

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

NM OIL CONSERVATION
ARTESIA DISTRICT
OCD Artesia
AUG 29 2017
RECEIVED

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

1. Type of Well ☒ Oil Well ☐ Gas Well ☐ Other		5. Lease Serial No. NMNM89819
2. Name of Operator OXY USA INCORPORATED Contact: DAVID STEWART E-Mail: david_stewart@oxy.com		6. If Indian, Allottee or Tribe Name
3a. Address 5 GREENWAY PLAZA SUITE 110 HOUSTON, TX 77046-0521	3b. Phone No. (include area code) Ph: 432-685-5717	7. If Unit or CA/Agreement, Name and/or No.
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) Sec 18 T24S R31E NWNE 335FNL 2062FEL 32.236717 N Lat, 103.815056 W Lon		8. Well Name and No. PATTON MDP1 18 FEDERAL 33H
		9. API Well No. 30-015-44338-00-X1
		10. Field and Pool or Exploratory Area COTTON DRAW-BONE SPRING
		11. County or Parish, State EDDY COUNTY, 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 Shut-Off	
☐ Subsequent Report	☐ Alter Casing	☐ Hydraulic Fracturing	☐ Reclamation	☐ Well Integrity	
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☒ Other	
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	Change to Original A	
	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	PD	

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

OXY USA Inc. respectfully requests approval for the following changes from the approved permit:

1. Change in the Target Bench from 1st Bone Springs to Avalon (Bone Springs) *✓*
2. Change in the Casing Design
Due to the change in the formation being targeted the production casing will be changed to accommodate the higher predicted CO2 concentration in the Avalon. See attached for detail.
3. Change in the Cement Program
Due to the change in the formation being targeted, the directional plan must be edited to reflect this change. See attached for detail.
 - a. The Surface Slurry has been reduced to a 14.2 ppg to reduce the hydrostatic if losses are seen.

14. I hereby certify that the foregoing is true and correct. Electronic Submission #383503 verified by the BLM Well Information System For OXY USA INCORPORATED, sent to the Carlsbad Committed to AFMSS for processing by TENILLE ORTIZ on 08/08/2017 (17T00029SE)	
Name (Printed/Typed) DAVID STEWART	Title REGULATORY ADVISOR
Signature (Electronic Submission)	Date 08/02/2017

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By <i>[Signature]</i>	Title <i>Eng</i>	Date <i>8/21/17</i>
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 <i>CFO</i>

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)

**** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ****

R.R. 9-13-17

Additional data for EC transaction #383503 that would not fit on the form

32. Additional remarks, continued

Therefore, the change in slurry resulted in a change in the number of sacks required.

b. Production hole excess on tail slurry is being reduced to 20% from 125%.

4. Change in Directional Plan

Due to the change in the formation being targeted, the directional plan must be edited to reflect this change. Please see the attached document for the updated directional plan to achieve the new targets.

5. Change in the Mud Program

Due to the change in the formation being targeted, the directional plan must be edited to reflect this change, see attached for detail.

6. Change in Bottomhole Pressure, Bottomhole Temperature, and Estimated Cuttings Volume

Due to the change in the formation being targeted, the estimated temperatures, pressures, and cuttings volumes must be edited to reflect this change, see attached for detail.

7. Change to the wellhead design due to availability and cost.

A multibowl or a unionized multibowl wellhead system will be employed. The wellhead and connection to the BOPE will meet all API 6A requirements. The BOP will be tested per Onshore Order #2 after installation on the surface casing which will cover testing requirements for a maximum of 30 days. If any seal subject to test pressure is broken the system must be tested. We will test the flange connection of the wellhead with a test port that is directly in the flange. We are proposing that we will run the MNDS wellhead through the rotary prior to cementing surface casing as discussed with the BLM on October 8, 2015. See attachment to reflect new wellhead configuration.

OXY USA Inc. – Patton MDP1 18 Federal #33H – Amended Drilling Plan

OXY respectfully requests approval for the following changes from the approved permit:

1. Change in the Target Bench from 1st Bone Springs to Avalon (Bone Springs)

TVD of target	8872'	Pilot Hole Depth	N/A
MD at TD:	13739'	Deepest Expected fresh water:	595'

Formation	TVD - RKB	Expected Fluids
Rustler	595	
Salado	950	
Castile	2609	
Lamar/Delaware	4295	Oil/Gas
Bell Canyon*	4342	Water/Oil/Gas
Cherry Canyon*	5123	Oil/Gas
Brushy Canyon*	6444	Oil/Gas
Bone Spring	8086	Oil/Gas
1st Bone Spring	9101	Oil/Gas

*H2S, water flows, loss of circulation, abnormal pressures, etc.

2. Change in the Casing Design

Due to the change in the formation being targeted the production casing will be changed to accommodate the higher predicted CO2 concentration in the Avalon.

Hole Size (in)	Casing Interval		Csg. Size (in)	Weight (lbs)	Grade	Conn.	SF		Buoyant Body SF	Buoyant Joint SF
	From (ft)	To (ft)					Collapse	Burst	Tension	Tension
17.5	0	645	13.375	54.5	J55	BTC	6.66	1.33	2.44	2.62
12.25	0	4345	9.625	36	J55	BTC	2.2	1.21	2.02	2.3
8.5	0	8800	5.5	20	P-110	DQX	1.42	1.3	2.07	2.19
8.5	8800	13669	5.5	20	13CR-95	BTS-6	2.14	1.2	1.87	1.87

Casing String	OD (in)	ID (in)	Cpl OD (in)	Drift (in)	Wt. (#/ft)	Grade	Con	Burst (psi)	Collapse (psi)	Tension (k-lbs)	Make-up Torque (ft-lbs)		
											Min	Opt	Max
Production	5.5	4.892	6.05	4.767	20	P-110	DQX	12600	11100	641 Con	11600	12900	14100
Production	5.5	4.778	6.0	4.653	20	13CR-95	BTS-6	10910	10020	554 Body	7000	7875	8750

OXY USA Inc. – Patton MDP1 18 Federal #33H – Amended Drilling Plan

3. Change in the Cement Program

Due to the change in the formation being targeted, the directional plan must be edited to reflect this change.

- The Surface Slurry has been reduced to a 14.2 ppg to reduce the hydrostatic if losses are seen. Therefore, the change in slurry resulted in a change in the # of Sacks required.
- Production hole excess on tail slurry is being reduced to 20% from 125%.

Casing	# Sks	Wt. lb/gal	Yld ft ³ /sack	H ₂ O gal/sk	500# Comp. Strength (hours)	Slurry Description
Surface	422	14.2	1.68	6.53	6:50	Class C Cement, Accelerator
Intermediate Casing	1143	12.9	1.74	8.67	15:07	Pozzolan Cement, Retarder
	156	14.8	1.326	6.34	6:31	Class C Cement, Retarder, Dispersant, Salt
Production Casing	505	10.2	3.057	15.65	19:09	Class C Cement
	995	13.2	1.631	8.37	15:15	Class H Cement, Retarder, Dispersant, Salt

Casing String	Top of Lead (ft)	Bottom of Lead (ft)	Top of Tail (ft)	Bottom of Tail (ft)	% Excess Lead	% Excess Tail
Surface	N/A	N/A	0	645	N/A	50%
Intermediate Casing	0	3845	3845	4345	75%	20%
Production Casing	3845	7857	7857	13739	75%	20%

4. Change in Directional Plan

Due to the change in the formation being targeted, the directional plan must be edited to reflect this change. Please see the attached document for the updated directional plan to achieve the new targets.

5. Change in the Mud Program

Due to the change in the formation being targeted, the directional plan must be edited to reflect this change.

