

DATE IN 3/17/17	SUSPENSE	ENGINEER LRL	LOGGED IN 3/17/17	TYPE NSL	APP NO. PKSC 1707659219
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ABOVE THIS LINE FOR DIVISION USE ONLY

NEW MEXICO OIL CONSERVATION DIVISION

- Engineering Bureau -

1220 South St. Francis Drive, Santa Fe, NM 87505



NSL-7524

ADMINISTRATIVE APPLICATION CHECKLIST

THIS CHECKLIST IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS WHICH REQUIRE PROCESSING AT THE DIVISION LEVEL IN SANTA FE

Application Acronyms:

[NSL-Non-Standard Location] [NSP-Non-Standard Proration Unit] [SD-Simultaneous Dedication]
 [DHC-Downhole Commingling] [CTB-Lease Commingling] [PLC-Pool/Lease Commingling]
 [PC-Pool Commingling] [OLS - Off-Lease Storage] [OLM-Off-Lease Measurement]
 [WFX-Waterflood Expansion] [PMX-Pressure Maintenance Expansion]
 [SWD-Salt Water Disposal] [IPI-Injection Pressure Increase]
 [EOR-Qualified Enhanced Oil Recovery Certification] [PPR-Positive Production Response]

[1] TYPE OF APPLICATION - Check Those Which Apply for [A]

[A] Location - Spacing Unit - Simultaneous Dedication

☒ NSL ☐ NSP ☐ SD

Check One Only for [B] or [C]

[B] Commingling - Storage - Measurement

☐ DHC ☐ CTB ☐ PLC ☐ PC ☐ OLS ☐ OLM

[C] Injection - Disposal - Pressure Increase - Enhanced Oil Recovery

☐ WFX ☐ PMX ☐ SWD ☐ IPI ☐ EOR ☐ PPR

[D] Other: Specify _____

Oxy USA, Inc. (16696)
 Patton 18 Federal #5H
 30-015-41343 pending
 Cotton Draw Bone Spring
 (13367)

[2] NOTIFICATION REQUIRED TO: - Check Those Which Apply, or Does Not Apply

[A] ☒ Working, ~~Royalty or Overriding Royalty~~ Interest Owners

[B] ☒ Offset Operators, Leaseholders or Surface Owner

[C] ☐ Application is One Which Requires Published Legal Notice

[D] ☒ Notification and/or Concurrent Approval by BLM or SLT
 U.S. Bureau of Land Management - Commissioner of Public Lands, State Land Office

[E] ☐ For all of the above, Proof of Notification or Publication is Attached, and/or,

[F] ☐ Waivers are Attached

[3] SUBMIT ACCURATE AND COMPLETE INFORMATION REQUIRED TO PROCESS THE TYPE OF APPLICATION INDICATED ABOVE.

[4] **CERTIFICATION:** I hereby certify that the information submitted with this application for administrative approval is **accurate and complete** to the best of my knowledge. I also understand that **no action** will be taken on this application until the required information and notifications are submitted to the Division.

Note: Statement must be completed by an individual with managerial and/or supervisory capacity.

David Stewart
 Print or Type Name

[Signature]
 Signature

Sr. Regulatory Advisor 3/15/17
 Title Date

david_stewart@oxy.com
 e-mail Address

OXY USA Inc.
 Patton MDP 18 Federal #5H



OXY USA Inc

PO Box 50250
Midland, TX 79710-0250

March 15, 2017

New Mexico Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Attention: Leonard Lowe

Re: ***Application for Administrative Approval of Non-Standard Location –
Patton MDP1 18 Federal #5H – Cotton Draw Bone Spring
Surface – 150 FNL 285 FEL Ut A Sec 18 T24S R31E
Top Perforation – 340 FNL 1035 FEL Ut A Sec 18 T24S R31E
Bottom Perforation – 340 FSL 1035 FEL Ut P Sec 18 T24S R31E
Bottom Hole – 180 FSL 1035 FEL Ut P Sec 18 T24 R31E
Eddy County, New Mexico***

Dear Mr. Lowe:

OXY USA Inc. respectfully requests administrative approval of a non-standard location on the Patton MDP1 18 Federal #5H well, API Number-30-015-Pending, Property Code Pending. The #5H well is proposed to be completed in the Cotton Draw Bone Spring, Pool Code 13367. This will be a horizontal well in a pool with no special rules for setback, so the setback requirements under Rule 19.15.15.9 (A) and 19.15.16.15 (B) would apply. The proposed producing interval is outside of the proposed Producing Area but within the proposed Project Area and will be drilled as follows:

Surface – 150 FNL 285 FEL Ut A Sec 18 T24S R31E
Top Perforation – 340 FNL 1035 FEL Ut A Sec 18 T24S R31E
Bottom Perforation – 340 FSL 1035 FEL Ut P Sec 18 T24S R31E
Bottom Hole – 180 FSL 1035 FEL Ut P Sec 18 T24 R31E

The adjoining spacing units are located in T24S R31E, Section 7–Units O, P; Section 8–Unit M; Section 17–Units D, E, L, M; Section 18–Units A, B, G, H, I, J, O, P; Section 19–Units A, B; Section 20–Unit D.

Approval of the unorthodox producing interval will allow for efficient spacing of horizontal wells and thereby prevent waste.

To support this request, the following information has been submitted for your review:

1. Application for Permit to Drill.
2. C-102 Plat for the proposed well and additional plats with offsetting well and affected spacing units.
3. List of affected offset parties that adjoin the non-standard, copies of the signed certified return receipts will be furnished upon request.
4. Proposed Directional Survey

If you need any additional information, please call me at 432-685-5717.

Sincerely,

David Stewart
Sr. Regulatory Advisor
OXY USA Inc.

