

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

¹ API Number 30-039-29488		² Pool Code 71629	³ Pool Name BASIN FRUITLAND COAL
⁴ Property Code 17033	⁵ Property Name ROSA UNIT		⁶ Well Number 357A
⁷ GRID No 120782	⁸ Operator Name WILLIAMS PRODUCTION COMPANY		⁹ Elevation 6370'

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
J	36	32N	6W		1368	SOUTH	1491	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
G	36	32N	6W		1838	NORTH	2380	EAST	RIO ARriba

¹² Dedicated Acres 320.0 Acres - (E/2)	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
--	-------------------------------	----------------------------------	-------------------------

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

¹⁶	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 <i>R. Mitchell</i> 8/19/2004 Signature Date Ben Mitchell 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: AUGUST 16, 2011 Survey Date: OCTOBER 21, 2004 Signature and Seal of Professional Surveyor JASON C. EDWARDS Certificate Number 15269



Williams Energy

Rosa Unit #357A STK
Sec36 T32N-R6W - 357A

Rio Arriba Co. NM

GL: 6369' KB: 12'

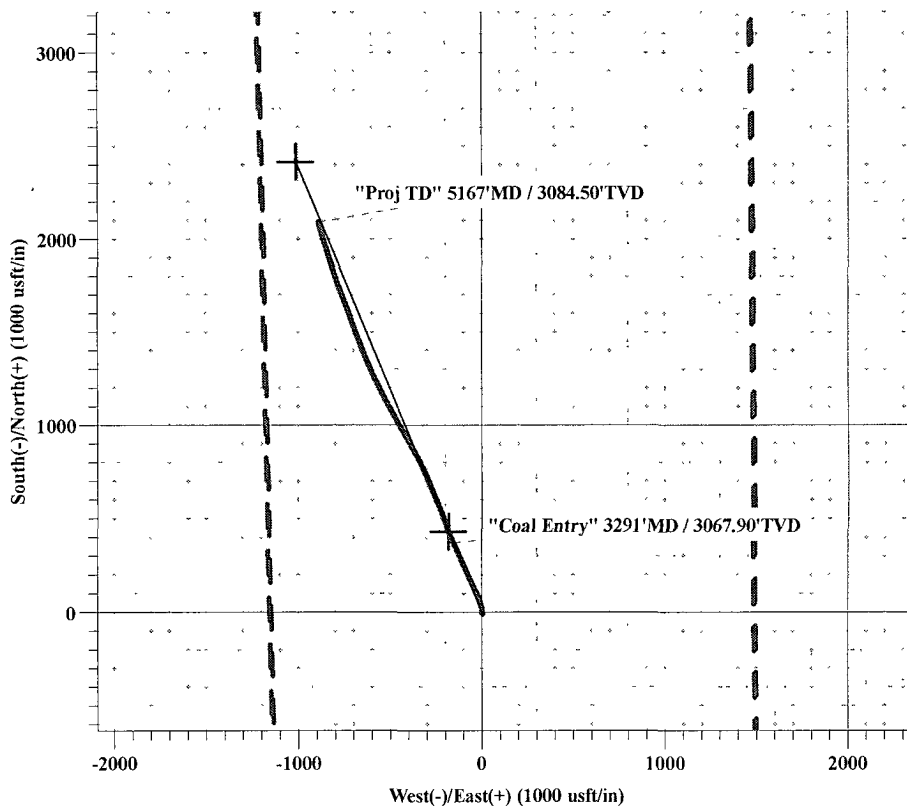


A Schlumberger Company

WELLBORE TARGET DETAILS (MAP CO-ORDINATES)

