

RECEIVED

Form 3160-5
(February 2005)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SEP 09 2011

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

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

2 Name of Operator

Williams Production Company, LLC

3a. Address

PO Box 640 Aztec, NM 87410

3b. Phone No (include area code)

505-333-1806

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

Sur 1391' FNL & 902' FWL, BHL: 100' FNL & 800' FEL, sec 12, T31N, R6W

5. Lease, Serial No.
NMSF-078767

6. If Indian, Allottee or Tribe Name

7. If Unit of CA/Agreement, Name and/or No.
Rosa Unit

8. Well Name and No
Rosa Unit #226A

9. API Well No.
30-039-27817

10. Field and Pool or Exploratory Area
Basin Fruitland Coal

11. Country or Parish, State
Rio Arriba, NM

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 SHL C-102 _____
	☐ 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 recomplate 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 recompletion 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. In addition 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.

14. I hereby certify that the foregoing is true and correct.

Name (Printed/Typed)

Ben Mitchell

Title Regulatory Specialist

Signature

B Mitchell

Date 9/7/11

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by

Original Signed: Stephen Mason

Title

Date

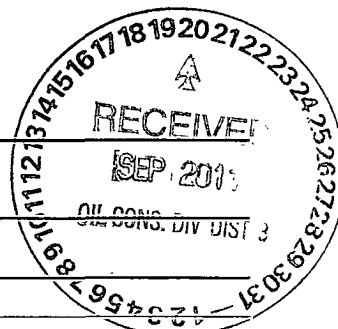
Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Office

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)

NMOC



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

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

OIL CONSERVATION DIVISION

1220 South St. Francis Dr. SEP 09 2011
Santa Fe, NM 87505

Farmington Field Office AMENDED REPORT
Bureau of Land Management

WELL LOCATION AND ACREAGE DEDICATION PLAT

'API Number 30034-27817	'Pool Code 71629	'Pool Name BASIN FRUITLAND COAL	
'Property Code 17033	'Property Name ROSA UNIT		'Well Number 226A
'OGRID No. 120782	'Operator Name WILLIAMS PRODUCTION COMPANY		'Elevation 6336 '

¹⁰ Surface Location

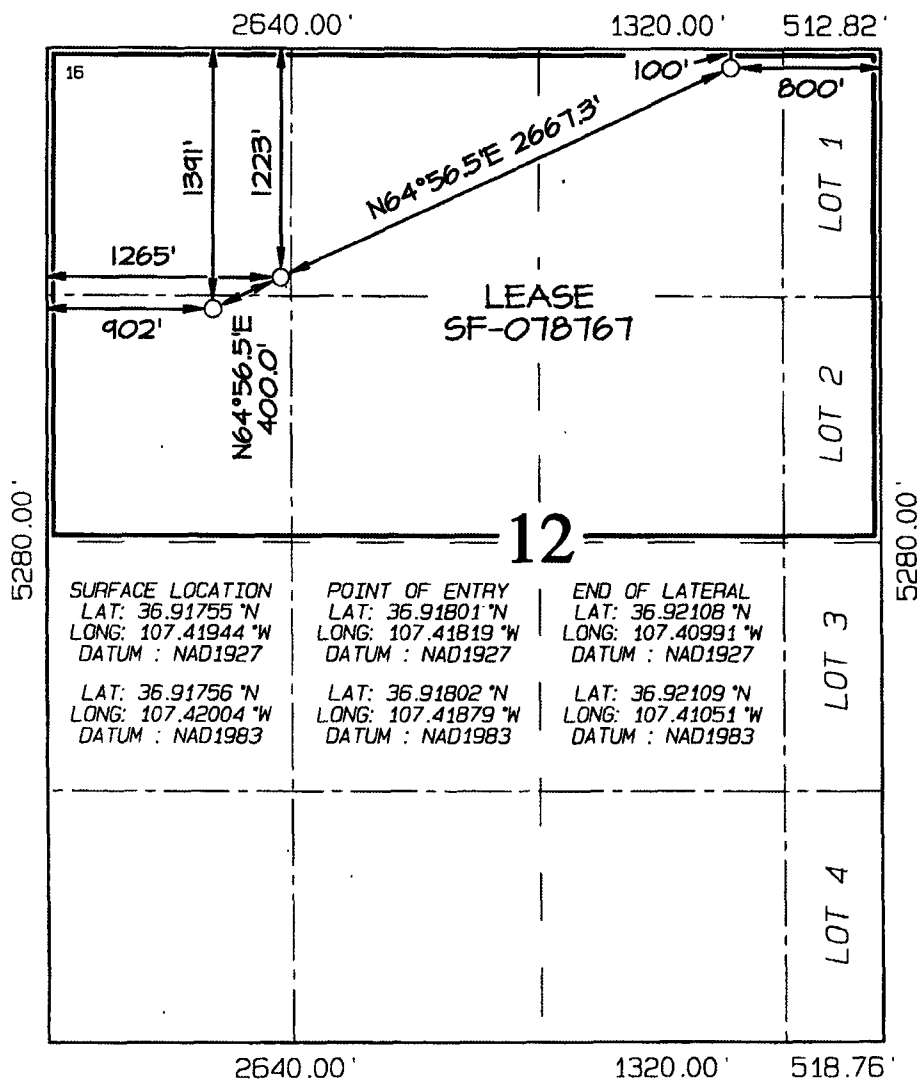
U. or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
E	12	31N	6W		1391	NORTH	902	WEST	RIO ARRIBA

