



Total Directional
Services, LLC
USA Operations

Final MWD Survey Certification

Lea County, New Mexico

Client: Devon Energy

Well Name: Thistle Unit 152H

Total Job No: 2019-201-X20

API No: 30-025-43588

Start Date: 03/31/2019

End Date: 04/17/2019

Measured Start Depth: 1430 feet

Measured End Depth: 19709 feet

Vertical Section from well center at TD: 9808.73 feet

HOBBS OCD

JAN 16 2020

RECEIVED

I, Grant Prior, certify that; I am employed by Total Directional Services, LLC and we conducted or supervised the taking of these open hole MWD surveys at the request of this client. This data is true, correct, complete and within the limitations of the tool as set forth by Total Directional Services, LLC. I am authorized and qualified to make this report and have reviewed this report and find that it conforms to the principals and procedures as set forth by Total Directional Services, LLC.

Date: 4/18/2019

Signed: *Grant Prior*

Job Number: 2019-201-X20
 Company: Devon Energy
 Lease/Well: Thistle Unit 152H
 Location: Thistle Unit
 Rig Name: Nabors X20
 RKB: 3693.50
 G.L. or M.S.L.: 3661.50

State/Country: New Mexico / USA
 Declination: 6.77
 Grid: Grid Correction
 File name: C:\USERS\USER\DESKTOP\THISTL-2\SURVEYS\152H.
 Date/Time: 18-Apr-19 / 12:37
 Curve Name: Thistle Unit 152H - As Drilled

Thistle Unit 152H - As Drilled

HOBBS OCD

JAN 16 2020

RECEIVED

WINSERVE SURVEY CALCULATIONS
 Minimum Curvature Method
 Vertical Section Plane 359.58
 Vertical Section Referenced to Wellhead
 Rectangular Coordinates Referenced to Wellhead

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	CLOSURE Distance FT	Direction Deg	Dogleg Severity Deg/100
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
236.00	.10	24.60	236.00	.19	.09	.19	.21	24.60	.04
327.00	.10	4.50	327.00	.34	.13	.34	.36	20.27	.04
419.00	.30	356.50	419.00	.66	.12	.66	.67	10.03	.22
511.00	.30	349.60	511.00	1.14	.06	1.14	1.14	2.94	.04
604.00	.30	339.70	604.00	1.60	-.07	1.60	1.61	357.50	.06
695.00	.30	345.50	695.00	2.06	-.21	2.06	2.07	354.11	.03
785.00	.30	352.80	784.99	2.52	-.30	2.52	2.54	353.19	.04
876.00	.20	326.90	875.99	2.89	-.42	2.89	2.92	351.78	.16
967.00	.30	312.30	966.99	3.18	-.68	3.19	3.25	347.93	.13
1057.00	.20	294.10	1056.99	3.41	-1.00	3.41	3.55	343.67	.14
1149.00	.30	306.80	1148.99	3.62	-1.34	3.63	3.85	339.70	.12
1240.00	.10	285.70	1239.99	3.78	-1.60	3.79	4.11	337.00	.23
1331.00	.30	264.10	1330.99	3.78	-1.92	3.79	4.24	333.08	.23
Surface hole TD 1480md									
1398.00	.00	320.60	1397.99	3.76	-2.09	3.77	4.30	330.89	.45
1546.00	.30	34.10	1545.99	4.08	-1.88	4.09	4.49	335.31	.20
1637.00	.30	81.70	1636.99	4.31	-1.51	4.32	4.57	340.74	.27
1727.00	.20	54.90	1726.99	4.44	-1.14	4.44	4.58	345.53	.17
1822.00	.10	11.80	1821.99	4.61	-.99	4.62	4.72	347.86	.15
1916.00	.00	316.50	1915.99	4.69	-.97	4.70	4.79	348.26	.11
2011.00	.40	344.00	2010.99	5.01	-1.07	5.02	5.12	347.99	.42
2106.00	.30	340.70	2105.98	5.56	-1.24	5.57	5.70	347.44	.11
2200.00	.40	325.80	2199.98	6.07	-1.51	6.08	6.25	346.06	.14
2294.00	.50	334.60	2293.98	6.71	-1.87	6.72	6.96	344.46	.13
2388.00	.50	339.90	2387.98	7.47	-2.18	7.48	7.78	343.70	.05

