

30 - 039 - 29779

Surface 1565/N 2600/W
BHL 684/N 1959/WROAD FERRY 07
OIL CONS. DIV
DIST. 8

Weatherford

Client : Williams Production Company
Well : Rosa Unit #310-A_BHL 2
Location : Rio Arriba County, New Mexico
License :MD 3915
TVD 3724

UWI #:

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Date: 8/27/2006
File : 4009

Vertical Section Calculated Along Azimuth 328.19°

KB Elevation = 7000.00ft GR. Elevation = 6986.00ft

	MD ft	Inc deg	Azi deg	TVD ft	North ft	East ft	V'Sect ft	D'Leg °/100	Build °/100	Turn °/100
0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	335.00	0.00	0.00	335.00	0.00	0.00	0.00	0.00	0.00	0.00
2	387.00	0.69	202.27	387.00	-0.29	-0.12	-0.18	1.33	1.33	-303.33
3	449.00	1.31	321.90	448.99	-0.08	-0.70	0.30	2.83	1.00	192.95
4	510.00	3.06	325.02	509.95	1.81	-2.06	2.62	2.87	2.87	5.11
5	570.00	5.25	324.02	569.79	5.34	-4.59	6.96	3.65	3.65	-1.67
6	631.00	7.13	327.77	630.43	10.80	-8.25	13.53	3.15	3.08	6.15
7	692.00	8.50	333.02	690.86	18.02	-12.32	21.81	2.53	2.25	8.61
8	753.00	10.69	330.15	751.00	26.95	-17.18	31.95	3.67	3.59	-4.70
9	814.00	12.81	330.27	810.72	37.73	-23.35	44.37	3.48	3.48	0.20
10	875.00	15.38	329.27	869.88	50.55	-30.84	59.22	4.23	4.21	-1.64
11	935.00	17.25	328.90	927.46	65.01	-39.50	76.07	3.12	3.12	-0.62
12	995.00	19.19	329.02	984.45	81.09	-49.17	94.83	3.23	3.23	0.20
13	1055.00	20.31	330.02	1040.92	98.56	-59.45	115.09	1.95	1.87	1.67
14	1115.00	21.13	328.90	1097.04	116.84	-70.24	136.32	1.52	1.37	-1.87
15	1176.00	22.56	327.65	1153.66	136.14	-82.18	159.01	2.47	2.34	-2.05
16	1240.00	23.94	326.65	1212.46	157.36	-95.89	184.27	2.24	2.16	-1.56
17	1302.00	24.50	326.65	1269.00	178.61	-109.87	209.70	0.90	0.90	0.00
18	1365.00	24.00	326.27	1326.44	200.18	-124.17	235.56	0.83	-0.79	-0.60
19	1428.00	23.63	326.77	1384.08	221.39	-138.20	260.99	0.67	-0.59	0.79
20	1491.00	24.25	326.90	1441.66	242.79	-152.19	286.54	0.99	0.98	0.21
21	1554.00	24.06	326.90	1499.14	264.39	-166.26	312.32	0.30	-0.30	0.00
22	1617.00	24.75	325.65	1556.51	286.04	-180.72	338.33	1.37	1.10	-1.98
23	1677.00	23.75	326.40	1611.22	306.47	-194.49	362.96	1.74	-1.67	1.25
24	1739.00	24.44	326.52	1667.82	327.57	-208.48	388.25	1.12	1.11	0.19
25	1801.00	23.25	328.15	1724.52	348.66	-222.01	413.31	2.19	-1.92	2.63
26	1863.00	22.75	328.90	1781.59	369.32	-234.66	437.54	0.93	-0.81	1.21
27	1926.00	22.75	328.65	1839.69	390.15	-247.29	461.90	0.15	0.00	-0.40
28	1988.00	23.00	328.15	1896.82	410.68	-259.92	486.00	0.51	0.40	-0.81
29	2050.00	23.00	328.52	1953.89	431.30	-272.64	510.23	0.23	0.00	0.60
30	2112.00	23.31	328.65	2010.89	452.10	-285.34	534.60	0.51	0.50	0.21
31	2173.00	23.94	329.15	2066.78	473.04	-297.97	559.05	1.08	1.03	0.82
32	2235.00	24.50	328.77	2123.32	494.83	-311.08	584.48	0.94	0.90	-0.61
33	2298.00	24.88	329.90	2180.56	517.46	-324.50	610.79	0.96	0.60	1.79
34	2360.00	24.06	330.52	2237.00	539.75	-337.26	636.45	1.39	-1.32	1.00
35	2422.00	23.81	329.15	2293.66	561.50	-349.90	661.60	0.98	-0.40	-2.21
36	2483.00	23.88	328.77	2349.46	582.63	-362.62	686.25	0.28	0.11	-0.62

