Form 3160-5
(June 2015)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB No. 1004-0137
Expires: January 31, 2018

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE - *Other instructions on page 2*

5. Lease Serial No.
NMNM 004958

6. If Indian, Allottee or Tribe Name

7. If Unit of CA/Agreement, Name and/or No.
NMNM 135255A

1. Type of Well
☒Oil Well ☐Gas Well ☐Other

8. Well Name and No.
Kimbeto Wash Unit 769H

2. Name of Operator
WPX Energy Production, LLC

9. API Well No.
30-045-35754

3a. Address
PO Box 640 Aztec, NM 87410

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

10. Field and Pool or Exploratory Area
Basin Mancos

4. Location of Well *(Footage, Sec., T.,R.,M., or Survey Description)*
SHL: 440' FSL & 1089' FEL Sec 17 T23N R9W Unit: P
SHL: 330' FNL & 382' FEL Sec 18 T23N R9W Unit: A

11. Country or Parish, State
San Juan, NM

12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT OR OTHER DATA

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

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed worybk and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be perfonned or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has detennined that the site is ready for final inspection.)

WPX Energy request a change in plans for the Intermediate Casing, Production Liner & Total Depth (TD), per attached OPS & Directional Drill Plan & C102 Plat.

NMOCD
FEB 26 2018
DISTRICT III

RECEIVED
FEB 07 2018

ADHERE TO PREVIOUS NMOCD CONDITIONS OF APPROVAL

14. I hereby certify that the foregoing is true and correct. Name *(Printed/Typed)*
Marie E. Florez

Title: Permit Tech

Farmington Field Office
Bureau of Land Management

Signature Marie E Florez

Date: **2/6/18**

THE SPACE FOR FEDERAL OR STATE OFICE USE

Approved by

Title PE

Date 2/21/18

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)

NMOCD AV

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

OIL CONSERVATION DIVISION

1220 South St. Francis Drive
Santa Fe, NM 87505

Form C-102
Revised August 1, 2011

Submit one copy to
Appropriate District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

[1] API Number	[2] Pool Code	[3] Pool Name
30-045-35754	97232	BASIN MANCOS

[4] Property Code	[5] Property Name	[6] Well Number
316144	KIMBETO WASH UNIT	769H

[7] OGRID No.	[8] Operator Name	[9] Elevation
120782	WPX ENERGY PRODUCTION, LLC	6561'

[10] Surface Location

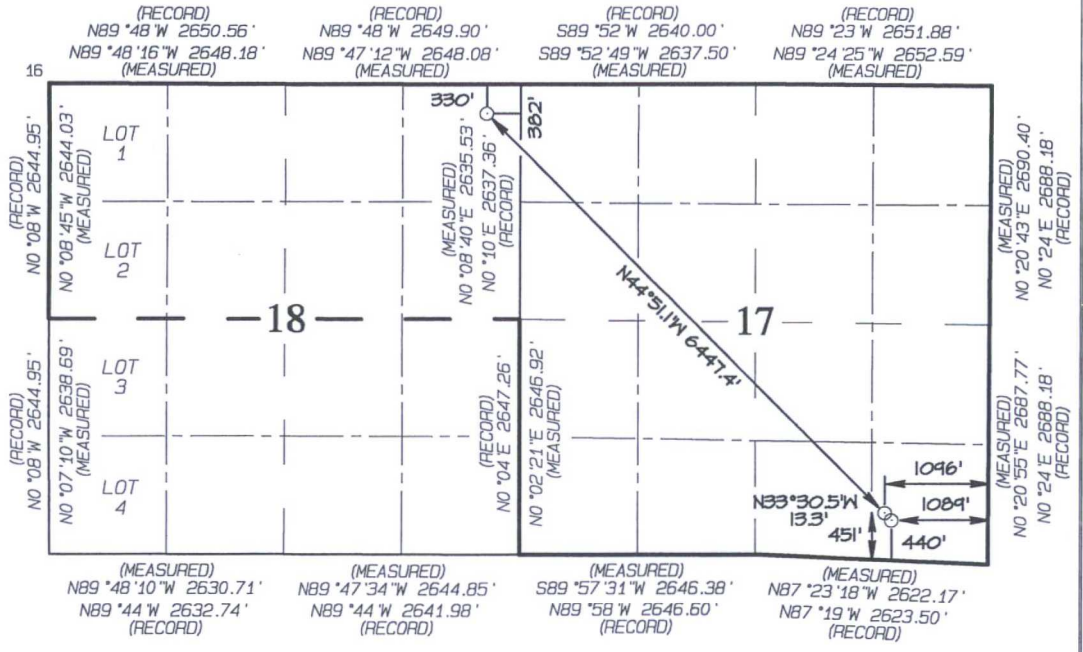
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
P	17	23N	9W		440	SOUTH	1089	EAST	SAN JUAN

[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
A	18	23N	9W		330	NORTH	382	EAST	SAN JUAN

[12] Dedicated Acres		[13] Joint or Infill	[14] Consolidation Code	[15] Order No.
959.88	Entire Section 17 N/2 - Section 18			R-14084

