

RECEIVED

Form 3160-5
(February 2005)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

MAY 30 2012

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

Farmington Field Office

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
WPX Energy Production, LLC

3a. Address
PO Box 640 Aztec, NM 87410

3b. Phone No. (include area code)
505-333-1808

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)
Sur: 1855' FSL & 1046' FWL, Sec 29 – BHL 200' FSL & 700' FWL, Sec 29, T31N, R5W

5. Lease Serial No.

SE-078764 / E-346 State

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 #229

9. API Well No.
30-039-24496

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 _____
	☐ 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 recompleat 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 recompleat 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.)

WPX Energy 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. All disturbance will be on permitted location.

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.

RCVD JUN 1 '12
OIL CONS. DIV.
DIST. 3

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 5/30/12

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by Original Signed: Stephen Mason	Title	Date MAY 31 2012
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)

NMOCDA

District I
1625 N. French Drive, Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720

District II
811 S. First Street, Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720

District III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170

District IV
1220 S. St. Francis Drive, Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy, Minerals & Natural Resources Department

Form C-102
Revised August 1, 2011

Submit one copy to
Appropriate District Office

OIL CONSERVATION DIVISION

1220 South St. Francis Drive
Santa Fe, NM 87505

☐ AMENDED REPORT

RCUD JUN 12 '12
OIL CONS. DIV.

WELL LOCATION AND ACREAGE DEDICATION PLAT

DIST. 3

*API Number 30-039-24496		*Pool Code 71629	*Pool Name BASIN FRUITLAND COAL
*Property Code 17033	*Property Name ROSA UNIT		*Well Number 229
*GRID No. 120782	*Operator Name WPX ENERGY PRODUCTION		*Elevation 6438'

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
L	29	31N	5W		1855	SOUTH	1046	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	20	31N	5W		200	SOUTH	700	WEST	RIO ARriba
¹² Dedicated Acres .640.0 Acres		W/2 - Section 20 W/2 - Section 29			¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No. R13491/31571.92 acres		

¹⁶ 700' 200' LEASE E-346 5280.00'		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	
END OF LATERAL LAT: 36.87836°N LONG: 107.39169°W DATUM: NAD1927 LAT: 36.87837°N LONG: 107.39229°W DATUM: NAD1983			
LEASE E-346			
POINT OF ENTRY LAT: 36.86952°N LONG: 107.39064°W DATUM: NAD1927 LAT: 36.86953°N LONG: 107.39124°W DATUM: NAD1983			
LEASE SF-078764			
SURFACE LOCATION LAT: 36.86843°N LONG: 107.39051°W DATUM: NAD1927 LAT: 36.86844°N LONG: 107.39111°W DATUM: NAD1983			
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 6/11/12 Signature Date Larry Higgins Printed Name larry.higgins@wpxenergy.com E-mail Address			
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 of Survey: MAY 22, 2012 Signature and Seal of Professional Surveyor JASON C. EDWARDS NEW MEXICO 15269 REGISTERED PROFESSIONAL SURVEYOR JASON C. EDWARDS Certificate Number 15269			

WPX ENERGY

WPX ENERGY

Operations Plan

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

DATE: 5/30/2012

WELLNAME: Rosa Unit #229 **FIELD:** Basin Fruitland Coal

BH LOCATION: NWSW Sec. 29-T31N-5W **SURFACE:** BLM
Rio Arriba, NM

ELEVATION: 6,438' GR **MINERALS:** Federal

TOTAL DEPTH: 6,675' **LEASE #** SF-078764

API#: 30-039-24496

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

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

NAME	TVD	MD
Kirtland	2,680	2,680
Fruitland	3,044	3,061
Top Target Coal	3,276	3,573
Bottom Target Coal	3,287	
Picture Cliffs	3,295	
TD	3,276	6,675

