



INTEQ

2105 market Street Midland, TX 79703 Ph. (432)694-9517 Fax. (432)694-5648

30-045-32558

Surface 460/S 1965/E Sec 4, 31N, 6W
BHL 1443/S 2311/E Md 3316
Tvd 3076

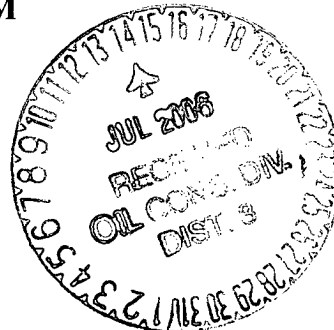
Survey Report

Williams Production

Rosa Unit #237A

San Juan County, NM

MWD



Prepared By Oscar Gomez
Tuesday, July 11, 2006

Williams Production Company
Rosa Unit #237-A, slot #1
Rosa Unit, San Juan County, New Mexico

SURVEY LISTING Page 1
Your ref : MWD
Last revised : 11-Jul-2006

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	340.97	0.00	0.00 N	0.00 E	0.00	0.00
65.00	0.50	41.00	65.00	0.21 N	0.19 E	0.77	0.14
152.00	0.50	185.00	152.00	0.12 N	0.40 E	1.09	-0.02
260.00	0.75	156.00	259.99	0.99 S	0.65 E	0.37	-1.15
348.00	0.60	184.10	347.99	1.98 S	0.85 E	0.41	-2.15
378.00	0.60	190.00	377.98	2.29 S	0.81 E	0.21	-2.43
408.00	0.40	350.60	407.98	2.34 S	0.77 E	3.29	-2.46
438.00	1.20	351.60	437.98	1.93 S	0.70 E	2.67	-2.05
469.00	2.60	347.70	468.96	0.92 S	0.51 E	4.53	-1.03
499.00	3.10	344.40	498.93	0.53 N	0.14 E	1.75	0.45
529.00	4.20	338.30	528.86	2.33 N	0.48 W	3.88	2.36
559.00	5.30	342.20	558.76	4.67 N	1.31 W	3.82	4.84
589.00	5.70	340.90	588.62	7.40 N	2.22 W	1.40	7.72
619.00	6.80	341.40	618.44	10.49 N	3.28 W	3.67	10.98
650.00	7.80	341.20	649.19	14.22 N	4.54 W	3.23	14.92
679.00	8.90	339.20	677.88	18.18 N	5.97 W	3.92	19.13
709.00	9.90	337.60	707.48	22.73 N	7.78 W	3.44	24.03
740.00	10.90	335.80	737.97	27.87 N	9.99 W	3.39	29.61
770.00	11.70	335.90	767.39	33.23 N	12.40 W	2.67	35.46
799.00	12.70	337.00	795.73	38.85 N	14.84 W	3.54	41.57
828.00	13.70	338.30	823.97	44.98 N	17.36 W	3.60	48.18
859.00	14.80	340.20	854.01	52.11 N	20.06 W	3.86	55.81
1160.00	22.50	340.20	1138.99	142.61 N	52.64 W	2.56	151.98
1191.00	23.40	340.40	1167.54	153.99 N	56.71 W	2.91	164.07
1223.00	24.10	339.90	1196.83	166.11 N	61.09 W	2.28	176.95
1254.00	25.20	341.20	1225.00	178.30 N	65.39 W	3.96	189.88
1286.00	26.20	341.70	1253.84	191.46 N	69.81 W	3.20	203.76
1317.00	27.30	342.00	1281.52	204.72 N	74.15 W	3.58	217.71
1348.00	28.40	343.20	1308.93	218.54 N	78.48 W	3.98	232.18
1411.00	30.20	342.10	1363.87	247.96 N	87.68 W	2.98	263.00
1472.00	30.50	342.90	1416.51	277.36 N	96.95 W	0.83	293.81
1534.00	30.60	343.60	1469.90	307.53 N	106.03 W	0.60	325.30
1594.00	30.60	342.40	1521.55	336.74 N	114.96 W	1.02	355.82
1657.00	30.30	341.50	1575.86	367.10 N	124.85 W	0.87	387.74
1718.00	30.40	341.80	1628.50	396.35 N	134.55 W	0.30	418.56
1779.00	30.10	341.90	1681.19	425.55 N	144.13 W	0.50	449.29
1841.00	30.10	342.00	1734.83	455.12 N	153.76 W	0.08	480.38
1904.00	29.90	341.80	1789.39	485.06 N	163.55 W	0.35	511.87
1967.00	30.90	341.60	1843.73	515.32 N	173.56 W	1.60	543.75
2030.00	30.80	341.20	1897.82	545.94 N	183.86 W	0.36	576.06
2092.00	30.60	341.00	1951.13	575.89 N	194.12 W	0.36	607.71
2155.00	30.50	342.30	2005.38	606.28 N	204.20 W	1.06	639.73
2217.00	30.50	341.30	2058.80	636.17 N	214.02 W	0.82	671.19
2279.00	30.70	340.10	2112.17	665.96 N	224.46 W	1.04	702.75
2341.00	30.50	339.90	2165.54	695.62 N	235.25 W	0.36	734.31
2402.00	30.00	340.10	2218.23	724.49 N	245.76 W	0.84	765.03
2465.00	30.00	341.20	2272.79	754.21 N	256.20 W	0.87	796.53
2496.00	29.80	341.20	2299.66	768.84 N	261.18 W	0.65	811.98
2527.00	28.80	339.90	2326.70	783.15 N	266.23 W	3.82	827.15
2558.00	27.30	340.30	2354.05	796.85 N	271.19 W	4.88	841.73

