

RECEIVED

Form 3160-5
(February 2005)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

AUG 24 2011

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

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)

505-634-4206

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

Sur: 1836' FNL & 11325' FWL, BHL. 700' FSL & 2538' FWL, sec 29, T31N, R4W

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 #313A

9. API Well No.
30-039-27819

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 recomplete 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.)

This well is on USFS Surface

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: 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.

Requires SD order and approval from SF
(30-039-24936 in UL M)

* USFS approval rec'd 8/31/2011

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

Name (Printed/Typed)

Larry Higgins

Title Permit Supervisor

Signature

Larry Higgins

Date 8/24/11

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by

Troy L. Salvors

Title PE

Date 9/1/2011

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)

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

NMOCD

Hold C104

for Directional Survey
and "As Drilled" plat



Hold C104

for Directional Survey
and "As Drilled" plat

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 30-029-27819		*Pool Code 71629	*Pool Name BASIN FRUITLAND COAL
*Property Code 17033	*Property Name ROSA UNIT		*Well Number 313A
*OGRID No. 120782	*Operator Name WILLIAMS PRODUCTION COMPANY		*Elevation 6871'

¹⁰ Surface Location

UL or lot no. F	Section 29	Township 31N	Range 4W	Lot Idn	Feet from the 1836	North/South line NORTH	Feet from the 1325	East/West line WEST	County RIO ARriba
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¹¹ Bottom Hole Location If Different From Surface

UL or lot no. N	Section 29	Township 31N	Range 4W	Lot Idn	Feet from the 700	North/South line SOUTH	Feet from the 2538	East/West line WEST	County RIO ARriba
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¹² Dedicated Acres 320.0 Acres - (W/2)	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
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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

16 5280.00' 1836' 220' 1325' 511°45.9'W 400.0' 1488' 2538' 700' 5278.02' LEASE SF-078894	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>Larry Higgins</i> 8-24-11 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: AUGUST 5, 2011 Date of Survey: APRIL 28, 2004 Signature and Seal of Professional Surveyor JASON C. EDWARDS NEW MEXICO 15269 REGISTERED PROFESSIONAL SURVEYOR JASON C. EDWARDS Certificate Number 15269
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WILLIAMS PRODUCTION COMPANY

Operations Plan

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

DATE: 8/23/2011

WELLNAME: Rosa Unit #313A **FIELD:** Basin Fruitland Coal

BH LOCATION: SESW Sec. 29-T31N-4W **SURFACE:** USFS
Rio Arriba, NM

ELEVATION: 6,871' GR **MINERALS:** BLM

TOTAL DEPTH: 5,433' **LEASE #** SF-078894

API#: 30-039-27819

I. GEOLOGY: Surface formation - San Jose

A. FORMATION TOPS: (KB)

NAME		TVD	MD
Kirtland		3,227	3,227
Fruitland		3,537	3,555
Top Target Coal		3,705	3,935
Bottom Target Coal		3,717	
Picture Cliffs		3,727	
TD		3,705	6,503

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 3,314' 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"	339'	9-5/8"	36# K-55
Intermediate	8-3/4"	3,621'	7"	23# K-55
Prod. Liner	6-1/4"	3,520' - 3,807'	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"	339'	9-5/8"	36# K-55
Intermediate	8-3/4"	3,621'	7"	23# K-55
Prod. Liner (motherbore)	6-1/4"	3,520' - 3,807'	5-1/2"	17# N-80
Prod. Liner (sidetrack)	6-1/4"	~3,320' - 6,503'	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:

- 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 3,182' MD inside of motherbore.