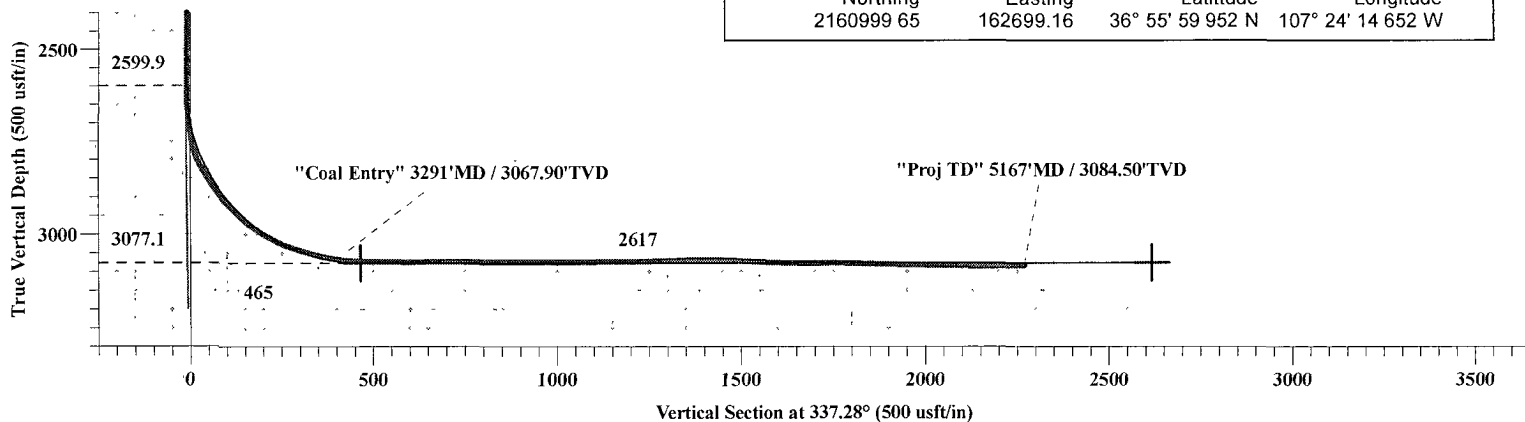
Name	TVD	+N/-S	+E/-W	Northing	Easting	Shape
LAND-357A	3077 0	428 9	-180 0	2161430 70	162524 36	Point
TD-357A	3077 0	2414 0	-1011 3	2163425 71	161717 17	Point

EOW
No Hardline Crossed



WELL DETAILS Rosa Unit #357A STK

Northing	Easting	Latitude	Longitude
2160999 65	162699.16	36° 55' 59 952 N	107° 24' 14 652 W



SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	V Sect	Target
2600 0	0 28	185 09	2599 9	-8 9	4 5	0 00	0 00	-10.0	
3348 3	90 00	337 28	3077 1	428 9	-180 0	12 06	152 19	465 1	
5500 5	90 00	337 28	3077 0	2414 0	-1011 3	0 00	0 00	2617 3	TD-357A

Plan: Design #4 (Rosa Unit #357A STK/STK)

Created By: Frank C. Scardino

Date: 8/02/2011

Williams Energy

Rio Arriba Co. NM

Sec36 T32N-R6W - 357A

Rosa Unit #357A STK

STK

Design: STK

Standard Survey Report

12 August, 2011

Survey Report

Company:	Williams Energy	Local Co-ordinate Reference:	Site Sec36 T32N-R6W - 357A
Project:	Rio Arriba Co. NM	TVD Reference:	WELL @ 6381 0usft (Original Well Elev)
Site:	Sec36 T32N-R6W - 357A	MD Reference:	WELL @ 6381 0usft (Original Well Elev)
Well:	Rosa Unit #357A-STK	North Reference:	True
Wellbore:	STK	Survey Calculation Method:	Minimum Curvature
Design:	STK	Database:	EDM 5000 1 Single User Db

Project	Rio Arriba Co. NM		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico Central 3002		

Site	Sec36 T32N-R6W - 357A		
Site Position:		Northing:	2,160,999 65 usft
From:	Lat/Long	Easting:	162,699 16 usft
Position Uncertainty:	0 0 usft	Slot Radius:	13-3/16 "
		Latitude:	36° 55' 59 952 N
		Longitude:	107° 24' 14 652 W
		Grid Convergence:	-0 69 °

Well	Rosa Unit #357A STK		
Well Position	+N/-S	0 0 usft	Northing:
	+E/-W	0 0 usft	Easting:
Position Uncertainty	0 0 usft	Wellhead Elevation:	usft
		Latitude:	36° 55' 59 952 N
		Longitude:	107° 24' 14 652 W
		Ground Level:	6,369 0 usft

Wellbore	STK		
Magnetics	Model Name	Sample Date	Declination
	IGRF2010	08/02/11	(°) 9 75
			Dip Angle
			(°) 63 69
			Field Strength
			(nT) 50,880

Design	STK		
Audit Notes:			
Version:	1 0	Phase:	ACTUAL
		Tie On Depth:	0 0
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W
	(usft)	(usft)	(usft)
	0 0	0 0	0 0
			Direction
			(°) 337 28

Survey Program	Date 08/12/11		
From	To	Survey (Wellbore)	Tool Name
(usft)	(usft)		
200 0	5,167 0	Survey #1 (STK)	MWD
			Description
			MWD - Standard

