



MWD SURVEY CERTIFICATION
Legacy Directional Drilling, LLC.

State Of New Mexico
County Of Lea

HOBBS OCD
JUN 14 2019
RECEIVED

I, Mark L. Miller certify that; I am employed by Legacy Directional Drilling, LLC.;
that I did on the day(s) of November 8, 2018 through November 27, 2018 conduct
or supervise the taking of a MWD survey from a depth of 265 feet to a depth of
19,930 feet; that the data is true, correct, complete and within the limitations of the
tool set forth by Legacy Directional Drilling, LLC.; that I am authorized and qualified to make this report;
that this survey was conducted at the request of Devon Energy Production Company for the
North Thistle 3 34 STATE COM 4H Well, A.P.I. No. 30-025-45073 in
Bone Spring Field and that I have reviewed this report and find that
it conforms to the principles and procedures set forth by Legacy Directional Drilling, LLC.

Surveyor's Signature

MLWD Technical Director
Title



Directional Survey Report

Company Name: DEVON ENERGY PRODUCTION COMPANY, State/Prov: NM

Survey Company: Legacy Directional

Proposed Azimuth: 359.49°

Well Name: NORTH THISTLE 3 34 STATE COM 4H

County: Lea

Job Number: LF181081

Declination: 6.39°

Field: BONE SPRING

Location: Sec 03 T 23S R 33E

Latitude: 32° 19' 38.647" N

North Reference: GRID

Rig ID: H&P 540

API/UWI: 30-025-45073

Longitude: 103° 33' 16.745" W

KB: 3602 FT

Svy	Depth	Inc	Azm	TVD	NS	EW	VS	DLS	CL	CD	CA	Temp
Tie-In	0	0	0	0.00	0	0	0.00	0	0	0.00	359.49	0
1	265	0.37	267.14	265.00	-0.04	-0.85	-0.04	0.14	265	0.86	267.14	56
2	446	0.28	321.63	446.00	0.27	-1.71	0.29	0.17	181	1.73	279.12	56
3	626	0.51	330.45	625.99	1.32	-2.38	1.34	0.13	180	2.72	298.94	56
4	717	0.6	337.53	716.99	2.11	-2.76	2.13	0.12	91	3.48	307.36	56
5	808	0.68	346.64	807.98	3.07	-3.07	3.10	0.14	91	4.34	315.05	56
6	899	0.72	345.49	898.97	4.15	-3.34	4.18	0.05	91	5.33	321.22	56
