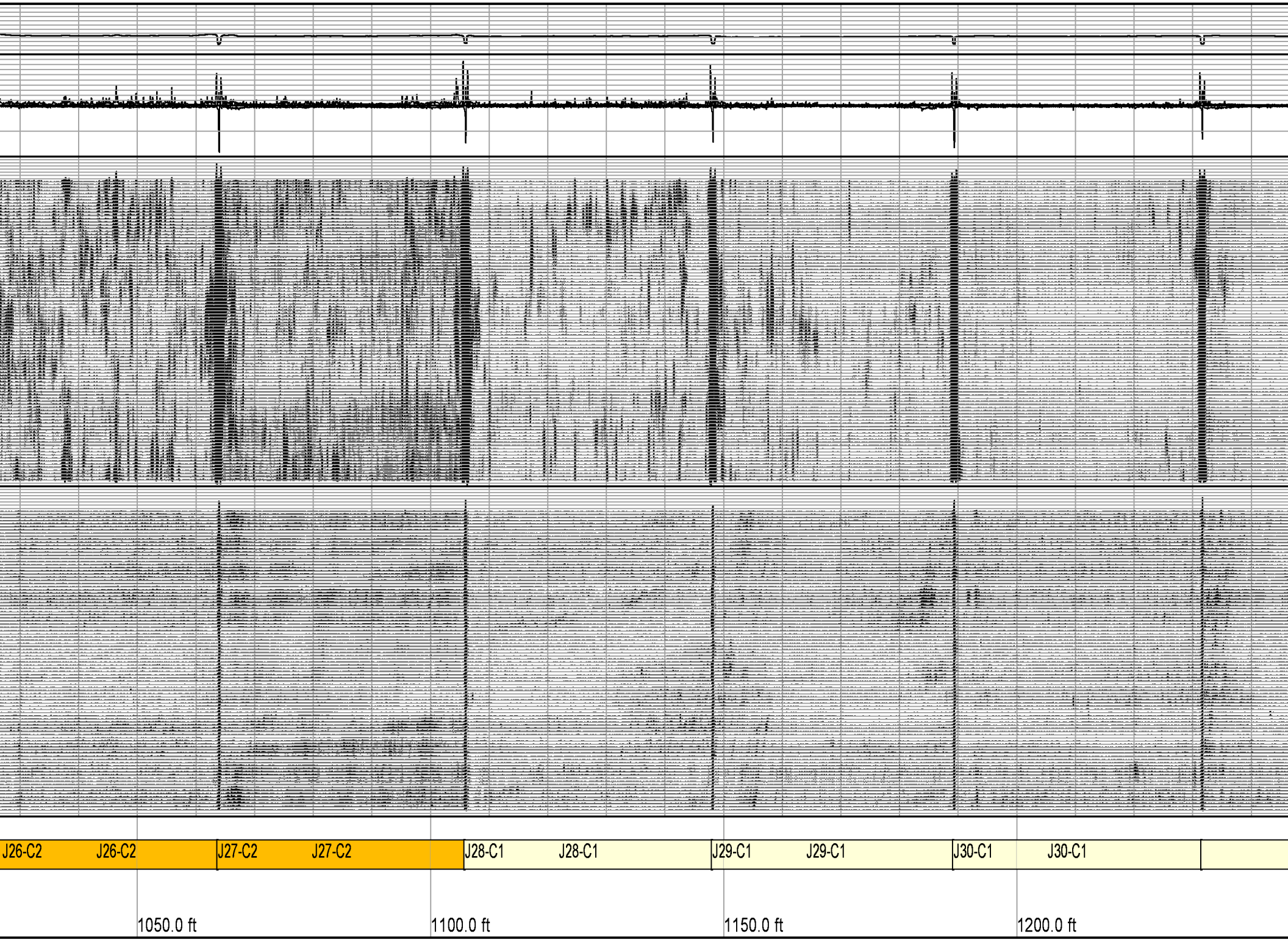


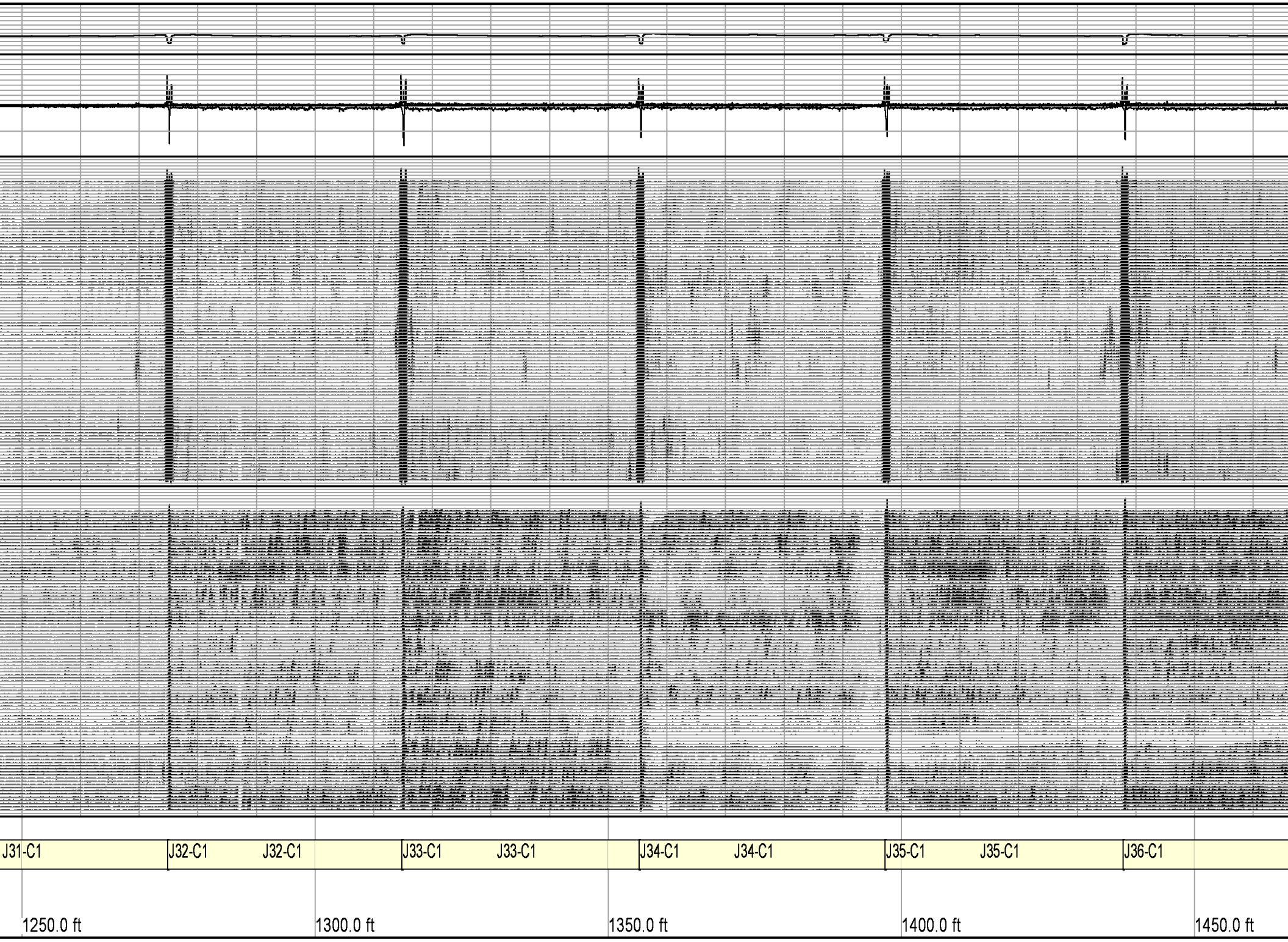

J5-C1
J5-C1
J6-C1
J6-C1
J7-C1
J7-C1
J8-C1
J8-C1
J9-C1
J9-C1
150.0 ft
200.0 ft
250.0 ft
300.0 ft
350.0 ft

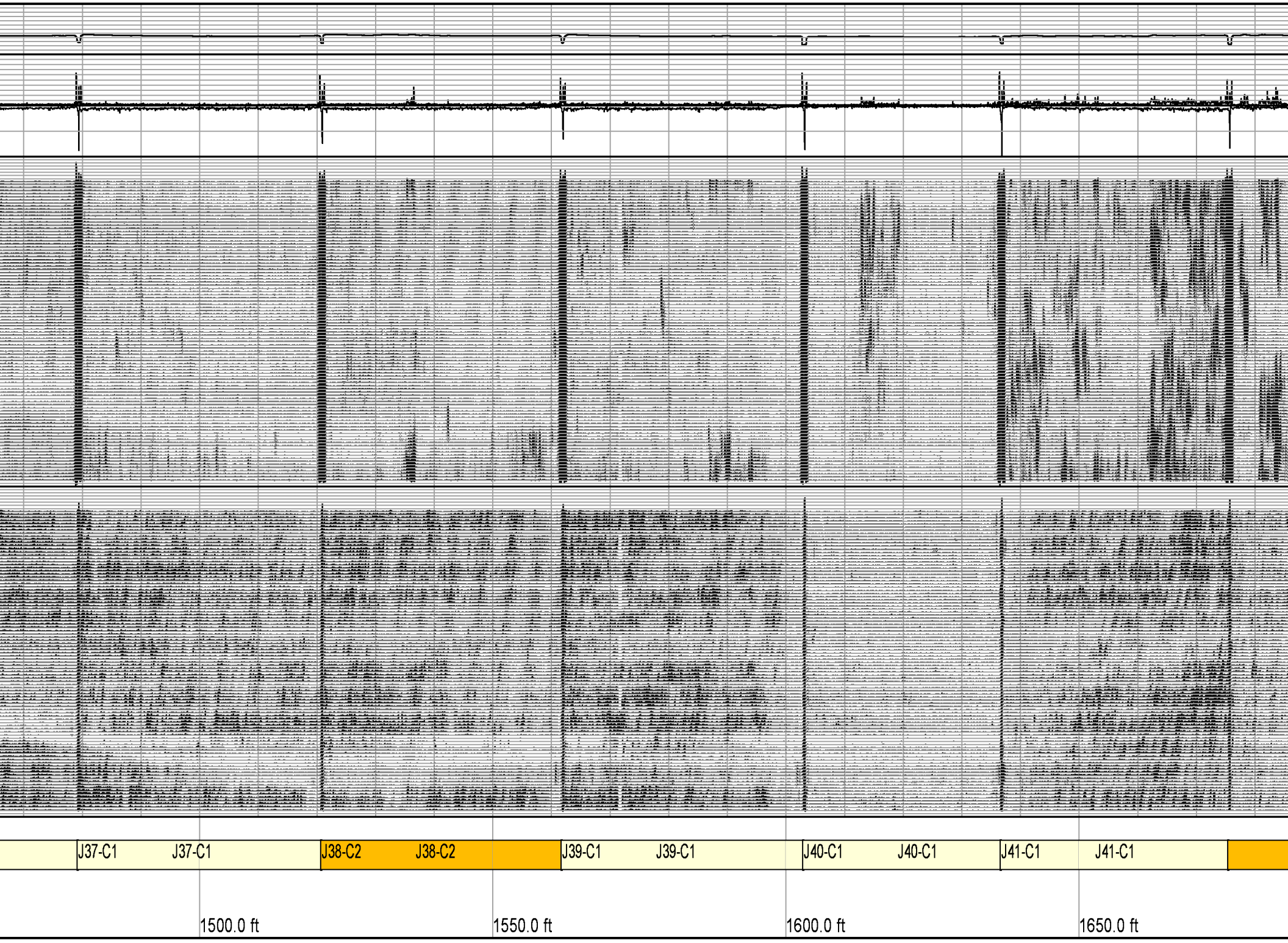

J10-C1
J10-C1
J11-C1
J11-C1
J12-C1
J12-C1
J13-C1
J13-C1
J14-C1
J14-C1
J15-C1
400.0 ft
450.0 ft
500.0 ft
550.0 ft

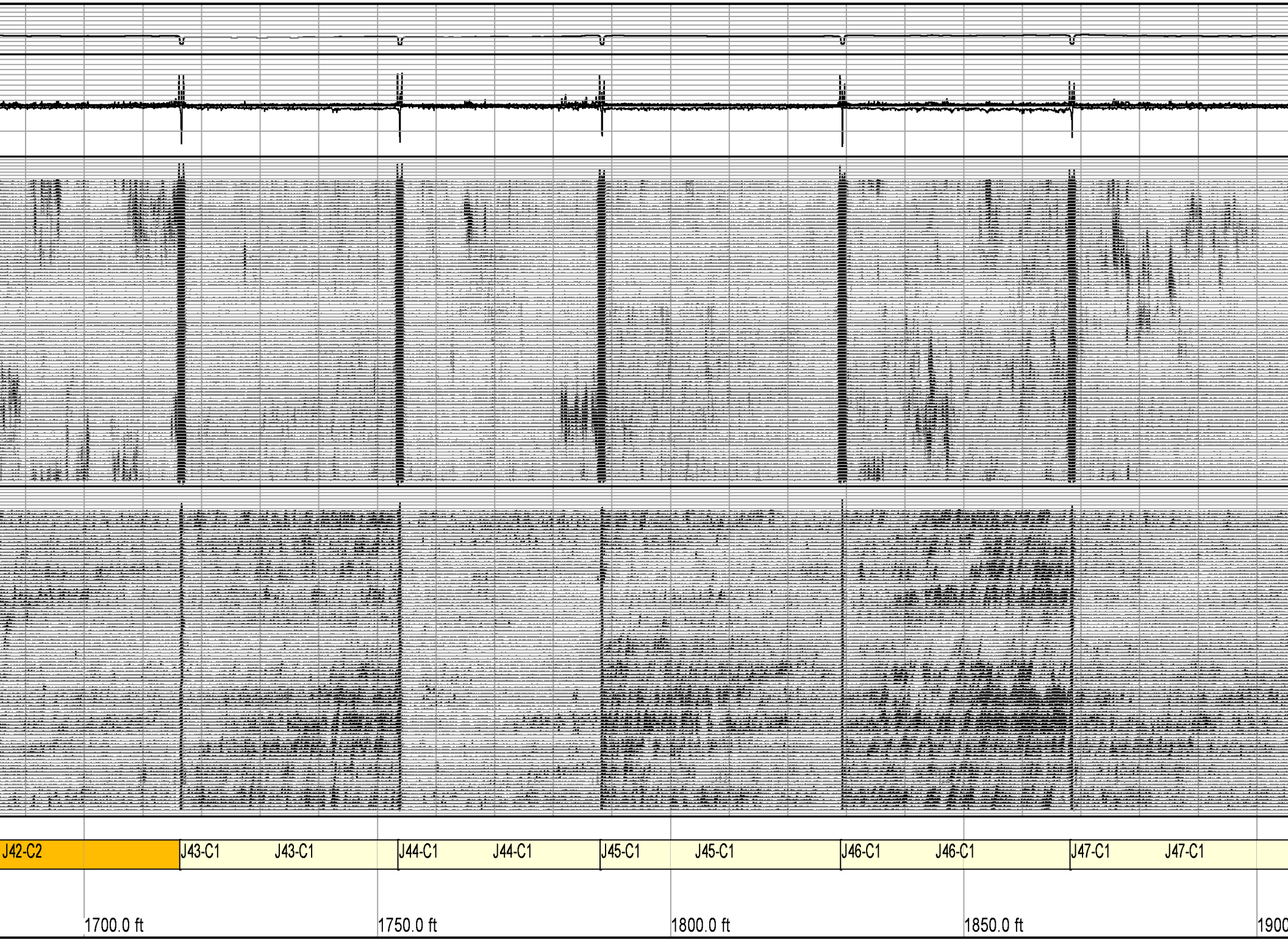

J15-C1
J16-C1
J16-C1
J17-C1
J17-C1
J18-C1
J18-C1
J19-C1
J19-C1
J20-C1
J20-C1
600.0 ft
650.0 ft
700.0 ft
750.0 ft
800.0

