

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

RECEIVED

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.

MAR 21 2013

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: 831' FNL & 997' FEL - BHL: 700' FNL & 700' FWL, Sec 32, T31N, R4W

5. Lease Serial No.

NMNM-023044

6. If Indian, Allottee or Tribe Name

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

8. Well Name and No.

Schalk 32 #1B

9. API Well No.

30-039-31109

10. Field and Pool or Exploratory Area

Basin Fruitland Cool

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                                |                                           |                                                    |                                           |
|------------------------------------------------------|-----------------------------------------------|-------------------------------------------|----------------------------------------------------|-------------------------------------------|
| <input checked="" type="checkbox"/> Notice of Intent | <input type="checkbox"/> Acidize              | <input type="checkbox"/> Deepen           | <input type="checkbox"/> Production (Start/Resume) | <input type="checkbox"/> Water Shut-Off   |
| <input type="checkbox"/> Subsequent Report           | <input type="checkbox"/> Alter Casing         | <input type="checkbox"/> Fracture Treat   | <input type="checkbox"/> Reclamation               | <input type="checkbox"/> Well Integrity   |
| <input type="checkbox"/> Final Abandonment Notice    | <input type="checkbox"/> Casing Repair        | <input type="checkbox"/> New Construction | <input type="checkbox"/> Recomplete                | <input checked="" type="checkbox"/> Other |
|                                                      | <input type="checkbox"/> Change Plans         | <input type="checkbox"/> Plug and Abandon | <input type="checkbox"/> Temporarily Abandon       | BHL change                                |
|                                                      | <input type="checkbox"/> Convert to Injection | <input type="checkbox"/> Plug Back        | <input type="checkbox"/> 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.

RECD MAR 27 2013  
OIL CONS. DIV.  
DIST. 3

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

CONDITIONS OF APPROVAL  
Adhere to previously issued stipulations.

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

Name (Printed/Typed)

Larry Higgins

Title Permit Supervisor

Signature

Date 3/21/13

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by

Troy L. Salvors

Title Petroleum Eng.

Date 3/26/2013

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 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)

NMOC  
Ar

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) 748-1263 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  
RECEIVED

MAR 21 2013

WELL LOCATION AND ACREAGE DEDICATION PLAT

|                             |                                               |                                                                                 |
|-----------------------------|-----------------------------------------------|---------------------------------------------------------------------------------|
| *API Number<br>30-039-31109 | *Pool Code<br>71629                           | *Pool Name<br>Farmington Field Office<br>BASIN FRUITLAND CO. of Land Management |
| *Property Code              | *Property Name<br>SCHALK 32                   | *Well Number<br>1B                                                              |
| *GRID No.<br>120782         | *Operator Name<br>WILLIAMS PRODUCTION COMPANY | *Elevation<br>6618'                                                             |

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     |
|---------------|---------|----------|-------|---------|---------------|------------------|---------------|----------------|------------|
| A             | 32      | 31N      | 4W    |         | 831           | NORTH            | 997           | EAST           | RIO ARriba |

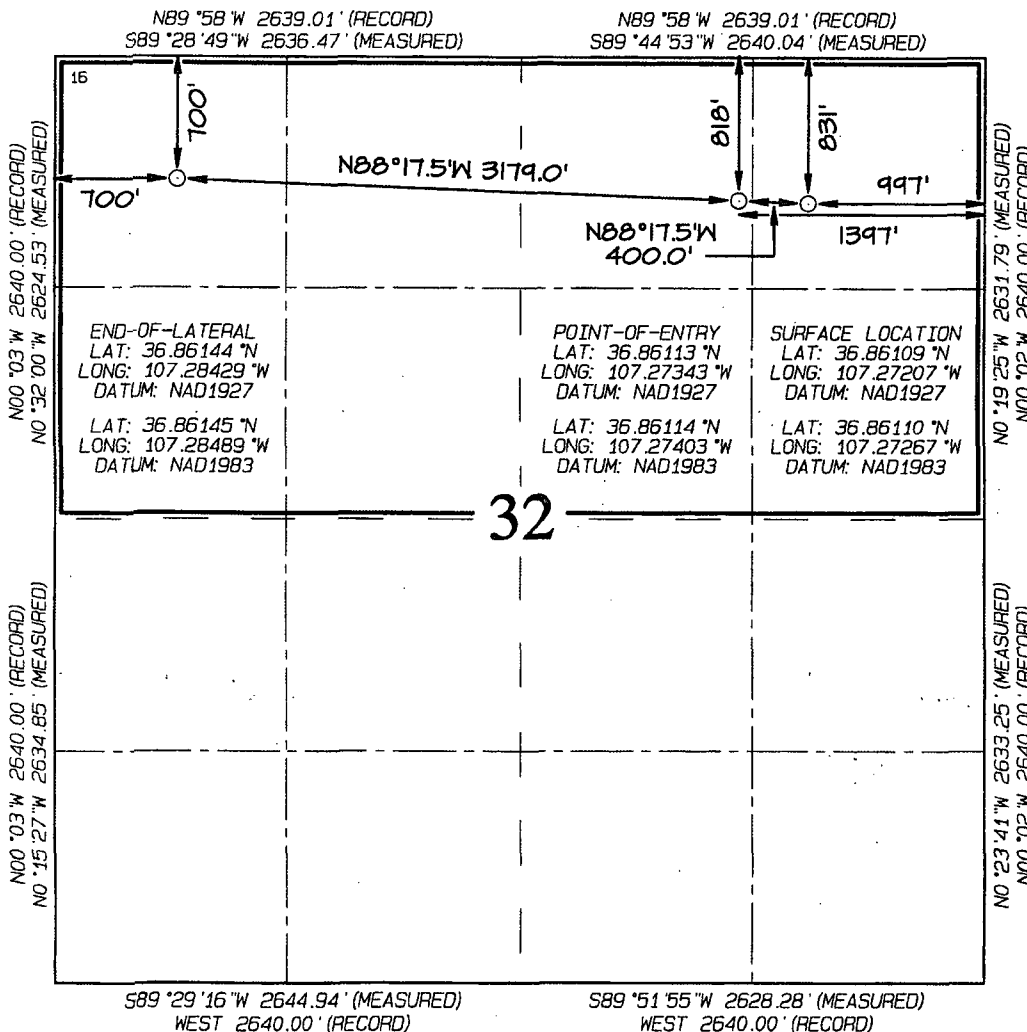
11 Bottom Hole Location If Different From Surface

