

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

RECEIVED

FORM APPROVED
OMB No 1004-0137
Expires March 31, 2007

OCT 28 2011

Farmington Field Office
Bureau of Land Management

SUNDRY NOTICES AND REPORTS ON WELLS
Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE – Other instructions on page 2.

1 Type of Well ☐ Oil Well ☒ Gas Well ☐ Other		5 Lease Serial No SF-078767
2 Name of Operator Williams Production Company, LLC		6 If Indian, Allottee or Tribe Name
3a Address PO Box 640 Aztec, NM 87410	3b Phone No (include area code) 505-333-1808	7 If Unit of CA/Agreement, Name and/or No. Rosa Unit
4 Location of Well (Footage, Sec., T, R, M., or Survey Description) SHL 1087' FSL & 976' FEL BHL 250' FSL & 400' FWL, sec 24, T31N, R6W		8 Well Name and No Rosa Unit #209A
		9 API Well No 30-039-27699
		10. Field and Pool or Exploratory Area Basin Fruitland Coal
		11. Country or Parish, State Rio Arriba

12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
☒ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☐ Subsequent Report	☐ Alter Casing	☐ Fracture Treat	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☒ Recomplete	☐ Other _____
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	
	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	

13 Describe Proposed or Completed Operation Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof If the proposal is to deepen directionally or recompleate horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA Required subsequent reports must be filed within 30 days following completion of the involved operations If the operation results in a multiple completion or recompleation in a new interval, a Form 3160-4 must be filed once testing has been completed Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection)

Williams plans to re enter this existing wellbore and convert this well from a vertical cavitation to a horizontal completion as per attached plat, operation plan and directional plan

NOTE: Williams would like to update the existing SHL records for this well. Due to resurveyed data and advancements in technology the SHL from the existing C-102 is inconsistent with the attached It is our belief that the more accurate C-102 is the most recent of the two and would like provide the attached for record.

Req^{NEW} C104, As Drilled Plat & Dir Survey

14 I hereby certify that the foregoing is true and correct Name (Printed/Typed) Larry Higgins	Title Permit Supervisor
Signature <i>Larry Higgins</i>	Date 10/27/11

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by <i>Troy L. Salvors</i>	Title PE	Date 11/8/2011
Conditions of approval, if any, are attached Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon	Office FFO	

Title 18 U S C Section 1001 and Title 43 U S C Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction

(Instructions on page 2)

CONDITIONS OF APPROVAL
Adhere to previously issued stipulations.

NMOCD

BLM'S APPROVAL OR ACCEPTANCE OF THIS ACTION DOES NOT RELIEVE THE LESSEE AND OPERATOR FROM OBTAINING ANY OTHER AUTHORIZATION REQUIRED FOR OPERATIONS ON FEDERAL AND INDIAN LANDS

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

WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number 30-037-27699		*Pool Code 71629	*Pool Name BASIN FRUITLAND COAL
*Property Code 17033	*Property Name ROSA UNIT		*Well Number 209A
*OGRID No. 120782	*Operator Name WILLIAMS PRODUCTION COMPANY		*Elevation 6310'