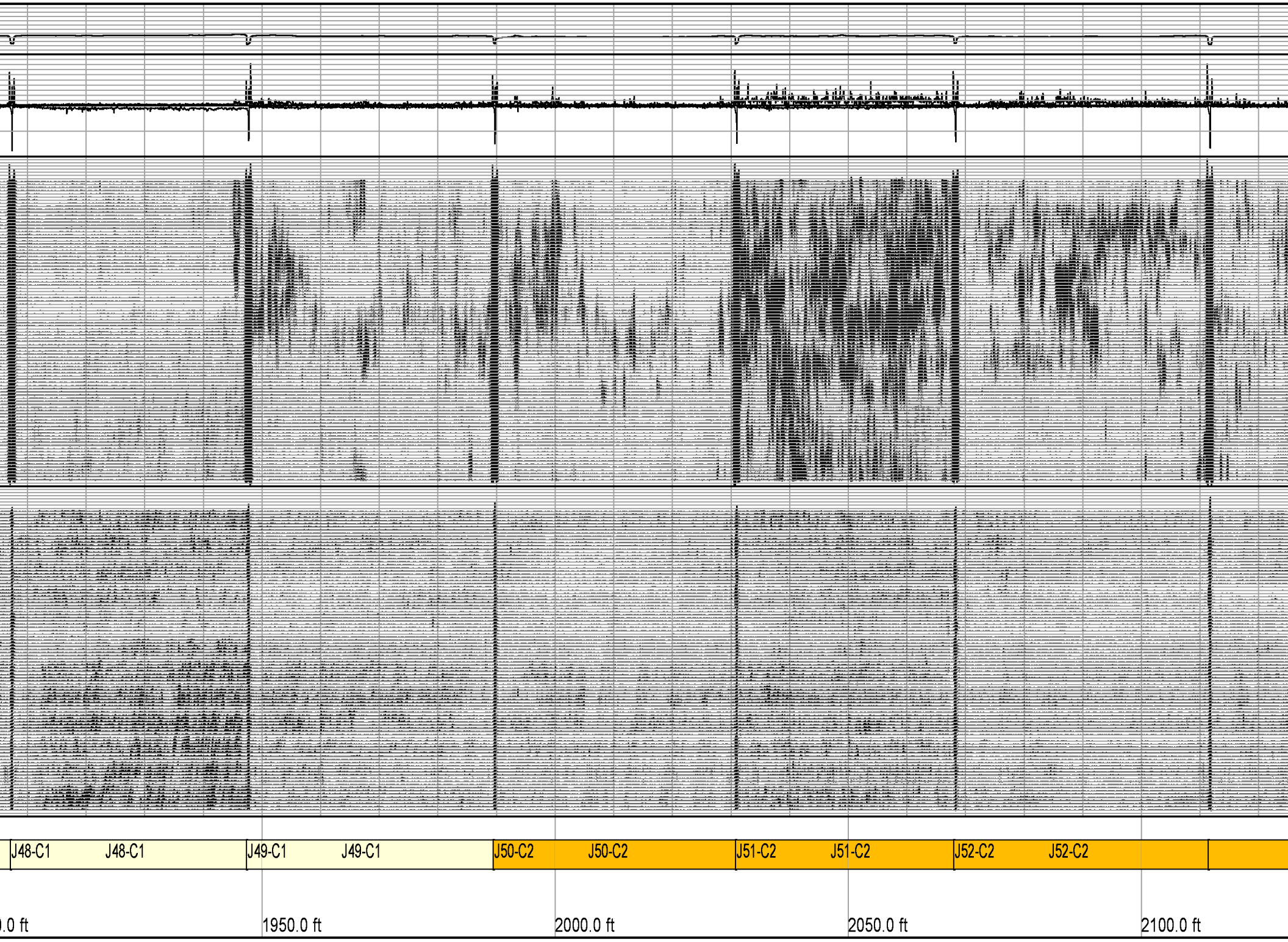

Bottom of 13.375" external CSG
J21-C1
J21-C1
J22-C1
J22-C1
J23-C1
J23-C1
J24-C3
J24-C3
J25-C3
J25-C3
ft
850.0 ft
900.0 ft
950.0 ft
1000.0 ft

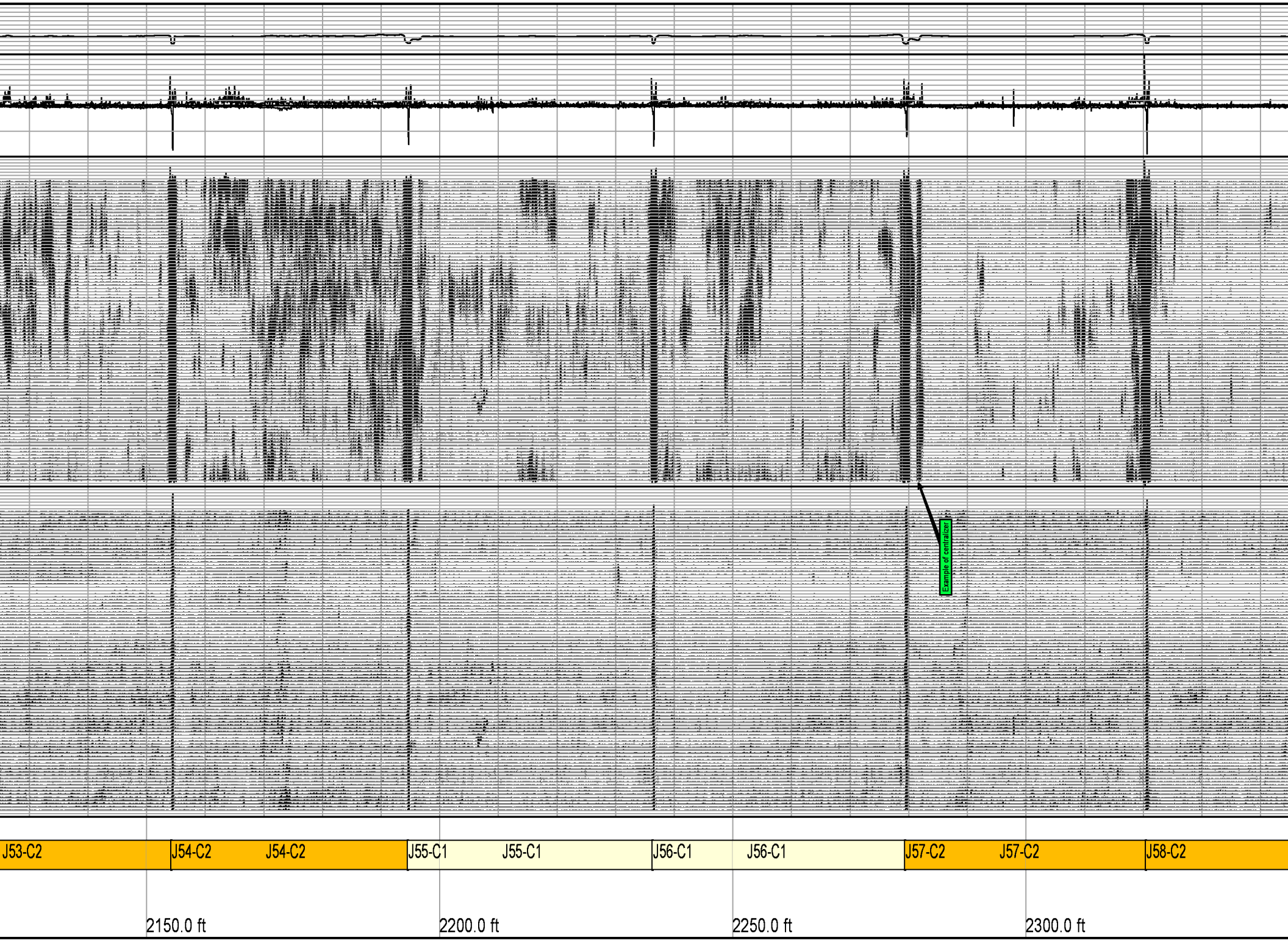

J26-C2
J26-C2
J27-C2
J27-C2
J28-C1
J28-C1
J29-C1
J29-C1
J30-C1
J30-C1
1050.0 ft
1100.0 ft
1150.0 ft
1200.0 ft

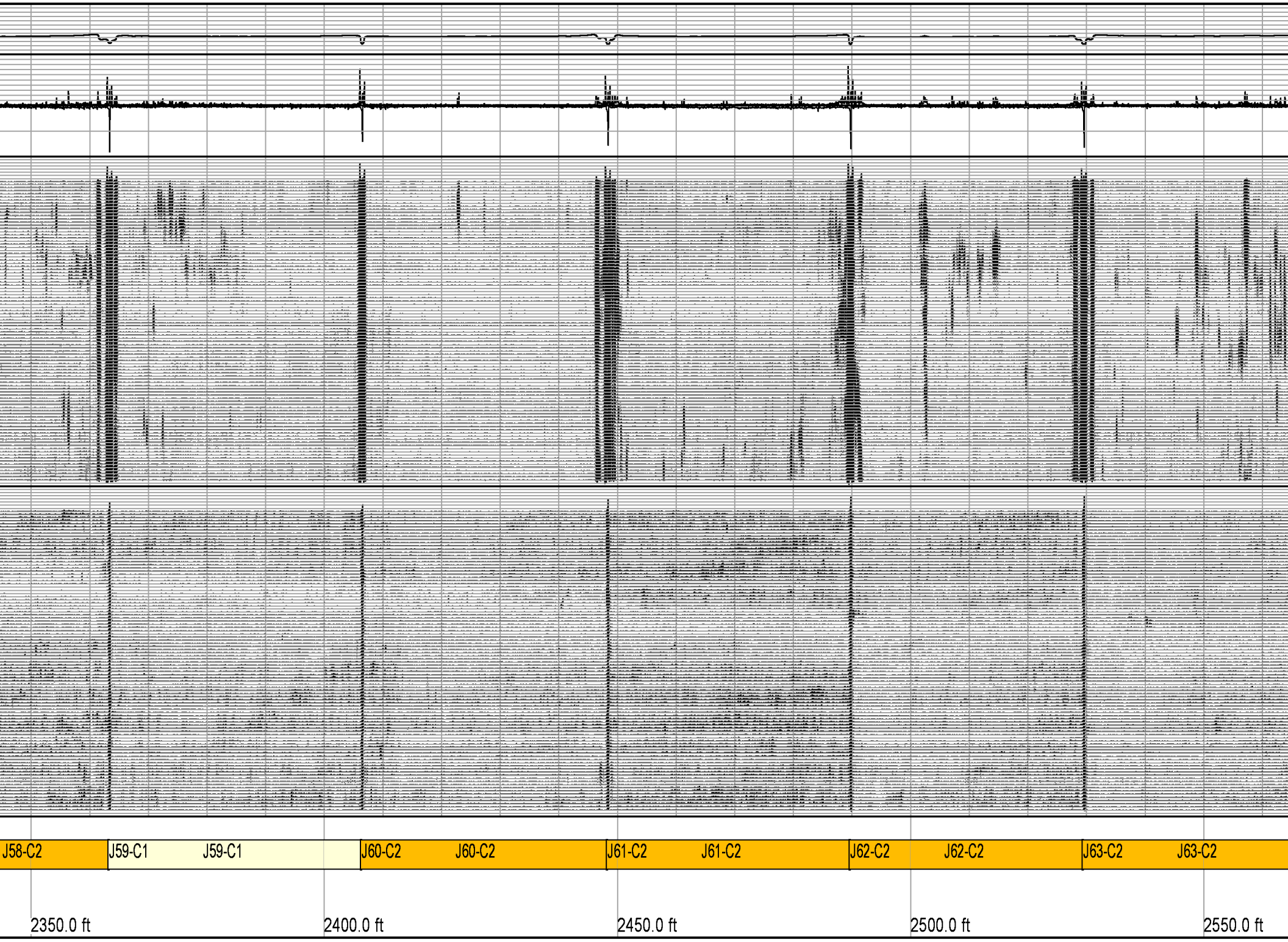

J31-C1
J32-C1
J32-C1
J33-C1
J33-C1
J34-C1
J34-C1
J35-C1
J35-C1
J36-C1
1250.0 ft
1300.0 ft
1350.0 ft
1400.0 ft
1450.0 ft

