



RCVD NOV17'06

OIL CONS. DIV.
DIST. 3

November 16, 2006

DEVIATION REPORT

Well Name: ROSA UNIT #129C
Location: F SEC 34 T32N R06W
County, State: RIO ARriba COUNTY, NEW MEXICO
Formation: BLANCO MESAVERDE
API #: 30-039-29883

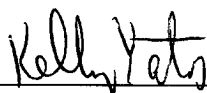
DEVIATION	DEPTH
1 1/2 °	6200'
1 1/2 °	6414'

MD 6414'
TVD 5961'

Tracy Ross
Production Analyst

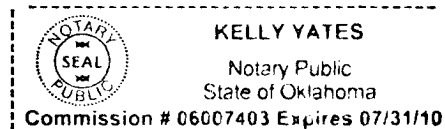
State of Oklahoma)
) ss:
County of Tulsa)

The foregoing instrument was acknowledged before me this 16TH day of November 2006, by Tracy Ross.



Kelly Yates 06007403

My Commission Expires: 07-31-10



8 11/20

RCVD NOV17'06

OIL CONS. DIV.

DIST. 3



Weatherford[®]

Drilling Services

FINAL SURVEY REPORT



WILLIAMS PRODUCTION COMPANY

ROSA UNIT #129-C

Prepared by: Jose A Perez

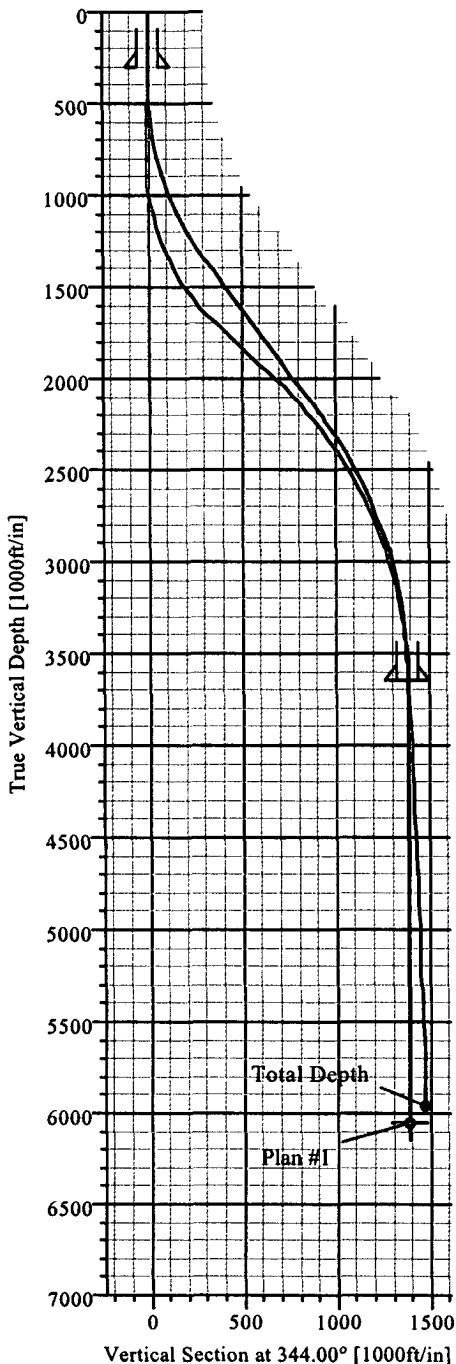
Submitted: 11/14/06

Weatherford Drilling Services
3611 Plaza East Court
Granbury, Texas 76049 USA
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www.weatherford.com



ROSA UNIT 129C
Section 34 T32N R 6W
1730' FSL & 2030' FWL
RIO ARriba COUNTY, NM

KB ELEVATION: 6375'
GR ELEVATION: 6361'