¹⁰ Surface Location

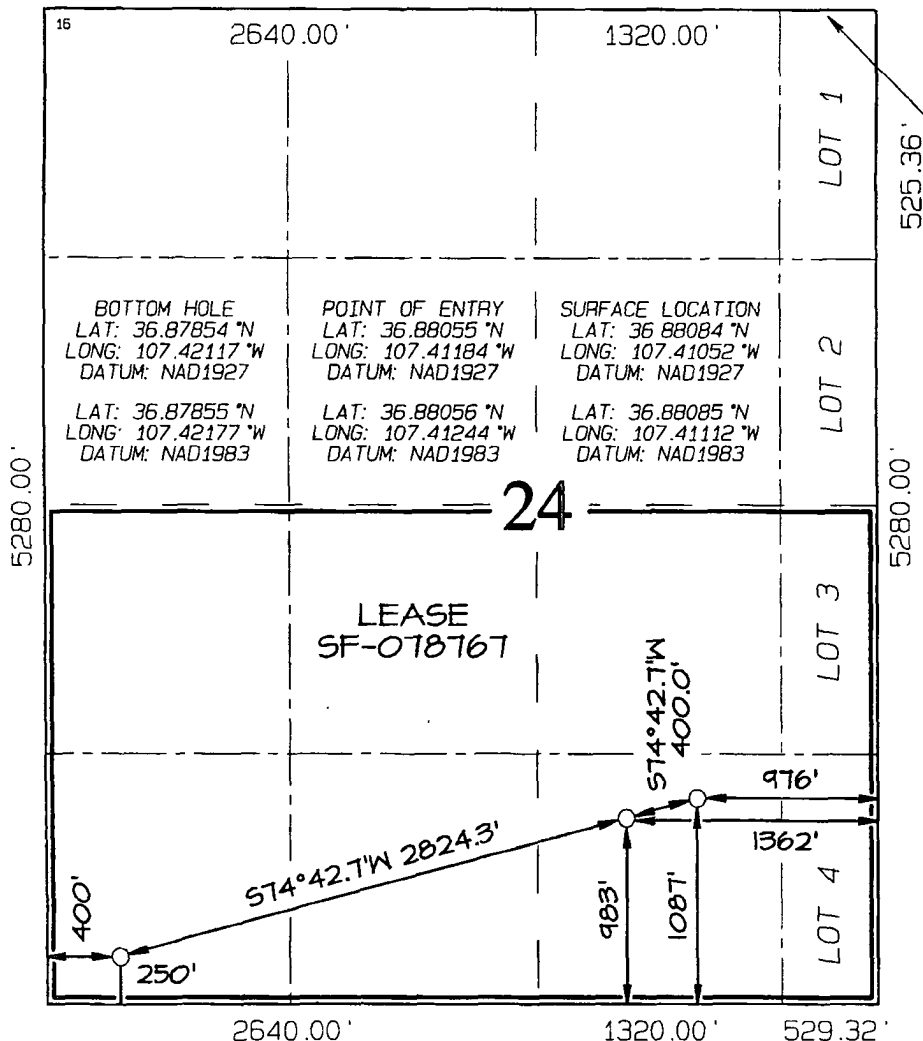
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
0	24	31N	6W		1087	SOUTH	976	EAST	RIO ARriba

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
M	24	31N	6W		250	SOUTH	400	WEST	RIO ARriba

¹² Dedicated Acres 272.02 Acres - (S/2)	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No. SD-201131
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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



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 10-27-11
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: SEPTEMBER 6, 2011
Survey Date: JANUARY 15, 2004

Signature and Seal of Professional Surveyor



JASON C. EDWARDS
Certificate Number 15269



WILLIAMS PRODUCTION COMPANY

Operations Plan

(Note: This procedure will be adjusted on site based upon actual conditions)

DATE: 10/25/2011

WELLNAME: Rosa Unit #209A **FIELD:** Basin Fruitland Coal

BH LOCATION: SWSW Sec. 24-T31N-6W **SURFACE:** BLM
Rio Arriba, NM

ELEVATION: 6,310' GR **MINERALS:** BLM

TOTAL DEPTH: 6,147' **LEASE #** SF-078767

API#: 30-039-27699

I. **GEOLOGY:** Surface formation - San Jose

A. **FORMATION TOPS:** (KB)

NAME		TVD	MD
Kirtland		2,540	2,540
Fruitland		2,925	2,960
Top Target Coal		3,137	3,424
Bottom Target Coal			
Picture Cliffs		3,165	
TD		3,137	6,147

B. **LOGGING PROGRAM:** None

C. **NATURAL GAUGES:** Gauge any noticeable increases in gas flow. Record all gauges in Tour book and on morning reports.

D. **MUD LOGGING PRORAM:** Mud logger will be on location from mill out to TD.

II. **PREPARATORY WORK**

- A. MIRU w/ workover rig
- B. POOH/LD rods and pump
- C. POOH/LD production tbg
- D. Set retrievable bridge plug at 2,634' inside 7" casing
- E. Pressure test 7" csg and bridge plug to 1,500 psi for 30 minutes
- F. RDMO

III. **DRILLING**

- A. **MUD PROGRAM:** LSND mud during mill out and while drilling curve. Treat for lost circulation as necessary. Notify Engineering of any mud losses.