Standard location verified w/SH 2/8/07

8/2/07

**Weatherford**

Client : Williams Production Company
 Well : Rosa Unit #310-A_BHL 2
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	MD ft	Inc deg	Azi deg	TVD ft	North ft	East ft	V'Sect ft	D'Leg °/100	Build °/100	Turn °/100
37	2547.00	23.69	328.40	2408.02	604.65	-376.07	712.06	0.38	-0.30	-0.58
38	2610.00	23.31	329.40	2465.80	626.16	-389.05	737.18	0.87	-0.60	1.59
39	2671.00	23.56	328.77	2521.76	646.98	-401.51	761.44	0.58	0.41	-1.03
40	2734.00	24.13	329.65	2579.39	668.86	-414.55	786.90	1.07	0.90	1.40
41	2796.00	23.94	328.15	2636.01	690.48	-427.59	812.15	1.03	-0.31	-2.42
42	2858.00	22.75	328.02	2692.94	711.33	-440.58	836.72	1.92	-1.92	-0.21
43	2919.00	22.38	328.40	2749.27	731.23	-452.91	860.13	0.65	-0.61	0.62
44	2982.00	21.19	328.15	2807.76	751.11	-465.20	883.51	1.89	-1.89	-0.40
45	3042.00	19.38	326.90	2864.04	768.67	-476.36	904.31	3.10	-3.02	-2.08
46	3105.00	17.69	326.65	2923.77	785.42	-487.33	924.33	2.69	-2.68	-0.40
47	3167.00	15.19	328.90	2983.23	800.25	-496.71	941.87	4.16	-4.03	3.63
48	3228.00	13.75	328.15	3042.30	813.25	-504.66	957.11	2.38	-2.36	-1.23
49	3291.00	12.63	327.65	3103.63	825.43	-512.30	971.48	1.79	-1.78	-0.79
50	3354.00	10.63	326.52	3165.34	836.09	-519.19	984.18	3.19	-3.17	-1.79
51	3417.00	8.69	329.52	3227.44	845.04	-524.81	994.75	3.18	-3.08	4.76
52	3478.00	6.63	328.40	3287.89	852.01	-528.99	1002.88	3.39	-3.38	-1.84
53	3541.00	5.44	328.90	3350.54	857.67	-532.44	1009.50	1.89	-1.89	0.79
54	3603.00	4.81	334.52	3412.30	862.53	-535.08	1015.02	1.30	-1.02	9.06
55	3667.00	3.44	337.90	3476.13	866.73	-536.95	1019.58	2.17	-2.14	5.28
56	3729.00	2.56	325.77	3538.04	869.60	-538.43	1022.80	1.74	-1.42	-19.56
57	3792.00	2.44	338.15	3600.98	872.01	-539.72	1025.53	0.88	-0.19	19.65
58	3856.00	1.75	331.90	3664.94	874.14	-540.69	1027.84	1.13	-1.08	-9.77
59	3868.00	1.88	340.15	3676.93	874.48	-540.84	1028.22	2.43	1.08	68.75
EXT	3915.00	1.88	340.15	3723.91	875.93	-541.37	1029.73	0.00	0.00	0.00

Bottom Hole Closure 1029.73ft Along Azimuth 328.28°