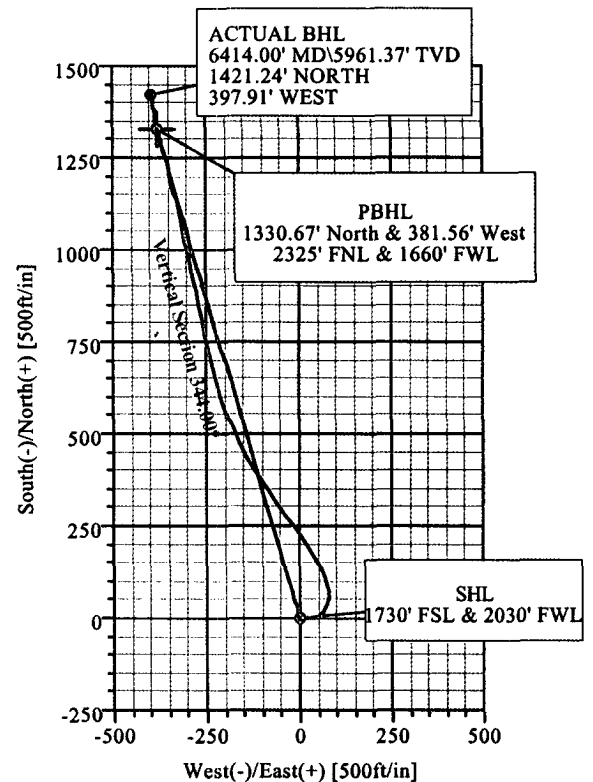


PLAN —
ACTUAL —

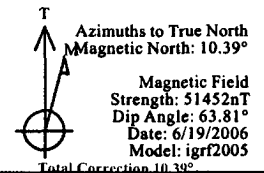
SECTION DETAILS									
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec Target
1	0.00	0.00	344.00	0.00	0.00	0.00	0.00	0.00	0.00
2	400.00	0.00	344.00	400.00	0.00	0.00	0.00	0.00	0.00
3	1428.57	36.00	344.00	1362.22	300.53	-86.18	3.50	344.00	312.64
4	2489.01	36.00	344.00	2220.13	899.70	-257.98	0.00	0.00	935.95
5	3964.03	0.00	344.00	3600.00	1330.67	-381.56	2.44	180.00	1384.30
6	4014.03	0.00	344.00	3650.00	1330.67	-381.56	0.00	0.00	1384.30
7	6414.03	0.00	344.00	6050.00	1330.67	-381.56	0.00	344.00	1384.30

WELL DETAILS					
Name	+N/-S	+E/-W	Northing	Easting	Latitude Longitude Slot
Rosa Unit 129 C	0.00	0.00	2159530.66	612766.51	36°56'03.000N 107°26'51.000W N/A

TARGET DETAILS						
Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
Int. Cs. Pt.	3650.00	1330.67	-381.56	36°56'16.158N	107°26'55.700W	Point
PBHL	6050.00	1330.67	-381.56	36°56'16.158N	107°26'55.700W	Circle (Radius: 50)



FORMATION TOP DETAILS			
No.	TVDPath	MDPath	Formation
1	2350.00	2645.85	Ojo Alamo
2	2460.00	2773.68	Kirtland
3	2880.00	3232.24	Fruitland
4	3140.00	3501.04	Pictured Cliffs
5	3455.00	3818.94	Lewis
6	5060.00	5424.03	Cliff House Trans.
7	5380.00	5744.03	Cliff House
8	5420.00	5784.03	Menefee
9	5600.00	5964.03	Point Lookout
10	5910.00	6274.03	Mancos



Plan: Plan #1 (Rosa Unit 129.C/1) p1
Created By: Jose Perez Date: 06/19/2006
Weatherford Drilling Services
3611 Plaza East Court
Granbury TX 76049
(817) 573 8500 MAIN
(817) 573 8001 FAX



Weatherford Drilling Services

Survey Report

**Weatherford**

Company: WILLIAMS PRODUCTION	Date: 11/14/2006	Time: 10:27:22	Page: 1
Field: RIO ARRIBA COUNTY (NAD 27)	Co-ordinate(NE) Reference: Site: Rosa Unit 129 C, True North		
Site: Rosa Unit 129 C	Vertical (TVD) Reference: SITE 6375.0		
Well: Rosa Unit 129 C	Section (VS) Reference: Well (0.00N,0.00E,344.00Azi)		
Wellpath: 1	Survey Calculation Method: Minimum Curvature	Db: Sybase	

Field: RIO ARRIBA COUNTY (NAD 27)
NEW MEXICO

Map System: US State Plane Coordinate System 1927
Geo Datum: NAD27 (Clarke 1866)
Sys Datum: Mean Sea Level

Map Zone: New Mexico, Western Zone
Coordinate System: Site Centre
Geomagnetic Model: igr2005

Site: Rosa Unit 129 C
1730' FSL & 2030' FWL
Rio Arriba County, NM

Site Position:	Northing: 2159530.66 ft	Latitude: 36 56 3.000 N
From: Geographic	Easting: 612766.51 ft	Longitude: 107 26 51.000 W
Position Uncertainty: 0.00 ft		North Reference: True
Ground Level: 6361.00 ft		Grid Convergence: 0.23 deg

Well: Rosa Unit 129 C
S well

Slot Name:

Well Position:	+N/-S 0.00 ft	Northing: 2159530.66 ft	Latitude: 36 56 3.000 N
	+E/-W 0.00 ft	Easting: 612766.51 ft	Longitude: 107 26 51.000 W
Position Uncertainty: 0.00 ft			

