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Form 3160-5
(February 2005)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

Farmington Field Office
Bureau of Land Management

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.

Management Serial No.
NMSF 078534

6. If Indian, Allottee or Tribe Name

7. If Unit of CA/Agreement, Name and/or No.
NMNM134944

8. Well Name and No.
MC 6 Com #901H

9. API Well No.
30-039-31334

10. Field and Pool or Exploratory Area
Basin Mancos / Lybrook Gallup

11. Country or Parish, State
Rio Arriba, NM

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)
SHL: 1732' FSL & 269' FEL SEC 35 24N 7W
BHL: 330' FNL & 825' FWL SEC 35 24N 7W

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	<u>Record Cleanup and</u>
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	<u>Realign Lateral</u>

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

WPX recently submitted a series of sundries that we would like to clarify. The Sundries entitled "Realign Lateral" dated 11/20/2015 and "Change of OPS Cement Plan" dated 12/1/2015 should be disregarded. Attached to this Sundry is an updated OPS plan, Directional Plan and C-102. The surface location is the same as what was approved in the APD. The lateral, the cement plan in the Operations Plan, and the BHL and POE on the C-102 have changed from the APD.

OIL CONS. DIV DIST. 3

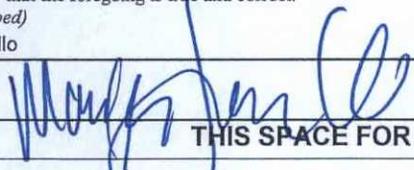
DEC 14 2015

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

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

Name (Printed/Typed)
Marie E. Jaramillo

Title Permit Tech

Signature 

Date 12/8/2015

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by Abdelgadir Elmadani

Title PE

Office FFO

Date 12-10-15

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.

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

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

WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number 30-039-31331		*Pool Code 97232 / 42289		*Pool Name BASIN MANCOS / LYBROOK GALLUP	
*Property Code 315094		*Property Name MC 6 COM		*Well Number 901H	
*OGRID No 120782		*Operator Name WPX ENERGY PRODUCTION, LLC		*Elevation 6806	

¹⁰ Surface Location

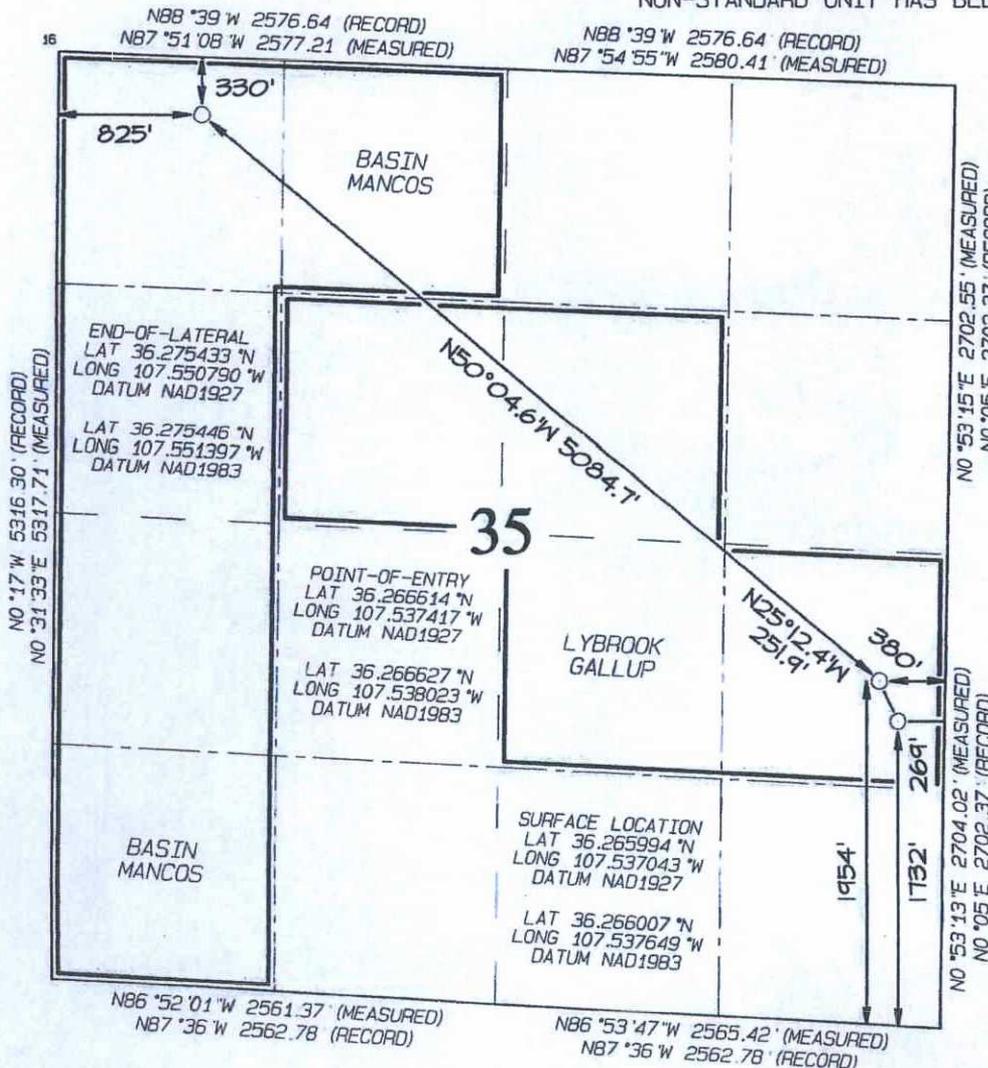
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
I	35	24N	7W		1732	SOUTH	269	EAST	RIO ARRIBA

