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 <u>3160-3</u> APD form.

Operator Signature Date: <u>J. J. J.</u> Well information; Operator <u>USPX</u>, Well Name and Number <u>Simble to WCISS</u> <u>USC</u>

API#<u>30.045-35834</u>, Section<u>20</u> Township <u>23</u> MS, Range <u>9</u> E/W

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

- A Notify Aztec OCD 24hrs prior to casing & cement.
- A 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.

NMOCD Approved by Signature

-24-20 Date

1220 South St. Francis Drive - Santa Fe, New Mexico 87505 Phone (505) 476-3441 - Fax (505) 476-3462 - www.emnrd.state.nm.us/ocd

		OIL CON	S. DIV DIST. 3		OIL CONS		_		
	Form 3160 -3	APR	19 2017		AFR		ST. 3	APPROVE	D 7
	(March 2012)	DEPART	UNITED STATES	NTERIOR		° 2017	5. Lease Serial No. NMNM117577	October 31, 2	014
		APPLICATION F	OR PERMIT TO	DRILL OF	REENTER		6. If Indian, Allote EASTERN NAVA	e or Tribe I JO	Name
	la. Type of work:	DRILL	REENTE	ER			7 If Unit or CA Age KIMBETO WASH	reement, Na UNIT / NI	me and No. MNM135255A
	lb. Type of Well:	Oil Well Gas	s Well Other	Sir	ngle Zone 🖌 Multip	ole Zone	8. Lease Name and KWU 778H	Well No.	
	2. Name of Operate	WPX ENERGY LL	С			K	9. API Well No.	-358	34
	3a. Address 720 S	6 Main Aztec NM 874	10	3b. Phone No. (505)333-1	(include area code) . 822		10. Field and Pool, or BASIN MANCOS	Explorator	MANCOS GAS
	4. Location of Well At surface NW	4. Location of Well (Report location clearly and in accordance with any State requirements.*) At surface NWNW / 817 FNL / 692 FWL / LAT 36.217401 / LONG -107.81881							vey or Area
	14. Distance in miles	and direction from neares	t town or post office*	1 36.226996	57 LONG -107.8378	939	12. County or Parish SAN JUAN		13. State NM
P	15. Distance from pro location to neares property or lease (Also to nearest d	pposed* t 20 feet line, ft. lrig. unit line, if any)		16. No. of a 1279.75	cres in lease	17. Spacing 958.98	g Unit dedicated to this	well	
	 Distance from pro to nearest well, dr applied for, on this 	posed location* illing, completed, 692 fe s lease, ft.	eet	19. Proposed 4428 feet	1Depth 11395 feet	20. BLM/E FED: UT	BIA Bond No. on file	001576	2
	21. Elevations (Show 6538 feet	w whether DF, KDB, RT	, GL, etc.)	22. Approxim 04/01/201	nate date work will star 7	rt*	23. Estimated durati 30 days	on	
				24. Attac	hments		_		
	 Well plat certified A Drilling Plan. A Surface Use Pla SUPO must be fill 	by a registered surveyor. an (if the location is on ed with the appropriate Fo	National Forest System orest Service Office).	Lands, the	 Bond to cover the second to covever the second to cover the second to cover the second to cov	tached to the he operation specific info	is form: ns unless covered by a prmation and/or plans a	n existing b as may be ro	ond on file (see
	25. Signature			Name	BLM.			Date	2017
	Title			Lacey	Granilio / Ph. (505	0)333-1616	0	02/07/2	2017
4	Approved by (Signation	ad.	Allege=	Name	(Printell/Typed)	YA.	GANEGOS	Date	114/2017
for	Title AFA	-Mineff	15	FARM	MINGTON				
	Application approval conduct operations the Conditions of approva	does not warrant or certil ereon. al, if any, are attached.	ty that the applicant hold	s legal or equi	table title to those righ	ts in the sub	ject lease which would	entitle the a	pplicant to
	Title 18 U.S.C. Section States any false, fictiti	1001 and Title 43 U.S.C. ous or fraudulent stateme	Section 1212, make it a creater or representations as the sector of the	rime for any po to any matter w	erson knowingly and w vithin its jurisdiction.	villfully to m	nake to any department	or agency	of the United
	(Continued on p	page 2)					. *(Ins	tructions	s on page 2)
AU CO "G	DRILLING OPER THORIZED ARE S MPLIANCE WITH I ENERAL REQUIR	ATIONS UBJECT TO ATTACHED EMENTS"	BLM'S APPRO ACTION DOE OPERATOR F AUTHORIZAT ON FEDERAL	OVAL OR S NOT RE ROM OBT TION REQ AND INC	ACCEPTANCE ELIEVE THE LI FAINING ANY UIRED FOR OF DIAN LANDS	E OF TH ESSEE A OTHER PERATIO	IS IND This ac and pro 43 CFR ONS pursuan	tion is su cedural r 3165.3 a it to 43 C	bject to technical eview pursuant to test appeal FR 3165.4
				N	MOCDEY				