| UL or lot no. | Section | Township | Range | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County     |
|---------------|---------|----------|-------|---------|---------------|------------------|---------------|----------------|------------|
| D             | 32      | 31N      | 4W    |         | 700           | NORTH            | 700           | WEST           | RIO ARriba |

|                                           |                    |                       |                                                   |
|-------------------------------------------|--------------------|-----------------------|---------------------------------------------------|
| 12 Dedicated Acres<br>320.0 Acres - (N/2) | 13 Joint or Infill | 14 Consolidation Code | 15 Order No.<br>RCUD MAR 27 '13<br>OIL CONS. DIV. |
|-------------------------------------------|--------------------|-----------------------|---------------------------------------------------|

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

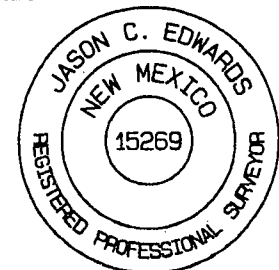


17 OPERATOR CERTIFICATION  
I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom-hole location or has a right 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: 3/21/13  
Printed Name: Larry Higgins  
E-mail Address: larry.higgins@wpenergy.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 Revised: MARCH 12, 2013  
Survey Date: SEPTEMBER 23, 2011  
Signature and Seal of 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:** 3/21/2013 **API:** 30-039-31109  
**WELL NAME:** Schalk 32 #001B **FIELD:** Basin Fruitland Coal  
**BH LOCATION:** NWNW Sec. 32-T31N-R4W **SURFACE:** USFS  
Rio Arriba County, NM  
**ELEVATION:** 6,618' GR **MINERALS:** BLM  
**TOTAL DEPTH:** 6,875' **LEASE #** NM-23044

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

**A. FORMATION TOPS:** (6,632' KB)

| NAME       | MD      | TVD     | NAME            | MD    | TVD   |
|------------|---------|---------|-----------------|-------|-------|
| San Jose   | Surface | Surface | Top Target Coal | 3,619 | 3,439 |
| Nacimiento | 1,611   | 1,611   | Landing Point   | 3,619 | 3,439 |
| Ojo Alamo  | 2,802   | 2,802   | Base Coal       |       | 3,467 |
| Kirtland   | 3,004   | 3,004   | Picture Cliffs  |       | 3,468 |
| KOP        | 3,124   | 3,124   | TD              | 6,875 | 3,439 |
| Fruitland  | 3,231   | 3,229   |                 |       |       |

**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 surface casing to TD.

**II. DRILLING**

**A. MUD PROGRAM:** LSND mud through vertical, curve and lateral. Treat for lost circulation as necessary. Obtain 100% returns prior to cementing casing. Notify Engineering of any mud losses.

**B. 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.**

**III. MATERIALS****A. CASING PROGRAM:**

| <u>CASING TYPE</u> | <u>HOLE SIZE</u> | <u>DEPTH (MD)</u> | <u>CASING SIZE</u> | <u>WT. &amp; GRADE</u> |
|--------------------|------------------|-------------------|--------------------|------------------------|
| Surface            | 12-1/4"          | + 300'            | 9-5/8"             | 36# K-55               |
| Intermediate       | 8-3/4"           | +/- 3,064'        | 7"                 | 23# K-55               |
| Prod. Liner        | 6-1/8"           | +/- 6,875'        | 4-1/2"             | 11.6# K-55             |

**Note:** Intermediate casing is set 60' into Kirtland. Production liner is 4-1/2" 11.6# Pre-perforated K-55.

**B. FLOAT EQUIPMENT:**

1. SURFACE CASING: 9-5/8" notched regular pattern guide shoe. Run (1) standard centralizer on each of the bottom (4) joints of Surface Casing.
2. INTERMEDIATE CASING: 7" cement nose guide shoe with a self-fill insert float. Place float collar one joint above the shoe. Install one centralizer on each of the bottom (3) joints and one centralizer every (3) joints to 2,500', then one centralizer at 2,000', 1,500', and 1,000'.
3. PRODUCTION LINER / CASING: Run 4.5" perforated liner in lateral and blank 4.5" from top of Fruitland to surface - No centralization

**C. CEMENTING:**

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

1. SURFACE: Slurry: 150sx (269.4 cu.ft.) of "Type III" + 2% Cal-Seal 60 + ¼ # of poly-e-flake/sk + 0.3% Versaset + 2% Econolite + 6% Salt (Yield = 1.796 cu.ft./sk, Weight = 13.5 #/gal.). The 100% excess should circulate cement to the surface. WOC 12 hours. Test csg to 1500psi. **For 30 min.**
2. INTERMEDIATE: Lead - 340 sx (928.2 cu.ft.) of "EXTENDACEM" + 5 #/sk pheno-seal + 5% Cal-Seal 60 (Yield = 2.723 cu.ft./sk, Weight = 11.5 #/gal.). Tail - 100 sx (117.8cu.ft.) of Premium cement + 0.125 #/sk Poly-E-Flake, (Yield = 1.178 cu.ft./sk, Weight = 15.6#/gal.). Total volume = 1046 cu.ft. Bump Plug to 1,500 psi. Notify engineering if cement is not circulated to surface
3. PRODUCTION LINER: Uncemented 4.5" liner.