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 +/- 2,755' inside 7" casing for 11.0 deg ROT
- E. Top of Window +/- 2,732 ft. Hole size 6.25 in.
- F. Pressure test 7" csg and bridge plug to 1,500 psi for 30 minutes
- G. 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 Polymer mud system and 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"	234'	9-5/8"	36# K-55
Intermediate	8-3/4"	3,119'	7"	20# K-55
Prod. Liner	6-1/4"	3,056' - 3,287'	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"	234'	9-5/8"	36# K-55
Intermediate	8-3/4"	3,119'	7"	20# K-55
Prod. Liner (motherbore)	6-1/4"	3,056' - 3,287'	5-1/2"	17# N-80
Prod. Liner (sidetrack)	6-1/4"	~2,760' - 6,675'	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:**

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**

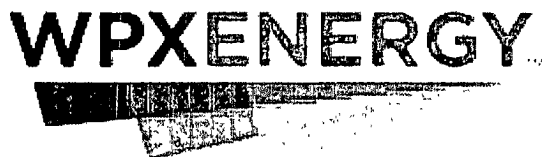
A. **STIMULATION**

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 3,400' MD inside of motherbore.

Larry Higgin



Rosa Unit 229
ST01
Sec 29 T31N R05W
Rio Arriba Co., NM

PATHFINDER
A Schlumberger Company

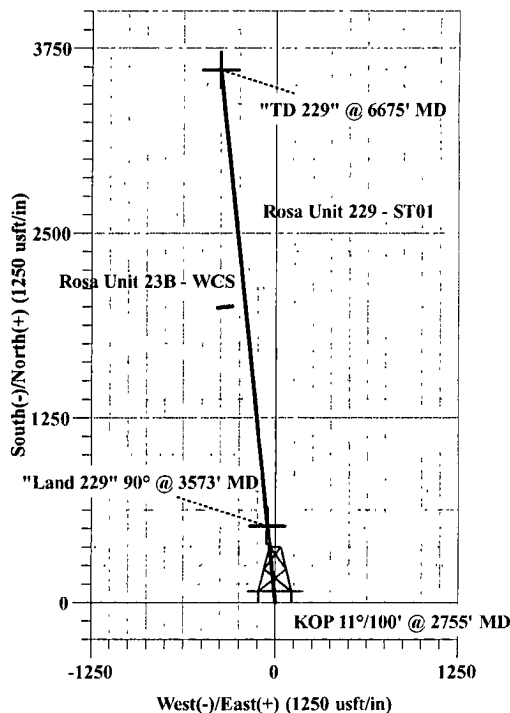
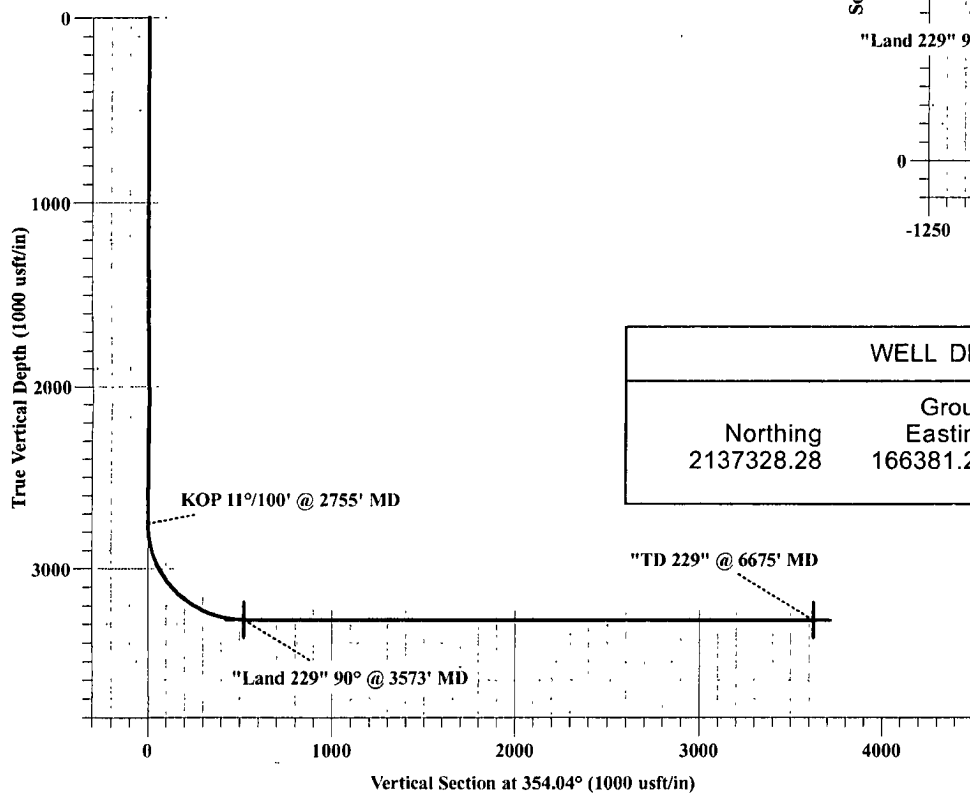
GE: 6438' / KB: 14'