Attachments

CC: NMOCD-Artesia, BLM-Carlsbad, Service List



OXY USA Inc.

PO Box 50250
Midland, TX 79710-0250

March 15, 2017

CERTIFIED MAIL – RETURN RECEIPT REQUESTED

Re: ***Application for Administrative Approval of Non-Standard Location –
Patton MDP1 18 Federal #5H – Cotton Draw Bone Spring
Surface – 150 FNL 285 FEL Ut A Sec 18 T24S R31E
Top Perforation – 340 FNL 1035 FEL Ut A Sec 18 T24S R31E
Bottom Perforation – 340 FSL 1035 FEL Ut P Sec 18 T24S R31E
Bottom Hole – 180 FSL 1035 FEL Ut P Sec 18 T24 R31E
Eddy County, New Mexico***

Ladies and Gentlemen:

Enclosed is a copy of an application, filed with the New Mexico Oil Conservation Division by OXY USA Inc., requesting administrative approval for a non-standard location. As an affected party, notice is being provided to you pursuant to Rule 19.15.15.9 (A) and 19.15.16.15 (B). The well is located as follows:

Surface – 150 FNL 285 FEL Ut A Sec 18 T24S R31E
Top Perforation – 340 FNL 1035 FEL Ut A Sec 18 T24S R31E
Bottom Perforation – 340 FSL 1035 FEL Ut P Sec 18 T24S R31E
Bottom Hole – 180 FSL 1035 FEL Ut P Sec 18 T24 R31E

If you object to the well's location, you must notify the Division in writing no later than 20 days from the date the application is received by the NMOCD (1220 South St. Francis Drive, Santa Fe, NM 87505; Attention: Leonard Lowe).

If you need any additional information, you can contact John Schneider, CPL at 713-366-5330 or myself at 432-685-5717.

Sincerely,

David Stewart
Sr. Regulatory Advisor
OXY USA Inc.

Attachments

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

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

5. Lease Serial No.
NMNM89819

6. If Indian, Allottee or Tribe Name

7. If Unit or CA Agreement, Name and No.

8. Lease Name and Well No.
PATTON MDP1-18 FEDERAL 5H

9. API Well No.

1a. Type of work: ☒ DRILL ☐ REENTER

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

2. Name of Operator
OXY USA INC

3a. Address
5 Greenway Plaza, Suite 110 Houston TX 770

3b. Phone No. (include area code)
(713)366-5716

10. Field and Pool, or Exploratory
COTTON DRAW BONE SPRING / 2ND I

4. Location of Well (Report location clearly and in accordance with any State requirements.)*

At surface NENE / 150 FNL / 285 FEL / LAT 32.2241806 / LONG -103.8093124

At proposed prod. zone SESE / 180 FSL / 1035 FEL / LAT 32.2105622 / LONG -103.8117434

11. Sec., T. R. M. or Blk. and Survey or Area
SEC 18 / T24S / R31E / NMP

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

12. County or Parish
EDDY

13. State
NM

15. Distance from proposed*
location to nearest 50 feet
property or lease line, ft.
(Also to nearest drig. unit line, if any)

16. No. of acres in lease
647.88

17. Spacing Unit dedicated to this well
160

18. Distance from proposed location*
to nearest well, drilling, completed, 30 feet
applied for, on this lease, ft.

19. Proposed Depth
10033 feet / 14996 feet

20. BLM/BIA Bond No. on file
FED: ESB000226

21. Elevations (Show whether DF, KDB, RT, GL, etc.)
3524 feet

22. Approximate date work will start*
09/01/2017

23. Estimated duration
25 days

24. Attachments

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

1. Well plat certified by a registered surveyor.

2. A Drilling Plan.

3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office).

4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).

5. Operator certification

6. Such other site specific information and/or plans as may be required by the BLM.

25. Signature
(Electronic Submission)

Name (Printed/Typed)
David Stewart / Ph: (713)366-5716

Date
12/06/2016

Title

Sr. Regulatory Advisor

Approved by (Signature)

Name (Printed/Typed)

Date

Title

Office
CARLSBAD

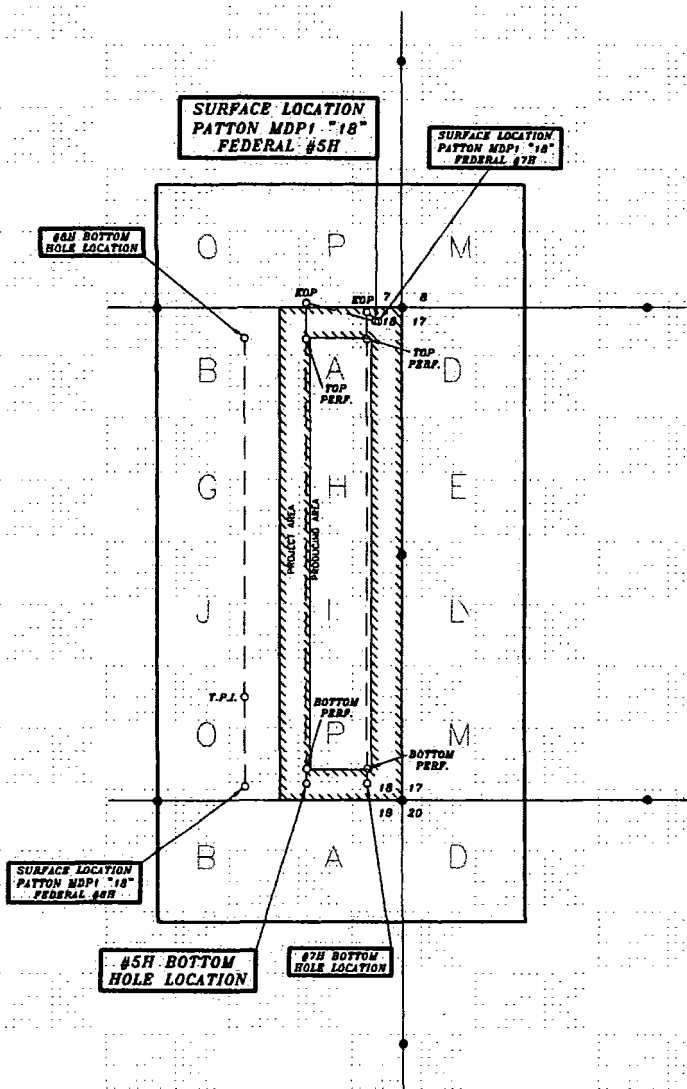
Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.
Conditions of approval, if any, are attached.