Survey										
Measured	Inclination	Azimuth	Vertical	+N/-S	+E/-W	Vertical	Dogleg	Build	Turn	
Depth	(°)	(°)	Depth	(usft)	(usft)	Section	Rate	Rate	Rate	
(usft)			(usft)			(usft)	(°/100usft)	(°/100usft)	(°/100usft)	
0 0	0 00	0 00	0 0	0 0	0 0	0 0	0 00	0 00	0 00	
200 0	0 24	93 74	200 0	0 0	0 4	-0 2	0 12	0 12	0 00	
400 0	0 81	145 55	400 0	-1 2	1 6	-1 8	0 34	0 29	25 91	
600 0	0 93	143 98	600 0	-3 7	3 4	-4 7	0 06	0 06	-0 79	
800 0	0 62	150 74	799 9	-6 0	4 9	-7 4	0 16	-0 16	3 38	
1,000 0	0 21	236 72	999 9	-7 1	5 1	-8 5	0 32	-0 21	42 99	
1,200 0	0 12	211 07	1,199 9	-7 5	4 7	-8 7	0 06	-0 05	-12 83	
1,400 0	0 21	278 75	1,399 9	-7 6	4 2	-8 6	0 10	0 05	33 84	
1,600 0	0 23	278 20	1,599 9	-7 5	3 5	-8 2	0 01	0 01	-0 28	
1,800 0	0 08	35 48	1,799 9	-7 3	3 1	-8 0	0 14	-0 08	58 64	

Survey Report

Company:	Williams Energy	Local Co-ordinate Reference:	Site: Sec36 T32N-R6W - 357A
Project:	Rio Arriba Co. NM	TVD Reference:	WELL @ 6381.0usft (Original Well Elev)
Site:	Sec36 T32N-R6W - 357A	MD Reference:	WELL @ 6381.0usft (Original Well Elev)
Well:	Rosa Unit #357A STK	North Reference:	True
Wellbore:	STK	Survey Calculation Method:	Minimum Curvature
Design:	STK	Database:	EDM 5000 1 Single User Db

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
2,000.0	0.10	227.90	1,999.9	-7.3	3.1	-7.9	0.09	0.01	-83.79	
2,200.0	0.33	98.68	2,199.9	-7.5	3.5	-8.3	0.20	0.12	-64.61	
2,400.0	0.28	149.56	2,399.9	-8.0	4.3	-9.1	0.13	-0.03	25.44	
2,600.0	0.28	185.09	2,599.9	-8.9	4.5	-10.0	0.09	0.00	17.77	
2,651.0	0.28	214.57	2,650.9	-9.2	4.5	-10.2	0.28	0.00	57.80	
2,768.0	17.59	354.06	2,766.1	8.3	2.5	6.7	15.22	14.79	119.22	
2,800.0	23.57	348.63	2,796.1	19.4	0.7	17.6	19.60	18.69	-16.97	
2,832.0	28.75	343.85	2,824.8	33.1	-2.7	31.6	17.46	16.19	-14.94	
2,864.0	32.45	341.88	2,852.3	48.6	-7.5	47.8	11.98	11.56	-6.16	
2,896.0	36.32	339.91	2,878.7	65.7	-13.5	65.8	12.58	12.09	-6.16	
2,928.0	40.19	336.76	2,903.9	84.1	-20.8	85.6	13.54	12.09	-9.84	
2,960.0	43.97	334.64	2,927.6	103.6	-29.6	107.0	12.62	11.81	-6.63	
2,991.0	48.10	333.86	2,949.1	123.7	-39.3	129.3	13.44	13.32	-2.52	
3,023.0	52.50	334.37	2,969.6	145.9	-50.1	153.9	13.80	13.75	1.59	
3,055.0	56.54	334.90	2,988.1	169.4	-61.2	179.9	12.70	12.63	1.66	
3,087.0	59.53	335.93	3,005.1	194.1	-72.5	207.0	9.73	9.34	3.22	
3,119.0	64.63	336.09	3,020.0	219.9	-84.0	235.3	15.94	15.94	0.50	
3,151.0	69.91	334.91	3,032.4	246.8	-96.2	264.8	16.85	16.50	-3.69	
3,183.0	73.16	334.55	3,042.5	274.2	-109.2	295.1	10.21	10.16	-1.13	
3,215.0	75.01	336.15	3,051.3	302.2	-122.0	325.9	7.52	5.78	5.00	
3,246.0	75.97	336.01	3,059.1	329.6	-134.2	355.9	3.13	3.10	-0.45	
3,278.0	79.84	335.11	3,065.8	358.1	-147.1	387.1	12.40	12.09	-2.81	
3,291.0	81.49	334.79	3,067.9	369.7	-152.6	400.0	12.89	12.65	-2.48	
"Coal Entry" 3291 MD / 3067.90 TVD										
3,310.0	83.89	334.32	3,070.3	386.7	-160.7	418.8	12.89	12.66	-2.46	
3,340.0	86.97	335.66	3,072.7	413.8	-173.3	448.7	11.19	10.27	4.47	
3,372.0	89.60	338.62	3,073.7	443.3	-185.7	480.6	12.37	8.22	9.25	
3,436.0	89.08	338.93	3,074.4	503.0	-208.9	544.6	0.95	-0.81	0.48	
3,499.0	90.57	338.57	3,074.6	561.7	-231.7	607.6	2.43	2.37	-0.57	
3,563.0	89.69	337.03	3,074.4	620.9	-255.9	671.6	2.77	-1.38	-2.41	
3,626.0	90.13	336.90	3,074.5	678.9	-280.6	734.6	0.73	0.70	-0.21	
3,689.0	90.22	336.06	3,074.4	736.7	-305.7	797.6	1.34	0.14	-1.33	
3,754.0	89.52	332.97	3,074.5	795.3	-333.7	862.5	4.87	-1.08	-4.75	
3,818.0	89.08	331.39	3,075.3	851.9	-363.5	926.2	2.56	-0.69	-2.47	
3,882.0	89.43	330.77	3,076.1	907.9	-394.5	989.8	1.11	0.55	-0.97	
3,946.0	91.80	329.65	3,075.4	963.5	-426.3	1,053.4	4.10	3.70	-1.75	
4,009.0	89.96	328.68	3,074.5	1,017.6	-458.6	1,115.7	3.30	-2.92	-1.54	
4,073.0	89.96	330.72	3,074.5	1,072.8	-490.8	1,179.1	3.19	0.00	3.19	
4,136.0	91.89	332.25	3,073.5	1,128.2	-520.9	1,241.8	3.91	3.06	2.43	
4,199.0	92.15	333.19	3,071.3	1,184.1	-549.8	1,304.6	1.55	0.41	1.49	
4,262.0	90.48	333.95	3,069.8	1,240.5	-577.8	1,367.4	2.91	-2.65	1.21	
4,325.0	89.52	335.27	3,069.8	1,297.4	-604.8	1,430.4	2.59	-1.52	2.10	
4,389.0	86.97	336.45	3,071.8	1,355.8	-631.0	1,494.3	4.39	-3.98	1.84	
4,453.0	86.97	338.82	3,075.2	1,414.9	-655.3	1,558.2	3.70	0.00	3.70	

