

Cementers Well Information Sheet

Well Name: Huron 3N (Well 3 Of 5)

AFE#: DC003481

API#: 05-123-49583

Surface Casing Set At: 1,689'

Formation: Niobrara

Estimated TD: 13,643'

Estimated TVD at TD: 6,636'

Top Of Lead Cement: 500'

Top Of Tail Cement: 5,890'

Production Casing Type: 5 ½" BTC #20

***** Please Note: TD and TVD are based off drilling plan and has the possibility of changing. Any significant changes in depths will be communicated to Cement Company*****



US Treatment Report

Customer: PDC Energy
Rep: Jeremy Stoltz
Supervisor: Travis Tolman
Job Type: US Primary
 Casing-Production

Rig: Ensign 142
Well: Huron 3N
UWI: Huron 3N
Surface:

Job #: JOB00096223
Job Date: Mar 01 @ 00:00
Time Requested: Feb 27 @ 12:00
Time Arrived: Feb 27 @ 19:30
Time Released: Feb 28 @ 08:15

Scavenger

62.82 sk MAG EV 12.9 + 0.30% MCR-3 + 0.20% MCR-1 + 0.70% MCFL-7 + 1.00% MCA-4 + 0.50% MCGC-1 + 0.20% MCDF-P
 Weight: 12.5lb/gal

Yield: 1.7 ft3/sk = 19bbls Mix Water: 8.98 gal/sk = 564.02 gal

838.5 sk MAG EV 12.9 + 0.30% MCR-3 + 0.20% MCR-1 + 0.70% MCFL-7 + 1.00% MCA-4 + 0.50% MCGC-1 + 0.20% MCDF-P

Yield: 1.53 ft3/sk = 228.48bbls Mix Water: 7.72 gal/sk = 6473.07gal

1318.8 sk MAG EV 13.7 + 0.50% MCA-2 + 0.80% MCFL-7 + 0.30% MCFR-2 + 0.35% MCR-H + 0.30% MCI-2 + 0.50% MCFW-1 + 0.50% MCGC-1 + 0.20% MCDF-P

Yield: 1.35ft3/sack = 317.09bbls Mix Water: 6.40gal/sack = 8440.32gal

BHCT (F)	215	BHST (F)	215	Collapse Csg Pressure (psi)	6648
Float Depth (ft)	13609	Funnel Vis (sec/qt)	44	Hole Size (in)	
Max Csg Pressure (psi)	7584	Max Pressure (psi)	3500	Mud Density (lb/gal)	10.5
Mud Type	OBM	Plug Size (in)	5.5	Plug Type	Rig
TMD (ft)	13642	TVD (ft)	6639		Supplie d

Treatment Info: Sacks Used: 0 Sacks Not Used: 0

Preflush: 5bbls Fresh Water & 38bbls MAG Sweep-H + MAG Clean-1 & 19bbls MAG Sweep -H	Circulation Time: 4 Slurry Temp: 73 Bulk Sample: Yes
Displace: 10bbls Sugar Water & 291.8bbls Fresh Water	Water Temp: 64 Water Sample: Yes Bulk Temp: 68 Slurry Sample: Yes
	Air Temp: 21 Air Pressure 30.2 9
	Slurry Returns: Plug Bumped: Yes Pump Out Lines: Yes Float Held: Yes Cement Class: Type III Humidity: 58 Precipitation: 1

Time	Pressure psi	Annular Pressure psi	Volume Per Stage bbls	Total Stage Volume bbls	Rate bbls/mi n	Treatment Detail
19:30	0.00					Arrive on Location - Met with company man to discuss numbers and safety, O/L time of 19:30.
02:10	0.00					Safety Meeting - Held safety meeting with company man, rig hands and crew to discuss job and safety.
02:31	0.00					Drop Plug - Drop 1st Bottom plug. Witnessed by Company man.