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION



END-OF-LATERAL
330' FNL 382' FEL
SEC 18, T23N, R9W
LAT: 36.233240 °N
LONG: 107.821805 °W
DATUM: NAD1927

LAT: 36.233252 °N
LONG: 107.822421 °W
DATUM: NAD1983

POINT-OF-ENTRY
451' FSL 1096' FEL
SEC 17, T23N, R9W
LAT: 36.220681 °N
LONG: 107.806392 °W
DATUM: NAD1927

LAT: 36.220694 °N
LONG: 107.807007 °W
DATUM: NAD1983

SURFACE LOCATION
440' FSL 1089' FEL
SEC 17, T23N, R9W
LAT: 36.220650 °N
LONG: 107.806366 °W
DATUM: NAD1927

LAT: 36.220663 °N
LONG: 107.806982 °W
DATUM: NAD1983

[17] OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom-hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Marie Florez 2/6/18
Signature Date

Marie E Florez
Printed Name

marie.jaramillo@wpxenergy.com
E-mail Address

[18] SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

Date Revised: FEBRUARY 5, 2018
Survey Date: DECEMBER 3, 2015

Signature and Seal of Professional Surveyor

JASON C. EDWARDS
NEW MEXICO
15269
REGISTERED PROFESSIONAL SURVEYOR

JASON C. EDWARDS
Certificate Number 15269

WPX Energy

Operations Plan

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

Date:	February 6, 2018	**Field:**	Basin Mancos
Well Name:	Kimbeto Wash Unit #769H	**Surface:**	BLM
SH Location:	SESE SEC 17-23N-09W	**Elevation:**	6,561'
BH Location:	NENE SEC 18-23N-09W	**Minerals:**	FED

Measured Depth: 11,563'

I. GEOLOGY

Surface formation - NACIMIENTO

A. FORMATION TOPS: (KB)

NAME	MD	TVD	NAME	MD	TVD
Ojo Alamo	124	124	Mancos	3494	3397
Kirtland	272	272	Gallup	2906	2828
Picture Cliffs	838	836			
Lewis	996	992	KICKOFF POINT	3967	3868
Chacra	1249	1237	LANDING POINT	4965	4505
Cliff House	2303	2249	TOP TARGET	4968	4505
Menefee	2322	2267			
Point Lookout	3387	3292	TD	11563	4530

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 ¾" 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'	9.625"	36 LBS	J-55 or equiv	STC
INTERMEDIATE	8.75"	4965'	7"	23 LBS	J-55 or equiv	LTC
PRODUCTION	6.125"	4815' - 11563'	4.5"	11.6 LBS	P-110 or equiv	LTC
TIE BACK	6.125"	Surf. - 4815'	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, 28.0 bbls, 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/ 28.0 Bbls). TOC at Surface.

2. Intermediate:

Spacer #1: 20 bbl (112 cuft) Chemwash. Lead Cement: 104 bbls, 298 sks, (581 cuft), 12.3 ppg @ 1.97 cuft/sk yield. Tail Cement: 107 bbls, 464 sks, (603 cuft), 13.5 ppg @ 1.3 cuft/sk yield. Displacement: Displace w/ +/- 196 bbl Drilling mud or water.
Total Cement: 211 bbls, 762 sks, (1185 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 (630 sx /857 cuft /153 bbls). Tail Spacer: 20 BBL of MMCR. Displacement: Displace w/ +/-137bbl Fr Water.
Total Cement: 153 bbls, 630 sks, (857 cuft)

D. COMPLETION:

Run CCL for perforating

A. PRESSURE TEST:

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

B. STIMULATION:

1. Stimulate with approximately 1,000#/ft 20/40 mesh sand and +/- 200' stage interval for full lateral length of the well with water and N2. 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.

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
KWU 771 Pad
KWU #769H
API: ???
Wellbore #1

Plan: Plan #2

Standard Planning Report

19 January, 2018

Scientific Drilling

www.scientificdrilling.com

Scientific Drilling Int.

Planning Report

Database:	Grand Junction District	**Local Co-ordinate Reference:**	Well KWU #769H
Company:	WPX Energy	**TVD Reference:**	GL 6561 + KB 21 = @ 6582.00usft (Cyclone 32)
Project:	T23N R9W	**MD Reference:**	GL 6561 + KB 21 = @ 6582.00usft (Cyclone 32)
Site:	KWU 771 Pad	**North Reference:**	True
Well:	KWU #769H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #2		

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

Site	KWU 771 Pad				
Site Position:		**Northing:**	1,899,574.16 usft	**Latitude:**	36.220691
From:	Map	**Easting:**	507,967.48 usft	**Longitude:**	-107.806322
Position Uncertainty:	0.00 usft	**Slot Radius:**	13-3/16 "	**Grid Convergence:**	0.02 °

Well	KWU #769H					
Well Position	**+N/-S**	-14.93 usft	**Northing:**	1,899,559.23 usft	**Latitude:**	36.220650
	+E/-W	-12.97 usft	**Easting:**	507,954.51 usft	**Longitude:**	-107.806366
Position Uncertainty		0.00 usft	**Wellhead Elevation:**	0.00 usft	**Ground Level:**	6,561.00 usft