¹¹Bottom 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
B	12	31N	6W		100	NORTH	800	EAST	RIO ARRIBA

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

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.

Signature Ben Mitchell Date 9/7/11
Printed Name Ben Mitchell

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 7, 2011
Date of Survey: MAY 7, 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: 9/8/2011

WELLNAME: Rosa Unit #226A **FIELD:** Basin Fruitland Coal

BH LOCATION: NWEE Sec. 12-T31N-6W **SURFACE:** BLM
Rio Arriba, NM

ELEVATION: 6,336' GR **MINERALS:** BLM

TOTAL DEPTH: 5,876' **LEASE #** SF-078767

API#: 30-039-27817

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

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

NAME		TVD	MD
Kirtland		2,534	2,534
Fruitland		2,938	2,996
Top Target Coal		3,102	3,400
Bottom Target Coal		3,113	
Picture Cliffs		3,191	
TD		3,102	5,876

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 2,470' 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"	317'	9-5/8"	36# J-55
Intermediate	8-3/4"	3,014'	7"	23# N-80
Prod. Liner	6-1/4"	2,920' - 3,288'	5-1/2"	17# N-80

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"	317'	9-5/8"	36# J-55
Intermediate	8-3/4"	3,014'	7"	23# N-80
Prod. Liner (motherbore)	6-1/4"	2,920' - 3,288'	5-1/2"	17# N-80
Prod. Liner (sidetrack)	6-1/4"	~2,750' - 5,786'	4-1/2"	11.6# K-55

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

C. FLOAT EQUIPMENT:

1. PRODUCTION LINER (sidetrack): No centralization

D. CEMENTING:

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

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

V. COMPLETION

A. STIMULATION

1. No stimulation

B. RUNNING TUBING

1. Fruitland Coal: Run 2-7/8", 6.5#, J-55, EUE tubing with a SN on top of bottom joint. Land tubing at approximately 3,257' MD inside of motherbore.

Brian Alleman
Drilling Engineer II



Williams Energy

Rosa Unit #226A STK
Sec12 T31N-R6W - 226A

Rio Arriba Co. NM

GL: 6336' KB: 14'