 Larry Higgins
 Permit Supervisor



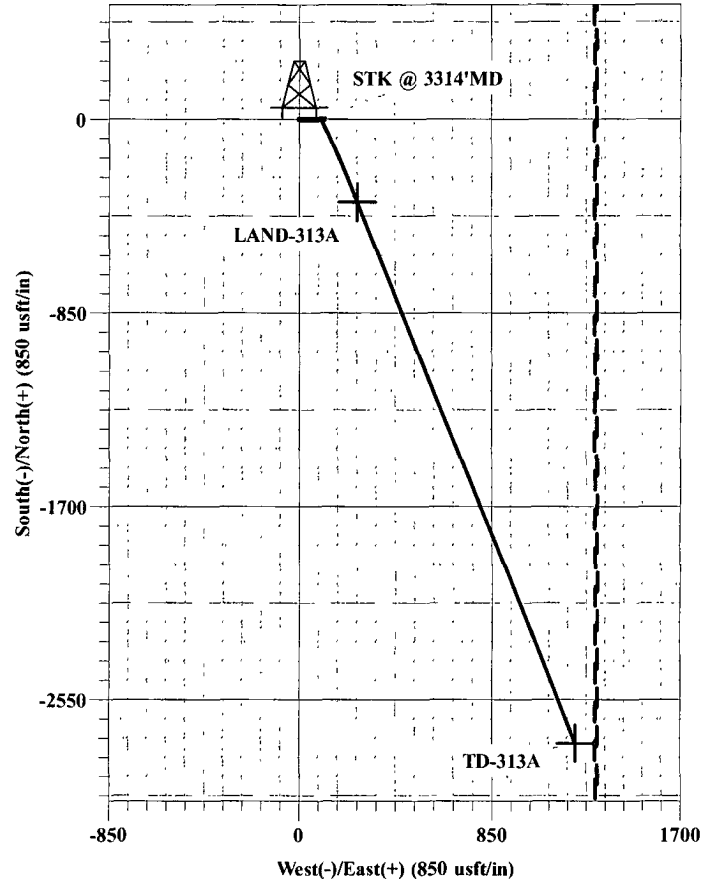
Williams Energy

Rosa Unit #313A STK
Sec29 T31N-R4W - 313A
Rio Arriba Co. NM
GL: 6867' KB: 14'

PATHFINDER
 A Schlumberger Company

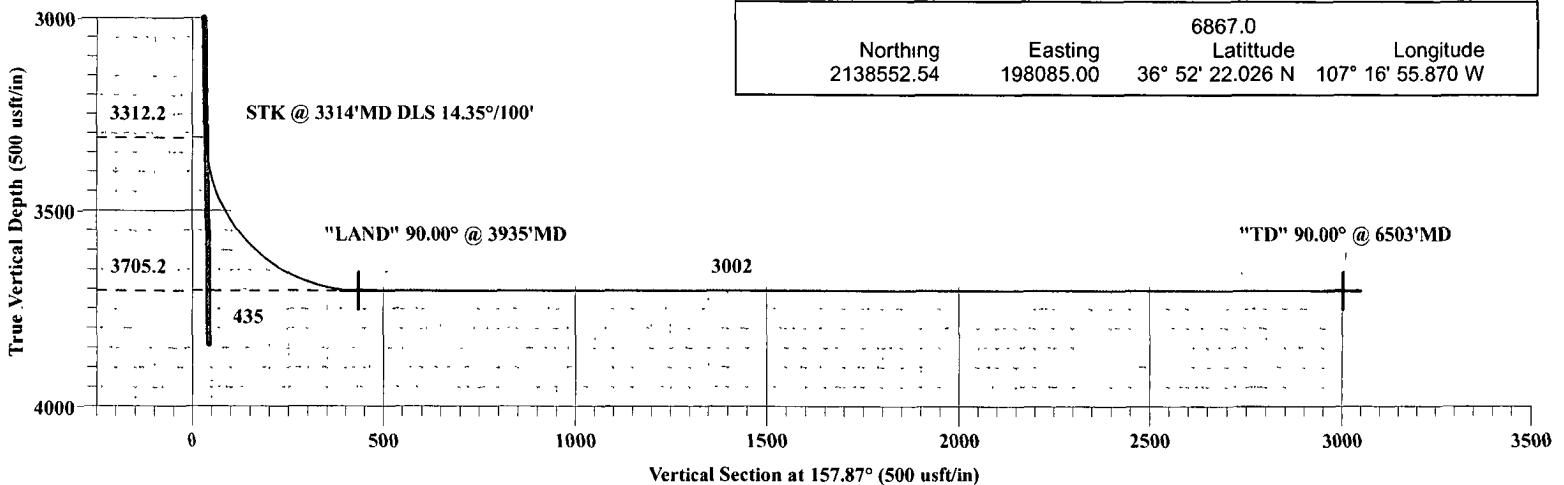
WELLBORE TARGET DETAILS (MAP CO-ORDINATES)