Wellbore	Wellbore #1			
Magnetics	**Model Name**	**Sample Date**	**Declination (°)**	**Dip Angle (°)**	**Field Strength (nT)**
	HDGM	1/17/2018	9.03	62.78	49,585

Design	Plan #2				
Audit Notes:					
Version:		**Phase:**	PLAN	**Tie On Depth:**	0.00
Vertical Section:	**Depth From (TVD) (usft)**	**+N/-S (usft)**	**+E/-W (usft)**	**Direction (°)**	
	0.00	0.00	0.00	315.17	

Plan Sections

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,210.93	16.22	134.97	1,200.15	-80.58	80.66	2.00	2.00	0.00	134.97	
3,156.45	16.22	134.97	3,068.23	-464.63	465.07	0.00	0.00	0.00	0.00	
3,967.38	0.00	0.00	3,868.38	-545.21	545.73	2.00	-2.00	0.00	180.00	
4,964.97	89.78	315.17	4,505.00	-95.47	98.57	9.00	9.00	-4.49	315.17	
11,562.78	89.78	315.17	4,530.00	4,583.28	-4,553.29	0.00	0.00	0.00	0.00	KWU769H BHL

Database:	Grand Junction District	**Local Co-ordinate Reference:**	Well KWU #769H
Company:	WPX Energy	**TVD Reference:**	GL 6561 + KB 21 = @ 6582.00usft (Cyclone 32)
Project:	T23N R9W	**MD Reference:**	GL 6561 + KB 21 = @ 6582.00usft (Cyclone 32)
Site:	KWU 771 Pad	**North Reference:**	True
Well:	KWU #769H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #2		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
124.00	0.00	0.00	124.00	0.00	0.00	0.00	0.00	0.00	0.00
Ojo Alamo									
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	2.00	134.97	499.98	-1.23	1.23	-1.75	2.00	2.00	0.00
600.00	4.00	134.97	599.84	-4.93	4.94	-6.98	2.00	2.00	0.00
700.00	6.00	134.97	699.45	-11.09	11.10	-15.69	2.00	2.00	0.00
800.00	8.00	134.97	798.70	-19.70	19.72	-27.88	2.00	2.00	0.00
837.70	8.75	134.97	836.00	-23.59	23.61	-33.37	2.00	2.00	0.00
Picture Cliffs									
900.00	10.00	134.97	897.47	-30.76	30.79	-43.52	2.00	2.00	0.00
996.30	11.93	134.97	992.00	-43.70	43.74	-61.83	2.00	2.00	0.00
Lewis									
1,000.00	12.00	134.97	995.62	-44.25	44.29	-62.60	2.00	2.00	0.00
1,100.00	14.00	134.97	1,093.06	-60.14	60.20	-85.10	2.00	2.00	0.00
1,200.00	16.00	134.97	1,189.64	-78.44	78.51	-110.98	2.00	2.00	0.00
1,210.93	16.22	134.97	1,200.15	-80.58	80.66	-114.01	2.00	2.00	0.00
1,249.31	16.22	134.97	1,237.00	-88.16	88.24	-124.73	0.00	0.00	0.00
Chacra									
1,300.00	16.22	134.97	1,285.67	-98.16	98.26	-138.89	0.00	0.00	0.00
1,400.00	16.22	134.97	1,381.69	-117.90	118.01	-166.82	0.00	0.00	0.00
1,500.00	16.22	134.97	1,477.71	-137.64	137.77	-194.75	0.00	0.00	0.00
1,600.00	16.22	134.97	1,573.73	-157.38	157.53	-222.68	0.00	0.00	0.00
1,700.00	16.22	134.97	1,669.75	-177.12	177.29	-250.61	0.00	0.00	0.00
1,800.00	16.22	134.97	1,765.77	-196.86	197.05	-278.54	0.00	0.00	0.00
1,900.00	16.22	134.97	1,861.79	-216.60	216.81	-306.47	0.00	0.00	0.00
2,000.00	16.22	134.97	1,957.81	-236.34	236.57	-334.40	0.00	0.00	0.00
2,100.00	16.22	134.97	2,053.83	-256.08	256.33	-362.33	0.00	0.00	0.00
2,200.00	16.22	134.97	2,149.85	-275.82	276.09	-390.26	0.00	0.00	0.00
2,300.00	16.22	134.97	2,245.87	-295.57	295.85	-418.19	0.00	0.00	0.00
2,303.26	16.22	134.97	2,249.00	-296.21	296.49	-419.10	0.00	0.00	0.00
Cliff House									
2,322.00	16.22	134.97	2,267.00	-299.91	300.19	-424.33	0.00	0.00	0.00
Menefee									
2,400.00	16.22	134.97	2,341.89	-315.31	315.61	-446.12	0.00	0.00	0.00
2,500.00	16.22	134.97	2,437.91	-335.05	335.37	-474.05	0.00	0.00	0.00
2,600.00	16.22	134.97	2,533.93	-354.79	355.12	-501.98	0.00	0.00	0.00
2,700.00	16.22	134.97	2,629.95	-374.53	374.88	-529.91	0.00	0.00	0.00
2,800.00	16.22	134.97	2,725.97	-394.27	394.64	-557.84	0.00	0.00	0.00
2,900.00	16.22	134.97	2,821.99	-414.01	414.40	-585.77	0.00	0.00	0.00
3,000.00	16.22	134.97	2,918.01	-433.75	434.16	-613.70	0.00	0.00	0.00
3,100.00	16.22	134.97	3,014.03	-453.49	453.92	-641.63	0.00	0.00	0.00
3,156.45	16.22	134.97	3,068.23	-464.63	465.07	-657.40	0.00	0.00	0.00
3,200.00	15.35	134.97	3,110.14	-473.00	473.45	-669.24	2.00	-2.00	0.00
3,300.00	13.35	134.97	3,207.02	-490.52	490.98	-694.02	2.00	-2.00	0.00
3,387.04	11.61	134.97	3,292.00	-503.81	504.29	-712.83	2.00	-2.00	0.00
Point Lookout									
3,400.00	11.35	134.97	3,304.70	-505.63	506.11	-715.40	2.00	-2.00	0.00
3,493.85	9.47	134.97	3,397.00	-517.61	518.11	-732.36	2.00	-2.00	0.00