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	35	24N	7W		330	NORTH	825	WEST	RIO ARRIBA

¹² Dedicated Acres 360.0 NW/4, W/2 SW/4, SW/4 NE/4 N/2 SE/4 - Section 35, T24N, R7W	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No
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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.

Manuel Jaramilla 12/8/15
Signature Date
Manuel Jaramilla
Printed Name
Manuel Jaramilla@upkenesca.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: DECEMBER 7, 2015
Survey Date: SEPTEMBER 3, 2013

Signature and Seal of Professional Surveyor



JASON C. EDWARDS
Certificate Number 15269



WPX Energy

T24N R7W

Chaco 2407-35I

MC 6 COM #901H - Slot A1

Wellbore #1

Plan: Design #3 7Dec15 sam

Standard Planning Report

07 December, 2015



WPX
Planning Report

Database:	COMPASS	Local Co-ordinate Reference:	Well MC 6 COM #901H (A1) - Slot A1
Company:	WPX Energy	TVD Reference:	KB @ 6831.00usft (Aztec 1000)
Project:	T24N R7W	MD Reference:	KB @ 6831.00usft (Aztec 1000)
Site:	Chaco 2407-35I	North Reference:	True
Well:	MC 6 COM #901H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #3 7Dec15 sam		

Project	T24N R7W		
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	Chaco 2407-35I				
Site Position:		Northing:	1,916,198.41 usft	Latitude:	36.265996
From:	Lat/Long	Easting:	587,389.82 usft	Longitude:	-107.536894
Position Uncertainty:	0.00 usft	Slot Radius:	13.200 in	Grid Convergence:	0.18 °

Well	MC 6 COM #901H - Slot A1					
Well Position	+N/-S	-0.57 usft	Northing:	1,916,197.70 usft	Latitude:	36.265995
	+E/-W	-43.92 usft	Easting:	587,345.90 usft	Longitude:	-107.537043
Position Uncertainty		0.00 usft	Wellhead Elevation:	0.00 usft	Ground Level:	6,806.00 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	6/4/2015	9.26	63.00	50,098

Design	Design #3 7Dec15 sam				
Audit Notes:					
Version:	Phase:	PLAN	Tie On Depth:	0.00	
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (bearing)	
	0.00	0.00	0.00	310.30	