B. DRILLING FLUID: Horizontal section will be drilled with produced water.

C. BOP TESTING: While drill pipe is in use, the pipe rams and the blind rams will be function tested once each trip. The anticipated reservoir is expected to be less than 1300 psi, so the BOPE will be tested to **250 psi (Low) for 5 minutes** and **1500 psi (High) for 10 minutes**. Utilize a BOPE Testing Unit with a recording chart and appropriate test plug for testing. The drum brakes will be inspected and tested each tour. **All tests and inspections will be recorded in the tour book as to time and results.**

IV. MATERIALS

A. CASING PROGRAM (as is):

<u>CASING TYPE</u>	<u>HOLE SIZE</u>	<u>DEPTH (MD)</u>	<u>CASING SIZE</u>	<u>WT. & GRADE</u>
Surface	12-1/4"	318'	9-5/8"	36# J-55
Intermediate	8-3/4"	3,005'	7"	20# K-55
Prod. Liner	6-1/4"	2,898'- 3,182'	5-1/2"	17# K-55

B. CASING PROGRAM (after sidetrack):

<u>CASING TYPE</u>	<u>HOLE SIZE</u>	<u>DEPTH (MD)</u>	<u>CASING SIZE</u>	<u>WT. & GRADE</u>
Surface	12-1/4"	318'	9-5/8"	36# J-55
Intermediate	8-3/4"	3,005'	7"	20# K-55
Prod. Liner (motherbore)	6-1/4"	2,898'- 3,182'	5-1/2"	17# K-55
Prod. Liner (sidetrack)	6-1/4"	~2,645'- 6,147'	4-1/2"	11.6# K-55

- Sidetrack production liner is pre-perforated below top of fruitland with blank pipe from window to top of fruitland and will be dropped off with top of liner in open hole 5-10' outside of window.

C. FLOAT EQUIPMENT:

- PRODUCTION LINER (sidetrack): No centralization

D. CEMENTING:

(Note: Volumes may be adjusted onsite due to actual conditions)

- PRODUCTION LINER (sidetrack): Open hole completion. No cement.

V. COMPLETION

A. STIMULATION

- No stimulation

B. RUNNING TUBING

- Fruitland Coal: Run 2-7/8", 6.5#, J-55, EUE tubing with a SN on top of bottom joint. Land tubing at approximately 3,168' MD inside of motherbore.


 Larry Higgins
 Permit Supervisor



Williams Energy

Rosa Unit #209 A-STK
Sec24 T31N-R06W - 209A

Rio Arriba Co. NM

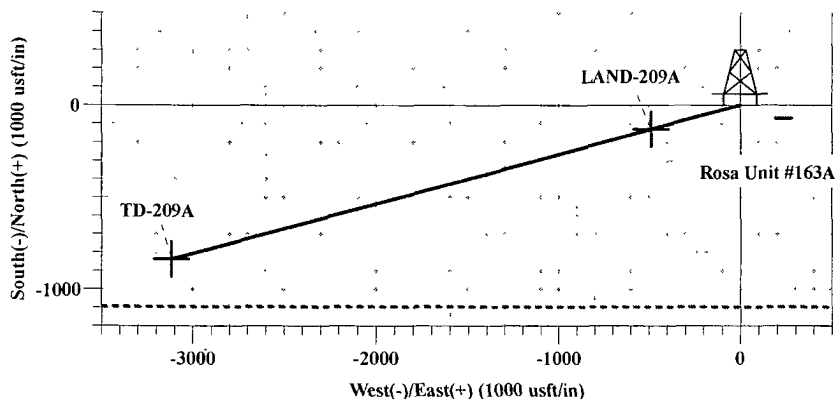
GL: 6310' KB: 14'