7	942	0.6	357.73	941.97	4.64	-3.41	4.67	0.43	43	5.76	323.65	56
8	1129	0.09	194.86	1128.97	5.48	-3.49	5.51	0.37	187	6.49	327.49	71
9	1311	0.28	100.74	1310.97	5.26	-3.09	5.28	0.16	182	6.10	329.54	78
10	1496	0.6	61.87	1495.96	5.63	-1.79	5.64	0.23	185	5.91	342.34	78
11	1684	0.62	64.56	1683.95	6.53	-0.01	6.53	0.02	188	6.53	359.95	78
12	1872	0.53	55.78	1871.94	7.46	1.63	7.44	0.07	188	7.63	12.35	78
13	2061	0.36	64.02	2060.94	8.21	2.89	8.18	0.10	189	8.70	19.39	78
14	2249	0.38	59.91	2248.93	8.78	3.96	8.74	0.02	188	9.63	24.28	78
15	2437	0.49	51.6	2436.93	9.59	5.13	9.54	0.07	188	10.88	28.14	78
16	2532	0.62	55.43	2531.92	10.13	5.87	10.08	0.14	95	11.71	30.08	78
17	2626	0.17	1.78	2625.92	10.56	6.29	10.51	0.57	94	12.29	30.79	78
18	2720	0.69	259.72	2719.92	10.60	5.74	10.55	0.79	94	12.05	28.44	78
19	2815	1.42	253.52	2814.90	10.16	4.05	10.13	0.78	95	10.94	21.72	78
20	2909	2.3	255.17	2908.85	9.35	1.11	9.34	0.94	94	9.42	6.76	78
21	3003	3.08	252.36	3002.75	8.10	-3.12	8.13	0.84	94	8.68	338.93	78
22	3098	3.34	249.13	3097.60	6.34	-8.14	6.42	0.33	95	10.32	307.93	78
23	3192	4.09	247.4	3191.40	4.08	-13.79	4.20	0.81	94	14.38	286.48	78
24	3286	4.84	248.55	3285.11	1.34	-20.58	1.52	0.80	94	20.62	273.73	78
25	3380	5.5	254.32	3378.73	-1.33	-28.61	-1.07	0.89	94	28.64	267.35	78
26	3474	6.62	257.02	3472.20	-3.76	-38.22	-3.42	1.23	94	38.41	264.38	78
27	3568	7.71	254.86	3565.47	-6.62	-49.59	-6.18	1.19	94	50.03	262.39	78
28	3662	9.06	254.06	3658.46	-10.30	-62.79	-9.74	1.44	94	63.63	260.68	78
29	3757	10.51	253	3752.08	-14.89	-78.27	-14.19	1.54	95	79.68	259.23	85
30	3851	11.52	254.54	3844.35	-19.90	-95.52	-19.05	1.12	94	97.57	258.23	85
31	3945	12.02	255.09	3936.37	-24.92	-114.02	-23.91	0.55	94	116.72	257.67	85
32	4040	11.56	252.35	4029.37	-30.35	-132.65	-29.17	0.76	95	136.08	257.11	85
33	4134	11.83	250.51	4121.41	-36.42	-150.71	-35.08	0.49	94	155.05	256.41	85

