

State of New Mexico  
Energy, Minerals and Natural Resources Department

Susana Martinez  
Governor

Ken McQueen  
Cabinet Secretary

Matthias Sayer  
Deputy Cabinet Secretary

David R. Catanach, Division Director  
Oil Conservation Division



New Mexico Oil Conservation Division approval and conditions listed below are made in accordance with OCD Rule 19.15.7.11 and are in addition to the actions approved by BLM on the following 3160-3 APD form.

Operator Signature Date: 12/20/2016

Well information;

Operator WPA, Well Name and Number Kimbeo Wash Unit 772H

API# 30-45-35825, Section 28, Township 23 N/S, Range 9 E/W

Conditions of Approval: (See the below checked and handwritten conditions)

- Notify Aztec OCD 24hrs prior to casing & cement.
- Hold C-104 for directional survey & "As Drilled" Plat
  - Hold C-104 for NSL, NSP, DHC
  - Spacing rule violation. Operator must follow up with change of status notification on other well to be shut in or abandoned
  - Regarding the use of a pit, closed loop system or below grade tank, the operator must comply with the following as applicable:
    - A pit requires a complete C-144 be submitted and approved prior to the construction or use of the pit, pursuant to 19.15.17.8.A
    - A closed loop system requires notification prior to use, pursuant to 19.15.17.9.A
    - A below grade tank requires a registration be filed prior to the construction or use of the below grade tank, pursuant to 19.15.17.8.C
  - Once the well is spud, to prevent ground water contamination through whole or partial conduits from the surface, the operator shall drill without interruption through the fresh water zone or zones and shall immediately set in cement the water protection string
  - Submit Gas Capture Plan form prior to spudding or initiating recompletion operations
  - Regarding Hydraulic Fracturing, review EPA Underground Injection Control Guidance 84
  - Oil base muds are not to be used until fresh water zones are cased and cemented providing isolation from the oil or diesel. This includes synthetic oils. Oil based mud, drilling fluids and solids must be contained in a steel closed loop system.
  - Well-bore communication is regulated under 19.15.29 NMAC. This requires well-bore Communication to be reported in accordance with 19.15.29.8.

Chack Klein  
NMOCD Approved by Signature

6-15-2017  
Date

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

FORM APPROVED  
OMB No. 1004-0137  
Expires October 31, 2014

5. Lease Serial No.  
NOG14041965

6. If Indian, Allottee or Tribe Name  
EASTERN NAVAJO

7. If Unit or CA Agreement, Name and No.  
/1/KIMBETO WASH UNIT / NMNM13525

1a. Type of work:  DRILL  REENTER

1b. Type of Well:  Oil Well  Gas Well  Other  Single Zone  Multiple Zone

8. Lease Name and Well No.  
KWU 772H

9. API Well No.  
30-045-35825

2. Name of Operator  
WPX ENERGY LLC

3a. Address  
720 S Main Aztec NM 87410

3b. Phone No. (include area code)  
(505)333-1822

10. Field and Pool, or Exploratory  
KWU / BASIN MANCOS

4. Location of Well (Report location clearly and in accordance with any State requirements.)\*  
At surface <sup>C</sup> NENW / 181 FNL / 2397 FWL / LAT 36.204663 / LONG -107.794937  
At proposed prod. zone <sup>D</sup> NWNE / 444 FNL / 2022 FEL / LAT 36.218351 / LONG -107.810093

11. Sec., T. R. M. or Blk. and Survey or Area  
SEC 28 / T23N / R9W / NMP

14. Distance in miles and direction from nearest town or post office\*  
37.8 miles

12. County or Parish  
SAN JUAN

13. State  
NM

15. Distance from proposed\* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)  
20 feet

16. No. of acres in lease  
160

17. Spacing Unit dedicated to this well  
960

OIL CONS. DIV DIST. 3

18. Distance from proposed location\* to nearest well, drilling, completed, 181 feet applied for, on this lease, ft.

19. Proposed Depth  
4464 feet / 11092 feet

20. BLM/BIA Bond No. on file  
FED: UTB000178 / IND: B001576

JUN 05 2017

21. Elevations (Show whether DF, KDB, RT, GL, etc.)  
6534 feet

22. Approximate date work will start\*  
12/01/2016

23. Estimated duration  
30 days

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, must be attached to this form:

- Well plat certified by a registered surveyor.
- A Drilling Plan.
- A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office).
- Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
- Operator certification
- Such other site specific information and/or plans as may be required by the BLM.

25. Signature (Electronic Submission) Name (Printed/Typed) Date  
Lacey Granillo / Ph: (505)333-1816 12/20/2016

Title  
Permitting Tech III

Approved by (Signature) Name (Printed/Typed) Date  
AFM FARMINGTON 6/1/17

Title  
AFM FARMINGTON

Application approval 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.  
Conditions of approval, if any, are attached.

