

District I
1625 N French Dr., Hobbs, NM 88240
District II
1301 W Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-102
Revised October 12, 2005
Instructions on back
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

☒ AMENDED REPORT

As Drilled

WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number 30-039-30804	*Pool Code 97232 / 72319 / 71599	*Pool Name BASIN MANCOS / BLANCO MESAVERDE / BASIN DAKOTA
*Property Code 17033	*Property Name ROSA UNIT	*Well Number 154B
*OGRID No. 120782	*Operator Name WILLIAMS PRODUCTION COMPANY	*Elevation 6355'

¹⁰ Surface Location

UL or lot no	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
P	7	31N	5W		990	SOUTH	880	EAST	RIO ARriba

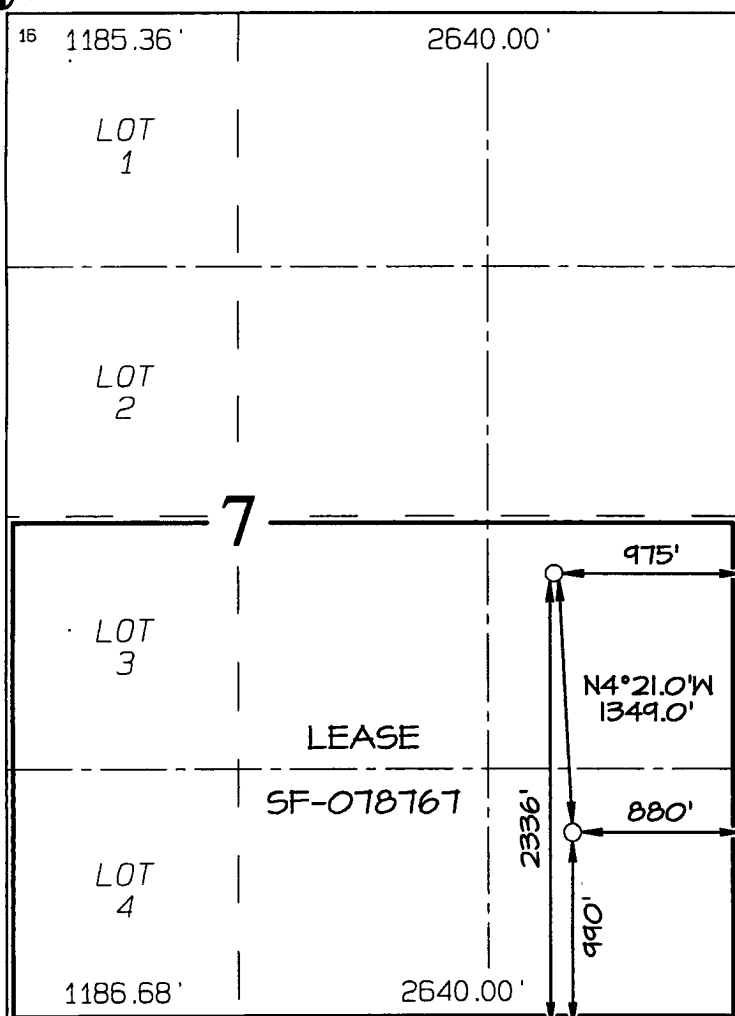
¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
I	7	31N	5W		2336	SOUTH	975	EAST	RIO ARriba

¹² Dedicated Acres 231.90 Acres - (S/2)	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No. RCVD OCT 16 '09 OIL CONS. DIV.
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NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

DIST. 3



BOTTOM-HOLE
LAT: 36.91320°N
LONG: 107.39807°W
DATUM: NAD1983

SURFACE LOCATION
LAT: 36.90951°N
LONG: 107.39774°W
DATUM: NAD1983

¹⁷ OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom-hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

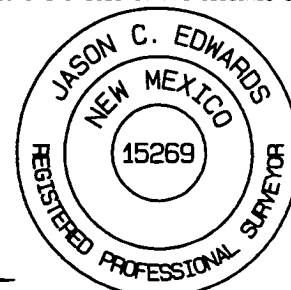
Larry Higgins 10-15-09
Signature Date
LARRY HIGGINS
Printed Name