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Continued on page 2)

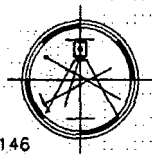
*(Instructions on page 2)

OXY USA INC.
PATTON MDP1 "18" FEDERAL #5H
SECTIONS 7, 8, 17, 18, 19 & 20, TOWNSHIP 24 SOUTH,
RANGE 31 EAST, N.M.P.M., EDDY COUNTY, NEW MEXICO



Asel Surveying

P.O. BOX 393 - 310 W. TAYLOR
 HOBBS, NEW MEXICO - 575-393-9146



2000' 0 2000' 4000' FEET
 SCALE: 1"=2000'

District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-4181 Fax: (575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-0720
District III
1000 Rio Grande Road, Alamo, NM 87410
Phone: (505) 334-4179 Fax: (505) 334-4170
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3463

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
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

API Number 30-015-	Pool Code 13367	Pool Name Cotton Draw Bone Springs
Property Code	Property Name PATTON MDP1 "18" FEDERAL	Well Number 5H
OGRID No. 166516	Operator Name OXY USA INC.	Elevation 3523.8'

Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
A	18	24 SOUTH	31 EAST, N.M.P.M.		150'	NORTH	285'	EAST	EDDY

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
P	18	24 SOUTH	31 EAST, N.M.P.M.		180'	SOUTH	1035'	EAST	EDDY

Dedicated Acres 160	Joint or Infill Y	Consolidation Code	Order No. NSL will be filed
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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.

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Application Non-Standard Location - Service List

OXY USA Inc.

Patton MDP1 18 Federal #5H

1

New Mexico Oil Conservation Division

811 S. First St.

Artesia, NM 88210

7015-0640-0005-1003-3874

New Mexico Oil Conservation Division

1220 South St. Francis Dr.

Santa Fe, NM 87505

7015-0640-0005-1003-3881

United States Dept of Interior

Bureau of Land Management

620 E. Greene Street

Carlsbad, NM 88220

7015-0640-0005-1003-3898

T24S R31E

Section 7 - Units O, P

OXY USA Inc

P.O. Box 50250

Midland, TX 79710

Section 8 - Unit M

Chevron USA Inc.

6301 Deauville Blvd.

Midland, TX 79706

7015-0640-0005-1003-3331

Section 17 - Units D, E, L, M

OXY USA Inc

P.O. Box 50250

Midland, TX 79710

EOG Resources

P.O. Box 2267

Midland, TX 79702

7015-0640-0005-1003-3324

Section 18 - Units A, B, G, H, I, J, O, P

OXY USA Inc

P.O. Box 50250

Midland, TX 79710

Section 19 - Units A, B

Section 20 - Unit D

BOPCO, LP

P.O. Box 2760

Midland, TX 79702

7015-0640-0005-1003-3904

CTV OG NM LLC

201 Main St., Ste. 2700

Fort Worth, TX 76102

7015-0640-0005-1003-3263

Keystone OG NM LLC

201 Main St., Ste. 2700

Fort Worth, TX 76102

7015-0640-0005-1003-3270

LMBBI OG NM LLC

201 Main St., Ste. 2700

Fort Worth, TX 76102

7015-0640-0005-1003-3287

SRBI OG NM LLC

201 Main St., Ste. 2700

Fort Worth, TX 76102

7015-0640-0005-1003-3294

Thru Line OG NM LLC

201 Main St., Ste. 2700

Fort Worth, TX 76102

7015-0640-0005-1003-3300

XTO Energy

810 Houston ST.

Fort Worth, TX 76102

7015-0640-0005-1003-3317

Copies of this application were mailed to the following individuals, companies and organizations on or before