**IV. COMPLETION****A. PRESSURE TEST**

1. Pressure test 7" casing to 3300# for ~~15~~ minutes.

**30**

**B. STIMULATION**

1. No stimulation

**C. 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 approximately 50' above bottom of curve.

Larry Higgins  
Permitting Supervisor

WPX ENERGY

WPX Energy

**PATHFINDER**  
A Schlumberger Company

KB: 14'

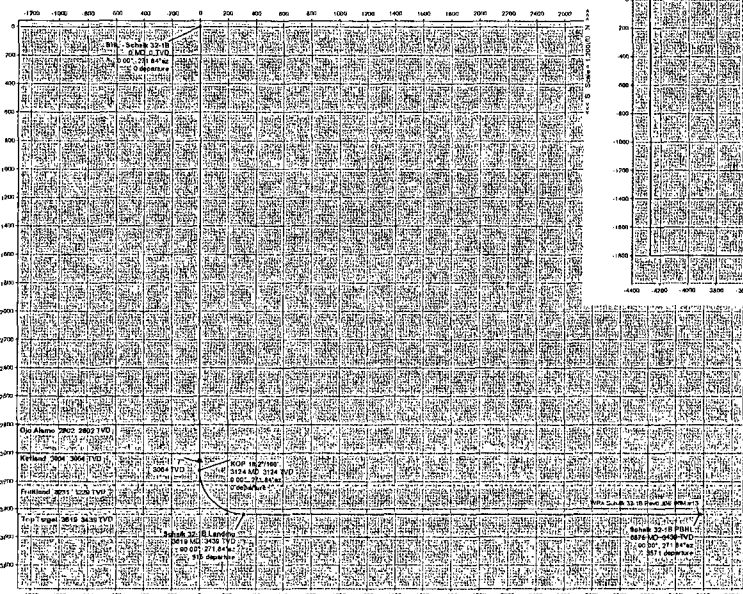
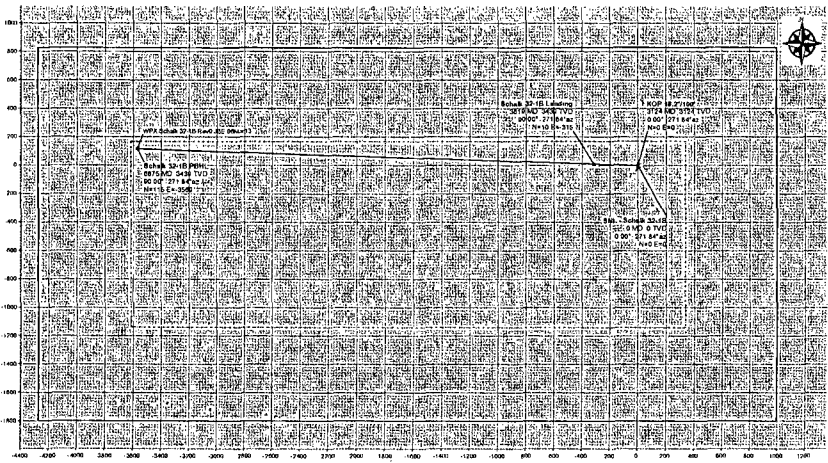
Rev0

|           |              |       |                            |         |          |
|-----------|--------------|-------|----------------------------|---------|----------|
| WELL      | Schack 32-1B | FIELD | NM Rio Arriba County NAD27 | PROJECT | AWS #080 |
| Well Name | WPX 32-1B    | Field | NM Rio Arriba County NAD27 | Project | AWS #080 |
| Well ID   | WPX 32-1B    | Field | NM Rio Arriba County NAD27 | Project | AWS #080 |
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| Well ID   | WPX 32-1B    | Field | NM Rio Arriba County NAD27 | Project | AWS #080 |

Locality  
Sec 32 131N ROAD North Nat 600 HL  
Sec 32 131N ROAD North Nat  
SCHACK 32-1B PBHL  
WPX Schack 32-1B Rev0 JSE 06/04/13



True North  
Declination: 11.50° N  
Magnetic Declination: 11.50° N  
Grid Con. (d.d.d.d)



| Name              | TVD<br>(ft) | NS<br>(ft) | EW<br>(ft) | Latitude<br>(deg) | Longitude<br>(deg) | Shape |
|-------------------|-------------|------------|------------|-------------------|--------------------|-------|
| Schack 32-1B PBHL | 3439.00     | 114.91     | -3569.06   | N 36 51 41.058    | W 107 17 3.368     | POINT |

| Comments             | Survey MD<br>(ft) | Inclination<br>(deg) | Azimuth<br>(deg) | TVD<br>(ft) | NS<br>(ft) | EW<br>(ft) | Closure<br>(ft) | Closure<br>Azimuth<br>(deg) | DLS<br>(ft/1000) |
|----------------------|-------------------|----------------------|------------------|-------------|------------|------------|-----------------|-----------------------------|------------------|
| SHL - Schack 32-1B   | 0.00              | 0.00                 | 271.84           | 0.00        | 0.00       | 0.00       | 0.00            | 0.00                        | 0.00             |
| Ojo Alamo            | 2802.00           | 0.00                 | 271.84           | 2802.00     | 0.00       | 0.00       | 0.00            | 0.00                        | 0.00             |
| Kinland              | 3004.00           | 0.00                 | 271.84           | 3004.00     | 0.00       | 0.00       | 0.00            | 0.00                        | 0.00             |
| Fruitland            | 3231.05           | 0.00                 | 271.84           | 3231.05     | 0.00       | 0.00       | 0.00            | 0.00                        | 0.00             |
| Top Target           | 3018.80           | 80.00                | 271.84           | 3439.00     | 315.00     | 10.14      | -314.84         | 315.00                      | 18.19            |
| Schack 32-1B Landing | 3018.80           | 80.00                | 271.84           | 3439.00     | 315.00     | 10.14      | -314.84         | 315.00                      | 18.19            |
| Schack 32-1B PBHL    | 6874.71           | 80.00                | 271.84           | 3439.00     | 3570.81    | 114.91     | -3569.06        |                             | 0.00             |