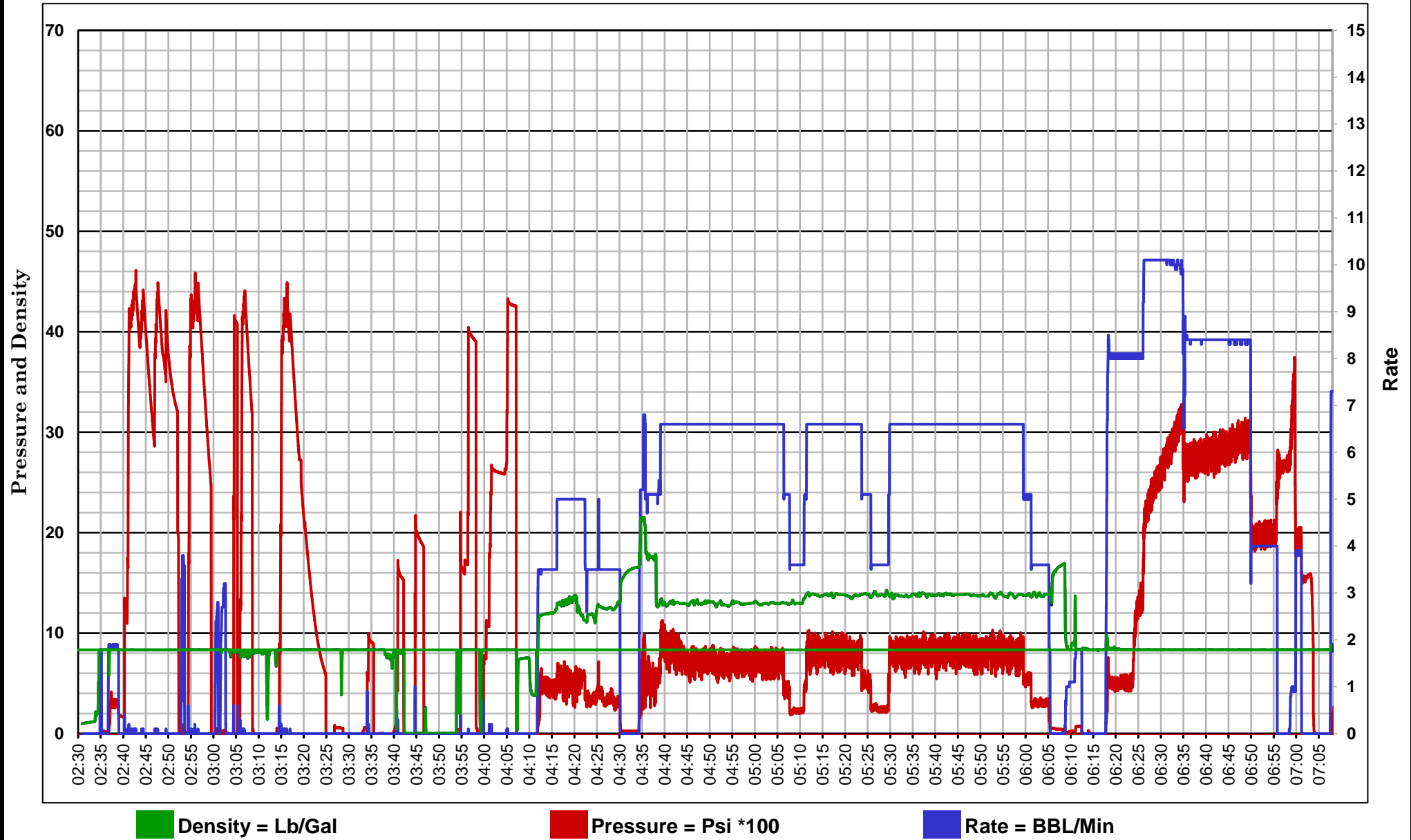
02:32	368.00		5	2	Fill Lines - Load pump and line with fresh water
02:50	0.00				NPT Start Magnum - Valves on stand pipe were leaking by, tried to change valves and grease valves, was able to get pressure test.
03:55	0.00				NPT End Magnum
03:57	4,500.00				Start Pressure Test - Pressure test pump and lines with fresh water
04:08	613.00		38	5	Pump Preflush - Pump 38 bbls of MAG Sweep H + MAG Clean 1 at 11.5#
04:17	470.00		19	5	Pump Preflush - Pumpe 19 bbls of MAG Sweep H at 12#
04:22	296.00		19	3.5	Pump Scavenger - Pumped 63.5 sacks/19bbls of Scavenger at 12.5# - 1.68Y
04:31	0.00				Drop Plug - Drop 2nd Bottom plug. Witnessed by Company man.
04:32	690.00		228.2	7	Pump Slurry - Pump 838.5 sacks/ 228.2 bbls of Lead at 12.9# - 1.53Y, 7.72 gps. Top of Lead est. at 501'.
05:08	800.00		317	7	Pump Slurry - Pump 1318.8 sacks/ 317 bbls of Tail at 13.7# 1.35Y, 6.4 gps. Top of Tail est. at 5887'.
06:02	0.00				Stop Pumping
06:07	0.00				Pump Out Treating Lines
06:14	0.00				Drop Plug - Drop Top plug. Witedsed by Company man.
06:15	3,200.00		160	10	Displace - Calculated displacement 301.8 bbls. 1st 10 bbls with sugar, rest with Bio-cide.
06:33	3,000.00		120	8.5	Decrease Rate - Slow rate for high pressure
06:47	2,200.00		22	4	Decrease Rate - Slow rate to land plug.
06:53	2,700.00		302		Bump Plug - Landed Plug. Actual displacement 302 bbl, got 50 bbls of spacer to surface.
06:55	3,762.00		1	1	Pressure up to shift tool
06:57	2,111.00		5	4	Displace - Pump Wet shoe
07:02	0.00				Check Floats - Floats held, got 3 bbls bacck.
07:05	0.00				Wash Up Truck
07:20	0.00				Rig Out
08:15	0.00				Leave Location