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	C L O S U R E Distance FT	Direction Deg	Dogleg Severity Deg/100
2483.00	.60	344.30	2482.97	8.33	-2.46	8.35	8.69	343.55	.11
2576.00	.40	342.70	2575.97	9.11	-2.69	9.13	9.50	343.56	.22
2671.00	.40	359.40	2670.97	9.76	-2.79	9.78	10.15	344.05	.12
2766.00	.50	358.90	2765.96	10.51	-2.80	10.53	10.87	345.07	.11
2859.00	.50	19.00	2858.96	11.30	-2.68	11.32	11.61	346.67	.19
2954.00	.30	350.70	2953.96	11.93	-2.58	11.95	12.21	347.79	.29
3048.00	.40	348.50	3047.95	12.50	-2.69	12.52	12.78	347.86	.11
3141.00	.60	356.60	3140.95	13.30	-2.78	13.32	13.59	348.19	.23
3235.00	.30	104.90	3234.95	13.73	-2.57	13.75	13.97	349.39	.80
3330.00	.50	101.00	3329.95	13.59	-1.93	13.60	13.72	351.94	.21
3424.00	.70	99.40	3423.94	13.41	-.96	13.42	13.45	355.93	.21
3518.00	.70	82.80	3517.93	13.39	.18	13.39	13.39	.77	.21
3612.00	.80	69.70	3611.93	13.69	1.37	13.68	13.76	5.70	.21
3706.00	.70	64.60	3705.92	14.17	2.50	14.15	14.39	10.01	.13
3800.00	.40	143.90	3799.92	14.15	3.21	14.12	14.51	12.79	.79
3895.00	.30	175.80	3894.91	13.63	3.43	13.61	14.06	14.11	.23
3990.00	.10	138.60	3989.91	13.32	3.50	13.30	13.77	14.71	.24
4082.00	.30	137.40	4081.91	13.08	3.71	13.06	13.60	15.85	.22
4177.00	.30	166.00	4176.91	12.66	3.94	12.63	13.26	17.30	.16
4272.00	.20	185.70	4271.91	12.25	3.99	12.22	12.89	18.02	.14
4366.00	.30	175.00	4365.91	11.85	3.99	11.82	12.50	18.62	.12
4461.00	.90	138.60	4460.90	11.04	4.51	11.00	11.92	22.21	.72
4555.00	1.20	124.40	4554.89	9.93	5.81	9.88	11.50	30.33	.42
4649.00	1.10	109.60	4648.87	9.07	7.47	9.01	11.75	39.48	.33
4743.00	1.60	120.40	4742.84	8.10	9.45	8.03	12.45	49.40	.59
4837.00	2.10	129.10	4836.79	6.35	11.92	6.26	13.51	61.95	.61
4932.00	2.30	127.60	4931.72	4.09	14.78	3.98	15.34	74.53	.22
5026.00	1.60	124.80	5025.67	2.19	17.35	2.06	17.49	82.80	.75
ICP 5180md									
5121.00	1.40	125.10	5120.64	.77	19.39	.62	19.41	87.73	.21
5213.00	1.30	127.50	5212.61	-.51	21.14	-.67	21.15	91.39	.12
5307.00	1.80	131.70	5306.58	-2.15	23.09	-2.31	23.19	95.31	.55
5401.00	2.70	125.90	5400.50	-4.43	25.98	-4.62	26.36	99.67	.99
5496.00	3.50	121.80	5495.36	-7.27	30.26	-7.49	31.12	103.50	.87
5589.00	4.50	124.60	5588.14	-10.83	35.68	-11.10	37.28	106.89	1.10
5684.00	4.80	123.70	5682.82	-15.16	42.05	-15.46	44.70	109.82	.32
5778.00	5.60	115.30	5776.44	-19.30	49.47	-19.66	53.10	111.31	1.17
5873.00	6.60	111.60	5870.90	-23.29	58.74	-23.72	63.18	111.63	1.13
5968.00	5.40	114.80	5965.38	-27.17	67.87	-27.67	73.11	111.82	1.31
6062.00	5.10	133.30	6058.99	-31.89	74.93	-32.44	81.43	113.06	1.82
6156.00	5.00	134.10	6152.62	-37.61	80.91	-38.20	89.22	114.93	.13
6250.00	4.80	134.90	6246.28	-43.24	86.64	-43.87	96.83	116.52	.22
6344.00	4.80	134.90	6339.95	-48.79	92.21	-49.46	104.32	117.88	.00
6439.00	4.80	136.90	6434.62	-54.50	97.74	-55.21	111.91	119.14	.18
6533.00	3.80	127.00	6528.35	-59.24	102.91	-60.00	118.75	119.93	1.32
6627.00	3.90	124.50	6622.14	-62.93	108.04	-63.72	125.03	120.22	.21

