

1 3160-4
(August 2007)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

RECEIVED
MAY 07 2018

FORM APPROVED
OMB No. 1004-0137
Expires: July 31, 2010

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

5. Lease Serial No.
NMNM89819

1a. Type of Well ☒ Oil Well ☐ Gas Well ☐ Dry ☐ Other
b. Type of Completion ☒ New Well ☐ Work Over ☐ Deepen ☐ Plug Back ☐ Diff. Resvr.
Other _____

6. If Indian, Allottee or Tribe Name

7. Unit or CA Agreement Name and No.

2. Name of Operator
OXY USA INCORPORATED

Contact: JANA MENDIOLA

E-Mail: janalyn_mendiola@oxy.com

8. Lease Name and Well No.
PATTON MDP1 18 FEDERAL 73H

3. Address 5 GREENWAY PLAZA SUITE 110
HOUSTON, TX 77046-0521

3a. Phone No. (include area code)
Ph: 432-685-5936

9. API Well No.
30-015-44318-00-S1

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

At surface NWNE 335FNL 2092FEL 32.223671 N Lat, 103.815156 W Lon

At top prod interval reported below NWNE 463FNL 2235FEL 32.223657 N Lat, 103.815702 W Lon

At total depth SWSE 189FSL 2240FEL 32.210562 N Lat, 103.815707 W Lon

10. Field and Pool, or Exploratory
COTTON DRAW-BONE SPRING

11. Sec., T., R., M., or Block and Survey
or Area Sec 18 T24S R31E Mer NMP

12. County or Parish
EDDY

13. State
NM

14. Date Spudded
08/14/2017

15. Date T.D. Reached
10/17/2017

16. Date Completed
☐ D & A ☒ Ready to Prod.
12/03/2017

17. Elevations (DF, KB, RT, GL)*
3533 GL

18. Total Depth: MD 15810
TVD 11193

19. Plug Back T.D.: MD 15743
TVD 11192

20. Depth Bridge Plug Set: MD
TVD

21. Type Electric & Other Mechanical Logs Run (Submit copy of each)
MUDLOG

22. Was well cored? ☒ No ☐ Yes (Submit analysis)
Was DST run? ☒ No ☐ Yes (Submit analysis)
Directional Survey? ☐ No ☒ Yes (Submit analysis)

23. Casing and Liner Record (Report all strings set in well)

Hole Size	Size/Grade	Wt. (#/ft.)	Top (MD)	Bottom (MD)	Stage Cementer Depth	No. of Sk. & Type of Cement	Slurry Vol. (BBL)	Cement Top*	Amount Pulled
20.000	16.000 J55	75.0	0	660		765	184	0	
13.500	10.750 J55	45.5	0	4358		1615	504	0	
9.875	7.625 L80	29.7	0	10503	5984	1070	522	3260	
6.750	4.500 P110	13.5	10369	15810		560	165	10369	

24. Tubing Record

Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)
2.875	10261	10261						

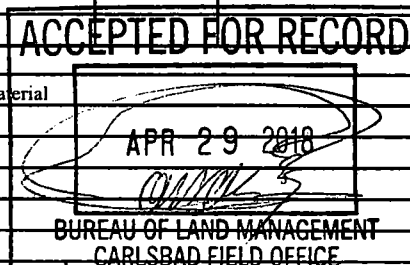
25. Producing Intervals

26. Perforation Record

Formation	Top	Bottom	Perforated Interval	Size	No. Holes	Perf. Status
A) BONE SPRING 3RD	11179	15639	11179 TO 15639	0.420	704	ACTIVE
B)						
C)						
D)						

27. Acid, Fracture, Treatment, Cement Squeeze, Etc.

Depth Interval	Amount and Type of Material
11179 TO 15639	8728944G SLICKWATER + 51660G 15% HCL ACID W/8866801# SAND



28. Production - Interval A

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
12/04/2017	12/14/2017	24	→	1261.0	2791.0	8410.0			GAS LIFT
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status	
43/128	SI	1525.0	→	1261	2791	8410	2213	POW	

28a. Production - Interval B

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
			→						
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status	
	SI		→						

(See Instructions and spaces for additional data on reverse side)

ELECTRONIC SUBMISSION #406620 VERIFIED BY THE BLM WELL INFORMATION SYSTEM

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

Recurrence date: 06/03/2018

28b. Production - Interval C

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
			→						
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status	
			→						

28c. Production - Interval D

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
			→						
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status	
			→						

29. Disposition of Gas(Sold, used for fuel, vented, etc.)
SOLD

30. Summary of Porous Zones (Include Aquifers):

Show all important zones of porosity and contents thereof: Cored intervals and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures and recoveries.

31. Formation (Log) Markers

Formation	Top	Bottom	Descriptions, Contents, etc.	Name	Top Meas. Depth
BELL CANYON	4370	5200	OIL, GAS, WATER	RUSTLER	595
CHERRY CANYON	5201	6462	OIL, GAS, WATER	SALADO	963
BRUSHY CANYON	6463	8141	OIL, GAS, WATER	CASTILE	2370
BONE SPRING	8142	9123	OIL, GAS, WATER	DELAWARE	4338
BONE SPRING 1ST	9124	9853	OIL, GAS, WATER	BELL CANYON	4370
BONE SPRING 2ND	9854	11219	OIL, GAS, WATER	CHERRY CANYON	5201
BONE SPRING 3RD	11220		OIL, GAS, WATER	BRUSHY CANYON	6463
				BONE SPRING	8142

32. Additional remarks (include plugging procedure):

52. FORMATION (LOG) MARKERS CONTD.

1ST BONE SPRING 9124'M
2ND BONE SPRING 9854'M
3RD BONE SPRING 11220'M

Logs were mailed 3/2/18.