Customer: PDC Energy
Date: Feb 28 2021
Ticket: 96223

Well Name: Huron 3N
UWI: Huron 3N
Job Type: Production

Unit
1605



Density = Lb/Gal

Pressure = Psi * 100

Rate = BBL/Min

5.5" Casing

WELL	HURON 3N	DATE: 2/27/2021							
DEPTH (Ft)	13642.00	K.B. to Wellhead		28.00	Rat Hole	3.00	20.00		
SHOE (Ft)	13639.00	0.0293	Accumulated	0.02220	Mud Wt.	10.6	0.83816794		
Rack#	Description	Closed End Displacement (Bbls)	Capacity (Bbls)	Length (Ft)	Length Accum. (FT)	Top To RT (Ft)	Weight (k#)	Comments	
	<i>Float Shoe</i>	0.056842	0.04	1.94	1.94	13637.06	0.03	<i>10K SINGLE VALVE FLOAT SHOE</i>	
	<i>Pup Joint</i>	0.353065	0.27	10.11	12.05	13626.95	0.20	<i>5.500" 20# PUP JOINT</i>	
	<i>Float Collar #1</i>	0.397601	0.30	1.52	13.57	13625.43	0.23	<i>10K SINGLE VALVE FLOAT COLLAR</i>	
	<i>Float Collar #2</i>	0.442723	0.34	1.54	15.11	13623.89	0.25	<i>10K SINGLE VALVE FLOAT COLLAR</i>	
	<i>Pup Joint</i>	0.734551	0.56	9.96	25.07	13613.93	0.42	<i>5.500" 20# PUP JOINT</i>	
	<i>Wet Shoe Sub</i>	0.862299	0.65	4.36	29.43	13609.57	0.49	<i>WET SHOE PINNED@1660 PSI</i>	
	<i>Pup Joint</i>	1.011729	0.77	5.10	34.53	13604.47	0.58	<i>5.500" 20# PUP JOINT</i>	
	<i>Ball Seat Sub</i>	1.032532	0.78	0.71	35.24	13603.76	0.59	<i>CASING TEST SUB 4.250" BALL SEAT</i>	
1	<i>Casing Joints</i>	2.42311	1.84	47.46	82.70	13556.30	1.39	<i>1 8.25" COMPOSITE</i>	
2	<i>Casing Joints</i>	3.776184	2.86	46.18	128.88	13510.12	2.16		
3	<i>Casing Joints</i>	5.165883	3.91	47.43	176.31	13462.69	2.96	<i>2 8.25" COMPOSITE</i>	
4	<i>Casing Joints</i>	6.463873	4.90	44.30	220.61	13418.39	3.70		
5	<i>Casing Joints</i>	7.73813	5.86	43.49	264.10	13374.90	4.43	<i>3 8.25" COMPOSITE</i>	
6	<i>Casing Joints</i>	9.128122	6.92	47.44	311.54	13327.46	5.22		
7	<i>Casing Joints</i>	10.514598	7.97	47.32	358.86	13280.14	6.02	<i>4 8.25" COMPOSITE</i>	
8	<i>Casing Joints</i>	11.90459	9.02	47.44	406.30	13232.70	6.81		
9	<i>Casing Joints</i>	13.254441	10.04	46.07	452.37	13186.63	7.58	<i>5 8.25" COMPOSITE</i>	
10	<i>Casing Joints</i>	14.597846	11.06	45.85	498.22	13140.78	8.35		
	Marker Joint C	15.301632	11.59	24.02	522.24	13116.76	8.75	6 8.25" COMPOSITE	
11	<i>Casing Joints</i>	16.691917	12.65	47.45	569.69	13069.31	9.55		
12	<i>Casing Joints</i>	18.081909	13.70	47.44	617.13	13021.87	10.35	<i>7 8.25" COMPOSITE</i>	
13	<i>Casing Joints</i>	19.476296	14.76	47.59	664.72	12974.28	11.14		
14	<i>Casing Joints</i>	20.865116	15.81	47.40	712.12	12926.88	11.94	<i>8 8.25" COMPOSITE</i>	
15	<i>Casing Joints</i>	22.242216	16.85	47.00	759.12	12879.88	12.73		
16	<i>Casing Joints</i>	23.632501	17.91	47.45	806.57	12832.43	13.52	<i>9 8.25" COMPOSITE</i>	
17	<i>Casing Joints</i>	25.021907	18.96	47.42	853.99	12785.01	14.32		
18	<i>Casing Joints</i>	26.232876	19.88	41.33	895.32	12743.68	15.01	<i>10 8.25" COMPOSITE</i>	
19	<i>Casing Joints</i>	27.500101	20.84	43.25	938.57	12700.43	15.73		
20	<i>Casing Joints</i>	28.889507	21.89	47.42	985.99	12653.01	16.53	<i>11 8.25" COMPOSITE</i>	
21	<i>Casing Joints</i>	30.263091	22.93	46.88	1032.87	12606.13	17.31		
22	<i>Casing Joints</i>	31.517131	23.88	42.80	1075.67	12563.33	18.03	<i>12 8.25" COMPOSITE</i>	
23	<i>Casing Joints</i>	32.894231	24.92	47.00	1122.67	12516.33	18.82		
24	<i>Casing Joints</i>	34.276019	25.97	47.16	1169.83	12469.17	19.61	<i>13 8.25" COMPOSITE</i>	
25	<i>Casing Joints</i>	35.660444	27.02	47.25	1217.08	12421.92	20.40		
26	<i>Casing Joints</i>	37.050436	28.07	47.44	1264.52	12374.48	21.20	<i>14 8.25" COMPOSITE</i>	
27	<i>Casing Joints</i>	38.397064	29.09	45.96	1310.48	12328.52	21.97		
28	<i>Casing Joints</i>	39.786763	30.15	47.43	1357.91	12281.09	22.76	<i>15 8.25" COMPOSITE</i>	
29	<i>Casing Joints</i>	41.177048	31.20	47.45	1405.36	12233.64	23.56		
30	<i>Casing Joints</i>	42.568212	32.25	47.48	1452.84	12186.16	24.35	<i>16 8.25" COMPOSITE</i>	
31	<i>Casing Joints</i>	43.942382	33.29	46.90	1499.74	12139.26	25.14		
32	<i>Casing Joints</i>	45.120828	34.19	40.22	1539.96	12099.04	25.81	<i>17 8.25" COMPOSITE</i>	
33	<i>Casing Joints</i>	46.496463	35.23	46.95	1586.91	12052.09	26.60		
34	<i>Casing Joints</i>	47.890557	36.29	47.58	1634.49	12004.51	27.40	<i>18 8.25" COMPOSITE</i>	
35	<i>Casing Joints</i>	49.280256	37.34	47.43	1681.92	11957.08	28.19		
36	<i>Casing Joints</i>	50.509098	38.27	41.94	1723.86	11915.14	28.90	<i>19 8.25" COMPOSITE</i>	
37	<i>Casing Joints</i>	51.782183	39.23	43.45	1767.31	11871.69	29.63		
38	<i>Casing Joints</i>	53.045013	40.19	43.10	1810.41	11828.59	30.35	<i>20 8.25" COMPOSITE</i>	
39	<i>Casing Joints</i>	54.340659	41.17	44.22	1854.63	11784.37	31.09		
40	<i>Casing Joints</i>	55.597043	42.12	42.88	1897.51	11741.49	31.81	<i>21 8.25" COMPOSITE</i>	
41	<i>Casing Joints</i>	56.902651	43.11	44.56	1942.07	11696.93	32.56		
42	<i>Casing Joints</i>	58.197125	44.09	44.18	1986.25	11652.75	33.30	<i>22 8.25" COMPOSITE</i>	
43	<i>Casing Joints</i>	59.563384	45.13	46.63	2032.88	11606.12	34.08		
44	<i>Casing Joints</i>	60.954548	46.18	47.48	2080.36	11558.64	34.87	<i>23 8.25" COMPOSITE</i>	
45	<i>Casing Joints</i>	62.328718	47.23	46.90	2127.26	11511.74	35.66		
46	<i>Casing Joints</i>	63.68941	48.26	46.44	2173.70	11465.30	36.44	<i>24 8.25" COMPOSITE</i>	