Name	TVD	+N/-S	+E/-W	Northing	Easting	Shape
LAND-313A	3705.0	-364.3	257.7	2138185.48	198338.74	Point
TD-313A	3705.0	-2743.0	1225.2	2135796.48	199280.50	Point



WELL DETAILS. Rosa Unit #313A STK

Northing	Easting	6867.0 Latitude	Longitude
2138552.54	198085.00	36° 52' 22.026 N	107° 16' 55.870 W



SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect	Target
3314.0	2.30	90.00	3312.2	0.0	93.8	0.00	0.00	35.3	
3935.2	90.00	157.87	3705.2	-364.3	257.7	14.35	67.88	434.6	
6503.0	90.00	157.87	3705.0	-2743.0	1225.2	0.00	0.00	3002.5	TD-313A

Plan: Design #2 (Rosa Unit #313A STK/STK)

Williams Energy

Rio Arriba Co. NM

Sec29 T31N-R4W - 313A

Rosa Unit #313A STK

STK

Plan: Design #2

Standard Planning Report

09 August, 2011

Planning Report

Database:	EDM 5000 1 Single User Db	Local Co-ordinate Reference:	Site Sec29.T31N-R4W - 313A
Company:	Williams Energy	TVD Reference:	RIG @ 6881 0usft
Project:	Rio Arriba Co NM	MD Reference:	RIG @ 6881 0usft
Site:	Sec29 T31N-R4W - 313A	North Reference:	True
Well:	Rosa Unit #313A STK	Survey Calculation Method:	Minimum Curvature
Wellbore:	STK		
Design:	Design #2		

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:	Sec29 T31N-R4W - 313A		
Site Position:		Northing:	2,138,552.54 usft
From:	Lat/Long	Easting:	198,085.00 usft
Position Uncertainty:	0 0 usft	Slot Radius:	13-3/16 "
		Latitude:	36° 52' 22.026 N
		Longitude:	107° 16' 55.870 W
		Grid Convergence:	-0.62 °

Well:	Rosa Unit #313A STK					
Well Position	+N/-S	0 0 usft	Northing:	2,138,552.54 usft	Latitude:	36° 52' 22.026 N
	+E/-W	0 0 usft	Easting:	198,085.00 usft	Longitude:	107° 16' 55.870 W
Position Uncertainty		0.0 usft	Wellhead Elevation:		Ground Level:	6,867.0 usft

Wellbore	STK				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	08/08/11	9.69	63.66	50,857

Design:	Design #2				
Audit Notes:					
Version:	Phase:	PROTOTYPE		Tie On Depth:	3,314.0
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction	
	(usft)	(usft)	(usft)	(°)	
	0 0	0 0	0 0	157.87	

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)		
3,314.0	2.30	90.00	3,312.2	0.0	93.8	0.00	0.00	0.00	0.00	
3,935.2	90.00	157.87	3,705.2	-364.3	257.7	14.35	14.12	10.93	67.88	
6,503.0	90.00	157.87	3,705.0	-2,743.0	1,225.2	0.00	0.00	0.00	0.00	TD-313A

Planning Report

Database:	EDM 5000 1-Single User.Db	Local Co-ordinate Reference:	Site Sec29 T31N-R4W- 313A
Company:	Williams Energy	TVD Reference:	RIG @ 6881' 0usft
Project:	Rio Arriba Co NM	MD Reference:	RIG @ 6881' 0usft
Site:	Sec29 T31N-R4W- 313A	North Reference:	True
Well:	Rosa Unit #313A STK	Survey Calculation Method:	Minimum Curvature
Wellbore:	STK		
Design:	Design #2		