All data is in feet unless otherwise stated.
Coordinates from structure and TVD from rotary table.
Bottom hole distance is 1051.04 on azimuth 340.81 degrees from wellhead.
Vertical section is from N 0.00 E 0.00 on azimuth 340.97 degrees.
Calculation uses the minimum curvature method.
Presented by Baker Hughes INTEQ

Williams Production Company
 Rosa Unit #237-A, slot #1
 Rosa Unit, San Juan County, New Mexico

SURVEY LISTING Page 2
 Your ref : MWD
 Last revised : 11-Jul-2006

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
2589.00	25.70	340.30	2381.80	809.87 N	275.85 W	5.16	855.56
2652.00	25.30	339.90	2438.66	835.38 N	285.08 W	0.69	882.68
2715.00	24.10	339.40	2495.89	860.06 N	294.24 W	1.93	909.00
2746.00	23.80	339.40	2524.23	871.84 N	298.66 W	0.97	921.57
2776.00	23.40	339.40	2551.72	883.08 N	302.89 W	1.33	933.58
2808.00	22.50	339.40	2581.18	894.76 N	307.28 W	2.81	946.05
2840.00	20.70	339.20	2610.93	905.78 N	311.44 W	5.63	957.83
2872.00	19.20	340.20	2641.01	916.02 N	315.23 W	4.81	968.74
2902.00	17.70	342.00	2669.47	925.00 N	318.31 W	5.35	978.24
2934.00	16.40	343.00	2700.06	933.95 N	321.14 W	4.16	987.61
2965.00	14.90	342.60	2729.91	941.93 N	323.61 W	4.85	995.97
2997.00	14.10	339.20	2760.90	949.50 N	326.22 W	3.65	1003.98
3028.00	13.00	337.20	2791.03	956.25 N	328.92 W	3.86	1011.24
3059.00	11.60	335.00	2821.32	962.29 N	331.58 W	4.76	1017.81
3090.00	10.90	334.70	2851.72	967.76 N	334.15 W	2.27	1023.83
3121.00	9.90	331.00	2882.21	972.74 N	336.70 W	3.88	1029.37
3153.00	8.80	332.70	2913.79	977.32 N	339.16 W	3.54	1034.50
3184.00	7.10	334.70	2944.49	981.16 N	341.06 W	5.56	1038.75
3215.00	5.90	337.00	2975.29	984.36 N	342.50 W	3.96	1042.24
3246.00	4.90	338.00	3006.15	987.06 N	343.62 W	3.24	1045.15
3277.00	4.80	341.90	3037.04	989.52 N	344.52 W	1.11	1047.77
3316.00	4.80	341.90	3075.90	992.62 N	345.53 W	0.00	1051.04