¹⁸ SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

Date Revised: OCTOBER 13, 2009
Date of Survey: JULY 18, 2009

Signature and Seal of Professional Surveyor



JASON C. EDWARDS
Certificate Number 15269



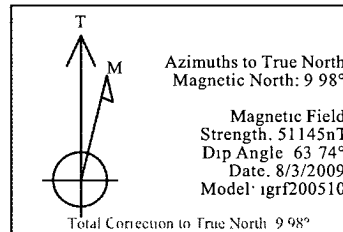
ROSA UNIT #154B
RIO ARriba CO., NEW MEXICO
API# 30-039-30804

KB ELEV: 6369'
GR ELEV: 6355'

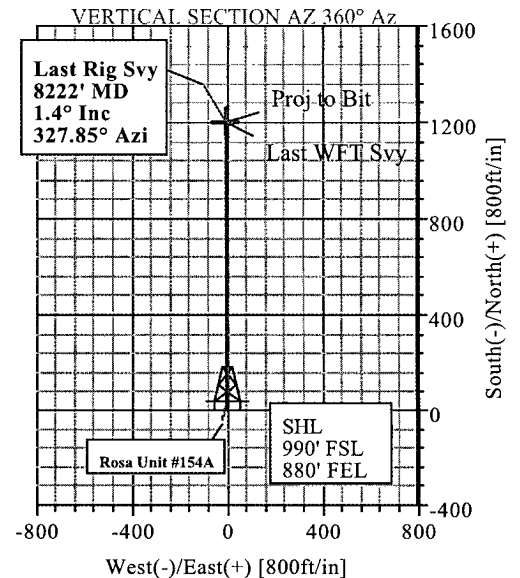
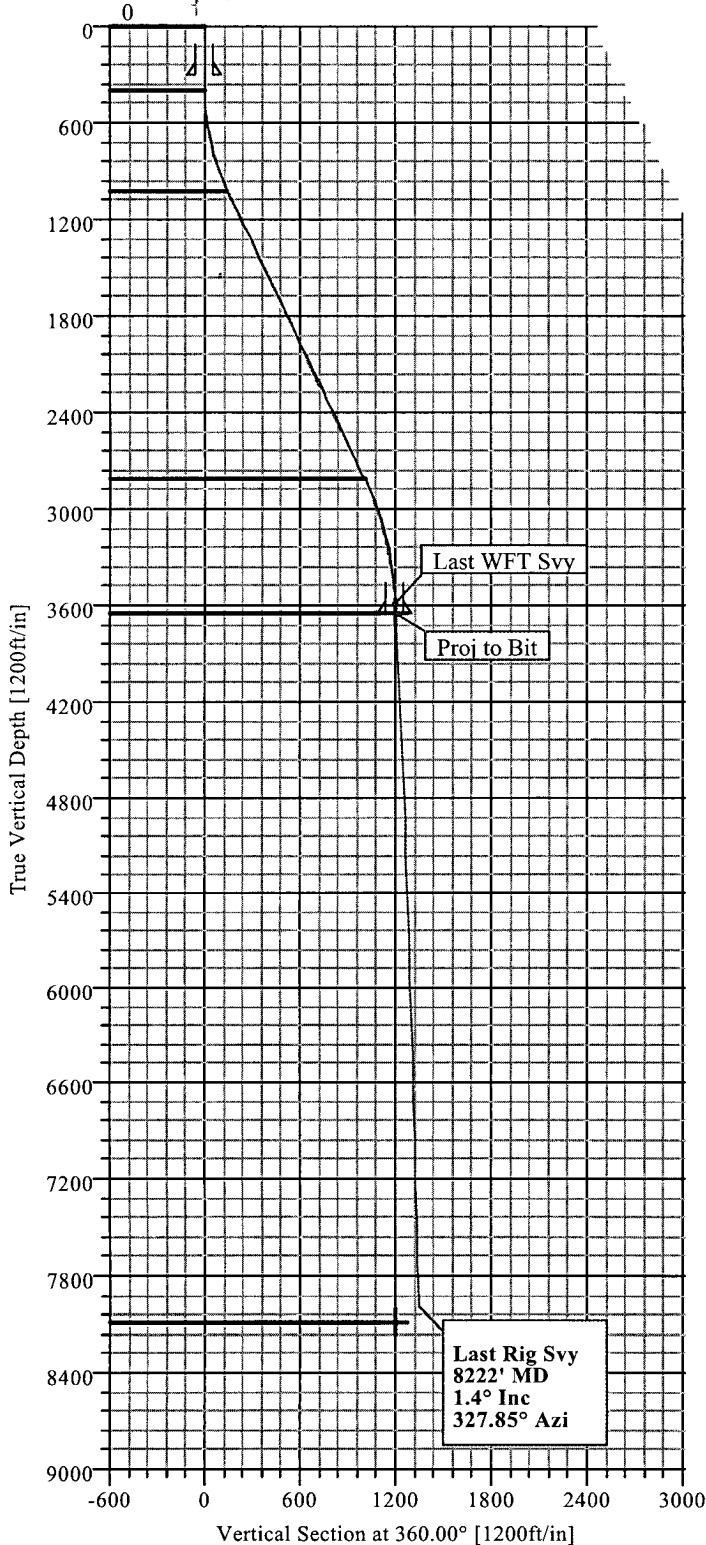
SECTION DETAILS										
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.00	0.00	360.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	400.00	0.00	360.00	400.00	0.00	0.00	0.00	0.00	0.00	
3	1044.57	25.78	360.00	1023.03	142.60	0.00	4.00	360.00	142.60	
4	3032.74	25.78	360.00	2813.29	1007.37	0.00	0.00	0.00	1007.37	
5	3892.17	0.00	360.00	3644.00	1197.50	0.00	3.00	180.00	1197.50	Int. Csg. Pt. 2
6	8332.17	0.00	360.00	8084.00	1197.50	0.00	0.00	360.00	1197.50	PBHL 2