Depth		Type	Weight (ppg)	Viscosity	Water Loss
From (ft)	To (ft)				
0	645	Water-Based Mud	8.4-8.6	40-60	N/C
645	4345	Brine	9.8-10.0	35-45	N/C
4345	8357	Water-Based Mud	8.8-9.6	38-50	N/C
8357	13739	Oil-Based Mud	8.8-9.6	35-50	N/C

OXY USA Inc. – Patton MDP1 18 Federal #33H – Amended Drilling Plan

6. Change in Bottomhole Pressure, Bottomhole Temperature, and Estimated Cuttings Volume

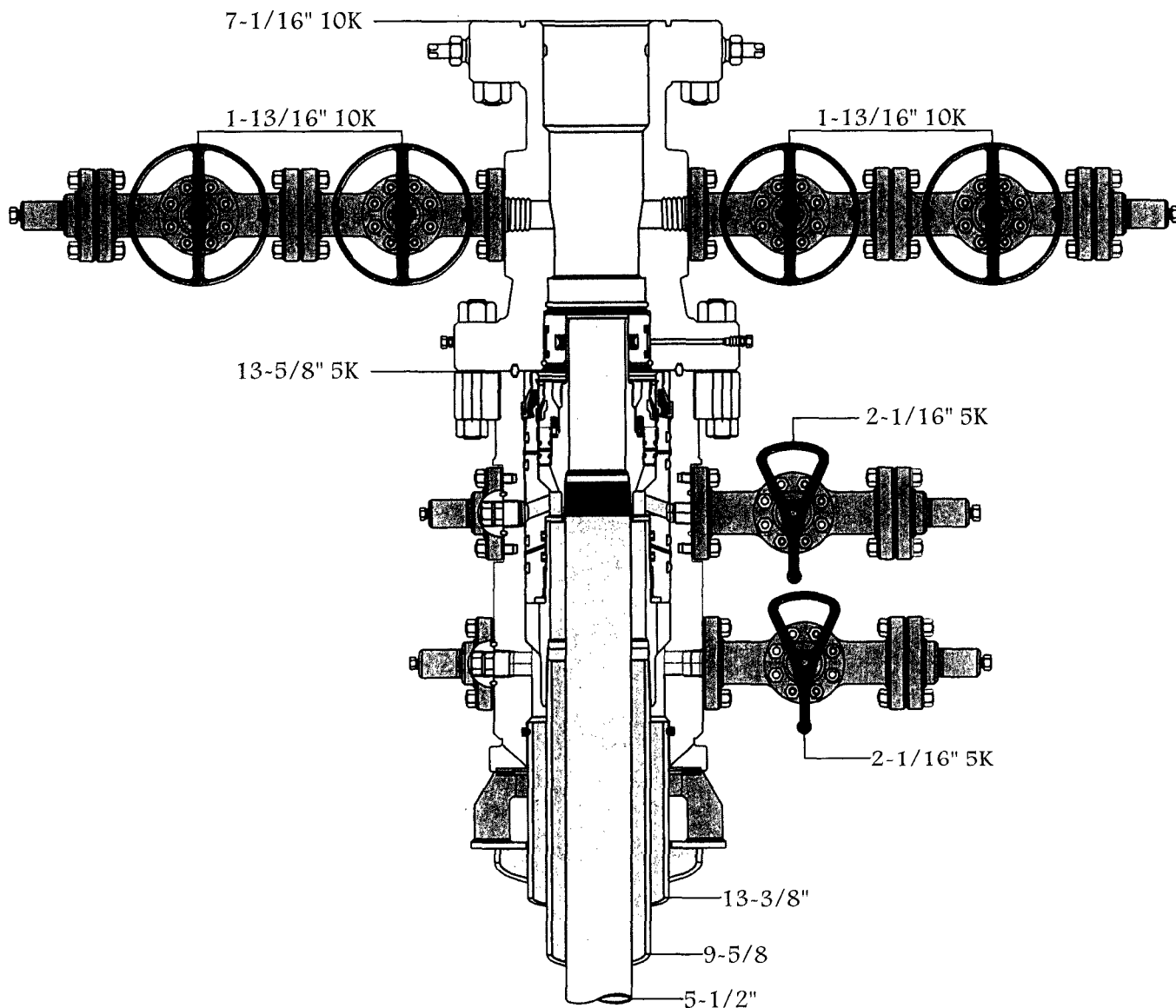
Due to the change in the formation being targeted, the estimated temperatures, pressures, and cuttings volumes must be edited to reflect this change.

Condition	Specify what type and where?
BH Pressure at deepest TVD	2477 psi
Abnormal Temperature	No
BH Temperature at deepest TVD	151°F

Total estimated cuttings volume: 1390.6 bbls

7. Change to the wellhead design due to availability and cost.

A multibowl or a unionized multibowl wellhead system will be employed. The wellhead and connection to the BOPE will meet all API 6A requirements. The BOP will be tested per Onshore Order #2 after installation on the surface casing which will cover testing requirements for a maximum of 30 days. If any seal subject to test pressure is broken the system must be tested. We will test the flange connection of the wellhead with a test port that is directly in the flange. We are proposing that we will run the MNDS wellhead through the rotary prior to cementing surface casing as discussed with the BLM on October 8, 2015. Please see attachment to reflect new wellhead configuration.



13-5/8" 5K MN-DS



Name: Brandon	Date: 5-3-17	Working Pressure:	# 1473921
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PERFORMANCE DATA

TMK UP BOX

5.500 in

20.00 lbs/ft

P-110

Technical Data Sheet

Tubular Parameters

Size	5.500	in	Minimum Yield	110,000	psi
Nominal Weight	20.00	lbs/ft	Minimum Tensile	125,000	psi
Grade	P-110		Yield Load	641,000	lbs
PE Weight	19.81	lbs/ft	Tensile Load	729,000	lbs
Wall Thickness	0.361	in	Min. Internal Yield Pressure	12,600	psi
Nominal ID	4.778	in	Collapse Pressure	11,100	psi
Drift Diameter	4.653	in			
Nom. Pipe Body Area	5.828	in ²			

Connection Parameters

Connection OD	6.050	in
Connection ID	4.778	in
Make-Up Loss	4.122	in
Critical Section Area	5.828	in ²
Tension Efficiency	100.0	%
Compression Efficiency	100.0	%
Yield Load In Tension	641,000	lbs
Min. Internal Yield Pressure	12,600	psi
Collapse Pressure	11,100	psi

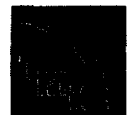
Make-Up Torques

Min. Make-Up Torque	11,600	ft-lbs
Opt. Make-Up Torque	12,900	ft-lbs
Max. Make-Up Torque	14,100	ft-lbs
Yield Torque	20,600	ft-lbs

For further details, see TMK UP BOX

TMK

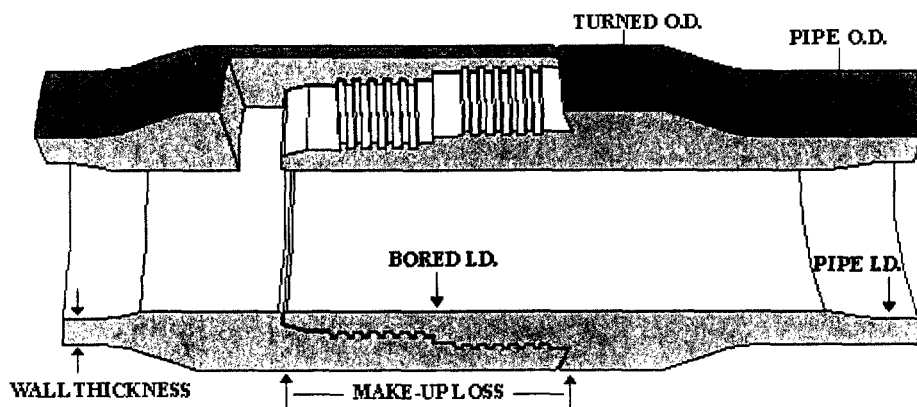
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TMK



Consistently Exceeding Customer Expectations



BTS-6

5 1/2 in

20.00 lb/ft

13CR-95

PIPE DATA

CONNECTION DATA

% eff

TUBE O.D.	5.500 in	CONNECTION O.D.	6.000 in	
TUBE I.D.	4.778 in	CONNECTION I.D.	4.698 in	
WALL	.361 in	S/C O.D.	N/A in	
DRIFT DIA.	4.653 in	MAKE-UP LOSS	3.52 in	
TENSILE YLD. STRENGTH	554,000 lbs	TENSILE EFF.	100 % eff	
MAX STRING LGTH. (1.6 S/F)	17,310 ft			
INTERNAL YLD.	10,910 psi	INTERNAL YLD.	100 %	
COLLAPSE YLD.	10,020 psi	COLLAPSE YLD.	100 %	
TORSIONAL YLD.	64,233 ft/lbs	TORSION YLD.	38,172 ft/lbs	59.4
MAX BENDING	79.20 °/100'	MAX BENDING	79.20 °/100'	100
		MAX BENDING - PR	58.10 °/100'	73.4
		COMPRESSION	549,488 lbs	99.2
		COMPRESSION - PR	340,499 lbs	61.5

MAKE-UP TORQ

MIN.	7,000 ft/lbs
OPT.	7,875 ft/lbs
MAX.	8,750 ft/lbs

This technical data is for general information only. Although every effort has been made to ensure accuracy, Benoit® makes no warranty for any loss or damages due to its use. Technical data is based on pure calculations, no combined loading is considered.