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	
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,058.47	7.17	117.32	1,057.54	-10.28	19.90	2.00	2.00	0.00	117.32	
4,570.05	7.17	117.32	4,541.66	-211.40	409.29	0.00	0.00	0.00	0.00	
5,314.78	60.00	309.16	5,170.73	-4.99	172.94	9.00	7.09	-22.58	-168.87	Start 60 Tan #910 7D
5,374.78	60.00	309.16	5,200.73	27.82	132.65	0.00	0.00	0.00	0.00	End 60 Tan #901H 7C
5,541.60	75.01	309.16	5,264.37	124.87	13.48	9.00	9.00	0.00	0.00	
5,703.11	89.55	309.16	5,286.00	225.67	-110.28	9.00	9.00	0.00	0.01	POE #901H 11Nov15
10,787.18	89.55	309.16	5,326.00	3,436.15	-4,052.23	0.00	0.00	0.00	0.00	BHL #901H 11Nov15

WPX
Planning Report

Database:	COMPASS	Local Co-ordinate Reference:	Well MC 6 COM #901H (A1) - Slot A1
Company:	WPX Energy	TVD Reference:	KB @ 6831.00usft (Aztec 1000)
Project:	T24N R7W	MD Reference:	KB @ 6831.00usft (Aztec 1000)
Site:	Chaco 2407-35I	North Reference:	True
Well:	MC 6 COM #901H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #3 7Dec15 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	
345.00	0.00	0.00	345.00	0.00	0.00	0.00	0.00	0.00	0.00	
9 5/8"										
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00	
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00	
Start Build 2.00										
1,000.00	6.00	117.32	999.45	-7.20	13.94	-15.29	2.00	2.00	0.00	
1,058.47	7.17	117.32	1,057.54	-10.28	19.90	-21.83	2.00	2.00	0.00	
Hold 7.17 Inclination										
1,500.00	7.17	117.32	1,495.61	-35.57	68.86	-75.52	0.00	0.00	0.00	
2,000.00	7.17	117.32	1,991.70	-64.20	124.30	-136.33	0.00	0.00	0.00	
2,500.00	7.17	117.32	2,487.79	-92.84	179.75	-197.14	0.00	0.00	0.00	
3,000.00	7.17	117.32	2,983.89	-121.48	235.19	-257.94	0.00	0.00	0.00	
3,500.00	7.17	117.32	3,479.98	-150.11	290.63	-318.75	0.00	0.00	0.00	
4,000.00	7.17	117.32	3,976.07	-178.75	346.08	-379.56	0.00	0.00	0.00	
4,500.00	7.17	117.32	4,472.16	-207.39	401.52	-440.37	0.00	0.00	0.00	
4,570.05	7.17	117.32	4,541.66	-211.40	409.29	-448.89	0.00	0.00	0.00	
Start Build DLS 9.00 TFO -168.87										
5,000.00	31.69	310.60	4,953.66	-147.79	344.92	-358.65	9.00	5.70	-38.78	
5,314.78	60.00	309.16	5,170.73	-4.99	172.94	-135.13	9.00	8.99	-0.46	
Hold 60.00 Inclination										
5,374.78	60.00	309.16	5,200.73	27.82	132.65	-83.18	0.00	0.00	0.00	
Start Build DLS 9.00 TFO 0.00										
5,500.00	71.27	309.16	5,252.30	99.74	44.35	30.68	9.00	9.00	0.00	
5,541.60	75.01	309.16	5,264.37	124.87	13.48	70.48	9.00	9.00	0.00	
Start DLS 9.00 TFO 0.01										
5,703.00	89.54	309.16	5,286.00	225.60	-110.20	229.95	9.00	9.00	0.00	
7"										
5,703.11	89.55	309.16	5,286.00	225.67	-110.28	230.06	9.00	9.00	0.00	
POE at 89.55 In 309.16 Deg										
6,000.00	89.55	309.16	5,288.34	413.15	-340.48	526.89	0.00	0.00	0.00	
6,500.00	89.55	309.16	5,292.27	728.89	-728.15	1,026.77	0.00	0.00	0.00	
7,000.00	89.55	309.16	5,296.20	1,044.63	-1,115.83	1,526.66	0.00	0.00	0.00	
7,500.00	89.55	309.16	5,300.14	1,360.37	-1,503.51	2,026.54	0.00	0.00	0.00	
8,000.00	89.55	309.16	5,304.07	1,676.11	-1,891.18	2,526.43	0.00	0.00	0.00	
8,500.00	89.55	309.16	5,308.01	1,991.85	-2,278.86	3,026.32	0.00	0.00	0.00	
9,000.00	89.55	309.16	5,311.94	2,307.59	-2,666.53	3,526.20	0.00	0.00	0.00	
9,500.00	89.55	309.16	5,315.87	2,623.33	-3,054.21	4,026.09	0.00	0.00	0.00	
10,000.00	89.55	309.16	5,319.81	2,939.07	-3,441.89	4,525.98	0.00	0.00	0.00	
10,500.00	89.55	309.16	5,323.74	3,254.81	-3,829.56	5,025.86	0.00	0.00	0.00	
10,787.18	89.55	309.16	5,326.00	3,436.15	-4,052.23	5,312.97	0.00	0.00	0.00	
TD at 10787.18										

