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Form 3160-5
(February 2005)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

AUG 26 2011

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

Farmington Field Office
Bureau of Land Management
Lease Serial No. SF-078772

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: 1953' FNL & 697' FWL, BHL 500' FSL & 50' FWL, sec 35, T32N, R6W

6. If Indian, Allottee or Tribe Name

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

Rosa Unit NMNM-78407D

8. Well Name and No.

Rosa Unit #331A

9. API Well No.

30-039-29526

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 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.

RCVD SEP 1 '11

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 to provide the attached for record.

Requires SD order and approval from SF (30-039-24880 in ULK)

RCVD SEP 1 '

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
Bureau of Land Management

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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 30-039-29526		*Pool Code 71629	*Pool Name BASIN FRUITLAND COAL
*Property Code 17033	*Property Name ROSA UNIT		*Well Number 331A
*OGRID No. 120782	*Operator Name WILLIAMS PRODUCTION COMPANY		*Elevation 6348'

¹⁰ Surface Location

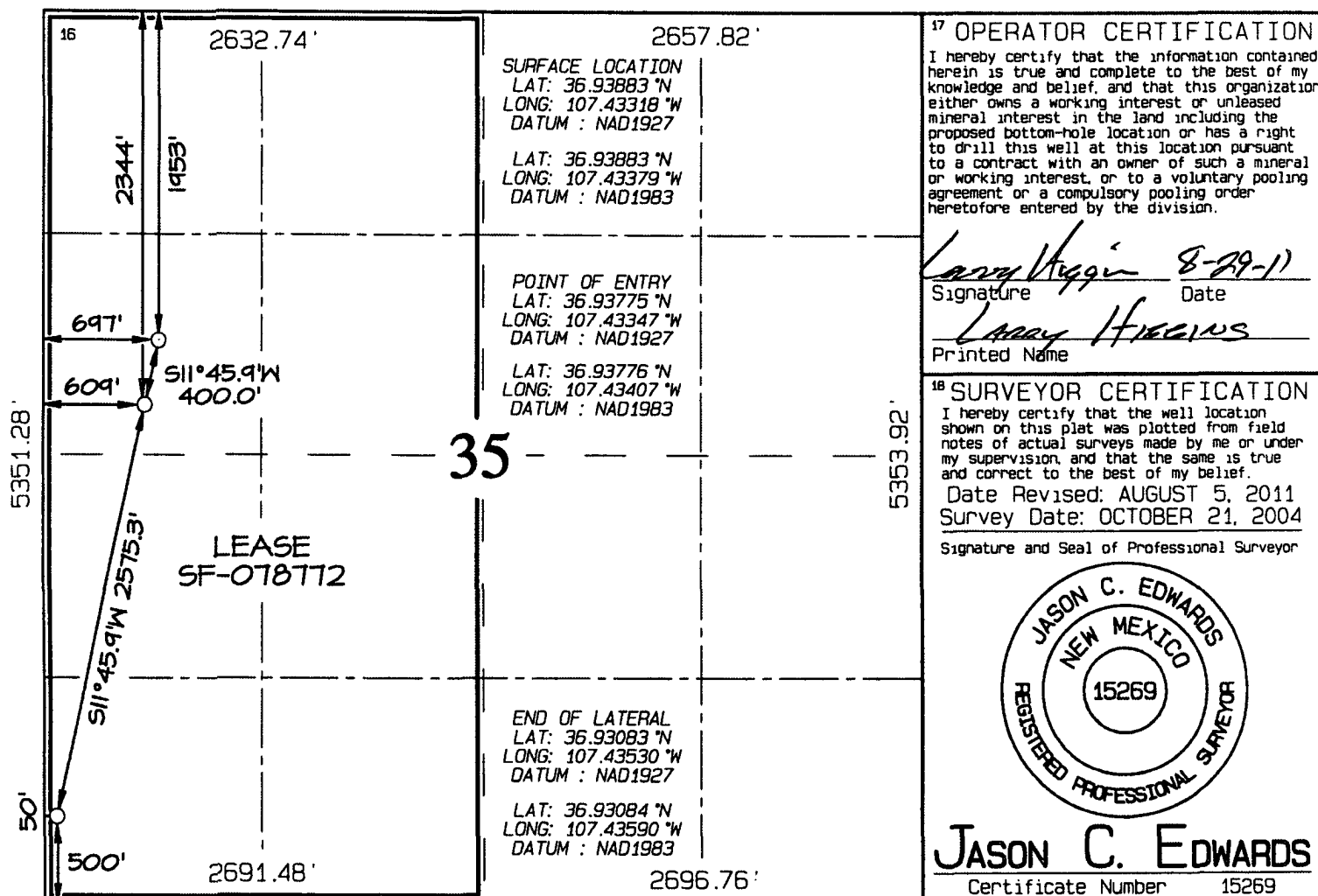
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
E	35	32N	6W		1953	NORTH	697	WEST	RIO ARRIBA