WELLBORE TARGET DETAILS (MAP CO-ORDINATES)

Name	TVD	+N/-S	+E/-W	Northing	Easting	Shape
BHL 229	3276.0	3603.8	-376.5	2140936.31	166047.89	Point
Land 229	3276.0	518.2	-54.1	2137847.09	166333.37	Point

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
2680.0	2680.0	Kirtland
3044.0	3061.4	Fruitland
3276.0	3573.4	Target Top



WELL DETAILS: Rosa Unit 229

Ground Level: 6438.0			
Northing	Easting	Latitude	Longitude
2137328.28	166381.28	36° 52' 6.355 N	107° 23' 25.822 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	
2755.0	0.00	0.00	2755.0	0.0	0.0	0.00	0.00	0.0	
3573.4	90.00	354.04	3276.0	518.2	-54.1	11.00	354.04	521.0	
6675.8	90.00	354.04	3276.0	3603.8	-376.5	0.00	0.00	3623.4	BHL 229

Plan: Design #2 (Rosa Unit 229/ST01)

Created By: Breck Enoch

Date: 30-May-2012

WPXENERGY

WPXEnergy

Rio Arriba Co., NM

Sec 29 T31N R05W

Rosa Unit 229

ST01

Plan: Design #2

Standard Planning Report

30 May, 2012

PATHFINDER

A Schlumberger Company

Database: EDM 5000 1 Single User Db
Company: WPXEnergy
Project: Rio Arriba Co., NM
Site: Sec 29 T31N R05W
Well: Rosa Unit 229
Wellbore: ST01
Design: Design #2

Local Co-ordinate Reference: Well Rosa Unit 229
TVD Reference: WELL @ 6452.0usft (Original Well Elev)
MD Reference: WELL @ 6452.0usft (Original Well Elev)
North Reference: True
Survey Calculation Method: Minimum Curvature

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

Site	Sec 29 T31N R05W		
Site Position:		Northing:	2,137,328.28 usft
From:	Lat/Long	Easting:	166,381.28 usft
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16"
		Latitude:	36° 52' 6.355 N
		Longitude:	107° 23' 25.822 W
		Grid Convergence:	-0.68°

Well	Rosa Unit 229		
Well Position	+N/-S	0.0 usft	Northing: 2,137,328.28 usft
	+E/-W	0.0 usft	Easting: 166,381.28 usft
Position Uncertainty	0.0 usft	Wellhead Elevation:	Latitude: 36° 52' 6.355 N
			Longitude: 107° 23' 25.822 W
			Ground Level: 6,438.0 usft

Wellbore	ST01		
Magnetics	Model Name	Sample Date	Declination
	IGRF2010	05/24/12	(°)
			Dip Angle
			(°)
			Field Strength
			(nT)
			50,764

Design	Design #2		
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
			(°)
			354.04

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	
2,755.0	0.00	0.00	2,755.0	0.0	0.0	0.00	0.00	0.00	0.00	
3,573.4	90.00	354.04	3,276.0	518.2	-54.1	11.00	11.00	0.00	354.04	
6,675.8	90.00	354.04	3,276.0	3,603.8	-376.5	0.00	0.00	0.00	0.00	BHL 229