3/15/17

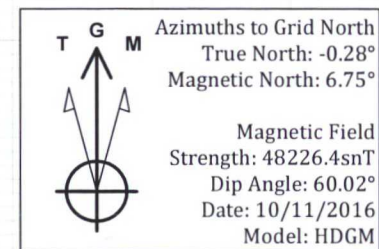
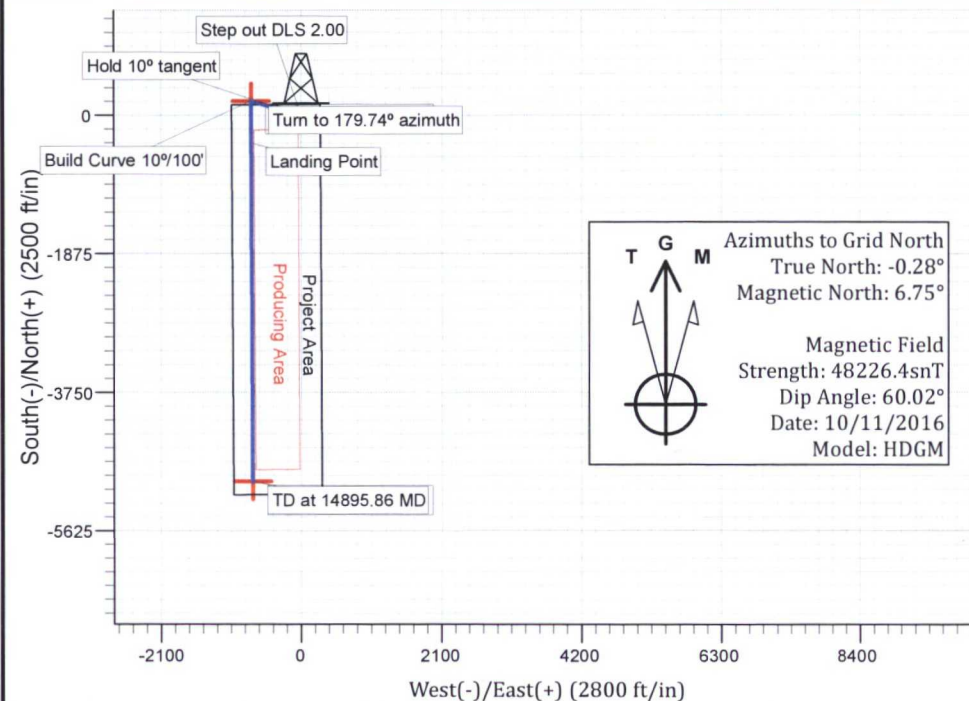
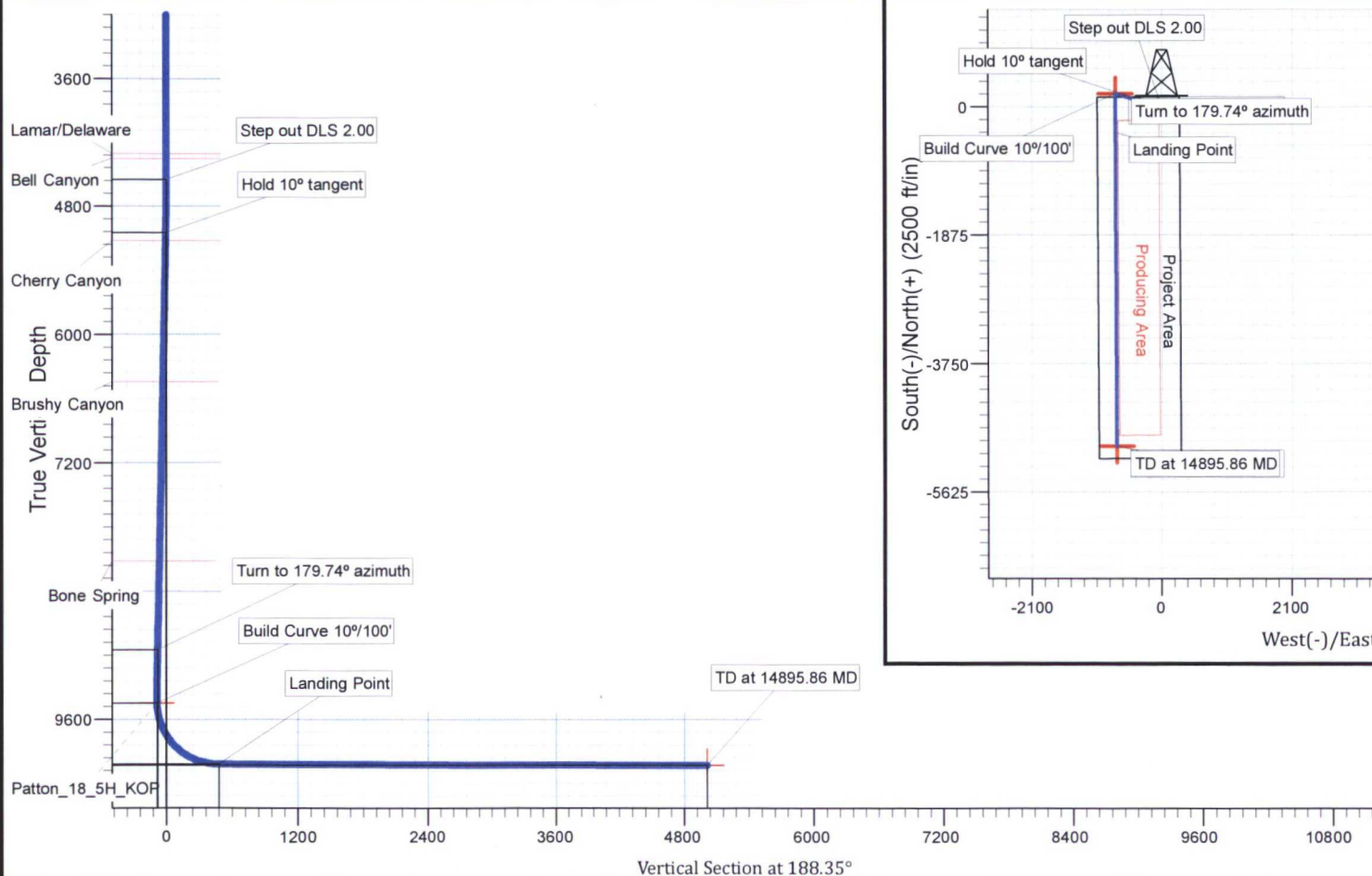
David Stewart
OXY USA Inc.