WPX
Planning Report

Database:	COMPASS	Local Co-ordinate Reference:	Well MC 6 COM #901H (A1) - Slot A1
Company:	WPX Energy	TVD Reference:	KB @ 6831.00usft (Aztec 1000)
Project:	T24N R7W	MD Reference:	KB @ 6831.00usft (Aztec 1000)
Site:	Chaco 2407-35I	North Reference:	True
Well:	MC 6 COM #901H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #3 7Dec15 sam		

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (bearing)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
Start 60 Tan #910 7Dec - hit/miss target - Shape - Point	0.00	0.00	5,170.73	-4.99	172.94	1,916,193.24	587,518.86	36.265981	-107.536457
End 60 Tan #901H 7Dec - plan hits target center - Point	0.00	0.00	5,200.73	27.82	132.65	1,916,225.93	587,478.47	36.266071	-107.536593
POE #901H 11Nov15 sa - plan hits target center - Point	0.00	0.00	5,286.00	225.67	-110.28	1,916,423.03	587,234.93	36.266614	-107.537417
BHL #901H 11Nov15 sai - plan hits target center - Point	0.00	0.00	5,326.00	3,436.15	-4,052.23	1,919,621.44	583,283.18	36.275433	-107.550791

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (in)	Hole Diameter (in)	
345.00	345.00	9 5/8"	9.625	12.250	
5,703.00	5,286.00	7"	7.000	8.750	

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment	
		+N/-S (usft)	+E/-W (usft)		
700.00	700.00	0.00	0.00	Start Build 2.00	
1,058.47	1,057.54	-10.28	19.90	Hold 7.17 Inclination	
4,570.05	4,541.66	-211.40	409.29	Start Build DLS 9.00 TFO -168.87	
5,314.78	5,170.73	-4.99	172.94	Hold 60.00 Inclination	
5,374.78	5,200.73	27.82	132.65	Start Build DLS 9.00 TFO 0.00	
5,541.60	5,264.37	124.87	13.48	Start DLS 9.00 TFO 0.01	
5,703.11	5,286.00	225.67	-110.28	POE at 89.55 In 309.16 Deg	
10,787.18	5,326.00	3,436.15	-4,052.23	TD at 10787.18	