33. Circle enclosed attachments:

- | | | | |
|---|--------------------|---------------|-----------------------|
| 1. Electrical/Mechanical Logs (1 full set req'd.) | 2. Geologic Report | 3. DST Report | 4. Directional Survey |
| 5. Sundry Notice for plugging and cement verification | 6. Core Analysis | 7. Other: | |

34. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records (see attached instructions):

Electronic Submission #406620 Verified by the BLM Well Information System.
For OXY USA INCORPORATED, sent to the Carlsbad
Committed to AFMSS for processing by DUNCAN WHITLOCK on 03/12/2018 (18DW0098SE)

Name (please print) DAVID STEWART

Title REGULATORY ADVISOR

Signature _____ (Electronic Submission)

Date 03/05/2018

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.

**** REVISED ** REVISED ** REVISED ** REVISED ** REVISED ** REVISED ** REVISED ****

Additional data for transaction #406620 that would not fit on the form

32. Additional remarks, continued

Log Header, Directional Survey, As-Drilled Amended C-102 plat & WBD are attached.

RECEIVED

MAY 07 2018

District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-9720
District II
811 S. First St., Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720
District III
1000 Rio Grande Road, Artesia, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

DISTRICT II ARTESIA O.C.D.

Form C-102

Revised August 1, 2011

Submit one copy to appropriate

District Office

☒ AMENDED REPORT
(As Drilled)

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-015-44318	Pool Code 13367	Pool Name Cotton Draw; Bone Spring
Property Code 316483	Property Name PATTON MDP1 "18" FEDERAL	Well Number 73H
OGRID No. 16696	Operator Name OXY USA INC.	Elevation 3533.3'

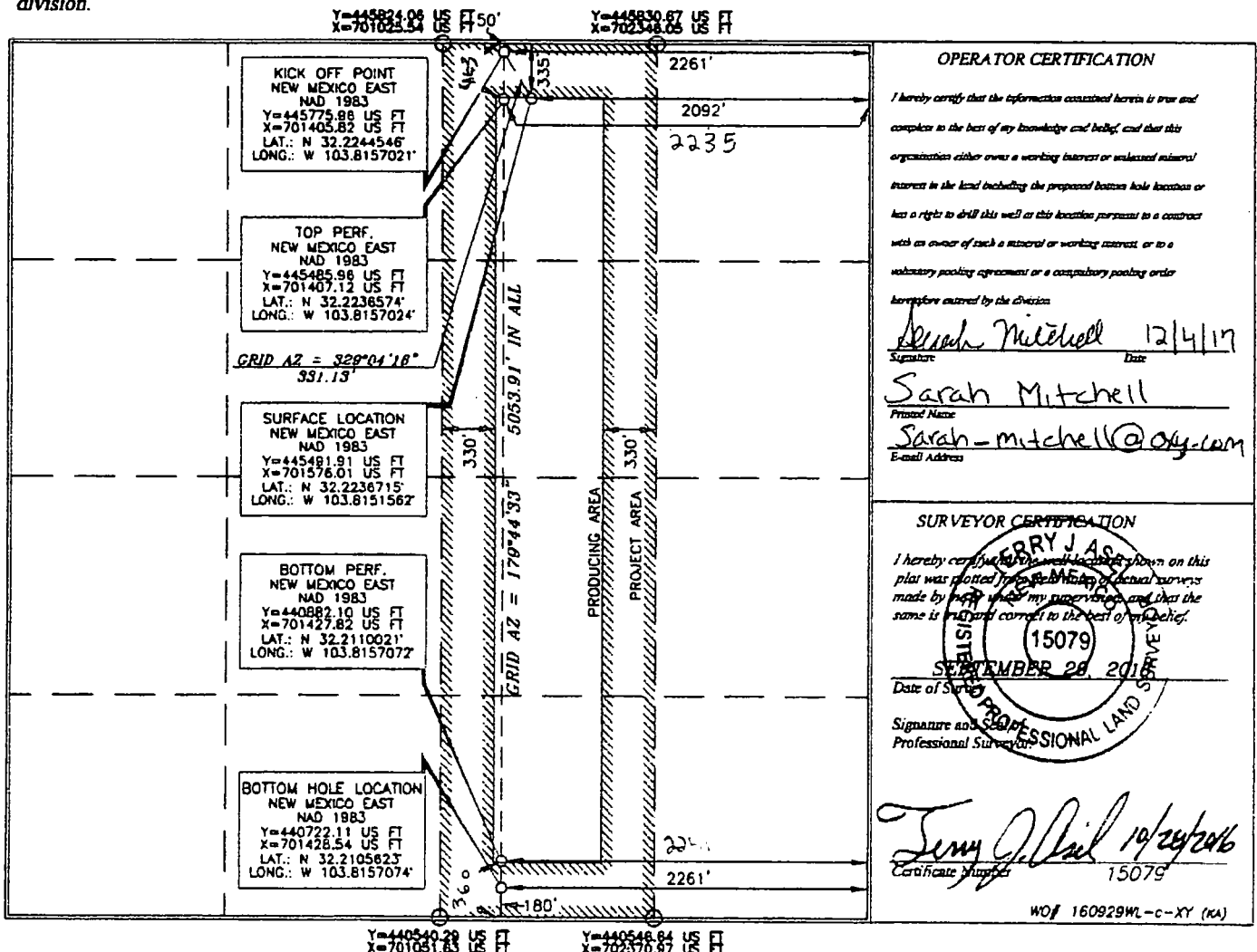
Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
B	18	24 SOUTH	31 EAST, N.M.P.M.		335'	NORTH	2092'	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
0	18	24 SOUTH	31 EAST, N.M.P.M.		189'	SOUTH	2240'	EAST	EDDY
Dedicated Acres 160	Joint or Infill Y	Consolidation Code	Order No.	TP 463 FNL 2235 FEL BP 360 FSL 2241 FEL					