Survey Report

Company:	Williams Energy	Local Co-ordinate Reference:	Site Sec36 T32N-R6W - 357A
Project:	Rio Arriba Co - NM	TVD Reference:	WELL @ 6381'0usft (Original Well Elev)
Site:	Sec36 T32N-R6W - 357A	MD Reference:	WELL @ 6381'0usft (Original Well Elev)
Well:	Rosa Unit #357A STK	North Reference:	True
Wellbore:	STK	Survey Calculation Method:	Minimum Curvature
Design:	STK	Database:	EDM 5000 1 Single User Db

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
4,518.0	88.11	339.49	3,078.0	1,475.6	-678.4	1,623.1	2.03	1.75	1.03	
4,581.0	91.54	340.69	3,078.1	1,534.8	-699.9	1,686.0	5.77	5.44	1.90	
4,644.0	89.52	340.29	3,077.6	1,594.2	-720.9	1,748.9	3.27	-3.21	-0.63	
4,707.0	88.90	339.05	3,078.4	1,653.3	-742.8	1,811.8	2.20	-0.98	-1.97	
4,770.0	88.20	337.49	3,080.0	1,711.8	-766.1	1,874.8	2.71	-1.11	-2.48	
4,835.0	88.37	340.07	3,082.0	1,772.3	-789.6	1,939.8	3.98	0.26	3.97	
4,899.0	89.08	341.92	3,083.4	1,832.8	-810.4	2,003.6	3.10	1.11	2.89	
4,962.0	89.60	342.24	3,084.1	1,892.8	-829.8	2,066.4	0.97	0.83	0.51	
5,026.0	88.55	342.84	3,085.2	1,953.8	-849.0	2,130.1	1.89	-1.64	0.94	
5,090.0	90.75	343.55	3,085.5	2,015.1	-867.5	2,193.8	3.61	3.44	1.11	
5,167.0	90.75	343.55	3,084.5	2,088.9	-889.3	2,270.3	0.00	0.00	0.00	
"Proj TD" 5167' MD / 3084.50' TVD										

Design Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
3,291.0	3,067.9	369.7	-152.6	"Coal Entry" 3291' MD / 3067.90' TVD
5,167.0	3,084.5	2,088.9	-889.3	"Proj TD" 5167' MD / 3084.50' TVD

Checked By: _____	Approved By: _____	Date: _____
-------------------	--------------------	-------------