Svy	Depth	Inc	Azm	TVD	NS	EW	VS	DLS	CL	CD	CA	Temp
34	4228	12.13	250.5	4213.37	-42.93	-169.11	-41.43	0.32	94	174.47	255.75	85
35	4323	12.45	254.6	4306.19	-48.99	-188.39	-47.31	0.98	95	194.65	255.42	85
36	4417	12.32	257.08	4398.00	-53.92	-207.93	-52.07	0.58	94	214.81	255.46	85
37	4511	11.03	255.34	4490.06	-58.44	-226.41	-56.42	1.42	94	233.83	255.53	85
38	4605	10.91	257.6	4582.34	-62.62	-243.79	-60.45	0.47	94	251.71	255.59	85
39	4699	11.37	259.49	4674.57	-66.22	-261.59	-63.89	0.62	94	269.84	255.79	85
40	4794	12.04	259.7	4767.59	-69.70	-280.55	-67.20	0.71	95	289.08	256.05	85
41	4888	12.79	260.18	4859.39	-73.23	-300.45	-70.55	0.81	94	309.24	256.30	92
42	4982	12.64	259.36	4951.09	-76.90	-320.81	-74.05	0.25	94	329.90	256.52	92
43	5074	13.1	259.36	5040.78	-80.69	-340.95	-77.65	0.50	92	350.36	256.69	92
44	5177	12.48	256.48	5141.22	-85.45	-363.24	-82.21	0.86	103	373.15	256.76	85
45	5271	12.68	256.44	5232.97	-90.24	-383.14	-86.82	0.21	94	393.63	256.75	85
46	5365	12.82	255.73	5324.65	-95.23	-403.28	-91.63	0.22	94	414.37	256.71	85
47	5459	12.78	255.03	5416.31	-100.48	-423.43	-96.71	0.17	94	435.19	256.65	85
48	5553	12.02	257.91	5508.12	-105.22	-443.05	-101.27	1.04	94	455.37	256.64	85
49	5647	12.21	258	5600.03	-109.34	-462.34	-105.22	0.20	94	475.09	256.69	85
50	5742	11.79	256.98	5692.95	-113.61	-481.62	-109.32	0.50	95	494.84	256.73	85
51	5836	11.48	256.39	5785.02	-117.98	-500.07	-113.52	0.35	94	513.80	256.73	85
52	5930	11.37	259.19	5877.16	-121.92	-518.26	-117.30	0.60	94	532.41	256.76	85
53	6024	11.53	258.03	5969.29	-125.60	-536.56	-120.82	0.30	94	551.06	256.82	92
54	6118	11.09	256.53	6061.46	-129.66	-554.54	-124.72	0.56	94	569.49	256.84	92
55	6213	11.38	260.15	6154.64	-133.39	-572.66	-128.29	0.80	95	587.99	256.89	92
56	6307	12.8	260.57	6246.55	-136.68	-592.07	-131.41	1.51	94	607.64	257.00	85
57	6401	13.07	260.18	6338.17	-140.20	-612.81	-134.74	0.30	94	628.65	257.11	92
58	6495	12.89	258.91	6429.77	-144.03	-633.57	-138.38	0.36	94	649.74	257.19	92
59	6590	12.75	257.94	6522.40	-148.26	-654.22	-142.43	0.27	95	670.81	257.23	92
60	6684	12.7	257.06	6614.09	-152.74	-674.44	-146.73	0.21	94	691.52	257.24	92
61	6778	12.34	256.2	6705.85	-157.45	-694.26	-151.26	0.43	94	711.89	257.22	92
62	6872	12.2	256.09	6797.71	-162.23	-713.66	-155.87	0.15	94	731.87	257.19	92
63	6966	12.42	255.63	6889.55	-167.13	-733.09	-160.60	0.26	94	751.90	257.16	92
64	7060	11.93	259.36	6981.43	-171.43	-752.43	-164.73	0.99	94	771.72	257.17	92
65	7154	11.86	258.42	7073.41	-175.16	-771.45	-168.29	0.22	94	791.08	257.21	92
66	7249	11.73	257.35	7166.41	-179.24	-790.43	-172.20	0.27	95	810.50	257.22	99
67	7343	11.43	256.84	7258.50	-183.45	-808.82	-176.25	0.34	94	829.37	257.22	99
68	7437	11.12	256.78	7350.68	-187.65	-826.72	-180.28	0.33	94	847.75	257.21	99
69	7531	11.38	258.73	7442.88	-191.53	-844.64	-184.00	0.49	94	866.08	257.22	99
70	7625	11.33	259.27	7535.04	-195.06	-862.80	-187.37	0.12	94	884.58	257.26	99
71	7719	9.69	258.25	7627.46	-198.39	-879.62	-190.56	1.76	94	901.72	257.29	99
72	7814	10.79	258.54	7720.94	-201.79	-896.17	-193.80	1.16	95	918.60	257.31	99

