

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

RECEIVED

MAY 07 2013

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		5. Lease Serial No. SF-078773
2. Name of Operator WPX Energy Production, 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) Sur: 1983' FNL & 435' FWL – BHL: 700' FSL & 1800' FEL, Sec 33, T31N, R5W		8. Well Name and No. Rosa Unit #268A
		9. API Well No. 30-039-27831
		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

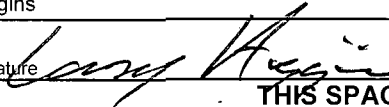
TYPE OF SUBMISSION	TYPE OF ACTION			
☒ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☐ Subsequent Report	☐ Alter Casing	☐ Fracture Treat	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☒ Recomplete	☐ Other
	☐ Change Plans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

RCUD MAY 9 '13
OIL CONS DIV
DIST. 3

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.)

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.

14. I hereby certify that the foregoing is true and correct. Name (Printed/Typed) Larry Higgins	Title Permit Supervisor
Signature 	Date 05/07/13

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by Original Signed: Stephen Mason	Title	Date MAY 08 2013
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
A

If perforations are above or below existing perms please file: c-104 and Completion Report to include new perms before returning to production.

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: (505) 748-1283 Fax: (505) 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

RECEIVED

MAY 07 2013

WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number 30-039-27831	*Pool Code 71629	*Pool Name BASIN FRUITLAND	Farmington Field Office Coal of Land Management
*Property Code	*Property Name ROSA UNIT	*Well Number 268A	
*GRID No. 120782	*Operator Name WPX ENERGY PRODUCTION, LLC	*Elevation 6529'	

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	33	31N	5W		1983	NORTH	435	WEST	RIO ARriba

¹¹ Bottom Hole Location If Different From Surface

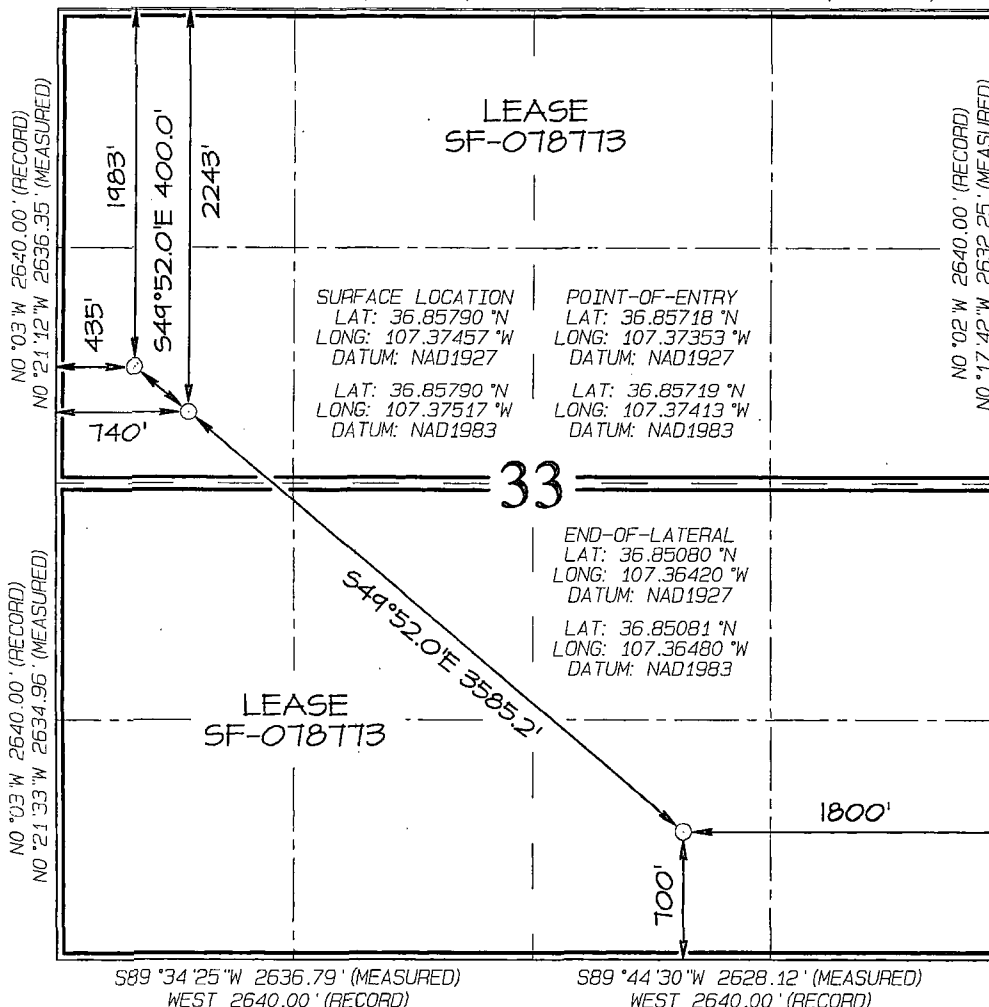
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
0	33	31N	5W		700	SOUTH	1800	EAST	RIO ARriba