FP

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





WPX Energy

Operations Plan

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

Date:	February 7, 2017	Field:	Basin Mancos
Well Name:	KWU #778H	Surface:	
SH Location:	NWNW Sec 20-23N-09W	Elevation:	6538' GR
BH Location:	SENE Sec 18-23N-09W	Minerals:	

Measured Depth: 11,394.61'

I. GEOLOGY

Surface formation - NACIMIENTO

A. FORMATION TOPS: (GR)

NAME	MD	TVD	NAME	MD	TVD
OJO ALAMO	97.00	97.00	POINT LOOKOUT	3,428.00	3,164.00
KIRTLAND	259.00	259.00	MANCOS	3,631.00	3,339.00
PICTURED CLIFFS	828.00	827.00	GALLUP	4,023.00	3,678.00
LEWIS	912.00	911.00	KICKOFF POINT	3,976.53	3,637.47
CHACRA	1,133.00	1,128.00	TOP TARGET	5,114.00	4,408.00
CLIFF HOUSE	2,351.00	2,235.00	LANDING POINT	5,222.56	4,417.49
MENEFEE	2,370.00	2,252.00	BASE TARGET	5,222.56	4,417.49
			TD	11,394.61	4,428.00

B. MUD LOGGING PROGRAM:

Mudlogger on location from surface csg to TD.

C. LOGGING PROGRAM:

LWD GR from surface casing to TD.

D. NATURAL GAUGES:

Gauge any noticeable increases in gas flow. Record all gauges in Tour book and on morning reports.

II. DRILLING

A. MUD PROGRAM:

LSND mud (WBM) will be used to drill the 12-1/4" Surface hole, the 8 ³/₄" Directional Vertical hole, and the curve portion of the wellbore. A LSND (WBM) or (OBM) will be used to drill the lateral portion of well. Treat for lost circulation as necessary. Obtain 100% returns prior to cementing. 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 BOPE will be tested to 2,000 psi (High) for 10 minutes and the annular tested to 1,500 psi for 10 minutes. Pressure test surface casing to 1,500 psi for 30 minutes and intermediate casing to 1,500 psi for 30 minutes. Utilize a BOPE Testing Unit with a recording chart and appropriate test plug for testing. All tests and inspections will be recorded in the tour book as to time and results.

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"	5,222.56'	7"	23 LBS	J-55 or equiv	LTC
PRODUCTION	6.125"	5072.56' - 11,394.61'	4.5"	11.6 LBS	P-110 or equiv	LTC
TIE BACK	6.125"	Surf 5072.56'	4.5"	11.6 LBS	P-110 or equiv	LTC

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 (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. If losses are encountered during the drilling of the intermediate section a DV tool will be utalized and a 2 stage cement job may be planned to ensure cement circ back to surface. The 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, if no cement is seen at surface on the 1st stage the stage tool will be opend and a 2nd stage cement job will be pumped.