Schlumberger**OXY**

Borehole:

Well:

Field:

Structure:

Original Borehole

Oxy Patton MDP1 18 Federal 33H

NM Eddy County (NAD 83)

Oxy Patton MDP1 18 Federal 33H

Gravity & Magnetic Parameters

Model: HDGM 2017 Dip: 59.89° Date: 06-Jul-2017
 MagDec: 6.985° FB: 48114.53nT Gravity FB: 986.428mgal (9.80665 Based)

Surface Location

NAD83 New Mexico State Plane, Eastern Zone, US Feet
 Lat: N 32 13 25.22 Northing: 445492.09115
 Lon: W 103 48 54.21 Easting: 791606.01115

Miscellaneous

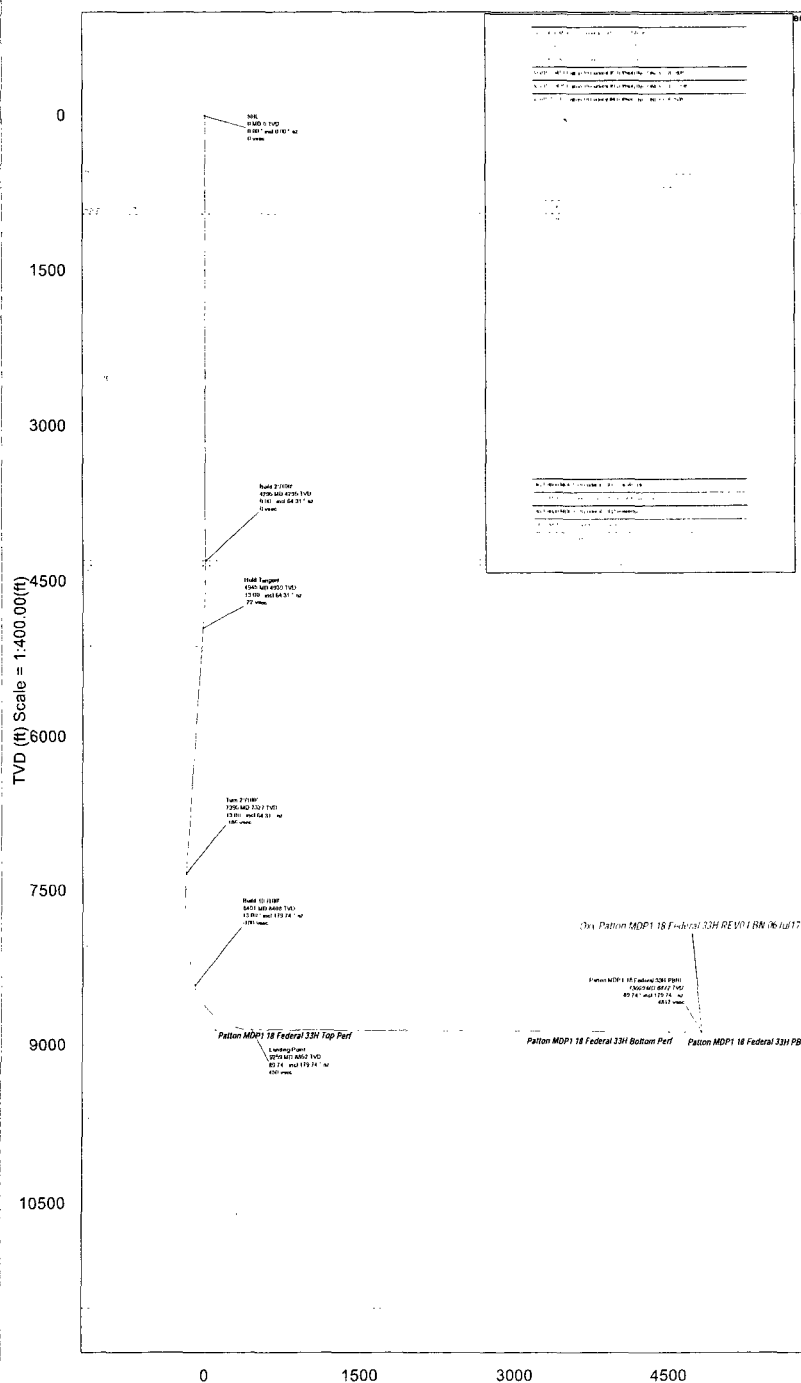
Slot: Oxy Patton MDP1 18 Federal 33H
 Plan: Oxy Patton MDP1 18 Federal 33H REVO LBN 06Jul17
 TVD Ref: RKB=26.5'(3556.71 above MSL)

Critical Points

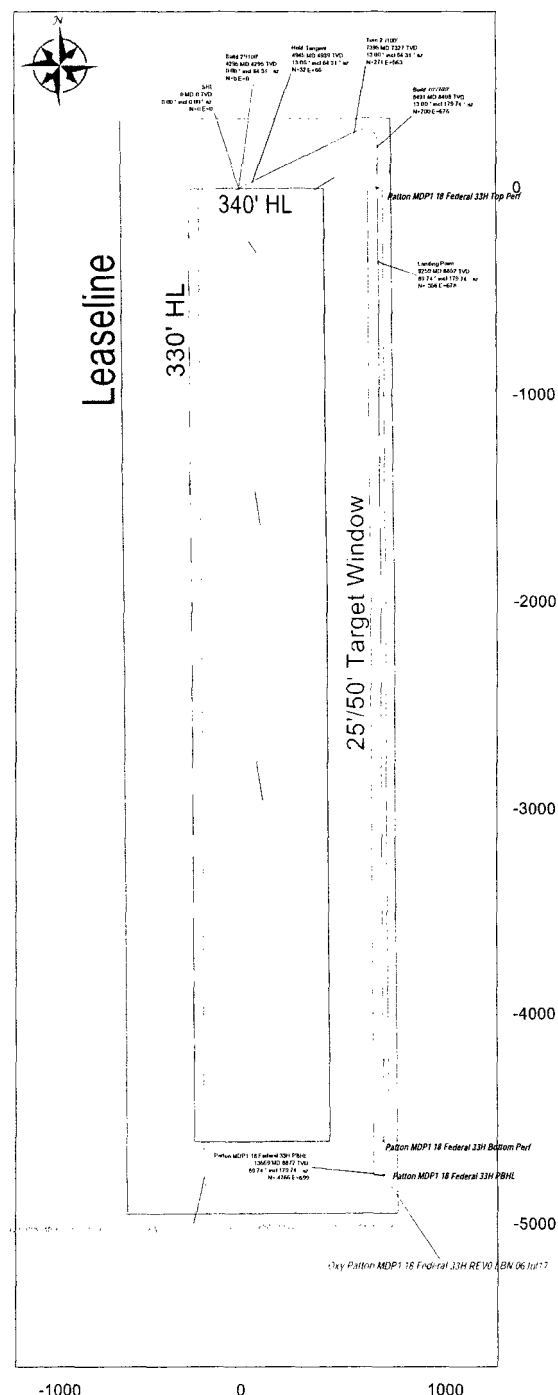
Critical Point	MD	INCL	AZIM	TVD	VSEC	N(+)/S(-)	E(+)/W(-)	DLS
SHL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rustler	595.00	0.00	64.31	595.00	0.00	0.00	0.00	0.00
Salado	950.00	0.00	64.31	950.00	0.00	0.00	0.00	0.00
Castle	2609.00	0.00	64.31	2609.00	0.00	0.00	0.00	0.00
Build 2'1100'	4295.00	0.00	64.31	4295.00	0.00	0.00	0.00	0.00
Delaware	4295.00	0.00	64.31	4295.00	0.00	0.00	0.00	0.00
Bell Canyon	4342.00	0.94	64.31	4342.00	-0.11	0.17	0.35	2.00
Hold Tangent	4944.98	13.00	64.31	4939.42	-21.90	31.63	86.16	2.00
Cherry Canyon	5133.39	13.00	64.31	5123.00	-34.53	50.20	104.36	0.00
Brushy Canyon	6489.14	13.00	64.31	6444.00	-125.48	182.40	376.18	0.00
Turn 2'1100'	7394.89	13.00	64.31	7320.54	-186.24	270.72	562.78	0.00
Bone Spring	8163.66	8.29	154.26	8086.00	-158.95	258.18	665.40	2.00
Build 10'1100'	8401.16	13.00	179.74	8407.94	-96.87	200.00	675.84	2.00
Landing Point	9258.56	89.74	179.74	8952.00	-450.29	-355.67	679.58	10.00
Patton MDP1 18 Federal 33H PBHL	13659.02	80.74	179.74	8872.00	-4816.97	-4769.04	608.56	0.00
Wellcamp (projected)	N/A	N/A	N/A	11485.00	N/A	N/A	N/A	N/A