47	Casing Joints		65.082918	49.31	47.56	2221.26	11417.74	37.24	
48	Casing Joints		66.473203	50.37	47.45	2268.71	11370.29	38.03	25 8.25" COMPOSITE
49	Casing Joints		67.863488	51.42	47.45	2316.16	11322.84	38.83	
50	Casing Joints		69.212753	52.44	46.05	2362.21	11276.79	39.60	26 8.25" COMPOSITE
51	Casing Joints		70.603038	53.49	47.45	2409.66	11229.34	40.39	
52	Casing Joints		71.952303	54.52	46.05	2455.71	11183.29	41.17	27 8.25" COMPOSITE
53	Casing Joints		73.302154	55.54	46.07	2501.78	11137.22	41.94	
54	Casing Joints		74.655814	56.57	46.20	2547.98	11091.02	42.71	28 8.25" COMPOSITE
55	Casing Joints		76.016213	57.60	46.43	2594.41	11044.59	43.49	
56	Casing Joints		77.399173	58.64	47.20	2641.61	10997.39	44.28	29 8.25" COMPOSITE
57	Casing Joints		78.789458	59.70	47.45	2689.06	10949.94	45.08	
58	Casing Joints		80.179157	60.75	47.43	2736.49	10902.51	45.87	30 8.25" COMPOSITE
59	Casing Joints		81.494141	61.75	44.88	2781.37	10857.63	46.63	
60	Casing Joints		82.85454	62.78	46.43	2827.80	10811.20	47.40	31 8.25" COMPOSITE
61	Casing Joints		84.173919	63.78	45.03	2872.83	10766.17	48.16	
62	Casing Joints		85.489489	64.77	44.90	2917.73	10721.27	48.91	32 8.25" COMPOSITE
63	Casing Joints		86.879481	65.83	47.44	2965.17	10673.83	49.71	
64	Casing Joints		88.099533	66.75	41.64	3006.81	10632.19	50.40	33 8.25" COMPOSITE
65	Casing Joints		89.457588	67.78	46.35	3053.16	10585.84	51.18	
66	Casing Joints		90.84758	68.83	47.44	3100.60	10538.40	51.98	34 8.25" COMPOSITE
67	Casing Joints		92.223215	69.88	46.95	3147.55	10491.45	52.76	
	Marker Joint D		92.908835	70.40	23.40	3170.95	10468.05	53.16	35 8.25" COMPOSITE
68	Casing Joints		94.2874	71.44	47.05	3218.00	10421.00	53.94	
69	Casing Joints		95.637544	72.46	46.08	3264.08	10374.92	54.72	36 8.25" COMPOSITE
70	Casing Joints		97.031638	73.52	47.58	3311.66	10327.34	55.51	
71	Casing Joints		98.411082	74.56	47.08	3358.74	10280.26	56.30	37 8.25" COMPOSITE
72	Casing Joints		99.743646	75.57	45.48	3404.22	10234.78	57.07	
73	Casing Joints		101.133931	76.63	47.45	3451.67	10187.33	57.86	38 8.25" COMPOSITE
74	Casing Joints		102.459756	77.63	45.25	3496.92	10142.08	58.62	
75	Casing Joints		103.834512	78.67	46.92	3543.84	10095.16	59.41	39 8.25" COMPOSITE
76	Casing Joints		105.224797	79.73	47.45	3591.29	10047.71	60.20	
77	Casing Joints		106.582852	80.76	46.35	3637.64	10001.36	60.98	40 8.25" COMPOSITE
78	Casing Joints		107.973137	81.81	47.45	3685.09	9953.91	61.77	
79	Casing Joints		109.336173	82.84	46.52	3731.61	9907.39	62.55	41 8.25" COMPOSITE
80	Casing Joints		110.714738	83.89	47.05	3778.66	9860.34	63.34	
81	Casing Joints		111.992218	84.85	43.60	3822.26	9816.74	64.07	42 8.25" COMPOSITE
82	Casing Joints		113.342362	85.88	46.08	3868.34	9770.66	64.85	
83	Casing Joints		114.731768	86.93	47.42	3915.76	9723.24	65.64	43 8.25" COMPOSITE
84	Casing Joints		116.121174	87.98	47.42	3963.18	9675.82	66.44	
85	Casing Joints		117.483038	89.01	46.48	4009.66	9629.34	67.22	44 8.25" COMPOSITE
86	Casing Joints		118.757588	89.98	43.50	4053.16	9585.84	67.94	
87	Casing Joints		120.111248	91.01	46.20	4099.36	9539.64	68.72	45 8.25" COMPOSITE
88	Casing Joints		121.501533	92.06	47.45	4146.81	9492.19	69.51	
89	Casing Joints		122.855193	93.08	46.20	4193.01	9445.99	70.29	46 8.25" COMPOSITE
90	Casing Joints		124.174279	94.08	45.02	4238.03	9400.97	71.04	
91	Casing Joints		125.564271	95.14	47.44	4285.47	9353.53	71.84	47 8.25" COMPOSITE
92	Casing Joints		126.939027	96.18	46.92	4332.39	9306.61	72.63	
93	Casing Joints		128.329019	97.23	47.44	4379.83	9259.17	73.42	48 8.25" COMPOSITE
94	Casing Joints		129.719304	98.29	47.45	4427.28	9211.72	74.22	
95	Casing Joints		131.042199	99.29	45.15	4472.43	9166.57	74.97	49 8.25" COMPOSITE
96	Casing Joints		132.330227	100.26	43.96	4516.39	9122.61	75.71	
97	Casing Joints		133.721391	101.32	47.48	4563.87	9075.13	76.51	50 8.25" COMPOSITE
98	Casing Joints		135.07886	102.35	46.33	4610.20	9028.80	77.28	
99	Casing Joints		136.40029	103.35	45.10	4655.30	8983.70	78.04	51 8.25" COMPOSITE
100	Casing Joints		137.78911	104.40	47.40	4702.70	8936.30	78.83	
101	Casing Joints		139.179395	105.45	47.45	4750.15	8888.85	79.63	52 8.25" COMPOSITE
102	Casing Joints		140.500825	106.45	45.10	4795.25	8843.75	80.38	
103	Casing Joints		141.863861	107.49	46.52	4841.77	8797.23	81.16	53 8.25" COMPOSITE
104	Casing Joints		143.254439	108.54	47.46	4889.23	8749.77	81.96	
105	Casing Joints		144.645603	109.59	47.48	4936.71	8702.29	82.76	54 8.25" COMPOSITE
106	Casing Joints		146.032958	110.65	47.35	4984.06	8654.94	83.55	
107	Casing Joints		147.38486	111.67	46.14	5030.20	8608.80	84.32	55 8.25" COMPOSITE
108	Casing Joints		148.775145	112.72	47.45	5077.65	8561.35	85.12	
109	Casing Joints		150.16543	113.78	47.45	5125.10	8513.90	85.91	56 8.25" COMPOSITE