3. 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. CEMENT:

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

1. 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 cuft/100 sx/ Bbls).TOC at Surface.

2. Intermediate:

Spacer #1: 20 bbl (112 cuft) Chemwash. Lead Cement: 95 bbls, 271 sks, (533 cuft), 12.3 ppg @ 1.97 cuft/sk yield. Tail Cement: 59 bbls, 254 sks, (331 cuft), 13.5 ppg @ 1.3 cuft/sk yield. Displacement: Displace w/ +/- 206 bbl Drilling mud or water. Total Cement: 154 bbls, 525 sks, (864 cuft)

3. 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 (619 sx /842 cuft /150 bbls). Tail Spacer: 20 BBL of MMCR. Displacement: Displace w/ +/-151bbl Fr Water. Total Cement (619 sx /842bbls).

D. COMPLETION:

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

If this horizontal well is 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.

NOTES:

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 2309-20D KWU KWU #778H - Slot A3

Wellbore #1

Plan: Design #1 23Sept16 sam

Standard Planning Report

27 September, 2016

WPX

Planning Report

Database: Company: Project: Site: Well: Wellbors: Design: Project	COMPASS WPX Energy T23N R9W 2309-20D KWU KWU #778H Wellbore #1 Design #1 23Se T23N R9W	pt16 sam		L L L L L L L L L L L L L L L L L L L	ocal Co-ordinat IVD Reference: AD Reference: North Reference: Survey Calculatio	e Refere	ence: od:	Well KWU 4 GL @ 6538 GL @ 6538 True Minimum C	≇778H (A3) - .00usft (Orig .00usft (Orig urvature	Slot A3 inal Well Ele inal Well Ele	9) 9)	
Map System: Geo Datum: Map Zone:	US State Plane 19 NAD 1927 (NADCO New Mexico West	27 (Exact so ON CONUS 3003	olution))	Sy	vstem Datum:			Mean Sea Le	vel			
Site	2309-20D KWU									(a		
Site Position: From: Position Uncertainty:	Мар	0.00 usft	Northing: Easting: Slot Radius:		1,898,410.74 504,461.08 13.20	usft usft 00 in	Latitude: Longitude Grid Conv	: ergence:			36.217 -107.818 0.	497 210 01 °
Well	KWU #778H - Slo	ot A3				a free for all and the				a in in the second		
Well Position Position Uncertainty	+N/-S +E/-W	-39.67 usft 4.72 usft 0.00 usft	Northing: Easting: Wellhead E	levation:	1,898, 504,	371.07 465.81 0.00	usft usft usft	Latitude: Longitude: Ground Level:			36.217 -107.818 6,538.00	388 194 usft
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Magnetics	Model Name		Sample Date		Declination (°)		Di	p Angle (°)		Field Streng (nT)	th	
	IGRF200	0510	12/31/200	9	10	0.01		63.0	5		50,600	
Design	Design #1 23Sep	t16 sam				C	na Backling X-643					
Audit Notes: Version:		en allung van Augense dar verkee	Phase:	PLAN	an an an the standing of the second standing	Tie	On Depth:		0.00			
Vertical Section:		Depth F (I	rom (TVD) usft) 0.00	a santa	+N/-S (usft) 0.00	+E/ (us 0.0			Direction (bearing) 301.77			1770
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	
2,019.26	30.39	206.08	1,949.04	-353.43	-172.99	2.00	2.00	0.00	206.08	
3,976.53	30.39	206.08	3,637.47	-1,242.63	-608.23	0.00	0.00	0.00	0.00	
4,790.31	60.00	315.13	4,282.20	-1,167.18	-1,002.53	9.00	3.64	13.40	121.25	Start 60 Tan #778H
4,890.31	60.00	315.13	4,332.20	-1,105.80	-1,063.63	0.00	0.00	0.00	0.00	End 60 Tan #778H
5,058.89	75.17	315.13	4,396.29	-995.68	-1,173.25	9.00	9.00	0.00	0.00	
5,222.56	89.90	315.13	4,417.49	-880.98	-1,287.43	9.00	9.00	0.00	0.00	POE #778H
11,394.61	89.90	315.13	4,428.00	3,493.27	-5,641.73	0.00	0.00	0.00	0.00	BHL #778H