A Schlumberger Company

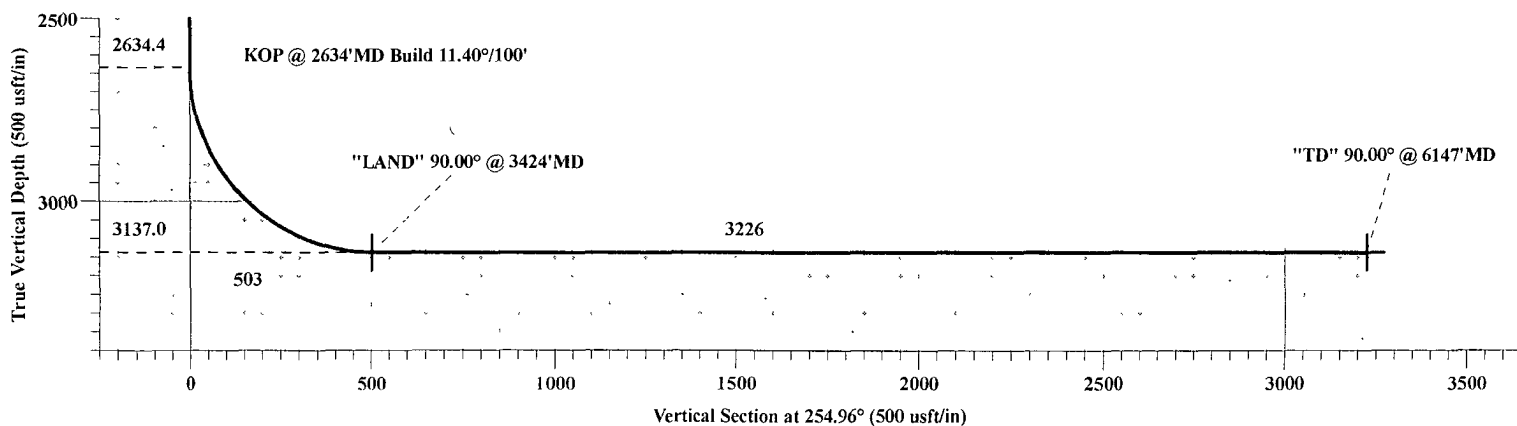
WELLBORE TARGET DETAILS (MAP CO-ORDINATES)

Name	TVD	+N/-S	+E/-W	Northing	Easting	Shape
LAND-209A	3137 0	-130 4	-485 4	2141791 69	160094 56	Point
TD-209A	3137 0	-837 2	-3115 3	2141116 86	157456 30	Point



WELL DETAILS Rosa Unit #209 A-STK

Northing	Easting	Latitude	Longitude
2141916 17	160581.51	36° 52' 51 024 N	107° 24' 37 872 W



SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
0 0	0 00	0 00	0 0	0 0	0 0	0 00	0 00	0 0	
2634 4	0 00	0 00	2634 4	0 0	0 0	0 00	0 00	0 0	
3423 9	90 00	254 96	3137 0	-130 4	-485 4	11 40	254 96	502 6	
6147 1	90 00	254 96	3137 0	-837 2	-3115 3	0 00	0 00	3225 8	TD-209A

Plan: Design #1 (Rosa Unit #209 A-STK/Wellbore #1)

Created By: Frank C. Scardino

Date: 10/19/2011

Williams Energy

Rio Arriba Co. NM

Sec24 T31N-R06W - 209A

Rosa Unit #209 A-STK

Wellbore #1

Plan: Design #1

Standard Planning Report

19 October, 2011

Planning Report

Database:	EDM 5000.1 Single User.Db	Local Co-ordinate Reference:	Site Sec24 T31N-R06W -209A
Company:	Williams Energy	TVD Reference:	WELL @ 6324.0usft (Original Well Elev)
Project:	Rio Arriba Co. NM	MD Reference:	WELL @ 6324.0usft (Original Well Elev)
Site:	Sec24 T31N-R06W - 209A	North Reference:	True
Well:	Rosa Unit #209 A-STK	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

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:	Sec24 T31N-R06W - 209A		
Site Position:		Northing:	2,141,916 17 usft
From:	Lat/Long	Easting:	160,581 51 usft
Position Uncertainty:	0 0 usft	Slot Radius:	13-3/16 "
		Latitude:	36° 52' 51 024 N
		Longitude:	107° 24' 37 872 W
		Grid Convergence:	-0 70 °

Well:	Rosa Unit #209 A-STK		
Well Position	+N/-S	0 0 usft	Northing:
	+E/-W	0 0 usft	Easting:
Position Uncertainty	0 0 usft	Wellhead Elevation:	Ground Level:
			6,310 0 usft

Wellbore:	Wellbore #1		
Magnetics	Model Name	Sample Date	Declination
	IGRF2010	10/19/11	9 72
			Dip Angle
			63 64
			Field Strength
			50,829

Design:	Design #1		
Audit Notes:			
Version:	Phase:	PROTOTYPE	Tie On Depth:
			0 0
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W
	(usft)	(usft)	(usft)
	0 0	0 0	0 0
			Direction
			254 96