Database:	Grand Junction District	**Local Co-ordinate Reference:**	Well KWU #769H
Company:	WPX Energy	**TVD Reference:**	GL 6561 + KB 21 = @ 6582.00usft (Cyclone 32)
Project:	T23N R9W	**MD Reference:**	GL 6561 + KB 21 = @ 6582.00usft (Cyclone 32)
Site:	KWU 771 Pad	**North Reference:**	True
Well:	KWU #769H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #2		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
Mancos									
3,500.00	9.35	134.97	3,403.07	-518.32	518.82	-733.37	2.00	-2.00	0.00
3,600.00	7.35	134.97	3,502.01	-528.58	529.09	-747.88	2.00	-2.00	0.00
3,700.00	5.35	134.97	3,601.39	-536.40	536.91	-758.94	2.00	-2.00	0.00
3,800.00	3.35	134.97	3,701.10	-541.76	542.27	-766.52	2.00	-2.00	0.00
3,853.97	2.27	134.97	3,755.00	-543.62	544.14	-769.16	2.00	-2.00	0.00
Gallup									
3,900.00	1.35	134.97	3,801.01	-544.65	545.17	-770.61	2.00	-2.00	0.00
3,967.38	0.00	0.00	3,868.38	-545.21	545.73	-771.41	2.00	-2.00	0.00
4,000.00	2.94	315.17	3,900.99	-544.62	545.14	-770.57	9.00	9.00	0.00
4,045.19	7.00	315.17	3,946.00	-541.84	542.38	-766.66	9.00	9.00	0.00
Gallup Upper									
4,050.00	7.44	315.17	3,950.77	-541.41	541.96	-766.05	9.00	9.00	0.00
4,100.00	11.94	315.17	4,000.04	-535.45	536.03	-757.64	9.00	9.00	0.00
4,150.00	16.44	315.17	4,048.51	-526.76	527.39	-745.39	9.00	9.00	0.00
4,200.00	20.94	315.17	4,095.86	-515.41	516.10	-729.38	9.00	9.00	0.00
4,250.00	25.44	315.17	4,141.81	-501.45	502.22	-709.70	9.00	9.00	0.00
4,300.00	29.94	315.17	4,186.07	-484.98	485.85	-686.47	9.00	9.00	0.00
4,350.00	34.44	315.17	4,228.38	-466.10	467.07	-659.85	9.00	9.00	0.00
4,395.56	38.54	315.17	4,265.00	-446.89	447.98	-632.76	9.00	9.00	0.00
Mancos Lwr									
4,400.00	38.94	315.17	4,268.46	-444.92	446.02	-629.98	9.00	9.00	0.00
4,428.20	41.47	315.17	4,290.00	-432.01	433.18	-611.78	9.00	9.00	0.00
El Vado									
4,450.00	43.44	315.17	4,306.08	-421.58	422.81	-597.06	9.00	9.00	0.00
4,500.00	47.94	315.17	4,341.00	-396.21	397.59	-561.30	9.00	9.00	0.00
4,550.00	52.44	315.17	4,373.01	-368.98	370.52	-522.90	9.00	9.00	0.00
4,578.72	55.02	315.17	4,390.00	-352.57	354.19	-499.75	9.00	9.00	0.00
Frac Barrier									
4,600.00	56.94	315.17	4,401.91	-340.06	341.76	-482.11	9.00	9.00	0.00
4,624.75	59.16	315.17	4,415.00	-325.17	326.96	-461.12	9.00	9.00	0.00
PS 3									
4,650.00	61.44	315.17	4,427.51	-309.62	311.49	-439.18	9.00	9.00	0.00
4,700.00	65.94	315.17	4,449.67	-277.84	279.90	-394.37	9.00	9.00	0.00
4,715.97	67.37	315.17	4,456.00	-267.44	269.56	-379.71	9.00	9.00	0.00
PS2									
4,750.00	70.44	315.17	4,468.25	-244.93	247.18	-347.97	9.00	9.00	0.00
4,795.73	74.55	315.17	4,482.00	-214.01	216.43	-304.36	9.00	9.00	0.00
PS1									
4,800.00	74.94	315.17	4,483.12	-211.09	213.53	-300.24	9.00	9.00	0.00
4,850.00	79.44	315.17	4,494.21	-176.52	179.16	-251.50	9.00	9.00	0.00
4,854.39	79.83	315.17	4,495.00	-173.46	176.12	-247.18	9.00	9.00	0.00
PSA									
4,900.00	83.94	315.17	4,501.44	-141.45	144.29	-202.04	9.00	9.00	0.00
4,950.00	88.44	315.17	4,504.76	-106.08	109.12	-152.16	9.00	9.00	0.00
4,964.97	89.78	315.17	4,505.00	-95.47	98.57	-137.20	9.00	9.00	0.00
5,000.00	89.78	315.17	4,505.13	-70.62	73.87	-102.17	0.00	0.00	0.00
5,100.00	89.78	315.17	4,505.51	0.29	3.37	-2.17	0.00	0.00	0.00
5,115.38	89.78	315.17	4,505.57	11.20	-7.48	13.21	0.00	0.00	0.00
7"									
5,200.00	89.78	315.17	4,505.89	71.20	-67.14	97.83	0.00	0.00	0.00