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WPX Planning Report

Database: Company: Project: Site: Well: Wellbore: Database		COMPASS WPX Energy T23N R9W 2309-20D KW KWU #778H Wellbore #1 Design #1 233	/U Sept16 sam		Local TVD R MD Re North Survey	Co-ordinate Re eference: oference: Reference: y Calculation N	Well KWU #778H (A3) + Slot A3 GL @ 6538.00usft (Original Well Elev) GL @ 6538.00usft (Original Well Elev) True Minimum Curvature			
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	1,500.00	20.00	206.08	1,479.82	-155.18	-75.95	-17.11	2.00	2.00	0.00
	2,000.00	30.00	206.08	1,932.39	-344.73	-168.74	-38.02	2.00	2.00	0.00
	2,019.26	30.39	206.08	1,949.04	-353.43	-172.99	-38.98	2.00	2.00	0.00
	Hold 30.39 In	clination								
	2 500 00	30 39	206.08	2 363 75	-571.83	-279 90	-63.06	0.00	0.00	0.00
	3 000 00	30.39	206.08	2,795.07	-798 99	-391.08	-88 11	0.00	0.00	0.00
	3 500 00	30.39	206.08	3 226 39	-1 026 14	-502 27	-113 16	0.00	0.00	0.00
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	3,976.53	30.39	206.08	3,637.47	-1,242.63	-608.23	-137.04	0.00	0.00	0.00
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	4,000.00	29.34	209.77	3,657.83	-1,252.95	-613.70	-137.83	9.00	-4.45	15.71
	4,500.00	38.80	294.59	4,093.21	-1,296.36	-828.10	21.61	9.00	1.89	16.96
	4,790.31	60.00	315.13	4,282.20	-1,167.18	-1,002.53	237.92	9.00	7.30	7.08
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	4.890.31	60.00	315.13	4.332.20	-1,105,80	-1.063.63	322.17	0.00	0.00	0.00
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	Start Dully L	10 3.00 11 9 0.0								
	5,000.00	69.87	315.13	4,378.61	-1,035.47	-1,133.64	418.72	9.00	9.00	0.00
	5,058.89	75.17	315.13	4,396.29	-995.68	-1,173.25	473.35	9.00	9.00	0.00
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	5,222.56	89.90	315.13	4,417,49	-880.98	-1,287,43	630.81	9.00	9.00	0.00
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a com	5 223 00	89 90	315 13	4 417 49	-880.67	-1 287 74	631 23	0.00	0.00	0.00
	711	00.00	010.10	4,417.45	-000.07	-1,201.14	031.25	0.00	0.00	0.00
	F E00.00	00.00	045.40	4 447 00	004.00	4 400 40	000 70	0.00	0.00	0.00
	5,500.00	89.90	315.13	4,417.96	-684.36	-1,483.16	900.73	0.00	0.00	0.00
	6,000.00	89.90	315.13	4,418.81	-330.00	-1,835.90	1,387.19	0.00	0.00	0.00
	6,500.00	89.90	315.13	4,419.67	24.36	-2,188.65	1,873.64	0.00	0.00	0.00
	7,000.00	89.90	315.13	4,420.52	378.72	-2,541.39	2,360.10	0.00	0.00	0.00
	7,500.00	89,90	315.13	4,421.37	733.08	-2,894.13	2,846.55	0.00	0.00	0.00
	8,000.00	89,90	315.13	4,422.22	1,087.44	-3,246.88	3,333.01	0.00	0.00	0.00
	8 500 00	80.00	215 12	4 422 07	1 444 90	2 500 60	2 940 47	0.00	0.00	0.00
	0,000.00	09.90	315.13	4,423.07	1,441.80	-3,599.02	3,019.47	0.00	0.00	0.00
	9,000.00	03.30	315.13	4,423.92	2 160 52	-3,952.37	4,303.92	0.00	0.00	0.00
	9,500.00	89.90	315.13	4,424.77	2,100.52	-4,305.11	4,192.38	0.00	0.00	0.00
	10,000.00	69.90	315,13	4,425.03	2,504.88	-4,057.85	5,218.84	0.00	0.00	0.00
	10,500.00	89.90	315.13	4,420.48	2,009.24	-5,010.60	5,765.29	0.00	0.00	0.00
	11,000.00	89.90	315.13	4,427.33	3,213.60	-5,363.34	6,251.75	0.00	0.00	0.00
	11,394.61	89.90	315.13	4,428.00	3,493.27	-5,641.73	6,635.67	0.00	0.00	0.00
	TD at 11394.	61							5. C	