Drawn by: [Name]  
Checked by: [Name]  
Approved by: [Name]



WPX Schalk 32-1B Rev0 JBE 06Mar13 Proposal Geodetic Report  
(Non-Def Plan)

Report Date: March 08, 2013 - 03:16 PM  
Client: WPX Energy  
Field: NM Rio Arriba County NAD27  
Structure / Slot: WPX Schalk 32-1B / Schalk 32-1B  
Well: Schalk 32-1B  
Borehole: Original Borehole  
UWI / API#: Unknown / 30-039-31109  
Survey Name: WPX Schalk 32-1B Rev0 JBE 06Mar13  
Survey Date: March 08, 2013  
Tort / AHD / DDI / ERD Ratio: 90.000 ° / 3570.907 ft / 5.808 / 1.038  
Coordinate Reference System: NAD27 New Mexico State Plane, Central Zone, US Feet  
Location Lat / Long: N 36° 51' 39.92400", W 107° 16' 19.45200"  
Location Grid N/E Y/D: N 2134262.999 ftUS, E 200998.451 ftUS  
CRS Grid Convergence Angle: -0.8132 °  
Grid Scale Factor: 1.00000229

Survey / DLS Computation: Minimum Curvature / Lubinski  
Vertical Section Azimuth: 271.844 ° (True North)  
Vertical Section Origin: 0.000 ft, 0.000 ft  
TVD Reference Datum: RKB  
TVD Reference Elevation: 6632.000 ft above MSL  
Seabed / Ground Elevation: 6618.000 ft above MSL  
Magnetic Declination: 9.536 °  
Total Gravity Field Strength: 999.2549 mgn (9.8 based)  
Total Magnetic Field Strength: 50629.634 nT  
Magnetic Dip Angle: 63.599 °  
Declination Date: March 08, 2013  
Magnetic Declination Model: BGGM 2012  
North Reference: True North  
Grid Convergence Used: 0.0000 °  
Total Corr Mag North-True North: 9.5363 °  
Local Coord Referenced To: Structure Reference Point

| Comments           | MD<br>(ft) | Incl<br>(°) | Azim True<br>(°) | TVD<br>(ft) | VSEC<br>(ft) | NS<br>(ft) | EW<br>(ft) | DLS<br>(°/100ft) | Northing<br>(RUS) | Easting<br>(RUS) | Latitude<br>(N/S ° ' ") | Longitude<br>(E/W ° ' ") |
|--------------------|------------|-------------|------------------|-------------|--------------|------------|------------|------------------|-------------------|------------------|-------------------------|--------------------------|
| SHL - Schalk 32-1B | 0.00       | 0.00        | 271.84           | 0.00        | 0.00         | 0.00       | 0.00       | N/A              | 2134263.00        | 200998.45        | N 36 51 39.92           | W 107 16 19.45           |
| Ojo Alamo          | 2802.00    | 0.00        | 271.84           | 2802.00     | 0.00         | 0.00       | 0.00       | 0.00             | 2134263.00        | 200998.45        | N 36 51 39.92           | W 107 16 19.45           |
| Kirtland           | 3004.00    | 0.00        | 271.84           | 3004.00     | 0.00         | 0.00       | 0.00       | 0.00             | 2134263.00        | 200998.45        | N 36 51 39.92           | W 107 16 19.45           |
| 7"                 | 3084.00    | 0.00        | 271.84           | 3084.00     | 0.00         | 0.00       | 0.00       | 0.00             | 2134263.00        | 200998.45        | N 36 51 39.92           | W 107 16 19.45           |
| KOP 18.2"/100'     | 3124.00    | 0.00        | 271.84           | 3124.00     | 0.00         | 0.00       | 0.00       | 0.00             | 2134263.00        | 200998.45        | N 36 51 39.92           | W 107 16 19.45           |
| Fruitland          | 3231.05    | 19.47       | 271.84           | 3229.00     | 18.02        | 0.58       | -18.01     | 18.19            | 2134263.77        | 200980.45        | N 36 51 39.93           | W 107 16 19.67           |
| Top Target         |            |             |                  |             |              |            |            |                  |                   |                  |                         |                          |
| Schalk 32-1B       | 3618.80    | 90.00       | 271.84           | 3439.00     | 315.00       | 10.14      | -314.84    | 18.19            | 2134276.50        | 200883.74        | N 36 51 40.02           | W 107 16 23.33           |
| Landing            |            |             |                  |             |              |            |            |                  |                   |                  |                         |                          |
| Schalk 32-1B PBHL  | 6874.71    | 90.00       | 271.84           | 3439.00     | 3570.91      | 114.91     | -3569.06   | 0.00             | 2134416.10        | 197430.83        | N 36 51 41.06           | W 107 17 3.37            |

Survey Type: Non-Def Plan

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

| Description | MD From<br>(ft) | MD To<br>(ft) | EOU Freq<br>(ft) | Hole Size<br>(in) | Casing Diameter<br>(in) | Survey Tool Type       | Borehole / Survey                                     |
|-------------|-----------------|---------------|------------------|-------------------|-------------------------|------------------------|-------------------------------------------------------|
|             | 0.000           | 14.000        | 1/100.000        | 8.750             | 7.000                   | SLB_MWD-STD-Depth Only | Original Borehole / WPX Schalk 32-1B Rev0 JBE 06Mar13 |
|             | 14.000          | 3064.000      | 1/100.000        | 8.750             | 7.000                   | SLB_MWD-STD            | Original Borehole / WPX Schalk 32-1B Rev0 JBE 06Mar13 |
|             | 3064.000        | 6874.708      | 1/100.000        | 6.250             | 4.500                   | SLB_MWD-STD            | Original Borehole / WPX Schalk 32-1B Rev0 JBE 06Mar13 |