Database:	Grand Junction District	**Local Co-ordinate Reference:**	Well KWU #769H
Company:	WPX Energy	**TVD Reference:**	GL 6561 + KB 21 = @ 6582.00usft (Cyclone 32)
Project:	T23N R9W	**MD Reference:**	GL 6561 + KB 21 = @ 6582.00usft (Cyclone 32)
Site:	KWU 771 Pad	**North Reference:**	True
Well:	KWU #769H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #2		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
5,300.00	89.78	315.17	4,506.27	142.12	-137.65	197.83	0.00	0.00	0.00
5,400.00	89.78	315.17	4,506.64	213.03	-208.15	297.83	0.00	0.00	0.00
5,500.00	89.78	315.17	4,507.02	283.94	-278.66	397.83	0.00	0.00	0.00
5,600.00	89.78	315.17	4,507.40	354.86	-349.17	497.83	0.00	0.00	0.00
5,700.00	89.78	315.17	4,507.78	425.77	-419.67	597.83	0.00	0.00	0.00
5,800.00	89.78	315.17	4,508.16	496.69	-490.18	697.83	0.00	0.00	0.00
5,900.00	89.78	315.17	4,508.54	567.60	-560.68	797.83	0.00	0.00	0.00
6,000.00	89.78	315.17	4,508.92	638.51	-631.19	897.83	0.00	0.00	0.00
6,100.00	89.78	315.17	4,509.30	709.43	-701.70	997.83	0.00	0.00	0.00
6,200.00	89.78	315.17	4,509.68	780.34	-772.20	1,097.83	0.00	0.00	0.00
6,300.00	89.78	315.17	4,510.05	851.25	-842.71	1,197.82	0.00	0.00	0.00
6,400.00	89.78	315.17	4,510.43	922.17	-913.21	1,297.82	0.00	0.00	0.00
6,500.00	89.78	315.17	4,510.81	993.08	-983.72	1,397.82	0.00	0.00	0.00
6,600.00	89.78	315.17	4,511.19	1,063.99	-1,054.23	1,497.82	0.00	0.00	0.00
6,700.00	89.78	315.17	4,511.57	1,134.91	-1,124.73	1,597.82	0.00	0.00	0.00
6,800.00	89.78	315.17	4,511.95	1,205.82	-1,195.24	1,697.82	0.00	0.00	0.00
6,900.00	89.78	315.17	4,512.33	1,276.74	-1,265.74	1,797.82	0.00	0.00	0.00
7,000.00	89.78	315.17	4,512.71	1,347.65	-1,336.25	1,897.82	0.00	0.00	0.00
7,077.13	89.78	315.17	4,513.00	1,402.34	-1,390.63	1,974.94	0.00	0.00	0.00
PSA Base									
7,100.00	89.78	315.17	4,513.09	1,418.56	-1,406.76	1,997.82	0.00	0.00	0.00
7,200.00	89.78	315.17	4,513.47	1,489.48	-1,477.26	2,097.82	0.00	0.00	0.00
7,300.00	89.78	315.17	4,513.84	1,560.39	-1,547.77	2,197.82	0.00	0.00	0.00
7,400.00	89.78	315.17	4,514.22	1,631.30	-1,618.28	2,297.82	0.00	0.00	0.00
7,500.00	89.78	315.17	4,514.60	1,702.22	-1,688.78	2,397.82	0.00	0.00	0.00
7,600.00	89.78	315.17	4,514.98	1,773.13	-1,759.29	2,497.82	0.00	0.00	0.00
7,700.00	89.78	315.17	4,515.36	1,844.04	-1,829.79	2,597.81	0.00	0.00	0.00
7,800.00	89.78	315.17	4,515.74	1,914.96	-1,900.30	2,697.81	0.00	0.00	0.00
7,900.00	89.78	315.17	4,516.12	1,985.87	-1,970.81	2,797.81	0.00	0.00	0.00
8,000.00	89.78	315.17	4,516.50	2,056.79	-2,041.31	2,897.81	0.00	0.00	0.00
8,100.00	89.78	315.17	4,516.88	2,127.70	-2,111.82	2,997.81	0.00	0.00	0.00
8,200.00	89.78	315.17	4,517.26	2,198.61	-2,182.32	3,097.81	0.00	0.00	0.00
8,300.00	89.78	315.17	4,517.63	2,269.53	-2,252.83	3,197.81	0.00	0.00	0.00
8,400.00	89.78	315.17	4,518.01	2,340.44	-2,323.34	3,297.81	0.00	0.00	0.00
8,500.00	89.78	315.17	4,518.39	2,411.35	-2,393.84	3,397.81	0.00	0.00	0.00
8,600.00	89.78	315.17	4,518.77	2,482.27	-2,464.35	3,497.81	0.00	0.00	0.00
8,700.00	89.78	315.17	4,519.15	2,553.18	-2,534.85	3,597.81	0.00	0.00	0.00
8,800.00	89.78	315.17	4,519.53	2,624.09	-2,605.36	3,697.81	0.00	0.00	0.00
8,900.00	89.78	315.17	4,519.91	2,695.01	-2,675.87	3,797.81	0.00	0.00	0.00
9,000.00	89.78	315.17	4,520.29	2,765.92	-2,746.37	3,897.81	0.00	0.00	0.00
9,100.00	89.78	315.17	4,520.67	2,836.84	-2,816.88	3,997.80	0.00	0.00	0.00
9,200.00	89.78	315.17	4,521.05	2,907.75	-2,887.39	4,097.80	0.00	0.00	0.00
9,300.00	89.78	315.17	4,521.42	2,978.66	-2,957.89	4,197.80	0.00	0.00	0.00
9,400.00	89.78	315.17	4,521.80	3,049.58	-3,028.40	4,297.80	0.00	0.00	0.00
9,500.00	89.78	315.17	4,522.18	3,120.49	-3,098.90	4,397.80	0.00	0.00	0.00
9,600.00	89.78	315.17	4,522.56	3,191.40	-3,169.41	4,497.80	0.00	0.00	0.00
9,700.00	89.78	315.17	4,522.94	3,262.32	-3,239.92	4,597.80	0.00	0.00	0.00
9,800.00	89.78	315.17	4,523.32	3,333.23	-3,310.42	4,697.80	0.00	0.00	0.00
9,900.00	89.78	315.17	4,523.70	3,404.14	-3,380.93	4,797.80	0.00	0.00	0.00
10,000.00	89.78	315.17	4,524.08	3,475.06	-3,451.43	4,897.80	0.00	0.00	0.00
10,100.00	89.78	315.17	4,524.46	3,545.97	-3,521.94	4,997.80	0.00	0.00	0.00