110	Casing Joints		151.556594	114.83	47.48	5172.58	8466.42	86.71	
111	Casing Joints		152.90791	115.86	46.12	5218.70	8420.30	87.48	57 8.25" COMPOSITE
112	Casing Joints		154.28501	116.90	47.00	5265.70	8373.30	88.27	
113	Casing Joints		155.604975	117.90	45.05	5310.75	8328.25	89.03	58 8.25" COMPOSITE
114	Casing Joints		156.922889	118.90	44.98	5355.73	8283.27	89.78	
115	Casing Joints		158.244319	119.90	45.10	5400.83	8238.17	90.54	59 8.25" COMPOSITE
116	Casing Joints		159.634018	120.95	47.43	5448.26	8190.74	91.33	
117	Casing Joints		160.934938	121.94	44.40	5492.66	8146.34	92.08	60 8.25" COMPOSITE
118	Casing Joints		162.31028	122.98	46.94	5539.60	8099.40	92.86	
119	Casing Joints		163.620283	123.97	44.71	5584.31	8054.69	93.61	61 8.25" COMPOSITE
120	Casing Joints		164.998555	125.02	47.04	5631.35	8007.65	94.40	
121	Casing Joints		166.376241	126.06	47.02	5678.37	7960.63	95.19	62 8.25" COMPOSITE
122	Casing Joints		167.763303	127.11	47.34	5725.71	7913.29	95.98	
123	Casing Joints		169.119893	128.14	46.30	5772.01	7866.99	96.76	63 8.25" COMPOSITE
124	Casing Joints		170.436342	129.14	44.93	5816.94	7822.06	97.51	
125	Casing Joints		171.790588	130.16	46.22	5863.16	7775.84	98.29	64 8.25" COMPOSITE
126	Casing Joints		173.140146	131.18	46.06	5909.22	7729.78	99.06	
127	Casing Joints		174.528966	132.24	47.40	5956.62	7682.38	99.85	65 8.25" COMPOSITE
128	Casing Joints		175.903136	133.28	46.90	6003.52	7635.48	100.64	
129	Casing Joints		177.277306	134.32	46.90	6050.42	7588.58	101.43	66 8.25" COMPOSITE
130	Casing Joints		178.650304	135.36	46.86	6097.28	7541.72	102.21	
131	Casing Joints		180.003964	136.39	46.20	6143.48	7495.52	102.99	67 8.25" COMPOSITE
132	Casing Joints		181.273533	137.35	43.33	6186.81	7452.19	103.71	
133	Casing Joints		182.632467	138.38	46.38	6233.19	7405.81	104.49	68 8.25" COMPOSITE
134	Casing Joints		183.904966	139.34	43.43	6276.62	7362.38	105.22	
135	Casing Joints		185.29613	140.40	47.48	6324.10	7314.90	106.01	69 8.25" COMPOSITE
136	Casing Joints		186.576833	141.37	43.71	6367.81	7271.19	106.75	
	Marker Joint E		187.27681	141.90	23.89	6391.70	7247.30	107.15	70 8.25" COMPOSITE / EOB@ 7243'
137	Casing Joints		188.550774	142.86	43.48	6435.18	7203.82	107.88	71 8.25" COMPOSITE
138	Casing Joints		189.830598	143.83	43.68	6478.86	7160.14	108.61	72 8.25" COMPOSITE
139	Casing Joints		191.120384	144.81	44.02	6522.88	7116.12	109.35	73 8.25" COMPOSITE
140	Casing Joints		192.400208	145.78	43.68	6566.56	7072.44	110.08	74 8.25" COMPOSITE
141	Casing Joints		193.783168	146.83	47.20	6613.76	7025.24	110.87	75 8.25" COMPOSITE
142	Casing Joints		195.093464	147.82	44.72	6658.48	6980.52	111.62	76 8.25" COMPOSITE
143	Casing Joints		196.367428	148.78	43.48	6701.96	6937.04	112.35	77 8.25" COMPOSITE
144	Casing Joints		197.647838	149.75	43.70	6745.66	6893.34	113.08	78 8.25" COMPOSITE
145	Casing Joints		198.919458	150.72	43.40	6789.06	6849.94	113.81	79 8.25" COMPOSITE
146	Casing Joints		200.210123	151.70	44.05	6833.11	6805.89	114.55	80 8.25" COMPOSITE
147	Casing Joints		201.483501	152.66	43.46	6876.57	6762.43	115.27	81 8.25" COMPOSITE
148	Casing Joints		202.736369	153.61	42.76	6919.33	6719.67	115.99	82 8.25" COMPOSITE
149	Casing Joints		204.008575	154.57	43.42	6962.75	6676.25	116.72	83 8.25" COMPOSITE
150	Casing Joints		205.385675	155.62	47.00	7009.75	6629.25	117.51	84 8.25" COMPOSITE
151	Casing Joints		206.675461	156.59	44.02	7053.77	6585.23	118.24	85 8.25" COMPOSITE
152	Casing Joints		207.955871	157.56	43.70	7097.47	6541.53	118.98	86 8.25" COMPOSITE
153	Casing Joints		209.245071	158.54	44.00	7141.47	6497.53	119.72	87 8.25" COMPOSITE
154	Casing Joints		210.525774	159.51	43.71	7185.18	6453.82	120.45	88 8.25" COMPOSITE
155	Casing Joints		211.796808	160.47	43.38	7228.56	6410.44	121.17	89 8.25" COMPOSITE
156	Casing Joints		213.101244	161.46	44.52	7273.08	6365.92	121.92	90 8.25" COMPOSITE
157	Casing Joints		214.491529	162.52	47.45	7320.53	6318.47	122.72	91 8.25" COMPOSITE
158	Casing Joints		215.772525	163.49	43.72	7364.25	6274.75	123.45	92 8.25" COMPOSITE
159	Casing Joints		217.058795	164.46	43.90	7408.15	6230.85	124.19	93 8.25" COMPOSITE
160	Casing Joints		218.334224	165.43	43.53	7451.68	6187.32	124.92	94 8.25" COMPOSITE
161	Casing Joints		219.665323	166.44	45.43	7497.11	6141.89	125.68	95 8.25" COMPOSITE
162	Casing Joints		221.049748	167.48	47.25	7544.36	6094.64	126.47	96 8.25" COMPOSITE
163	Casing Joints		222.439154	168.54	47.42	7591.78	6047.22	127.26	97 8.25" COMPOSITE
164	Casing Joints		223.781094	169.55	45.80	7637.58	6001.42	128.03	98 8.25" COMPOSITE
165	Casing Joints		225.170793	170.61	47.43	7685.01	5953.99	128.83	99 8.25" COMPOSITE
166	Casing Joints		226.451496	171.58	43.71	7728.72	5910.28	129.56	100 8.25" COMPOSITE
	Marker Joint F		227.154989	172.11	24.01	7752.73	5886.27	129.96	101 8.25" COMPOSITE / KOP@ 5890'
167	Casing Joints		228.432469	173.08	43.60	7796.33	5842.67	130.69	1 8.50" BOW SPRING
168	Casing Joints		229.693248	174.03	43.03	7839.36	5799.64	131.41	2 8.50" BOW SPRING
169	Casing Joints		230.973658	175.00	43.70	7883.06	5755.94	132.15	3 8.50" BOW SPRING
170	Casing Joints		232.267253	175.98	44.15	7927.21	5711.79	132.89	4 8.50" BOW SPRING
171	Casing Joints		233.487598	176.91	41.65	7968.86	5670.14	133.58	5 8.50" BOW SPRING