WELL DETAILS							
Name	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
154B	0.00	0.00	2152375.90	1304872.74	36°54'34.240N	107°23'51.860W	N/A

TARGET DETAILS									
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape	
Int. Csg. Pt. 2	3644.00	1197.50	0.00	2153573.31	1304887.15	36°54'46.080N	107°23'51.860W	Point	
PBHL 2	8084.00	1197.50	0.00	2153573.31	1304887.15	36°54'46.080N	107°23'51.860W	Point	



FORMATION TOP DETAILS			
No.	TVDPath	MDPath	Formation
1	2449.00	2628.18	Ojo Alamo Ss
2	2559.00	2750.35	Kirtland Sh.
3	2949.00	3180.84	Fruitland Fm.
4	3169.00	3412.13	Pictured Cliffs Ss.
5	3504.00	3752.05	Lewis Sh.
6	5089.00	5337.17	Cliff House Ss. Tran.
7	5394.00	5642.17	Cliff House Ss.
8	5439.00	5687.17	Menefee Fm.
9	5634.00	5882.17	Point Lookout Ss.
10	6009.00	6257.17	Mancos Sh.
11	6994.00	7242.17	Gallup Ss.
12	7719.00	7967.17	Greenhorn Ls.
13	7779.00	8027.17	Graneros Ss.
14	7914.00	8162.17	Dakota Ss.



RCVD OCT 16 '09
OIL CONS. DIV.

DIST. 3



Weatherford®

CASING DETAILS				
No.	TVD	MD	Name	Size
1	300.00	300.00	10 3/4"	10.750
2	3644.00	3892.17	7 5/8" Int. Csg.	7.000

Plan: Plan #2 (154B/1)
Created By: Lindsey Maddux
Date: 10/12/2009



Weatherford International, Inc.