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	35	32N	6W		500	SOUTH	50	WEST	RIO ARRIBA

¹² Dedicated Acres 320.0 Acres - (W/2)	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No. B13200-B
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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





RECEIVED

AUG 29 2011

Farmington Field Office
Bureau of Land Management**WILLIAMS PRODUCTION COMPANY****Operations Plan***(Note: This procedure will be adjusted on site based upon actual conditions)*

DATE: 8/25/2011

WELLNAME: Rosa Unit #331A **FIELD:** Basin Fruitland Coal

BH LOCATION: SWSW Sec. 35-T32N-6W **SURFACE:** BLM
Rio Arriba, NM

ELEVATION: 6,348' GR **MINERALS:** BLM

TOTAL DEPTH: 5,872' **LEASE #** SF-078772

API#: 30-039-29526

I. GEOLOGY: Surface formation - San Jose**A. FORMATION TOPS:** (KB)

NAME		TVD	MD
Kirtland		2,468	2,468
Fruitland		2,933	2,960
Top Target Coal		3,070	3,304
Bottom Target Coal		3,080	
Picture Cliffs		3,148	
TD		3,070	5,872

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 PROGRAM:** 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 2,661' 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"	337'	9-5/8"	36# K-55
Intermediate	8-3/4"	3,005'	7"	23# K-55
Prod. Liner	6-1/4"	2,951' - 3,230'	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"	337'	9-5/8"	36# K-55
Intermediate	8-3/4"	3,005'	7"	23# K-55
Prod. Liner (motherbore)	6-1/4"	2,951' - 3,230'	5-1/2"	17# N-80
Prod. Liner (sidetrack)	6-1/4"	~2,671' - 5,872'	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 3,179' MD inside of motherbore.


 Larry Higgins
 Permit Supervisor



Williams Energy

30-039-29526
Rosa Unit #331A STK
Sec35 T32N-R6W - 331A

Rio Arriba Co. NM

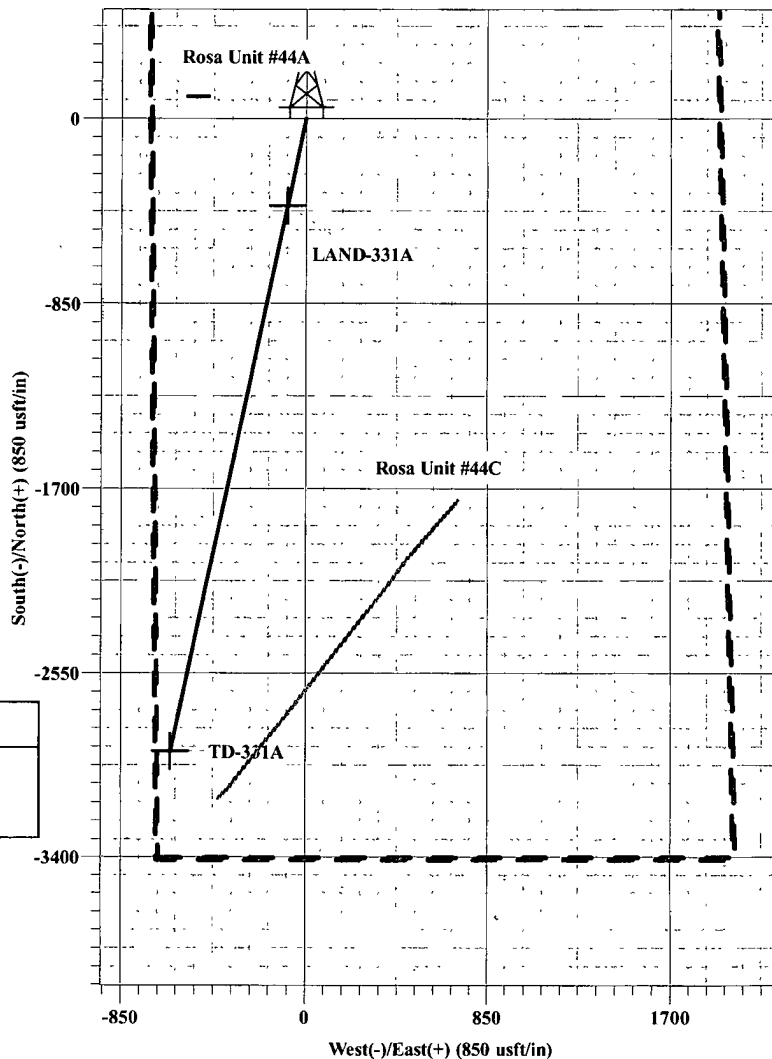
GL: 6348' KB: 14'