Database:	Grand Junction District	**Local Co-ordinate Reference:**	Well KWU #769H
Company:	WPX Energy	**TVD Reference:**	GL 6561 + KB 21 = @ 6582.00usft (Cyclone 32)
Project:	T23N R9W	**MD Reference:**	GL 6561 + KB 21 = @ 6582.00usft (Cyclone 32)
Site:	KWU 771 Pad	**North Reference:**	True
Well:	KWU #769H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #2		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
10,200.00	89.78	315.17	4,524.84	3,616.89	-3,592.45	5,097.80	0.00	0.00	0.00
10,300.00	89.78	315.17	4,525.21	3,687.80	-3,662.95	5,197.80	0.00	0.00	0.00
10,400.00	89.78	315.17	4,525.59	3,758.71	-3,733.46	5,297.80	0.00	0.00	0.00
10,500.00	89.78	315.17	4,525.97	3,829.63	-3,803.96	5,397.79	0.00	0.00	0.00
10,600.00	89.78	315.17	4,526.35	3,900.54	-3,874.47	5,497.79	0.00	0.00	0.00
10,700.00	89.78	315.17	4,526.73	3,971.45	-3,944.98	5,597.79	0.00	0.00	0.00
10,800.00	89.78	315.17	4,527.11	4,042.37	-4,015.48	5,697.79	0.00	0.00	0.00
10,900.00	89.78	315.17	4,527.49	4,113.28	-4,085.99	5,797.79	0.00	0.00	0.00
11,000.00	89.78	315.17	4,527.87	4,184.20	-4,156.50	5,897.79	0.00	0.00	0.00
11,100.00	89.78	315.17	4,528.25	4,255.11	-4,227.00	5,997.79	0.00	0.00	0.00
11,200.00	89.78	315.17	4,528.63	4,326.02	-4,297.51	6,097.79	0.00	0.00	0.00
11,300.00	89.78	315.17	4,529.00	4,396.94	-4,368.01	6,197.79	0.00	0.00	0.00
11,400.00	89.78	315.17	4,529.38	4,467.85	-4,438.52	6,297.79	0.00	0.00	0.00
11,500.00	89.78	315.17	4,529.76	4,538.76	-4,509.03	6,397.79	0.00	0.00	0.00
11,562.78	89.78	315.17	4,530.00	4,583.28	-4,553.29	6,460.56	0.00	0.00	0.00

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
KWU769H POE	0.00	0.00	4,505.00	11.29	-3.54	1,899,570.52	507,950.97	36.220681	-107.806378
- plan misses target center by 2.91usft at 5112.67usft MD (4505.55 TVD, 9.27 N, -5.57 E)									
- Point									
KWU769H BHL	0.00	0.00	4,530.00	4,583.28	-4,553.29	1,904,141.25	503,399.95	36.233240	-107.821805
- plan hits target center									
- Point									

