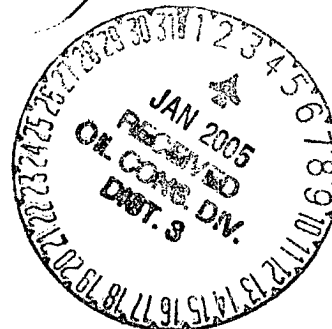




30-039-27846

H

Williams Production Company
Rosa Unit #44C

slot #1
Rio Arriba, New Mexico
Rio Arriba, New Mexico

SURVEY LISTING

by
Baker Hughes INTEQ

Your ref : MWD
Our ref : svy2632
License :

Date printed : 1-Dec-2004
Date created : 8-Jul-2004
Last revised : 29-Nov-2004

Field is centred on 1247675.189,2183081.720,999.00000,N
Structure is centred on n36 56 2.000,w107 25 51

Slot location is n36 56 2.000,w107 25 51.000
Slot Grid coordinates are N 2159449.670, E 617638.081
Slot local coordinates are 0.00 N 0.00 E

Projection type: mercator - New Mexico West (3003), Spheroid: Clarke - 1866

Reference North is True North

Surface 1660/s 1390/w
282/s 285/w

Williams Production Company
 Rosa Unit #44C, slot #1
 Rio Arriba, New Mexico, Rio Arriba, New Mexico

SURVEY LISTING Page 1
 Your ref : MWD
 Last revised : 29-Nov-2004

Measured Depth	Inclin. Degrees	Azimuth Degrees	True Vert Depth	R E C T A N G U L A R C O O R D I N A T E S		Dogleg Deg/100ft	Vert Sect
0.00	0.00	0.00	0.00	0.00 N	0.00 E	0.00	0.00
300.00	0.70	173.00	299.99	1.82 S	0.22 E	0.23	1.28
319.00	0.80	158.80	318.99	2.06 S	0.29 E	1.11	1.43
349.00	1.30	188.00	348.99	2.59 S	0.31 E	2.39	1.83
379.00	2.00	198.90	378.97	3.42 S	0.10 E	2.55	2.62
409.00	2.90	206.50	408.95	4.60 S	0.41 W	3.18	3.85
439.00	3.90	214.20	438.89	6.12 S	1.32 W	3.66	5.61
469.00	4.80	219.50	468.81	7.93 S	2.70 W	3.28	7.88
500.00	5.60	222.20	499.68	10.05 S	4.54 W	2.70	10.69
529.00	6.10	222.50	528.53	12.24 S	6.53 W	1.73	13.64
560.00	6.60	223.50	559.34	14.74 S	8.87 W	1.65	17.06
591.00	7.60	223.60	590.10	17.52 S	11.51 W	3.23	20.87
621.00	8.90	223.40	619.79	20.64 S	14.47 W	4.33	25.16
651.00	10.20	222.50	649.37	24.29 S	17.86 W	4.36	30.13
681.00	11.50	222.10	678.83	28.47 S	21.66 W	4.34	35.76
710.00	12.90	221.10	707.18	33.05 S	25.72 W	4.88	41.88
741.00	14.30	220.10	737.31	38.59 S	30.47 W	4.58	49.16
771.00	15.60	220.20	766.29	44.50 S	35.46 W	4.33	56.90
801.00	16.70	220.20	795.11	50.88 S	40.84 W	3.67	65.24
831.00	17.60	222.30	823.77	57.52 S	46.68 W	3.64	74.08
861.00	18.70	223.40	852.28	64.37 S	53.03 W	3.84	83.39
891.00	19.70	223.50	880.61	71.53 S	59.82 W	3.34	93.22
921.00	20.70	222.10	908.77	79.14 S	66.85 W	3.70	103.55
951.00	21.60	221.30	936.75	87.22 S	74.05 W	3.15	114.36
981.00	22.70	220.30	964.53	95.78 S	81.44 W	3.88	125.66
1010.00	23.70	220.50	991.19	104.48 S	88.85 W	3.46	137.08
1040.00	24.80	221.10	1018.54	113.81 S	96.90 W	3.76	149.39
1069.00	25.80	220.20	1044.76	123.21 S	104.97 W	3.69	161.78
1100.00	26.80	221.10	1072.55	133.63 S	113.92 W	3.47	175.50
1129.00	28.00	221.10	1098.29	143.69 S	122.69 W	4.14	188.84
1160.00	29.30	221.90	1125.50	154.82 S	132.54 W	4.37	203.68
1190.00	30.50	221.30	1151.50	166.00 S	142.47 W	4.12	218.61
1221.00	31.90	221.40	1178.02	178.06 S	153.08 W	4.52	234.65
1252.00	32.40	221.20	1204.27	190.45 S	163.97 W	1.65	251.13
1283.00	33.50	221.70	1230.28	203.09 S	175.13 W	3.66	267.97
1315.00	34.70	222.00	1256.78	216.45 S	187.10 W	3.79	285.88
1346.00	35.90	221.90	1282.08	229.77 S	199.07 W	3.88	303.76
1377.00	37.40	221.00	1306.95	243.64 S	211.32 W	5.14	322.24
1408.00	38.80	220.20	1331.34	258.17 S	223.77 W	4.79	341.35
1439.00	39.00	217.90	1355.47	273.28 S	236.03 W	4.70	360.82
1500.00	39.50	216.70	1402.71	303.98 S	259.41 W	1.49	399.40
1563.00	40.50	217.10	1450.97	336.37 S	283.73 W	1.64	439.88
1626.00	41.50	217.50	1498.51	369.24 S	308.78 W	1.64	481.20
1687.00	41.80	217.80	1544.09	401.34 S	333.54 W	0.59	521.73
1748.00	41.70	217.60	1589.60	433.48 S	358.38 W	0.27	562.35
1810.00	41.60	218.10	1635.93	466.01 S	383.66 W	0.56	603.55
1872.00	42.10	218.10	1682.11	498.57 S	409.18 W	0.81	644.91
1935.00	42.10	218.30	1728.86	531.76 S	435.30 W	0.21	687.15
1996.00	42.90	218.20	1773.83	564.12 S	460.82 W	1.32	728.36
2058.00	42.90	218.00	1819.25	597.33 S	486.86 W	0.22	770.56