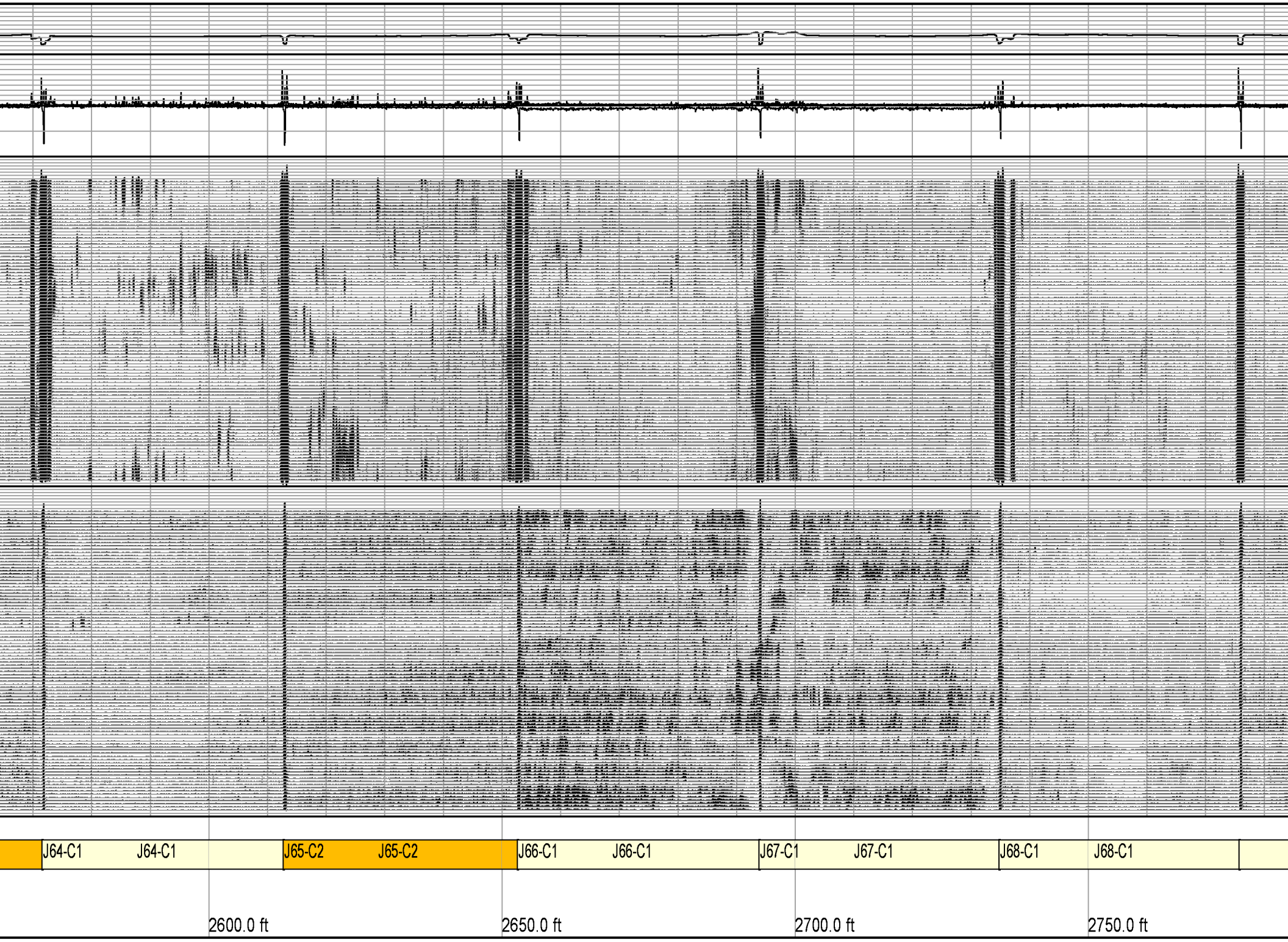

J37-C1
J37-C1
J38-C2
J38-C2
J39-C1
J39-C1
J40-C1
J40-C1
J41-C1
J41-C1
1500.0 ft
1550.0 ft
1600.0 ft
1650.0 ft

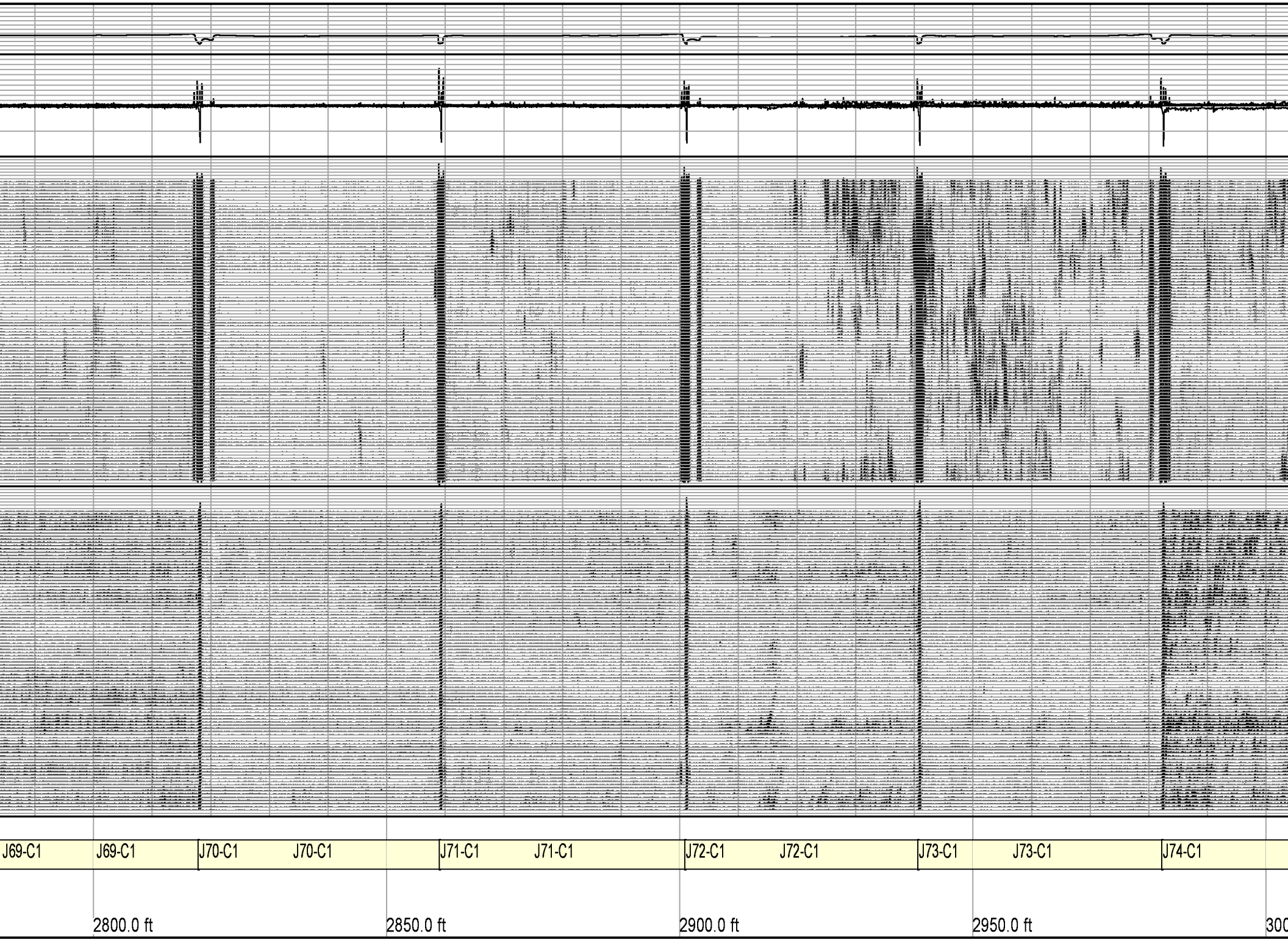

J42-C2
J43-C1
J43-C1
J44-C1
J44-C1
J45-C1
J45-C1
J46-C1
J46-C1
J47-C1
J47-C1
1700.0 ft
1750.0 ft
1800.0 ft
1850.0 ft
1900

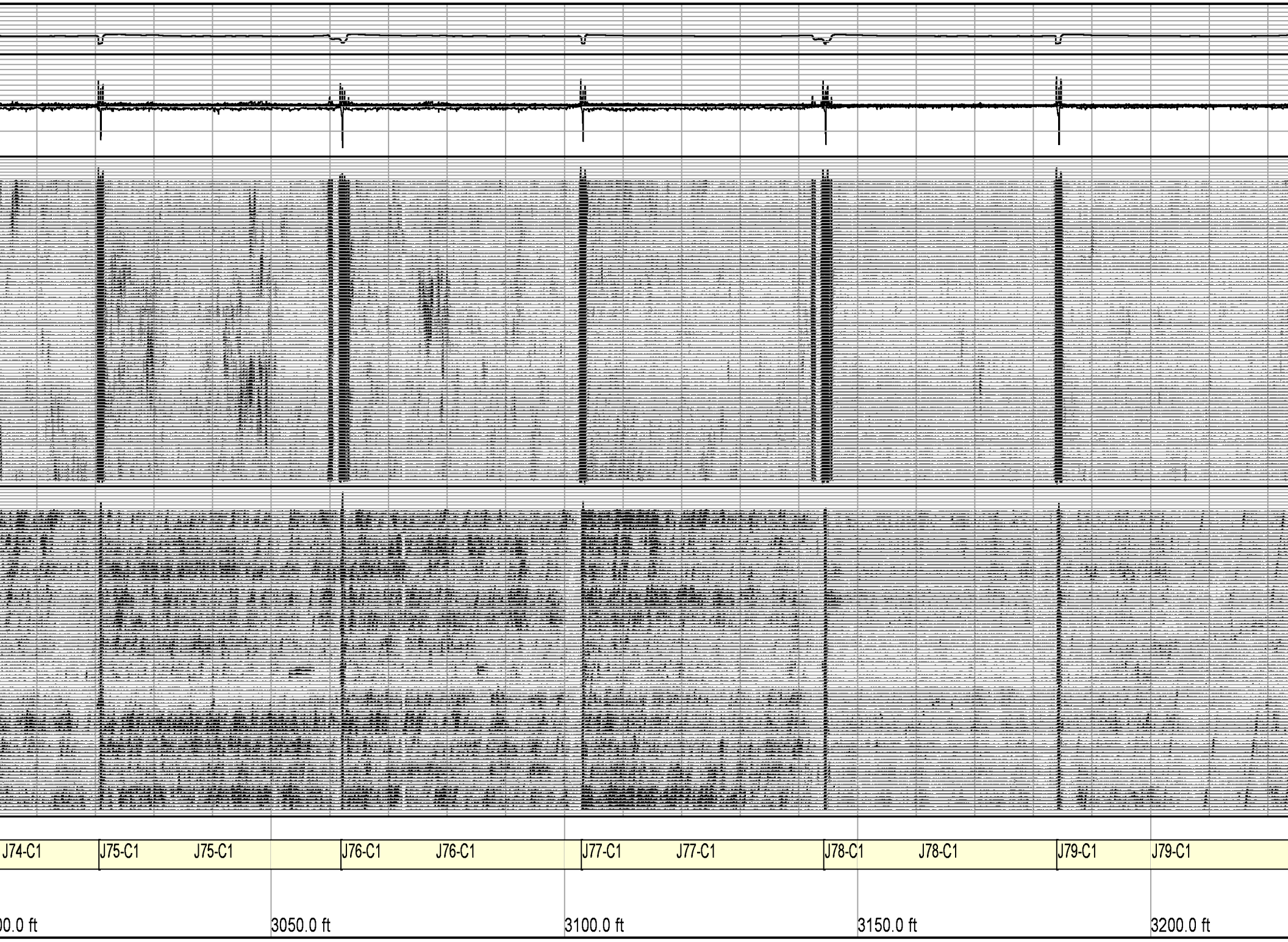

J48-C1
J48-C1
J49-C1
J49-C1
J50-C2
J50-C2
J51-C2
J51-C2
J52-C2
J52-C2
1950.0 ft
2000.0 ft
2050.0 ft
2100.0 ft

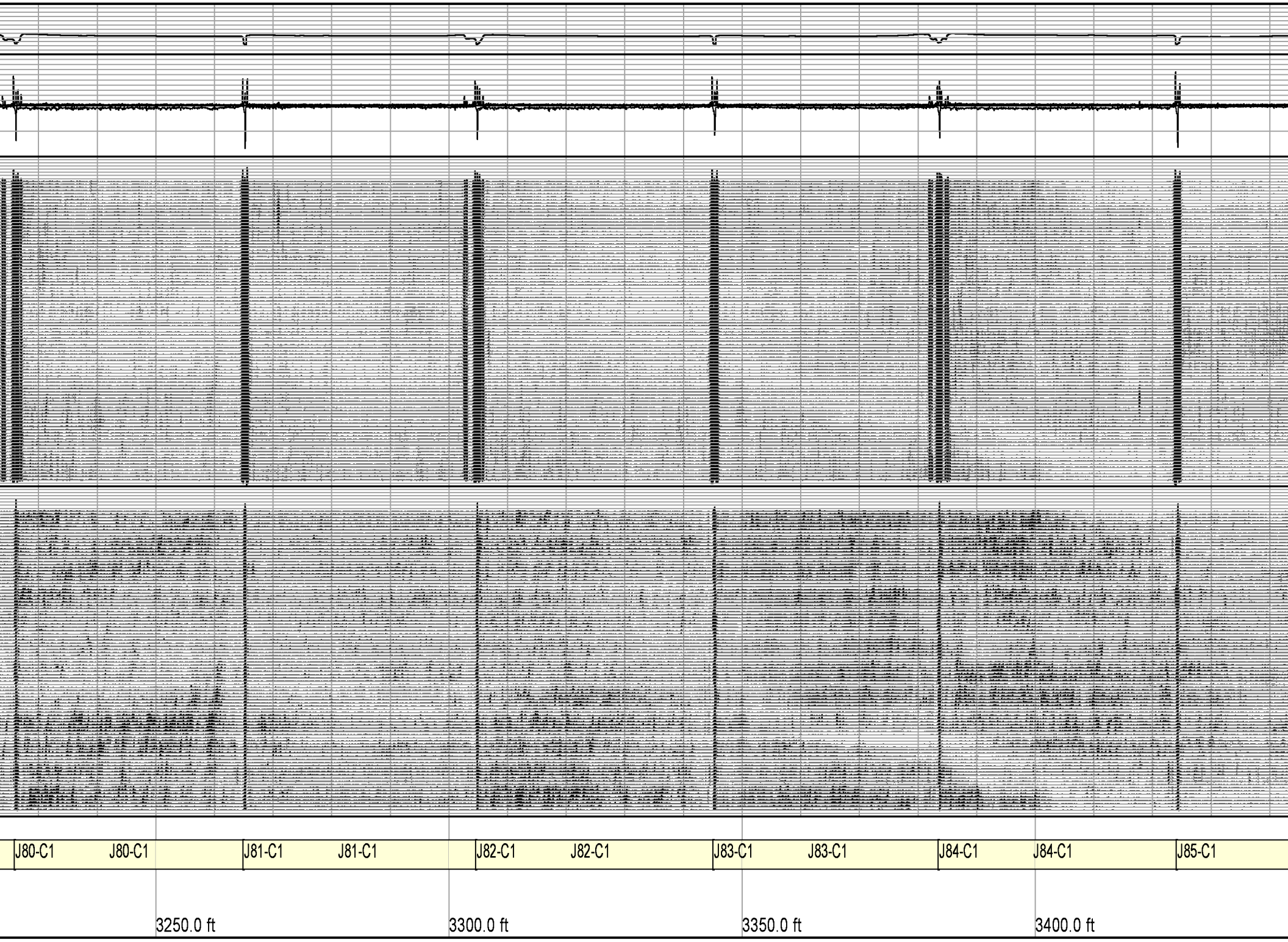

Example of centralizer
J53-C2
J54-C2
J54-C2
J55-C1
J55-C1
J56-C1
J56-C1
J57-C2
J57-C2
J58-C2
2150.0 ft
2200.0 ft
2250.0 ft
2300.0 ft