¹² Dedicated Acres Entire Section 33 640.0 Acres	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No. RCVD MAY 9 '13 OIL CONS. DIV.
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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 **DIST. 3**

S89°58'W 2643.30' (RECORD)
S89°36'03"W 2645.79' (MEASURED)

S89°58'W 2643.30' (RECORD)
S89°50'57"W 2625.99' (MEASURED)

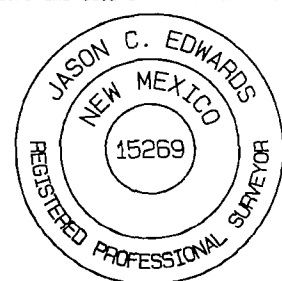


¹⁷ OPERATOR CERTIFICATION
I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom-hole location or has a right to 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.

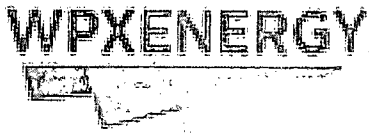
Signature: *Larry Higgins* Date: 5/7/13
Printed Name: Larry Higgins
E-mail Address: larry.higgins@wpxenergy.com

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 1, 2013
Signature and Seal of Professional Surveyor



JASON C. EDWARDS
Certificate Number 15269



WPX ENERGY

Operations Plan

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

DATE: 4/30/2013

WELLNAME: Rosa Unit #268A **FIELD:** Basin Fruitland Coal

SHL: 1983' FNL & 435' FWL Sec 33, T31N, R5W **SURFACE:** BLM

BHL: 700' FSL & 1800' FEL, Sec 33, T31N, R5W **COUNTY:** Rio Arriba, NM

ELEVATION: 6,529' GR **MINERALS:** BLM

TOTAL DEPTH: 7,228' **LEASE #** SF-078773

API#: 30-039-27831

I. GEOLOGY: Surface formation - San Jose

A. FORMATION TOPS: (6,543' KB)

NAME	MD	TVD	NAME	MD	TVD
San Jose	Surface	Surface	Top Target Coal	3,517	3,353
Nacimiento	1,598	1,598	Base Coal		3,393
Ojo Alamo	2,658	2,658	Picture Cliffs		3,394
Kirtland	2,801	2,801	KO Point	3,067	3,067
Fruitland	3,188	3,184	Landing Point	3,517	3,353
			TD	7,228	3,353

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 of 7" Csg. 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 +/- 3,090' inside 7" casing.
- E. Top of Window +/- 3,067 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"	355'	9-5/8"	36# K-55
Intermediate	8-3/4"	3,240'	7"	23# K-55
Prod. Liner	6-1/4"	3,193'- 3,504'	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"	355'	9-5/8"	36# K-55
Intermediate	8-3/4"	3,240'	7"	23# K-55
Prod. Liner (motherbore)	6-1/4"	3,193'- 3,504'	5-1/2"	17# N-80
Prod. Liner (sidetrack)	6-1/4"	~3,070'- 7,228'	4-1/2"	11.6# J-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

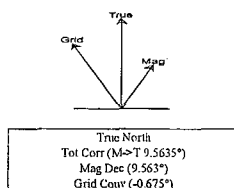
B. **RUNNING TUBING**

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 3,350' MD inside of motherbore.