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.

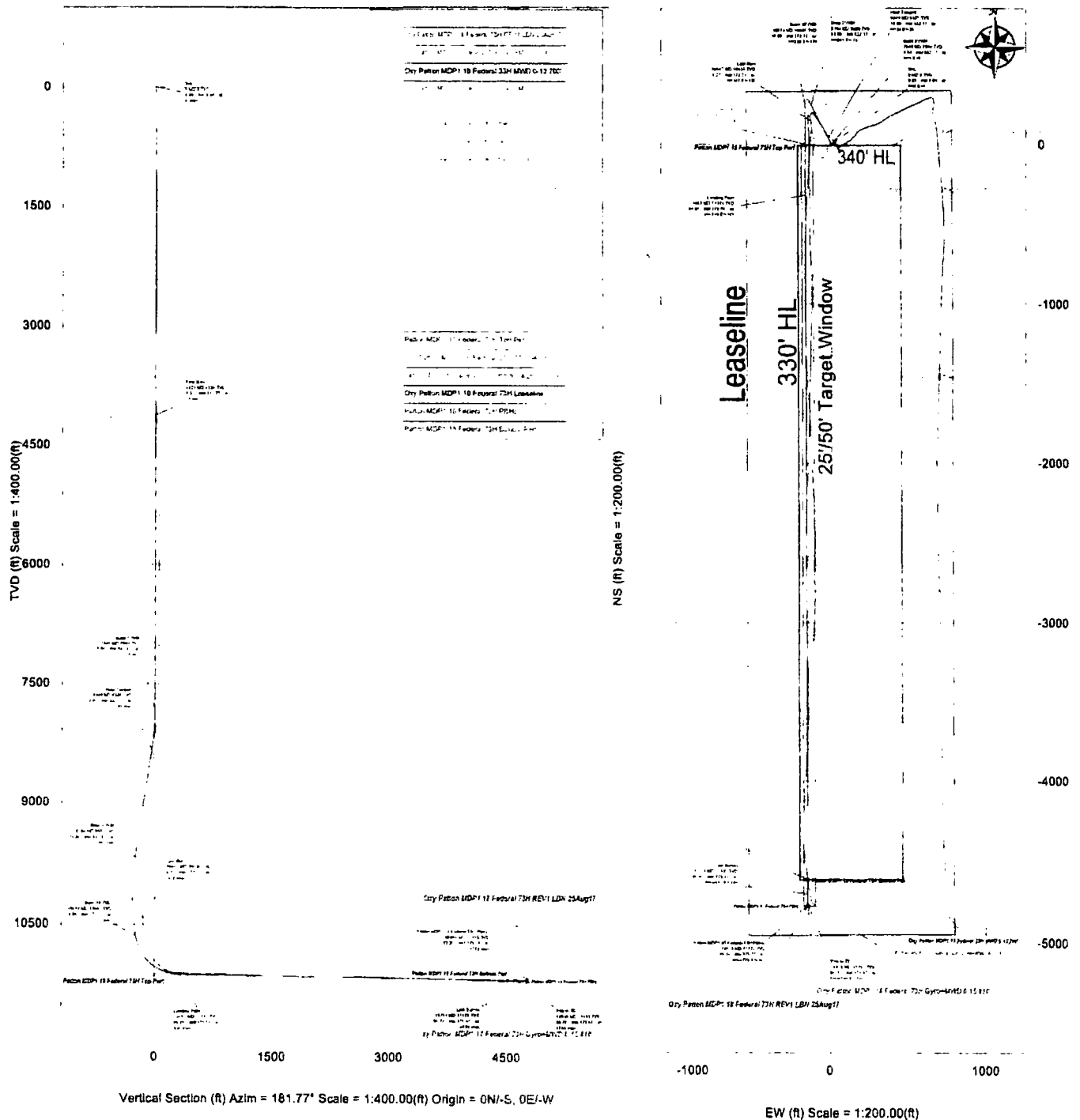




Structure:

Oxy Patton MDP1 18 Federal 73H

Grid
True Mag
Grid North
Tot Corr (M→G 6.686")
Mag Dec (8.983")
Grid Conv (0.276")



Schlumberger Drilling and Measurements
Drilling Group
Geo Market Area: South West Texas Basin
7220 W I-H 20
Midland, Texas 79706
Phone : (432) 742-5400 (Main)
Fax : (432) 742-5606 (Shared)

Schlumberger

Well Reference:

32.22367 -103.81525

I, Rasheed Atanda certify that; I am employed by Drilling & Measurements, a division of Schlumberger Technology Corporation, that I did on the day(s) of October 10, 2017 through October 17, 2017, conduct or supervise the taking of the SlimPulse surveys from a depth of 10515.00 feet to a depth of 15751.00 feet referenced to driller's depth; that the data is true, correct, complete and within the limitations of the tool as set forth by Drilling & Measurements, a division of Schlumberger Technology Corporation; that I am authorized and qualified to make this report; that this survey was conducted at the request of OXY USA INC. for the Patton MDP1 18 Federal 73H Well (Original Hole) API No. 30-015-44318 in New Mexico; and that I have reviewed this report and find that it conforms to the principals and procedures as set forth by Drilling & Measurements, a division of Schlumberger Technology Corporation.

By
Rasheed Atanda
FE

R. Atanda

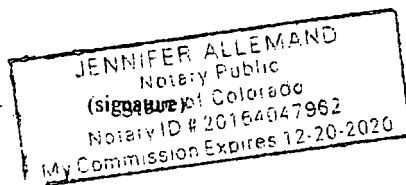
Subscribed and Sworn to before me this 23 day of October (month) 2017 (yr)

My Commission expires:

12-20-2020

J. Allemand
Notary Public

Adams County Colorado
(County State)



Oxy Patton MDP1 18 Federal 73H Gyro+MWD 0-15,810' Survey Geodetic Report

(Def Survey)



Report Date:	October 18, 2017 09:34 AM	Survey / DLS Computation:	Minimum Curvature / Lubinski
Client:	OXY	Vertical Section Azimuth:	181.771° (Grid North)
Field:	NM Eddy County (NAD 83)	Vertical Section Origin:	0 000 ft, 0 000 ft
Structure / Slot:	Oxy Patton MDP1 18 Federal 73H / Oxy Patton MDP1 18 Federal 73H	TVD Reference Datum:	RKB=26.5'
Well:	Oxy Patton MDP1 18 Federal 73H	TVD Reference Elevation:	3559 600 ft above MSL
Borehole:	Original Borehole	Seabed / Ground Elevation:	3533 300 ft above MSL
UWI / API#:	Unknown / Unknown	Magnetic Declination:	6.963°
Survey Name:	Oxy Patton MDP1 18 Federal 73H Gyro+MWD 0 15 810	Total Gravity Field Strength:	998 4277 mgn (9 80665 Based)
Survey Date:	October 05, 2017	Gravity Model:	GARM
Tort / AHD / DDI / ERD Ratio:	233 394° / 5413 472 ft / 6 252 / 0 484	Total Magnetic Field Strength:	48086 082 nT
Coordinate Reference System:	NAD83 New Mexico State Plane, Eastern Zone US Feet	Magnetic Dip Angle:	59.991°
Location Lat / Long:	N 32° 13' 25.21754" W 103° 48' 54.56233"	Declination Date:	October 05 2017
Location Grid N/E Y/X:	N 445491 910 NUS, E 701576 010 NUS	Magnetic Declination Model:	HDGM 2017
CRS Grid Convergence Angle:	0.2763°	North Reference:	Grid North
Grid Scale Factor:	0.9999385	Grid Convergence Used:	0.2763°
Version / Patch:	2 10 565.0	Total Corr Mag North->Grid	6.8885°
		North:	
		Local Coord Referenced To:	Well Head