Plan Sections										
Measured	Inclination	Azimuth	Vertical	+N/-S	+E/-W	Dogleg	Build	Turn	TFO	Target
Depth	(°)	(°)	Depth	(usft)	(usft)	Rate	Rate	Rate	(°)	
(usft)			(usft)			(°/100usft)	(°/100usft)	(°/100usft)		
0 0	0 00	0 00	0 0	0 0	0 0	0.00	0 00	0 00	0 00	
2,634 4	0 00	0 00	2,634 4	0 0	0 0	0.00	0 00	0 00	0 00	
3,423 9	90 00	254 96	3,137 0	-130 4	-485 4	11 40	11 40	0 00	254 96	
6,147 1	90 00	254.96	3,137 0	-837 2	-3,115 3	0 00	0 00	0 00	0 00	TD-209A

Planning Report

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Site Sec24 T31N-R06W--209A
Company:	Williams Energy	TVD Reference:	WELL @ 6324 0usft (Original Well Elev)
Project:	Rio Arriba Co -NM	MD Reference:	WELL @ 6324 0usft (Original Well Elev)
Site:	Sec24 T31N-R06W- 209A	North Reference:	True
Well:	Rosa Unit #209 A-STK	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Planned 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)	
2,634.4	0.00	0.00	2,634.4	0.0	0.0	0.0	0.00	0.00	0.00	
KOP @ 2634 MD Build 11.40°/100										
2,650.0	1.78	254.96	2,650.0	-0.1	-0.2	0.2	11.40	11.40	0.00	
2,700.0	7.48	254.96	2,699.8	-1.1	-4.1	4.3	11.40	11.40	0.00	
2,750.0	13.18	254.96	2,749.0	-3.4	-12.8	13.2	11.40	11.40	0.00	
2,800.0	18.88	254.96	2,797.0	-7.0	-26.1	27.0	11.40	11.40	0.00	
2,850.0	24.58	254.96	2,843.4	-11.8	-44.0	45.5	11.40	11.40	0.00	
2,900.0	30.28	254.96	2,887.8	-17.8	-66.2	68.6	11.40	11.40	0.00	
2,950.0	35.98	254.96	2,929.7	-24.9	-92.6	95.9	11.40	11.40	0.00	
3,000.0	41.68	254.96	2,968.6	-33.0	-122.8	127.2	11.40	11.40	0.00	
3,050.0	47.38	254.96	3,004.2	-42.1	-156.7	162.3	11.40	11.40	0.00	
3,100.0	53.08	254.96	3,036.2	-52.1	-193.8	200.7	11.40	11.40	0.00	
3,150.0	58.78	254.96	3,064.2	-62.8	-233.8	242.1	11.40	11.40	0.00	
3,200.0	64.48	254.96	3,088.0	-74.2	-276.2	286.0	11.40	11.40	0.00	
3,250.0	70.18	254.96	3,107.2	-86.2	-320.8	332.2	11.40	11.40	0.00	
3,300.0	75.88	254.96	3,121.8	-98.6	-366.9	380.0	11.40	11.40	0.00	
3,350.0	81.58	254.96	3,131.6	-111.3	-414.3	429.0	11.40	11.40	0.00	
3,400.0	87.28	254.96	3,136.4	-124.3	-462.3	478.7	11.40	11.40	0.00	
3,423.9	90.00	254.96	3,137.0	-130.4	-485.4	502.6	11.40	11.40	0.00	
LAND 90°00' @ 3424 MD										
3,500.0	90.00	254.96	3,137.0	-150.2	-558.9	578.7	0.00	0.00	0.00	
3,600.0	90.00	254.96	3,137.0	-176.2	-655.5	678.7	0.00	0.00	0.00	
3,700.0	90.00	254.96	3,137.0	-202.1	-752.0	778.7	0.00	0.00	0.00	
3,800.0	90.00	254.96	3,137.0	-228.1	-848.6	878.7	0.00	0.00	0.00	
3,900.0	90.00	254.96	3,137.0	-254.0	-945.2	978.7	0.00	0.00	0.00	
4,000.0	90.00	254.96	3,137.0	-280.0	-1,041.7	1,078.7	0.00	0.00	0.00	
4,100.0	90.00	254.96	3,137.0	-305.9	-1,138.3	1,178.7	0.00	0.00	0.00	
4,200.0	90.00	254.96	3,137.0	-331.9	-1,234.9	1,278.7	0.00	0.00	0.00	
4,300.0	90.00	254.96	3,137.0	-357.8	-1,331.5	1,378.7	0.00	0.00	0.00	
4,400.0	90.00	254.96	3,137.0	-383.8	-1,428.0	1,478.7	0.00	0.00	0.00	
4,500.0	90.00	254.96	3,137.0	-409.8	-1,524.6	1,578.7	0.00	0.00	0.00	
4,600.0	90.00	254.96	3,137.0	-435.7	-1,621.2	1,678.7	0.00	0.00	0.00	
4,700.0	90.00	254.96	3,137.0	-461.7	-1,717.8	1,778.7	0.00	0.00	0.00	
4,800.0	90.00	254.96	3,137.0	-487.6	-1,814.3	1,878.7	0.00	0.00	0.00	
4,900.0	90.00	254.96	3,137.0	-513.6	-1,910.9	1,978.7	0.00	0.00	0.00	
5,000.0	90.00	254.96	3,137.0	-539.5	-2,007.5	2,078.7	0.00	0.00	0.00	
5,100.0	90.00	254.96	3,137.0	-565.5	-2,104.1	2,178.7	0.00	0.00	0.00	
5,200.0	90.00	254.96	3,137.0	-591.4	-2,200.6	2,278.7	0.00	0.00	0.00	
5,300.0	90.00	254.96	3,137.0	-617.4	-2,297.2	2,378.7	0.00	0.00	0.00	
5,400.0	90.00	254.96	3,137.0	-643.3	-2,393.8	2,478.7	0.00	0.00	0.00	
5,500.0	90.00	254.96	3,137.0	-669.3	-2,490.3	2,578.7	0.00	0.00	0.00	
5,600.0	90.00	254.96	3,137.0	-695.3	-2,586.9	2,678.7	0.00	0.00	0.00	
5,700.0	90.00	254.96	3,137.0	-721.2	-2,683.5	2,778.7	0.00	0.00	0.00	
5,800.0	90.00	254.96	3,137.0	-747.2	-2,780.1	2,878.7	0.00	0.00	0.00	
5,900.0	90.00	254.96	3,137.0	-773.1	-2,876.6	2,978.7	0.00	0.00	0.00	
6,000.0	90.00	254.96	3,137.0	-799.1	-2,973.2	3,078.7	0.00	0.00	0.00	
6,100.0	90.00	254.96	3,137.0	-825.0	-3,069.8	3,178.7	0.00	0.00	0.00	
6,147.1	90.00	254.96	3,137.0	-837.2	-3,115.3	3,225.8	0.00	0.00	0.00	
TD 90°00' @ 6147 MD										