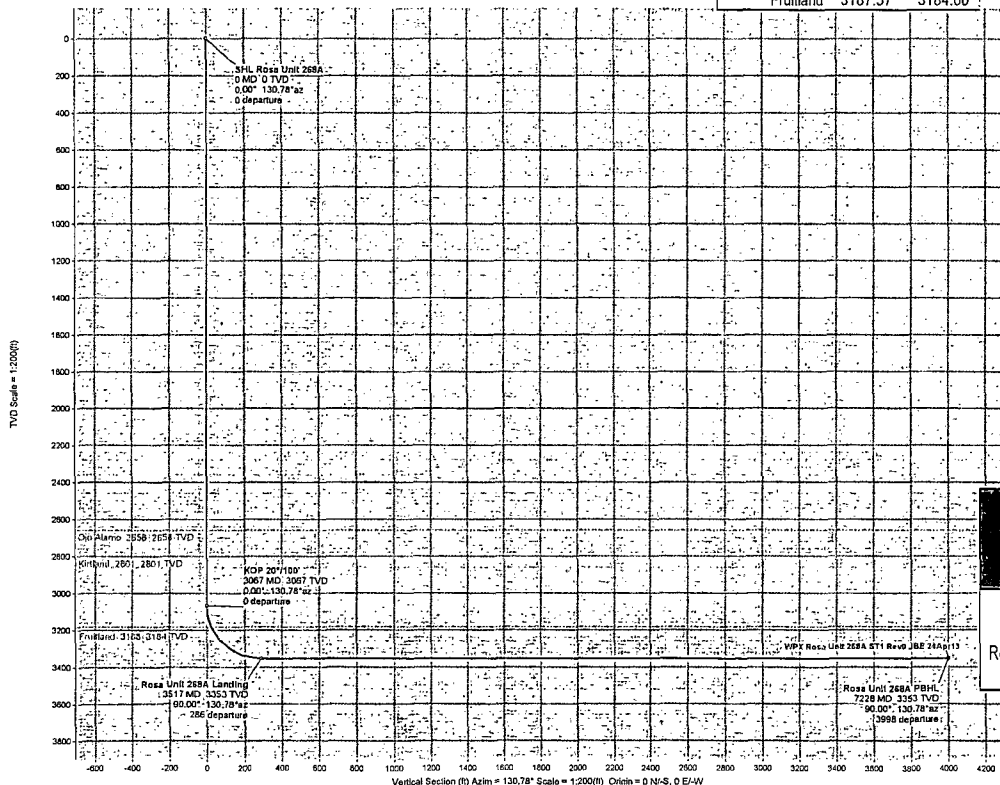
KB: 14'

ST1 Rev0

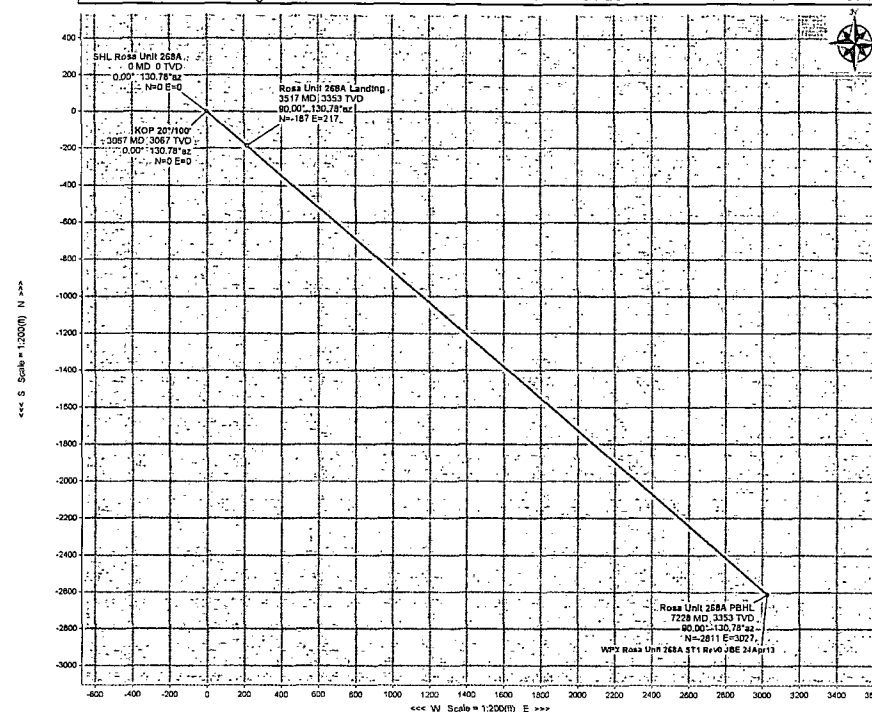
WELL				FIELD				STRUCTURE			
Rosa Unit 268A				NM Rio Arriba County NAD27				AWS #980			
Magnetic Information				Surf Loc Location				Altitude/Cont			
Model: BDG112012		Day: 61.511°		April 24, 2013		NAD27 New Mexico State Plane, Central Zone, UTM Feet		Well: Rosa Unit 268A		TVD Ref: RTS(5418 above 5175)	
Mag Dec: 9.563°		PR: 05197.067		Lat: N 36 51 28 429		Marking: 313437.54 RLBS		Old Cont: 48.15'		Plan: ST1 Rev0 JBE 21Apr13	
				Long: W 107 22 28 438		Esting: 19997.27 BUS		Rosa Pnt: 1.00002385		Rev Date: April 24, 2013	