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)	
3,314.0	2.30	90.00	3,312.2	0.0	93.8	35.3	0.13	-0.13	0.00	
STK @ 3314' MD DLS 14.35°/100'										
3,325.0	3.24	116.82	3,323.2	-0.1	94.3	35.6	14.35	8.57	243.78	
3,350.0	6.40	138.48	3,348.1	-1.5	95.8	37.5	14.35	12.61	86.66	
3,375.0	9.85	145.49	3,372.9	-4.3	98.0	40.9	14.35	13.82	28.05	
3,400.0	13.38	148.86	3,397.4	-8.5	100.7	45.8	14.35	14.10	13.48	
3,425.0	16.93	150.84	3,421.5	-14.2	103.9	52.3	14.35	14.20	7.92	
3,450.0	20.49	152.15	3,445.2	-21.3	107.8	60.3	14.35	14.25	5.23	
3,475.0	24.06	153.09	3,468.3	-29.7	112.1	69.7	14.35	14.28	3.74	
3,500.0	27.63	153.79	3,490.8	-39.4	117.0	80.6	14.35	14.30	2.82	
3,525.0	31.21	154.35	3,512.6	-50.5	122.3	92.8	14.35	14.31	2.22	
3,550.0	34.79	154.80	3,533.5	-62.8	128.2	106.4	14.35	14.32	1.80	
3,575.0	38.37	155.17	3,553.6	-76.3	134.5	121.3	14.35	14.32	1.51	
3,600.0	41.95	155.49	3,572.7	-90.9	141.2	137.4	14.35	14.33	1.29	
3,625.0	45.53	155.77	3,590.7	-106.6	148.3	154.7	14.35	14.33	1.12	
3,650.0	49.12	156.02	3,607.7	-123.4	155.8	173.0	14.35	14.33	0.99	
3,675.0	52.70	156.24	3,623.5	-141.2	163.7	192.4	14.35	14.33	0.89	
3,700.0	56.28	156.44	3,638.0	-159.8	171.9	212.8	14.35	14.34	0.81	
3,725.0	59.87	156.63	3,651.2	-179.3	180.3	234.0	14.35	14.34	0.74	
3,750.0	63.45	156.80	3,663.1	-199.5	189.0	256.0	14.35	14.34	0.69	
3,775.0	67.04	156.96	3,673.5	-220.3	197.9	278.7	14.35	14.34	0.65	
3,800.0	70.62	157.12	3,682.5	-241.8	207.0	302.0	14.35	14.34	0.61	
3,825.0	74.21	157.26	3,690.1	-263.8	216.2	325.8	14.35	14.34	0.59	
3,850.0	77.79	157.41	3,696.1	-286.2	225.6	350.1	14.35	14.34	0.57	
3,875.0	81.38	157.54	3,700.7	-308.9	235.0	374.6	14.35	14.34	0.55	
3,900.0	84.96	157.68	3,703.6	-331.8	244.5	399.5	14.35	14.34	0.54	
3,925.0	88.55	157.81	3,705.1	-354.9	253.9	424.4	14.35	14.34	0.54	
3,935.2	90.00	157.87	3,705.2	-364.3	257.7	434.6	14.35	14.34	0.53	
"LAND" 90.00° @ 3935' MD										
4,000.0	90.00	157.87	3,705.2	-424.4	282.2	499.4	0.00	0.00	0.00	
4,100.0	90.00	157.87	3,705.2	-517.0	319.8	599.4	0.00	0.00	0.00	
4,200.0	90.00	157.87	3,705.2	-609.6	357.5	699.4	0.00	0.00	0.00	
4,300.0	90.00	157.87	3,705.2	-702.3	395.2	799.4	0.00	0.00	0.00	
4,400.0	90.00	157.87	3,705.2	-794.9	432.9	899.4	0.00	0.00	0.00	
4,500.0	90.00	157.87	3,705.1	-887.5	470.6	999.4	0.00	0.00	0.00	
4,600.0	90.00	157.87	3,705.1	-980.2	508.2	1,099.4	0.00	0.00	0.00	
4,700.0	90.00	157.87	3,705.1	-1,072.8	545.9	1,199.4	0.00	0.00	0.00	
4,800.0	90.00	157.87	3,705.1	-1,165.4	583.6	1,299.4	0.00	0.00	0.00	
4,900.0	90.00	157.87	3,705.1	-1,258.1	621.3	1,399.4	0.00	0.00	0.00	
5,000.0	90.00	157.87	3,705.1	-1,350.7	658.9	1,499.4	0.00	0.00	0.00	
5,100.0	90.00	157.87	3,705.1	-1,443.3	696.6	1,599.4	0.00	0.00	0.00	
5,200.0	90.00	157.87	3,705.1	-1,536.0	734.3	1,699.4	0.00	0.00	0.00	
5,300.0	90.00	157.87	3,705.1	-1,628.6	772.0	1,799.4	0.00	0.00	0.00	
5,400.0	90.00	157.87	3,705.1	-1,721.2	809.6	1,899.4	0.00	0.00	0.00	
5,500.0	90.00	157.87	3,705.1	-1,813.8	847.3	1,999.4	0.00	0.00	0.00	
5,600.0	90.00	157.87	3,705.1	-1,906.5	885.0	2,099.4	0.00	0.00	0.00	
5,700.0	90.00	157.87	3,705.1	-1,999.1	922.7	2,199.4	0.00	0.00	0.00	
5,800.0	90.00	157.87	3,705.1	-2,091.7	960.3	2,299.4	0.00	0.00	0.00	
5,900.0	90.00	157.87	3,705.0	-2,184.4	998.0	2,399.4	0.00	0.00	0.00	
6,000.0	90.00	157.87	3,705.0	-2,277.0	1,035.7	2,499.4	0.00	0.00	0.00	
6,100.0	90.00	157.87	3,705.0	-2,369.6	1,073.4	2,599.4	0.00	0.00	0.00	
6,200.0	90.00	157.87	3,705.0	-2,462.3	1,111.0	2,699.4	0.00	0.00	0.00	
6,300.0	90.00	157.87	3,705.0	-2,554.9	1,148.7	2,799.4	0.00	0.00	0.00	
6,400.0	90.00	157.87	3,705.0	-2,647.5	1,186.4	2,899.4	0.00	0.00	0.00	