Comments	MD (ft)	Incl (°)	Azlm Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (NUS)	Easting (EUS)	Latitude (N/E/S ° ' ")	Longitude (E/W ° ' ")
SHL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A	445491.91	701576.01	N 32 13 25 22 W 103 48 54 56	
RKB	26.50	0.00	0.00	26.50	0.00	0.00	0.00	0.00	445491.91	701576.01	N 32 13 25 22 W 103 48 54 56	
	162.00	0.83	232.82	162.00	0.62	-0.59	0.76	0.61	445491.32	701575.23	N 32 13 25 21 W 103 48 54 57	
	593.00	0.61	83.45	592.98	2.25	-2.22	0.99	0.32	445489.69	701575.02	N 32 13 25 20 W 103 48 54 57	
	725.00	0.81	244.85	724.88	2.62	-2.58	1.24	1.14	445488.33	701574.77	N 32 13 25 19 W 103 48 54 58	
	848.00	0.93	254.99	847.96	3.35	-3.26	3.09	0.13	445488.65	701572.92	N 32 13 25 19 W 103 48 54 60	
	909.00	0.83	253.30	908.95	3.63	-3.51	3.89	0.17	445488.40	701572.02	N 32 13 25 18 W 103 48 54 61	
	1059.00	1.12	240.55	1058.93	4.74	-4.55	6.31	0.24	445487.37	701569.70	N 32 13 25 17 W 103 48 54 64	
	1240.00	1.16	247.04	1239.90	6.42	-6.13	9.53	0.07	445485.78	701566.48	N 32 13 25 16 W 103 48 54 67	
	1330.00	1.18	252.62	1329.88	7.11	-6.76	11.26	0.13	445485.15	701564.75	N 32 13 25 15 W 103 48 54 69	
	1419.00	0.13	277.54	1418.67	7.40	-7.02	12.23	1.19	445484.89	701563.78	N 32 13 25 15 W 103 48 54 71	
	1510.00	0.68	94.97	1509.87	7.42	-7.06	11.80	0.89	445484.86	701564.21	N 32 13 25 15 W 103 48 54 70	
	1600.00	1.76	98.01	1599.85	7.60	-7.29	9.90	1.20	445484.62	701566.11	N 32 13 25 15 W 103 48 54 68	
	1690.00	1.36	88.49	1689.81	7.69	-7.46	7.46	0.53	445484.45	701568.55	N 32 13 25 14 W 103 48 54 65	
	1781.00	1.24	75.57	1780.79	7.35	-7.18	5.43	0.35	445484.73	701570.58	N 32 13 25 14 W 103 48 54 63	
	1872.00	1.43	95.16	1871.77	7.14	-7.04	3.34	0.54	445484.87	701572.67	N 32 13 25 15 W 103 48 54 60	
	1966.00	1.32	93.62	1965.74	7.25	-7.22	1.09	0.12	445484.69	701574.92	N 32 13 25 15 W 103 48 54 58	
	2156.00	1.19	100.99	2155.69	7.63	-7.73	3.03	0.11	445484.18	701579.04	N 32 13 25 14 W 103 48 54 53	
	2250.00	1.23	103.13	2249.67	7.98	-8.15	4.97	0.06	445483.77	701580.98	N 32 13 25 14 W 103 48 54 50	
	2345.00	0.78	113.74	2344.66	8.42	-8.63	6.54	0.53	445483.28	701583.52	N 32 13 25 13 W 103 48 54 49	
	2440.00	0.56	121.52	2439.65	8.89	-9.13	7.51	0.23	445482.78	701583.52	N 32 13 25 12 W 103 48 54 47	
	2534.00	0.34	81.20	2533.65	9.07	-9.32	8.18	0.40	445482.59	701584.18	N 32 13 25 13 W 103 48 54 46	
	2629.00	0.28	36.69	2628.65	8.82	-9.09	8.59	0.25	445482.82	701584.60	N 32 13 25 13 W 103 48 54 46	
	2724.00	0.67	35.64	2723.64	8.17	-8.46	9.06	0.41	445483.45	701585.07	N 32 13 25 13 W 103 48 54 46	
	2818.00	0.63	18.57	2817.64	7.22	-7.52	9.54	0.21	445484.39	701585.55	N 32 13 25 14 W 103 48 54 45	
	2913.00	0.73	5.58	2912.63	6.12	-6.42	9.77	0.19	445485.49	701585.78	N 32 13 25 15 W 103 48 54 45	
	3008.00	1.13	341.66	3007.62	4.84	-4.93	9.53	0.58	445486.88	701585.54	N 32 13 25 17 W 103 48 54 45	
	3102.00	1.98	351.90	3101.58	2.16	-2.44	9.01	0.85	445489.97	701585.02	N 32 13 25 16 W 103 48 54 46	
	3181.00	1.98	351.90	3180.54	-0.52	0.26	8.63	0.00	445492.17	701584.64	N 32 13 25 22 W 103 48 54 46	
	3187.00	1.86	351.92	3186.53	-1.05	0.79	8.55	0.75	445492.70	701584.56	N 32 13 25 22 W 103 48 54 46	
	3292.00	1.48	352.40	3291.49	-3.78	3.53	8.17	0.40	445495.44	701584.18	N 32 13 25 25 W 103 48 54 47	
	3306.00	1.34	326.32	3305.46	-5.87	5.65	7.40	0.69	445497.56	701583.41	N 32 13 25 27 W 103 48 54 48	
	3481.00	1.64	297.96	3480.43	-7.38	7.21	5.58	0.83	445499.12	701581.59	N 32 13 25 29 W 103 48 54 50	
	3576.00	1.10	78.60	3575.42	-8.19	8.03	5.28	2.72	445499.94	701581.29	N 32 13 25 30 W 103 48 54 50	
	3671.00	3.65	114.62	3670.33	-7.22	6.95	8.92	2.98	445498.86	701584.93	N 32 13 25 29 W 103 48 54 46	
	3860.00	4.19	120.65	3859.89	-1.55	0.92	20.33	0.36	445492.03	701596.34	N 32 13 25 23 W 103 48 54 33	