Formation Tops		
Comments	Survey MD (ft)	TVD (ft)
Ojo Alamo	2658.00	2658.00
Kirtland	2801.00	2801.00
Fruitland	3187.57	3184.00



Name	TVD (ft)	Targets		Latitude (deg)	Longitude (deg)	Shape
		NS (ft)	EW (ft)			
Rosa Unit 268A PBHL	3353.00	-2611.39	3027.34	N 36 51 2.606	W 107 21 51.214	POINT
Rosa Unit 268A Landing	3353.00	-187.12	216.92	N 36 51 26.579	W 107 22 25.790	POINT



Critical Points										
Comments	Survey MD (ft)	Inclination (deg)	Azimuth (deg)	TVD (ft)	VS (ft)	NS (ft)	EW (ft)	Closure (ft)	Closure Azimuth (deg)	DLS (ft/100ft)
SHL Rosa Unit 268A	0.00	0.00	130.78	0.00	0.00	0.00	0.00	0.00	0.00	
KOP 20°/100'	3066.52	0.00	130.78	3066.52	0.00	0.00	0.00	0.00	0.00	0.00
Rosa Unit 268A Landing	3516.52	90.00	130.78	3353.00	286.48	-187.12	216.92	286.48	130.78	20.00
Rosa Unit 268A PBHL	7228.06	90.00	130.78	3353.00	3998.02	-2611.39	3027.34	3998.02	130.78	0.00



WPX Rosa Unit 268A ST1 Rev0 JBE 24Apr13 Proposal Geodetic Report

(Non-Def Plan)

Report Date: April 24, 2013 - 04:37 PM
Client: WPX Energy
Field: NM Rio Arriba County NAD27
Structure / Slot: WPX Rosa Unit 268A / Rosa Unit 268A
Well: Rosa Unit 268A
Borehole: ST1
UWI / API#: Unknown / 30-039-27831
Survey Name: WPX Rosa Unit 268A ST1 Rev0 JBE 24Apr13
Survey Date: April 24, 2013
Tort / AHD / DDI / ERD Ratio: 90.000 ° / 3998.021 ft / 5.890 / 1.192
Coordinate Reference System: NAD27 New Mexico State Plane, Central Zone, US Feet
Location Lat / Long: N 36° 51' 28.42920", W 107° 22' 28.45920"
Location Grid N/E Y/X: N 2133437.563 ftUS, E 170997.267 ftUS
CRS Grid Convergence Angle: -0.6746 °
Grid Scale Factor: 1.00002385

Survey / DLS Computation: Minimum Curvature / Lubinski
Vertical Section Azimuth: 130.781 ° (True North)
Vertical Section Origin: 0.000 ft, 0.000 ft
TVD Reference Datum: RKB
TVD Reference Elevation: 6543.000 ft above MSL
Seabed / Ground Elevation: 6529.000 ft above MSL
Magnetic Declination: 9.563 °
Total Gravity Field Strength: 999.2631 mgn (9.8 based)
Total Magnetic Field Strength: 50597.728 nT
Magnetic Dip Angle: 63.573 °
Declination Date: April 24, 2013
Magnetic Declination Model: BGGM 2012
North Reference: True North
Grid Convergence Used: 0.0000 °
Total Corr Mag North->True North: 9.5635 °
Local Coord Referenced To: Structure Reference Point