WPX

Planning Report

Database: Company: Project: Site: Well: Wellbore: Design:	se: COMPASS ny: WPX Energy : T23N R9W 2309-20D KWU KWU #778H re: Wellbore #1 ; Design #1 23Sept16 sam			Local Co-ordinate Reference: TVD Reference: MD Reference: North Reference: Survey Calculation Method:			Well KWU #778H (A3) - Slot A3 GL @ 6538.00usft (Original Well Elev) GL @ 6538.00usft (Original Well Elev) True 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 #778H - plan hits target ce - Point	0.00 enter	0.00	4,282.20	-1,167.18	-1,002.53	1,897,203.74	503,463.46	36.214182	-107.821593
End 60 Tan #778H - plan hits target ce - Point	0.00 enter	0.00	4,332.20	-1,105.80	-1,063.63	1,897,265.11	503,402.35	36.214350	-107.821800
POE #778H - plan hits target ce - Point	0.00 enter	0.00	4,417.49	-880.98	-1,287.43	1,897,489.89	503,178.52	36.214968	-107.822559
BHL #778H - plan hits target ce - Point	0.00 enter	0.00	4,428.00	3,493.27	-5,641.73	1,901,863.46	498,823.53	36.226983	-107.837322

Casing Points				같은 것은 동 _{안에 있} 는 것이 가지 않는 것을 통하는 것이 있는 것이 없다. 것이 같은 것이 같은 것이 없는 것이 없는 것이 없는 것이 없는 것이 없다. 것이 없는 것이 않다. 것이 없는 것이 없 것이 않아? 것이 않아? 것이 없는 것이 없이 없 않이 않이 않이 않이 않이 않아? 것이 없는 것이 없는 것이 없는 것이 없이 않이 않이 않아? 것이 없는 것이 않아? 것이 없 않이 않아? 것이 없는 것이 없다. 것이 없는 것이 없는 것이 없는 것이 없는 것이 없는 것이 없는 것이 없다. 것이 않아? 것이 않아? 것이 않아? 것이 않아? 것이 없다. 것이 없는 것이 없는 것이 없는 것이 없다. 것이 않아? 것이 않아? 것이 없다. 것이 않아? 것이 없는 것이 없는 것이 않아? 않아? 것이 않아? 것이 없다. 것이 않아? 않아? 것이 없는 것이 없다. 것이 않아? 것이 것이 것이 않아? 것이 않아? 것이 것이 것이 것이 않아? 않아? 것이 않아? 것이 않아?			
	Measured Depth (usft)	Vertical Depth (usft)		Name	Casing Diameter (in)	Hole Diameter (in)	
	320.00	320.00	9 5/8"		9.625	12.250	
	5,223.00	4,417.49	7"		7.000	8.750	