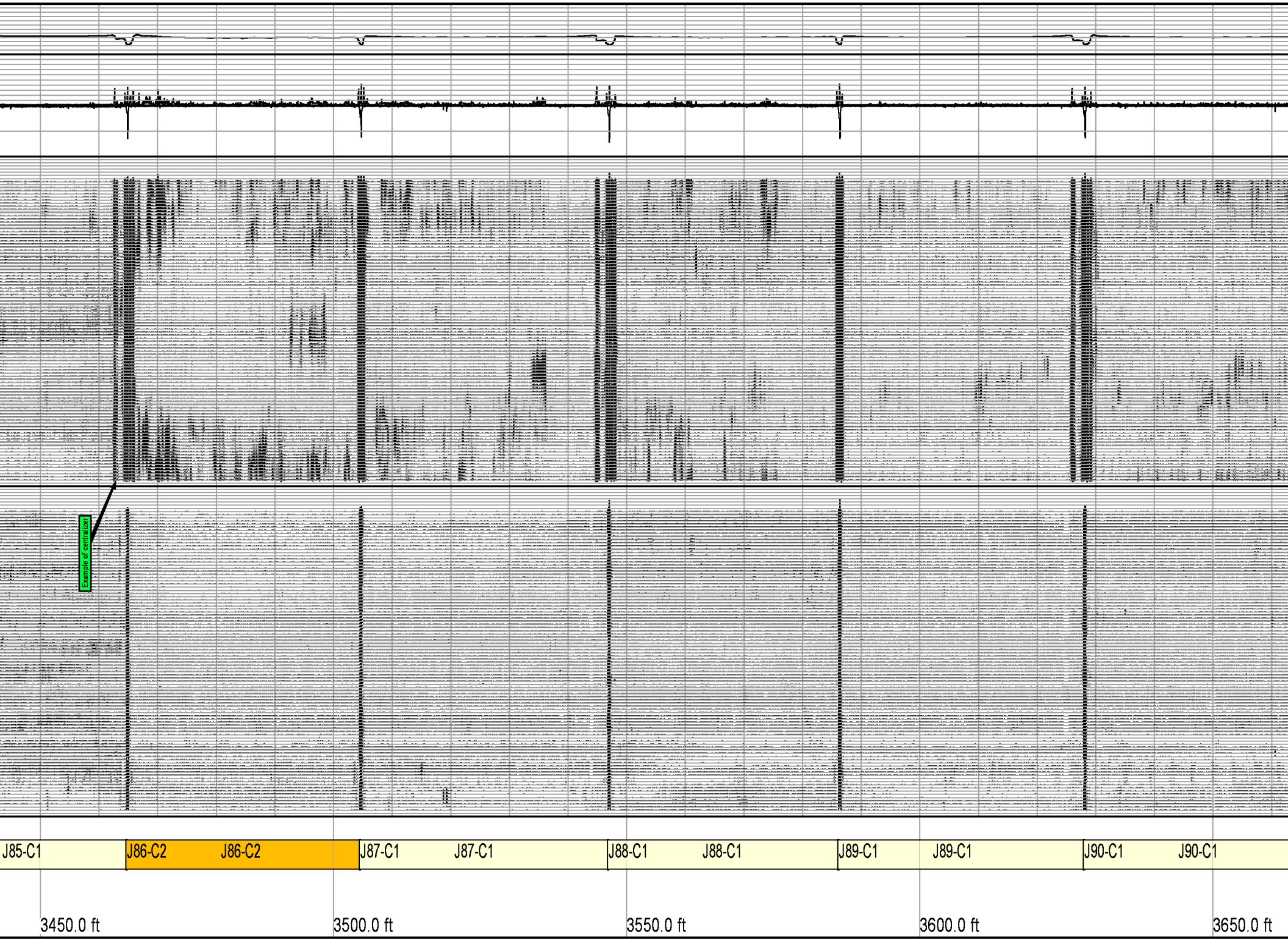

J58-C2
J59-C1
J59-C1
J60-C2
J60-C2
J61-C2
J61-C2
J62-C2
J62-C2
J63-C2
J63-C2
2350.0 ft
2400.0 ft
2450.0 ft
2500.0 ft
2550.0 ft

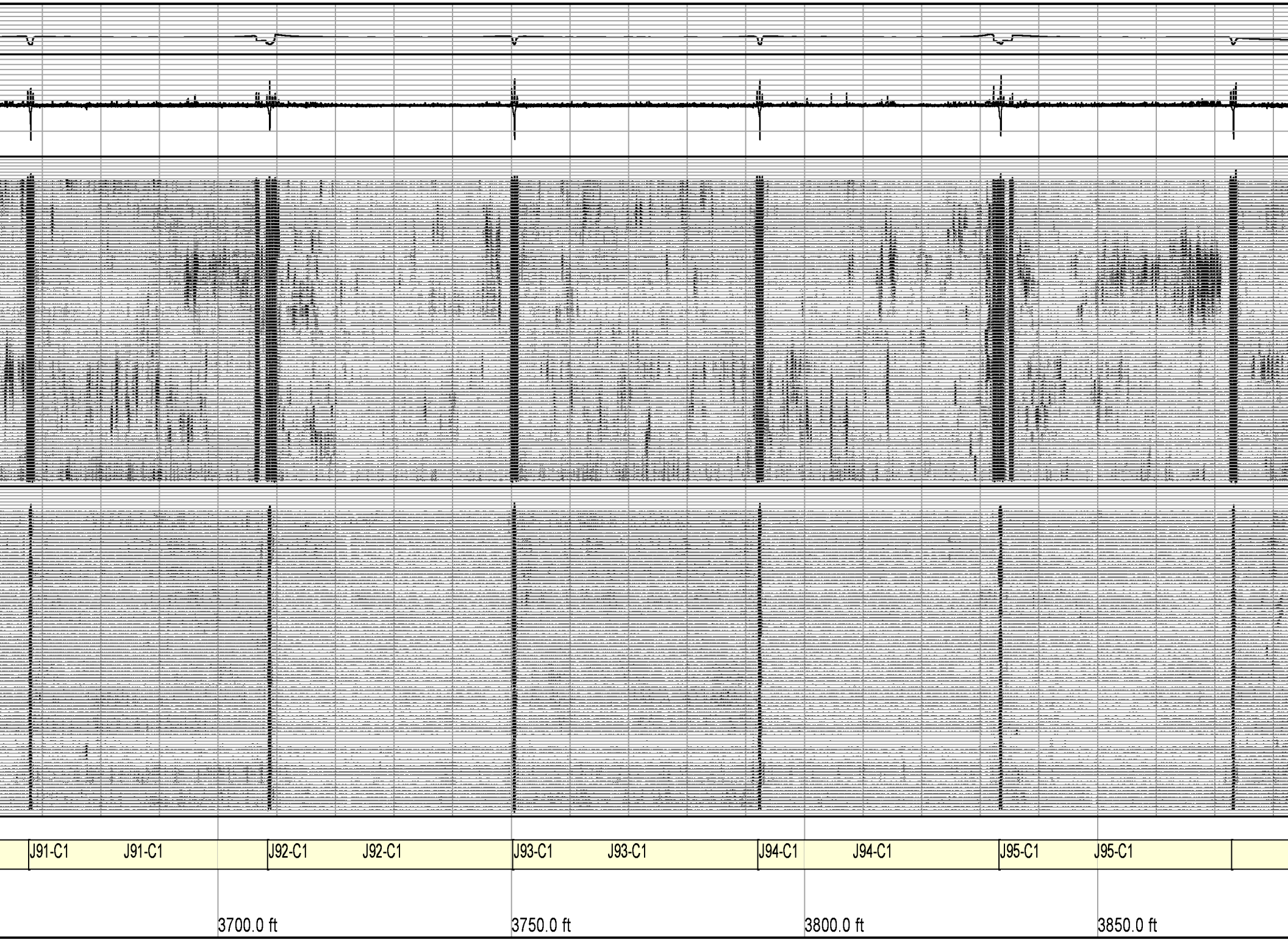

J64-C1
J64-C1
J65-C2
J65-C2
J66-C1
J66-C1
J67-C1
J67-C1
J68-C1
J68-C1
2600.0 ft
2650.0 ft
2700.0 ft
2750.0 ft

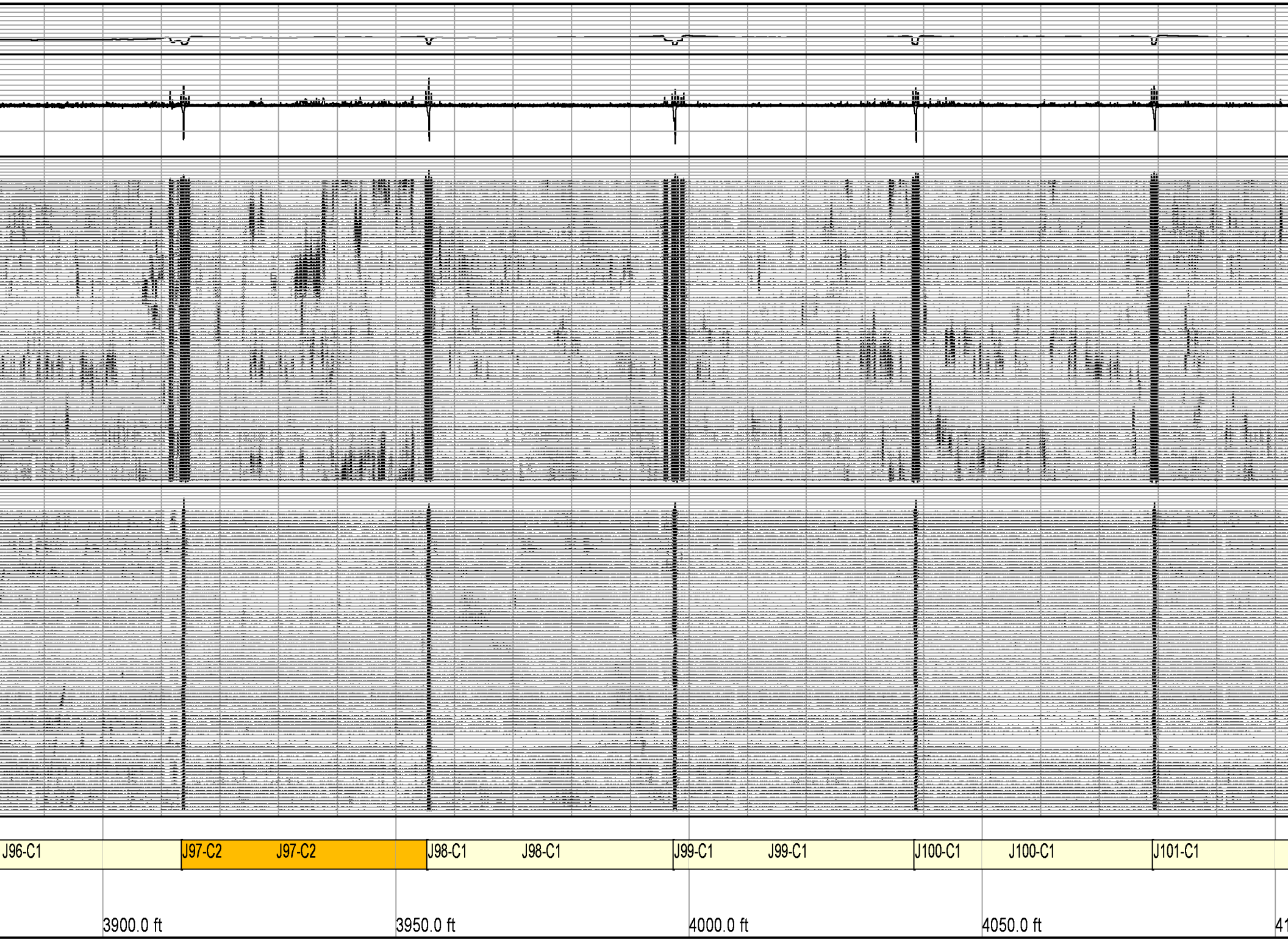

J69-C1
J69-C1
J70-C1
J70-C1
J71-C1
J71-C1
J72-C1
J72-C1
J73-C1
J73-C1
J74-C1
2800.0 ft
2850.0 ft
2900.0 ft
2950.0 ft
300

