

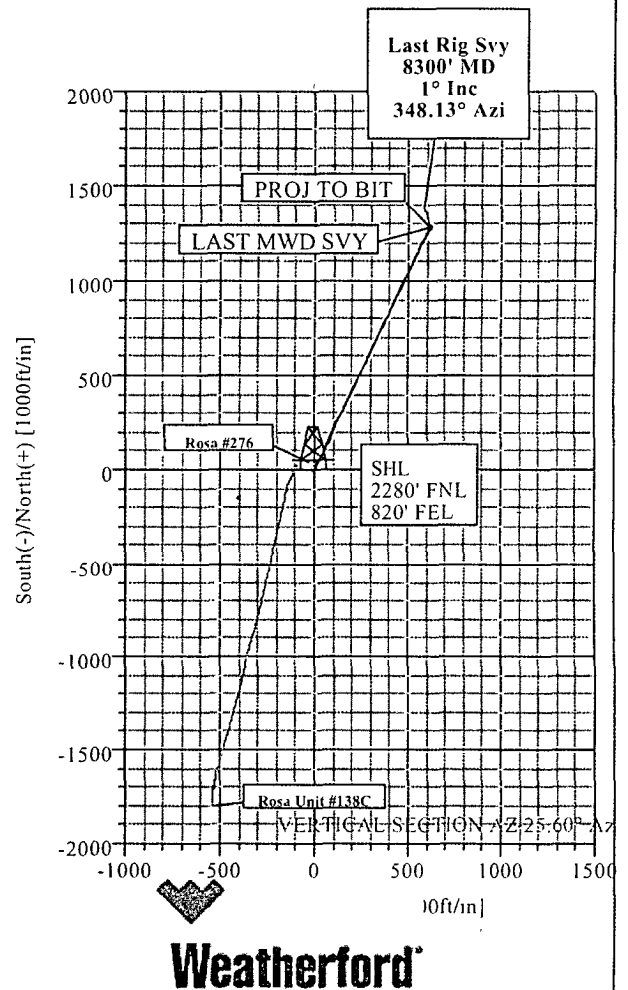
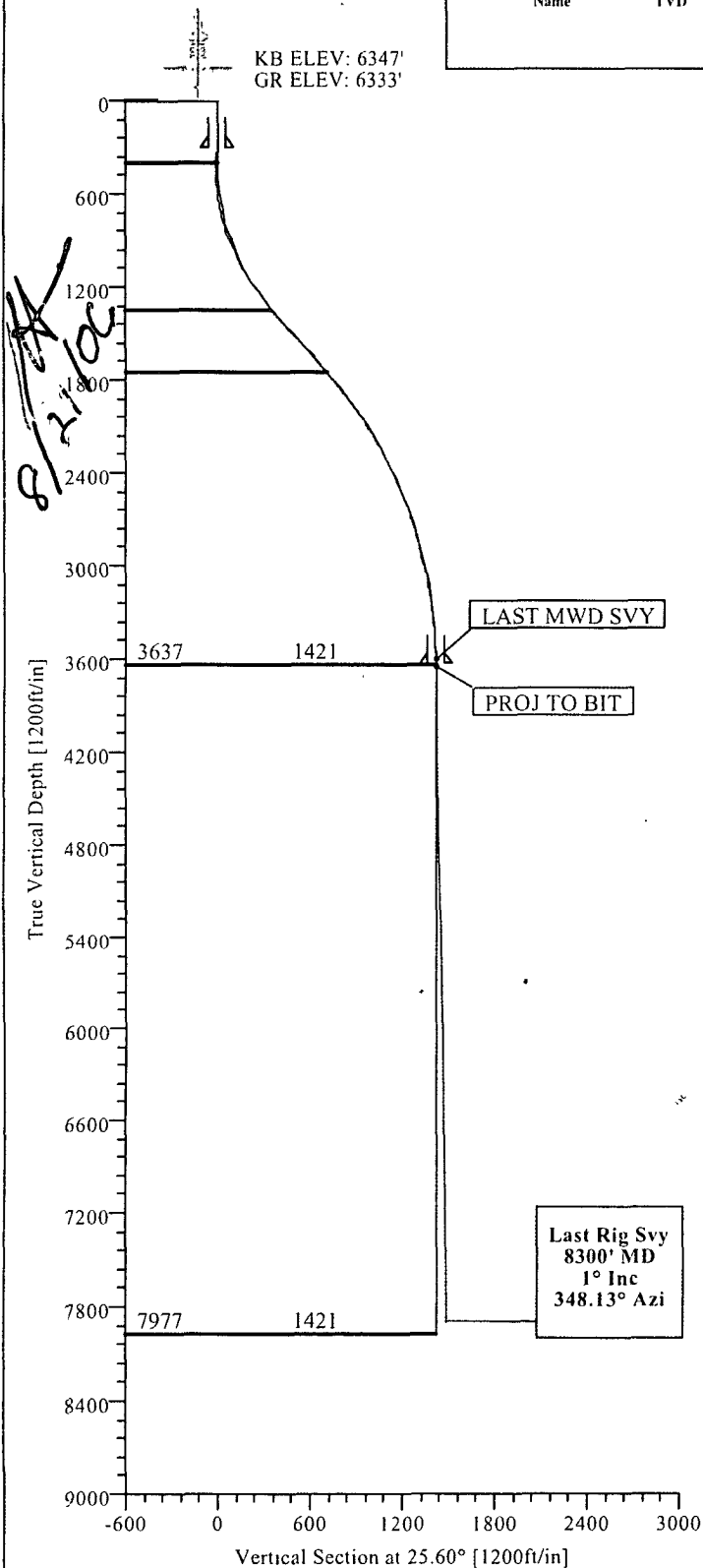
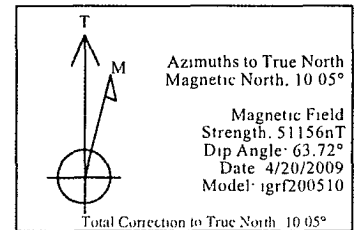