Svy	Depth	Inc	Azm	TVD	NS	EW	VS	DLS	CL	CD	CA	Temp
73	7908	11.78	258.05	7813.12	-205.52	-914.18	-197.38	1.06	94	937.00	257.33	99
74	8002	12.57	253.46	7905.01	-210.42	-933.37	-202.11	1.33	94	956.80	257.30	106
75	8096	12.07	253.12	7996.84	-216.19	-952.58	-207.70	0.54	94	976.81	257.21	106
76	8190	11.2	252.17	8088.91	-221.84	-970.68	-213.19	0.95	94	995.70	257.13	106
77	8284	11.46	256.12	8181.08	-226.87	-988.43	-218.06	0.87	94	1014.14	257.07	106.3
78	8378	12.07	256.94	8273.11	-231.33	-1007.07	-222.36	0.67	94	1033.30	257.06	106.3
79	8472	11	257.39	8365.21	-235.51	-1025.40	-226.38	1.14	94	1052.10	257.06	106.3
80	8567	11.62	257.9	8458.36	-239.50	-1043.60	-230.20	0.66	95	1070.73	257.07	106.3
81	8661	12.61	258.79	8550.27	-243.48	-1062.92	-234.00	1.07	94	1090.45	257.10	106.3
82	8755	11.27	258.17	8642.23	-247.35	-1081.98	-237.71	1.43	94	1109.89	257.12	113.4
83	8850	12.39	259.8	8735.21	-251.06	-1101.09	-241.25	1.23	95	1129.35	257.16	113.4
84	8944	11.21	260.15	8827.22	-254.41	-1120.02	-244.43	1.26	94	1148.55	257.20	113.4
85	9038	11.97	260.71	8919.31	-257.55	-1138.64	-247.40	0.82	94	1167.41	257.25	113.4
86	9110	11.97	261.72	8989.74	-259.83	-1153.40	-249.55	0.29	72	1182.31	257.30	113.4
87	9170	12.91	268.34	9048.33	-260.92	-1166.26	-250.53	2.84	60	1195.09	257.39	113.4
88	9226	16.4	296.45	9102.57	-257.57	-1179.61	-247.06	13.96	56	1207.40	257.68	113.4
89	9273	21.31	319.86	9147.10	-248.07	-1191.08	-237.46	19.00	47	1216.64	258.24	113.4
90	9320	24.93	335.51	9190.36	-232.51	-1200.70	-221.81	15.11	47	1223.01	259.04	113.4
91	9367	27.81	345.54	9232.48	-212.86	-1207.55	-202.10	11.27	47	1226.17	260.00	113.4
92	9414	30.35	352.6	9273.57	-190.46	-1211.82	-179.67	9.08	47	1226.70	261.07	113.4
93	9461	32.23	355.2	9313.73	-166.19	-1214.40	-155.38	4.92	47	1225.72	262.21	113.4
94	9508	36.51	356.45	9352.52	-139.74	-1216.32	-128.90	9.23	47	1224.32	263.45	113.4
95	9555	41.36	356.49	9389.07	-110.26	-1218.13	-99.42	10.32	47	1223.11	264.83	113.4
96	9602	46.41	355.07	9422.93	-77.78	-1220.55	-66.92	10.95	47	1223.02	266.35	113.4
97	9649	50.58	353.33	9454.07	-42.78	-1224.12	-31.88	9.29	47	1224.87	268.00	113.4
98	9697	54.33	352.42	9483.32	-5.02	-1228.85	5.92	7.96	48	1228.86	269.77	113.4
99	9747	60.9	354.89	9510.09	36.92	-1233.48	47.90	13.78	50	1234.03	271.71	120.6
100	9791	66.89	358.27	9529.44	76.33	-1235.80	87.33	15.26	44	1238.16	273.53	120.6
101	9838	72.5	0.7	9545.75	120.39	-1236.18	131.39	12.88	47	1242.03	275.56	120.6
103	9932	82.25	358.19	9566.27	211.99	-1237.11	223.00	10.69	94	1255.14	279.72	120.6
104	9979	90.11	356.91	9569.40	258.81	-1239.12	269.83	16.94	47	1265.85	281.80	120.6
105	10059	91.99	356.48	9567.93	338.66	-1243.73	349.72	2.41	80	1289.01	285.23	113.4
106	10153	92.61	356.87	9564.16	432.42	-1249.17	443.53	0.78	94	1321.90	289.09	113.4
107	10247	92.07	357.32	9560.32	526.23	-1253.93	537.37	0.75	94	1359.88	292.77	106.3
108	10342	91.04	357.08	9557.75	621.08	-1258.57	632.25	1.11	95	1403.47	296.27	106.3
109	10436	90.2	357.22	9556.73	714.95	-1263.25	726.17	0.91	94	1451.53	299.51	113.4
110	10530	90.06	356.97	9556.52	808.83	-1268.01	820.09	0.30	94	1504.01	302.53	113.4
111	10624	90.17	358.05	9556.33	902.74	-1272.09	914.03	1.15	94	1559.86	305.36	113.4
112	10719	90.36	358.54	9555.89	997.70	-1274.92	1009.01	0.55	95	1618.90	308.05	113.4