WPX Schalk 32-1B Rev0 JBE 06Mar13 Proposal Geodetic Report  
(Non-Def Plan)



Report Date: March 08, 2013 - 03:17 PM  
Client: WPX Energy  
Field: NM Rio Arriba County NAD27  
Structure / Slot: WPX Schalk 32-1B / Schalk 32-1B  
Well: Schalk 32-1B  
Borehole: Original Borehole  
UWI / API#: Unknown / 30-039-31109  
Survey Name: WPX Schalk 32-1B Rev0 JBE 06Mar13  
Survey Date: March 06, 2013  
Tort / AHD / DDI / ERD Ratio: 90.000 \* / 3570.907 ft / 5.808 / 1.038  
Coordinate Reference System: NAD27 New Mexico State Plane, Central Zone, US Feet  
Location Lat / Long: N 36° 51' 39.92400", W 107° 16' 19.45200"  
Location Grid N/E Y/X: N 2134262.999 RUS, E 200998.451 RUS  
CRS Grid Convergence Angle: -0.6132 \*  
Grid Scale Factor: 1.00000229

Survey / DLS Computation: Minimum Curvature / Lubinski  
Vertical Section Azimuth: 271.844 \* (True North)  
Vertical Section Origin: 0.000 ft, 0.000 ft  
TVD Reference Datum: RKB  
TVD Reference Elevation: 6632.000 ft above MSL  
Seabed / Ground Elevation: 6618.000 ft above MSL  
Magnetic Declination: 9.536 \*  
Total Gravity Field Strength: 999.2549 mgn (9.8 based)  
Total Magnetic Field Strength: 50629.634 nT  
Magnetic Dip Angle: 63.599 \*  
Declination Date: March 06, 2013  
Magnetic Declination Model: BGGM 2012  
North Reference: True North  
Grid Convergence Used: 0.0000 \*  
Total Corr Mag North->True North: 9.5363 \*  
Local Coord Referenced To: Structure Reference Point