William's

SECTION DETAILS										
Sec	MD	Inc	AZI	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.00	0.00	25.60	0.00	0.00	0.00	0.00	0.00	0.00	
2	400.00	0.00	25.60	400.00	0.00	0.00	0.00	0.00	0.00	
3	1432.13	41.29	25.60	1345.11	321.08	153.86	4.00	25.60	356.05	
4	1966.68	41.29	25.60	1746.79	639.15	306.28	0.00	0.00	708.75	
5	4030.95	0.00	25.60	3637.00	1281.32	614.00	2.00	180.00	1420.84	Int. Csg. Pt.
6	8370.95	0.00	25.60	7977.00	1281.32	614.00	0.00	25.60	1420.84	PBHL

WELL DETAILS							
Name	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
#138D	0.00	0.00	2147329.21	2826416.83	36°54'02.050N	107°28'47.890W	N/A

TARGET DETAILS								
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
None								



Plan. Plan #1 (#138D/1)

Created By: Lindsey Maddux

Date, 6/18/2009



30-045-34959
Weatherford International, Inc.
Survey Report



Weatherford

Company: WILLIAMS PRODUCTION Field: San Juan County, NM (NAD 83) Site: Rosa Unit #138D Well: #138D Wellpath: 1	Date: 6/18/2009 Time: 16:26:36 Page: 1 Co-ordinate(NE) Reference: Well: #138D; True North Vertical (TVD) Reference: SITE 6347.0 Section (VS) Reference: Well (0.00N,0.00E,25.60Azi) Survey Calculation Method: Minimum Curvature Db: Sybase
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Field: San Juan County, NM (NAD 83)

Map System: US State Plane Coordinate System 1983
Geo Datum: GRS 1980
Sys Datum: Mean Sea Level

Map Zone: New Mexico, Western Zone
Coordinate System: Well Centre
Geomagnetic Model: igrf200510

Site: Rosa Unit #138D

2280' FNL 820' FEL of SEC 17 T31N R6W

Site Position:	Northing: 2147329.21 ft	Latitude: 36 54 2.050 N
From: Geographic	Easting: 2826416.83 ft	Longitude: 107 28 47.890 W
Position Uncertainty: 0.00 ft		North Reference: True
Ground Level: 6333.00 ft		Grid Convergence: 0.21 deg

Well: #138D

Slot Name:

Well Position:	Northing: 2147329.21 ft	Latitude: 36 54 2.050 N
+N/-S 0.00 ft	Easting: 2826416.83 ft	Longitude: 107 28 47.890 W
+E/-W 0.00 ft		
Position Uncertainty: 0.00 ft		

Wellpath: 1

Current Datum: SITE	Height 6347.00 ft	Drilled From: Surface
Magnetic Data: 4/20/2009		Tie-on Depth: 0.00 ft
Field Strength: 51156 nT		Above System Datum: Mean Sea Level
Vertical Section: Depth From (TVD)	+N/-S	Declination: 10.05 deg
ft	ft	Mag Dip Angle: 63.72 deg
		+E/-W
		ft
		Direction
		deg
0.00	0.00	0.00 25.60

Survey: WFT SVY

Start Date: 6/3/2009

Company: Weatherford International, Inc
Tool: MWD,MWD - Standard

Engineer: Lindsey Maddux
Tied-to: From Surface

Survey: WFT SVY

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	Tool/Comment
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	MWD
391.00	2.73	227.89	390.85	-6.25	-6.91	-8.62	0.70	0.70	0.00	MWD
421.00	1.74	225.75	420.83	-7.04	-7.77	-9.71	3.31	-3.30	-7.13	MWD
451.00	0.61	224.71	450.82	-7.47	-8.20	-10.28	3.77	-3.77	-3.47	MWD
482.00	0.72	34.65	481.82	-7.43	-8.21	-10.25	4.27	0.35	548.19	MWD
513.00	2.25	38.68	512.81	-6.80	-7.72	-9.46	4.94	4.94	13.00	MWD
543.00	4.06	36.18	542.76	-5.48	-6.72	-7.85	6.05	6.03	-8.33	MWD
574.00	6.13	35.18	573.64	-3.24	-5.12	-5.13	6.68	6.68	-3.23	MWD
604.00	7.81	32.68	603.42	-0.21	-3.10	-1.53	5.69	5.60	-8.33	MWD
634.00	9.25	30.93	633.08	3.57	-0.76	2.89	4.88	4.80	-5.83	MWD
664.00	10.69	32.30	662.63	7.99	1.97	8.06	4.86	4.80	4.57	MWD
695.00	12.13	34.93	693.02	13.09	5.37	14.13	4.94	4.65	8.48	MWD
726.00	13.25	35.30	723.26	18.66	9.29	20.84	3.62	3.61	1.19	MWD
756.00	14.38	36.05	752.39	24.48	13.47	27.89	3.81	3.77	2.50	MWD
786.00	15.56	35.18	781.37	30.78	17.98	35.53	4.00	3.93	-2.90	MWD
817.00	17.19	33.68	811.11	37.99	22.91	44.16	5.43	5.26	-4.84	MWD
847.00	18.75	30.68	839.65	45.83	27.83	53.35	6.04	5.20	-10.00	MWD
878.00	20.00	30.43	868.89	54.68	33.06	63.60	4.04	4.03	-0.81	MWD
907.00	21.06	28.05	896.05	63.56	38.02	73.75	4.65	3.66	-8.21	MWD
937.00	22.31	27.05	923.93	73.39	43.15	84.83	4.34	4.17	-3.33	MWD
968.00	23.81	26.93	952.45	84.21	48.66	96.96	4.84	4.84	-0.39	MWD
998.00	25.00	25.93	979.77	95.31	54.17	109.36	4.20	3.97	-3.33	MWD
1028.00	26.38	25.30	1006.80	107.04	59.79	122.36	4.69	4.60	-2.10	MWD
1059.00	28.00	25.30	1034.38	119.84	65.85	136.53	5.23	5.23	0.00	MWD



Weatherford International, Inc.