Svy	Depth	Inc	Azm	TVD	NS	EW	VS	DLS	CL	CD	CA	Temp
113	10813	90.48	358.09	9555.20	1091.65	-1277.68	1102.98	0.50	94	1680.53	310.51	113.4
114	10907	91.63	358.23	9553.47	1185.59	-1280.70	1196.94	1.23	94	1745.23	312.79	120.6
115	11001	91.91	359.94	9550.56	1279.53	-1282.20	1290.89	1.84	94	1811.42	314.94	120.6
116	11091	91.15	359.15	9548.16	1369.49	-1282.92	1380.86	1.22	90	1876.53	316.87	120.6
117	11183	91.91	358.99	9545.70	1461.45	-1284.41	1472.82	0.84	92	1945.64	318.69	120.6
118	11273	90.98	358.63	9543.44	1551.40	-1286.28	1562.78	1.11	90	2015.28	320.34	120.6
119	11364	89.27	358.33	9543.24	1642.36	-1288.69	1653.77	1.91	91	2087.60	321.88	120.6
120	11455	89.44	358.11	9544.26	1733.31	-1291.52	1744.74	0.31	91	2161.57	323.31	127.7
121	11544	89.24	358.02	9545.29	1822.25	-1294.52	1833.71	0.25	89	2235.26	324.61	127.7
122	11635	91.18	358.44	9544.95	1913.21	-1297.33	1924.68	2.18	91	2311.59	325.86	127.7
123	11726	91.93	358.61	9542.48	2004.14	-1299.68	2015.63	0.85	91	2388.67	327.04	127.7
124	11817	91.68	358.1	9539.62	2095.06	-1302.29	2106.57	0.62	91	2466.82	328.13	127.7
125	11906	91.74	357.59	9536.96	2183.96	-1305.63	2195.49	0.58	89	2544.47	329.13	127.7
126	11998	91.65	358.86	9534.24	2275.87	-1308.48	2287.43	1.38	92	2625.21	330.10	127.7
127	12088	92.05	359.95	9531.33	2365.82	-1309.41	2377.38	1.29	90	2704.01	331.04	127.7
128	12181	92.35	359.45	9527.76	2458.75	-1309.90	2470.31	0.63	93	2785.91	331.95	127.7
129	12273	91.74	0.1	9524.48	2550.69	-1310.26	2562.25	0.97	92	2867.54	332.81	134.9
130	12368	90.28	1.15	9522.81	2645.66	-1309.23	2657.21	1.89	95	2951.88	333.67	134.9
131	12462	90.87	1.1	9521.86	2739.64	-1307.38	2751.17	0.63	94	3035.60	334.49	134.9
132	12556	89.61	0.38	9521.47	2833.63	-1306.17	2845.14	1.54	94	3120.18	335.25	134.9
133	12650	87.9	1.33	9523.51	2927.59	-1304.76	2939.09	2.08	94	3205.18	335.98	134.9
134	12744	88.71	1.43	9526.29	3021.52	-1302.50	3032.99	0.87	94	3290.30	336.68	134.9
135	12838	90.42	1.44	9527.01	3115.49	-1300.15	3126.93	1.82	94	3375.89	337.35	134.9
136	12932	89.97	0.94	9526.69	3209.46	-1298.20	3220.89	0.72	94	3462.08	337.98	134.9
137	13026	90.36	0.53	9526.42	3303.46	-1296.99	3314.87	0.60	94	3548.94	338.56	134.9
138	13121	91.79	0.78	9524.63	3398.43	-1295.90	3409.83	1.53	95	3637.13	339.13	134.9
139	13215	92.33	0.53	9521.25	3492.36	-1294.83	3503.75	0.63	94	3724.67	339.66	142
140	13309	91.15	0.23	9518.40	3586.32	-1294.21	3597.69	1.30	94	3812.69	340.16	127.7
141	13404	89.02	359.61	9518.26	3681.31	-1294.34	3692.68	2.34	95	3902.22	340.63	134.9
142	13498	90.39	359.94	9518.74	3775.30	-1294.71	3786.68	1.50	94	3991.14	341.07	134.9
143	13592	89.24	359.68	9519.05	3869.30	-1295.02	3880.68	1.25	94	4080.27	341.50	134.9
144	13687	87.14	358.88	9522.05	3964.24	-1296.21	3975.62	2.37	95	4170.78	341.89	134.9
145	13781	89.72	358.04	9524.62	4058.16	-1298.74	4069.56	2.89	94	4260.92	342.25	134.9
146	13875	88.54	358.08	9526.05	4152.10	-1301.92	4163.52	1.26	94	4351.43	342.59	134.9
147	13969	88.94	358.22	9528.12	4246.02	-1304.95	4257.47	0.45	94	4442.03	342.92	142
148	14063	89.58	358.39	9529.33	4339.98	-1307.73	4351.44	0.70	94	4532.72	343.23	142
149	14157	89.72	359.29	9529.90	4433.95	-1309.64	4445.43	0.97	94	4623.32	343.54	142
150	14252	89.22	359.14	9530.78	4528.94	-1310.94	4540.43	0.55	95	4714.86	343.86	142
151	14346	90.42	359.85	9531.08	4622.93	-1311.77	4634.43	1.48	94	4805.44	344.16	142