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	C L O S U R E		Dogleg Severity Deg/100
				FT	FT	FT	Distance FT	Direction Deg	
6722.00	3.90	125.50	6716.92	-66.63	113.33	-67.46	131.47	120.45	.07
6816.00	3.90	124.40	6810.70	-70.30	118.57	-71.16	137.84	120.66	.08
6910.00	3.90	125.20	6904.49	-73.95	123.82	-74.85	144.22	120.85	.06
7003.00	4.10	131.50	6997.26	-77.97	128.89	-78.91	150.64	121.17	.52
7098.00	4.10	135.50	7092.02	-82.64	133.82	-83.62	157.28	121.70	.30
7192.00	4.20	135.80	7185.77	-87.51	138.57	-88.52	163.89	122.27	.11
7286.00	4.10	135.40	7279.52	-92.37	143.33	-93.42	170.52	122.80	.11
7380.00	4.10	136.10	7373.28	-97.18	148.02	-98.27	177.07	123.29	.05
7474.00	4.00	135.30	7467.05	-101.94	152.66	-103.05	183.56	123.73	.12
7569.00	3.80	140.80	7561.83	-106.73	156.98	-107.88	189.83	124.21	.45
7662.00	3.70	165.10	7654.63	-112.02	159.70	-113.19	195.07	125.05	1.70
7757.00	3.70	166.00	7749.44	-117.96	161.23	-119.13	199.77	126.19	.06
7851.00	3.70	168.90	7843.24	-123.87	162.55	-125.06	204.37	127.31	.20
7945.00	3.90	170.70	7937.03	-130.01	163.65	-131.20	209.00	128.46	.25
8040.00	2.90	164.80	8031.87	-135.51	164.80	-136.72	213.36	129.43	1.11
8134.00	1.00	159.70	8125.81	-138.58	165.71	-139.79	216.01	129.91	2.03
8228.00	1.00	156.90	8219.79	-140.10	166.31	-141.32	217.46	130.11	.05
8322.00	1.00	153.70	8313.78	-141.59	167.00	-142.81	218.94	130.29	.06
8417.00	1.20	161.00	8408.76	-143.27	167.69	-144.50	220.56	130.51	.26
8511.00	1.20	166.00	8502.74	-145.16	168.25	-146.39	222.21	130.79	.11
8605.00	1.30	167.50	8596.72	-147.16	168.72	-148.39	223.88	131.10	.11
8699.00	1.50	162.00	8690.69	-149.37	169.33	-150.60	225.79	131.42	.26
8794.00	.60	191.70	8785.67	-151.04	169.61	-152.28	227.11	131.68	1.08
8888.00	.60	193.90	8879.67	-152.00	169.39	-153.23	227.59	131.90	.02
8982.00	.80	215.70	8973.66	-153.01	168.89	-154.24	227.89	132.18	.35
9076.00	.80	201.10	9067.65	-154.15	168.27	-155.38	228.21	132.49	.22
9171.00	1.00	203.40	9162.64	-155.53	167.70	-156.76	228.72	132.84	.21
9265.00	.80	221.70	9256.63	-156.77	166.94	-157.99	229.02	133.20	.37
9360.00	.20	269.30	9351.63	-157.27	166.34	-158.49	228.91	133.40	.72
9425.00	9.10	351.90	9416.35	-152.17	165.50	-153.38	224.82	132.60	13.96
9516.00	18.00	356.70	9504.73	-130.97	163.67	-132.17	209.62	128.67	9.85
9610.00	22.30	353.40	9592.96	-98.74	160.78	-99.91	188.68	121.55	4.73
9704.00	25.60	355.50	9678.86	-60.76	157.14	-61.91	168.48	111.14	3.63
9798.00	34.90	.00	9759.98	-13.52	155.54	-14.66	156.13	94.97	10.18
9893.00	47.20	2.10	9831.49	48.73	156.82	47.58	164.22	72.74	13.03
9987.00	58.20	4.30	9888.37	123.26	161.09	122.07	202.84	52.58	11.85
10080.00	64.80	3.20	9932.72	204.77	166.41	203.54	263.86	39.10	7.17
10175.00	69.40	2.90	9969.68	292.13	171.06	290.87	338.53	30.35	4.85
10269.00	73.40	2.60	9999.65	381.10	175.33	379.81	419.50	24.71	4.27
10363.00	86.20	2.60	10016.27	473.33	179.52	472.00	506.23	20.77	13.62
End of Curve @ 10460md									
10405.00	86.20	2.40	10019.05	515.20	181.35	513.86	546.18	19.39	.48
10496.00	91.40	359.60	10020.95	606.12	182.94	604.77	633.13	16.79	6.49
10590.00	92.40	358.30	10017.84	700.05	181.21	698.71	723.13	14.51	1.74
10685.00	92.50	358.50	10013.78	794.93	178.56	793.60	814.74	12.66	.24
10779.00	90.50	358.20	10011.32	888.85	175.86	887.54	906.08	11.19	2.15