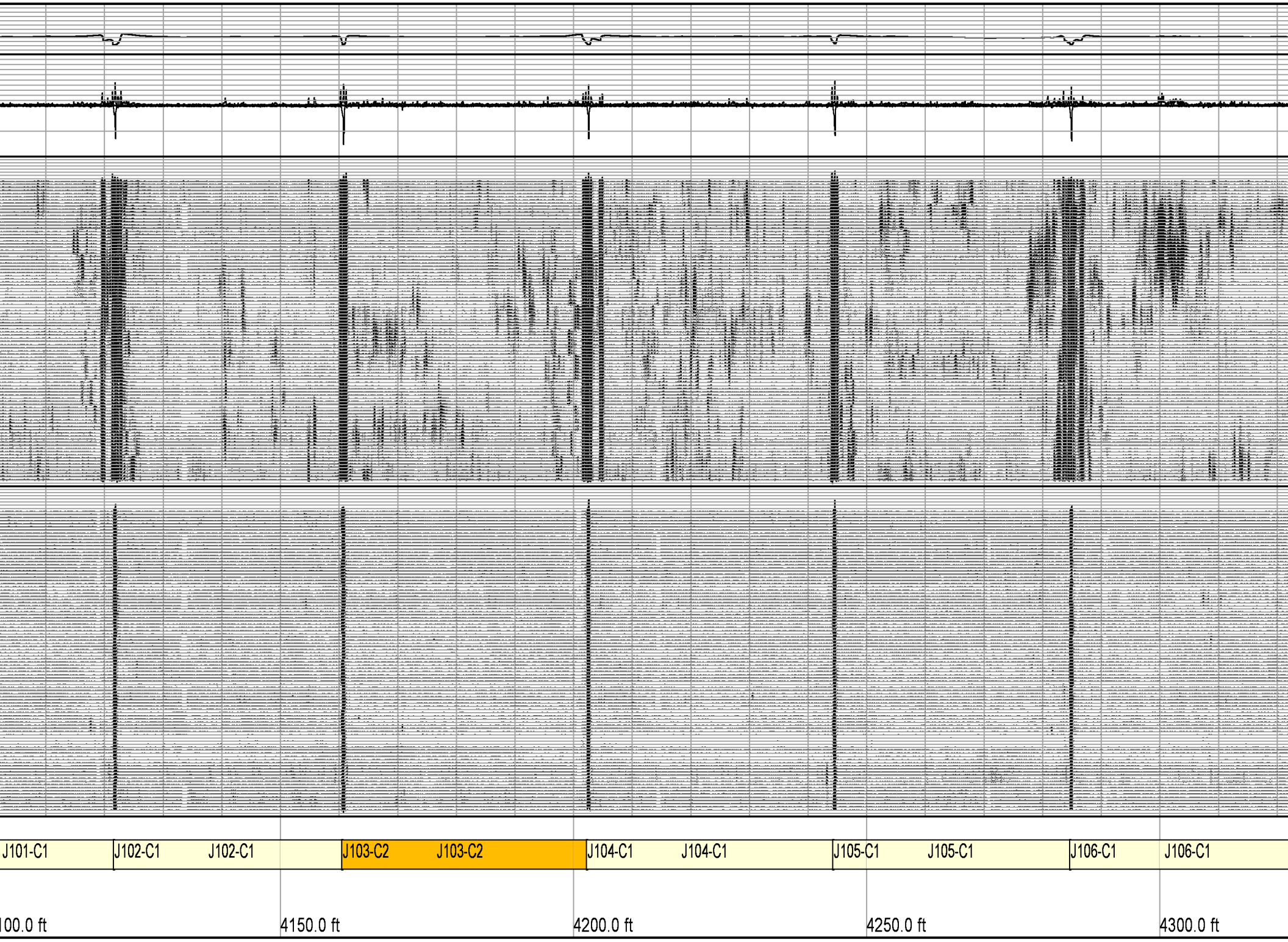

J74-C1
J75-C1
J75-C1
J76-C1
J76-C1
J77-C1
J77-C1
J78-C1
J78-C1
J79-C1
J79-C1
00.0 ft
3050.0 ft
3100.0 ft
3150.0 ft
3200.0 ft

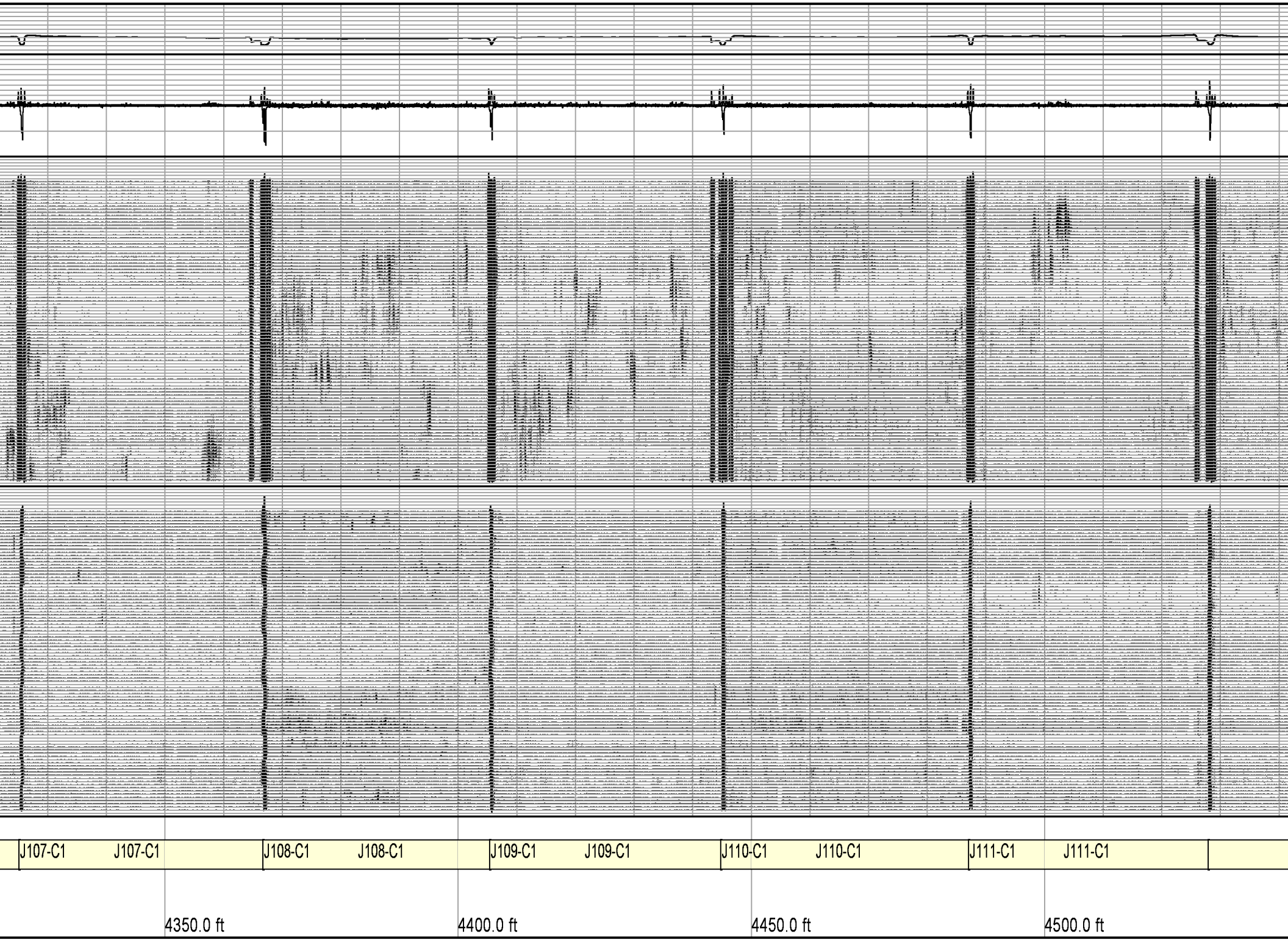

J80-C1
J80-C1
J81-C1
J81-C1
J82-C1
J82-C1
J83-C1
J83-C1
J84-C1
J84-C1
J85-C1
3250.0 ft
3300.0 ft
3350.0 ft
3400.0 ft

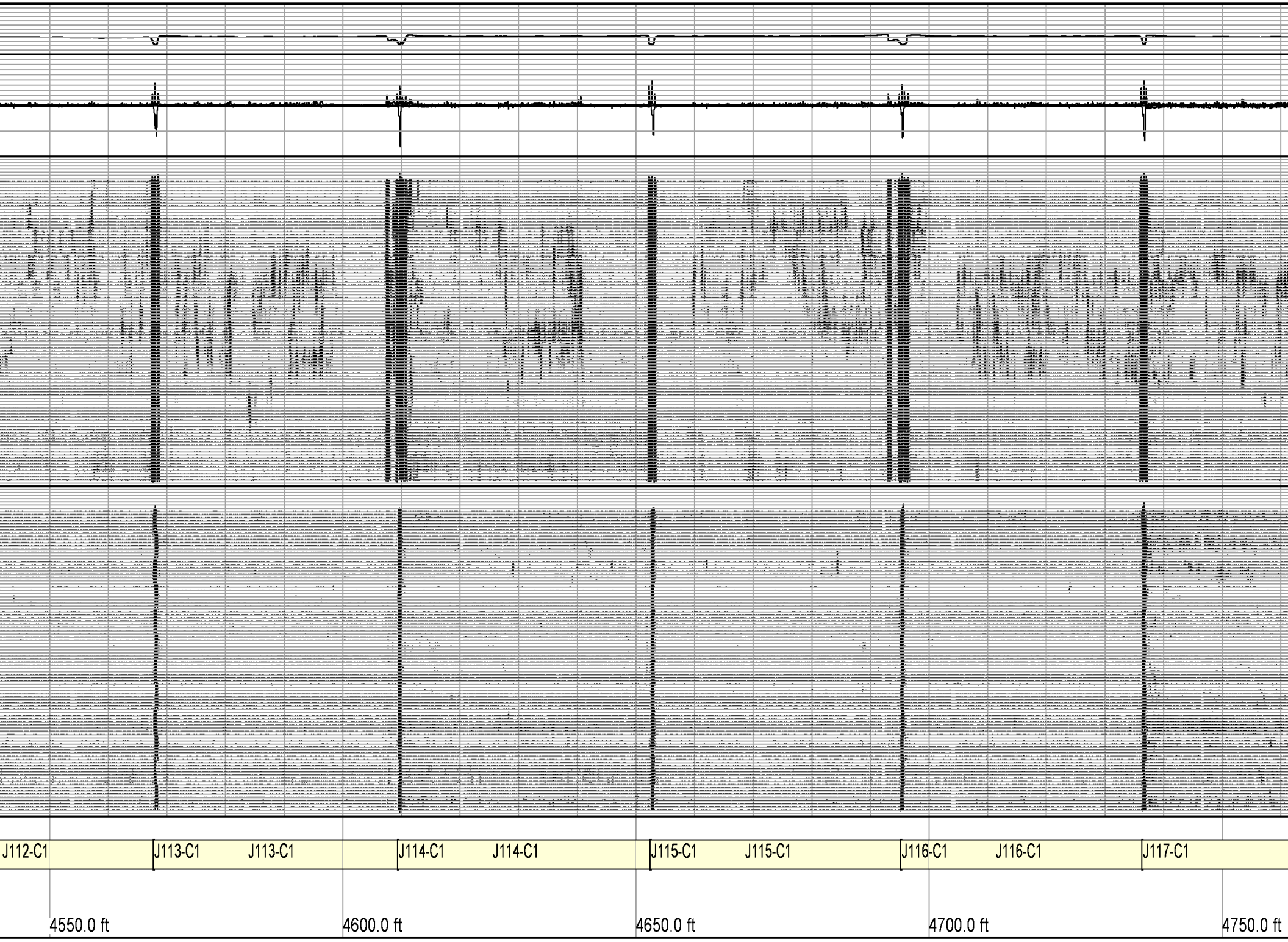

Example of centralizer
J85-C1
J86-C2
J86-C2
J87-C1
J87-C1
J88-C1
J88-C1
J89-C1
J89-C1
J90-C1
J90-C1
3450.0 ft
3500.0 ft
3550.0 ft
3600.0 ft
3650.0 ft

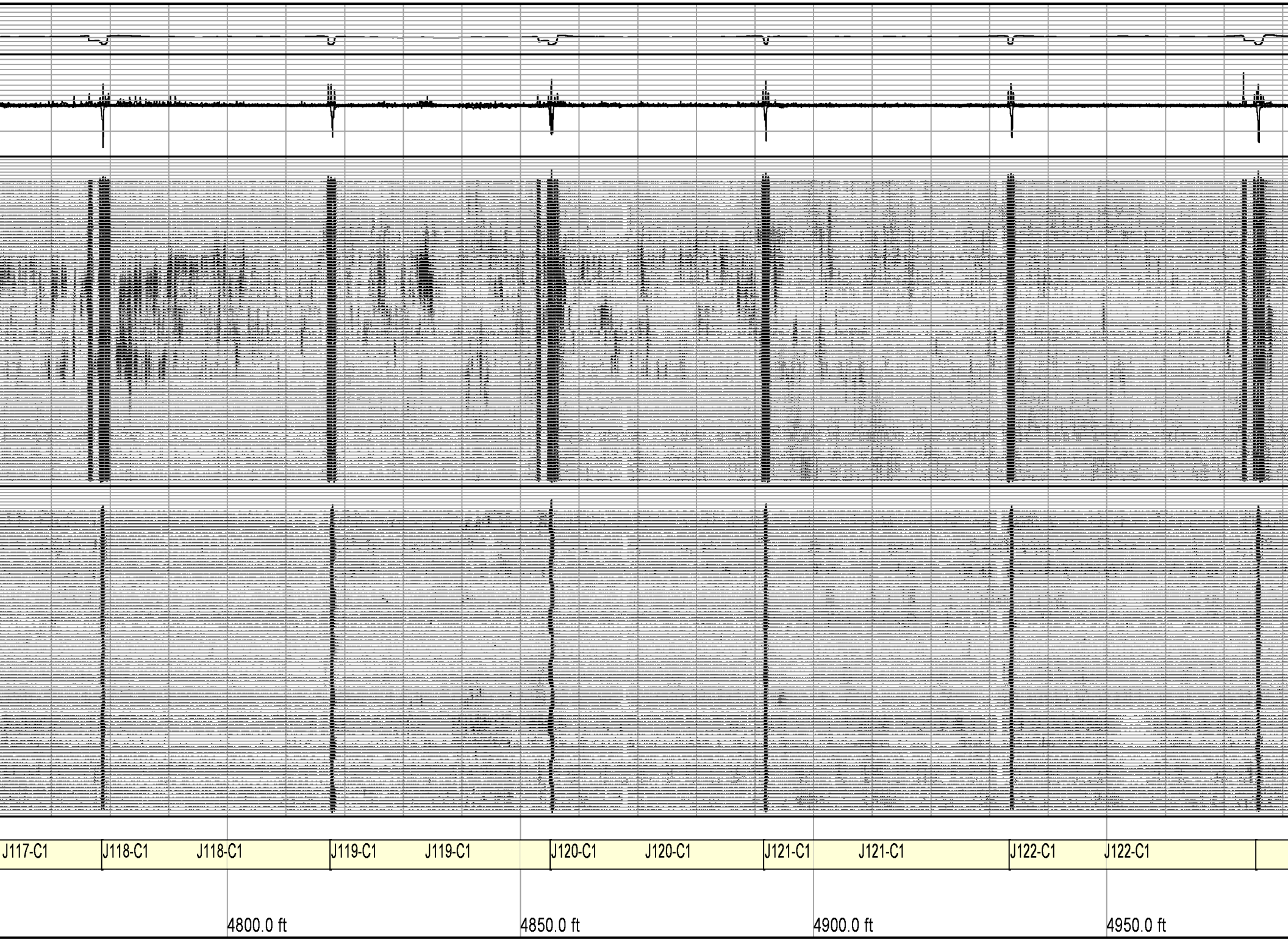

J91-C1
J91-C1
J92-C1
J92-C1
J93-C1
J93-C1
J94-C1
J94-C1
J95-C1
J95-C1
3700.0 ft
3750.0 ft
3800.0 ft
3850.0 ft