| Comments           | MD<br>(ft) | Incl<br>(°) | Azlm True<br>(°) | TVD<br>(ft) | VSEC<br>(ft) | NS<br>(ft) | EW<br>(ft) | DLS<br>(*100ft) | Northing<br>(ftUS) | Easting<br>(ftUS) | Latitude<br>(N/S ° ' '') | Longitude<br>(E/W ° ' '') |
|--------------------|------------|-------------|------------------|-------------|--------------|------------|------------|-----------------|--------------------|-------------------|--------------------------|---------------------------|
| SHL - Schalk 32-1B | 0.00       | 0.00        | 271.84           | 0.00        | 0.00         | 0.00       | 0.00       | N/A             | 2134263.00         | 200998.45         | N 36 51 39.92            | W 107 16 19.45            |
|                    | 100.00     | 0.00        | 271.84           | 100.00      | 0.00         | 0.00       | 0.00       | 0.00            | 2134263.00         | 200998.45         | N 36 51 39.92            | W 107 16 19.45            |
|                    | 200.00     | 0.00        | 271.84           | 200.00      | 0.00         | 0.00       | 0.00       | 0.00            | 2134263.00         | 200998.45         | N 36 51 39.92            | W 107 16 19.45            |
|                    | 300.00     | 0.00        | 271.84           | 300.00      | 0.00         | 0.00       | 0.00       | 0.00            | 2134263.00         | 200998.45         | N 36 51 39.92            | W 107 16 19.45            |
|                    | 400.00     | 0.00        | 271.84           | 400.00      | 0.00         | 0.00       | 0.00       | 0.00            | 2134263.00         | 200998.45         | N 36 51 39.92            | W 107 16 19.45            |
|                    | 500.00     | 0.00        | 271.84           | 500.00      | 0.00         | 0.00       | 0.00       | 0.00            | 2134263.00         | 200998.45         | N 36 51 39.92            | W 107 16 19.45            |
|                    | 600.00     | 0.00        | 271.84           | 600.00      | 0.00         | 0.00       | 0.00       | 0.00            | 2134263.00         | 200998.45         | N 36 51 39.92            | W 107 16 19.45            |
|                    | 700.00     | 0.00        | 271.84           | 700.00      | 0.00         | 0.00       | 0.00       | 0.00            | 2134263.00         | 200998.45         | N 36 51 39.92            | W 107 16 19.45            |
|                    | 800.00     | 0.00        | 271.84           | 800.00      | 0.00         | 0.00       | 0.00       | 0.00            | 2134263.00         | 200998.45         | N 36 51 39.92            | W 107 16 19.45            |
|                    | 900.00     | 0.00        | 271.84           | 900.00      | 0.00         | 0.00       | 0.00       | 0.00            | 2134263.00         | 200998.45         | N 36 51 39.92            | W 107 16 19.45            |
|                    | 1000.00    | 0.00        | 271.84           | 1000.00     | 0.00         | 0.00       | 0.00       | 0.00            | 2134263.00         | 200998.45         | N 36 51 39.92            | W 107 16 19.45            |
|                    | 1100.00    | 0.00        | 271.84           | 1100.00     | 0.00         | 0.00       | 0.00       | 0.00            | 2134263.00         | 200998.45         | N 36 51 39.92            | W 107 16 19.45            |
|                    | 1200.00    | 0.00        | 271.84           | 1200.00     | 0.00         | 0.00       | 0.00       | 0.00            | 2134263.00         | 200998.45         | N 36 51 39.92            | W 107 16 19.45            |
|                    | 1300.00    | 0.00        | 271.84           | 1300.00     | 0.00         | 0.00       | 0.00       | 0.00            | 2134263.00         | 200998.45         | N 36 51 39.92            | W 107 16 19.45            |
|                    | 1400.00    | 0.00        | 271.84           | 1400.00     | 0.00         | 0.00       | 0.00       | 0.00            | 2134263.00         | 200998.45         | N 36 51 39.92            | W 107 16 19.45            |
|                    | 1500.00    | 0.00        | 271.84           | 1500.00     | 0.00         | 0.00       | 0.00       | 0.00            | 2134263.00         | 200998.45         | N 36 51 39.92            | W 107 16 19.45            |
|                    | 1600.00    | 0.00        | 271.84           | 1600.00     | 0.00         | 0.00       | 0.00       | 0.00            | 2134263.00         | 200998.45         | N 36 51 39.92            | W 107 16 19.45            |
|                    | 1700.00    | 0.00        | 271.84           | 1700.00     | 0.00         | 0.00       | 0.00       | 0.00            | 2134263.00         | 200998.45         | N 36 51 39.92            | W 107 16 19.45            |
|                    | 1800.00    | 0.00        | 271.84           | 1800.00     | 0.00         | 0.00       | 0.00       | 0.00            | 2134263.00         | 200998.45         | N 36 51 39.92            | W 107 16 19.45            |
|                    | 1900.00    | 0.00        | 271.84           | 1900.00     | 0.00         | 0.00       | 0.00       | 0.00            | 2134263.00         | 200998.45         | N 36 51 39.92            | W 107 16 19.45            |
|                    | 2000.00    | 0.00        | 271.84           | 2000.00     | 0.00         | 0.00       | 0.00       | 0.00            | 2134263.00         | 200998.45         | N 36 51 39.92            | W 107 16 19.45            |
|                    | 2100.00    | 0.00        | 271.84           | 2100.00     | 0.00         | 0.00       | 0.00       | 0.00            | 2134263.00         | 200998.45         | N 36 51 39.92            | W 107 16 19.45            |
|                    | 2200.00    | 0.00        | 271.84           | 2200.00     | 0.00         | 0.00       | 0.00       | 0.00            | 2134263.00         | 200998.45         | N 36 51 39.92            | W 107 16 19.45            |
|                    | 2300.00    | 0.00        | 271.84           | 2300.00     | 0.00         | 0.00       | 0.00       | 0.00            | 2134263.00         | 200998.45         | N 36 51 39.92            | W 107 16 19.45            |
|                    | 2400.00    | 0.00        | 271.84           | 2400.00     | 0.00         | 0.00       | 0.00       | 0.00            | 2134263.00         | 200998.45         | N 36 51 39.92            | W 107 16 19.45            |
|                    | 2500.00    | 0.00        | 271.84           | 2500.00     | 0.00         | 0.00       | 0.00       | 0.00            | 2134263.00         | 200998.45         | N 36 51 39.92            | W 107 16 19.45            |
|                    | 2600.00    | 0.00        | 271.84           | 2600.00     | 0.00         | 0.00       | 0.00       | 0.00            | 2134263.00         | 200998.45         | N 36 51 39.92            | W 107 16 19.45            |
|                    | 2700.00    | 0.00        | 271.84           | 2700.00     | 0.00         | 0.00       | 0.00       | 0.00            | 2134263.00         | 200998.45         | N 36 51 39.92            | W 107 16 19.45            |
|                    | 2800.00    | 0.00        | 271.84           | 2800.00     | 0.00         | 0.00       | 0.00       | 0.00            | 2134263.00         | 200998.45         | N 36 51 39.92            | W 107 16 19.45            |
| Ojo Alamo          | 2802.00    | 0.00        | 271.84           | 2802.00     | 0.00         | 0.00       | 0.00       | 0.00            | 2134263.00         | 200998.45         | N 36 51 39.92            | W 107 16 19.45            |
|                    | 2900.00    | 0.00        | 271.84           | 2900.00     | 0.00         | 0.00       | 0.00       | 0.00            | 2134263.00         | 200998.45         | N 36 51 39.92            | W 107 16 19.45            |