Survey Report



Weatherford

Company: WILLIAMS PRODUCTION Date: 10/12/2009 Time: 10:28:18 Page: 1
 Field: RIO ARRIBA CO. NM (NAD 83) Co-ordinate(NE) Reference: Well: 154B; True North
 Site: Rosa Unit #154B Vertical (TVD) Reference: SITE 6369.0
 Well: 154B Section (VS) Reference: Well (0.00N,0.00E,360.00Azi)
 Wellpath: 1 Survey Calculation Method: Minimum Curvature Db: Sybase

Field: RIO ARRIBA CO. NM (NAD 83)

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

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

Site: Rosa Unit #154B

Site Position: Northing: 2152375.90 ft Latitude: 36 54 34.240 N
 From: Geographic Easting: 1304872.74 ft Longitude: 107 23 51.860 W
 Position Uncertainty: 0.00 ft North Reference: True
 Ground Level: 6369.00 ft Grid Convergence: -0.69 deg

Well: 154B

Slot Name:

Well Position: +N/-S 0.00 ft Northing: 2152375.90 ft Latitude: 36 54 34.240 N
 +E/-W 0.00 ft Easting: 1304872.74 ft Longitude: 107 23 51.860 W
 Position Uncertainty: 0.00 ft

Wellpath: 1

Current Datum: SITE Height 6369.00 ft
 Magnetic Data: 8/3/2009
 Field Strength: 51145 nT
 Vertical Section: Depth From (TVD) +N/-S
 ft ft
 0.00 0.00 0.00 360.00

Survey: WFT SVY

Start Date: 10/6/2009

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
347.00	1.43	97.23	346.96	-0.54	4.30	-0.54	0.41	0.41	0.00	MWD
356.00	1.21	105.52	355.96	-0.58	4.50	-0.58	3.23	-2.44	92.11	MWD
386.00	1.20	90.32	385.96	-0.67	5.12	-0.67	1.06	-0.03	-50.67	MWD
417.00	1.43	50.69	416.95	-0.43	5.74	-0.43	2.96	0.74	-127.84	MWD
447.00	2.24	29.55	446.93	0.32	6.32	0.32	3.48	2.70	-70.47	MWD
478.00	3.19	12.71	477.90	1.69	6.81	1.69	3.97	3.06	-54.32	MWD
509.00	4.26	6.30	508.83	3.67	7.13	3.67	3.70	3.45	-20.68	MWD
538.00	5.25	3.60	537.73	6.07	7.33	6.07	3.50	3.41	-9.31	MWD
569.00	6.69	4.10	568.56	9.29	7.54	9.29	4.65	4.65	1.61	MWD
599.00	7.94	2.35	598.32	13.10	7.75	13.10	4.23	4.17	-5.83	MWD
630.00	9.38	2.72	628.96	17.76	7.96	17.76	4.65	4.65	1.19	MWD
661.00	11.06	0.97	659.47	23.26	8.13	23.26	5.51	5.42	-5.65	MWD
692.00	12.56	0.72	689.81	29.60	8.23	29.60	4.84	4.84	-0.81	MWD
722.00	13.94	0.35	719.01	36.48	8.29	36.48	4.61	4.60	-1.23	MWD
753.00	15.19	359.72	749.02	44.27	8.29	44.27	4.06	4.03	-2.03	MWD
784.00	16.13	359.10	778.87	52.64	8.20	52.64	3.08	3.03	-2.00	MWD
815.00	17.25	358.97	808.56	61.54	8.05	61.54	3.61	3.61	-0.42	MWD
846.00	18.44	358.36	838.07	71.04	7.83	71.04	3.89	3.84	-1.97	MWD
877.00	19.81	357.35	867.36	81.19	7.45	81.19	4.55	4.42	-3.26	MWD
907.00	20.50	357.72	895.52	91.51	7.00	91.51	2.34	2.30	1.23	MWD
938.00	21.06	356.85	924.50	102.50	6.48	102.50	2.06	1.81	-2.81	MWD
968.00	22.31	355.97	952.38	113.56	5.79	113.56	4.31	4.17	-2.93	MWD
999.00	23.50	356.22	980.93	125.60	4.96	125.60	3.85	3.84	0.81	MWD



Weatherford International, Inc.