Comments	MD (ft)	Incl (°)	Azim True (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
SHL Rosa Unit 268A	0.00	0.00	130.78	0.00	0.00	0.00	0.00	N/A	2133437.56	170997.27	N 36 51 28.43	W 107 22 28.46
Ojo Alamo	2658.00	0.00	130.78	2658.00	0.00	0.00	0.00	0.00	2133437.56	170997.27	N 36 51 28.43	W 107 22 28.46
Kirtland	2801.00	0.00	130.78	2801.00	0.00	0.00	0.00	0.00	2133437.56	170997.27	N 36 51 28.43	W 107 22 28.46
KOP 20°/100'	3066.52	0.00	130.78	3066.52	0.00	0.00	0.00	0.00	2133437.56	170997.27	N 36 51 28.43	W 107 22 28.46
Fruitland	3187.57	24.21	130.78	3184.00	25.20	-16.46	19.08	20.00	2133420.88	171016.15	N 36 51 28.27	W 107 22 28.22
Rosa Unit 268A Landing	3516.52	90.00	130.78	3353.00	286.48	-187.12	216.92	20.00	2133247.90	171211.98	N 36 51 26.58	W 107 22 25.79
Rosa Unit 268A PBHL	7228.06	90.00	130.78	3353.00	3998.02	-2611.39	3027.34	0.00	2130790.65	173993.72	N 36 51 2.61	W 107 21 51.21

Survey Type: Non-Def Plan

Survey Error Model: ISCWSA Rev 0 *** 3-D 95.000% Confidence 2.7955 sigma
Survey Program:

Description	MD From (ft)	MD To (ft)	EOU Freq (ft)	Hole Size (in)	Casing Diameter (in)	Survey Tool Type	Borehole / Survey
	0.000	14.000	1/100.000	30.000	30.000	SLB_MWD-STD-Depth Only	ST1 / WPX Rosa Unit 268A ST1 Rev0 JBE 24Apr13
	14.000	7228.063	1/100.000	30.000	30.000	SLB_MWD-STD	ST1 / WPX Rosa Unit 268A ST1 Rev0 JBE 24Apr13



WPX Rosa Unit 268A ST1 Rev0 JBE 24Apr13 Proposal Geodetic Report

(Non-Def Plan)

Report Date: April 24, 2013 - 04:38 PM
Client: WPX Energy
Field: NM Rio Arriba County NAD27
Structure / Slot: WPX Rosa Unit 268A / Rosa Unit 268A
Well: Rosa Unit 268A
Borehole: ST1
UWI / API#: Unknown / 30-039-27831
Survey Name: WPX Rosa Unit 268A ST1 Rev0 JBE 24Apr13
Survey Date: April 24, 2013
Tort / AHD / DDI / ERD Ratio: 90.000 ° / 3998.021 ft / 5.890 / 1.192
Coordinate Reference System: NAD27 New Mexico State Plane, Central Zone, US Feet
Location Lat / Long: N 36° 51' 28.42920", W 107° 22' 28.45920"
Location Grid N/E Y/X: N 2133437.563 ftUS, E 170997.267 ftUS
CRS Grid Convergence Angle: -0.6746 °
Grid Scale Factor: 1.00002385

Survey / DLS Computation: Minimum Curvature / Lubinski
Vertical Section Azimuth: 130.781 ° (True North)
Vertical Section Origin: 0.000 ft, 0.000 ft
TVD Reference Datum: RKB
TVD Reference Elevation: 6543.000 ft above MSL
Seabed / Ground Elevation: 6529.000 ft above MSL
Magnetic Declination: 9.563 °
Total Gravity Field Strength: 999.2631 mgn (9.8 based)
Total Magnetic Field Strength: 50597.728 nT
Magnetic Dip Angle: 63.573 °
Declination Date: April 24, 2013
Magnetic Declination Model: BGGM 2012
North Reference: True North
Grid Convergence Used: 0.0000 °
Total Corr Mag North->True North: 9.5635 °
Local Coord Referenced To: Structure Reference Point