Project: PRD NM DIRECTIONAL PLANS (NAD 1983)
Site: Patton MDP1 18 Federal
Well: Patton MDP1 18 Federal 5H
Wellbore: WB00
Design: Permitting Plan

WELL DETAILS: Patton MDP1 18 Federal 5H

Ground Level: 3523.80 WELL @ 3550.30ft (Original Well Elev)
+N/-S +E/-W Northing Easting Latitude Longitude
0.00 0.00 445685.86 703382.25 32° 13' 27.050121 N 103° 48' 33.524487 W



PROJECT DETAILS: NM DIRECTIONAL PLANS (NAD 1983)	
Geodetic System:	US State Plane 1983
Datum:	North American Datum 1983
Ellipsoid:	GRS 1980
Zone:	New Mexico Eastern Zone
System Datum:	Mean Sea Level

ANNOTATIONS

TVD	MD	Inc	Azi	+N/-S	+E/-W	VSect	Departure	Annotation
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	SHL
4550.00	4550.00	0.00	0.00	0.00	0.00	0.00	0.00	Step out DLS 2.00
5047.66	5050.20	10.00	284.65	11.01	-42.14	-4.78	43.56	Hold 10° tangent
8951.26	9014.14	10.01	284.65	185.24	-708.78	-80.35	732.58	Turn to 179.74° azimuth
9448.93	9514.35	0.00	284.65	196.25	-750.94	-85.13	776.16	Build Curve 10°/100'
10021.96	10412.95	89.85	179.74	-375.23	-748.37	479.92	1347.65	Landing Point
10033.00	14995.86	89.86	179.74	-4958.08	-727.78	5011.21	5930.54	TD at 14895.86 MD

Oxy Survey Report

Company:	ENGINEERING DESIGNS	Local Co-ordinate Reference:	Well Patton MDP1 18 Federal 5H
Project:	PRD NM DIRECTIONAL PLANS (NAD 1983)	TVD Reference:	WELL @ 3550.30ft (Original Well Elev)
Site:	Patton MDP1 18 Federal	MD Reference:	WELL @ 3550.30ft (Original Well Elev)
Well:	Patton MDP1 18 Federal 5H	North Reference:	Grid
Wellbore:	WB00	Survey Calculation Method:	Minimum Curvature
Design:	Permitting Plan	Database:	HOPSPP

Project	PRD NM DIRECTIONAL PLANS (NAD 1983)		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		Using geodetic scale factor

Site	Patton MDP1 18 Federal		
Site Position:		Northing:	446,423.55 usft
From:	Map	Easting:	699,033.75 usft
Position Uncertainty:	0.00 ft	Slot Radius:	13.200 in
		Latitude:	32° 13' 34.557107 N
		Longitude:	103° 49' 24.105891 W
		Grid Convergence:	0.27 °

Well	Patton MDP1 18 Federal 5H		
Well Position	+N/-S	0.00 ft	Northing: 445,685.86 usft
	+E/-W	0.00 ft	Easting: 703,382.25 usft
Position Uncertainty	0.00 ft	Wellhead Elevation:	3,523.80 ft
		Latitude:	32° 13' 27.050121 N
		Longitude:	103° 48' 33.524487 W
		Ground Level:	3,523.80 ft

Wellbore	WB00				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM	10/11/2016	7.03	60.02	48,226

Design	Permitting Plan				
Audit Notes:					
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.00	
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)	
	0.00	0.00	0.00	188.35	

Survey Tool Program	Date 11/3/2016				
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
0.00	14,995.87	Permitting Plan (WB00)	B001Mb_MWD+HRGM	OWSG MWD + HRGM	

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SHL									
605.00	0.00	0.00	605.00	0.00	0.00	0.00	0.00	0.00	0.00
Rustler									
965.00	0.00	0.00	965.00	0.00	0.00	0.00	0.00	0.00	0.00
Salado									
2,800.00	0.00	0.00	2,800.00	0.00	0.00	0.00	0.00	0.00	0.00
Castille Anhydrite									
4,307.00	0.00	0.00	4,307.00	0.00	0.00	0.00	0.00	0.00	0.00
Lamar/Delaware									

Oxy Survey Report

Company:	ENGINEERING DESIGNS	Local Co-ordinate Reference:	Well Patton MDP1 18 Federal 5H
Project:	PRD NM DIRECTIONAL PLANS (NAD 1983)	TVD Reference:	WELL @ 3550.30ft (Original Well Elev)
Site:	Patton MDP1 18 Federal	MD Reference:	WELL @ 3550.30ft (Original Well Elev)
Well:	Patton MDP1 18 Federal 5H	North Reference:	Grid
Wellbore:	WB00	Survey Calculation Method:	Minimum Curvature
Design:	Permitting Plan	Database:	HOPSPP