172	Casing Joints	234.766543	177.88	43.65	8012.51	5626.49	134.32	6 8.50" BOW SPRING
173	Casing Joints	236.055743	178.85	44.00	8056.51	5582.49	135.05	7 8.50" BOW SPRING
174	Casing Joints	237.328535	179.82	43.44	8099.95	5539.05	135.78	8 8.50" BOW SPRING
175	Casing Joints	238.72175	180.87	47.55	8147.50	5491.50	136.58	9 8.50" BOW SPRING
176	Casing Joints	240.001574	181.84	43.68	8191.18	5447.82	137.31	10 8.50" BOW SPRING
177	Casing Joints	241.282863	182.82	43.73	8234.91	5404.09	138.04	11 8.50" BOW SPRING
178	Casing Joints	242.573528	183.79	44.05	8278.96	5360.04	138.78	12 8.50" BOW SPRING
179	Casing Joints	243.849543	184.76	43.55	8322.51	5316.49	139.51	13 8.50" BOW SPRING
180	Casing Joints	245.121163	185.72	43.40	8365.91	5273.09	140.24	14 8.50" BOW SPRING
181	Casing Joints	246.376668	186.67	42.85	8408.76	5230.24	140.96	15 8.50" BOW SPRING
182	Casing Joints	247.641842	187.63	43.18	8451.94	5187.06	141.68	16 8.50" BOW SPRING
183	Casing Joints	249.032127	188.69	47.45	8499.39	5139.61	142.48	17 8.50" BOW SPRING
184	Casing Joints	250.313123	189.66	43.72	8543.11	5095.89	143.21	18 8.50" BOW SPRING
185	Casing Joints	251.592947	190.63	43.68	8586.79	5052.21	143.94	19 8.50" BOW SPRING
186	Casing Joints	252.882147	191.60	44.00	8630.79	5008.21	144.68	20 8.50" BOW SPRING
187	Casing Joints	254.161971	192.57	43.68	8674.47	4964.53	145.41	21 8.50" BOW SPRING
188	Casing Joints	255.442381	193.54	43.70	8718.17	4920.83	146.15	22 8.50" BOW SPRING
189	Casing Joints	256.795455	194.57	46.18	8764.35	4874.65	146.92	23 8.50" BOW SPRING
190	Casing Joints	258.061508	195.53	43.21	8807.56	4831.44	147.64	24 8.50" BOW SPRING
191	Casing Joints	259.451793	196.58	47.45	8855.01	4783.99	148.44	25 8.50" BOW SPRING
192	Casing Joints	260.842078	197.63	47.45	8902.46	4736.54	149.24	26 8.50" BOW SPRING
193	Casing Joints	262.232363	198.69	47.45	8949.91	4689.09	150.03	27 8.50" BOW SPRING
194	Casing Joints	263.513359	199.66	43.72	8993.63	4645.37	150.76	28 8.50" BOW SPRING
195	Casing Joints	264.793769	200.63	43.70	9037.33	4601.67	151.50	29 8.50" BOW SPRING
196	Casing Joints	266.183761	201.68	47.44	9084.77	4554.23	152.29	30 8.50" BOW SPRING
197	Casing Joints	267.574046	202.74	47.45	9132.22	4506.78	153.09	31 8.50" BOW SPRING
198	Casing Joints	268.964331	203.79	47.45	9179.67	4459.33	153.88	32 8.50" BOW SPRING
199	Casing Joints	270.354616	204.84	47.45	9227.12	4411.88	154.68	33 8.50" BOW SPRING
200	Casing Joints	271.744315	205.90	47.43	9274.55	4364.45	155.47	34 8.50" BOW SPRING
201	Casing Joints	273.134307	206.95	47.44	9321.99	4317.01	156.27	35 8.50" BOW SPRING
202	Casing Joints	274.511407	207.99	47.00	9368.99	4270.01	157.06	36 8.50" BOW SPRING
203	Casing Joints	275.901692	209.04	47.45	9416.44	4222.56	157.85	37 8.50" BOW SPRING
204	Casing Joints	277.212574	210.04	44.74	9461.18	4177.82	158.60	38 8.50" BOW SPRING
205	Casing Joints	278.601394	211.09	47.40	9508.58	4130.42	159.40	39 8.50" BOW SPRING
206	Casing Joints	279.991679	212.14	47.45	9556.03	4082.97	160.19	40 8.50" BOW SPRING
207	Casing Joints	281.369365	213.19	47.02	9603.05	4035.95	160.98	41 8.50" BOW SPRING
208	Casing Joints	282.723025	214.21	46.20	9649.25	3989.75	161.75	42 8.50" BOW SPRING
209	Casing Joints	284.080787	215.24	46.34	9695.59	3943.41	162.53	43 8.50" BOW SPRING
210	Casing Joints	285.471365	216.30	47.46	9743.05	3895.95	163.33	44 8.50" BOW SPRING
211	Casing Joints	286.86165	217.35	47.45	9790.50	3848.50	164.12	45 8.50" BOW SPRING
212	Casing Joints	288.251642	218.40	47.44	9837.94	3801.06	164.92	46 8.50" BOW SPRING
213	Casing Joints	289.641634	219.46	47.44	9885.38	3753.62	165.71	47 8.50" BOW SPRING
214	Casing Joints	291.012288	220.49	46.78	9932.16	3706.84	166.50	48 8.50" BOW SPRING
215	Casing Joints	292.388802	221.54	46.98	9979.14	3659.86	167.28	49 8.50" BOW SPRING
216	Casing Joints	293.779087	222.59	47.45	10026.59	3612.41	168.08	50 8.50" BOW SPRING
217	Casing Joints	295.136263	223.62	46.32	10072.91	3566.09	168.86	51 8.50" BOW SPRING
218	Casing Joints	296.434253	224.60	44.30	10117.21	3521.79	169.60	52 8.50" BOW SPRING
219	Casing Joints	297.782053	225.62	46.00	10163.21	3475.79	170.37	53 8.50" BOW SPRING
220	Casing Joints	299.170287	226.68	47.38	10210.59	3428.41	171.16	54 8.50" BOW SPRING
221	Casing Joints	300.540941	227.71	46.78	10257.37	3381.63	171.95	55 8.50" BOW SPRING
222	Casing Joints	301.931519	228.77	47.46	10304.83	3334.17	172.74	56 8.50" BOW SPRING
223	Casing Joints	303.308619	229.81	47.00	10351.83	3287.17	173.53	57 8.50" BOW SPRING
224	Casing Joints	304.698611	230.86	47.44	10399.27	3239.73	174.33	58 8.50" BOW SPRING
225	Casing Joints	306.088603	231.92	47.44	10446.71	3192.29	175.12	59 8.50" BOW SPRING
226	Casing Joints	307.465703	232.96	47.00	10493.71	3145.29	175.91	60 8.50" BOW SPRING
227	Casing Joints	308.819363	233.99	46.20	10539.91	3099.09	176.68	61 8.50" BOW SPRING
228	Casing Joints	310.140793	234.99	45.10	10585.01	3053.99	177.44	62 8.50" BOW SPRING
229	Casing Joints	311.530785	236.04	47.44	10632.45	3006.55	178.24	63 8.50" BOW SPRING
230	Casing Joints	312.91228	237.09	47.15	10679.60	2959.40	179.03	64 8.50" BOW SPRING
231	Casing Joints	314.302565	238.14	47.45	10727.05	2911.95	179.82	65 8.50" BOW SPRING
232	Casing Joints	315.652709	239.16	46.08	10773.13	2865.87	180.59	66 8.50" BOW SPRING
233	Casing Joints	317.042701	240.22	47.44	10820.57	2818.43	181.39	67 8.50" BOW SPRING
234	Casing Joints	318.416871	241.26	46.90	10867.47	2771.53	182.18	68 8.50" BOW SPRING
235	Casing Joints	319.799831	242.31	47.20	10914.67	2724.33	182.97	69 8.50" BOW SPRING