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.

(Continued on page 2)

\*(Instructions on page 2)

This action is subject to technical and procedural review pursuant to 43 CFR 3165.3 and appeal pursuant to 43 CFR 3165.4

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

DRILLING OPERATIONS AUTHORIZED ARE SUBJECT TO COMPLIANCE WITH ATTACHED "GENERAL REQUIREMENTS"



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

OIL CONS. DIV DIST. 3

WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number 30-045-35825		*Pool Code 97232		*Pool Name BASIN MANCOS		JUN 13 2017	
*Property Code 316144		*Property Name KIMBETO WASH UNIT				*Well Number 772H	
*OGRID No. 120782		*Operator Name WPX ENERGY PRODUCTION, LLC				*Elevation 6534'	

<sup>10</sup> Surface Location

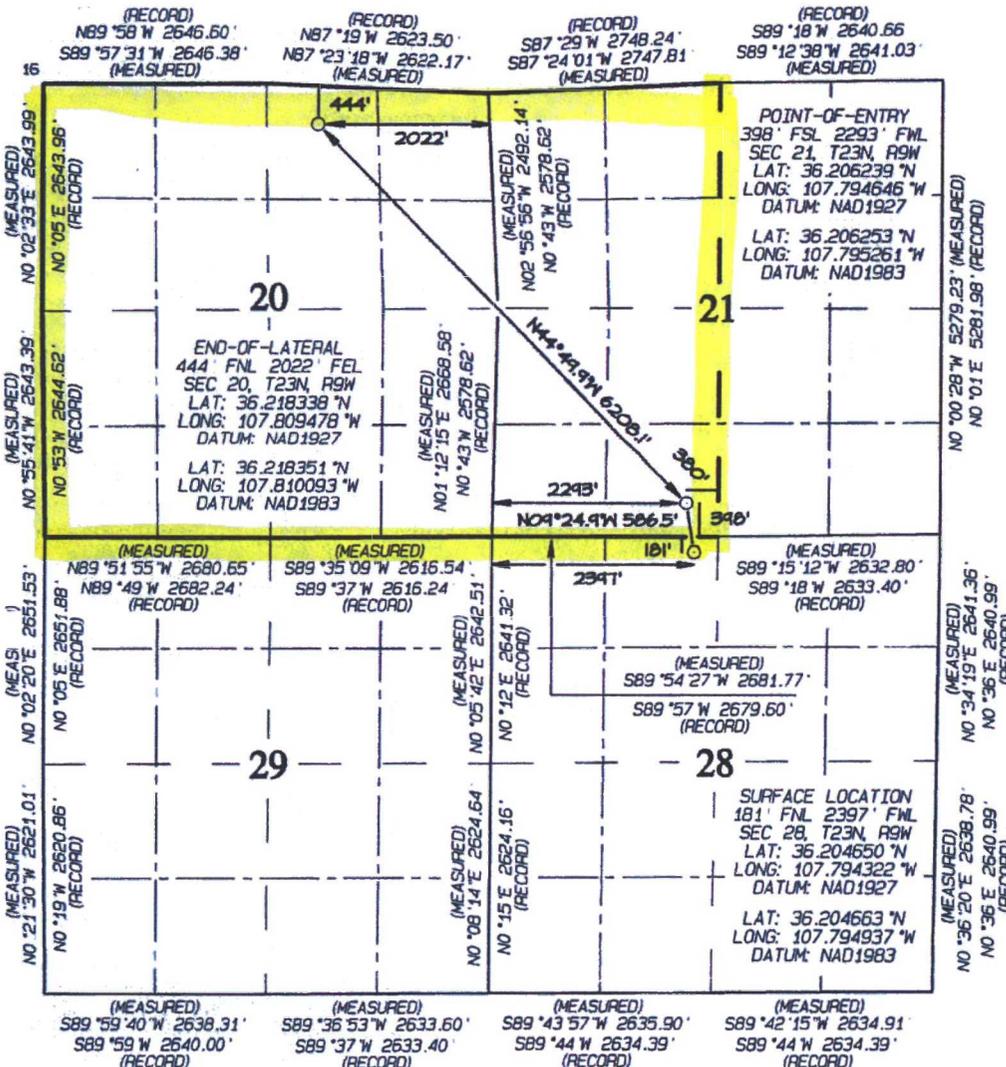
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
C	28	23N	9W		181	NORTH	2397	WEST	SAN JUAN

<sup>11</sup> 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
B	20	23N	9W		444	NORTH	2022	EAST	SAN JUAN

<sup>12</sup> Dedicated Acres 960.00	Entire Section 20 W/2 - Section 21	<sup>13</sup> Joint or Infill	<sup>14</sup> Consolidation Code	<sup>15</sup> Order No R-14084
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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