PATHFINDER®

A Schlumberger Company

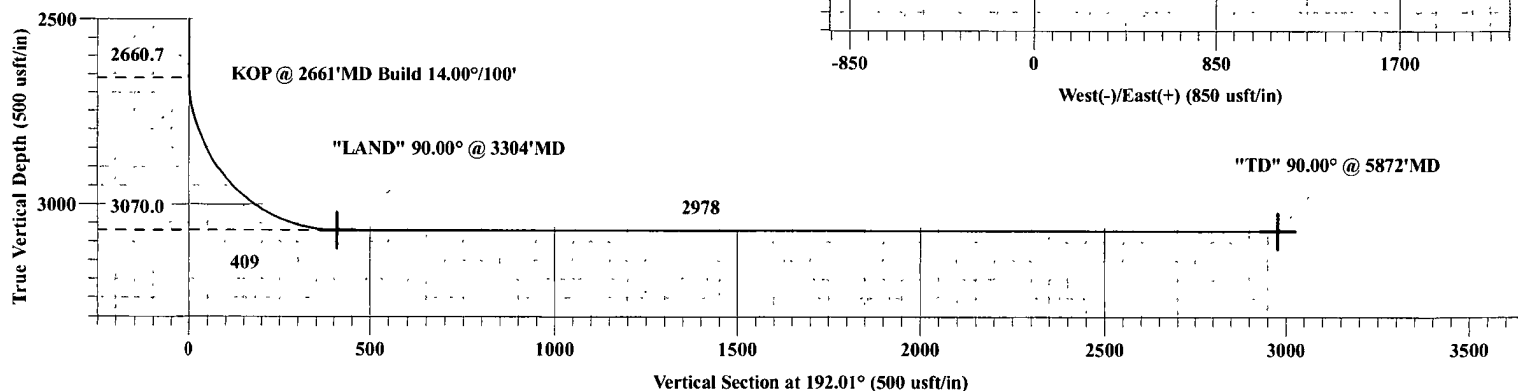
WELLBORE TARGET DETAILS (MAP CO-ORDINATES)

Name	TVD	+N/-S	+E/-W	Northing	Easting	Shape
LAND-331A	3070.0	-400.3	-85.2	2162710.77	154125.56	Point
TD-331A	3070.0	-2912.8	-619.7	2160205.10	153559.91	Point



WELL DETAILS. Rosa Unit #331A STK

Northing	Easting	Latitude	Longitude
2163109.98	154215.72	36° 56' 19.788 N	107° 25' 59.448 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	
2660.7	0.00	0.00	2660.7	0.0	0.0	0.00	0.00	0.0	
3303.6	90.00	192.01	3070.0	-400.3	-85.2	14.00	192.01	409.3	
5872.3	90.00	192.01	3070.0	-2912.8	-619.7	0.00	0.00	2978.0	TD-331A

Plan: Design #1 (Rosa Unit #331A STK/Wellbore #1)

Created By: Frank C. Scardino

Date: 8/11/2011

Williams Energy

Rio Arriba Co. NM

Sec35 T32N-R6W - 331A

Rosa Unit #331A STK

Wellbore #1

Plan: Design #1

Standard Planning Report

11 August, 2011

Planning Report

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Site Sec35 T32N-R6W - 331A
Company:	Williams Energy	TVD Reference:	WELL @ 6362 0usft (Original Well Elev)
Project:	Rio Arriba Co NM	MD Reference:	WELL @ 6362 0usft (Original Well Elev)
Site:	Sec35 T32N-R6W - 331A	North Reference:	True
Well:	Rosa Unit #331A 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	Sec35 T32N-R6W - 331A		
Site Position:		Northing:	2,163,109.98 usft
From:	Lat/Long	Easting:	154,215.72 usft
Position Uncertainty:	0 0 usft	Slot Radius:	13-3/16 "
		Latitude:	36° 56' 19.788 N
		Longitude:	107° 25' 59.448 W
		Grid Convergence:	-0.71 °

Well	Rosa Unit #331A STK		
Well Position	+N/-S	0 0 usft	Northing: 2,163,109.98 usft
	+E/-W	0 0 usft	Easting: 154,215.72 usft
Position Uncertainty	0 0 usft	Wellhead Elevation:	Ground Level: 6,348.0 usft

Wellbore	Wellbore #1		
Magnetics	Model Name	Sample Date	Declination
	IGRF2010	08/11/11	9.76
			Dip Angle
			63.69
			Field Strength
			50,877 nT