Comments	MD (ft)	Incl (°)	Azim True (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
SHL Rosa Unit 268A	0.00	0.00	130.78	0.00	0.00	0.00	0.00	N/A	2133437.56	170997.27	N 36 51 28.43	W 107 22 28.46
	100.00	0.00	130.78	100.00	0.00	0.00	0.00	0.00	2133437.56	170997.27	N 36 51 28.43	W 107 22 28.46
	200.00	0.00	130.78	200.00	0.00	0.00	0.00	0.00	2133437.56	170997.27	N 36 51 28.43	W 107 22 28.46
	300.00	0.00	130.78	300.00	0.00	0.00	0.00	0.00	2133437.56	170997.27	N 36 51 28.43	W 107 22 28.46
	400.00	0.00	130.78	400.00	0.00	0.00	0.00	0.00	2133437.56	170997.27	N 36 51 28.43	W 107 22 28.46
	500.00	0.00	130.78	500.00	0.00	0.00	0.00	0.00	2133437.56	170997.27	N 36 51 28.43	W 107 22 28.46
	600.00	0.00	130.78	600.00	0.00	0.00	0.00	0.00	2133437.56	170997.27	N 36 51 28.43	W 107 22 28.46
	700.00	0.00	130.78	700.00	0.00	0.00	0.00	0.00	2133437.56	170997.27	N 36 51 28.43	W 107 22 28.46
	800.00	0.00	130.78	800.00	0.00	0.00	0.00	0.00	2133437.56	170997.27	N 36 51 28.43	W 107 22 28.46
	900.00	0.00	130.78	900.00	0.00	0.00	0.00	0.00	2133437.56	170997.27	N 36 51 28.43	W 107 22 28.46
	1000.00	0.00	130.78	1000.00	0.00	0.00	0.00	0.00	2133437.56	170997.27	N 36 51 28.43	W 107 22 28.46
	1100.00	0.00	130.78	1100.00	0.00	0.00	0.00	0.00	2133437.56	170997.27	N 36 51 28.43	W 107 22 28.46
	1200.00	0.00	130.78	1200.00	0.00	0.00	0.00	0.00	2133437.56	170997.27	N 36 51 28.43	W 107 22 28.46
	1300.00	0.00	130.78	1300.00	0.00	0.00	0.00	0.00	2133437.56	170997.27	N 36 51 28.43	W 107 22 28.46
	1400.00	0.00	130.78	1400.00	0.00	0.00	0.00	0.00	2133437.56	170997.27	N 36 51 28.43	W 107 22 28.46
	1500.00	0.00	130.78	1500.00	0.00	0.00	0.00	0.00	2133437.56	170997.27	N 36 51 28.43	W 107 22 28.46
	1600.00	0.00	130.78	1600.00	0.00	0.00	0.00	0.00	2133437.56	170997.27	N 36 51 28.43	W 107 22 28.46
	1700.00	0.00	130.78	1700.00	0.00	0.00	0.00	0.00	2133437.56	170997.27	N 36 51 28.43	W 107 22 28.46
	1800.00	0.00	130.78	1800.00	0.00	0.00	0.00	0.00	2133437.56	170997.27	N 36 51 28.43	W 107 22 28.46
	1900.00	0.00	130.78	1900.00	0.00	0.00	0.00	0.00	2133437.56	170997.27	N 36 51 28.43	W 107 22 28.46
	2000.00	0.00	130.78	2000.00	0.00	0.00	0.00	0.00	2133437.56	170997.27	N 36 51 28.43	W 107 22 28.46
	2100.00	0.00	130.78	2100.00	0.00	0.00	0.00	0.00	2133437.56	170997.27	N 36 51 28.43	W 107 22 28.46
	2200.00	0.00	130.78	2200.00	0.00	0.00	0.00	0.00	2133437.56	170997.27	N 36 51 28.43	W 107 22 28.46
	2300.00	0.00	130.78	2300.00	0.00	0.00	0.00	0.00	2133437.56	170997.27	N 36 51 28.43	W 107 22 28.46
	2400.00	0.00	130.78	2400.00	0.00	0.00	0.00	0.00	2133437.56	170997.27	N 36 51 28.43	W 107 22 28.46
	2500.00	0.00	130.78	2500.00	0.00	0.00	0.00	0.00	2133437.56	170997.27	N 36 51 28.43	W 107 22 28.46
	2600.00	0.00	130.78	2600.00	0.00	0.00	0.00	0.00	2133437.56	170997.27	N 36 51 28.43	W 107 22 28.46
Ojo Alamo	2658.00	0.00	130.78	2658.00	0.00	0.00	0.00	0.00	2133437.56	170997.27	N 36 51 28.43	W 107 22 28.46
	2700.00	0.00	130.78	2700.00	0.00	0.00	0.00	0.00	2133437.56	170997.27	N 36 51 28.43	W 107 22 28.46