Planning Report

Database:	EDM 5000 1 Single User Db	Local Co-ordinate Reference:	Site Sec24 T31N-R06W - 209A
Company:	Williams Energy	TVD Reference:	WELL @ 6324 0usft (Original Well Elev)
Project:	Rio Arriba Co NM	MD Reference:	WELL @ 6324 0usft (Original Well Elev)
Site:	Sec24 T31N-R06W - 209A	North Reference:	True
Well:	Rosa Unit #209 A-STK	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Design Targets

Target Name	Dip Angle	Dip Dir	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- hit/miss target	(°)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)		
- Shape									
TD-209A	0 00	0 00	3,137 0	-837 2	-3,115 3	2,141,116 86	157,456 30	36° 52' 42 744 N	107° 25' 16 212 W
- plan hits target center									
- Point									
LAND-209A	0 00	0 00	3,137 0	-130 4	-485 4	2,141,791 68	160,094.56	36° 52' 49 735 N	107° 24' 43 846 W
- plan misses target center by 0 1usft at 3423 9usft MD (3137 0 TVD, -130 5 N, -485 4 E)									
- Point									

Plan Annotations

Measured Depth	Vertical Depth	Local Coordinates		Comment
(usft)	(usft)	+N/-S (usft)	+E/-W (usft)	
2,634.4	2,634 4	0 0	0 0	KOP @ 2634'MD Build 11 40°/100'
3,423 9	3,137 0	-130 4	-485 4	"LAND" 90 00° @ 3424'MD
6,147 1	3,137 0	-837 2	-3,115 3	"TD" 90 00° @ 6147'MD