Plan Annotations

Measured Vertical		Local Coo	rdinates		
Depth (usft)	Depth (usft)	+N/-S (usft)	+E/-W (usft)	Comment	
500.00	500.00	0.00	0.00	Start Build 2.00	
2,019.26	1,949.04	-353.43	-172.99	Hold 30.39 Inclination	
3,976.53	3,637.47	-1,242.63	-608.23	Start Build DLS 9.00 TFO 121.25	
4,790.31	4,282.20	-1,167.18	-1,002.53	Hold 60.00 Inclination	
4,890.31	4,332.20	-1,105.80	-1,063.63	Start Build DLS 9.00 TFO 0.00	
5,058.89	4,396.29	-995.68	-1,173.25	Start DLS 9.00 TFO 0.00	
5,222.56	4,417.49	-880.98	-1,287.43	POE at 89.90 Inc 315,13 Deg	
 11,394.61	4,428.00	3,493.27	-5,641.73	TD at 11394.61	



Construction of all project features associated with KWU Remote #1 will consist of native borrow and subsoils from the Doak-Sheppard-Shiprock association, rolling soil map unit. A brief description of this soil can be found below.

Doak-Sheppard-Shiprock association, rolling soils are found on mesas, fan remnants, stream terraces, and dunes at 5,600 to 6,400 feet in elevation. The unit is composed of 40 percent Doak soils, 30 percent Sheppard soils, and 20 percent Shiprock soils. Doak soils occur on slopes from 0 to 5 percent and are well drained. Doak soils are deep and have a moderately slow permeability. Sheppard soils occur on slopes from 0 to 15 percent and are deep, somewhat excessively drained, and rapidly permeable. Shiprock soils occur on 0 to 5 percent slopes and are deep, well drained, and have a moderately rapid permeability. They formed in eolian material and slope alluvium. Effective rooting depth for this unit is 60 inches or greater. This unit is mainly used for livestock grazing and wildlife habitat. The major limitations of this mapping unit are: (I) the hazard of soil blowing and (2) the hazard of water erosion. (USDA/NRCS 2015).

7. METHODS FOR HANDLING WASTE

A. Cuttings

- 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
 - 1 Portable toilets will be provided and maintained during construction, as needed (see Figures 3, 4, 7, and 8 in Appendix B for the location of toilets per project).
- E. Garbage and other waste material
 - 1 All garbage and trash will be placed in an enclosed metal trash containment. The trash and garbage will be hauled off site and dumped in an approved landfill, as needed.
- F. Hazardous Waste
 - 1 No chemicals subject to reporting under Superfund Amendments and Reauthorization Act Title III in an amount equal to or greater than 10,000 pounds will be used, produced, stored, transported, or disposed of annually in association with the drilling, testing, or completing of these wells.

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Directions from the Intersection of US Hwy 550 & US Hwy 64

in Bloomfield, NM to WPX Energy Production, LLC KWU #778H

817' FNL & 692' FWL, Section 20, T23N, R9W, N.M.P.M., San Juan County, NM

Latitude: 36.217401°N Longitude: 107.818810°W Datum: NAD1983

From the intersection of US Hwy 550 & US Hwy 64 in Bloomfield, NM, travel Southerly on US Hwy 550 for 35.9 miles to Mile Marker 115.7;

Go Right (South-westerly) @ Nageezi Post Office on County Road #7800 for 0.4 miles to 4-way intersection:

Go Straight (South-westerly) exiting paved County Road #7800, continuing on County Road #7820 for 0.6 miles to fork in roadway;

Go Right (South-westerly) which is straight remaining on County Road #7820 for 1.1 miles to a 4-way intersection;

Go Straight (South-westerly) remaining on County Road #7820 for 3.2 miles to fork in road;

Go Right (Northerly) for 0.2 miles to begin proposed access on left-hand side of existing roadway which continues for 1534.7' to staked WPX KWU #778H location.





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