Survey Report

**Weatherford**

Company: WILLIAMS PRODUCTION Date: 10/12/2009 Time: 10:28:18 Page: 2
Field: RIO ARRIBA CO. NM (NAD 83) Co-ordinate(N/E) Reference: Well: 154B, True North
Site: Rosa Unit #154B Vertical (TVD) Reference: SITE 6369.0
Well: 154B Section (VS) Reference: Well (0.00N,0.00E,360.00Azi)
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
1028.00	23.75	356.60	1007.50	137.20	4.24	137.20	1.01	0.86	1.31	MWD
1059.00	24.00	356.85	1035.85	149.73	3.52	149.73	0.87	0.81	0.81	MWD
1090.00	24.94	355.97	1064.07	162.54	2.71	162.54	3.25	3.03	-2.84	MWD
1121.00	25.19	356.97	1092.15	175.65	1.91	175.65	1.59	0.81	3.23	MWD
1152.00	25.50	357.60	1120.16	188.90	1.28	188.90	1.33	1.00	2.03	MWD
1182.00	25.56	359.22	1147.23	201.83	0.92	201.83	2.34	0.20	5.40	MWD
1214.00	25.69	358.72	1176.09	215.66	0.67	215.66	0.79	0.41	-1.56	MWD
1246.00	25.90	358.32	1204.90	229.58	0.31	229.58	0.85	0.66	-1.25	MWD
1277.00	26.19	357.97	1232.75	243.19	-0.13	243.19	1.06	0.94	-1.13	MWD
1308.00	25.88	358.72	1260.60	256.79	-0.52	256.79	1.46	-1.00	2.42	MWD
1340.00	25.38	359.97	1289.46	270.63	-0.68	270.63	2.30	-1.56	3.91	MWD
1372.00	25.69	359.60	1318.33	284.42	-0.74	284.42	1.09	0.97	-1.16	MWD
1403.00	25.88	0.85	1346.24	297.91	-0.68	297.91	1.86	0.61	4.03	MWD
1434.00	26.00	1.22	1374.12	311.46	-0.44	311.46	0.65	0.39	1.19	MWD
1465.00	26.31	1.72	1401.95	325.12	-0.09	325.12	1.23	1.00	1.61	MWD
1495.00	26.44	1.89	1428.82	338.45	0.33	338.45	0.50	0.43	0.57	MWD
1526.00	26.25	1.22	1456.60	352.20	0.71	352.20	1.14	-0.61	-2.16	MWD
1557.00	26.06	1.47	1484.43	365.86	1.03	365.86	0.71	-0.61	0.81	MWD
1589.00	25.56	0.60	1513.24	379.79	1.28	379.79	1.96	-1.56	-2.72	MWD
1621.00	25.50	359.72	1542.11	393.58	1.32	393.58	1.20	-0.19	-2.75	MWD
1652.00	25.94	358.84	1570.04	407.03	1.15	407.03	1.88	1.42	-2.84	MWD
1683.00	25.88	359.22	1597.93	420.57	0.92	420.57	0.57	-0.19	1.23	MWD
1714.00	26.00	358.97	1625.80	434.13	0.71	434.13	0.52	0.39	-0.81	MWD
1746.00	26.31	0.35	1654.53	448.24	0.62	448.24	2.13	0.97	4.31	MWD