Database: EDM 5000.1 Single User Db
 Company: WPXEnergy
 Project: Rio Arriba Co., NM
 Site: Sec 29 T31N R05W
 Well: Rosa Unit 229
 Wellbore: ST01
 Design: Design #2

Local Co-ordinate Reference: Well Rosa Unit 229
 TVD Reference: WELL @ 6452.0usft (Original Well Elev)
 MD Reference: WELL @ 6452.0usft (Original Well Elev)
 North Reference: True
 Survey Calculation Method: 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)
0 0	0 00	0 00	0 0	0 0	0 0	0 0	0 00	0 00	0 00
100 0	0 00	0 00	100 0	0 0	0 0	0 0	0 00	0 00	0 00
200 0	0 00	0 00	200 0	0 0	0 0	0 0	0 00	0 00	0 00
300 0	0 00	0 00	300 0	0 0	0 0	0 0	0 00	0 00	0 00
400 0	0 00	0 00	400 0	0 0	0 0	0 0	0 00	0 00	0 00
500 0	0 00	0 00	500 0	0 0	0 0	0 0	0 00	0 00	0 00
600 0	0 00	0 00	600 0	0 0	0 0	0 0	0 00	0 00	0 00
700 0	0 00	0 00	700 0	0 0	0 0	0 0	0 00	0 00	0 00
800 0	0 00	0 00	800 0	0 0	0 0	0 0	0 00	0 00	0 00
900 0	0 00	0 00	900 0	0 0	0 0	0 0	0 00	0 00	0 00
1,000 0	0 00	0 00	1,000 0	0 0	0 0	0 0	0 00	0 00	0 00
1,100 0	0 00	0 00	1,100 0	0 0	0 0	0 0	0 00	0 00	0 00
1,200 0	0 00	0 00	1,200 0	0 0	0 0	0 0	0 00	0 00	0 00
1,300 0	0 00	0 00	1,300 0	0 0	0 0	0 0	0 00	0 00	0 00
1,400 0	0 00	0 00	1,400 0	0 0	0 0	0 0	0 00	0 00	0 00
1,500 0	0 00	0 00	1,500 0	0 0	0 0	0 0	0 00	0 00	0 00
1,600 0	0 00	0 00	1,600 0	0 0	0 0	0 0	0 00	0 00	0 00
1,700 0	0 00	0 00	1,700 0	0 0	0 0	0 0	0 00	0 00	0 00
1,800 0	0 00	0 00	1,800 0	0 0	0 0	0 0	0 00	0 00	0 00
1,900 0	0 00	0 00	1,900 0	0 0	0 0	0 0	0 00	0 00	0 00
2,000 0	0 00	0 00	2,000 0	0 0	0 0	0 0	0 00	0 00	0 00
2,100 0	0 00	0 00	2,100 0	0 0	0 0	0 0	0 00	0 00	0 00
2,200 0	0 00	0 00	2,200 0	0 0	0 0	0 0	0 00	0 00	0 00
2,300 0	0 00	0 00	2,300 0	0 0	0 0	0 0	0 00	0 00	0 00