Survey Report



Weatherford

Company: WILLIAMS PRODUCTION Date: 6/18/2009 Time: 16:26:36 Page: 2
 Field: San Juan County, NM (NAD 83) Co-ordinate(NE) Reference: Well: #138D, True North
 Site: Rosa Unit #138D Vertical (TYD) Reference: SITE 6347.0
 Well: #138D Section (VS) Reference: Well (0.00N,0.00E,25.60Azi)
 Wellpath: 1 Survey Calculation Method: Minimum Curvature Db: Sybase

Survey: WFT SVY

MD ft	Incl deg	Azim deg	TYD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	Tool/Comment
1090.00	29.63	25.43	1061.54	133.34	72.25	151.47	5.26	5.26	0.42	MWD
1120.00	30.88	23.68	1087.45	147.09	78.52	166.58	5.10	4.17	-5.83	MWD
1150.00	31.75	22.68	1113.08	161.42	84.66	182.16	3.38	2.90	-3.33	MWD
1180.00	32.75	22.05	1138.45	176.23	90.75	198.14	3.52	3.33	-2.10	MWD
1212.00	34.13	21.80	1165.16	192.59	97.33	215.74	4.33	4.31	-0.78	MWD
1243.00	35.25	21.68	1190.64	208.97	103.87	233.34	3.62	3.61	-0.39	MWD
1275.00	36.16	22.88	1216.63	226.25	110.95	251.98	3.59	2.84	3.75	MWD
1306.00	37.13	24.18	1241.50	243.22	118.34	270.47	4.01	3.13	4.19	MWD
1338.00	38.00	23.93	1266.87	261.03	126.29	289.97	2.76	2.72	-0.78	MWD
1370.00	39.06	25.05	1291.90	279.17	134.55	309.90	3.97	3.31	3.50	MWD
1401.00	39.88	25.43	1315.83	296.99	142.96	329.61	2.76	2.65	1.23	MWD
1432.00	40.19	25.05	1339.57	315.03	151.46	349.55	1.27	1.00	-1.23	MWD
1464.00	40.75	25.68	1363.91	333.80	160.36	370.32	2.17	1.75	1.97	MWD
1495.00	41.94	26.05	1387.18	352.22	169.29	390.80	3.92	3.84	1.19	MWD
1526.00	42.06	26.93	1410.22	370.79	178.54	411.54	1.94	0.39	2.84	MWD
1557.00	42.25	27.30	1433.20	389.31	188.03	432.33	1.01	0.61	1.19	MWD
1589.00	42.48	27.11	1456.85	408.49	197.89	453.89	0.82	0.72	-0.59	MWD
1620.00	42.44	25.68	1479.72	427.23	207.19	474.81	3.12	-0.13	-4.61	MWD
1651.00	42.81	24.93	1502.53	446.21	216.16	495.81	2.03	1.19	-2.42	MWD
1683.00	43.19	25.43	1525.93	465.96	225.45	517.63	1.60	1.19	1.56	MWD
1713.00	41.94	25.30	1548.02	484.29	234.14	537.92	4.18	-4.17	-0.43	MWD
1744.00	40.88	25.43	1571.27	502.82	242.92	558.43	3.43	-3.42	0.42	MWD
1774.00	40.94	25.68	1593.95	520.55	251.40	578.07	0.58	0.20	0.83	MWD