| Comments          | MD<br>(ft) | Incl<br>(°) | Azim True<br>(°) | TVD<br>(ft) | VSEC<br>(ft) | NS<br>(ft) | EW<br>(ft) | DLS<br>(°/100ft) | Northing<br>(ftUS) | Easting<br>(ftUS) | Latitude<br>(N/S ° ' ") | Longitude<br>(E/W ° ' ") |
|-------------------|------------|-------------|------------------|-------------|--------------|------------|------------|------------------|--------------------|-------------------|-------------------------|--------------------------|
|                   | 3000.00    | 0.00        | 271.84           | 3000.00     | 0.00         | 0.00       | 0.00       | 0.00             | 2134263.00         | 200998.45         | N 36 51 39.92           | W 107 16 19.45           |
| Kirtland          | 3004.00    | 0.00        | 271.84           | 3004.00     | 0.00         | 0.00       | 0.00       | 0.00             | 2134263.00         | 200998.45         | N 36 51 39.92           | W 107 16 19.45           |
| 7"                | 3064.00    | 0.00        | 271.84           | 3064.00     | 0.00         | 0.00       | 0.00       | 0.00             | 2134263.00         | 200998.45         | N 36 51 39.92           | W 107 16 19.45           |
|                   | 3100.00    | 0.00        | 271.84           | 3100.00     | 0.00         | 0.00       | 0.00       | 0.00             | 2134263.00         | 200998.45         | N 36 51 39.92           | W 107 16 19.45           |
| KOP 18.2"/100'    | 3124.00    | 0.00        | 271.84           | 3124.00     | 0.00         | 0.00       | 0.00       | 0.00             | 2134263.00         | 200998.45         | N 36 51 39.92           | W 107 16 19.45           |
|                   | 3200.00    | 13.82       | 271.84           | 3199.26     | 9.12         | 0.29       | -9.12      | 18.19            | 2134263.39         | 200998.34         | N 36 51 39.93           | W 107 16 19.56           |
| Fruitland         | 3231.05    | 19.47       | 271.84           | 3229.98     | 18.02        | 0.58       | -18.01     | 18.19            | 2134263.77         | 200980.45         | N 36 51 39.93           | W 107 16 19.67           |
|                   | 3300.00    | 32.01       | 271.84           | 3290.98     | 47.90        | 1.54       | -47.88     | 18.19            | 2134265.05         | 200950.59         | N 36 51 39.94           | W 107 16 20.04           |
|                   | 3400.00    | 50.20       | 271.84           | 3366.02     | 113.37       | 3.65       | -113.32    | 18.19            | 2134267.86         | 200885.18         | N 36 51 39.96           | W 107 16 20.85           |
|                   | 3500.00    | 68.39       | 271.84           | 3416.86     | 199.00       | 6.40       | -198.89    | 18.19            | 2134271.53         | 200799.64         | N 36 51 39.99           | W 107 16 21.90           |
|                   | 3600.00    | 86.58       | 271.84           | 3438.44     | 296.21       | 9.53       | -296.06    | 18.19            | 2134275.70         | 200702.51         | N 36 51 40.02           | W 107 16 23.09           |
| Top Target        |            |             |                  |             |              |            |            |                  |                    |                   |                         |                          |
| Schalk 32-1B      | 3618.80    | 90.00       | 271.84           | 3439.00     | 315.00       | 10.14      | -314.84    | 18.19            | 2134276.50         | 200683.74         | N 36 51 40.02           | W 107 16 23.33           |
| Landing           |            |             |                  |             |              |            |            |                  |                    |                   |                         |                          |
|                   | 3700.00    | 90.00       | 271.84           | 3439.00     | 396.20       | 12.75      | -395.99    | 0.00             | 2134279.99         | 200602.62         | N 36 51 40.05           | W 107 16 24.32           |
|                   | 3800.00    | 90.00       | 271.84           | 3439.00     | 496.20       | 15.97      | -495.94    | 0.00             | 2134284.27         | 200502.71         | N 36 51 40.08           | W 107 16 25.55           |
|                   | 3900.00    | 90.00       | 271.84           | 3439.00     | 596.20       | 19.19      | -595.89    | 0.00             | 2134288.56         | 200402.80         | N 36 51 40.11           | W 107 16 26.78           |
|                   | 4000.00    | 90.00       | 271.84           | 3439.00     | 696.20       | 22.40      | -695.84    | 0.00             | 2134292.85         | 200302.89         | N 36 51 40.15           | W 107 16 28.01           |
|                   | 4100.00    | 90.00       | 271.84           | 3439.00     | 796.20       | 25.62      | -795.79    | 0.00             | 2134297.14         | 200202.98         | N 36 51 40.18           | W 107 16 29.24           |
|                   | 4200.00    | 90.00       | 271.84           | 3439.00     | 896.20       | 28.84      | -895.73    | 0.00             | 2134301.42         | 200103.08         | N 36 51 40.21           | W 107 16 30.47           |
|                   | 4300.00    | 90.00       | 271.84           | 3439.00     | 996.20       | 32.06      | -995.68    | 0.00             | 2134305.71         | 200003.17         | N 36 51 40.24           | W 107 16 31.70           |
|                   | 4400.00    | 90.00       | 271.84           | 3439.00     | 1096.20      | 35.28      | -1095.63   | 0.00             | 2134310.00         | 199903.26         | N 36 51 40.27           | W 107 16 32.93           |
|                   | 4500.00    | 90.00       | 271.84           | 3439.00     | 1196.20      | 38.49      | -1195.58   | 0.00             | 2134314.29         | 199803.35         | N 36 51 40.30           | W 107 16 34.16           |
|                   | 4600.00    | 90.00       | 271.84           | 3439.00     | 1296.20      | 41.71      | -1295.53   | 0.00             | 2134318.57         | 199703.44         | N 36 51 40.34           | W 107 16 35.39           |
|                   | 4700.00    | 90.00       | 271.84           | 3439.00     | 1396.20      | 44.93      | -1395.48   | 0.00             | 2134322.86         | 199603.54         | N 36 51 40.37           | W 107 16 36.62           |
|                   | 4800.00    | 90.00       | 271.84           | 3439.00     | 1496.20      | 48.15      | -1495.42   | 0.00             | 2134327.15         | 199503.63         | N 36 51 40.40           | W 107 16 37.85           |
|                   | 4900.00    | 90.00       | 271.84           | 3439.00     | 1596.20      | 51.37      | -1595.37   | 0.00             | 2134331.44         | 199403.72         | N 36 51 40.43           | W 107 16 39.08           |
|                   | 5000.00    | 90.00       | 271.84           | 3439.00     | 1696.20      | 54.58      | -1695.32   | 0.00             | 2134335.72         | 199303.81         | N 36 51 40.46           | W 107 16 40.31           |
|                   | 5100.00    | 90.00       | 271.84           | 3439.00     | 1796.20      | 57.80      | -1795.27   | 0.00             | 2134340.01         | 199203.90         | N 36 51 40.49           | W 107 16 41.54           |
|                   | 5200.00    | 90.00       | 271.84           | 3439.00     | 1896.20      | 61.02      | -1895.22   | 0.00             | 2134344.30         | 199103.99         | N 36 51 40.53           | W 107 16 42.77           |
|                   | 5300.00    | 90.00       | 271.84           | 3439.00     | 1996.20      | 64.24      | -1995.17   | 0.00             | 2134348.59         | 199004.09         | N 36 51 40.56           | W 107 16 44.00           |
|                   | 5400.00    | 90.00       | 271.84           | 3439.00     | 2096.20      | 67.46      | -2095.11   | 0.00             | 2134352.87         | 198904.18         | N 36 51 40.59           | W 107 16 45.23           |
|                   | 5500.00    | 90.00       | 271.84           | 3439.00     | 2196.20      | 70.68      | -2195.06   | 0.00             | 2134357.16         | 198804.27         | N 36 51 40.62           | W 107 16 46.46           |
|                   | 5600.00    | 90.00       | 271.84           | 3439.00     | 2296.20      | 73.89      | -2295.01   | 0.00             | 2134361.45         | 198704.36         | N 36 51 40.65           | W 107 16 47.69           |
|                   | 5700.00    | 90.00       | 271.84           | 3439.00     | 2396.20      | 77.11      | -2394.96   | 0.00             | 2134365.74         | 198604.45         | N 36 51 40.69           | W 107 16 48.92           |
|                   | 5800.00    | 90.00       | 271.84           | 3439.00     | 2496.20      | 80.33      | -2494.91   | 0.00             | 2134370.02         | 198504.55         | N 36 51 40.72           | W 107 16 50.15           |
|                   | 5900.00    | 90.00       | 271.84           | 3439.00     | 2596.20      | 83.55      | -2594.85   | 0.00             | 2134374.31         | 198404.64         | N 36 51 40.75           | W 107 16 51.38           |
|                   | 6000.00    | 90.00       | 271.84           | 3439.00     | 2696.20      | 86.77      | -2694.80   | 0.00             | 2134378.60         | 198304.73         | N 36 51 40.78           | W 107 16 52.61           |
|                   | 6100.00    | 90.00       | 271.84           | 3439.00     | 2796.20      | 89.98      | -2794.75   | 0.00             | 2134382.89         | 198204.82         | N 36 51 40.81           | W 107 16 53.84           |
|                   | 6200.00    | 90.00       | 271.84           | 3439.00     | 2896.20      | 93.20      | -2894.70   | 0.00             | 2134387.17         | 198104.91         | N 36 51 40.84           | W 107 16 55.07           |
|                   | 6300.00    | 90.00       | 271.84           | 3439.00     | 2996.20      | 96.42      | -2994.65   | 0.00             | 2134391.46         | 198005.01         | N 36 51 40.88           | W 107 16 56.30           |
|                   | 6400.00    | 90.00       | 271.84           | 3439.00     | 3096.20      | 99.64      | -3094.60   | 0.00             | 2134395.75         | 197905.10         | N 36 51 40.91           | W 107 16 57.53           |
|                   | 6500.00    | 90.00       | 271.84           | 3439.00     | 3196.20      | 102.86     | -3194.54   | 0.00             | 2134400.04         | 197805.19         | N 36 51 40.94           | W 107 16 58.76           |
|                   | 6600.00    | 90.00       | 271.84           | 3439.00     | 3296.20      | 106.07     | -3294.49   | 0.00             | 2134404.32         | 197705.28         | N 36 51 40.97           | W 107 16 59.99           |
|                   | 6700.00    | 90.00       | 271.84           | 3439.00     | 3396.20      | 109.29     | -3394.44   | 0.00             | 2134408.61         | 197605.37         | N 36 51 41.00           | W 107 17 1.22            |
|                   | 6800.00    | 90.00       | 271.84           | 3439.00     | 3496.20      | 112.51     | -3494.39   | 0.00             | 2134412.90         | 197505.47         | N 36 51 41.03           | W 107 17 2.45            |
| Schalk 32-1B PBHL | 6874.71    | 90.00       | 271.84           | 3439.00     | 3570.91      | 114.91     | -3569.06   | 0.00             | 2134416.10         | 197430.83         | N 36 51 41.06           | W 107 17 3.37            |