Svy	Depth	Inc	Azm	TVD	NS	EW	VS	DLS	CL	CD	CA	Temp
152	14441	90.22	359.51	9530.55	4717.93	-1312.30	4729.42	0.42	95	4897.04	344.46	149.1
153	14535	90.48	359	9529.97	4811.92	-1313.52	4823.42	0.61	94	4987.98	344.73	149.1
154	14629	90.03	358.89	9529.56	4905.90	-1315.25	4917.42	0.49	94	5079.15	344.99	149.1
155	14723	90.59	358.49	9529.05	4999.88	-1317.40	5011.40	0.73	94	5170.52	345.24	149.1
156	14817	90.87	357.96	9527.85	5093.82	-1320.31	5105.37	0.64	94	5262.15	345.47	149.1
157	14911	90.64	358.93	9526.61	5187.78	-1322.86	5199.35	1.06	94	5353.79	345.69	142
158	15005	90.31	358.15	9525.83	5281.75	-1325.26	5293.33	0.90	94	5445.47	345.91	149.1
159	15100	90.62	358.22	9525.06	5376.69	-1328.26	5388.30	0.33	95	5538.33	346.12	149.1
160	15194	88.77	359.12	9525.56	5470.66	-1330.45	5482.29	2.19	94	5630.12	346.33	149.1
161	15288	88.99	358.88	9527.40	5564.63	-1332.09	5576.27	0.35	94	5721.85	346.54	149.1
162	15382	89.78	359.02	9528.41	5658.61	-1333.81	5670.26	0.85	94	5813.68	346.74	149.1
163	15477	89.44	358.46	9529.05	5753.58	-1335.90	5765.25	0.69	95	5906.63	346.93	149.1
164	15571	91.54	359.56	9528.25	5847.56	-1337.52	5859.23	2.52	94	5998.58	347.12	149.1
165	15665	92.58	359.37	9524.87	5941.49	-1338.40	5953.17	1.12	94	6090.37	347.31	149.1
166	15760	93.14	0.16	9520.13	6036.37	-1338.79	6048.05	1.02	95	6183.05	347.49	149.1
167	15854	91.71	1.3	9516.15	6130.28	-1337.59	6141.94	1.94	94	6274.51	347.69	149.1
168	15948	89.94	1.21	9514.80	6224.24	-1335.53	6235.88	1.89	94	6365.91	347.89	149.1
169	16042	89.08	1.14	9515.60	6318.22	-1333.61	6329.84	0.92	94	6457.43	348.08	149.1
170	16136	89.89	1.25	9516.45	6412.19	-1331.65	6423.79	0.87	94	6549.01	348.27	149.1
171	16231	90.84	359.48	9515.84	6507.18	-1331.04	6518.77	2.11	95	6641.92	348.44	149.1
172	16325	90.14	359.36	9515.04	6601.17	-1331.99	6612.77	0.76	94	6734.22	348.59	149.1
173	16420	89.1	359.24	9515.67	6696.16	-1333.15	6707.76	1.10	95	6827.58	348.74	149.1
174	16514	87.82	359.01	9518.20	6790.12	-1334.59	6801.73	1.38	94	6920.03	348.88	142
175	16608	88.31	358.83	9521.37	6884.05	-1336.36	6895.67	0.56	94	7012.56	349.01	142
176	16702	88.92	358.39	9523.64	6977.99	-1338.64	6989.63	0.80	94	7105.23	349.14	142
177	16797	88.57	0.06	9525.72	7072.95	-1339.92	7084.60	1.80	95	7198.76	349.27	142
178	16890	89.32	0.06	9527.44	7165.94	-1339.82	7177.58	0.81	93	7290.12	349.41	149.1
179	16985	89.36	0.15	9528.53	7260.93	-1339.65	7272.57	0.10	95	7383.48	349.55	149.1
180	17079	89.54	0.24	9529.43	7354.93	-1339.33	7366.56	0.21	94	7475.88	349.68	149.1
181	17173	89.93	0.33	9529.87	7448.92	-1338.86	7460.55	0.43	94	7568.29	349.81	149.1
182	17267	90.11	359.53	9529.83	7542.92	-1338.98	7554.54	0.87	94	7660.85	349.93	149.1
183	17361	89.63	358.39	9530.05	7636.91	-1340.68	7648.54	1.32	94	7753.69	350.04	149.1
184	17455	89.23	358.66	9530.98	7730.87	-1343.10	7742.52	0.51	94	7846.67	350.14	149.1
185	17549	89.1	358.39	9532.35	7824.83	-1345.52	7836.50	0.32	94	7939.67	350.24	149.1
186	17644	89.01	358.3	9533.92	7919.78	-1348.27	7931.46	0.13	95	8033.72	350.34	149.1
187	17738	88.97	358.13	9535.58	8013.72	-1351.19	8025.43	0.19	94	8126.83	350.43	149.1
188	17833	90.15	359.45	9536.31	8108.69	-1353.20	8120.41	1.86	95	8220.83	350.53	149.1
189	17927	90.64	359.1	9535.66	8202.68	-1354.39	8214.41	0.64	94	8313.74	350.62	149.1
190	18021	89.54	0.59	9535.51	8296.67	-1354.64	8308.40	1.97	94	8406.54	350.73	149.1