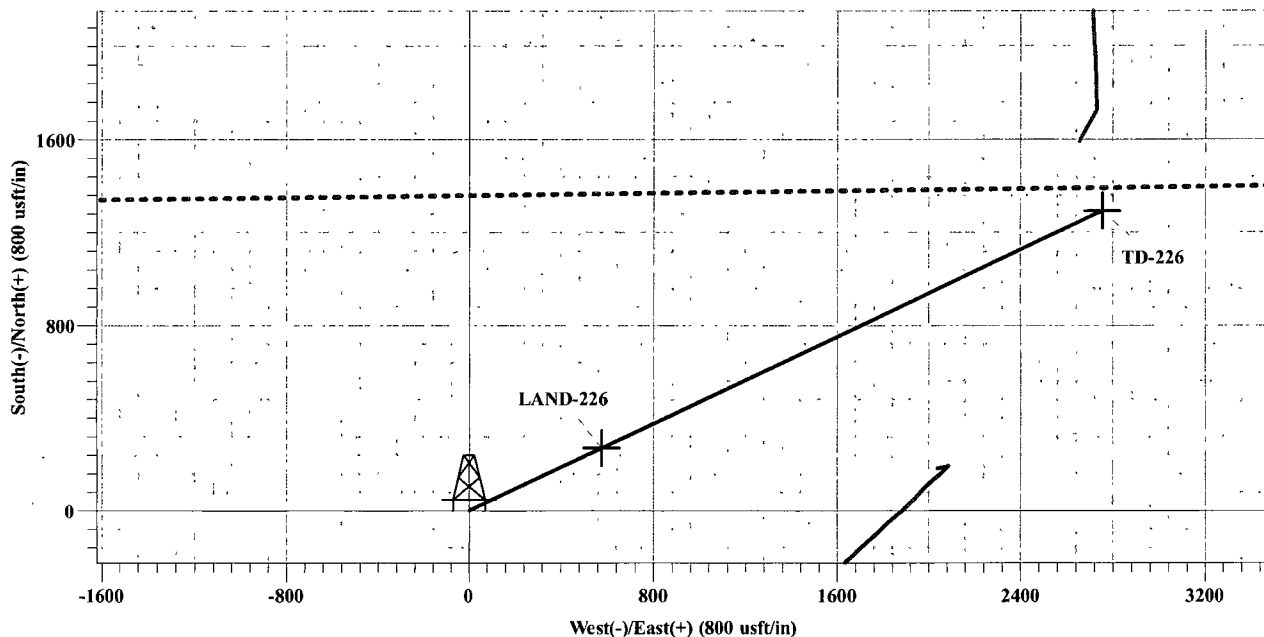
A Schlumberger Company

LEGEND

- ✕ Rosa Unit #149C, Wellbore #1, Wellbore #1 V0
- △ Rosa Unit #164C, Wellbore #1, Wellbore #1 V0
- Design #1

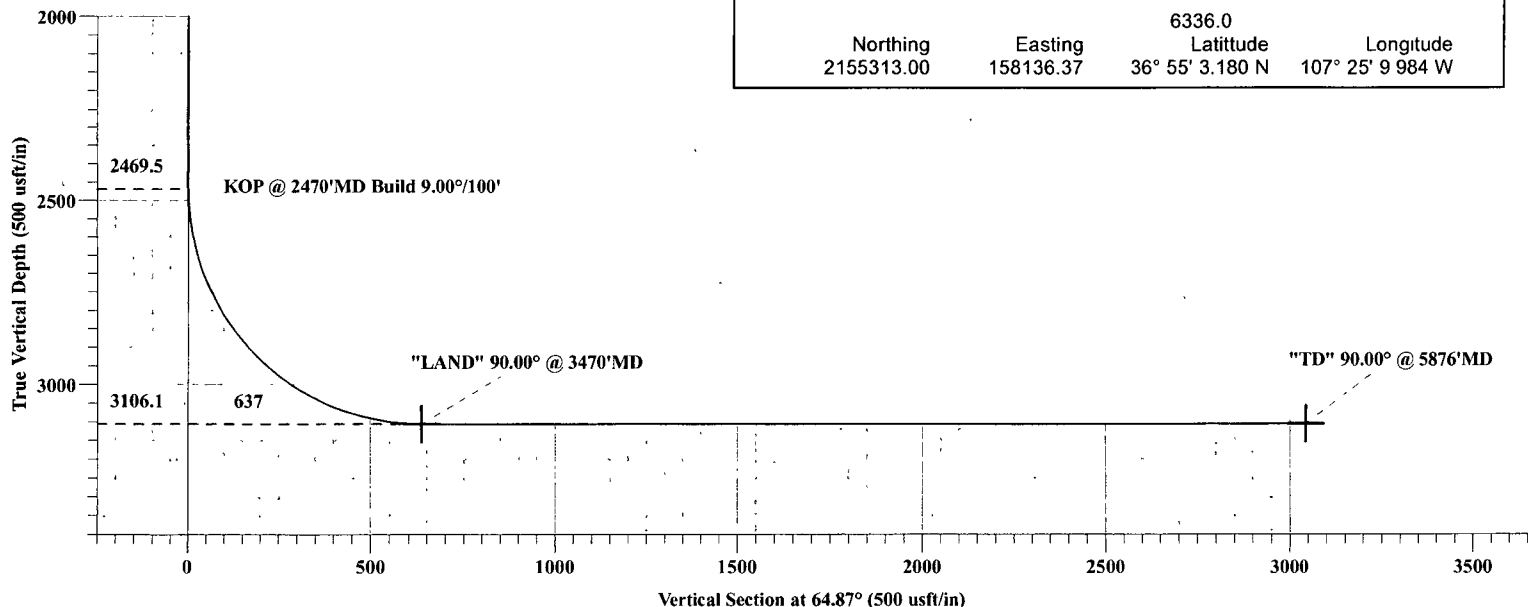
WELLBORE TARGET DETAILS (MAP CO-ORDINATES)