Comments	MD (ft)	Incl (°)	Azim True (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
Kirtland	2800.00	0.00	130.78	2800.00	0.00	0.00	0.00	0.00	2133437.56	170997.27	N 36 51 28.43	W 107 22 28.46
	2801.00	0.00	130.78	2801.00	0.00	0.00	0.00	0.00	2133437.56	170997.27	N 36 51 28.43	W 107 22 28.46
	2900.00	0.00	130.78	2900.00	0.00	0.00	0.00	0.00	2133437.56	170997.27	N 36 51 28.43	W 107 22 28.46
	3000.00	0.00	130.78	3000.00	0.00	0.00	0.00	0.00	2133437.56	170997.27	N 36 51 28.43	W 107 22 28.46
KOP 20°/100'	3066.52	0.00	130.78	3066.52	0.00	0.00	0.00	0.00	2133437.56	170997.27	N 36 51 28.43	W 107 22 28.46
Fruitland	3100.00	6.70	130.78	3099.92	1.95	-1.28	1.48	20.00	2133436.27	170998.73	N 36 51 28.42	W 107 22 28.44
	3187.57	24.21	130.78	3184.00	25.20	-16.46	19.08	20.00	2133420.88	171016.15	N 36 51 28.27	W 107 22 28.22
	3200.00	26.70	130.78	3195.22	30.54	-19.95	23.12	20.00	2133417.35	171020.15	N 36 51 28.23	W 107 22 28.17
	3300.00	46.70	130.78	3275.00	89.99	-58.78	68.14	20.00	2133377.98	171064.71	N 36 51 27.85	W 107 22 27.62
Rosa Unit 268A Landing	3400.00	66.70	130.78	3329.63	173.14	-113.09	131.11	20.00	2133322.93	171127.04	N 36 51 27.31	W 107 22 26.85
	3500.00	86.70	130.78	3352.52	269.97	-176.33	204.42	20.00	2133258.83	171199.60	N 36 51 26.69	W 107 22 25.94
	3516.52	90.00	130.78	3353.00	286.48	-187.12	216.92	20.00	2133247.90	171211.98	N 36 51 26.58	W 107 22 25.79
	3600.00	90.00	130.78	3353.00	369.96	-241.65	280.14	0.00	2133192.63	171274.54	N 36 51 26.04	W 107 22 25.01
	3700.00	90.00	130.78	3353.00	469.96	-306.96	355.86	0.00	2133126.42	171349.49	N 36 51 25.39	W 107 22 24.08
	3800.00	90.00	130.78	3353.00	569.96	-372.28	431.58	0.00	2133060.22	171424.44	N 36 51 24.75	W 107 22 23.15
	3900.00	90.00	130.78	3353.00	669.96	-437.60	507.30	0.00	2132994.01	171499.39	N 36 51 24.10	W 107 22 22.22
	4000.00	90.00	130.78	3353.00	769.96	-502.91	583.02	0.00	2132927.81	171574.34	N 36 51 23.46	W 107 22 21.29
	4100.00	90.00	130.78	3353.00	869.96	-568.23	658.74	0.00	2132861.60	171649.29	N 36 51 22.81	W 107 22 20.35
	4200.00	90.00	130.78	3353.00	969.96	-633.55	734.46	0.00	2132795.40	171724.23	N 36 51 22.16	W 107 22 19.42
	4300.00	90.00	130.78	3353.00	1069.96	-698.87	810.18	0.00	2132729.19	171799.18	N 36 51 21.52	W 107 22 18.49
	4400.00	90.00	130.78	3353.00	1169.96	-764.18	885.90	0.00	2132662.99	171874.13	N 36 51 20.87	W 107 22 17.56
	4500.00	90.00	130.78	3353.00	1269.96	-829.50	961.63	0.00	2132596.78	171949.08	N 36 51 20.23	W 107 22 16.63
	4600.00	90.00	130.78	3353.00	1369.96	-894.82	1037.35	0.00	2132530.57	172024.03	N 36 51 19.58	W 107 22 15.70
	4700.00	90.00	130.78	3353.00	1469.96	-960.13	1113.07	0.00	2132464.37	172098.98	N 36 51 18.94	W 107 22 14.76
	4800.00	90.00	130.78	3353.00	1569.96	-1025.45	1188.79	0.00	2132398.16	172173.92	N 36 51 18.29	W 107 22 13.83
	4900.00	90.00	130.78	3353.00	1669.96	-1090.77	1264.51	0.00	2132331.96	172248.87	N 36 51 17.64	W 107 22 12.90
	5000.00	90.00	130.78	3353.00	1769.96	-1156.09	1340.23	0.00	2132265.75	172323.82	N 36 51 17.00	W 107 22 11.97