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	C L O S U R E		Dogleg Severity Deg/100
				FT	FT	FT	Distance FT	Direction Deg	
10873.00	88.90	357.70	10011.81	982.79	172.50	981.50	997.81	9.95	1.78
10965.00	89.30	357.80	10013.25	1074.71	168.88	1073.44	1087.90	8.93	.45
11056.00	89.90	358.00	10013.89	1165.64	165.55	1164.40	1177.34	8.08	.70
11148.00	90.30	357.80	10013.73	1257.58	162.18	1256.36	1267.99	7.35	.49
11240.00	90.90	357.80	10012.76	1349.51	158.65	1348.31	1358.80	6.70	.65
11333.00	92.20	357.80	10010.25	1442.40	155.08	1441.23	1450.72	6.14	1.40
11425.00	92.90	357.80	10006.16	1534.24	151.55	1533.09	1541.71	5.64	.76
11515.00	91.30	358.90	10002.86	1624.14	148.96	1623.01	1630.96	5.24	2.16
11605.00	92.00	358.50	10000.27	1714.08	146.92	1712.96	1720.37	4.90	.90
11697.00	92.20	.20	9996.90	1806.01	145.88	1804.89	1811.89	4.62	1.86
11787.00	93.10	.50	9992.73	1895.91	146.43	1894.79	1901.56	4.42	1.05
11879.00	90.60	.70	9989.76	1987.85	147.39	1986.72	1993.31	4.24	2.73
11970.00	91.30	.60	9988.26	2078.83	148.42	2077.69	2084.12	4.08	.78
12060.00	91.30	.20	9986.21	2168.81	149.05	2167.65	2173.92	3.93	.44
12152.00	91.70	.00	9983.81	2260.77	149.21	2259.62	2265.69	3.78	.49
12242.00	90.90	359.00	9981.76	2350.74	148.42	2349.59	2355.43	3.61	1.42
12337.00	91.70	358.80	9979.61	2445.70	146.60	2444.56	2450.09	3.43	.87
12431.00	92.60	359.10	9976.08	2539.62	144.88	2538.49	2543.75	3.27	1.01
12526.00	92.40	358.60	9971.94	2634.51	142.98	2633.39	2638.39	3.11	.57
12621.00	93.00	358.80	9967.46	2729.38	140.82	2728.27	2733.01	2.95	.67
12715.00	91.30	358.90	9963.94	2823.29	138.94	2822.20	2826.71	2.82	1.81
12809.00	92.00	358.90	9961.23	2917.23	137.13	2916.15	2920.45	2.69	.74
12836.00	92.30	359.00	9960.22	2944.21	136.64	2943.13	2947.38	2.66	1.17
12930.00	88.60	359.30	9959.48	3038.18	135.24	3037.11	3041.19	2.55	3.95
13025.00	89.10	359.30	9961.39	3133.15	134.08	3132.09	3136.02	2.45	.53
13118.00	88.00	.90	9963.74	3226.12	134.25	3225.05	3228.91	2.38	2.09
13213.00	88.10	1.00	9966.97	3321.05	135.82	3319.97	3323.83	2.34	.15
13307.00	87.90	1.60	9970.25	3414.97	137.95	3413.87	3417.75	2.31	.67
13401.00	91.40	4.30	9970.83	3508.82	142.79	3507.68	3511.72	2.33	4.70
13496.00	92.50	2.20	9967.59	3603.61	148.17	3602.42	3606.65	2.35	2.49
13590.00	91.40	359.90	9964.39	3697.53	149.89	3696.33	3700.56	2.32	2.71
13683.00	89.40	358.90	9963.74	3790.51	148.92	3789.32	3793.44	2.25	2.40
13777.00	92.00	358.80	9962.60	3884.48	147.03	3883.30	3887.26	2.17	2.77
13871.00	93.60	359.00	9958.00	3978.35	145.23	3977.18	3981.00	2.09	1.72
13965.00	90.20	358.30	9954.89	4072.26	143.02	4071.10	4074.77	2.01	3.69
14060.00	91.10	358.00	9953.81	4167.20	139.95	4166.06	4169.55	1.92	1.00
14154.00	91.50	357.60	9951.68	4261.10	136.34	4259.99	4263.29	1.83	.60
14248.00	94.20	358.10	9947.01	4354.91	132.82	4353.82	4356.94	1.75	2.92
14342.00	91.50	357.30	9942.33	4448.71	129.05	4447.65	4450.58	1.66	3.00
14436.00	89.80	358.60	9941.27	4542.64	125.69	4541.60	4544.38	1.58	2.28
14531.00	92.30	359.30	9939.52	4637.60	123.95	4636.57	4639.26	1.53	2.73
14624.00	93.50	359.40	9934.82	4730.47	122.90	4729.45	4732.07	1.49	1.29
14719.00	93.10	.40	9929.35	4825.31	122.73	4824.28	4826.87	1.46	1.13
14814.00	93.90	359.80	9923.55	4920.14	122.90	4919.10	4921.67	1.43	1.05
14908.00	89.50	358.80	9920.76	5014.06	121.75	5013.04	5015.54	1.39	4.80