	3955.00	4.97	129.85	3953.58	2.66	-3.48	26.48	1.13	445488.43	701602.48	N 32 13 25 18 W 103 48 54 25	
	4050.00	6.21	144.17	4048.14	9.27	10.29	32.64	1.95	445481.62	701608.65	N 32 13 25 11 W 103 48 54 18	
First Gyro	4122.00	6.37	141.75	4116.77	15.42	16.59	37.40	0.43	445475.32	701613.41	N 32 13 25 05 W 103 48 54 13	
	4216.81	5.38	154.42	4214.02	23.39	-24.72	42.57	1.72	445467.19	701618.58	N 32 13 24 57 W 103 48 54 07	
	4311.53	4.11	155.52	4308.41	30.38	-31.82	45.90	1.34	445480.10	701621.90	N 32 13 24 50 W 103 48 54 03	
	4406.21	3.85	157.83	4402.88	36.34	-37.85	48.50	0.32	445454.06	701624.51	N 32 13 24 44 W 103 48 54 00	
	4501.00	2.81	148.03	4497.49	41.19	-42.79	50.93	1.26	445449.13	701626.94	N 32 13 24 39 W 103 48 53 97	
	4596.73	2.04	151.53	4592.14	44.58	-46.24	52.96	0.83	445445.68	701628.97	N 32 13 24 36 W 103 48 53 95	
	4690.36	1.26	157.81	4686.73	46.98	-48.65	54.65	0.84	445443.23	701630.16	N 32 13 24 32 W 103 48 53 93	
	4784.83	0.20	144.58	4781.19	48.07	-49.78	54.79	1.13	445442.10	701630.65	N 32 13 24 32 W 103 48 53 93	
	4879.54	0.13	27.28	4875.80	48.10	-49.82	54.79	0.30	445442.21	701630.80	N 32 13 24 32 W 103 48 53 93	
	4974.35	0.06	291.47	4970.71	47.98	-48.70	54.79	0.16	445442.21	701630.75	N 32 13 24 32 W 103 48 53 93	
	5068.98	0.05	358.39	5065.34	47.93	-49.54	54.75	0.06	445442.27	701630.73	N 32 13 24 32 W 103 48 53 93	
	5163.75	0.07	338.23	5160.11	47.83	-49.55	54.72	0.03	445442.36	701630.71	N 32 13 24 32 W 103 48 53 93	
	5258.47	0.09	316.32	5254.83	47.73	-49.44	54.65	0.04	445442.47	701630.66	N 32 13 24 32 W 103 48 53 93	
	5353.12	0.08	11.90	5349.48	47.61	-49.32	54.61	0.08	445442.59	701630.62	N 32 13 24 32 W 103 48 53 93	
	5447.75	0.05	328.95	5444.11	47.51	-49.22	54.61	0.06	445442.69	701630.61	N 32 13 24 32 W 103 48 53 93	
	5542.57	0.08	289.55	5538.93	47.45	-49.15	54.53	0.05	445442.78	701630.53	N 32 13 24 32 W 103 48 53 93	
	5637.28	0.12	330.64	5633.64	47.33	-49.03	54.42	0.07	445442.88	701630.43	N 32 13 24 32 W 103 48 53 93	
	5731.96	0.07	42.25	5728.32	47.20	-48.91	54.42	0.13	445443.00	701630.42	N 32 13 24 32 W 103 48 53 93	
	5826.68	0.07	52.05	5823.04	47.13	-48.84	54.51	0.00	445443.08	701630.51	N 32 13 24 32 W 103 48 53 93	
	5921.40	0.09	5.52	5917.76	47.02	-48.73	54.56	0.07	445443.19	701630.56	N 32 13 24 32 W 103 48 53 93	
	6016.13	0.11	1.55	6012.49	46.85	-48.56	54.67	0.02	445443.35	701630.57	N 32 13 24 32 W 103 48 53 93	
	6110.82	0.04	301.15	6107.16	46.74	-48.45	54.54	0.10	445443.46	701630.55	N 32 13 24 32 W 103 48 53 93	
	6205.55	0.06	46.89	6201.91	46.69	-48.40	54.55	0.09	445443.51	701630.56	N 32 13 24 32 W 103 48 53 93	
	6300.26	0.11	24.87	6296.62	46.57	-48.29	54.62	0.06	445443.63	701630.53	N 32 13 24 32 W 103 48 53 93	
	6395.04	0.08	316.31	6391.40	46.44	-48.16	54.62	0.12	445443.76	701630.62	N 32 13 24 32 W 103 48 53 93	
	6489.75	0.07	68.42	6486.11	46.38	-48.09	54.62	0.13	445443.83	701630.63	N 32 13 24 32 W 103 48 53 93	
	6584.57	0.05	44.87	6580.03	46.32	-48.04	54.71	0.03	445443.88	701630.71	N 32 13 24 32 W 103 48 53 93	
	6679.34	0.04	220.28	6675.70	46.32	-48.03	54.72	0.09	445443.88	701630.72	N 32 13 24 32 W 103 48 53 93	
	6774.09	0.02	138.89	6770.45	46.36	-48.07	54.71	0.04	445443.84	701630.71	N 32 13 24 32 W 103 48 53 93	
	6868.83	0.08	338.86	6865.19	46.31	-48.02	54.69	0.10	445443.85	701630.70	N 32 13 24 32 W 103 48 53 93	
	6963.46	0.01	257.28	6959.82	46.25	-47.96	54.66	0.08	445443.89	701630.67	N 32 13 24 32 W 103 48 53 93	
	7058.18	0.03	73.43	7054.54	46.24	-47.95	54.68	0.04	445443.96	701630.68	N 32 13 24 32 W 103 48 53 93	
	7152.90	0.04	339.90	7149.26	46.20	-47.92	54.69	0.05	445444.00	701630.69	N 32 13 24 32 W 103 48 53 93	
	7247.63	0.06	19.66	7243.99	46.13	-47.84	54.69	0.04	44			