**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: *Lacey Granillo*  
Date: 6/12/17

Printed Name: Lacey Granillo  
E-mail Address: lacey.granillo@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 Revised: JUNE 12, 2017  
Survey Date: OCTOBER 2, 2015

Signature and Seal of Professional Surveyor

**JASON C. EDWARDS**  
NEW MEXICO  
REGISTERED PROFESSIONAL SURVEYOR  
15269

**JASON C. EDWARDS**  
Certificate Number 15269



### III. MATERIALS

#### A. CASING PROGRAM:

CASING TYPE	OH SIZE (IN)	DEPTH (MD)	CSG SIZE	WEIGHT	GRADE	CONN
SURFACE	12.25"	320.00'	9.625"	36 LBS	J-55 or equiv	STC
INTERMEDIATE	8.75"	4,884.10'	7"	23 LBS	J-55 or equiv	LTC
PRODUCTION	6.125"	4734.1' - 11,092.14'	4.5"	11.6 LBS	P-110 or equiv	LTC
TIE BACK	6.125"	Surf. - 4734.1'	4.5"	11.6 LBS	P-110 or equiv	LTC

#### B. FLOAT EQUIPMENT:

- SURFACE CASING:** 9-5/8" notched regular pattern guide shoe. Run (1) standard centralizer on each of the bottom (4) joints of Surface Casing.
- INTERMEDIATE CASING:** 7" cement nose guide shoe with a self-fill insert float. Place float collar one joint above the shoe. Install (1) centralizer on each of the bottom (3) joints and one standard centralizer every (3) joints to 2,500 ft. Run (1) centralizer at 2,500 ft., 2,300ft., 2,000ft., 1,500 ft., and 1,000 ft. **A DV tool will be placed 100' above the top of the Chacra formation. If cement is circulated back to surface on the first stage, a cancelation device will be dropped to shift the dv tool closed and the 2nd stage cement job will be aborted at that time.**
- PRODUCTION LINER:** Run 4-1/2" Liner with cement nose guide Float Shoe + 2jts. of 4-1/2" casing + Landing Collar + 4-1/2" pup joint + 1 RSI (Sliding Sleeve) positioned inside the 330ft Hard line. Centralizer program will be determined by Wellbore condition and when Lateral is evaluated by Geoscientists and Reservoir Engineers. Set seals on Liner Hanger. Test TOL to 1500 psi for 15 minutes.

#### C. CEMENTING:

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

- Surface** 5 bbl Fresh Water Spacer, 100 sx (160 cu.ft.) of 14.5 ppg Type I-II (Neat G) + 20% Fly Ash cement w/ 7.41 gal/sack mix water ratio @ 1.61 cu ft/sx yield. Calculated @ volume + 50% excess. WOC 12 hours. Test csg to 600psi. Total Volume: (160 cu-ft/100 sx/ Bbls).TOC at Surface.
- Intermediate** STAGE 1: Spacer #1: 20 bbl (112 cuft) Chemwash. Lead Cement: 88 bbls, 251 sks, (494 cuft), 12.3 ppg @ 1.97 cuft/sk yield. Tail Cement: 86 bbls, 372 sks, (484 cuft), 13.5 ppg @ 1.3 cuft/sk yield. Displacement: Displace w/ +/- 192 bbl Drilling mud or water. Total Cement: 174 bbls, 623 sks, (978 cuft)  
STAGE 2: Spacer #1: 20 bbl (112 cuft) Chemwash. Lead Cement: 18 bbls, 52 sks, (102 cuft), 12.3 ppg @ 1.97 cuft/sk yield. Tail Cement: 16 bbls, 78 sks, (90 cuft), 13.5 ppg @ 1.3 cuft/sk yield. Displacement: Displace w/ +/- 42 bbl Drilling mud or water. Total Cement: 34 bbls, 131 sks, (192 cuft)
- PROD. LINER:** Spacer #1:10 bbl (56.cu-ft) Water Spacer. Spacer #2: 40 bbl 9.5 ppg (224.6 cu-ft) Tuned Spacer III. Spacer #3: 10 bbl Water Spacer. Lead Cement: Extencem™ System. Yield 1.36 cuft/sk 13.3 ppg (623 sx /847 cuft /151 bbls). Tail Spacer: 20 BBL of MMCR. Displacement: Displace w/ +/- 140 bbl Fr Water. Total Cement (623 sx /847bbls).

I.  
**COMPLETION**

A. **CBL**

Run CCL for perforating

A. **PRESSURE TEST**

1. Pressure test 4-1/2" casing to 4500 psi max, hold at 1500 psi for 30 minutes. Increase pressure to Open RSI sleeves.

B. **STIMULATION**

1. Stimulate with approximately 2,805,000# 20/40 mesh sand and 340,000# 16/30 mesh sand in 619,113 gallons water with 42,696 mscf N2 for 17 stages.
2. Isolate stages with flow through frac plug.
3. Drill out frac plugs and flowback lateral.