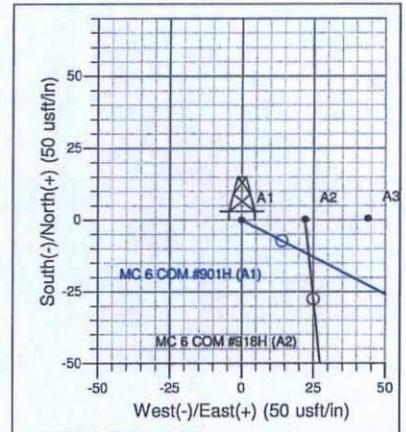
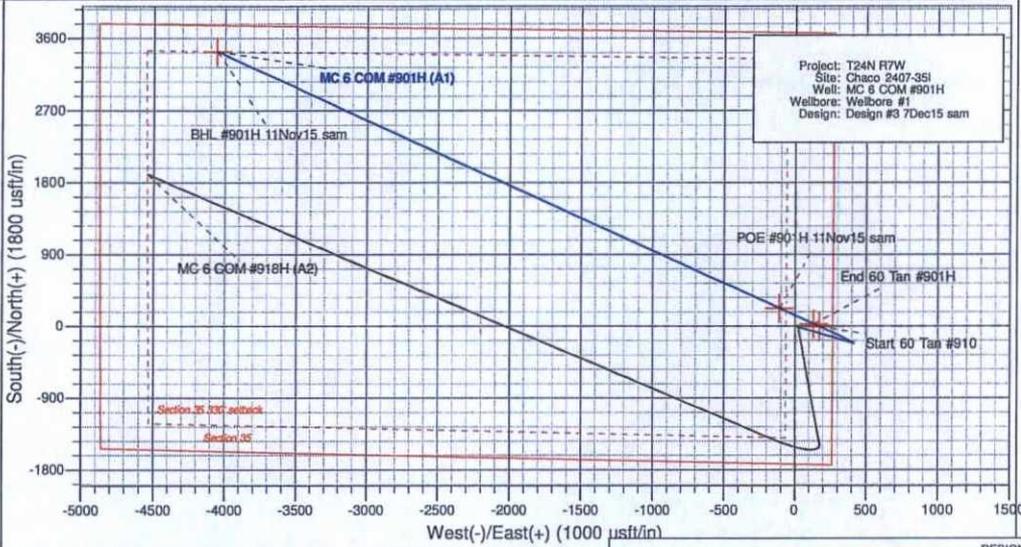
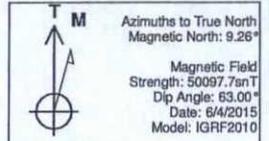


Well Name: MC 6 COM #901H
 Surface Location: Chaco 2407-351
 NAD 1927 (NADCON CONUS) , US State Plane 1927 (Exact solution) New Mexico West 3003
 Ground Elevation: 6806.00

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	1916197.70	587345.90	36.265994	-107.537043

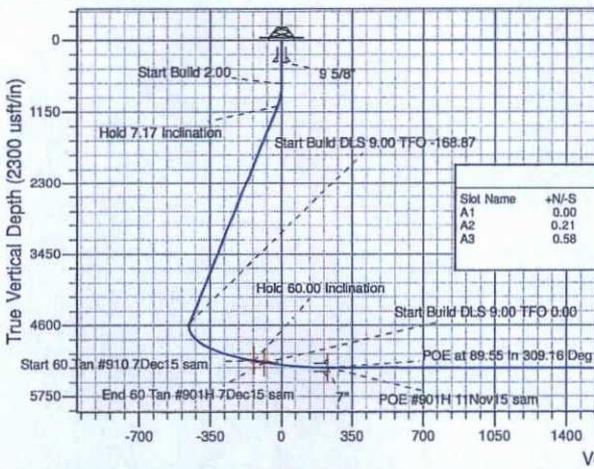
KB @ 6831.00usft (Aztec 1000)

Slot A1



DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
Start 60 Tan #910 7Dec15 sam	5170.73	-4.99	172.94	1916193.24	587518.85	36.265961	-107.536456	Point
End 60 Tan #901H 7Dec15 sam	- plan hits target center	5200.73	27.82	132.65	1916225.93	587478.46	36.266071	-107.536593
POE #901H 11Nov15 sam	- plan hits target center	5286.00	225.67	-110.28	1916423.03	587234.93	36.266614	-107.537417
BHL #901H 11Nov15 sam	- plan hits target center	5326.00	3436.15	-4052.23	1919621.44	583283.16	36.275433	-107.550790