1778.00	26.81	359.85	1683.15	462.55	0.65	462.55	1.71	1.56	-1.56	MWD
1810.00	26.81	0.35	1711.71	476.98	0.67	476.98	0.70	0.00	1.56	MWD
1841.00	26.56	0.47	1739.41	490.90	0.77	490.90	0.82	-0.81	0.39	MWD
1872.00	26.25	0.47	1767.17	504.69	0.89	504.69	1.00	-1.00	0.00	MWD
1904.00	25.38	1.22	1795.98	518.62	1.09	518.62	2.90	-2.72	2.34	MWD
1936.00	24.75	0.10	1824.97	532.17	1.25	532.17	2.46	-1.97	-3.50	MWD
1967.00	24.94	359.60	1853.10	545.20	1.21	545.20	0.91	0.61	-1.61	MWD
1999.00	25.06	359.72	1882.10	558.72	1.13	558.72	0.41	0.37	0.37	MWD
2031.00	25.13	0.10	1911.08	572.29	1.11	572.29	0.55	0.22	1.19	MWD
2062.00	25.44	359.72	1939.11	585.53	1.09	585.53	1.13	1.00	-1.23	MWD
2093.00	25.63	359.60	1967.08	598.90	1.01	598.90	0.64	0.61	-0.39	MWD
2124.00	25.06	359.60	1995.10	612.17	0.92	612.17	1.84	-1.84	0.00	MWD
2156.00	24.75	1.35	2024.12	625.64	1.03	625.64	2.50	-0.97	5.47	MWD
2187.00	25.00	1.10	2052.25	638.68	1.31	638.68	0.87	0.81	-0.81	MWD
2219.00	24.88	1.35	2081.26	652.17	1.60	652.17	0.50	-0.37	0.78	MWD
2251.00	24.81	1.97	2110.30	665.61	1.99	665.61	0.84	-0.22	1.94	MWD
2282.00	24.75	1.72	2138.45	678.59	2.40	678.59	0.39	-0.19	-0.81	MWD
2313.00	24.83	1.09	2166.59	691.59	2.72	691.59	0.89	0.26	-2.03	MWD
2345.00	25.50	359.60	2195.55	705.19	2.80	705.19	2.88	2.09	-4.66	MWD
2376.00	25.94	358.97	2223.48	718.65	2.63	718.65	1.67	1.42	-2.03	MWD
2408.00	25.81	359.97	2252.27	732.61	2.50	732.61	1.42	-0.41	3.12	MWD
2440.00	26.19	359.85	2281.03	746.64	2.48	746.64	1.20	1.19	-0.37	MWD
2471.00	26.50	359.10	2308.81	760.39	2.36	760.39	1.47	1.00	-2.42	MWD
2502.00	26.88	359.60	2336.51	774.32	2.20	774.32	1.42	1.23	1.61	MWD
2534.00	25.94	359.22	2365.17	788.55	2.05	788.55	2.98	-2.94	-1.19	MWD
2565.00	25.06	359.60	2393.15	801.89	1.91	801.89	2.89	-2.84	1.23	MWD
2597.00	25.19	359.35	2422.12	815.48	1.79	815.48	0.52	0.41	-0.78	MWD
2629.00	25.25	359.97	2451.07	829.11	1.71	829.11	0.85	0.19	1.94	MWD
2661.00	25.31	0.85	2480.01	842.78	1.81	842.78	1.19	0.19	2.75	MWD