Casing Points

Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")
5,115.38	4,505.57	7"	7	8-3/4

Database:	Grand Junction District	**Local Co-ordinate Reference:**	Well KWU #769H
Company:	WPX Energy	**TVD Reference:**	GL 6561 + KB 21 = @ 6582.00usft (Cyclone 32)
Project:	T23N R9W	**MD Reference:**	GL 6561 + KB 21 = @ 6582.00usft (Cyclone 32)
Site:	KWU 771 Pad	**North Reference:**	True
Well:	KWU #769H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #2		

Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
124.00	124.00	Ojo Alamo			
837.70	836.00	Picture Cliffs			
996.30	992.00	Lewis			
1,249.31	1,237.00	Chacra			
2,303.26	2,249.00	Cliff House			
2,322.00	2,267.00	Menefee			
3,387.04	3,292.00	Point Lookout			
3,493.85	3,397.00	Mancos			
3,853.97	3,755.00	Gallup			
4,045.19	3,946.00	Gallup Upper			
4,395.56	4,265.00	Mancos Lwr			
4,428.20	4,290.00	El Vado			
4,578.72	4,390.00	Frac Barrier			
4,624.75	4,415.00	PS 3			
4,715.97	4,456.00	PS2			
4,795.73	4,482.00	PS1			
4,854.39	4,495.00	PSA			
7,077.13	4,513.00	PSA Base			

KWU #769H
T23N R9W
Northing: 1899559.23
Easting: 507954.51
Plan #2

GL 6561 + KB 21 = @ 6582.00usft (Cyclone 32)

Scientific Drilling

Azimuths to True North
Magnetic North: 9.03°

Magnetic Field
Strength: 49585.1snT
Dip Angle: 62.78°
Date: 1/17/2018
Model: HDGM

WELL DETAILS KWU #769H

Ground Level: 6561.00

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	1899559.23	507954.51	36.220650	-107.806366

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00
1210.93	16.22	134.97	1200.15	-80.58	80.66	2.00	134.97	-114.01
3156.45	16.22	134.97	3068.23	-464.63	465.07	0.00	0.00	-657.40
3967.38	0.00	0.00	3868.38	-545.21	545.73	2.00	180.00	-771.41
4964.97	89.78	315.17	4505.00	-95.47	98.57	9.00	315.17	-137.20
11562.78	89.78	315.17	4530.00	4583.28	-4553.29	0.00	0.00	6460.56

SITE DETAILS: KWU 771 Pad

Site Centre Northing: 1899574.16
Easting: 507967.48

Positional Uncertainty: 0.00
Convergence: 0.02
Local North: True

PROJECT DETAILS: T23N R9W

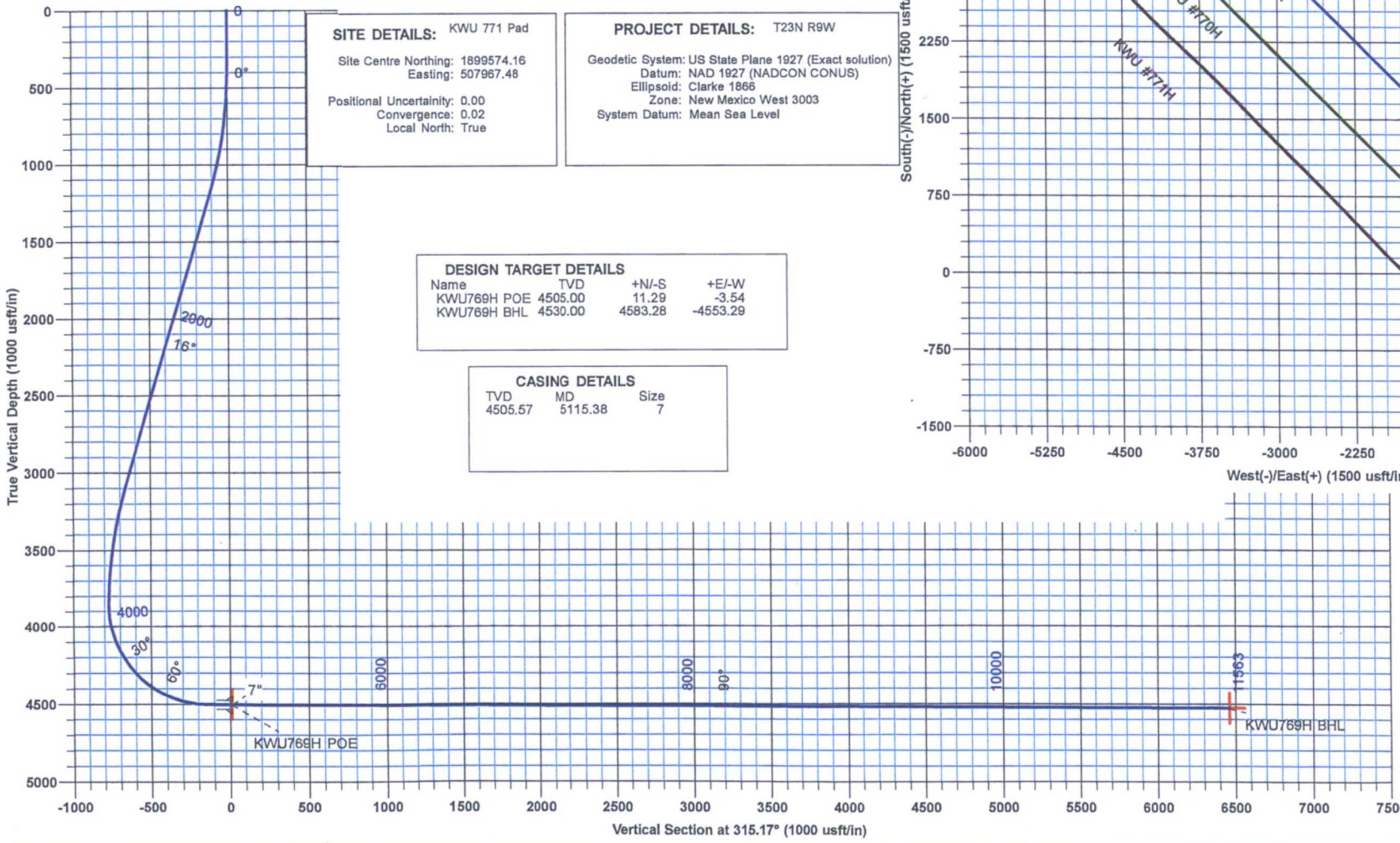
Geodetic System: US State Plane 1927 (Exact solution)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: New Mexico West 3003
System Datum: Mean Sea Level