C. **RUNNING TUBING**

1. Production Tubing: Run 2-7/8", 6.5#, J-55, EUE tubing with a SN on top of bottom joint. Land tubing near Top of Liner.

- Although this horizontal well will be drilled past the applicable setbacks, an unorthodox location application is not required because the completed interval in this well, as defined by 19.15.16.7 B(1) NMAC, will be entirely within the applicable setbacks. This approach complies with all applicable rules, including 19.15.16.14 A(3) NMAC, 19.15.16.14 B(2) NMAC, 19.15.16.15 B(2) NMAC, and 19.15.16.15 B(4) NMAC.

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**NOTE:**

**Proposed Operations:**

A 4-1/2" 11.6# P-110 Liner will be run to TD and landed +/- 150 ft. into the 7" 23# J-55 Intermediate casing with a Liner Hanger and pack-off assembly then cemented to top of liner hanger.

After cementing and TOL clean up operations are complete, the TOL will be tested to 1500 psi (per BLM).

# **WPX Energy**

**T23N R9W**

**2309-28C WLU-KWU**

**Kimбето Wash UT #774H - Slot A1**

**Wellbore #1**

**Plan: Design #2 27Sept16 sam**

## **Standard Planning Report**

**27 September, 2016**

# WPX Planning Report

**Database:** COMPASS  
**Company:** WPX Energy  
**Project:** T23N R9W  
**Site:** 2309-28C WLU-KWU  
**Well:** Kimbeto Wash UT #774H  
**Wellbore:** Wellbore #1  
**Design:** Design #2 27Sept16 sam

**Local Co-ordinate Reference:** Well Kimbeto Wash UT #774H (A1) - Slot A1  
**TVD Reference:** GL @ 6534.00usft (Original Well Elev)  
**MD Reference:** GL @ 6534.00usft (Original Well Elev)  
**North Reference:** True  
**Survey Calculation Method:** Minimum Curvature

<b>Project</b>	T23N R9W		
<b>Map System:</b>	US State Plane 1927 (Exact solution)	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	NAD 1927 (NADCON CONUS)		
<b>Map Zone:</b>	New Mexico West 3003		

<b>Site</b>	2309-28C WLU-KWU				
<b>Site Position:</b>		<b>Northing:</b>	1,893,736.25 usft	<b>Latitude:</b>	36.204650
<b>From:</b>	Map	<b>Easting:</b>	511,489.39 usft	<b>Longitude:</b>	-107.794390
<b>Position Uncertainty:</b>	0.00 usft	<b>Slot Radius:</b>	13.200 in	<b>Grid Convergence:</b>	0.02 °

<b>Well</b>	Kimbeto Wash UT #774H - Slot A1					
<b>Well Position</b>	<b>+N/-S</b>	0.00 usft	<b>Northing:</b>	1,893,736.23 usft	<b>Latitude:</b>	36.204650
	<b>+E/-W</b>	-39.83 usft	<b>Easting:</b>	511,449.56 usft	<b>Longitude:</b>	-107.794525
<b>Position Uncertainty</b>		0.00 usft	<b>Wellhead Elevation:</b>	0.00 usft	<b>Ground Level:</b>	6,534.00 usft

<b>Wellbore</b>	Wellbore #1				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF2015	12/17/2015	9.36	62.89	49,885

<b>Design</b>	Design #2 27Sept16 sam			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PLAN	<b>Tie On Depth:</b>	0.00
<b>Vertical Section:</b>	<b>Depth From (TVD) (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Direction (bearing)</b>
	0.00	0.00	0.00	309.31

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (bearing)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,711.81	24.24	172.08	1,676.00	-250.09	34.78	2.00	2.00	0.00	172.08	
3,769.11	24.24	172.08	3,551.97	-1,086.57	151.11	0.00	0.00	0.00	0.00	
4,658.94	60.00	315.03	4,307.29	-976.29	-146.07	9.00	4.02	16.06	148.01	Start 60 Tan #774H
4,718.94	60.00	315.03	4,337.29	-939.53	-182.79	0.00	0.00	0.00	0.00	End 60 Tan #774H
4,882.12	74.69	315.03	4,399.98	-833.27	-288.93	9.00	9.00	0.00	0.00	
5,051.54	89.93	315.03	4,422.58	-714.84	-407.23	9.00	9.00	0.00	0.00	POE #774H
13,185.55	89.90	315.03	4,434.00	5,039.96	-6,155.64	0.00	0.00	0.00	-176.10	BHL #774H