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
4,351.00	0.00	0.00	4,351.00	0.00	0.00	0.00	0.00	0.00	0.00
Bell Canyon									
4,550.00	0.00	0.00	4,550.00	0.00	0.00	0.00	0.00	0.00	0.00
Step out DLS 2.00									
4,600.00	1.00	284.65	4,600.00	0.11	-0.42	-0.05	2.00	2.00	0.00
4,700.00	3.00	284.65	4,699.93	0.99	-3.80	-0.43	2.00	2.00	0.00
4,800.00	5.00	284.65	4,799.68	2.76	-10.55	-1.20	2.00	2.00	0.00
4,900.00	7.00	284.65	4,899.13	5.40	-20.66	-2.34	2.00	2.00	0.00
5,000.00	9.00	284.65	4,998.15	8.92	-34.12	-3.87	2.00	2.00	0.00
5,050.20	10.00	284.65	5,047.66	11.01	-42.14	-4.78	2.00	2.00	0.00
Hold 10° tangent									
5,050.51	10.01	284.65	5,047.97	11.03	-42.19	-4.78	2.00	2.00	0.00
5,100.00	10.01	284.65	5,096.70	13.20	-50.52	-5.73	0.00	0.00	0.00
5,126.70	10.01	284.65	5,123.00	14.38	-55.01	-6.24	0.00	0.00	0.00
Cherry Canyon									
5,200.00	10.01	284.65	5,195.18	17.60	-67.33	-7.63	0.00	0.00	0.00
5,300.00	10.01	284.65	5,293.66	21.99	-84.15	-9.54	0.00	0.00	0.00
5,400.00	10.01	284.65	5,392.14	26.39	-100.97	-11.45	0.00	0.00	0.00
5,500.00	10.01	284.65	5,490.62	30.78	-117.79	-13.35	0.00	0.00	0.00
5,600.00	10.01	284.65	5,589.09	35.18	-134.61	-15.26	0.00	0.00	0.00
5,700.00	10.01	284.65	5,687.57	39.57	-151.42	-17.17	0.00	0.00	0.00
5,800.00	10.01	284.65	5,786.05	43.97	-168.24	-19.07	0.00	0.00	0.00
5,900.00	10.01	284.65	5,884.53	48.36	-185.06	-20.98	0.00	0.00	0.00
6,000.00	10.01	284.65	5,983.00	52.76	-201.88	-22.89	0.00	0.00	0.00
6,100.00	10.01	284.65	6,081.48	57.15	-218.69	-24.79	0.00	0.00	0.00
6,200.00	10.01	284.65	6,179.96	61.55	-235.51	-26.70	0.00	0.00	0.00
6,300.00	10.01	284.65	6,278.44	65.94	-252.33	-28.61	0.00	0.00	0.00
6,400.00	10.01	284.65	6,376.91	70.34	-269.15	-30.51	0.00	0.00	0.00
6,467.11	10.01	284.65	6,443.00	73.29	-280.43	-31.79	0.00	0.00	0.00
Brushy Canyon									
6,500.00	10.01	284.65	6,475.39	74.73	-285.96	-32.42	0.00	0.00	0.00
6,600.00	10.01	284.65	6,573.87	79.13	-302.78	-34.33	0.00	0.00	0.00
6,700.00	10.01	284.65	6,672.35	83.52	-319.60	-36.23	0.00	0.00	0.00
6,800.00	10.01	284.65	6,770.82	87.92	-336.42	-38.14	0.00	0.00	0.00
6,900.00	10.01	284.65	6,869.30	92.32	-353.23	-40.04	0.00	0.00	0.00
7,000.00	10.01	284.65	6,967.78	96.71	-370.05	-41.95	0.00	0.00	0.00
7,100.00	10.01	284.65	7,066.26	101.11	-386.87	-43.86	0.00	0.00	0.00
7,200.00	10.01	284.65	7,164.74	105.50	-403.69	-45.76	0.00	0.00	0.00
7,300.00	10.01	284.65	7,263.21	109.90	-420.50	-47.67	0.00	0.00	0.00
7,400.00	10.01	284.65	7,361.69	114.29	-437.32	-49.58	0.00	0.00	0.00
7,500.00	10.01	284.65	7,460.17	118.69	-454.14	-51.48	0.00	0.00	0.00
7,600.00	10.01	284.65	7,558.65	123.08	-470.96	-53.39	0.00	0.00	0.00
7,700.00	10.01	284.65	7,657.12	127.48	-487.77	-55.30	0.00	0.00	0.00
7,800.00	10.01	284.65	7,755.60	131.87	-504.59	-57.20	0.00	0.00	0.00
7,900.00	10.01	284.65	7,854.08	136.27	-521.41	-59.11	0.00	0.00	0.00

Oxy Survey Report

Company:	ENGINEERING DESIGNS	Local Co-ordinate Reference:	Well Patton MDP1 18 Federal 5H
Project:	PRD NM DIRECTIONAL PLANS (NAD 1983)	TVD Reference:	WELL @ 3550.30ft (Original Well Elev)
Site:	Patton MDP1 18 Federal	MD Reference:	WELL @ 3550.30ft (Original Well Elev)
Well:	Patton MDP1 18 Federal 5H	North Reference:	Grid
Wellbore:	WB00	Survey Calculation Method:	Minimum Curvature
Design:	Permitting Plan	Database:	HOPSPP