Grid North
 Tot Corr (M->G 6.709°)
 Mag Dec (6.985°)
 Grid Conv (0.276°)



Vertical Section (ft) Azim = 171.661° Scale = 1:400.00(ft) Origin = 0N/-S, 0E/-W



EW (ft) Scale = 1:200.00(ft)

Oxy Patton MDP1 18 Federal 33H REV0 LBN 06Jul17 Proposal Geodetic Report (Def Plan)



Report Date: July 10, 2017 - 10:02 AM Client: OXY Field: NM Eddy County (NAD 83) Structure / Slot: Oxy Patton MDP1 18 Federal 33H / Oxy Patton MDP1 18 Federal 33H Well: Oxy Patton MDP1 18 Federal 33H Borehole: Original Borehole UWI / API#: Unknown / Unknown Survey Name: Oxy Patton MDP1 18 Federal 33H REV0 LBN 06Jul17 Survey Date: July 06, 2017 Tort / AHD / DDI / ERD Ratio: 111.665 ° / 5767.077 R / 5.997 / 0.650 Coordinate Reference System: NAD83 New Mexico State Plane, Eastern Zone, US Feet Location Lat / Long: N 32° 13' 25.21760", W 103° 48' 54.21308" Location Grid N/E Y/D: N 445492.060 ftUS, E 701606.010 ftUS CRS Grid Convergence Angle: 0.2764 ° Grid Scale Factor: 0.99993851 Version / Patch: 2.10.302.0	Survey / DLS Computation: Minimum Curvature / Lubinski Vertical Section Azimuth: 171.661 ° (Grid North) Vertical Section Origin: 0.000 ft, 0.000 ft TVD Reference Datum: RKB=26.5' TVD Reference Elevation: 3559.700 ft above MSL Seabed / Ground Elevation: 3533.200 ft above MSL Magnetic Declination: 6.985 ° Total Gravity Field Strength: 998.4277mgn (9.80665 Based) Gravity Model: GARM Total Magnetic Field Strength: 48114.580 nT Magnetic Dip Angle: 59.999 ° Declination Date: July 06, 2017 Magnetic Declination Model: HDGM 2017 North Reference: Grid North Grid Convergence Used: 0.2764 ° Total Corr Mag North->Grid North: 6.7086 ° Local Coord Referenced To: Well Head	
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Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
SHL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A	445492.06	701606.01	N 32 13 25.22	W 103 48 54.21
	100.00	0.00	64.31	100.00	0.00	0.00	0.00	0.00	445492.06	701606.01	N 32 13 25.22	W 103 48 54.21
	200.00	0.00	64.31	200.00	0.00	0.00	0.00	0.00	445492.06	701606.01	N 32 13 25.22	W 103 48 54.21
	300.00	0.00	64.31	300.00	0.00	0.00	0.00	0.00	445492.06	701606.01	N 32 13 25.22	W 103 48 54.21
	400.00	0.00	64.31	400.00	0.00	0.00	0.00	0.00	445492.06	701606.01	N 32 13 25.22	W 103 48 54.21
	500.00	0.00	64.31	500.00	0.00	0.00	0.00	0.00	445492.06	701606.01	N 32 13 25.22	W 103 48 54.21
	600.00	0.00	64.31	600.00	0.00	0.00	0.00	0.00	445492.06	701606.01	N 32 13 25.22	W 103 48 54.21
	700.00	0.00	64.31	700.00	0.00	0.00	0.00	0.00	445492.06	701606.01	N 32 13 25.22	W 103 48 54.21
	800.00	0.00	64.31	800.00	0.00	0.00	0.00	0.00	445492.06	701606.01	N 32 13 25.22	W 103 48 54.21
	900.00	0.00	64.31	900.00	0.00	0.00	0.00	0.00	445492.06	701606.01	N 32 13 25.22	W 103 48 54.21
	1000.00	0.00	64.31	1000.00	0.00	0.00	0.00	0.00	445492.06	701606.01	N 32 13 25.22	W 103 48 54.21
	1100.00	0.00	64.31	1100.00	0.00	0.00	0.00	0.00	445492.06	701606.01	N 32 13 25.22	W 103 48 54.21
	1200.00	0.00	64.31	1200.00	0.00	0.00	0.00	0.00	445492.06	701606.01	N 32 13 25.22	W 103 48 54.21
	1300.00	0.00	64.31	1300.00	0.00	0.00	0.00	0.00	445492.06	701606.01	N 32 13 25.22	W 103 48 54.21
	1400.00	0.00	64.31	1400.00	0.00	0.00	0.00	0.00	445492.06	701606.01	N 32 13 25.22	W 103 48 54.21
	1500.00	0.00	64.31	1500.00	0.00	0.00	0.00	0.00	445492.06	701606.01	N 32 13 25.22	W 103 48 54.21
	1600.00	0.00	64.31	1600.00	0.00	0.00	0.00	0.00	445492.06	701606.01	N 32 13 25.22	W 103 48 54.21
	1700.00	0.00	64.31	1700.00	0.00	0.00	0.00	0.00	445492.06	701606.01	N 32 13 25.22	W 103 48 54.21
	1800.00	0.00	64.31	1800.00	0.00	0.00	0.00	0.00	445492.06	701606.01	N 32 13 25.22	W 103 48 54.21
	1900.00	0.00	64.31	1900.00	0.00	0.00	0.00	0.00	445492.06	701606.01	N 32 13 25.22	W 103 48 54.21
	2000.00	0.00	64.31	2000.00	0.00	0.00	0.00	0.00	445492.06	701606.01	N 32 13 25.22	W 103 48 54.21
	2100.00	0.00	64.31	2100.00	0.00	0.00	0.00	0.00	445492.06	701606.01	N 32 13 25.22	W 103 48 54.21
	2200.00	0.00	64.31	2200.00	0.00	0.00	0.00	0.00	445492.06	701606.01	N 32 13 25.22	W 103 48 54.21
	2300.00	0.00	64.31	2300.00	0.00	0.00	0.00	0.00	445492.06	701606.01	N 32 13 25.22	W 103 48 54.21
	2400.00	0.00	64.31	2400.00	0.00	0.00	0.00	0.00	445492.06	701606.01	N 32 13 25.22	W 103 48 54.21
	2500.00	0.00	64.31	2500.00	0.00	0.00	0.00	0.00	445492.06	701606.01	N 32 13 25.22	W 103 48 54.21
	2600.00	0.00	64.31	2600.00	0.00	0.00	0.00	0.00	445492.06	701606.01	N 32 13 25.22	W 103 48 54.21
	2700.00	0.00	64.31	2700.00	0.00	0.00	0.00	0.00	445492.06	701606.01	N 32 13 25.22	W 103 48 54.21
	2800.00	0.00	64.31	2800.00	0.00	0.00	0.00	0.00	445492.06	701606.01	N 32 13 25.22	W 103 48 54.21