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
			192.01

Plan Sections										
Measured Depth	Inclination	Azimuth	Vertical Depth	+N/-S	+E/-W	Dogleg Rate	Build Rate	Turn Rate	TFO	Target
(usft)	(°)	(°)	(usft)	(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	
2,660.7	0 00	0.00	2,660.7	0 0	0.0	0 00	0.00	0 00	0 00	
3,303.6	90 00	192.01	3,070.0	-400.3	-85.2	14.00	14.00	0 00	192.01	
5,872.3	90 00	192.01	3,070.0	-2,912.8	-619.7	0 00	0.00	0 00	0 00	TD-331A

Planning Report

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Site Sec35 T32N-R6W - 331A
Company:	Williams Energy	TVD Reference:	WELL @ 6362.0usft (Original Well Elev)
Project:	Rio Arriba Co NM	MD Reference:	WELL @ 6362.0usft (Original Well Elev)
Site:	Sec35 T32N-R6W - 331A	North Reference:	True
Well:	Rosa Unit #331A 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)	
2,660.7	0.00	0.00	2,660.7	0.0	0.0	0.0	0.00	0.00	0.00	
KOP @ 2661' MD Build 14.00°/100'										
2,675.0	2.00	192.01	2,675.0	-0.2	-0.1	0.2	14.00	14.00	0.00	
2,700.0	5.50	192.01	2,699.9	-1.8	-0.4	1.9	14.00	14.00	0.00	
2,725.0	9.00	192.01	2,724.7	-4.9	-1.0	5.0	14.00	14.00	0.00	
2,750.0	12.50	192.01	2,749.3	-9.5	-2.0	9.7	14.00	14.00	0.00	
2,775.0	16.00	192.01	2,773.5	-15.5	-3.3	15.8	14.00	14.00	0.00	
2,800.0	19.50	192.01	2,797.3	-23.0	-4.9	23.5	14.00	14.00	0.00	
2,825.0	23.00	192.01	2,820.6	-31.8	-6.8	32.5	14.00	14.00	0.00	
2,850.0	26.50	192.01	2,843.3	-42.0	-8.9	43.0	14.00	14.00	0.00	
2,875.0	30.00	192.01	2,865.3	-53.6	-11.4	54.8	14.00	14.00	0.00	
2,900.0	33.50	192.01	2,886.6	-66.5	-14.1	68.0	14.00	14.00	0.00	
2,925.0	37.00	192.01	2,907.0	-80.6	-17.1	82.4	14.00	14.00	0.00	
2,950.0	40.50	192.01	2,926.5	-95.9	-20.4	98.0	14.00	14.00	0.00	
2,975.0	44.00	192.01	2,945.0	-112.3	-23.9	114.8	14.00	14.00	0.00	
3,000.0	47.50	192.01	2,962.5	-129.8	-27.6	132.7	14.00	14.00	0.00	
3,025.0	51.00	192.01	2,978.8	-148.4	-31.6	151.7	14.00	14.00	0.00	
3,050.0	54.50	192.01	2,993.9	-167.8	-35.7	171.6	14.00	14.00	0.00	
3,075.0	58.00	192.01	3,007.8	-188.1	-40.0	192.4	14.00	14.00	0.00	

Planning Report

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Site Sec35 T32N-R6W- 331A
Company:	Williams Energy	TVD Reference:	WELL @ 6362.0usft (Original Well Elev)
Project:	Rio Arriba Co NM	MD Reference:	WELL @ 6362.0usft (Original Well Elev)
Site:	Sec35 T32N-R6W- 331A	North Reference:	True
Well:	Rosa Unit #331A 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)	
5,800.0	90.00	192.01	3,070.0	-2,842.0	-604.6	2,905.7	0.00	0.00	0.00	
5,872.3	90.00	192.01	3,070.0	-2,912.8	-619.7	2,978.0	0.00	0.00	0.00	
"TD" 90.00° @ 5872'MD										

Design Targets										
Target Name: - hit/miss target Shape	Dip Angle (°)	Dip Dir (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
TD-331A - plan hits target center - Point	0.00	0.00	3,070.0	-2,912.8	-619.7	2,160,205.10	153,559.92	36° 55' 50.988 N	107° 26' 7.080 W	
LAND-331A - plan hits target center - Point	0.00	0.00	3,070.0	-400.3	-85.2	2,162,710.77	154,125.56	36° 56' 15.830 N	107° 26' 0.497 W	

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
2,660.7	2,660.7	0.0	0.0	KOP @ 2661'MD Build 14.00°/100'	
3,303.6	3,070.0	-400.3	-85.2	"LAND" 90.00° @ 3304'MD	
5,872.3	3,070.0	-2,912.8	-619.7	"TD" 90.00° @ 5872'MD	