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
8,000.00	10.01	284.65	7,952.56	140.66	-538.23	-61.02	0.00	0.00	0.00
8,100.00	10.01	284.65	8,051.03	145.06	-555.05	-62.92	0.00	0.00	0.00
8,166.99	10.01	284.65	8,117.00	148.00	-566.31	-64.20	0.00	0.00	0.00
Bone Spring									
8,200.00	10.01	284.65	8,149.51	149.45	-571.86	-64.83	0.00	0.00	0.00
8,300.00	10.01	284.65	8,247.99	153.85	-588.68	-66.74	0.00	0.00	0.00
8,400.00	10.01	284.65	8,346.47	158.24	-605.50	-68.64	0.00	0.00	0.00
8,500.00	10.01	284.65	8,444.95	162.64	-622.32	-70.55	0.00	0.00	0.00
8,600.00	10.01	284.65	8,543.42	167.03	-639.13	-72.46	0.00	0.00	0.00
8,700.00	10.01	284.65	8,641.90	171.43	-655.95	-74.36	0.00	0.00	0.00
8,800.00	10.01	284.65	8,740.38	175.82	-672.77	-76.27	0.00	0.00	0.00
8,900.00	10.01	284.65	8,838.86	180.22	-689.59	-78.18	0.00	0.00	0.00
9,000.00	10.01	284.65	8,937.33	184.61	-706.40	-80.08	0.00	0.00	0.00
9,013.91	10.01	284.65	8,951.03	185.23	-708.74	-80.35	0.00	0.00	0.00
9,014.14	10.01	284.65	8,951.26	185.24	-708.78	-80.35	0.00	0.00	0.00
Turn to 179.74° azimuth.									
9,100.00	8.29	284.65	9,036.02	188.69	-721.99	-81.85	2.01	-2.01	0.00
9,200.00	6.29	284.65	9,135.21	191.89	-734.26	-83.24	2.00	-2.00	0.00
9,300.00	4.29	284.65	9,234.78	194.22	-743.18	-84.25	2.00	-2.00	0.00
9,400.00	2.29	284.65	9,334.61	195.67	-748.73	-84.88	2.00	-2.00	0.00
9,500.00	0.29	284.65	9,434.58	196.24	-750.90	-85.13	2.00	-2.00	0.00
9,514.35	0.00	284.65	9,448.93	196.25	-750.94	-85.13	2.00	-2.00	0.00
Build Curve 10°/100'									
9,514.42	0.00	179.74	9,449.00	196.25	-750.94	-85.13	2.00	-2.00	0.00
9,600.00	8.56	179.74	9,534.26	189.87	-750.91	-78.82	10.00	10.00	0.00
9,700.00	18.56	179.74	9,631.35	166.46	-750.80	-55.67	10.00	10.00	0.00
9,800.00	28.56	179.74	9,722.90	126.54	-750.62	-16.21	10.00	10.00	0.00
9,900.00	38.56	179.74	9,806.13	71.34	-750.38	38.38	10.00	10.00	0.00
10,000.00	48.56	179.74	9,878.50	2.52	-750.07	106.43	10.00	10.00	0.00
10,100.00	58.56	179.74	9,937.83	-77.83	-749.71	185.86	10.00	10.00	0.00
10,200.00	68.56	179.74	9,982.30	-167.25	-749.30	274.28	10.00	10.00	0.00
10,300.00	78.56	179.74	10,010.57	-263.04	-748.87	368.99	10.00	10.00	0.00
10,400.00	88.56	179.74	10,021.78	-362.28	-748.43	467.12	10.00	10.00	0.00
10,412.95	89.85	179.74	10,021.96	-375.23	-748.37	479.92	10.00	10.00	0.00
Landing Point									
10,413.02	89.86	179.74	10,021.96	-375.30	-748.37	479.99	10.00	10.00	0.00
10,500.00	89.86	179.74	10,022.17	-462.28	-747.98	565.99	0.00	0.00	0.00
10,600.00	89.86	179.74	10,022.41	-562.28	-747.53	664.86	0.00	0.00	0.00
10,700.00	89.86	179.74	10,022.66	-662.27	-747.08	763.74	0.00	0.00	0.00
10,800.00	89.86	179.74	10,022.90	-762.27	-746.63	862.61	0.00	0.00	0.00
10,900.00	89.86	179.74	10,023.14	-862.27	-746.18	961.48	0.00	0.00	0.00
11,000.00	89.86	179.74	10,023.39	-962.27	-745.73	1,060.36	0.00	0.00	0.00
11,100.00	89.86	179.74	10,023.63	-1,062.27	-745.28	1,159.23	0.00	0.00	0.00
11,200.00	89.86	179.74	10,023.87	-1,162.27	-744.83	1,258.10	0.00	0.00	0.00

Oxy Survey Report

Company:	ENGINEERING DESIGNS	Local Co-ordinate Reference:	Well Patton MDP1 18 Federal 5H
Project:	PRD NM DIRECTIONAL PLANS (NAD 1983)	TVD Reference:	WELL @ 3550.30ft (Original Well Elev)
Site:	Patton MDP1 18 Federal	MD Reference:	WELL @ 3550.30ft (Original Well Elev)
Well:	Patton MDP1 18 Federal 5H	North Reference:	Grid
Wellbore:	WB00	Survey Calculation Method:	Minimum Curvature
Design:	Permitting Plan	Database:	HOPSPP