	5100.00	90.00	130.78	3353.00	1869.96	-1221.40	1415.95	0.00	2132199.55	172398.77	N 36 51 16.35	W 107 22 11.04
	5200.00	90.00	130.78	3353.00	1969.96	-1286.72	1491.67	0.00	2132133.34	172473.72	N 36 51 15.71	W 107 22 10.11
	5300.00	90.00	130.78	3353.00	2069.96	-1352.04	1567.39	0.00	2132067.14	172548.67	N 36 51 15.06	W 107 22 9.17
	5400.00	90.00	130.78	3353.00	2169.96	-1417.35	1643.11	0.00	2132000.93	172623.61	N 36 51 14.41	W 107 22 8.24
	5500.00	90.00	130.78	3353.00	2269.96	-1482.67	1718.84	0.00	2131934.72	172698.56	N 36 51 13.77	W 107 22 7.31
	5600.00	90.00	130.78	3353.00	2369.96	-1547.99	1794.56	0.00	2131868.52	172773.51	N 36 51 13.12	W 107 22 6.38
	5700.00	90.00	130.78	3353.00	2469.96	-1613.31	1870.28	0.00	2131802.31	172848.46	N 36 51 12.48	W 107 22 5.45
	5800.00	90.00	130.78	3353.00	2569.96	-1678.62	1946.00	0.00	2131736.11	172923.41	N 36 51 11.83	W 107 22 4.52
	5900.00	90.00	130.78	3353.00	2669.96	-1743.94	2021.72	0.00	2131669.90	172998.36	N 36 51 11.18	W 107 22 3.59
	6000.00	90.00	130.78	3353.00	2769.96	-1809.26	2097.44	0.00	2131603.70	173073.31	N 36 51 10.54	W 107 22 2.65
	6100.00	90.00	130.78	3353.00	2869.96	-1874.57	2173.16	0.00	2131537.49	173148.25	N 36 51 9.89	W 107 22 1.72
	6200.00	90.00	130.78	3353.00	2969.96	-1939.89	2248.88	0.00	2131471.29	173223.20	N 36 51 9.25	W 107 22 0.79
	6300.00	90.00	130.78	3353.00	3069.96	-2005.21	2324.60	0.00	2131405.08	173298.15	N 36 51 8.60	W 107 21 59.86
	6400.00	90.00	130.78	3353.00	3169.96	-2070.53	2400.32	0.00	2131338.87	173373.10	N 36 51 7.96	W 107 21 58.93
	6500.00	90.00	130.78	3353.00	3269.96	-2135.84	2476.05	0.00	2131272.67	173448.05	N 36 51 7.31	W 107 21 58.00
	6600.00	90.00	130.78	3353.00	3369.96	-2201.16	2551.77	0.00	2131206.46	173523.00	N 36 51 6.66	W 107 21 57.06
	6700.00	90.00	130.78	3353.00	3469.96	-2266.48	2627.49	0.00	2131140.26	173597.94	N 36 51 6.02	W 107 21 56.13
	6800.00	90.00	130.78	3353.00	3569.96	-2331.79	2703.21	0.00	2131074.05	173672.89	N 36 51 5.37	W 107 21 55.20
	6900.00	90.00	130.78	3353.00	3669.96	-2397.11	2778.93	0.00	2131007.85	173747.84	N 36 51 4.73	W 107 21 54.27
	7000.00	90.00	130.78	3353.00	3769.96	-2462.43	2854.65	0.00	2130941.64	173822.79	N 36 51 4.08	W 107 21 53.34
	7100.00	90.00	130.78	3353.00	3869.96	-2527.75	2930.37	0.00	2130875.43	173897.74	N 36 51 3.43	W 107 21 52.41
	7200.00	90.00	130.78	3353.00	3969.96	-2593.06	3006.09	0.00	2130809.23	173972.69	N 36 51 2.79	W 107 21 51.48
Rosa Unit 268A PBHL	7228.06	90.00	130.78	3353.00	3998.02	-2611.39	3027.34	0.00	2130790.65	173993.72	N 36 51 2.61	W 107 21 51.21

Survey Type: Non-Def Plan

Survey Error Model: ISCWSA Rev 0 *** 3-D 95.000% Confidence 2.7955 sigma
Survey Program:

Comments	MD (ft)	Incl (°)	Azim True (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
Description	MD From (ft)		MD To (ft)	EOU Freq (ft)		Hole Size (in)	Casing Diameter (in)	Survey Tool Type	Borehole / Survey			
	0.000		14.000		1/100.000	30.000	30.000	SLB_MWD-STD-Depth Only	ST1 / WPX Rosa Unit 268A ST1 Rev0 JBE 24Apr13			
	14.000		7228.063		1/100.000	30.000	30.000	SLB_MWD-STD	ST1 / WPX Rosa Unit 268A ST1 Rev0 JBE 24Apr13			