236	Casing Joints	321.149096	243.33	46.05	10960.72	2678.28	183.74	70 8.50" BOW SPRING
237	Casing Joints	322.517406	244.36	46.70	11007.42	2631.58	184.52	71 8.50" BOW SPRING
238	Casing Joints	323.90857	245.42	47.48	11054.90	2584.10	185.32	72 8.50" BOW SPRING
239	Casing Joints	325.215936	246.41	44.62	11099.52	2539.48	186.07	73 8.50" BOW SPRING
240	Casing Joints	326.606221	247.46	47.45	11146.97	2492.03	186.86	74 8.50" BOW SPRING
241	Casing Joints	327.996799	248.52	47.46	11194.43	2444.57	187.66	75 8.50" BOW SPRING
242	Casing Joints	329.368039	249.56	46.80	11241.23	2397.77	188.44	76 8.50" BOW SPRING
243	Casing Joints	330.759789	250.61	47.50	11288.73	2350.27	189.24	77 8.50" BOW SPRING
244	Casing Joints	332.141284	251.66	47.15	11335.88	2303.12	190.03	78 8.50" BOW SPRING
245	Casing Joints	333.48381	252.67	45.82	11381.70	2257.30	190.80	79 8.50" BOW SPRING
246	Casing Joints	334.87263	253.73	47.40	11429.10	2209.90	191.59	80 8.50" BOW SPRING
247	Casing Joints	336.263794	254.78	47.48	11476.58	2162.42	192.39	81 8.50" BOW SPRING
248	Casing Joints	337.654958	255.83	47.48	11524.06	2114.94	193.18	82 8.50" BOW SPRING
249	Casing Joints	338.997484	256.85	45.82	11569.88	2069.12	193.95	83 8.50" BOW SPRING
250	Casing Joints	340.356711	257.88	46.39	11616.27	2022.73	194.73	84 8.50" BOW SPRING
251	Casing Joints	341.616025	258.84	42.98	11659.25	1979.75	195.45	85 8.50" BOW SPRING
252	Casing Joints	342.867135	259.78	42.70	11701.95	1937.05	196.16	86 8.50" BOW SPRING
253	Casing Joints	344.257127	260.84	47.44	11749.39	1889.61	196.96	87 8.50" BOW SPRING
254	Casing Joints	345.544862	261.81	43.95	11793.34	1845.66	197.70	88 8.50" BOW SPRING
255	Casing Joints	346.825272	262.78	43.70	11837.04	1801.96	198.43	89 8.50" BOW SPRING
256	Casing Joints	348.113886	263.76	43.98	11881.02	1757.98	199.17	90 8.50" BOW SPRING
257	Casing Joints	349.372321	264.71	42.95	11923.97	1715.03	199.89	91 8.50" BOW SPRING
258	Casing Joints	350.654196	265.68	43.75	11967.72	1671.28	200.62	92 8.50" BOW SPRING
259	Casing Joints	351.943396	266.66	44.00	12011.72	1627.28	201.36	93 8.50" BOW SPRING
260	Casing Joints	353.235526	267.64	44.10	12055.82	1583.18	202.10	94 8.50" BOW SPRING
261	Casing Joints	354.518866	268.61	43.80	12099.62	1539.38	202.83	95 8.50" BOW SPRING
262	Casing Joints	355.794002	269.58	43.52	12143.14	1495.86	203.56	96 8.50" BOW SPRING
263	Casing Joints	357.072654	270.55	43.64	12186.78	1452.22	204.29	97 8.50" BOW SPRING
264	Casing Joints	358.344274	271.51	43.40	12230.18	1408.82	205.02	98 8.50" BOW SPRING
265	Casing Joints	359.618824	272.48	43.50	12273.68	1365.32	205.75	99 8.50" BOW SPRING
266	Casing Joints	360.946114	273.48	45.30	12318.98	1320.02	206.51	100 8.50" BOW SPRING
267	Casing Joints	362.238537	274.46	44.11	12363.09	1275.91	207.25	101 8.50" BOW SPRING
268	Casing Joints	363.484959	275.40	42.54	12405.63	1233.37	207.96	102 8.50" BOW SPRING
269	Casing Joints	364.765369	276.38	43.70	12449.33	1189.67	208.69	103 8.50" BOW SPRING
270	Casing Joints	366.053104	277.35	43.95	12493.28	1145.72	209.43	104 8.50" BOW SPRING
271	Casing Joints	367.326189	278.32	43.45	12536.73	1102.27	210.16	105 8.50" BOW SPRING
272	Casing Joints	368.607185	279.29	43.72	12580.45	1058.55	210.89	106 8.50" BOW SPRING
273	Casing Joints	369.884665	280.25	43.60	12624.05	1014.95	211.62	107 8.50" BOW SPRING
274	Casing Joints	371.165661	281.22	43.72	12667.77	971.23	212.35	108 8.50" BOW SPRING
275	Casing Joints	372.453982	282.20	43.97	12711.74	927.26	213.09	109 8.50" BOW SPRING
276	Casing Joints	373.735564	283.17	43.74	12755.48	883.52	213.82	110 8.50" BOW SPRING
277	Casing Joints	375.008063	284.14	43.43	12798.91	840.09	214.55	111 8.50" BOW SPRING
278	Casing Joints	376.282027	285.10	43.48	12842.39	796.61	215.28	112 8.50" BOW SPRING
279	Casing Joints	377.571227	286.08	44.00	12886.39	752.61	216.02	113 8.50" BOW SPRING
280	Casing Joints	378.835522	287.04	43.15	12929.54	709.46	216.74	114 8.50" BOW SPRING
281	Casing Joints	380.224928	288.09	47.42	12976.96	662.04	217.54	115 8.50" BOW SPRING
282	Casing Joints	381.618436	289.14	47.56	13024.52	614.48	218.33	116 8.50" BOW SPRING
283	Casing Joints	382.994071	290.19	46.95	13071.47	567.53	219.12	117 8.50" BOW SPRING
284	Casing Joints	384.269207	291.15	43.52	13114.99	524.01	219.85	118 8.50" BOW SPRING
285	Casing Joints	385.541999	292.12	43.44	13158.43	480.57	220.58	
286	Casing Joints	386.816549	293.08	43.50	13201.93	437.07	221.31	
287	Casing Joints	388.071468	294.03	42.83	13244.76	394.24	222.03	
288	Casing Joints	389.345432	295.00	43.48	13288.24	350.76	222.76	
289	Casing Joints	390.623498	295.97	43.62	13331.86	307.14	223.49	
290	Casing Joints	391.895997	296.93	43.43	13375.29	263.71	224.21	
291	Casing Joints	393.244383	297.95	46.02	13421.31	217.69	224.99	
292	Casing Joints	394.620897	299.00	46.98	13468.29	170.71	225.77	
293	Casing Joints	395.900721	299.97	43.68	13511.97	127.03	226.51	
294	Casing Joints	397.188749	300.94	43.96	13555.93	83.07	227.24	
295	Casing Joints	398.447477	301.90	42.96	13598.89	40.11	227.96	
296	Casing Joints	399.711186	302.85	43.13	13642.02	-3.02	228.69	