Wellpath: 1
Pad 34

Current Datum: SITE

Height 6375.00 ft

Magnetic Data: 6/19/2006

Field Strength: 51452 nT

Vertical Section: Depth From (TVD)
ft

Drilled From: Surface
Tie-on Depth: 0.00 ft
Above System Datum: Mean Sea Level
Declination: 10.39 deg
Mag Dip Angle: 63.81 deg
+E/-W ft
Direction deg

0.00	0.00	0.00	344.00
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Survey: MWD Survey

Start Date: 8/15/2006

Company: Weatherford Drilling Services
Tool:

Engineer:
Tied-to: From Surface

Survey: MWD Survey

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	
334.00	0.00	0.00	334.00	0.00	0.00	0.00	0.00	0.00	0.00	Surface Casing
389.00	1.06	109.64	389.00	-0.17	0.48	-0.30	1.93	1.93	0.00	First MWD Surveys
419.00	1.69	108.14	418.99	-0.40	1.16	-0.71	2.10	2.10	-5.00	
481.00	3.19	98.39	480.93	-0.94	3.74	-1.93	2.50	2.42	-15.73	
541.00	4.69	84.89	540.79	-0.96	7.83	-3.08	2.92	2.50	-22.50	
603.00	6.94	80.64	602.47	-0.13	14.05	-4.00	3.69	3.63	-6.85	
665.00	6.63	99.64	664.04	-0.12	21.28	-5.98	3.64	-0.50	30.65	
727.00	7.38	96.39	725.58	-1.16	28.76	-9.04	1.37	1.21	-5.24	
787.00	8.94	80.27	784.97	-0.80	37.19	-11.02	4.59	2.60	-26.87	
849.00	10.13	63.02	846.13	2.49	46.80	-10.51	4.97	1.92	-27.82	
880.00	10.75	54.77	876.62	5.39	51.59	-9.04	5.22	2.00	-26.61	
941.00	11.94	41.14	936.44	13.43	60.39	-3.74	4.79	1.95	-22.34	
1003.00	13.06	29.02	996.98	24.38	68.01	4.69	4.59	1.81	-19.55	
1064.00	14.44	16.89	1056.24	37.69	73.57	15.96	5.23	2.26	-19.89	
1126.00	15.75	5.89	1116.11	53.46	76.68	30.26	5.07	2.11	-17.74	
1189.00	17.25	354.89	1176.53	71.28	76.72	47.37	5.49	2.38	-17.46	
1252.00	19.38	346.89	1236.34	90.77	73.52	66.99	5.22	3.38	-12.70	
1314.00	21.81	339.27	1294.39	111.57	67.11	88.75	5.83	3.92	-12.29	
1377.00	24.69	333.64	1352.27	134.31	57.12	113.36	5.77	4.57	-8.94	
1442.00	28.25	330.52	1410.45	159.87	43.51	141.69	5.88	5.48	-4.80	
1504.00	31.44	328.52	1464.22	186.44	27.84	171.55	5.39	5.15	-3.23	
1565.00	34.63	326.77	1515.36	214.52	10.03	203.44	5.46	5.23	-2.87	
1628.00	39.00	323.64	1565.79	245.47	-11.54	239.14	7.55	6.94	-4.97	



Weatherford Drilling Services

Survey Report



Weatherford

Company: WILLIAMS PRODUCTION
Field: RIO ARRIBA COUNTY (NAD 27)
Site: Rosa Unit 129 C
Well: Rosa Unit 129 C
Wellpath: 1

Date: 11/14/2006 **Time:** 10:27:22 **Page:** 2
Co-ordinate(NE) Reference: Site: Rosa Unit 129 C, True North
Vertical (TVD) Reference: SITE 6375.0
Section (VS) Reference: Well (0.00N,0.00E,344.00Azi)
Survey Calculation Method: Minimum Curvature **Db:** Sybase