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	C L O S U R E		Dogleg Severity Deg/100
							Distance FT	Direction Deg	
15003.00	90.20	358.30	9921.01	5109.03	119.34	5108.02	5110.43	1.34	.91
15093.00	91.00	357.70	9920.07	5198.97	116.20	5197.98	5200.27	1.28	1.11
15187.00	92.60	357.00	9917.12	5292.82	111.86	5291.86	5294.00	1.21	1.86
15281.00	92.20	358.80	9913.18	5386.67	108.42	5385.73	5387.76	1.15	1.96
15376.00	92.20	1.80	9909.53	5481.59	108.91	5480.64	5482.67	1.14	3.16
15470.00	91.70	2.60	9906.33	5575.46	112.52	5574.49	5576.60	1.16	1.00
15564.00	92.80	2.20	9902.64	5669.31	116.45	5668.30	5670.50	1.18	1.25
15659.00	91.70	4.00	9898.91	5764.09	121.59	5763.04	5765.37	1.21	2.22
15753.00	92.70	3.80	9895.31	5857.80	127.98	5856.71	5859.20	1.25	1.08
15848.00	90.40	3.40	9892.74	5952.57	133.94	5951.43	5954.08	1.29	2.46
15941.00	90.90	3.40	9891.68	6045.40	139.45	6044.22	6047.01	1.32	.54
16035.00	88.60	2.20	9892.09	6139.28	144.05	6138.06	6140.97	1.34	2.76
16129.00	88.00	.30	9894.88	6233.21	146.10	6231.97	6234.93	1.34	2.12
16223.00	90.10	359.60	9896.44	6327.19	146.01	6325.95	6328.88	1.32	2.35
16318.00	90.80	359.60	9895.69	6422.19	145.35	6420.95	6423.83	1.30	.74
16411.00	90.20	358.70	9894.88	6515.17	143.97	6513.94	6516.76	1.27	1.16
16506.00	91.40	357.00	9893.55	6610.09	140.41	6608.89	6611.58	1.22	2.19
16600.00	92.90	358.00	9890.03	6703.93	136.31	6702.75	6705.32	1.16	1.92
16695.00	87.50	359.30	9889.70	6798.87	134.07	6797.70	6800.19	1.13	5.85
16790.00	89.50	.00	9892.18	6893.83	133.49	6892.66	6895.12	1.11	2.23
16884.00	89.80	359.40	9892.76	6987.83	133.00	6986.66	6989.09	1.09	.71
16978.00	90.00	359.40	9892.92	7081.82	132.02	7080.66	7083.05	1.07	.21
17072.00	92.50	359.50	9890.87	7175.79	131.11	7174.63	7176.98	1.05	2.66
17166.00	91.30	1.40	9887.75	7269.72	131.85	7268.56	7270.92	1.04	2.39
17261.00	90.10	1.60	9886.59	7364.68	134.34	7363.50	7365.91	1.05	1.28
17355.00	88.00	1.60	9888.15	7458.63	136.96	7457.42	7459.89	1.05	2.23