All data is in feet unless otherwise stated.
 Coordinates from slot #1 and TVD from rotary table.
 Bottom hole distance is 1766.27 on azimuth 218.73 degrees from wellhead.
 Vertical section is from N 0.00 E 0.00 on azimuth 218.55 degrees.
 Calculation uses the minimum curvature method.
 Presented by Baker Hughes INTEQ

Williams Production Company
Rosa Unit #44C, slot #1
Rio Arriba, New Mexico, Rio Arriba, New Mexico

SURVEY LISTING Page 2
Your ref : MWD
Last revised : 29-Nov-2004

Measured Depth	Inclin. Degrees	Azimuth Degrees	True Vert Depth	R E C T A N G U L A R C O O R D I N A T E S		Dogleg Deg/100ft	Vert Sect
2121.00	42.80	218.00	1865.44	631.10 S	513.24 W	0.16	813.41
2183.00	42.90	218.10	1910.89	664.30 S	539.22 W	0.20	855.57
2246.00	42.90	218.50	1957.04	697.96 S	565.80 W	0.43	898.45
2308.00	41.20	218.50	2003.08	730.45 S	591.65 W	2.74	939.98
2371.00	39.30	217.50	2051.16	762.52 S	616.72 W	3.19	980.68
2432.00	39.30	217.70	2098.37	793.13 S	640.29 W	0.21	1019.31
2495.00	39.10	218.20	2147.19	824.53 S	664.78 W	0.59	1059.13
2558.00	37.40	217.10	2196.66	855.41 S	688.61 W	2.91	1098.12
2621.00	36.80	217.70	2246.91	885.60 S	711.69 W	1.11	1136.12
2684.00	35.70	218.60	2297.71	914.89 S	734.70 W	1.94	1173.37
2746.00	34.10	218.50	2348.56	942.63 S	756.80 W	2.58	1208.84
2807.00	32.50	217.60	2399.55	969.00 S	777.45 W	2.75	1242.32
2870.00	31.80	217.80	2452.88	995.53 S	797.95 W	1.12	1275.85
2931.00	31.10	218.50	2504.92	1020.56 S	817.61 W	1.29	1307.67
2993.00	28.90	219.30	2558.61	1044.69 S	837.07 W	3.61	1338.67
3055.00	27.50	219.10	2613.25	1067.39 S	855.58 W	2.26	1367.96
3118.00	25.70	219.60	2669.58	1089.20 S	873.46 W	2.88	1396.17
3178.00	25.30	219.90	2723.74	1109.06 S	889.98 W	0.70	1421.99
3241.00	24.10	218.20	2780.97	1129.50 S	906.57 W	2.21	1448.31
3304.00	22.40	216.30	2838.86	1149.28 S	921.63 W	2.95	1473.17
3367.00	22.00	216.40	2897.19	1168.46 S	935.74 W	0.64	1496.96
3429.00	21.90	218.30	2954.69	1186.88 S	949.80 W	1.16	1520.13
3492.00	20.40	218.60	3013.45	1204.68 S	963.93 W	2.39	1542.86
3554.00	19.00	218.50	3071.82	1221.02 S	976.96 W	2.26	1563.76
3616.00	17.50	218.60	3130.70	1236.21 S	989.06 W	2.42	1583.17
3679.00	15.80	217.80	3191.05	1250.39 S	1000.22 W	2.72	1601.22
3742.00	14.50	217.80	3251.86	1263.40 S	1010.32 W	2.06	1617.69
3803.00	13.70	217.60	3311.02	1275.16 S	1019.40 W	1.31	1632.54
3864.00	13.00	216.00	3370.37	1286.43 S	1027.84 W	1.30	1646.62
3927.00	12.20	217.90	3431.86	1297.42 S	1036.10 W	1.43	1660.36
3988.00	10.40	218.00	3491.67	1306.84 S	1043.45 W	2.95	1672.31