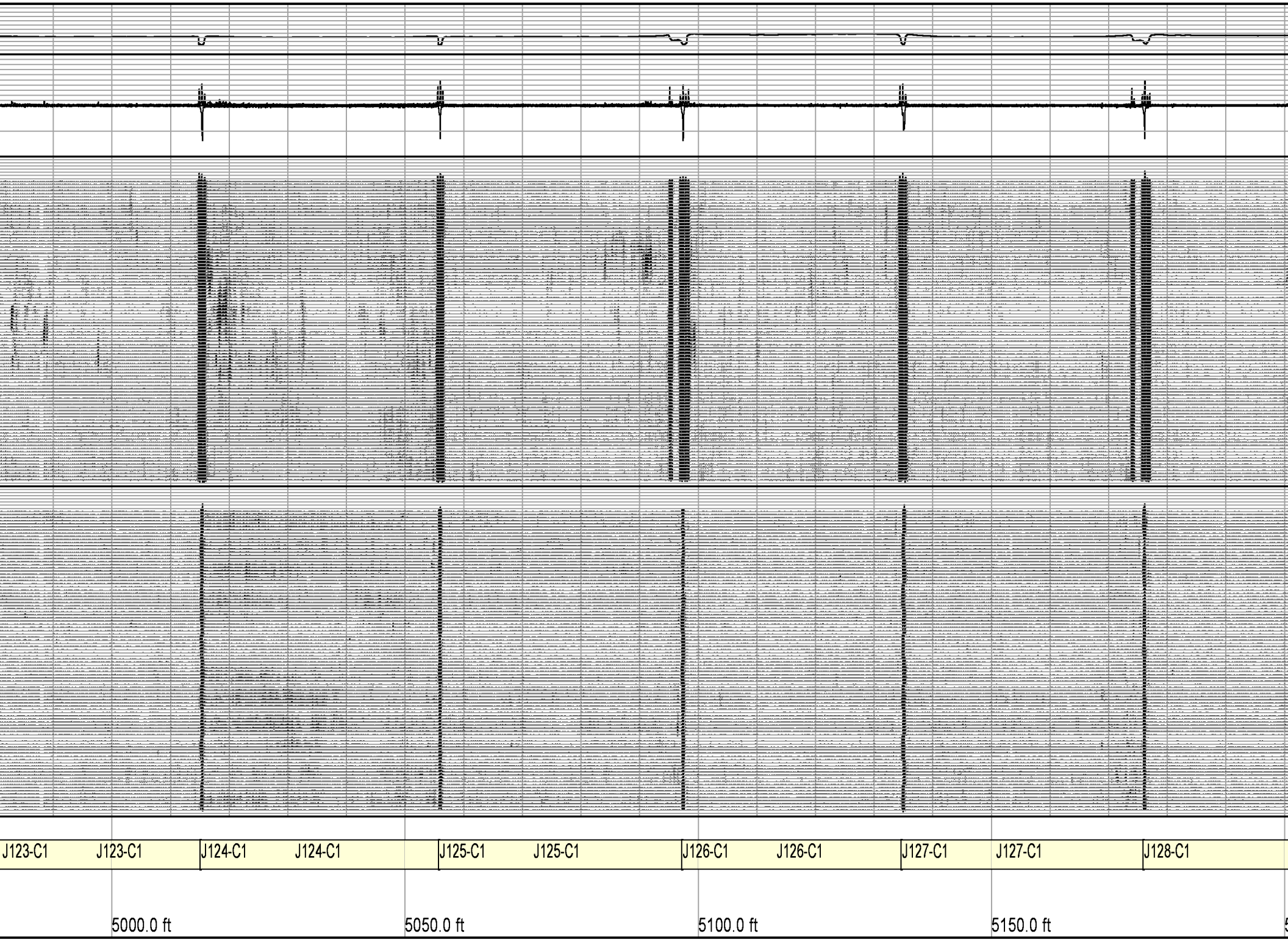

J96-C1
J97-C2
J97-C2
J98-C1
J98-C1
J99-C1
J99-C1
J100-C1
J100-C1
J101-C1
3900.0 ft
3950.0 ft
4000.0 ft
4050.0 ft

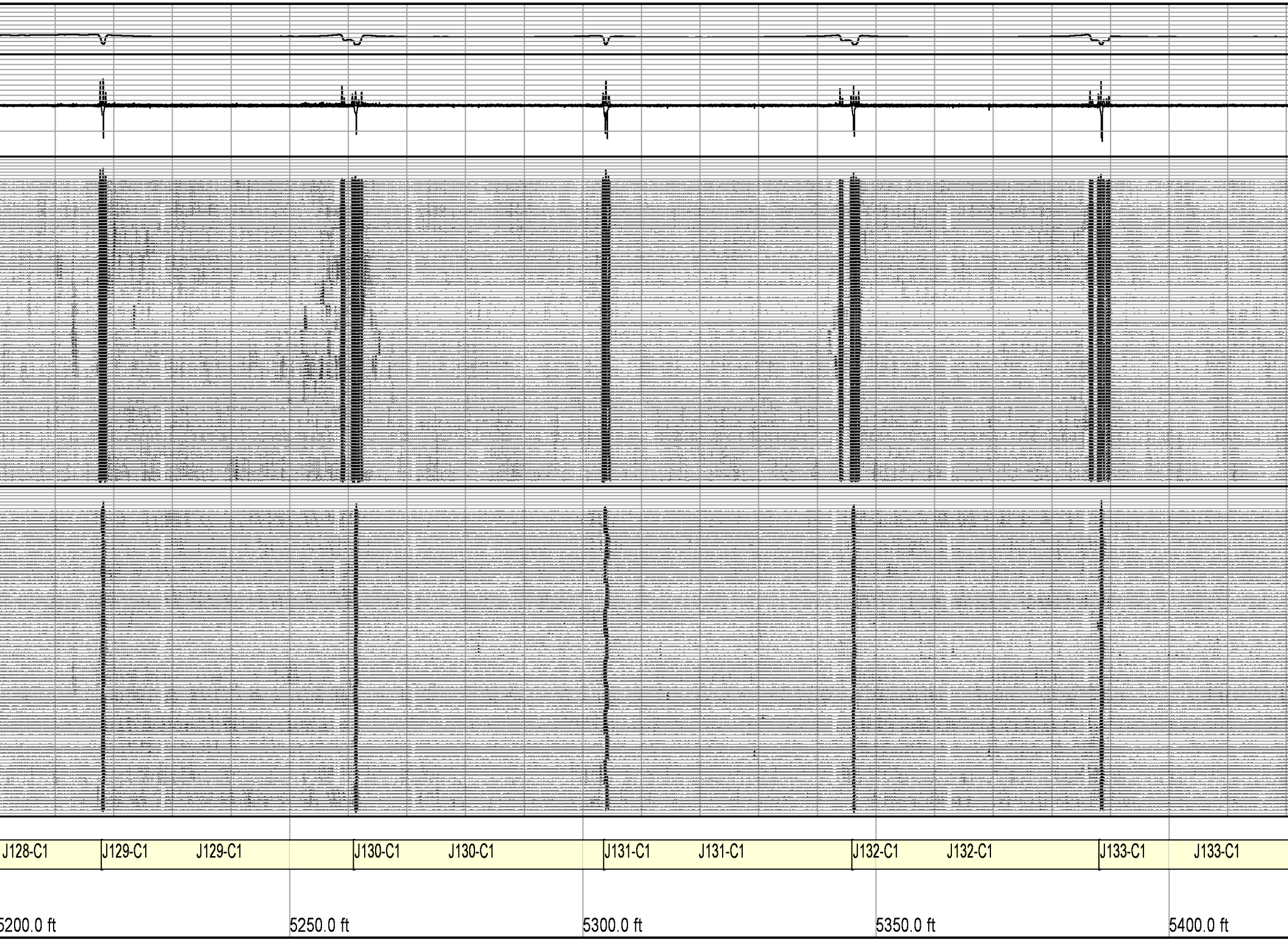

J101-C1
J102-C1
J102-C1
J103-C2
J103-C2
J104-C1
J104-C1
J105-C1
J105-C1
J106-C1
J106-C1
100.0 ft
4150.0 ft
4200.0 ft
4250.0 ft
4300.0 ft


J107-C1
J107-C1
J108-C1
J108-C1
J109-C1
J109-C1
J110-C1
J110-C1
J111-C1
J111-C1
4350.0 ft
4400.0 ft
4450.0 ft
4500.0 ft


J112-C1
J113-C1
J113-C1
J114-C1
J114-C1
J115-C1
J115-C1
J116-C1
J116-C1
J117-C1
4550.0 ft
4600.0 ft
4650.0 ft
4700.0 ft
4750.0 ft


J117-C1
J118-C1
J118-C1
J119-C1
J119-C1
J120-C1
J120-C1
J121-C1
J121-C1
J122-C1
J122-C1
4800.0 ft
4850.0 ft
4900.0 ft
4950.0 ft


J123-C1
J123-C1
J124-C1
J124-C1
J125-C1
J125-C1
J126-C1
J126-C1
J127-C1
J127-C1
J128-C1
5000.0 ft
5050.0 ft
5100.0 ft
5150.0 ft