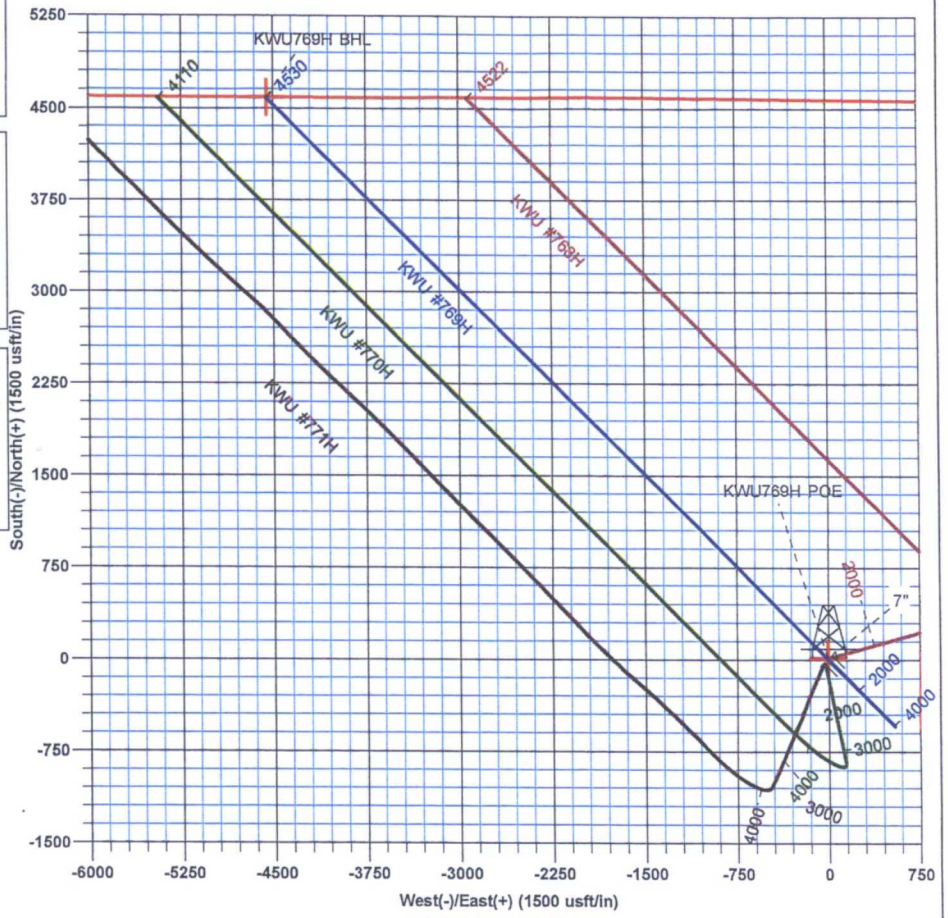
DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W
KWU769H POE	4505.00	11.29	-3.54
KWU769H BHL	4530.00	4583.28	-4553.29

CASING DETAILS

TVD	MD	Size
4505.57	5115.38	7





Bailey Fellows
8:35, January 19 2018

Scientific Drilling
325 S Faudree Rd
Odessa, TX 79765

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

in Bloomfield, NM to WPX Energy Production, LLC KWU #769H

440' FSL & 1089' FEL, Section 17, T23N, R9W, N.M.P.M., San Juan County, NM

Latitude: 36.220663°N Longitude: 107.806982°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) for 2.7 miles to begin proposed access on left-hand side of County Road #7820 which continues for 53.9' to staked WPX KWU #769H location.