4051.00	8.10	218.60	3553.85	1314.79 S	1049.72 W	3.65	1682.43
4114.00	5.00	217.90	3616.43	1320.43 S	1054.18 W	4.92	1689.62
4175.00	3.40	218.00	3677.26	1323.95 S	1056.92 W	2.62	1694.09
4239.00	2.00	218.00	3741.19	1326.33 S	1058.78 W	2.19	1697.10
4302.00	1.40	218.00	3804.16	1327.80 S	1059.93 W	0.95	1698.97
4364.00	1.40	218.10	3866.15	1328.99 S	1060.86 W	0.00	1700.48
4400.00	1.30	218.10	3902.14	1329.66 S	1061.39 W	0.28	1701.33
4600.00	2.50	228.00	4102.02	1334.36 S	1066.03 W	0.62	1707.90
4723.00	5.50	227.00	4224.71	1340.18 S	1072.33 W	2.44	1716.38
4851.00	6.70	229.00	4351.98	1349.26 S	1082.46 W	0.95	1729.79
4974.00	4.00	223.00	4474.44	1357.11 S	1090.80 W	2.24	1741.13
5224.00	1.50	218.00	4724.13	1366.07 S	1098.76 W	1.00	1753.10
5632.00	1.00	224.00	5132.03	1372.84 S	1104.52 W	0.13	1761.98
6032.00	0.25	155.00	5532.01	1376.14 S	1106.58 W	0.23	1765.84
6524.00	0.25	126.00	6024.00	1377.74 S	1105.26 W	0.03	1766.27
6574.00	0.25	126.00	6074.00	1377.87 S	1105.08 W	0.00	1766.27 Projection to TD

All data is in feet unless otherwise stated.
Coordinates from slot #1 and TVD from rotary table.
Bottom hole distance is 1766.27 on azimuth 218.73 degrees from wellhead.
Vertical section is from N 0.00 E 0.00 on azimuth 218.55 degrees.
Calculation uses the minimum curvature method.
Presented by Baker Hughes INTEQ

Williams Production Company
Rosa Unit #44C,slot #1
Rio Arriba, New Mexico,Rio Arriba, New Mexico

SURVEY LISTING Page 3
Your ref : MWD
Last revised : 29-Nov-2004

MD	TVD	Rectangular Coords.	Comments in wellpath =====
			Comment
6574.00	6074.00	1377.87 S 1105.08 W	Projection to TD

NO PROPOSAL



Williams Production Company				Created by: XXXXXXXXXX Date plotted: 1-Dec-2004 Plot Reference is Pin 1. Coordinates are in feet reference slot #1. True Vertical Depths are reference rotary table. 44cnp --- Baker Hughes INTEQ ---				
Structure : Rosa Unit #44C		Slot : slot #1						
Field : Rio Arriba, New Mexico		Location : Rio Arriba, New Mexico						
----- WELL PROFILE DATA -----								
----- Point -----	MD	Inc	Dir	TVD	North	East	V. Sect	Deg/100
Tie on	0.00	0.00	218.55	0.00	0.00	0.00	0.00	0.00
KOP	400.00	0.00	218.55	400.00	0.00	0.00	0.00	0.00
End of Build/Turn	1249.66	42.48	218.55	1173.92	-235.25	-187.49	300.83	5.00
End of Hold	2221.97	42.48	218.55	1890.97	-748.78	-596.77	957.50	0.00
Target Int Csg	4121.11	4.50	218.55	3601.00	-1330.00	-1060.00	1700.74	2.00
KOP	4346.11	0.00	218.55	3825.77	-1336.91	-1065.50	1709.57	2.00
T.D. & Target BHL	6591.35	0.00	133.91	6071.00	-1336.91	-1065.50	1709.57	0.00