Survey Type: Non-Def Plan

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

| Description | MD From<br>(ft) | MD To<br>(ft) | EOU Freq<br>(ft) | Hole Size Casing Diameter<br>(in) | Survey Tool Type | Borehole / Survey |
|-------------|-----------------|---------------|------------------|-----------------------------------|------------------|-------------------|
|-------------|-----------------|---------------|------------------|-----------------------------------|------------------|-------------------|



| Comments | MD<br>(ft) | Incl<br>(°) | Azim True<br>(°) | TVD<br>(ft) | VSEC<br>(ft) | NS<br>(ft) | EW<br>(ft) | DLS<br>(°/100ft)       | Northing<br>(ftUS) | Easting<br>(ftUS) | Latitude<br>(N/S ° ' ")                                  | Longitude<br>(E/W ° ' ") |
|----------|------------|-------------|------------------|-------------|--------------|------------|------------|------------------------|--------------------|-------------------|----------------------------------------------------------|--------------------------|
|          | 0.000      |             | 14.000           |             | 1/100.000    | 8.750      | 7.000      | SLB_MWD-STD-Depth Only |                    |                   | Original Borehole / WPX Schalk<br>32-1B Rev0 JBE 06Mar13 |                          |
|          | 14.000     |             | 3064.000         |             | 1/100.000    | 8.750      | 7.000      | SLB_MWD-STD            |                    |                   | Original Borehole / WPX Schalk<br>32-1B Rev0 JBE 06Mar13 |                          |
|          | 3064.000   |             | 6874.708         |             | 1/100.000    | 6.250      | 4.500      | SLB_MWD-STD            |                    |                   | Original Borehole / WPX Schalk<br>32-1B Rev0 JBE 06Mar13 |                          |