# WPX Planning Report

<b>Database:</b>	COMPASS	<b>Local Co-ordinate Reference:</b>	Well Kimbeto Wash UT #774H (A1) - Slot A1
<b>Company:</b>	WPX Energy	<b>TVD Reference:</b>	GL @ 6534.00usft (Original Well Elev)
<b>Project:</b>	T23N R9W	<b>MD Reference:</b>	GL @ 6534.00usft (Original Well Elev)
<b>Site:</b>	2309-28C WLU-KWU	<b>North Reference:</b>	True
<b>Well:</b>	Kimbeto Wash UT #774H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #2 27Sept16 sam		

**Planned Survey**

Measured Depth (usft)	Inclination (°)	Azimuth (bearing)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
320.00	0.00	0.00	320.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>9 5/8"</b>									
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Start Build 2.00</b>									
1,000.00	10.00	172.08	997.47	-43.11	5.99	-31.95	2.00	2.00	0.00
1,500.00	20.00	172.08	1,479.82	-171.12	23.80	-126.82	2.00	2.00	0.00
1,711.81	24.24	172.08	1,676.00	-250.09	34.78	-185.35	2.00	2.00	0.00
<b>Hold 24.24 Inclination</b>									
2,000.00	24.24	172.08	1,938.78	-367.27	51.08	-272.18	0.00	0.00	0.00
2,500.00	24.24	172.08	2,394.71	-570.56	79.35	-422.85	0.00	0.00	0.00
3,000.00	24.24	172.08	2,850.64	-773.85	107.62	-573.51	0.00	0.00	0.00
3,500.00	24.24	172.08	3,306.57	-977.15	135.89	-724.17	0.00	0.00	0.00
3,769.11	24.24	172.08	3,551.97	-1,086.57	151.11	-805.26	0.00	0.00	0.00
<b>Start Build DLS 9.00 TFO 148.01</b>									
4,000.00	12.56	231.88	3,772.34	-1,149.69	137.74	-834.91	9.00	-5.06	25.90
4,500.00	46.24	310.10	4,212.10	-1,062.40	-53.05	-631.99	9.00	6.74	15.65
4,658.94	60.00	315.03	4,307.29	-976.29	-146.07	-505.46	9.00	8.66	3.10
<b>Hold 60.00 Inclination</b>									
4,718.94	60.00	315.03	4,337.29	-939.53	-182.79	-453.76	0.00	0.00	0.00
<b>Start Build DLS 9.00 TFO 0.00</b>									
4,882.12	74.69	315.03	4,399.98	-833.27	-288.93	-304.33	9.00	9.00	0.00
<b>Start DLS 9.00 TFO 0.00</b>									
5,000.00	85.30	315.03	4,420.44	-751.26	-370.85	-188.99	9.00	9.00	0.00
5,051.00	89.89	315.03	4,422.58	-715.22	-406.85	-138.30	9.00	9.00	0.00
<b>7"</b>									
5,051.54	89.93	315.03	4,422.58	-714.84	-407.23	-137.76	9.00	9.00	0.00
<b>POE at 89.93 Inc 315.03 Deg</b>									
5,500.00	89.93	315.03	4,423.10	-397.55	-724.16	308.46	0.00	0.00	0.00
6,000.00	89.93	315.03	4,423.69	-43.79	-1,077.51	805.97	0.00	0.00	0.00
6,500.00	89.93	315.03	4,424.30	309.96	-1,430.86	1,303.48	0.00	0.00	0.00
7,000.00	89.93	315.03	4,424.92	663.71	-1,784.21	1,800.98	0.00	0.00	0.00
7,500.00	89.93	315.03	4,425.56	1,017.47	-2,137.57	2,298.49	0.00	0.00	0.00
8,000.00	89.92	315.03	4,426.22	1,371.22	-2,490.92	2,796.00	0.00	0.00	0.00
8,500.00	89.92	315.03	4,426.90	1,724.97	-2,844.28	3,293.50	0.00	0.00	0.00
9,000.00	89.92	315.03	4,427.59	2,078.72	-3,197.63	3,791.01	0.00	0.00	0.00
9,500.00	89.92	315.03	4,428.29	2,432.47	-3,550.99	4,288.52	0.00	0.00	0.00
10,000.00	89.92	315.03	4,429.01	2,786.22	-3,904.35	4,786.03	0.00	0.00	0.00
10,500.00	89.91	315.03	4,429.75	3,139.96	-4,257.71	5,283.53	0.00	0.00	0.00
11,000.00	89.91	315.03	4,430.51	3,493.71	-4,611.07	5,781.04	0.00	0.00	0.00
11,500.00	89.91	315.03	4,431.28	3,847.46	-4,964.43	6,278.55	0.00	0.00	0.00
12,000.00	89.91	315.03	4,432.07	4,201.20	-5,317.79	6,776.06	0.00	0.00	0.00
12,500.00	89.91	315.03	4,432.87	4,554.95	-5,671.15	7,273.57	0.00	0.00	0.00
13,000.00	89.91	315.03	4,433.69	4,908.69	-6,024.51	7,771.07	0.00	0.00	0.00
13,185.55	89.90	315.03	4,434.00	5,039.96	-6,155.64	7,955.70	0.00	0.00	0.00
<b>13185.55 Measured depth</b>									