Svy	Depth	Inc	Azn	TVD	NS	EW	VS	DLS	CL	CD	CA	Temp
191	18116	91.96	1.2	9534.27	8391.65	-1353.16	8403.36	2.63	95	8500.04	350.84	149.1
192	18210	89.89	1.12	9532.75	8485.61	-1351.26	8497.30	2.20	94	8592.52	350.95	156.3
193	18304	90.24	1.12	9532.64	8579.59	-1349.42	8591.26	0.37	94	8685.06	351.06	156.3
194	18398	89.05	0.76	9533.22	8673.57	-1347.88	8685.23	1.32	94	8777.68	351.17	156.3
195	18492	89.41	0.76	9534.49	8767.56	-1346.63	8779.20	0.38	94	8870.37	351.27	163.4
196	18587	90.07	0.68	9534.92	8862.55	-1345.44	8874.17	0.70	95	8964.09	351.37	163.4
197	18681	90.46	0.76	9534.48	8956.54	-1344.26	8968.15	0.42	94	9056.86	351.46	163.4
198	18776	90.07	1.47	9534.04	9051.52	-1342.41	9063.11	0.85	95	9150.52	351.56	163.4
199	18870	90.81	0.68	9533.32	9145.50	-1340.64	9157.07	1.15	94	9243.24	351.66	163.4
200	18964	86.11	0.5	9535.85	9239.43	-1339.68	9250.99	5.00	94	9336.05	351.75	163.4
201	19058	85.85	0.06	9542.44	9333.20	-1339.22	9344.75	0.54	94	9428.79	351.83	163.4
202	19153	87.3	358.57	9548.11	9428.02	-1340.35	9439.58	2.19	95	9522.82	351.91	163.4
203	19247	88.09	358.04	9551.89	9521.90	-1343.13	9533.48	1.01	94	9616.16	351.97	163.4
204	19341	89.89	357.07	9553.55	9615.80	-1347.14	9627.41	2.18	94	9709.70	352.02	163.4
205	19435	89.49	356.9	9554.06	9709.66	-1352.08	9721.32	0.46	94	9803.35	352.07	163.4
206	19529	90.02	356.99	9554.46	9803.53	-1357.09	9815.22	0.57	94	9897.02	352.12	163.4
207	19624	90.42	357.07	9554.10	9898.40	-1362.02	9910.13	0.43	95	9991.67	352.17	163.4
208	19718	90.73	357.07	9553.15	9992.27	-1366.82	10004.04	0.33	94	10085.32	352.21	163.4
209	19812	91.47	357.16	9551.35	10086.14	-1371.55	10097.95	0.79303277	94	10178.96	352.26	163.4
210	19872	92.31	357.34	9549.37	10146.03	-1374.43	10157.87	1.43	60	10238.70	352.29	163.4
PTB	19930	92.31	357.34	#VALUE!	10203.92	-1377.12	10215.69	0.00	58	10296.43	352.31	0