	2900.00	0.00	64.31	2900.00	0.00	0.00	0.00	0.00	445492.06	701606.01	N 32 13 25.22	W 103 48 54.21
	3000.00	0.00	64.31	3000.00	0.00	0.00	0.00	0.00	445492.06	701606.01	N 32 13 25.22	W 103 48 54.21
	3100.00	0.00	64.31	3100.00	0.00	0.00	0.00	0.00	445492.06	701606.01	N 32 13 25.22	W 103 48 54.21
	3200.00	0.00	64.31	3200.00	0.00	0.00	0.00	0.00	445492.06	701606.01	N 32 13 25.22	W 103 48 54.21
	3300.00	0.00	64.31	3300.00	0.00	0.00	0.00	0.00	445492.06	701606.01	N 32 13 25.22	W 103 48 54.21
	3400.00	0.00	64.31	3400.00	0.00	0.00	0.00	0.00	445492.06	701606.01	N 32 13 25.22	W 103 48 54.21
	3500.00	0.00	64.31	3500.00	0.00	0.00	0.00	0.00	445492.06	701606.01	N 32 13 25.22	W 103 48 54.21
	3600.00	0.00	64.31	3600.00	0.00	0.00	0.00	0.00	445492.06	701606.01	N 32 13 25.22	W 103 48 54.21
	3700.00	0.00	64.31	3700.00	0.00	0.00	0.00	0.00	445492.06	701606.01	N 32 13 25.22	W 103 48 54.21
	3800.00	0.00	64.31	3800.00	0.00	0.00	0.00	0.00	445492.06	701606.01	N 32 13 25.22	W 103 48 54.21
	3900.00	0.00	64.31	3900.00	0.00	0.00	0.00	0.00	445492.06	701606.01	N 32 13 25.22	W 103 48 54.21
	4000.00	0.00	64.31	4000.00	0.00	0.00	0.00	0.00	445492.06	701606.01	N 32 13 25.22	W 103 48 54.21
	4100.00	0.00	64.31	4100.00	0.00	0.00	0.00	0.00	445492.06	701606.01	N 32 13 25.22	W 103 48 54.21
	4200.00	0.00	64.31	4200.00	0.00	0.00	0.00	0.00	445492.06	701606.01	N 32 13 25.22	W 103 48 54.21
Build 2°/100'	4295.00	0.00	64.31	4295.00	0.00	0.00	0.00	0.00	445492.06	701606.01	N 32 13 25.22	W 103 48 54.21
	4300.00	0.10	64.31	4300.00	0.00	0.00	0.00	2.00	445492.06	701606.01	N 32 13 25.22	W 103 48 54.21
	4400.00	2.10	64.31	4399.98	-0.57	0.83	1.73	2.00	445492.89	701607.74	N 32 13 25.23	W 103 48 54.19
	4500.00	4.10	64.31	4499.83	-2.19	3.18	6.61	2.00	445495.24	701612.62	N 32 13 25.25	W 103 48 54.14
	4600.00	6.10	64.31	4599.42	-4.84	7.03	14.62	2.00	445499.09	701620.63	N 32 13 25.29	W 103 48 54.04
	4700.00	8.10	64.31	4698.65	-8.52	12.39	25.76	2.00	445504.45	701631.76	N 32 13 25.34	W 103 48 53.91
	4800.00	10.10	64.31	4797.39	-13.24	19.24	40.01	2.00	445511.30	701646.01	N 32 13 25.41	W 103 48 53.75
	4900.00	12.10	64.31	4895.51	-18.98	27.59	57.36	2.00	445519.65	701663.36	N 32 13 25.49	W 103 48 53.54
Hold Tangent	4944.98	13.00	64.31	4939.42	-21.90	31.83	66.16	2.00	445523.88	701672.17	N 32 13 25.53	W 103 48 53.44
	5000.00	13.00	64.31	4993.03	-25.59	37.19	77.32	0.00	445529.25	701683.32	N 32 13 25.58	W 103 48 53.31
	5100.00	13.00	64.31	5090.46	-32.29	46.94	97.59	0.00	445539.00	701703.59	N 32 13 25.68	W 103 48 53.07
	5200.00	13.00	64.31	5187.90	-39.00	56.99	117.86	0.00	445548.75	701723.86	N 32 13 25.77	W 103 48 52.84
	5300.00	13.00	64.31	5285.34	-45.71	66.44	138.13	0.00	445558.50	701744.13	N 32 13 25.87	W 103 48 52.60
	5400.00	13.00	64.31	5382.78	-52.42	76.20	158.40	0.00	445568.25	701764.40	N 32 13 25.96	W 103 48 52.36
	5500.00	13.00	64.31	5480.21	-59.13	85.95	178.67	0.00	445578.00	701784.67	N 32 13 26.06	W 103 48 52.13
	5600.00	13.00	64.31	5577.65	-65.84	95.70	198.94	0.00	445587.75	701804.94	N 32 13 26.16	W 103 48 51.89
	5700.00	13.00	64.31	5675.09	-72.54	105.45	219.21	0.00	445597.50	701825.21	N 32 13 26.25	W 103 48 51.66
	5800.00	13.00	64.31	5772.53	-79.25	115.20	239.48	0.00	445607.25	701845.48	N 32 13 26.35	W 103 48 51.42
	5900.00	13.00	64.31	5869.96	-85.96	124.95	259.76	0.00	445617.00	701865.75	N 32 13 26.44	W 103 48 51.18
	6000.00	13.00	64.31	5967.40	-92.67	134.70	280.03	0.00	445626.75	701886.02	N 32 13 26.54	W 103 48 50.95
	6100.00	13.00	64.31	6064.84	-99.38	144.45	300.30	0.00	445636.50	701906.29	N 32 13 26.63	W 103 48 50.71
	6200.00	13.00	64.31	6162.27	-106.08	154.20	320.57	0.00	445646.25	701926.56	N 32 13 26.73	W 103 48 50.47
	6300.00	13.00	64.31	6259.71	-112.79	163.96	340.84	0.00	445656.01	701946.83	N 32 13 26.82	W 103 48 50.24
	6400.00	13.00	64.31	6357.15	-119.50	173.71	361.11	0.00	445665.76	701967.10	N 32 13 26.92	W 103 48 50.00
	6500.00	13.00	64.31	6454.59	-126.21	183.46	381.38	0.00	445675.51	701987.37	N 32 13 27.01	W 103 48 49.76
	6600.00	13.00	64.31	6552.02	-132.92	193.21	401.65	0.00	445685.26	702007.64	N 32 13 27.11	W 103 48 49.53
	6700.00	13.00	64.31	6649.46	-139.63	202.96	421.92	0.00	445695.01	702027.91	N 32 13 27.21	W 103 48 49.29
	6800.00	13.00	64.31	6746.90	-146.33	212.71	442.20	0.00	445704.76	702048.18	N 32 13 27.30	W 103 48 49.05
	6900.00	13.00	64.31	6844.33	-153.04	222.46	462.47	0.00	445714.51	702068.45	N 32 13 27.40	W 103 48 48.82
	7000.00	13.00	64.31	6941.77	-159.75	232.21	482.74	0.00	445724.26	702088.72	N 32 13 27.49	W 103 48 48.58
	7100.00	13.00	64.31	7039.21	-166.46	241.96	503.01	0.00	445734.01	702108.99	N 32 13 27.59	W 103 48 48.34
	7200.00	13.00	64.31	7136.65	-173.17	251.72	523.28	0.0				