# WPX Planning Report

**Database:** COMPASS  
**Company:** WPX Energy  
**Project:** T23N R9W  
**Site:** 2309-28C WLU-KWU  
**Well:** Kimbeto Wash UT #774H  
**Wellbore:** Wellbore #1  
**Design:** Design #2 27Sept16 sam

**Local Co-ordinate Reference:** Well Kimbeto Wash UT #774H (A1) - Slot A1  
**TVD Reference:** GL @ 6534.00usft (Original Well Elev)  
**MD Reference:** GL @ 6534.00usft (Original Well Elev)  
**North Reference:** True  
**Survey Calculation Method:** Minimum Curvature

### Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (bearing)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
Start 60 Tan #774H - plan hits target center - Point	0.00	0.00	4,307.29	-976.29	-146.07	1,892,759.88	511,303.88	36.201968	-107.795020
End 60 Tan #774H - plan hits target center - Point	0.00	0.00	4,337.29	-939.53	-182.79	1,892,796.63	511,267.15	36.202069	-107.795145
POE #774H - plan hits target center - Point	0.00	0.00	4,422.58	-714.84	-407.23	1,893,021.23	511,042.62	36.202686	-107.795906
BHL #774H - plan hits target center - Point	0.00	0.00	4,434.00	5,039.96	-6,155.64	1,898,773.73	505,291.91	36.218494	-107.815394

### Casing Points

Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (in)	Hole Diameter (in)
320.00	320.00	9 5/8"	9.625	12.250
5,051.00	4,422.58	7"	7.000	8.750

### Plan Annotations

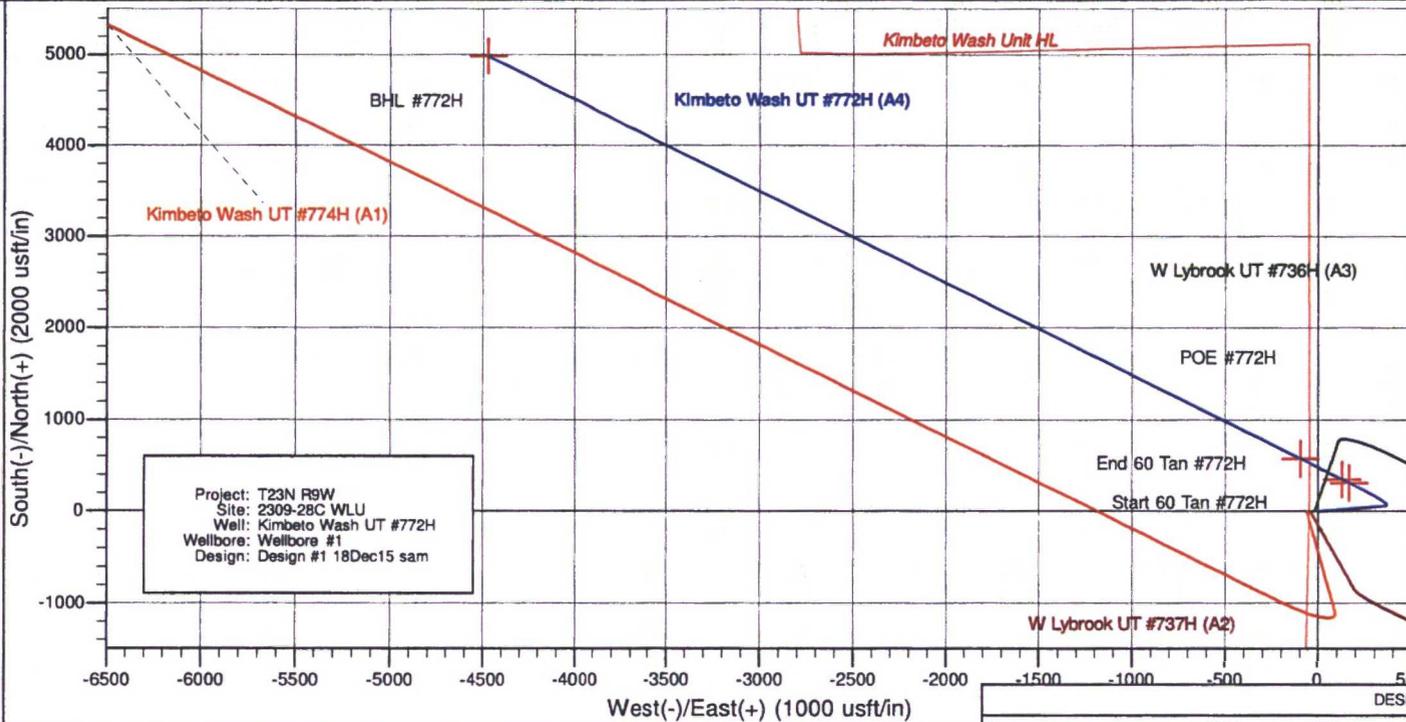
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
500.00	500.00	0.00	0.00	Start Build 2.00
1,711.81	1,676.00	-250.09	34.78	Hold 24.24 Inclination
3,769.11	3,551.97	-1,086.57	151.11	Start Build DLS 9.00 TFO 148.01
4,658.94	4,307.29	-976.29	-146.07	Hold 60.00 Inclination
4,718.94	4,337.29	-939.53	-182.79	Start Build DLS 9.00 TFO 0.00
4,882.12	4,399.98	-833.27	-288.93	Start DLS 9.00 TFO 0.00
5,051.54	4,422.58	-714.84	-407.23	POE at 89.93 Inc 315.03 Deg
13,185.55	4,434.00	5,039.96	-6,155.64	13185.55 Measured depth