Name	TVD	+N/-S	+E/-W	Northing	Easting	Shape
LAND-226	3106.0	270.4	576.4	2155576.31	158716.04	Point
TD-226	3106.0	1292.3	2754.5	2156571.45	160906.54	Point



WELL DETAILS: Rosa Unit #226A STK

Northing	Easting	6336.0	Latitude	Longitude
2155313.00	158136.37	36° 55' 3.180 N	107° 25' 9.984 W	



SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSec	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2469.5	0.00	0.00	2469.5	0.0	0.0	0.00	0.00	0.0	
3469.5	90.00	64.87	3106.1	270.4	576.4	9.00	64.87	636.7	
5875.5	90.00	64.87	3106.0	1292.3	2754.5	0.00	0.00	3042.6	TD-226

Plan: Design #1 (Rosa Unit #226A STK/Wellbore #1)

Created By: Frank C. Scardino

Date: 9/8/2011

Williams Energy

Rio Arriba Co. NM

Sec12 T31N-R6W - 226A

Rosa Unit #226A STK

Wellbore #1

Plan: Design #1

Standard Planning Report

08 September, 2011

Planning Report

Database: EDM 5000 1 Single User Db
Company: Williams Energy
Project: Rio Arriba Co NM
Site: Sec12 T31N-R6W - 226A
Well: Rosa Unit #226A STK
Wellbore: Wellbore #1
Design: Design #1

Local Co-ordinate Reference: Site Sec12 T31N-R6W - 226A
TVD Reference: WELL @ 6350 0usft (Original Well Elev)
MD Reference: WELL @ 6350 0usft (Original Well Elev)
North Reference: True
Survey Calculation Method: Minimum Curvature

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

Site: Sec12 T31N-R6W - 226A
Site Position: Northing: 2,155,313 00 usft Latitude: 36° 55' 3.180 N
From: Lat/Long Easting: 158,136 38 usft Longitude: 107° 25' 9.984 W
Position Uncertainty: 0 0 usft Slot Radius: 13-3/16 " Grid Convergence: -0 70 °

Well: Rosa Unit #226A STK
Well Position: +N/-S 0 0 usft Northing: 2,155,313 00 usft Latitude: 36° 55' 3.180 N
+E/-W 0 0 usft Easting: 158,136 38 usft Longitude: 107° 25' 9.984 W
Position Uncertainty: 0 0 usft Wellhead Elevation: Ground Level: 6,336 0 usft

Wellbore: Wellbore #1
Magnetics: Model Name Sample Date Declination Dip Angle Field Strength
(°) (°) (nT)
IGRF2010 09/08/11 9.74 63.67 50,860

Design: Design #1
Audit Notes:
Version: Phase: PROTOTYPE Tie On Depth: 0 0
Vertical Section: Depth From (TVD) +N/-S +E/-W Direction
(usft) (usft) (usft) (°)
0 0 0 0 0.0 64.87