297	<i>Casing Joints</i>	400.97343	303.81	43.08	13685.10	-43.08	229.41	1 OUT
298	<i>Casing Joints</i>	402.242706	304.77	43.32	13728.42	-86.40	230.13	2 OUT
299	<i>Casing Joints</i>	403.632991	305.82	47.45	13775.87	-133.85	230.93	3 OUT
300	<i>Casing Joints</i>	405.012435	306.87	47.08	13822.95	-180.93	231.72	4 OUT
301	<i>Casing Joints</i>	406.245965	307.80	42.10	13865.05	-223.03	232.42	5 OUT
302	<i>Casing Joints</i>	407.471291	308.73	41.82	13906.87	-264.85	233.13	6 OUT
303	<i>Casing Joints</i>	408.733535	309.69	43.08	13949.95	-307.93	233.85	7 OUT
304	<i>Casing Joints</i>	409.934249	310.60	40.98	13990.93	-348.91	234.53	8 OUT
305	<i>Casing Joints</i>	411.194735	311.55	43.02	14033.95	-391.93	235.26	9 OUT
	<i>Marker Joint A</i>			11.36				1 OUT
	<i>Marker Joint B</i>			11.59				2 OUT
	<i>Marker Joint G</i>			10.11				3 OUT
	<i>Marker Joint H</i>			10.00				4 OUT