SLOTS

Slot Name	+N/-S	+E/-W	Northing	Easting
A1	0.00	0.00	1916197.70	587345.90
A2	0.21	22.11	1916197.98	587368.01
A3	0.58	43.92	1916198.41	587389.82

ANNOTATIONS

TVD	MD	Inc	Azi	+N/-S	+E/-W	VSect	Departure	Annotation
700.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00	Start Build 2.00
1057.54	1058.47	7.17	117.32	-10.28	18.90	-21.83	22.40	Hold 7.17 Inclination
4541.66	4570.05	7.17	117.32	-211.40	409.29	-448.89	460.68	Start Build DLS 9.00 TFO -168.87
5170.73	5314.78	60.00	309.16	-4.99	172.94	-135.13	785.55	Hold 60.00 Inclination
5200.73	5374.78	60.00	309.16	27.82	132.65	-83.18	837.52	Start Build DLS 9.00 TFO 0.00
5284.37	5941.60	75.01	309.16	124.87	13.48	70.48	891.20	Start DLS 9.00 TFO 0.01
5286.00	5703.11	89.55	309.16	225.67	-110.28	230.06	1150.82	POE at 69.55 in 309.16 Deg
5326.00	10787.18	89.55	309.16	3436.15	-4052.23	5312.97	6234.73	TD at 10787.18



WPX Energy

Operations Plan

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

Date: December 8, 2015 **Field:** Basin Mancos / Lybrook Gallup
Well Name: MC 6 COM #901H **Surface:** BLM
SH Location: NESE Sec 35-24N-07W **Elevation:** 6806' GR
BH Location: NWNW Sec 35-24N-07W **Minerals:** FED

Measured Depth: 10,787.18'

I. GEOLOGY: SURFACE FORMATION - NACIMIENTO/ SAN JOSE

A. FORMATION TOPS (KB)

NAME	MD	TVD	NAME	MD	TVD
OJO ALAMO	1061	1059	POINT LOOKOUT	4198	4177
KIRTLAND	1369	1366	MANCOS	4459	4436
PICTURED CLIFFS	2048	2040	GALLUP	4875	4846
LEWIS	2120	2112	KICKOFF POINT	4,570.05	4,541.66
CHACRA	2379	2369	TOP TARGET	5499	5236
CLIFF HOUSE	3478	3461	LANDING POINT	5,703.11	5,286.00
MENEFEE	3530	3513	BASE TARGET	5,703.11	5,286.00
			TD	10,787.18	5,326.00

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 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**. Pressure test surface casing to **600 psi for 30 minutes** and intermediate casing to **1500 psi for 30 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:

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"	5,703.11'	7"	23 LBS	J-55 or equiv	LTC
PRODUCTION	6.125"	5553.11' - 10,787.18'	4.5"	11.6 LBS	P-110 or equiv	LTC
TIE BACK	6.125"	Surf. - 5553.11'	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: 123 bbls, 350 sks, (689 cuft), 12.3 ppg @ 1.97 cuft/sk yield. Tail Cement: 76 bbls, 327 sks, (425 cuft), 13.5 ppg @ 1.3 cuft/sk yield. Displacement: Displace w/ +/- 225 bbl Drilling mud or water.
Total Cement: 198 bbls, 676 sks, (1114 cuft)
STAGE 2: Spacer #1: 20 bbl (112 cuft) Chemwash. Lead Cement: 57 bbls, 165 sks, (321 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/ +/- 90 bbl Drilling mud or water.
Total Cement: 73 bbls, 243 sks, (411 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 (513 sx /697 cuft /124 bbls). Tail Spacer: 20 BBL of MMCR. Displacement: Displace w/ +/- 140 bbl Fr Water. Total Cement (513 sx /697bbls).

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.

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).