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
11,300.00	89.86	179.74	10,024.12	-1,262.27	-744.38	1,356.98	0.00	0.00	0.00
11,400.00	89.86	179.74	10,024.36	-1,362.27	-743.93	1,455.85	0.00	0.00	0.00
11,500.00	89.86	179.74	10,024.60	-1,462.26	-743.48	1,554.73	0.00	0.00	0.00
11,600.00	89.86	179.74	10,024.85	-1,562.26	-743.04	1,653.60	0.00	0.00	0.00
11,700.00	89.86	179.74	10,025.09	-1,662.26	-742.59	1,752.47	0.00	0.00	0.00
11,800.00	89.86	179.74	10,025.33	-1,762.26	-742.14	1,851.35	0.00	0.00	0.00
11,900.00	89.86	179.74	10,025.57	-1,862.26	-741.69	1,950.22	0.00	0.00	0.00
12,000.00	89.86	179.74	10,025.82	-1,962.26	-741.24	2,049.09	0.00	0.00	0.00
12,100.00	89.86	179.74	10,026.06	-2,062.26	-740.79	2,147.97	0.00	0.00	0.00
12,200.00	89.86	179.74	10,026.30	-2,162.26	-740.34	2,246.84	0.00	0.00	0.00
12,300.00	89.86	179.74	10,026.54	-2,262.25	-739.89	2,345.71	0.00	0.00	0.00
12,400.00	89.86	179.74	10,026.78	-2,362.25	-739.44	2,444.59	0.00	0.00	0.00
12,500.00	89.86	179.74	10,027.02	-2,462.25	-738.99	2,543.46	0.00	0.00	0.00
12,600.00	89.86	179.74	10,027.26	-2,562.25	-738.54	2,642.34	0.00	0.00	0.00
12,700.00	89.86	179.74	10,027.51	-2,662.25	-738.09	2,741.21	0.00	0.00	0.00
12,800.00	89.86	179.74	10,027.75	-2,762.25	-737.64	2,840.08	0.00	0.00	0.00
12,900.00	89.86	179.74	10,027.99	-2,862.25	-737.19	2,938.96	0.00	0.00	0.00
13,000.00	89.86	179.74	10,028.23	-2,962.25	-736.74	3,037.83	0.00	0.00	0.00
13,100.00	89.86	179.74	10,028.47	-3,062.24	-736.30	3,136.70	0.00	0.00	0.00
13,200.00	89.86	179.74	10,028.71	-3,162.24	-735.85	3,235.58	0.00	0.00	0.00
13,300.00	89.86	179.74	10,028.95	-3,262.24	-735.40	3,334.45	0.00	0.00	0.00
13,400.00	89.86	179.74	10,029.19	-3,362.24	-734.95	3,433.32	0.00	0.00	0.00
13,500.00	89.86	179.74	10,029.43	-3,462.24	-734.50	3,532.20	0.00	0.00	0.00
13,600.00	89.86	179.74	10,029.67	-3,562.24	-734.05	3,631.07	0.00	0.00	0.00
13,700.00	89.86	179.74	10,029.91	-3,662.24	-733.60	3,729.94	0.00	0.00	0.00
13,800.00	89.86	179.74	10,030.15	-3,762.23	-733.15	3,828.82	0.00	0.00	0.00
13,900.00	89.86	179.74	10,030.39	-3,862.23	-732.70	3,927.69	0.00	0.00	0.00
14,000.00	89.86	179.74	10,030.63	-3,962.23	-732.25	4,026.57	0.00	0.00	0.00
14,100.00	89.86	179.74	10,030.87	-4,062.23	-731.80	4,125.44	0.00	0.00	0.00
14,200.00	89.86	179.74	10,031.10	-4,162.23	-731.35	4,224.31	0.00	0.00	0.00
14,300.00	89.86	179.74	10,031.34	-4,262.23	-730.90	4,323.19	0.00	0.00	0.00
14,400.00	89.86	179.74	10,031.58	-4,362.23	-730.45	4,422.06	0.00	0.00	0.00
14,500.00	89.86	179.74	10,031.82	-4,462.23	-730.00	4,520.93	0.00	0.00	0.00
14,600.00	89.86	179.74	10,032.06	-4,562.22	-729.55	4,619.81	0.00	0.00	0.00
14,700.00	89.86	179.74	10,032.30	-4,662.22	-729.11	4,718.68	0.00	0.00	0.00
14,800.00	89.86	179.74	10,032.53	-4,762.22	-728.66	4,817.55	0.00	0.00	0.00
14,900.00	89.86	179.74	10,032.77	-4,862.22	-728.21	4,916.43	0.00	0.00	0.00
14,995.86	89.86	179.74	10,033.00	-4,958.08	-727.78	5,011.21	0.00	0.00	0.00
TD at 14895.86 MD									
14,995.94	89.86	179.74	10,033.00	-4,958.16	-727.78	5,011.29	0.10	0.10	0.00

Oxy Survey Report

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Project:	PRD NM DIRECTIONAL PLANS (NAD 1983)	TVD Reference:	WELL @ 3550.30ft (Original Well Elev)
Site:	Patton MDP1 18 Federal	MD Reference:	WELL @ 3550.30ft (Original Well Elev)
Well:	Patton MDP1 18 Federal 5H	North Reference:	Grid
Wellbore:	WB00	Survey Calculation Method:	Minimum Curvature
Design:	Permitting Plan	Database:	HOPSPP

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
Patton_18_5H_KOP	0.00	0.00	9,449.00	196.25	-750.94	445,882.10	702,631.36	32° 13' 29.028199 N	103° 48' 42.254718 W
- plan hits target center - Point									
Patton_18_5H_BHL	0.00	0.00	10,033.00	-4,958.16	-727.78	440,728.01	702,654.52	32° 12' 38.023946 N	103° 48' 42.276318 W
- plan hits target center - Point									

Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
605.00	605.00	Rustler			
965.00	965.00	Salado			
2,800.00	2,800.00	Castille Anhydrite			
4,307.00	4,307.00	Lamar/Delaware			
4,351.00	4,351.00	Bell Canyon			
5,126.70	5,123.00	Cherry Canyon			
6,467.11	6,443.00	Brushy Canyon			
8,166.99	8,117.00	Bone Spring			

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
0	0	0	0	SHL
4550	4550	0	0	Step out DLS 2.00'
5050	5048	11	-42	Hold 10° tangent
9014	8951	185	-709	Turn to 179.74° azimuth
9514	9449	196	-751	Build Curve 10°/100'
10,413	10,022	-375	-748	Landing Point
14,996	10,033	-4958	-728	TD at 14895.86 MD

Checked By: _____ Approved By: _____ Date: _____

McMillan, Michael, EMNRD

From: John_Schneider@oxy.com
Sent: Monday, May 1, 2017 8:53 AM
To: McMillan, Michael, EMNRD
Cc: David_Stewart@oxy.com; Stacy_Rojas@oxy.com
Subject: Patton MDP 1 Federal Well No. 5H

Mr. McMillan:

Pursuant to your request regarding a statement of interest on the subject well, please note the following:

- All of Section 18, T24S-R31E – minerals owned by the USA – granted lease NMNM-89819. WI ownership as to 8,250' to 13,323' in this section is owned as follows:
 - OXY USA Inc. – 60.00% - Operator
 - EOG Resources, Inc. – 20.00%
 - McCombs Energy, Ltd. – 20.00%

Please advise should you have any further questions.

Thanks,

John Schneider, CPL
Team Lead Land - Permian (Delaware)
Oxy USA Inc.
John_Schneider@Oxy.com

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Office: 713.366.5330