2,400 0	0 00	0 00	2,400 0	0 0	0 0	0 0	0 00	0 00	0 00
2,500 0	0 00	0 00	2,500 0	0 0	0 0	0 0	0 00	0 00	0 00
2,600 0	0 00	0 00	2,600 0	0 0	0 0	0 0	0 00	0 00	0 00
2,680 0	0 00	0 00	2,680 0	0 0	0 0	0 0	0 00	0 00	0 00
Kirtland:									
2,700 0	0 00	0 00	2,700 0	0 0	0 0	0 0	0 00	0 00	0 00
2,755 0	0 00	0 00	2,755 0	0 0	0 0	0 0	0 00	0 00	0 00
KOP 11°/100' @ 2755' MD									
2,800 0	4 95	354.04	2,799 9	1 9	-0 2	1 9	11 00	11.00	0 00
2,850 0	10 45	354.04	2,849 5	8 6	-0 9	8 6	11 00	11 00	0 00
2,900 0	15 95	354.04	2,898 1	19 9	-2 1	20 0	11.00	11.00	0 00
2,950 0	21.44	354.04	2,945 5	35 9	-3 7	36 1	11 00	11 00	0 00
3,000 0	26.94	354.04	2,991 1	56 2	-5 9	56.6	11 00	11 00	0 00
3,050 0	32 44	354.04	3,034 5	80 9	-8 4	81 3	11 00	11 00	0 00
3,061 4	33 69	354.04	3,044 0	87 0	-9 1	87.5	11 00	11.00	0 00
Fruitland:									
3,100 0	37 94	354.04	3,075 3	109 5	-11.4	110 1	11 00	11 00	0 00
3,150 0	43 44	354.04	3,113 2	141.9	-14.8	142.7	11 00	11.00	0 00
3,200 0	48.94	354.04	3,147 8	177 8	-18 6	178.8	11 00	11.00	0 00
3,250 0	54 44	354.04	3,178 8	216 8	-22.6	218 0	11 00	11.00	0 00
3,300 0	59 94	354.04	3,205 9	258 6	-27 0	260 0	11.00	11.00	0 00
3,350 0	65 43	354.04	3,228 8	302 7	-31.6	304.4	11 00	11 00	0 00
3,400 0	70.93	354.04	3,247 4	348.9	-36.4	350 8	11 00	11 00	0 00
3,450 0	76 43	354.04	3,261 5	396.6	-41.4	398 8	11 00	11 00	0 00
3,500 0	81 93	354.04	3,270 8	445 4	-46 5	447 9	11 00	11 00	0 00
3,550 0	87 43	354.04	3,275 5	494 9	-51 7	497.6	11 00	11 00	0 00
3,573 4	90 00	354.04	3,276 0	518 2	-54 1	521 0	11 00	11.00	0 00
"Land 229" 90° @ 3573' MD - Target Top									
3,600 0	90 00	354.04	3,276 0	544.7	-56 9	547.6	0 00	0 00	0 00
3,700 0	90 00	354.04	3,276 0	644 1	-67 3	647 6	0 00	0 00	0 00