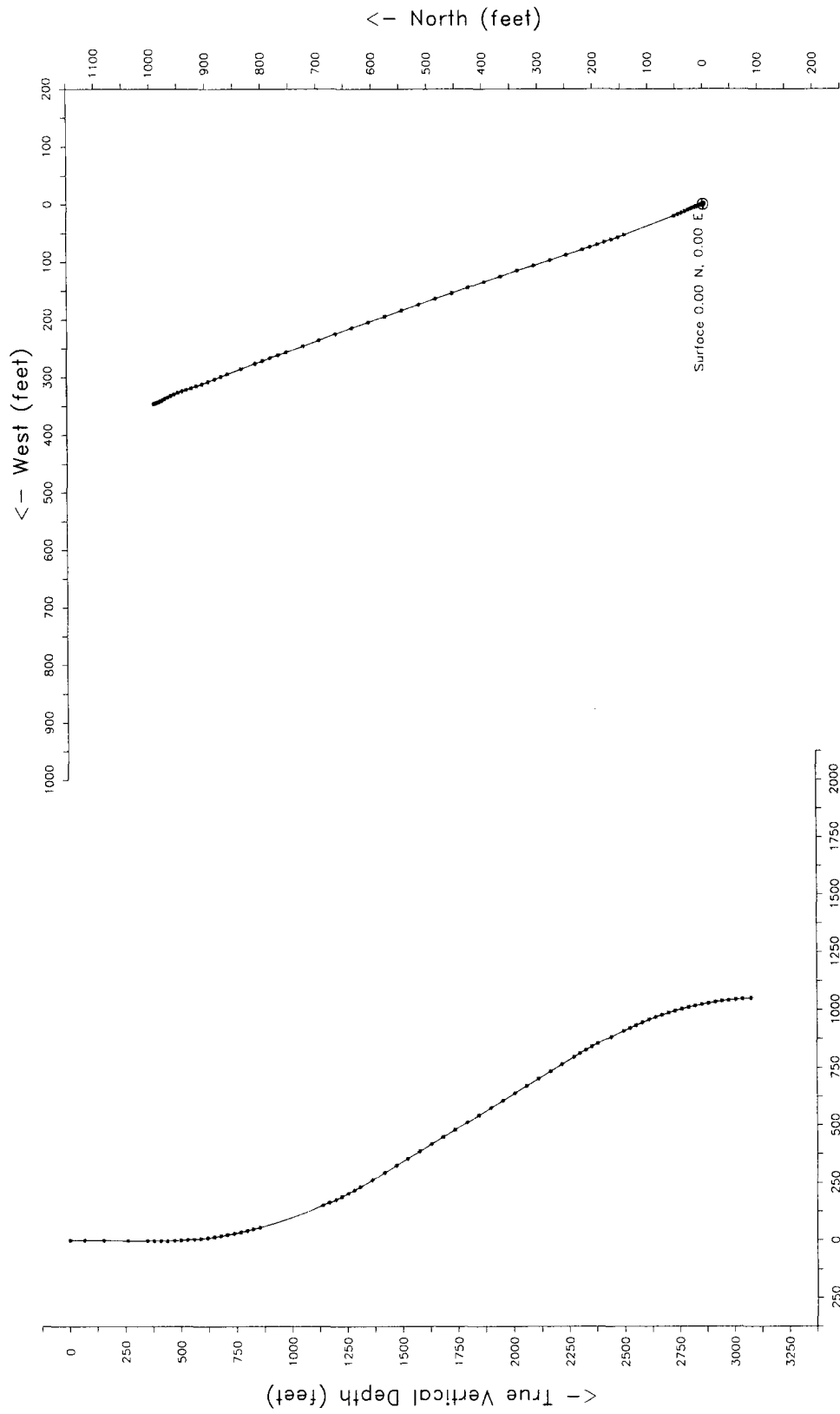
All data is in feet unless otherwise stated.
 Coordinates from structure and TVD from rotary table.
 Bottom hole distance is 1051.04 on azimuth 340.81 degrees from wellhead.
 Vertical section is from N 0.00 E 0.00 on azimuth 340.97 degrees.
 Calculation uses the minimum curvature method.
 Presented by Baker Hughes INTEQ



INTEQ

Williams Production Company

Structure : Rosa Unit #237-A Slot : slot #1
Field : Rosa Unit Location : San Juan County, New Mexico.



UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUBMIT IN
DUPLICATE

(See other instructions on
reverse side)

FORM APPROVED
OMB NO. 1004-0137
Expires: February 28, 1995

WELL COMPLETION OR RECOMPLETION REPORT AND LOG*

1a. TYPE OF WELL: ☐ OIL WELL ☒ GAS WELL ☐ DRY ☐ OTHER

b. TYPE OF COMPLETION:
☒ NEW WELL ☐ WORKOVER ☐ DEEPEN ☐ PLUG BACK ☐ DIFF. RESVR. ☐ OTHER

2. NAME OF OPERATOR
WILLIAMS PRODUCTION COMPANY

3. ADDRESS AND TELEPHONE NO.
P.O. BOX 3102 MS 25-1 TULSA, OK 74101 (918) 573-6254

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)*
At Surface: 450' FSL & 1965' FEL
At top production interval reported below :
At total depth: 1446' FSL & 2311' FEL

5. LEASE DESIGNATION AND LEASE NO.
SF-078772

6. IF INDIAN ALLOTTEE OR

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME, WELL NO.
ROSA UNIT #237A

9. API WELL NO.
30-045-32558

10. FIELD AND POOL, OR WILDCAT
BASIN FRUITLAND COAL

11. SEC., T., R., M., OR BLOCK AND
SURVEY OR AREA
SW/4 SE/4 SEC 04-31N-6W

12. COUNTY OR
RIO ARRIBA 13. STATE
NEW MEXICO

15. DATE
SPUDDED
11/29/04 16. DATE T.D.
REACHED
01/18/05 17. DATE COMPLETED (READY TO PRODUCE)
02/22/05

14. PERMIT NO. DATE ISSUED
18. ELEVATIONS (DK, RKB, RT, GR, ETC.)*
6460' GR

19. ELEVATION CASINGHEAD

20. TOTAL DEPTH, MD & TVD
3570' MD 21. PLUG, BACK T.D., MD & TVD

22. IF MULTICOMP.,
HOW MANY 23. INTERVALS
DRILLED BY

ROTARY TOOLS
x CABLE TOOLS

24. PRODUCING INTERVAL(S), OF THIS COMPLETION - TOP, BOTTOM, NAME (MD AND TVD)*
BASIN FRUITLAND COAL 3360' - 3480'

25. WAS DIRECTIONAL SURVEY MADE
YES

26. TYPE ELECTRIC AND OTHER LOGS RUN

27. WAS WELL CORED
NO

28. CASING REPORT (Report all strings set in well)

CASING SIZE/GRADE	WEIGHT, LB./FT	DEPTH SET (MD)	HOLE SIZE	TOP OF CEMENT, CEMENTING RECORD	AMOUNT PULLED
9-5/8", K-55	36#	320'	12-1/4"	160 SX - SURFACE	
7", K-55	20#	3318'	8-3/4"	590 SX - SURFACE	

29. LINER RECORD

SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT*	SCREEN (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)
5 1/2", 17#, N-80	3255'	3570'	0 SX		2-7/8", J-55, 6.5#	3519'	

31. PERFORATION RECORD (Interval, size, and number)

Basin Fruitland Coal: 3360'-90' (120 holes) and 3450' - 80' (120 holes). Total of 240 holes.

32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.

DEPTH INTERVAL
(MD) AMOUNT AND KIND OF MATERIAL USED
WELL WAS NOT ACIDIZED OR FRACED

33. PRODUCTION

DATE OF FIRST PRODUCTION		PRODUCTION METHOD (Flowing, gas lift, pumping-size and type of pump)				WELL STATUS (PRODUCING OR SI)	
03/24/05		Flowing				Producing	
DATE OF TEST	TESTED	CHOKE SIZE	PROD'N FOR TEST PERIOD	OIL - BBL	GAS - MCF	WATER - BBL	GAS-OIL RATIO
03/24/05	3 hrs				209		
FLOW TBG PRESS	CASING PRESSURE	CALCULATED 24-HOUR RATE		OIL - BBL	GAS - MCF	WATER - BBL	OIL GRAVITY-API (CORR.)
5	45						

34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.):

TEST WITNESSED BY: MARK LEPICH

35. LIST OF ATTACHMENTS: SUMMARY OF POROUS ZONES, WELLBORE DIAGRAM

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records

SIGNED Gracy Ross TITLE Sr. Production Analyst DATE July 11, 2006