Plan Sections

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0 0	0 00	0 00	0 0	0 0	0 0	0 00	0 00	0 00	0 00	
2,469 5	0 00	0 00	2,469 5	0 0	0 0	0 00	0 00	0 00	0 00	
3,469 5	90 00	64 87	3,106 1	270 4	576 4	9 00	9 00	0 00	64.87	
5,875 5	90 00	64.87	3,106 0	1,292 3	2,754.5	0 00	0 00	0 00	0 00	TD-226

Planning Report

Database: EDM 5000 1 Single User Db
 Company: Williams Energy
 Project: Rio Arriba Co NM
 Site: Sec12 T31N-R6W - 226A
 Well: Rosa Unit #226A STK
 Wellbore: Wellbore #1
 Design: Design #1

Local Co-ordinate Reference:
 TVD Reference:
 MD Reference:
 North Reference:
 Survey Calculation Method:

Site Sec12 T31N-R6W - 226A
 WELL @ 6350 0usft (Original Well Elev)
 WELL @ 6350 0usft (Original Well Elev)
 True
 Minimum Curvature

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)
2,469.5	0.00	0.00	2,469.5	0.0	0.0	0.0	0.00	0.00	0.00
KOP @ 2470' MD Build 9.00°/100'									
2,500.0	2.75	64.87	2,500.0	0.3	0.7	0.7	9.00	9.00	0.00
2,550.0	7.25	64.87	2,549.8	2.2	4.6	5.1	9.00	9.00	0.00
2,600.0	11.75	64.87	2,599.1	5.7	12.1	13.3	9.00	9.00	0.00
2,650.0	16.25	64.87	2,647.6	10.8	23.0	25.4	9.00	9.00	0.00
2,700.0	20.75	64.87	2,695.0	17.5	37.4	41.3	9.00	9.00	0.00
2,750.0	25.25	64.87	2,741.0	25.8	55.0	60.8	9.00	9.00	0.00
2,800.0	29.75	64.87	2,785.4	35.6	75.9	83.9	9.00	9.00	0.00
2,850.0	34.25	64.87	2,827.7	46.9	99.9	110.4	9.00	9.00	0.00
2,900.0	38.75	64.87	2,867.9	59.5	126.8	140.1	9.00	9.00	0.00
2,950.0	43.25	64.87	2,905.7	73.4	156.5	172.9	9.00	9.00	0.00
3,000.0	47.75	64.87	2,940.7	88.6	188.8	208.5	9.00	9.00	0.00
3,050.0	52.25	64.87	2,972.8	104.8	223.5	246.8	9.00	9.00	0.00
3,100.0	56.75	64.87	3,001.9	122.1	260.3	287.5	9.00	9.00	0.00
3,150.0	61.25	64.87	3,027.6	140.3	299.1	330.4	9.00	9.00	0.00
3,200.0	65.75	64.87	3,049.9	159.3	339.6	375.1	9.00	9.00	0.00
3,250.0	70.25	64.87	3,068.7	179.0	381.5	421.4	9.00	9.00	0.00
3,300.0	74.75	64.87	3,083.7	199.3	424.7	469.1	9.00	9.00	0.00
3,350.0	79.25	64.87	3,094.9	219.9	468.8	517.8	9.00	9.00	0.00
3,400.0	83.75	64.87	3,102.3	240.9	513.5	567.3	9.00	9.00	0.00
3,450.0	88.25	64.87	3,105.8	262.1	558.7	617.1	9.00	9.00	0.00
3,469.5	90.00	64.87	3,106.1	270.4	576.4	636.7	9.00	9.00	0.00
"LAND" 90.00° @ 3470' MD									
3,500.0	90.00	64.87	3,106.1	283.4	604.0	667.1	0.00	0.00	0.00
3,600.0	90.00	64.87	3,106.1	325.8	694.5	767.1	0.00	0.00	0.00
3,700.0	90.00	64.87	3,106.1	368.3	785.0	867.1	0.00	0.00	0.00
3,800.0	90.00	64.87	3,106.1	410.8	875.5	967.1	0.00	0.00	0.00
3,900.0	90.00	64.87	3,106.1	453.2	966.1	1,067.1	0.00	0.00	0.00
4,000.0	90.00	64.87	3,106.1	495.7	1,056.6	1,167.1	0.00	0.00	0.00
4,100.0	90.00	64.87	3,106.1	538.2	1,147.1	1,267.1	0.00	0.00	0.00
4,200.0	90.00	64.87	3,106.1	580.7	1,237.7	1,367.1	0.00	0.00	0.00
4,300.0	90.00	64.87	3,106.1	623.1	1,328.2	1,467.1	0.00	0.00	0.00
4,400.0	90.00	64.87	3,106.1	665.6	1,418.7	1,567.1	0.00	0.00	0.00
4,500.0	90.00	64.87	3,106.1	708.1	1,509.3	1,667.1	0.00	0.00	0.00
4,600.0	90.00	64.87	3,106.1	750.6	1,599.8	1,767.1	0.00	0.00	0.00
4,700.0	90.00	64.87	3,106.1	793.0	1,690.3	1,867.1	0.00	0.00	0.00
4,800.0	90.00	64.87	3,106.1	835.5	1,780.9	1,967.1	0.00	0.00	0.00
4,900.0	90.00	64.87	3,106.0	878.0	1,871.4	2,067.1	0.00	0.00	0.00
5,000.0	90.00	64.87	3,106.0	920.5	1,961.9	2,167.1	0.00	0.00	0.00
5,100.0	90.00	64.87	3,106.0	962.9	2,052.5	2,267.1	0.00	0.00	0.00
5,200.0	90.00	64.87	3,106.0	1,005.4	2,143.0	2,367.1	0.00	0.00	0.00
5,300.0	90.00	64.87	3,106.0	1,047.9	2,233.5	2,467.1	0.00	0.00	0.00
5,400.0	90.00	64.87	3,106.0	1,090.4	2,324.1	2,567.1	0.00	0.00	0.00
5,500.0	90.00	64.87	3,106.0	1,132.8	2,414.6	2,667.1	0.00	0.00	0.00
5,600.0	90.00	64.87	3,106.0	1,175.3	2,505.1	2,767.1	0.00	0.00	0.00
5,700.0	90.00	64.87	3,106.0	1,217.8	2,595.6	2,867.1	0.00	0.00	0.00
5,800.0	90.00	64.87	3,106.0	1,260.3	2,686.2	2,967.1	0.00	0.00	0.00
5,875.5	90.00	64.87	3,106.0	1,292.3	2,754.5	3,042.6	0.00	0.00	0.00
"TD" 90.00° @ 5876' MD									