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
	7500.00	11.29	70.16	7429.30	-191.82	279.34	583.12	2.00	445771.38	702189.09	N 32 13 27.95	W 103 48 47.41
	7600.00	9.81	77.52	7527.61	-194.39	284.50	600.65	2.00	445776.54	702206.62	N 32 13 28.00	W 103 48 47.21
	7700.00	8.54	87.23	7626.33	-194.28	286.70	616.39	2.00	445778.74	702222.36	N 32 13 28.03	W 103 48 47.02
	7800.00	7.59	99.82	7725.35	-191.50	285.93	630.31	2.00	445777.98	702236.28	N 32 13 28.02	W 103 48 46.86
	7900.00	7.08	115.03	7824.54	-186.06	282.20	642.40	2.00	445774.24	702248.37	N 32 13 27.98	W 103 48 46.72
	8000.00	7.12	131.26	7923.79	-177.94	275.50	652.65	2.00	445767.55	702258.62	N 32 13 27.91	W 103 48 46.60
	8100.00	7.70	146.17	8022.96	-167.18	265.85	661.03	2.00	445757.90	702267.00	N 32 13 27.82	W 103 48 46.50
	8200.00	8.70	158.34	8121.94	-153.77	253.26	667.56	2.00	445745.30	702273.52	N 32 13 27.69	W 103 48 46.43
	8300.00	10.01	167.69	8220.62	-137.74	237.74	672.20	2.00	445729.79	702278.17	N 32 13 27.54	W 103 48 46.37
	8400.00	11.51	174.76	8318.86	-119.11	219.31	674.96	2.00	445711.36	702280.93	N 32 13 27.36	W 103 48 46.34
Build 10°/100'	8491.16	13.00	179.74	8407.94	-99.87	200.00	675.84	2.00	445692.05	702281.81	N 32 13 27.16	W 103 48 46.33
	8500.00	13.88	179.74	8416.54	-97.84	197.94	675.85	10.00	445689.99	702281.82	N 32 13 27.14	W 103 48 46.33
	8600.00	23.88	179.74	8511.04	-65.83	165.62	676.00	10.00	445657.67	702281.96	N 32 13 26.82	W 103 48 46.33
	8700.00	33.88	179.74	8598.49	-18.07	117.38	676.22	10.00	445609.43	702282.18	N 32 13 26.35	W 103 48 46.33
	8800.00	43.88	179.74	8676.23	44.00	54.68	676.50	10.00	445546.74	702282.47	N 32 13 25.73	W 103 48 46.34
	8900.00	53.88	179.74	8741.90	118.50	-20.56	676.85	10.00	445471.50	702282.81	N 32 13 24.98	W 103 48 46.34
	9000.00	63.88	179.74	8793.52	203.16	-106.06	677.24	10.00	445386.00	702283.20	N 32 13 24.14	W 103 48 46.34
	9100.00	73.88	179.74	8829.49	295.40	-199.23	677.66	10.00	445292.84	702283.63	N 32 13 23.21	W 103 48 46.34
	9200.00	83.88	179.74	8848.75	392.43	-297.23	678.11	10.00	445194.85	702284.08	N 32 13 22.24	W 103 48 46.34
	9258.56	89.74	179.74	8852.00	450.29	-355.67	678.38	10.00	445136.41	702284.35	N 32 13 21.67	W 103 48 46.34
Landing Point	9300.00	89.74	179.74	8852.19	491.32	-397.11	678.57	0.00	445094.98	702284.54	N 32 13 21.26	W 103 48 46.34
	9400.00	89.74	179.74	8852.65	590.33	-497.11	679.03	0.00	444994.98	702284.99	N 32 13 20.27	W 103 48 46.34
	9500.00	89.74	179.74	8853.10	689.33	-597.11	679.48	0.00	444894.99	702285.45	N 32 13 19.28	W 103 48 46.34
	9600.00	89.74	179.74	8853.55	788.34	-697.10	679.94	0.00	444795.00	702285.91	N 32 13 18.29	W 103 48 46.34
	9700.00	89.74	179.74	8854.01	887.35	-797.10	680.40	0.00	444695.01	702286.37	N 32 13 17.30	W 103 48 46.34
	9800.00	89.74	179.74	8854.46	986.35	-897.10	680.86	0.00	444595.02	702286.82	N 32 13 16.31	W 103 48 46.34
	9900.00	89.74	179.74	8854.91	1085.36	-997.10	681.31	0.00	444495.03	702287.28	N 32 13 15.32	W 103 48 46.34
	10000.00	89.74	179.74	8855.37	1184.37	-1097.09	681.77	0.00	444395.03	702287.74	N 32 13 14.33	W 103 48 46.34
	10100.00	89.74	179.74	8855.82	1283.38	-1197.09	682.23	0.00	444295.04	702288.20	N 32 13 13.34	W 103 48 46.34
	10200.00	89.74	179.74	8856.27	1382.38	-1297.09	682.69	0.00	444195.05	702288.65	N 32 13 12.35	W 103 48 46.34
	10300.00	89.74	179.74	8856.73	1481.39	-1397.09	683.15	0.00	444095.06	702289.11	N 32 13 11.36	W 103 48 46.34
	10400.00	89.74	179.74	8857.18	1580.40	-1497.09	683.60	0.00	443995.07	702289.57	N 32 13 10.37	W 103 48 46.34
	10500.00	89.74	179.74	8857.63	1679.40	-1597.08	684.06	0.00	443895.08	702290.03	N 32 13 9.38	W 103 48 46.34
	10600.00	89.74	179.74	8858.09	1778.41	-1697.08	684.52	0.00	443795.09	702290.49	N 32 13 8.39	W 103 48 46.34
	10700.00	89.74	179.74	8858.54	1877.42	-1797.08	684.98	0.00	443695.09	702290.94	N 32 13 7.40	W 103 48 46.34
	10800.00	89.74	179.74	8858.99	1976.43	-1897.08	685.43	0.00	443595.10	702291.40	N 32 13 6.41	W 103 48 46.34
	10900.00	89.74	179.74	8859.45	2075.43	-1997.08	685.89	0.00	443495.11	702291.86	N 32 13 5.42	W 103 48 46.34
	11000.00	89.74	179.74	8859.90	2174.44	-2097.07	686.35	0.00	443395.12	702292.32	N 32 13 4.43	W 103 48 46.34
	11100.00	89.74	179.74	8860.35	2273.45	-2197.07	686.81	0.00	443295.13	702292.77	N 32 13 3.44	W 103 48 46.34
	11200.00	89.74	179.74	8860.81	2372.45	-2297.07	687.26	0.00	443195.14	702293.23	N 32 13 2.46	W 103 48 46.34
	11300.00	89.74	179.74	8861.26	2471.46	-2397.07	687.72	0.00	443095.14	702293.69	N 32 13 1.47	W 103 48 46.34
	11400.00	89.74	179.74	8861.71	2570.47	-2497.07	688.18	0.00	442995.15	702294.15	N 32 13 0.48	W 103 48 46.34
	11500.00	89.74	179.74	8862.17	2669.48	-2597.06	688.64	0.00	442895.16	702294.60	N 32 12 59.49	W 103 48 46.34
	11600.00	89.74	179.74	8862.62	2768.48	-2697.06	689.10	0.00	442795.17	702295.06	N 32 12 58.50	W 103 48 46.34
	11700.00	89.74	179.74	8863.07	2867.49	-2797.06	689.55	0.00	442695.18	702295.52	N 32 12 57.51	W 103 48 46.34
	11800.00	89.74	179.74	8863.53	2966.50	-2897.06	690.01	0.00	442595.19	702295.98	N 32 12 56.52	W 103 48 46.34
	11900.00	89.74	179.74	8863.98	3065.50	-2997.06	690.47	0.00	442495.19	702296.43	N 32 12 55.53	W 103 48 46.34
	12000.00	89.74	179.74	8864.43	3164.51	-3097.05	690.93	0.00	442395.20	702296.89	N 32 12 54.54	W 103 48 46.34
	12100.00	89.74	179.74	8864.89	3263.52	-3197.05	691.38	0.00	442295.21	702297.35	N 32 12 53.55	W 103 48 46.35
	12200.00	89.74	179.74	8865.34	3362.53	-3297.05	691.84	0.00	442195.22	702297.81	N 32 12 52.56	W 103 48 46.35
	12300.00	89.74	179.74	8865.79	3461.53	-3397.05	692.30	0.00	442095.23	702298.26	N 32 12 51.57	W 103 48 46.35
	12400.00	89.74	179.74	8866.25	3560.54	-3497.05	692.76	0.00	441995.24	702298.72	N 32 12 50.58	W 103 48 46.35
	12500.00	89.74	179.74	8866.70	3659.55	-3597.04	693.21	0.00	441895.25	702299.18	N 32 12 49.59	W 103 48 46.35
	12600.00	89.74	179.74	8867.15	3758.55	-3697.04	693.67	0.00	441795.25	702299.64	N 32 12 48.60	W 103 48 46.35
	12700.00	89.74	179.74	8867.61	3857.56	-3797.04	694.13	0.00	441695.26	702300.10	N 32 12 47.61	W 103 48 46.35
	12800.00	89.74	179.74	8868.06	3956.57	-3897.04	694.59	0.00	441595.27	702300.55	N 32 12 46.62	W 103 48 46.35
	12900.00	89.74	179.74	8868.51	4055.58	-3997.03	695.04	0.00	441495.28	702301.01	N 32 12 45.63	W 103 48 46.35
	13000.00	89.74	179.74	8868.97	4154.58	-4097.03	695.50	0.00	441395.29	702301.47	N 32 12 44.64	W 103 48 46.35
	13100.00	89.74	179.74	8869.42	4253.59	-4197.03	695.96	0.00	441295.30	702301.93	N 32 12 43.65	W 103 48 46.35
	13200.00	89.74	179.74	8869.87	4352.60	-4297.03	696.42	0.00	441195.30	702302.38	N 32 12 42.67	W 103 48 46.35
	13300.00	89.74	179.74	8870.33	4451.61	-4397.03	696.88	0.00	441095.31	702302.84	N 32 12 41.68	W 103 48 46.35
	13400.00	89.74	179.74	8870.78	4550.61	-4497.02	697.33	0.00	440995.32	702303.30	N 32 12 40.69	W 103 48 46.35
	13500.00	89.74	179.74	8871.23	4649.62	-4597.02	697.79	0.00	440895.33	702303.76	N 32 12 39.70	W 103 48 46.35
	13600.00	89.74	179.74	8871.69	4748.63	-4697.02	698.25	0.00	440795.34	702304.21	N 32 12 38.71	W 103 48 46.35
Patton MDP1 18 Federal 33H PBHL	13669.02	89.74	179.74	8872.00	4816.97	-4766.04	698.56	0.00	440726.32	702304.53	N 32 12 38.02	W 103 48 46.35