J128-C1
J129-C1
J129-C1
J130-C1
J130-C1
J131-C1
J131-C1
J132-C1
J132-C1
J133-C1
J133-C1
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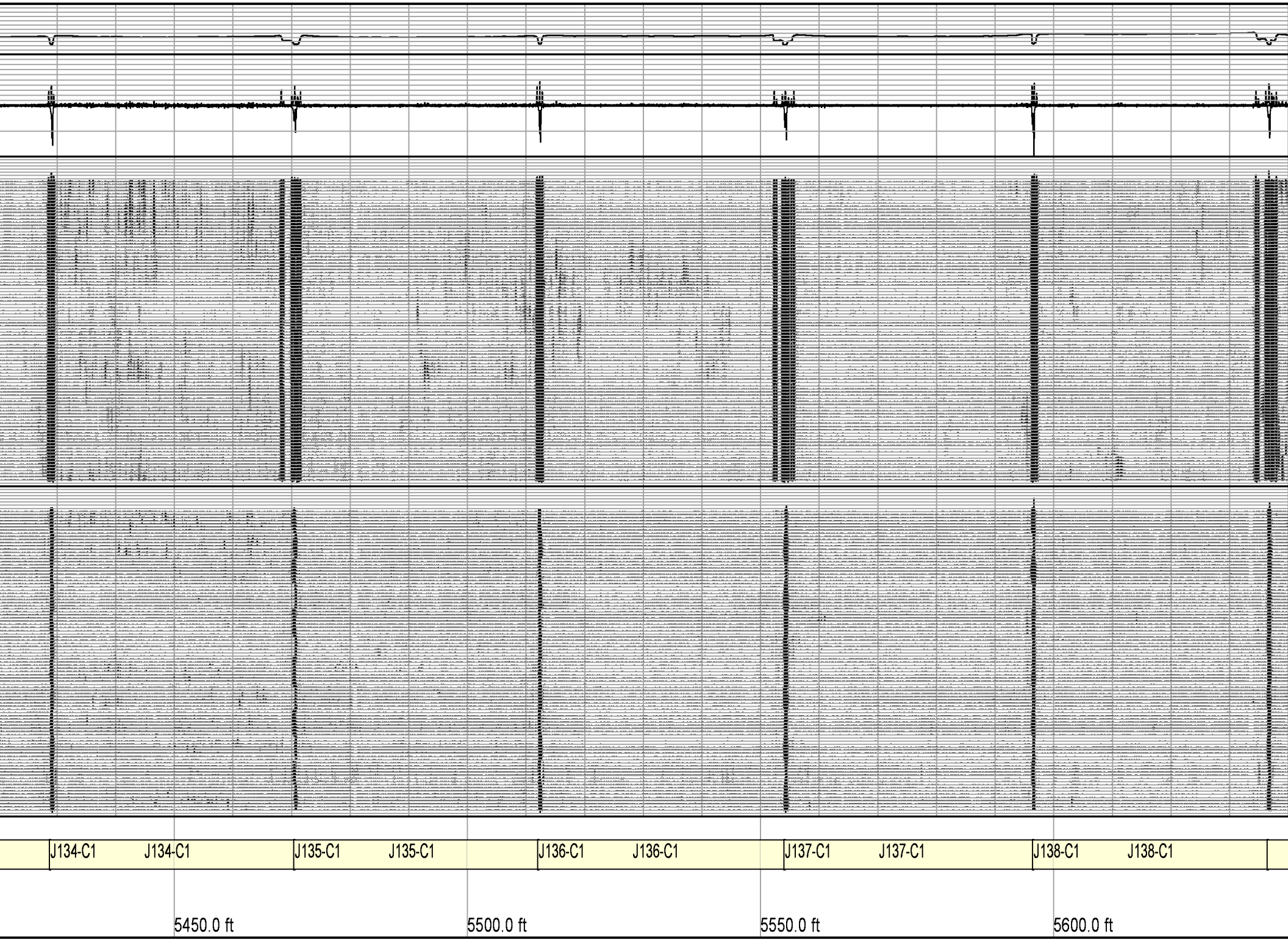
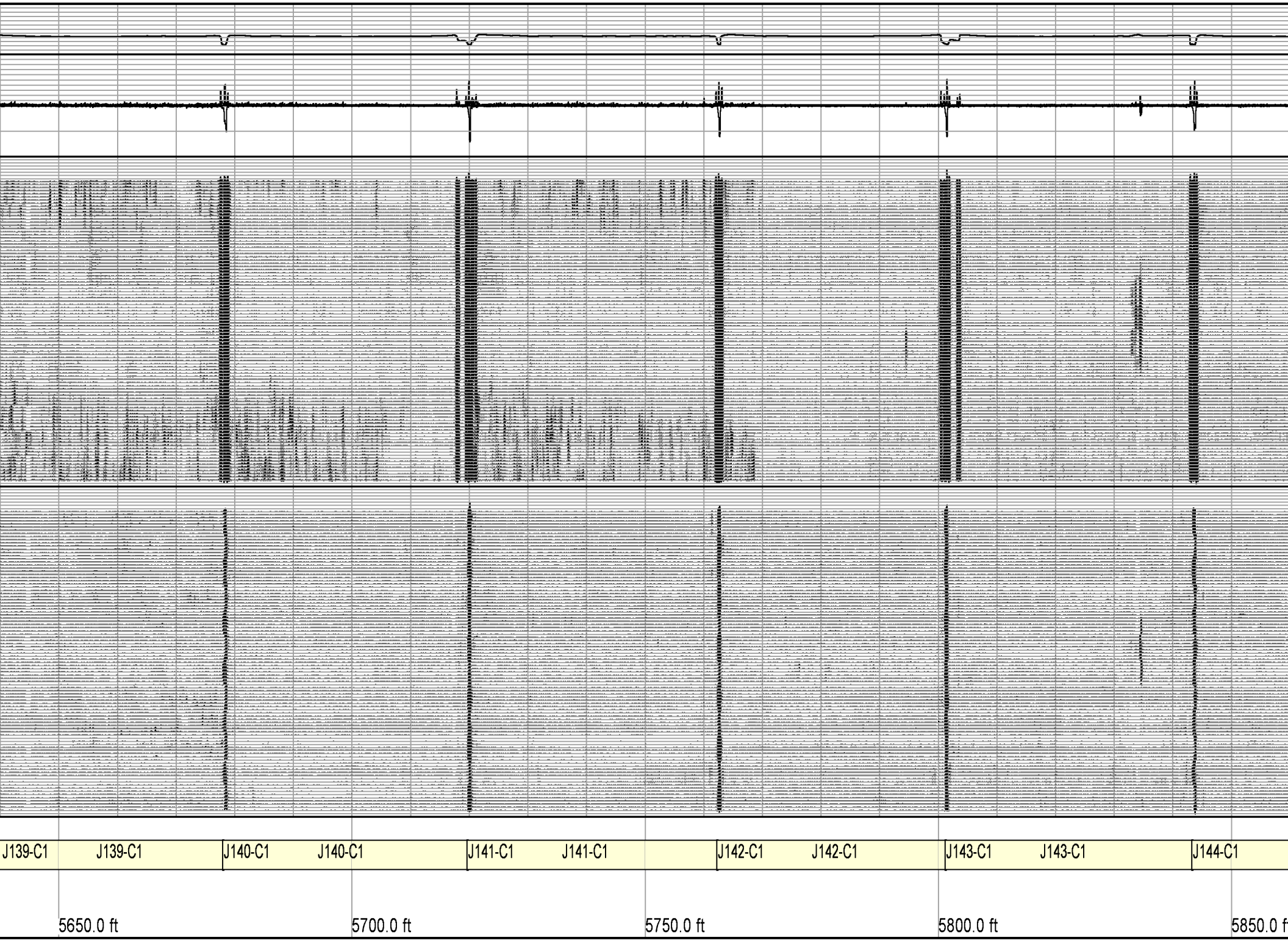
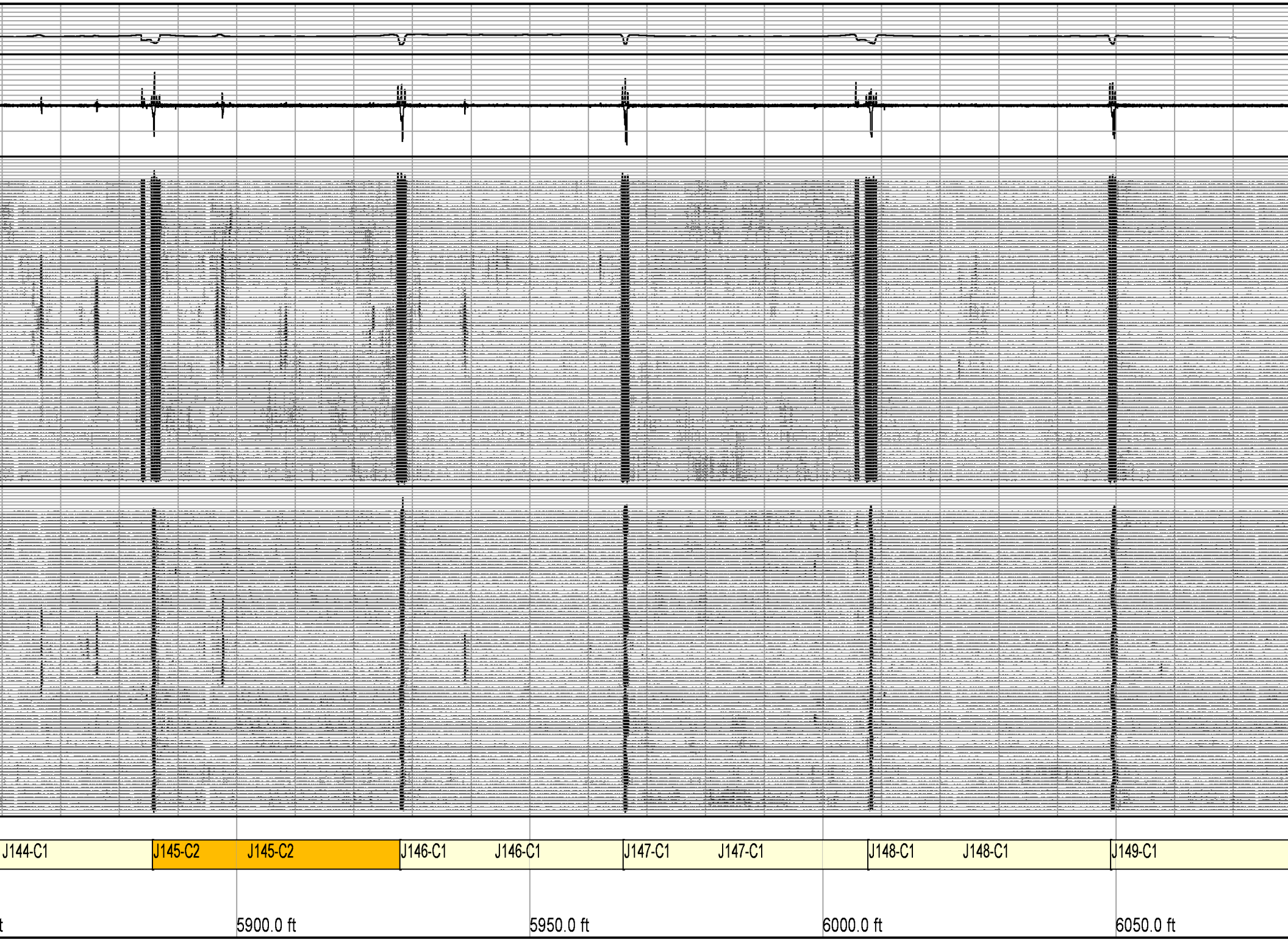
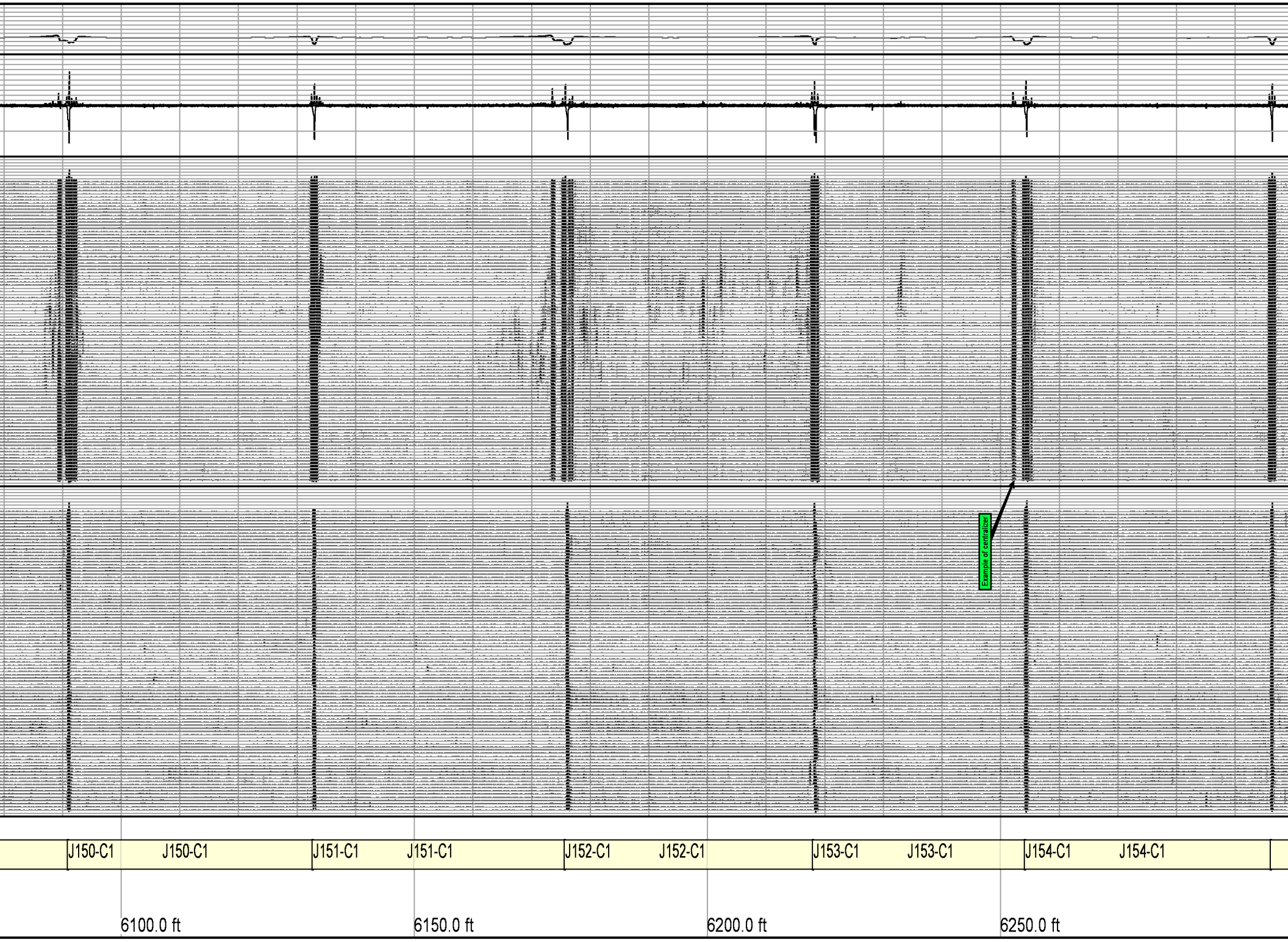
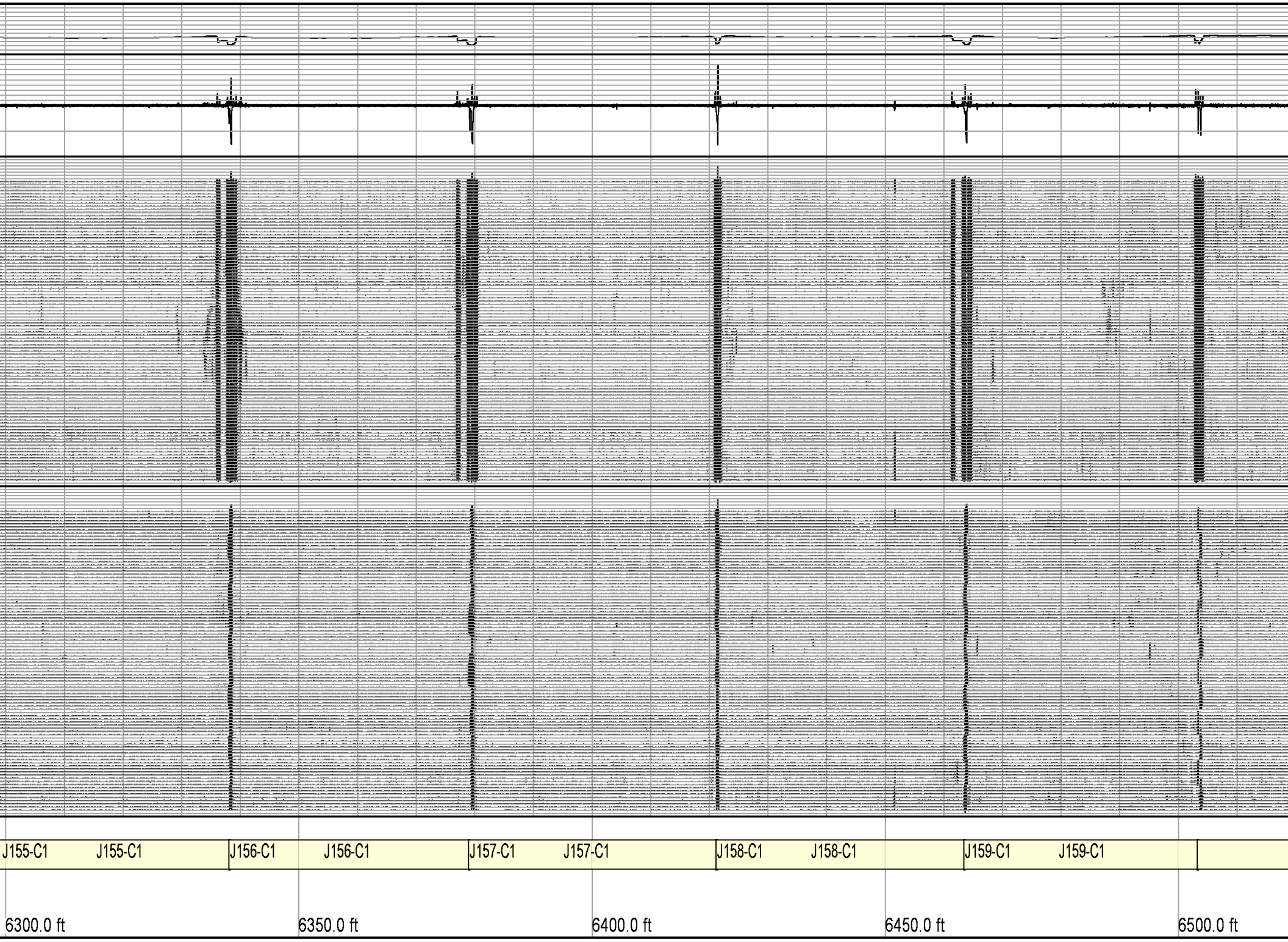
5300.0 ft
5350.0 ft
5400.0 ft

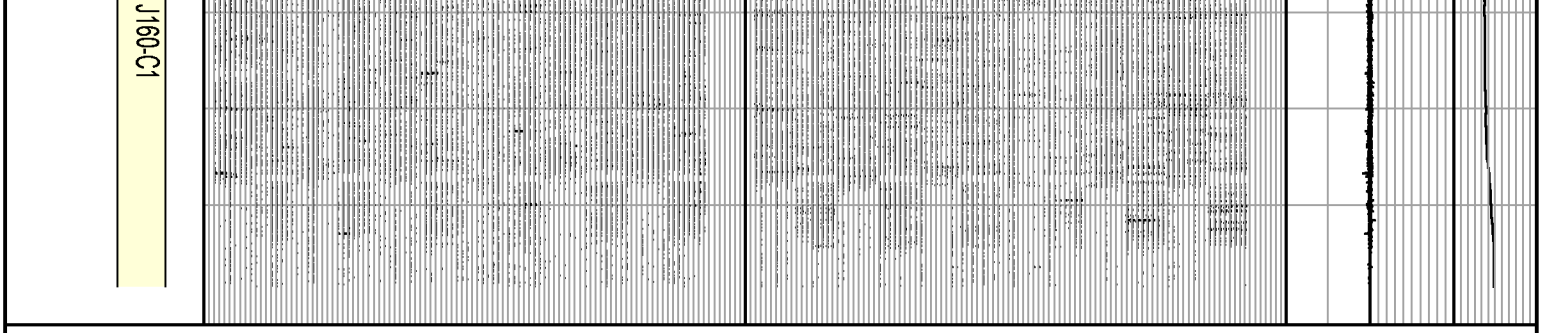

J134-C1
J134-C1
J135-C1
J135-C1
J136-C1
J136-C1
J137-C1
J137-C1
J138-C1
J138-C1
5450.0 ft
5500.0 ft
5550.0 ft
5600.0 ft