1806.00	41.13	25.05	1618.08	539.53	260.40	599.08	1.42	0.59	-1.97	MWD
1837.00	39.38	25.05	1641.74	557.68	268.88	619.11	5.65	-5.65	0.00	MWD
1868.00	39.56	25.55	1665.67	575.49	277.30	638.82	1.18	0.58	1.61	MWD
1899.00	39.31	26.05	1689.61	593.22	285.87	658.51	1.30	-0.81	1.61	MWD
1931.00	39.25	25.18	1714.39	611.49	294.63	678.77	1.73	-0.19	-2.72	MWD
1962.00	39.31	25.18	1738.38	629.25	302.98	698.39	0.19	0.19	0.00	MWD
1993.00	39.50	25.30	1762.33	647.05	311.37	718.07	0.66	0.61	0.39	MWD
2024.00	39.88	25.80	1786.19	664.91	319.91	737.87	1.60	1.23	1.61	MWD
2056.00	40.25	25.80	1810.68	683.45	328.87	758.46	1.16	1.16	0.00	MWD
2087.00	40.35	25.37	1834.32	701.54	337.53	778.51	0.95	0.32	-1.39	MWD
2118.00	39.50	25.93	1858.09	719.47	346.14	798.41	2.98	-2.74	1.81	MWD
2149.00	39.69	24.68	1881.98	737.34	354.59	818.17	2.64	0.61	-4.03	MWD
2178.00	39.06	24.55	1904.40	754.06	362.25	836.56	2.19	-2.17	-0.45	MWD
2209.00	37.63	24.18	1928.71	771.58	370.19	855.79	4.67	-4.61	-1.19	MWD
2241.00	36.25	23.30	1954.29	789.18	377.93	875.01	4.62	-4.31	-2.75	MWD
2272.00	35.88	23.05	1979.35	805.96	385.11	893.24	1.28	-1.19	-0.81	MWD
2304.00	35.19	24.68	2005.39	822.97	392.63	911.83	3.66	-2.16	5.09	MWD
2334.00	33.88	26.80	2030.10	838.29	400.01	928.83	5.93	-4.37	7.07	MWD
2365.00	32.81	27.55	2056.00	853.45	407.80	945.87	3.70	-3.45	2.42	MWD
2396.00	32.44	27.43	2082.11	868.27	415.51	962.57	1.21	-1.19	-0.39	MWD
2427.00	32.00	27.05	2108.33	882.97	423.08	979.09	1.56	-1.42	-1.23	MWD
2459.00	31.31	27.43	2135.57	897.90	430.76	995.88	2.24	-2.16	1.19	MWD
2489.00	30.38	26.43	2161.33	911.61	437.73	1011.26	3.54	-3.10	-3.33	MWD
2520.00	29.63	25.30	2188.17	925.56	444.49	1026.76	3.03	-2.42	-3.65	MWD
2551.00	29.25	24.43	2215.17	939.38	450.90	1041.99	1.85	-1.23	-2.81	MWD
2582.00	28.63	25.05	2242.30	953.01	457.18	1056.99	2.22	-2.00	2.00	MWD
2613.00	28.80	26.07	2269.49	966.44	463.60	1071.89	1.67	0.55	3.29	MWD
2642.00	28.94	26.55	2294.88	978.99	469.81	1085.89	0.93	0.48	1.66	MWD
2674.00	27.79	25.75	2323.04	992.64	476.51	1101.09	3.78	-3.59	-2.50	MWD
2703.00	27.44	25.18	2348.74	1004.77	482.29	1114.53	1.51	-1.21	-1.97	MWD