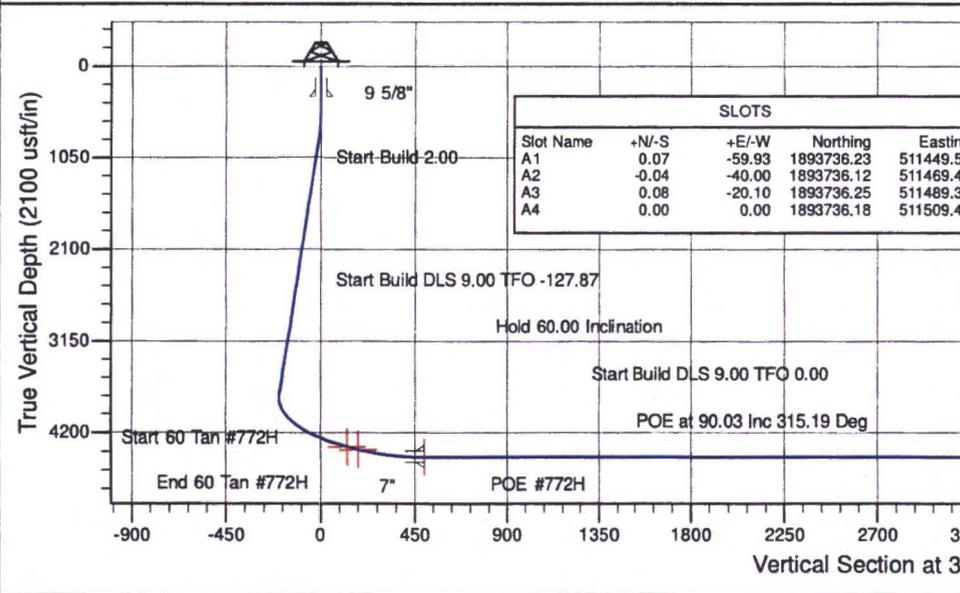
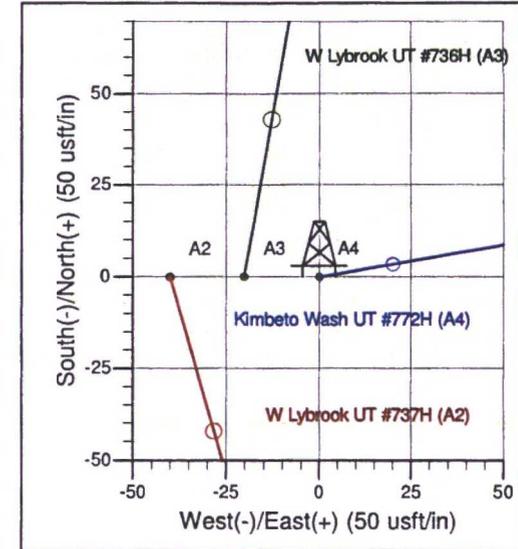
Well Name: Kimbeto Wash UT #772H  
 Surface Location: 2309-28C WLU  
 NAD 1927 (NADCON CONUS) , US State Plane 1927 (Exact solution) New Mexico West 3003  
 Ground Elevation: 6534.00

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.00	0.00	1893736.18	511509.49	36.204650	-107.794322	A4

KB @ 6559.00usft (Aztec 1000)



Project: T23N R9W  
 Site: 2309-28C WLU  
 Well: Kimbeto Wash UT #772H  
 Wellbore: Wellbore #1  
 Design: Design #1 18Dec15 sam



SLOTS				
Slot Name	+N/-S	+E/-W	Northing	Easting
A1	0.07	-59.93	1893736.23	511449.56
A2	-0.04	-40.00	1893736.12	511469.49
A3	0.08	-20.10	1893736.25	511489.39
A4	0.00	0.00	1893736.18	511509.49