[illegible]

A Gyrodata Directional Survey

Field Copy Only, not definitive

for

OXY USA

Lease: PATTON MDPJ 18 FEDERAL Well: 73H, 5 INCH DRILL PIPE
Location: H&P 639, EDDY COUNTY, NEW MEXICO

Job Number: MD0917GO0654

Run Date: 03 Sep 2017

Report Generated: 04 Sep 2017 04:41

Surveyor: Paul Petersen

Calculation Method: MINIMUM CURVATURE

Survey surface coordinates obtained from: Company Man

Survey Latitude: 32.223548 deg. N

Longitude: 103.814672 deg. W

Azimuth Correction:

Gyro: -2.80000 deg to Grid North

Depth Reference: Rotary Table

Air Gap (RKB to Ground / RKB to MSL): 26.50

Vertical Section Calculated from Well Head Location

Horizontal Coordinates Calculated from Well Head Location

A Gyrodata Directional Survey

OXY USA

Lease: PATTON MDP1 18 FEDERAL Well: 73H, 5 INCH DRILL PIPE

Location: H&P 639, EDDY COUNTY, NEW MEXICO

Job Number: MD0917GOO654

MEASURED DEPTH feet	INCL deg.	AZIMUTH deg.	DOGLEG SEVERITY deg./ 100 ft.	VERTICAL DEPTH feet	HORIZONTAL COORDINATES feet
---------------------------	--------------	-----------------	--	---------------------------	-----------------------------------

4122 FT. -10466 FT. RATE GYROSCOPIC MULTISHOT SURVEY RUN INSIDE 5" DRILLPIPE
ALL MEASURED DEPTHS AND COORDINATES REFERENCED TO DRILLING RIG H&P 639 R.K.B. OF 26.5 FT.

4122.07	6.37	141.64	0.15	4113.58	179.49 S	142.06 E
4216.81	5.38	154.30	1.72	4207.83	187.61 S	147.25 E
4311.53	4.10	155.47	1.36	4302.22	194.70 S	150.58 E
4406.21	3.86	157.82	0.31	4396.67	200.73 S	153.19 E
4501.00	2.81	149.79	1.21	4491.30	205.69 S	155.56 E
4595.73	2.04	150.96	0.81	4585.95	209.17 S	157.55 E
4690.36	1.26	159.38	0.86	4680.54	211.62 S	158.73 E
4784.83	0.20	144.27	1.13	4775.00	212.72 S	159.19 E
4879.54	0.13	28.08	0.30	4869.71	212.76 S	159.34 E
4974.35	0.06	290.07	0.16	4964.52	212.65 S	159.34 E
5068.98	0.05	359.67	0.07	5059.15	212.59 S	159.30 E
5163.75	0.06	338.39	0.02	5153.92	212.50 S	159.28 E
5258.47	0.09	314.39	0.05	5248.64	212.41 S	159.21 E
5353.12	0.09	10.76	0.09	5343.29	212.28 S	159.17 E
5447.75	0.05	329.92	0.07	5437.92	212.17 S	159.16 E
5542.57	0.09	299.25	0.06	5532.74	212.10 S	159.08 E
5637.28	0.12	329.47	0.07	5627.45	211.98 S	158.96 E
5731.96	0.07	46.75	0.13	5722.13	211.85 S	158.95 E

A Gyrodata Directional Survey

OXY USA

Lease: PATTON MDP1 18 FEDERAL Well: 73H, 5 INCH DRILL PIPE

Location: H&P 639 , EDDY COUNTY, NEW MEXICO

Job Number: MD0917GOO654

MEASURED DEPTH feet	INCL deg.	AZIMUTH deg.	DOGLEG SEVERITY deg./ 100 ft.	VERTICAL DEPTH feet	HORIZONTAL COORDINATES feet	
5826.68	0.07	50.52	0.00	5816.85	211.78 S	159.04 E
5921.40	0.09	6.60	0.07	5911.57	211.67 S	159.09 E
6016.13	0.11	1.53	0.02	6006.30	211.50 S	159.10 E
6110.82	0.05	299.17	0.10	6100.99	211.39 S	159.07 E
6205.55	0.06	47.73	0.09	6195.72	211.34 S	159.07 E
6300.26	0.10	25.54	0.05	6290.43	211.23 S	159.14 E
6395.04	0.08	316.32	0.11	6385.21	211.11 S	159.13 E
6489.75	0.07	69.14	0.13	6479.92	211.04 S	159.14 E
6584.57	0.05	45.24	0.03	6574.74	210.99 S	159.22 E
6679.34	0.04	221.14	0.09	6669.51	210.98 S	159.23 E
6774.09	0.02	138.43	0.04	6764.26	211.02 S	159.22 E
6868.83	0.08	340.22	0.10	6859.00	210.97 S	159.21 E
6963.46	0.01	256.98	0.08	6953.63	210.91 S	159.18 E
7058.18	0.03	73.07	0.04	7048.35	210.91 S	159.19 E
7152.90	0.05	341.08	0.06	7143.07	210.86 S	159.21 E
7247.63	0.06	21.37	0.04	7237.80	210.77 S	159.21 E
7342.45	0.02	305.00	0.06	7332.62	210.72 S	159.21 E
7437.21	0.03	237.03	0.03	7427.38	210.72 S	159.18 E
7531.94	0.89	342.11	0.95	7522.10	210.04 S	158.93 E
7626.78	2.02	343.55	1.19	7616.91	207.73 S	158.23 E
7721.47	3.01	344.21	1.05	7711.51	203.74 S	157.08 E
7816.19	4.16	344.80	1.21	7806.04	198.03 S	155.51 E