Weatherford International, Inc.

Survey Report

**Weatherford**

Company:	WILLIAMS PRODUCTION	Date:	10/12/2009	Time:	10:28:18	Page:	3
Field:	RIO ARRIBA CO. NM (NAD 83)	Co-ordinate(NE) Reference:	Well: 154B, True North				
Site:	Rosa Unit #154B	Vertical (TVD) Reference:	SITE 6369.0				
Well:	154B	Section (VS) Reference:	Well (0.00N, 0.00E, 360.00Azi)				
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
2691.00	25.50	0.47	2507.11	855.65	1.95	855.65	0.83	0.63	-1.27	MWD
2723.00	25.81	359.60	2535.95	869.50	1.96	869.50	1.52	0.97	-2.72	MWD
2755.00	26.06	359.22	2564.73	883.50	1.82	883.50	0.94	0.78	-1.19	MWD
2786.00	25.94	359.47	2592.59	897.09	1.66	897.09	0.52	-0.39	0.81	MWD
2817.00	26.38	359.10	2620.42	910.75	1.49	910.75	1.51	1.42	-1.19	MWD
2849.00	26.45	359.55	2649.08	924.99	1.32	924.99	0.66	0.22	1.41	MWD
2880.00	26.38	0.35	2676.84	938.78	1.31	938.78	1.17	-0.23	2.58	MWD
2912.00	25.75	359.97	2705.59	952.84	1.35	952.84	2.04	-1.97	-1.19	MWD
2943.00	25.81	357.85	2733.50	966.32	1.10	966.32	2.98	0.19	-6.84	MWD
2974.00	25.63	357.60	2761.43	979.76	0.56	979.76	0.68	-0.58	-0.81	MWD
3005.00	25.63	356.10	2789.38	993.15	-0.18	993.15	2.09	0.00	-4.84	MWD
3037.00	24.88	354.47	2818.32	1006.75	-1.30	1006.75	3.20	-2.34	-5.09	MWD
3068.00	23.63	355.72	2846.58	1019.44	-2.39	1019.44	4.36	-4.03	4.03	MWD
3100.00	22.88	356.22	2875.98	1032.04	-3.28	1032.04	2.42	-2.34	1.56	MWD
3132.00	22.44	356.10	2905.51	1044.34	-4.10	1044.34	1.38	-1.37	-0.37	MWD
3164.00	21.75	356.10	2935.16	1056.35	-4.92	1056.35	2.16	-2.16	0.00	MWD
3195.00	20.63	357.47	2964.07	1067.54	-5.55	1067.54	3.95	-3.61	4.42	MWD
3227.00	19.81	358.72	2994.09	1078.59	-5.92	1078.59	2.90	-2.56	3.91	MWD
3259.00	19.11	0.38	3024.27	1089.25	-6.01	1089.25	2.79	-2.19	5.19	MWD
3290.00	17.75	1.10	3053.68	1099.05	-5.88	1099.05	4.45	-4.39	2.32	MWD
3322.00	15.81	1.47	3084.31	1108.28	-5.68	1108.28	6.07	-6.06	1.16	MWD
3354.00	14.06	2.60	3115.23	1116.53	-5.39	1116.53	5.54	-5.47	3.53	MWD
3386.00	13.81	1.85	3146.29	1124.23	-5.09	1124.23	0.96	-0.78	-2.34	MWD
3418.00	13.50	1.85	3177.38	1131.78	-4.85	1131.78	0.97	-0.97	0.00	MWD
3449.00	13.06	3.10	3207.55	1138.89	-4.54	1138.89	1.69	-1.42	4.03	MWD
3480.00	13.00	4.35	3237.76	1145.87	-4.09	1145.87	0.93	-0.19	4.03	MWD
3512.00	12.56	3.22	3268.96	1152.93	-3.62	1152.93	1.58	-1.37	-3.53	MWD
3544.00	11.69	1.10	3300.25	1159.64	-3.36	1159.64	3.05	-2.72	-6.62	MWD
3576.00	10.63	359.60	3331.64	1165.84	-3.32	1165.84	3.43	-3.31	-4.69	MWD
3607.00	9.87	359.37	3362.15	1171.35	-3.37	1171.35	2.46	-2.45	-0.74	MWD
3639.00	9.56	359.47	3393.69	1176.75	-3.42	1176.75	0.97	-0.97	0.31	MWD
3671.00	9.63	0.85	3425.24	1182.09	-3.41	1182.09	0.75	0.22	4.31	MWD
3703.00	8.81	2.72	3456.83	1187.21	-3.25	1187.21	2.73	-2.56	5.84	MWD
3735.00	7.56	2.97	3488.50	1191.76	-3.03	1191.76	3.91	-3.91	0.78	MWD
3767.00	6.31	357.35	3520.27	1195.62	-3.00	1195.62	4.44	-3.91	-17.56	MWD
3798.00	4.38	349.47	3551.13	1198.48	-3.29	1198.48	6.65	-6.23	-25.42	MWD
3839.00	3.06	327.85	3592.05	1200.95	-4.16	1200.95	4.64	-3.22	-52.73	Last WFT Svy
3892.00	3.06	327.85	3644.97	1203.35	-5.67	1203.35	0.00	0.00	0.00	Proj to Bit
8222.00	1.40	327.85	7971.54	1345.99	-95.32	1345.99	0.04	-0.04	0.00	Last Rig Svy

Annotation

MD ft	TVD ft	
3839.00	3592.05	Last WFT Svy
3892.00	3644.97	Proj to Bit
8222.00	7971.54	Last Rig Svy