DESIGN TARGET DETAILS									
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape	
Start 60 Tan #772H	4351.71	315.76	165.44	1894052.01	511674.80	36.205517	-107.793761	Point	
End 60 Tan #772H	4381.71	352.62	128.82	1894088.85	511638.17	36.205618	-107.793885	Point	
POE #772H	4467.00	578.67	-95.72	1894314.81	511413.54	36.206239	-107.794646	Point	
BHL #772H	4464.00	4983.10	-4470.74	1898717.48	507036.75	36.218338	-107.809478	Point	
									- plan hits target center

ANNOTATIONS									
TVD	MD	Inc	Azi	+N/-S	+E/-W	Vsect	Departure	Annotation	
525.00	525.00	0.00	0.00	0.00	0.00	0.00	0.00	Start Build 2.00	
866.25	867.06	6.84	80.14	3.49	20.10	-10.82	20.40	Hold 6.84 Inclination	
3757.09	3778.63	6.84	80.14	62.91	361.79	-194.78	367.22	Start Build DLS 9.00 TFO -127.87	
4351.71	4490.46	60.00	315.19	315.76	165.44	124.55	698.42	Hold 60.00 Inclination	
4381.71	4550.46	60.00	315.19	352.62	128.82	176.44	750.38	Start Build DLS 9.00 TFO 0.00	
4444.45	4713.85	74.70	315.19	459.31	22.85	326.62	900.76	Start DLS 9.00 TFO 0.00	
4467.00	4884.10	90.03	315.19	578.67	-95.72	494.64	1068.99	POE at 90.03 Inc 315.19 Deg	
4464.00	11092.14	90.03	315.19	4983.10	-4470.74	6694.68	7277.04	TD at 11067.14	

roads, soils, or streams. Surfacing material, such as sandstone, would be used if economically viable and would be obtained from a permitted location.

The Natural Resources Conservation Service (NRCS) has mapped the soils in the proposed KWU 772H/774H and W Lybrook Unit 736H/737H Project area. Complete soil information is available in the NRCS's *Soil Survey of San Juan County, New Mexico, Eastern Part* (USDA/NRCS 2015). The soil map units within the proposed project area footprint are described in the sections below.

A. Blancot – Notal association, gently sloping

Within the project area, this soil map unit is found throughout the entirety of the project with exception to the southeastern most corner of the construction buffer zone. As such, excavated soils during construction of the well pad, access roads, and well connect pipelines would consist of native borrow and subsoils from the Blancot –Notal association, gently sloping soil map unit. A brief description of this soil can be found below.

The Blancot-Notal soil association is composed of 55 percent Blancot and similar soils and 25 percent Notal and similar soils. This soil map unit is considered a well-drained soil, with the depth to water table and depth to restrictive layer being more than 80 inches. This soil association has a moderate to high potential for water erosion and low to moderate potential for wind erosion. The Blancot-Notal association is typically found ranging in elevation from 5,600 to 6,400 feet in elevation, along fan remnant and stream terrace landforms (0- to 5-percent slopes) and within loamy and salt flat ecological sites (USDA/NRCS 2015).

B. Badland

Within the project area, this soil map unit is found at the southeastern most corner of the construction buffer zone. This particular corner of the well pad will require a fill of approximately 6 feet. The construction buffer zone was expanded to 100 feet along the south and east edges of the well pad in order to accommodate the necessary room for a silt trap and topsoil storage within these badland soils. As a result, the 50-foot construction zone along the north and west edges of the well pad were eliminated.

The parent material of the Badland map unit primarily consists of shale. This soil is considered a somewhat excessively drained soil, with the depth to restrictive layer (paralithic bedrock) being zero to two inches. Available water capacity for the Badland soil unit is very low (zero inches). This soil type has a low to moderate potential for water erosion and moderate potential for wind erosion. Badland soils are typically found along the side slopes of break landforms (5- to 80-percent slopes), and are commonly used for wildlife habitat (USDA/NRCS 2015).

## 7. METHODS FOR HANDLING WASTE

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A. Cuttings

- 1 Drilling operations will utilize a closed-loop system. Drilling of the horizontal laterals will be accomplished with water-based mud. All cuttings will be placed in roll-off bins and hauled to a commercial disposal facility or land farm. WPX will follow Onshore Oil and Gas Order No. 1 regarding the placement, operation, and removal of closed-loop systems. No blow pit will be used.
- 2 Closed-loop tanks will be adequately sized for containment of all fluids.

B. Drilling Fluids

- 1 Drilling fluids will be stored onsite in above-ground storage tanks. Upon termination of drilling operations, the drilling fluids will be recycled and transferred to other permitted closed-loop systems or returned to the vendor for reuse, as practical. All residual fluids will be hauled to a commercial disposal facility.

C. Spills

- 1 Any spills of non-freshwater fluids will be immediately cleaned up and removed to an approved disposal site.

D. Sewage