J139-C1
J139-C1
J140-C1
J140-C1
J141-C1
J141-C1
J142-C1
J142-C1
J143-C1
J143-C1
J144-C1
5650.0 ft
5700.0 ft
5750.0 ft
5800.0 ft
5850.0 f


J144-C1
J145-C2
J145-C2
J146-C1
J146-C1
J147-C1
J147-C1
J148-C1
J148-C1
J149-C1
t
5900.0 ft
5950.0 ft
6000.0 ft
6050.0 ft


Example of centralizer
J150-C1
J150-C1
J151-C1
J151-C1
J152-C1
J152-C1
J153-C1
J153-C1
J154-C1
J154-C1
6100.0 ft
6150.0 ft
6200.0 ft
6250.0 ft


J155-C1
J155-C1
J156-C1
J156-C1
J157-C1
J157-C1
J158-C1
J158-C1
J159-C1
J159-C1
6300.0 ft
6350.0 ft
6400.0 ft
6450.0 ft
6500.0 ft



Southern California Gas Company Fernando Fee 32A

File 20160401_081654_RSP_0_0_0_0.mvl

Joint Summary

Southern California Gas Company
Aliso Canyon
Fernando Fee 32A

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	9.64	19.84	8.625	0.400	36.0	0			1
JT-2	29.47	42.46	8.625	0.400	36.0	0			1
JT-3	71.93	41.67	8.625	0.400	36.0	0			1
JT-4	113.60	40.85	8.625	0.400	36.0	0			1
JT-5	154.46	41.62	8.625	0.400	36.0	0			1
JT-6	196.08	42.01	8.625	0.400	36.0	0			1
JT-7	238.08	40.62	8.625	0.400	36.0	0			1
JT-8	278.70	41.64	8.625	0.400	36.0	0			1
JT-9	320.35	42.11	8.625	0.400	36.0	0			1
JT-10	362.46	41.58	8.625	0.400	36.0	0			1
JT-11	404.04	41.48	8.625	0.400	36.0	0			1
JT-12	445.52	42.33	8.625	0.400	36.0	0			1
JT-13	487.85	41.16	8.625	0.400	36.0	0			1
JT-14	529.02	40.69	8.625	0.400	36.0	0			1
JT-15	569.70	42.13	8.625	0.400	36.0	0			1
JT-16	611.84	39.93	8.625	0.400	36.0	0			1
JT-17	651.77	41.53	8.625	0.400	36.0	0			1
JT-18	693.30	38.62	8.625	0.400	36.0	0			1
JT-19	731.92	42.93	8.625	0.400	36.0	0			1
JT-20	774.85	42.41	8.625	0.400	36.0	0			1
JT-21	817.26	42.04	8.625	0.400	36.0	0			1
JT-22	859.30	38.72	8.625	0.400	36.0	0			1
JT-23	898.03	43.12	8.625	0.400	36.0	0			1
JT-24	941.15	41.84	8.625	0.400	36.0	40	978.79	5417	3
JT-25	982.99	39.80	8.625	0.400	36.0	40	991.35	5338	3
JT-26	1022.79	40.92	8.625	0.400	36.0	25	1055.72	5858	2
JT-27	1063.71	42.13	8.625	0.400	36.0	39	1104.52	5215	2
JT-28	1105.84	42.21	8.625	0.400	36.0	16	1143.54	5892	1
JT-29	1148.05	41.14	8.625	0.400	36.0	0			1
JT-30	1189.19	42.31	8.625	0.400	36.0	0			1
JT-31	1231.51	43.46	8.625	0.400	36.0	0			1
JT-32	1274.97	39.93	8.625	0.400	36.0	0			1
JT-33	1314.90	40.50	8.625	0.400	36.0	0			1
JT-34	1355.40	41.94	8.625	0.400	36.0	0			1
JT-35	1397.34	40.61	8.625	0.400	36.0	0			1
JT-36	1437.95	41.26	8.625	0.400	36.0	0			1
JT-37	1479.21	41.52	8.625	0.400	36.0	0			1
JT-38	1520.73	41.05	8.625	0.400	36.0	31	1536.38	5817	2
JT-39	1561.78	41.21	8.625	0.400	36.0	0			1
JT-40	1602.99	33.65	8.625	0.400	36.0	0			1
JT-41	1636.64	38.81	8.625	0.400	36.0	16	1649.81	5940	1
JT-42	1675.45	40.94	8.625	0.400	36.0	26	1683.46	5852	2
JT-43	1716.39	37.26	8.625	0.400	36.0	0			1
JT-44	1753.65	34.49	8.625	0.400	36.0	17	1781.87	5926	1
JT-45	1788.14	41.00	8.625	0.400	36.0	0			1
JT-46	1829.14	39.09	8.625	0.400	36.0	0			1
JT-47	1868.23	38.94	8.625	0.400	36.0	0			1
JT-48	1907.17	40.31	8.625	0.400	36.0	0			1
JT-49	1947.48	42.09	8.625	0.400	36.0	0			1
JT-50	1989.57	41.32	8.625	0.400	36.0	31	1999.44	5837	2
JT-51	2030.89	37.26	8.625	0.400	36.0	37	2053.69	5307	2
JT-52	2068.14	43.35	8.625	0.400	36.0	35	2086.02	5673	2

JT-53	2111.49	42.77	8.625	0.400	36.0	35	2126.49	5779	2
JT-54	2154.25	40.35	8.625	0.400	36.0	35	2164.88	5664	2
JT-55	2194.61	41.71	8.625	0.400	36.0	16	2215.23	5962	1
JT-56	2236.32	43.11	8.625	0.400	36.0	16	2253.05	5884	1
JT-57	2279.43	41.08	8.625	0.400	36.0	32	2282.10	5774	2
JT-58	2320.51	42.70	8.625	0.400	36.0	20	2356.23	5942	2
JT-59	2363.21	43.10	8.625	0.400	36.0	19	2372.29	5953	1
JT-60	2406.31	41.89	8.625	0.400	36.0	23	2422.81	5905	2
JT-61	2448.20	41.45	8.625	0.400	36.0	20	2488.70	5906	2
JT-62	2489.64	39.75	8.625	0.400	36.0	26	2490.39	5778	2
JT-63	2529.39	42.27	8.625	0.400	36.0	21	2548.65	5711	2
JT-64	2571.67	41.11	8.625	0.400	36.0	16	2585.43	5954	1
JT-65	2612.78	39.97	8.625	0.400	36.0	24	2621.06	5787	2
JT-66	2652.74	41.23	8.625	0.400	36.0	0			1
JT-67	2693.97	40.89	8.625	0.400	36.0	0			1
JT-68	2734.86	40.98	8.625	0.400	36.0	0			1
JT-69	2775.84	42.10	8.625	0.400	36.0	0			1
JT-70	2817.95	41.19	8.625	0.400	36.0	0			1
JT-71	2859.14	41.86	8.625	0.400	36.0	0			1
JT-72	2901.00	39.75	8.625	0.400	36.0	0			1
JT-73	2940.75	41.57	8.625	0.400	36.0	17	2950.18	5941	1
JT-74	2982.32	38.41	8.625	0.400	36.0	0			1
JT-75	3020.73	41.26	8.625	0.400	36.0	0			1
JT-76	3061.99	41.03	8.625	0.400	36.0	0			1
JT-77	3103.02	41.35	8.625	0.400	36.0	0			1
JT-78	3144.38	39.74	8.625	0.400	36.0	0			1
JT-79	3184.11	41.86	8.625	0.400	36.0	0			1
JT-80	3225.97	39.05	8.625	0.400	36.0	0			1
JT-81	3265.02	39.67	8.625	0.400	36.0	0			1
JT-82	3304.69	40.45	8.625	0.400	36.0	0			1
JT-83	3345.13	38.39	8.625	0.400	36.0	0			1
JT-84	3383.52	40.62	8.625	0.400	36.0	0			1
JT-85	3424.15	40.55	8.625	0.400	36.0	0			1
JT-86	3464.69	39.84	8.625	0.400	36.0	22	3469.95	8071	2
JT-87	3504.53	42.32	8.625	0.400	36.0	15	3535.52	8306	1
JT-88	3546.85	39.28	8.625	0.400	36.0	15	3573.96	8242	1
JT-89	3586.13	41.86	8.625	0.400	36.0	0			1
JT-90	3627.99	39.81	8.625	0.400	36.0	0			1
JT-91	3667.80	40.76	8.625	0.400	36.0	0			1
JT-92	3708.57	41.78	8.625	0.400	36.0	0			1
JT-93	3750.35	41.83	8.625	0.400	36.0	0			1
JT-94	3792.18	41.16	8.625	0.400	36.0	0			1
JT-95	3833.34	39.63	8.625	0.400	36.0	18	3837.46	8260	1
JT-96	3872.97	40.59	8.625	0.400	36.0	0			1
JT-97	3913.56	41.83	8.625	0.400	36.0	21	3936.31	8196	2
JT-98	3955.39	42.03	8.625	0.400	36.0	0			1
JT-99	3997.42	41.05	8.625	0.400	36.0	16	4033.84	8257	1
JT-100	4038.47	40.68	8.625	0.400	36.0	0			1
JT-101	4079.15	42.48	8.625	0.400	36.0	0			1
JT-102	4121.63	38.94	8.625	0.400	36.0	16	4154.66	8212	1
JT-103	4160.56	41.77	8.625	0.400	36.0	23	4167.29	8203	2
JT-104	4202.34	42.01	8.625	0.400	36.0	0			1
JT-105	4244.34	40.38	8.625	0.400	36.0	17	4277.83	8186	1
JT-106	4284.72	40.49	8.625	0.400	36.0	16	4302.96	8128	1
JT-107	4325.22	41.56	8.625	0.400	36.0	0			1
JT-108	4366.78	38.69	8.625	0.400	36.0	17	4376.53	8265	1
JT-109	4405.47	39.46	8.625	0.400	36.0	0			1
JT-110	4444.93	42.26	8.625	0.400	36.0	0			1
JT-111	4487.19	40.83	8.625	0.400	36.0	0			1
JT-112	4528.02	39.75	8.625	0.400	36.0	0			1
JT-113	4567.77	41.70	8.625	0.400	36.0	0			1
JT-114	4609.47	43.07	8.625	0.400	36.0	0			1
JT-115	4652.54	42.74	8.625	0.400	36.0	0			1
JT-116	4695.28	41.15	8.625	0.400	36.0	0			1
JT-117	4736.43	42.29	8.625	0.400	36.0	17	4753.47	8284	1
JT-118	4778.72	38.92	8.625	0.400	36.0	16	4781.67	8289	1
JT-119	4817.64	37.52	8.625	0.400	36.0	15	4833.97	8242	1
JT-120	4855.15	36.46	8.625	0.400	36.0	0			1
JT-121	4891.61	41.84	8.625	0.400	36.0	0			1
JT-122	4933.45	42.08	8.625	0.400	36.0	0			1
JT-123	4975.53	39.64	8.625	0.400	36.0	0			1
JT-124	5015.17	40.63	8.625	0.400	36.0	0			1
JT-125	5055.80	41.46	8.625	0.400	36.0	0			1
JT-126	5097.27	37.45	8.625	0.400	36.0	0			1
JT-127	5134.72	41.26	8.625	0.400	36.0	0			1
JT-128	5175.98	41.99	8.625	0.400	36.0	0			1
JT-129	5217.97	43.03	8.625	0.400	36.0	0			1
JT-130	5261.00	42.70	8.625	0.400	36.0	0			1
JT-131	5303.70	42.33	8.625	0.400	36.0	0			1
JT-132	5346.03	42.15	8.625	0.400	36.0	0			1
JT-133	5388.18	40.63	8.625	0.400	36.0	0			1

JT-133	5388.18	40.83	8.625	0.400	36.0	0			1
JT-134	5428.82	41.65	8.625	0.400	36.0	0			1
JT-135	5470.47	41.66	8.625	0.400	36.0	0			1
JT-136	5512.13	41.97	8.625	0.400	36.0	0			1
JT-137	5554.10	42.41	8.625	0.400	36.0	0			1
JT-138	5596.51	40.02	8.625	0.400	36.0	0			1
JT-139	5636.53	41.55	8.625	0.400	36.0	0			1
JT-140	5678.08	41.68	8.625	0.400	36.0	0			1
JT-141	5719.76	42.58	8.625	0.400	36.0	0			1
JT-142	5762.33	38.94	8.625	0.400	36.0	0			1
JT-143	5801.27	42.10	8.625	0.400	36.0	15	5834.30	8251	1
JT-144	5843.37	42.37	8.625	0.400	36.0	0			1
JT-145	5885.74	42.21	8.625	0.400	36.0	21	5897.41	8082	2
JT-146	5927.95	38.13	8.625	0.400	36.0	0			1
JT-147	5966.08	41.72	8.625	0.400	36.0	0			1
JT-148	6007.80	41.41	8.625	0.400	36.0	0			1
JT-149	6049.20	41.76	8.625	0.400	36.0	0			1
JT-150	6090.96	41.72	8.625	0.400	36.0	0			1
JT-151	6132.68	43.02	8.625	0.400	36.0	0			1
JT-152	6175.70	42.34	8.625	0.400	36.0	0			1
JT-153	6218.05	36.14	8.625	0.400	36.0	0			1
JT-154	6254.19	41.89	8.625	0.400	36.0	0			1
JT-155	6296.08	42.13	8.625	0.400	36.0	0			1
JT-156	6338.21	40.88	8.625	0.400	36.0	0			1
JT-157	6379.09	42.18	8.625	0.400	36.0	0			1
JT-158	6421.27	42.29	8.625	0.400	36.0	0			1
JT-159	6463.56	39.82	8.625	0.400	36.0	0			1
JT-160	6503.38	28.98	8.625	0.400	36.0	0			1