Survey: MWD Survey

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
1690.00	42.94	323.52	1612.59	278.18	-35.67	277.23	6.36	6.35	-0.19	
1754.00	46.44	324.77	1658.08	314.66	-62.02	319.56	5.64	5.47	1.95	
1817.00	47.63	325.64	1701.02	352.52	-88.32	363.21	2.14	1.89	1.38	
1880.00	47.63	327.02	1743.48	391.25	-114.13	407.55	1.62	0.00	2.19	
1943.00	47.56	330.27	1785.97	430.97	-138.33	452.40	3.81	-0.11	5.16	
2005.00	47.56	334.52	1827.82	471.50	-159.52	497.20	5.06	0.00	6.85	
2069.00	48.19	337.89	1870.75	514.92	-178.66	544.22	4.03	0.98	5.27	
2133.00	47.80	340.02	1913.58	559.30	-195.74	591.58	2.55	-0.61	3.33	
2196.00	47.00	341.27	1956.23	603.05	-211.11	637.88	1.94	-1.27	1.98	
2259.00	45.00	343.39	1999.99	646.22	-224.87	683.17	3.99	-3.17	3.37	
2322.00	43.94	345.14	2044.95	688.69	-236.85	727.30	2.57	-1.68	2.78	
2384.00	42.44	347.52	2090.16	729.91	-246.89	769.69	3.57	-2.42	3.84	
2447.00	41.25	348.89	2137.09	771.05	-255.48	811.60	2.38	-1.89	2.17	
2508.00	39.38	349.89	2183.60	809.84	-262.76	850.89	3.24	-3.07	1.64	
2571.00	38.06	349.02	2232.75	848.58	-269.96	890.12	2.27	-2.10	-1.38	
2633.00	35.25	348.14	2282.49	884.86	-277.28	927.01	4.61	-4.53	-1.42	
2696.00	35.56	348.27	2333.84	920.59	-284.74	963.41	0.51	0.49	0.21	
2759.00	34.69	348.52	2385.36	956.09	-292.03	999.55	1.40	-1.38	0.40	
2822.00	33.00	348.64	2437.68	990.48	-298.98	1034.53	2.68	-2.68	0.19	
2885.00	30.31	349.02	2491.31	1022.92	-305.39	1067.47	4.28	-4.27	0.60	
2946.00	29.31	347.02	2544.24	1052.58	-311.68	1097.71	2.31	-1.64	-3.28	
3009.00	27.75	346.89	2599.58	1081.89	-318.47	1127.76	2.48	-2.48	-0.21	
3072.00	25.13	347.14	2655.99	1109.22	-324.77	1155.77	4.16	-4.16	0.40	
3134.00	24.56	346.77	2712.25	1134.60	-330.65	1181.79	0.95	-0.92	-0.60	
3196.00	22.81	346.39	2769.03	1158.83	-336.43	1206.67	2.83	-2.82	-0.61	
3260.00	20.75	346.39	2828.45	1181.90	-342.02	1230.39	3.22	-3.22	0.00	
3321.00	19.06	347.89	2885.81	1202.15	-346.65	1251.13	2.89	-2.77	2.46	
3383.00	17.44	347.14	2944.69	1221.10	-350.84	1270.51	2.64	-2.61	-1.21	
3445.00	16.38	345.14	3004.01	1238.61	-355.15	1288.52	1.95	-1.71	-3.23	
3507.00	15.00	344.77	3063.70	1254.80	-359.50	1305.29	2.23	-2.23	-0.60	
3569.00	14.38	343.52	3123.67	1269.93	-363.79	1321.01	1.12	-1.00	-2.02	
3633.00	13.25	341.77	3185.82	1284.52	-368.34	1336.28	1.88	-1.77	-2.73	
3695.00	11.44	344.89	3246.38	1297.20	-372.17	1349.53	3.11	-2.92	5.03	
3758.00	8.56	347.27	3308.42	1307.81	-374.83	1360.46	4.62	-4.57	3.78	
3789.00	7.19	346.77	3339.12	1311.95	-375.78	1364.71	4.42	-4.42	-1.61	
3852.00	6.06	341.14	3401.70	1318.93	-377.76	1371.97	2.07	-1.79	-8.94	
3884.00	4.94	341.52	3433.56	1321.84	-378.74	1375.03	3.50	-3.50	1.19	
3915.00	4.44	343.02	3464.45	1324.25	-379.52	1377.56	1.66	-1.61	4.84	
3945.00	3.94	345.39	3494.37	1326.36	-380.12	1379.75	1.76	-1.67	7.90	
3977.00	3.31	349.89	3526.31	1328.33	-380.55	1381.77	2.16	-1.97	14.06	
4008.00	3.06	351.39	3557.26	1330.03	-380.84	1383.48	0.85	-0.81	4.84	
4040.00	3.06	353.64	3589.21	1331.73	-381.06	1385.17	0.38	0.00	7.03	Last MWD Survey
6200.00	1.50	342.00	5747.45	1415.92	-396.18	1470.27	0.07	-0.07	-0.54	Single Shot Survey
6414.00	1.50	342.00	5961.37	1421.24	-397.91	1475.87	0.00	0.00	0.00	Projection to TD

Annotation

MD ft	TVD ft	
334.00	334.00	Surface Casing
389.00	389.00	First MWD Surveys
4040.00	3589.21	Last MWD Survey
6200.00	5747.45	Single Shot Survey
6414.00	5961.37	Projection to TD