Planning Report

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Site Sec29 T31N-R4W - 313A
Company:	Williams Energy	TVD Reference:	RIG @ 6881.0usft
Project:	Rio Arriba Co. NM	MD Reference:	RIG @ 6881.0usft
Site:	Sec29 T31N-R4W - 313A	North Reference:	True
Well:	Rosa Unit #313A/STK	Survey Calculation Method:	Minimum Curvature
Wellbore:	STK		
Design:	Design #2		

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)
6,503.0	90.00	157.87	3,705.0	-2,743.0	1,225.2	3,002.5	0.00	0.00	0.00
"TD" 90.00° @ 6503'MD									

Design Targets									
Target Name	hit/miss target	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	
Shape									Latitude Longitude
TD-313A		0.00	0.00	3,705.0	-2,743.0	1,225.2	2,135,796.47	199,280.50	36° 51' 54.904 N 107° 16' 40.793 W
- plan hits target center									
- Point									
LAND-313A		0.00	0.00	3,705.0	-364.3	257.7	2,138,185.47	198,338.75	36° 52' 18.424 N 107° 16' 52.698 W
- plan misses target center by 0.2usft at 3935.1usft MD (3705.2 TVD, -364.3 N, 257.7 E)									
- Point									

Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
3,314.0	3,312.2	0.0	93.8	STK @ 3314'MD DLS 14.35°/100'
3,935.2	3,705.2	-364.3	257.7	"LAND" 90.00° @ 3935'MD
6,503.0	3,705.0	-2,743.0	1,225.2	"TD" 90.00° @ 6503'MD