Planning Report

Database: EDM 5000 1 Single User Db
Company: Williams Energy
Project: Rio Arriba Co NM
Site: Sec12 T31N-R6W - 226A
Well: Rosa Unit #226A STK
Wellbore: Wellbore #1
Design: Design #1

Local Co-ordinate Reference: Site Sec12 T31N-R6W - 226A
TVD Reference: WELL @ 6350 0usft (Original Well Elev)
MD Reference: WELL @ 6350 0usft (Original Well Elev)
North Reference: True
Survey Calculation Method: Minimum Curvature

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-226	0 00	0 00	3,106 0	1,292 3	2,754 5	2,156,571 44	160,906 54	36° 55' 15.956 N	107° 24' 36 065 W
- plan hits target center									
- Point									
LAND-226	0 00	0 00	3,106 0	270 4	576 4	2,155,576 31	158,716.05	36° 55' 5 854 N	107° 25' 2 886 W
- plan misses target center by 0 1usft at 3469 6usft MD (3106 1 TVD, 270 4 N, 576 4 E)									
- Point									

Plan Annotations

Measured Depth	Vertical Depth	Local Coordinates		Comment
(usft)	(usft)	+N/-S (usft)	+E/-W (usft)	
2,469 5	2,469 5	0 0	0 0	KOP @ 2470'MD Build 9 00"/100'
3,469 5	3,106 1	270 4	576 4	"LAND" 90 00° @ 3470'MD
5,875 5	3,106.0	1,292 3	2,754 5	"TD" 90.00° @ 5876'MD