Weatherford International, Inc.

Survey Report

**Weatherford**

Company: WILLIAMS PRODUCTION	Date: 6/18/2009	Time: 16:26:36	Page: 3
Field: San Juan County, NM (NAD 83)	Co-ordinate(NE) Reference: Well: #138D, True North		
Site: Rosa Unit #138D	Vertical (TVD) Reference: SITE 6347.0		
Well: #138D	Section (VS) Reference: Well (0.00N,0.00E,25.60Azi)		
Wellpath: 1	Survey Calculation Method: Minimum Curvature	Db: Sybase	

Survey: WFT SVY

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	Tool/Comment
2734.00	27.06	24.93	2376.30	1017.63	488.30	1128.72	1.28	-1.23	-0.81	MWD
2764.00	26.63	25.43	2403.06	1029.89	494.07	1142.27	1.62	-1.43	1.67	MWD
2794.00	25.63	24.43	2430.00	1041.87	499.64	1155.48	3.64	-3.33	-3.33	MWD
2823.00	24.63	24.05	2456.25	1053.10	504.69	1167.79	3.49	-3.45	-1.31	MWD
2852.00	23.50	24.05	2482.73	1063.90	509.51	1179.61	3.90	-3.90	0.00	MWD
2883.00	22.66	24.46	2511.25	1074.98	514.50	1191.76	2.76	-2.71	1.32	MWD
2914.00	21.56	24.43	2539.97	1085.60	519.33	1203.43	3.55	-3.55	-0.10	MWD
2945.00	20.31	24.55	2568.92	1095.68	523.92	1214.50	4.03	-4.03	0.39	MWD
2977.00	19.75	23.55	2598.99	1105.69	528.39	1225.46	2.05	-1.75	-3.12	MWD
3007.00	19.31	22.68	2627.26	1114.91	532.33	1235.48	1.76	-1.47	-2.90	MWD
3038.00	19.25	23.80	2656.52	1124.32	536.37	1245.70	1.21	-0.19	3.61	MWD
3069.00	18.81	24.93	2685.83	1133.53	540.54	1255.81	1.85	-1.42	3.65	MWD
3100.00	18.19	26.55	2715.23	1142.39	544.81	1265.64	2.60	-2.00	5.23	MWD
3131.00	17.45	26.81	2744.74	1150.86	549.07	1275.13	2.40	-2.39	0.84	MWD
3161.00	16.50	25.80	2773.43	1158.71	552.95	1283.89	3.32	-3.17	-3.37	MWD
3193.00	15.75	23.68	2804.17	1166.78	556.67	1292.77	2.98	-2.34	-6.62	MWD
3224.00	14.81	24.18	2834.08	1174.25	559.98	1300.94	3.06	-3.03	1.61	MWD
3255.00	14.22	25.45	2864.09	1181.30	563.24	1308.71	2.16	-1.90	4.10	MWD
3285.00	13.75	25.43	2893.20	1187.85	566.36	1315.96	1.57	-1.57	-0.07	MWD
3316.00	13.75	26.80	2923.31	1194.47	569.60	1323.32	1.05	0.00	4.42	MWD
3347.00	13.19	30.05	2953.46	1200.82	573.03	1330.53	3.04	-1.81	10.48	MWD
3377.00	13.06	31.30	2982.67	1206.67	576.51	1337.32	1.04	-0.43	4.17	MWD
3406.00	12.75	30.80	3010.94	1212.22	579.85	1343.77	1.14	-1.07	-1.72	MWD
3437.00	12.38	28.18	3041.20	1218.09	583.17	1350.49	2.19	-1.19	-8.45	MWD
3468.00	11.19	27.05	3071.55	1223.70	586.11	1356.82	3.91	-3.84	-3.65	MWD
3499.00	10.19	23.30	3102.01	1228.90	588.56	1362.57	3.93	-3.23	-12.10	MWD
3530.00	9.88	23.43	3132.53	1233.86	590.70	1367.96	1.00	-1.00	0.42	MWD
3560.00	9.29	25.65	3162.11	1238.40	592.77	1372.96	2.32	-1.97	7.40	MWD
3591.00	8.94	25.43	3192.72	1242.83	594.89	1377.87	1.13	-1.13	-0.71	MWD
3620.00	8.94	26.18	3221.37	1246.89	596.85	1382.38	0.40	0.00	2.59	MWD
3651.00	8.50	27.05	3252.01	1251.09	598.96	1387.07	1.48	-1.42	2.84	MWD
3680.00	8.44	26.18	3280.70	1254.91	600.87	1391.34	0.49	-0.21	-3.00	MWD
3712.00	8.56	26.68	3312.34	1259.14	602.98	1396.07	0.44	0.37	1.56	MWD
3742.00	8.06	25.80	3342.03	1263.03	604.89	1400.41	1.72	-1.67	-2.93	MWD
3773.00	7.75	19.93	3372.73	1266.95	606.55	1404.66	2.79	-1.00	-18.94	MWD
3801.00	7.31	18.05	3400.49	1270.42	607.75	1408.31	1.80	-1.57	-6.71	MWD
3833.00	6.06	14.55	3432.28	1273.99	608.80	1411.98	4.11	-3.91	-10.94	MWD
3862.00	4.06	12.68	3461.16	1276.48	609.41	1414.49	6.92	-6.90	-6.45	MWD
3894.00	3.09	11.55	3493.10	1278.43	609.83	1416.43	3.04	-3.03	-3.53	MWD
3924.00	2.19	5.00	3523.07	1279.79	610.05	1417.75	3.16	-3.00	-21.83	MWD
3955.00	1.88	0.68	3554.05	1280.89	610.10	1418.76	1.12	-1.00	-13.94	MWD
3986.00	1.50	354.30	3585.03	1281.80	610.07	1419.57	1.37	-1.23	-20.58	MWD
3995.00	1.32	348.13	3594.03	1282.02	610.04	1419.76	2.61	-2.00	-68.56	LAST MWD SVY
4045.00	1.32	348.13	3644.02	1283.15	609.80	1420.67	0.00	0.00	0.00	PROJ TO BIT
8300.00	1.00	348.13	7898.14	1367.44	592.08	1489.04	0.01	-0.01	0.00	LAST RIG SVY

Annotation

MD ft	TVD ft	
3995.00	3594.03	LAST MWD SVY
4045.00	3644.02	PROJ TO BIT
8300.00	7898.14	LAST RIG SVY