Database: EDM 5000.1 Single-User Db
 Company: WPXEnergy
 Project: Rio Arriba Co., NM
 Site: Sec 29 T31N R05W
 Well: Rosa Unit 229
 Wellbore: ST01
 Design: Design #2

Local Co-ordinate Reference: Well Rosa Unit 229
 TVD Reference: WELL @ 6452.0usft (Original Well Elev)
 MD Reference: WELL @ 6452.0usft (Original Well Elev)
 North Reference: True
 Survey Calculation Method: 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)
3,800.0	90.00	354.04	3,276.0	743.6	-77.7	747.6	0.00	0.00	0.00
3,900.0	90.00	354.04	3,276.0	843.0	-88.1	847.6	0.00	0.00	0.00
4,000.0	90.00	354.04	3,276.0	942.5	-98.5	947.6	0.00	0.00	0.00
4,100.0	90.00	354.04	3,276.0	1,041.9	-108.8	1,047.6	0.00	0.00	0.00
4,200.0	90.00	354.04	3,276.0	1,141.4	-119.2	1,147.6	0.00	0.00	0.00
4,300.0	90.00	354.04	3,276.0	1,240.9	-129.6	1,247.6	0.00	0.00	0.00
4,400.0	90.00	354.04	3,276.0	1,340.3	-140.0	1,347.6	0.00	0.00	0.00
4,500.0	90.00	354.04	3,276.0	1,439.8	-150.4	1,447.6	0.00	0.00	0.00
4,600.0	90.00	354.04	3,276.0	1,539.2	-160.8	1,547.6	0.00	0.00	0.00
4,700.0	90.00	354.04	3,276.0	1,638.7	-171.2	1,647.6	0.00	0.00	0.00
4,800.0	90.00	354.04	3,276.0	1,738.2	-181.6	1,747.6	0.00	0.00	0.00
4,900.0	90.00	354.04	3,276.0	1,837.6	-192.0	1,847.6	0.00	0.00	0.00
5,000.0	90.00	354.04	3,276.0	1,937.1	-202.4	1,947.6	0.00	0.00	0.00
5,100.0	90.00	354.04	3,276.0	2,036.5	-212.7	2,047.6	0.00	0.00	0.00
5,200.0	90.00	354.04	3,276.0	2,136.0	-223.1	2,147.6	0.00	0.00	0.00
5,300.0	90.00	354.04	3,276.0	2,235.5	-233.5	2,247.6	0.00	0.00	0.00
5,400.0	90.00	354.04	3,276.0	2,334.9	-243.9	2,347.6	0.00	0.00	0.00
5,500.0	90.00	354.04	3,276.0	2,434.4	-254.3	2,447.6	0.00	0.00	0.00
5,600.0	90.00	354.04	3,276.0	2,533.8	-264.7	2,547.6	0.00	0.00	0.00
5,700.0	90.00	354.04	3,276.0	2,633.3	-275.1	2,647.6	0.00	0.00	0.00
5,800.0	90.00	354.04	3,276.0	2,732.7	-285.5	2,747.6	0.00	0.00	0.00
5,900.0	90.00	354.04	3,276.0	2,832.2	-295.9	2,847.6	0.00	0.00	0.00
6,000.0	90.00	354.04	3,276.0	2,931.7	-306.2	2,947.6	0.00	0.00	0.00
6,100.0	90.00	354.04	3,276.0	3,031.1	-316.6	3,047.6	0.00	0.00	0.00
6,200.0	90.00	354.04	3,276.0	3,130.6	-327.0	3,147.6	0.00	0.00	0.00
6,300.0	90.00	354.04	3,276.0	3,230.0	-337.4	3,247.6	0.00	0.00	0.00
6,400.0	90.00	354.04	3,276.0	3,329.5	-347.8	3,347.6	0.00	0.00	0.00
6,500.0	90.00	354.04	3,276.0	3,429.0	-358.2	3,447.6	0.00	0.00	0.00
6,600.0	90.00	354.04	3,276.0	3,528.4	-368.6	3,547.6	0.00	0.00	0.00
6,675.8	90.00	354.04	3,276.0	3,603.8	-376.5	3,623.4	0.00	0.00	0.00

"TD 229" @ 6675' MD

Design Targets

Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
Land 229	0.00	0.00	3,276.0	518.2	-54.1	2,137,847.09	166,333.38	36° 52' 11.479 N	107° 23' 26.487 W
- hit/miss target									
- Shape									
- plan hits target center									
- Point									
BHL 229	0.00	0.00	3,276.0	3,603.8	-376.5	2,140,936.31	166,047.89	36° 52' 41.988 N	107° 23' 30.455 W
- plan hits target center									
- Point									

Database: EDM 5000 1 Single User Db
 Company: WPXEnergy
 Project: Rio Arriba Co , NM
 Site: Sec 29 T31N R05W
 Well: Rosa Unit 229
 Wellbore: ST01
 Design: Design #2

Local Co-ordinate Reference: Well Rosa Unit 229
 TVD Reference: WELL @ 6452.0usft (Original Well Elev)
 MD Reference: WELL @ 6452.0usft (Original Well Elev)
 North Reference: True
 Survey Calculation Method: Minimum Curvature

Formations					
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
2,680 0	2,680 0	Kirtland		0 00	
3,061 4	3,044 0	Fruitland		0 00	
3,573 4	3,276 0	Target Top		0 00	

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
2,755 0	2,755 0	0.0	0.0	KOP 11°/100' @ 2755' MD	
3,573 4	3,276 0	518.2	-54 1	"Land 229" 90° @ 3573' MD	
6,675 8	3,276 0	3,603.8	-376 5	"TD 229" @ 6675' MD	