Survey Type: Def Plan

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

Description	Part	MD From (ft)	MD To (ft)	EOU Freq (ft)	Hole Size	Casing Diameter (in)	Expected Max Inclination (deg)	Survey Tool Type	Borehole / Survey
	1	0.000	26.500	1/100.000	30.000	30.000		NAL_MWD_PLUS_0_5_DEG- Depth Only	Original Borehole / Oxy Patton MDP1 18 Federal 33H REV0 LBN 06Jul17
	1	26.500	13669.024	1/100.000	30.000	30.000		NAL_MWD_PLUS_0_5_DEG	Original Borehole / Oxy Patton MDP1 18 Federal 33H REV0 LBN



Oxy Patton MDP1 18 Federal 33H REV0 LBN 06Jul17 Anti-Collision Summary Report

Analysis Date-24hr Time: July 10, 2017 - 10:01

Client: OXY

Field: NM Eddy County (NAD 83)

Structure: Oxy Patton MDP1 18 Federal 33H

Slot: Oxy Patton MDP1 18 Federal 33H

Well: Oxy Patton MDP1 18 Federal 33H

Borehole: Original Borehole

Scan MD Range: 0.00ft - 13669.02ft

Analysis Method: 3D Least Distance

Reference Trajectory: Oxy Patton MDP1 18 Federal 33H REV0 LBN 06Jul17 (Def Plan)

Depth Interval: Every 10.00 Measured Depth (ft)

Rule Set: NAL Procedure: D&M Anti-Collision Standard S002

Min Pts: All local minima indicated.

Version / Patch: 2.10.302.0

Database / Project: us1153app452.dir.slb.com/drilling-NM Eddy County 2.10

ISCWSA0 3-D 95.000% Confidence 2.7955 sigma, for subject well. For

offset wells, error model version is specified with each well respectively.

Trajectory Error Model:

Offset Trajectories Summary

Offset Selection Criteria

Restricted within 54679.52 ft

Wellhead distance scan:

Definitive Surveys - Definitive Plans - Definitive surveys exclude definitive plans

Selection filters:

- All Non-Def Surveys when no Def-Survey is set in a borehole - All Non-Def Plans when no Def-Plan is set in a borehole