17449.00	88.80	.80	9890.78	7552.57	138.93	7551.35	7553.85	1.05	1.20
17544.00	87.90	359.60	9893.51	7647.53	139.26	7646.30	7648.80	1.04	1.58
17638.00	89.10	359.50	9895.97	7741.49	138.53	7740.27	7742.73	1.03	1.28
17732.00	90.60	359.10	9896.22	7835.48	137.38	7834.26	7836.68	1.00	1.65
17825.00	91.60	359.00	9894.43	7928.45	135.84	7927.24	7929.61	.98	1.08
17920.00	90.80	359.40	9892.44	8023.42	134.51	8022.22	8024.55	.96	.94
18014.00	89.00	.10	9892.61	8117.41	134.10	8116.21	8118.52	.95	2.05
18108.00	88.00	358.50	9895.07	8211.37	132.95	8210.17	8212.45	.93	2.01
18202.00	89.40	357.90	9897.20	8305.30	130.00	8304.12	8306.31	.90	1.62
18297.00	89.20	357.30	9898.36	8400.20	126.02	8399.06	8401.15	.86	.67
18391.00	87.30	359.50	9901.23	8494.11	123.40	8492.98	8495.01	.83	3.09
18484.00	86.70	359.40	9906.10	8586.98	122.51	8585.85	8587.86	.82	.65
18579.00	86.90	359.50	9911.40	8681.83	121.60	8680.70	8682.68	.80	.24
18673.00	88.30	359.50	9915.34	8775.74	120.78	8774.62	8776.57	.79	1.49
18767.00	89.30	359.20	9917.31	8869.71	119.71	8868.60	8870.52	.77	1.11
18862.00	91.00	359.30	9917.06	8964.70	118.47	8963.59	8965.48	.76	1.79
18955.00	92.30	359.60	9914.38	9057.66	117.57	9056.55	9058.42	.74	1.43
19050.00	92.20	359.60	9910.65	9152.58	116.91	9151.48	9153.33	.73	.11
19144.00	87.00	358.00	9911.31	9246.52	114.94	9245.43	9247.24	.71	5.79

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	C L O S U R E		Dogleg Severity Deg/100
							Distance FT	Direction Deg	
19238.00	85.50	357.30	9917.45	9340.24	111.10	9339.17	9340.90	.68	1.76
19332.00	85.20	356.30	9925.08	9433.78	105.87	9432.75	9434.38	.64	1.11
19427.00	88.70	358.10	9930.13	9528.52	101.24	9527.52	9529.05	.61	4.14
19521.00	88.20	357.00	9932.67	9622.39	97.22	9621.42	9622.89	.58	1.29
19615.00	96.20	.30	9929.07	9716.21	95.00	9715.25	9716.67	.56	9.20
19655.00	95.90	.80	9924.85	9755.98	95.38	9755.02	9756.45	.56	1.45
Extrapolation to Bit at 19709ft.									
19709.00	95.90	.80	9919.30	9809.69	96.13	9808.72	9810.16	.56	.00