Offset Trajectory	Separation			Allow Dev. (ft)	Sep. Fact.	Controlling Rule	Reference Trajectory		Risk Level			Alert	Status	
	Cl-Cl (ft)	MAS (ft)	EOU (ft)				MD (ft)	TVD (ft)	Alert	Minor	Major			
Oxy Patton MDP1 18 Federal 23H REV0 LBN 06Jul17 (Def Plan)														Fail Minor
	30.00	24.50	27.50	5.50	N/A	MAS = 7.47 (m)	0.00	0.00	CH2<=15m=15.00			Enter Alert		
	30.00	24.50	27.50	5.50	123782.18	MAS = 7.47 (m)	26.50	26.50				WRP		
	30.00	30.09	9.11	-0.09	1.50	OSF1.50	2990.00	2990.00		OSF<1.50		Enter Minor		
	30.00	42.39	0.91	-12.39	1.03	OSF1.50	4295.00	4295.00				MinPt-Cl-Cl		
	30.04	42.50	0.87	-12.46	1.03	OSF1.50	4310.00	4310.00				MinPt		
	30.10	42.57	0.89	-12.47	1.03	OSF1.50	4320.00	4320.00				MinPt-O-ADP		
	44.19	44.44	13.74	-0.24	1.49	OSF1.50	4590.00	4586.48		OSF>1.50		Exit Minor		
	156.17	48.83	122.78	107.34	4.98	OSF1.50	5190.00	5178.16		OSF>5.00		Exit Alert		
	743.67	68.60	697.05	674.98	16.80	OSF1.50	8640.00	8547.02				MinPt		
	2463.69	180.28	2342.87	2283.61	20.77	OSF1.50	13989.02	8872.00				MinPt		
Oxy Patton MDP1 18 Federal 23H REV0 LBN 06Jul17 (Def Plan)														Warning Alert
	86.01	32.81	57.51	27.20	N/A	MAS = 10.00 (m)	0.00	0.00				Surface		
	90.00	32.81	57.50	27.20	N/A	MAS = 10.00 (m)	26.50	26.50				WRP		
	80.00	32.81	45.96	27.20	4.98	MAS = 10.00 (m)	1900.00	1900.00		OSF<5.00		Enter Alert		
	68.00	42.39	30.81	17.62	2.16	OSF1.50	4295.00	4295.00				MinPt-Cl-Cl		
	60.04	42.50	30.88	17.54	2.16	OSF1.50	4310.00	4310.00				MINPT-O-EQU		
	60.10	42.56	30.89	17.54	2.16	OSF1.50	4320.00	4320.00				MinPt-O-ADP		
	60.20	42.63	30.94	17.56	2.16	OSF1.50	4330.00	4330.00				MinPt-O-SF		
	151.20	47.70	118.57	103.50	4.93	OSF1.50	5040.00	5032.00		OSF>5.00		Exit Alert		
	1641.67	201.31	1506.63	1440.36	12.37	OSF1.50	13669.02	8872.00				MinPt		
30-015-33451 Patton 18 Federal #3 (Offset) INC ONLY 0-8.280ft (Def Survey)														Warning Alert
	335.26	32.81	332.76	302.45	N/A	MAS = 10.00 (m)	0.00	0.00				Surface		
	334.85	32.81	332.31	302.04	7466.95	MAS = 10.00 (m)	10.00	10.00				MinPt-O-SF		
	334.74	32.81	332.09	301.93	2187.09	MAS = 10.00 (m)	26.50	26.50				WRP		
	334.74	102.71	285.43	232.03	4.97	OSF1.50	1800.00	1800.00		OSF<5.00		Enter Alert		
	334.74	253.96	164.00	80.78	1.98	OSF1.50	4295.00	4295.00				MinPt-Cl-Cl		
	344.01	292.39	148.25	51.62	1.77	OSF1.50	4780.00	4777.99				MINPT-O-EQU		
	351.10	301.00	149.60	50.10	1.75	OSF1.50	4900.00	4895.61				MinPt-O-ADP		
	354.98	304.57	151.10	50.41	1.75	OSF1.50	4950.00	4944.31				MinPt-O-SF		
	792.94	523.58	443.06	289.36	2.28	OSF1.50	8430.00	8348.23				MinPt-O-SF		
	791.73	522.61	442.40	289.12	2.28	OSF1.50	8450.00	8367.78				MinPt-O-ADP		
	791.27	522.01	442.43	289.26	2.28	OSF1.50	8460.00	8377.55				MINPT-O-EQU		
	789.51	500.44	455.05	289.07	2.37	OSF1.50	8630.00	8538.14				MinPt-Cl-Cl		
	1633.16	483.63	1303.24	1139.53	4.98	OSF1.50	10840.00	8858.27		OSF>5.00		Exit Alert		
	4521.93	520.39	4174.16	4001.53	13.09	OSF1.50	13669.02	8872.00				TD		
30-015-41341 Patton 18 Federal #1H (Offset) MWD 0-14.408ft (Def Survey)														Warning Alert
	4812.89	32.81	4810.49	4780.18	N/A	MAS = 10.00 (m)	0.00	0.00				Surface		
	4812.89	32.81	4810.38	4780.06	540581.24	MAS = 10.00 (m)	20.00	20.00				MinPt-O-SF		
	4812.88	32.81	4810.37	4780.07	849986.09	MAS = 10.00 (m)	26.50	26.50				WRP		
	4812.68	32.81	4810.37	4780.07	591967.44	MAS = 10.00 (m)	30.00	30.00				MinPt		
	4809.69	32.81	4803.02	4777.99	1393.27	MAS = 10.00 (m)	840.00	840.00				MinPt		
	4810.15	32.81	4803.06	4777.34	1213.45	MAS = 10.00 (m)	940.00	940.00				MINPT-O-EQU		
	4841.51	32.81	4823.60	4808.70	313.99	MAS = 10.00 (m)	3510.00	3510.00				MinPt		
	4841.62	32.81	4823.49	4808.61	309.54	MAS = 10.00 (m)	3560.00	3560.00				MINPT-O-EQU		
	4842.14	32.81	4824.76	4811.23	287.45	MAS = 10.00 (m)	3630.00	3630.00				MinPt		
	4842.22	32.81	4824.53	4811.41	281.79	MAS = 10.00 (m)	3610.00	3610.00				MINPT-O-EQU		
	1254.18	111.40	1179.08	1142.78	17.24	OSF1.50	9120.00	8934.71				MinPt-O-SF		
	1242.51	108.71	1189.21	1133.81	17.51	OSF1.50	9230.00	8851.16				MinPt-O-ADP		
	1242.23	108.30	1189.20	1133.83	17.58	OSF1.50	9240.00	8851.62				MINPT-O-EQU		
	1239.42	105.55	1168.22	1133.87	18.00	OSF1.50	9390.00	8852.60				MinPt		
	1238.34	105.36	1168.27	1133.88	18.04	OSF1.50	9410.00	8852.69				MinPt-Cl-Cl		
	1230.83	95.78	1160.16	1135.04	19.75	OSF1.50	10140.00	8856.00				MinPt-O-ADP		
	1230.79	95.73	1160.13	1135.06	19.76	OSF1.50	10150.00	8856.05				MINPT-O-EQU		
	1230.76	95.62	1160.18	1135.14	19.79	OSF1.50	10170.00	8856.14				MinPt-Cl-Cl		
	1237.28	90.62	1178.01	1146.83	21.02	OSF1.50	11150.00	8860.58				MinPt		
	1237.42	90.66	1178.15	1146.76	21.01	OSF1.50	11190.00	8860.76				MinPt-O-SF		
	1237.68	92.35	1175.28	1145.33	20.62	OSF1.50	11620.00	8862.71				MinPt-Cl-Cl		
	1237.74	92.47	1175.26	1145.27	20.59	OSF1.50	11640.00	8862.80				MinPt		
	1236.96	95.14	1172.70	1141.81	19.99	OSF1.50	11920.00	8864.07				MinPt-Cl-Cl		
	1237.72	96.89	1172.30	1140.83	19.63	OSF1.50	12060.00	8864.71				MINPT-O-EQU		
	1237.82	97.01	1172.31	1140.81	19.61	OSF1.50	12070.00	8864.75				MinPt-O-ADP		
	1243.47	100.88	1175.38	1142.69	18.92	OSF1.50	12340.00	8865.97				MinPt-O-ADP		
	1247.76	104.05	1177.58	1143.71	18.39	OSF1.50	12530.00	8866.84				MinPt		
	491.88	153.87	387.40	338.01	4.92	OSF1.50	13380.00	8870.69		OSF<5.00		Enter Alert		
	347.18	197.68	214.36	149.20	2.64	OSF1.50	13669.02	8872.00				MinPt		
30-015-32435 Patton 18 Federal #1 (Offset) INC ONLY 0-13.220ft (Non-Def Survey)														Warning Alert
	1645.09	32.81	1642.59	1612.28	N/A	MAS = 10.00 (m)	0.00	0.00				Surface		
	1644.75	32.81	1642.22	1611.95	44540.21	MAS = 10.00 (m)	20.00	20.00				MinPt-O-SF		
	1644.70	32.81	1642.17	1611.89	53120.44	MAS = 10.00 (m)	26.50	26.50				WRP		
	1644.66	222.16	1495.72	1472.50	11.21	OSF1.50	4295.00	4295.00				MinPt-Cl-Cl		
	1648.32	236.42	1490.87	1412.00	10.56	OSF1.50	4590.00	4569.62				MINPT-O-EQU		
	1654.06	242.22	1491.75	1411.83	10.33	OSF1.50	4670.00	4658.95				MinPt-O-ADP		
	1571.08	473.27	1254.73	1097.61	5.00	OSF1.50	9880.00	8823.61		OSF<5.00		Enter Alert		
	583.28	478.11	263.05	104.19	1.83	OSF1.50	10540.00	8857.81				MinPt		
	1579.80	475.70	1261.84	1104.10	5.00	OSF1.50	12010.00	8864.48		OSF>5.00		Exit Alert		
	3181.12	475.93	2863.00	2705.19	10.07	OSF1.50	13669.02	8872.00				TD		

Offset Trajectory	Separation			Allow Dev. (ft)	Sep. Fact.	Controlling Rule	Reference Trajectory		Risk Level			Alert	Status
	Cl-Cl (ft)	MAS (ft)	EOU (ft)				MD (ft)	TVD (ft)	Alert	Minor	Major		
30-015-33710 Patton 18 Federal #4 (Offset) INCL ONLY 0-8.150ft (Dad Survey)													
2909.32	32.81	2900.62	2930.51	N/A		MAS = 10.00 (m)	0.00	0.00					Warning Alert
2909.08	32.81	2906.55	2936.27	100029.84		MAS = 10.00 (m)	20.00	20.00					Surface
2909.03	32.81	2905.50	2936.22	101048.81		MAS = 10.00 (m)	26.50	26.50					MinPl-O-SF
2908.97	317.83	2756.25	2851.14	14.11		OSF1.50	4295.00	4295.00					WRP
2970.87	327.44	2751.74	2843.43	13.70		OSF1.50	4480.00	4459.91					MinPl-ClCl
2951.69	348.85	2740.60	2834.81	12.98		OSF1.50	4720.00	4718.44					MINPT-O-EOU
2984.23	350.35	2749.63	2833.83	12.86		OSF1.50	4760.00	4757.96					MinPl-O-ADP
3292.86	498.47	2956.71	2794.38	9.95		OSF1.50	7700.00	7626.33					MINPT-O-EOU
1724.70	520.04	1377.17	1204.86	4.99		OSF1.50	10310.00	9856.77	OSF<5.00				Enter Alert
745.83	432.65	456.47	313.04	2.59		OSF1.50	11860.00	8893.80					MinPls
745.83	432.78	456.48	313.05	2.59		OSF1.50	11870.00	8863.84					MinPl-ClCl
1724.51	519.27	1377.50	1206.24	5.00		OSF1.50	13420.00	8870.87	OSF>5.00				Exit Alert
1952.01	523.31	1602.30	1428.70	5.61		OSF1.50	13660.02	8872.00					TD