A Gyrodata Directional Survey

OXY USA

Lease: PATTON MDP1 18 FEDERAL Well: 73H, 5 INCH DRILL PIPE

Location: H&P 639 , EDDY COUNTY, NEW MEXICO

Job Number: MD0917GOO654

MEASURED DEPTH feet	INCL deg.	AZIMUTH deg.	DOGLEG SEVERITY deg./ 100 ft.	VERTICAL DEPTH feet	HORIZONTAL COORDINATES feet	
7910.91	4.51	342.01	0.43	7900.49	191.17 S	153.46 E
8005.69	5.05	344.72	0.62	7994.94	183.60 S	151.21 E
8100.40	5.76	339.90	0.89	8089.23	175.12 S	148.47 E
8195.17	6.17	325.98	1.58	8183.49	166.43 S	143.99 E
8289.89	6.05	317.35	0.98	8277.68	158.54 S	137.76 E
8384.64	6.32	314.72	0.41	8371.87	151.20 S	130.67 E
8479.33	6.32	320.57	0.68	8465.99	143.51 S	123.66 E
8574.04	6.05	312.05	1.01	8560.15	136.14 S	116.64 E
8668.77	6.76	307.27	0.94	8654.29	129.42 S	108.50 E
8763.49	6.47	310.70	0.52	8748.38	122.56 S	100.01 E
8858.10	7.02	312.55	0.62	8842.33	115.18 S	91.71 E
8952.71	6.33	315.08	0.79	8936.30	107.57 S	83.77 E
9047.23	9.27	327.61	3.58	9029.94	97.45 S	76.01 E
9141.83	9.64	329.49	0.51	9123.26	84.19 S	67.91 E
9236.39	11.85	329.20	2.34	9216.15	69.03 S	58.92 E
9331.09	12.97	327.33	1.26	9308.64	51.73 S	48.20 E
9425.70	13.57	323.09	1.21	9400.73	33.92 S	35.80 E
9520.27	13.58	323.09	0.01	9492.65	16.17 S	22.47 E
9614.90	12.75	323.98	0.90	9584.80	1.16 N	9.66 E
9709.57	13.01	328.04	0.99	9677.09	18.65 N	2.12 W
9804.25	7.33	321.30	6.12	9770.24	32.42 N	11.55 W

A Gyrodata Directional Survey

OXY USA

Lease: PATTON MDP1 18 FEDERAL Well: 73H, 5 INCH DRILL PIPE

Location: H&P 639 , EDDY COUNTY, NEW MEXICO

Job Number: MD0917GOO654

MEASURED DEPTH feet	INCL deg.	AZIMUTH deg.	DOGLEG SEVERITY deg./ 100 ft.	VERTICAL DEPTH feet	HORIZONTAL COORDINATES feet	
9898.85	3.41	281.87	5.46	9864.44	37.71 N	18.08 W
9993.26	4.76	223.73	4.38	9958.64	35.45 N	23.54 W
10087.73	6.42	208.55	2.34	10052.66	27.98 N	28.77 W
10182.48	6.97	187.13	2.68	10146.78	17.62 N	32.02 W
10277.20	7.36	175.56	1.58	10240.77	5.87 N	32.26 W
10371.90	6.52	173.56	0.92	10334.77	5.52 S	31.19 W
10466.66	6.27	172.18	0.31	10428.94	15.99 S	29.88 W

OXY USA Inc.
Patton MDP1 18 Federal 73H
API No. 30-015-44318

20" hole @ 660'
16" csg @ 660'
w/ 765sx-TOC-Surf Circ.

13-1/2" hole @ 4370'
10-3/4" csg @ 4358'
w/ 1615sx-TOC-Surf Circ.

9-7/8" hole @ 10513'
7-5/8" csg @ 10503'
w/ 1070sx-TOC-3260' Calc.

5-1/2" csg tie back 0-10369'

6-3/4" hole @ 15810'
4-1/2" liner @ 10369-15810'
w/ 560sx-TOC-10369' Circ.

2-7/8" tbg & pkr @ 10261'

Perfs @ 11179-15639'

TD- 15810'M 11193'V



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432.561.8895 Fax

Logging Personnel:

THOMAS L. RAWLS

CRAIG W. HARRIS

Unit No.: SLS - 078

Rig: H&P 639

Filename: OXY-PATTON-MDP1-18-FEDERAL-73H.mlw

COMPANY: OXY USA INC.

WELL: PATTON MDP1 18 FEDERAL 73H

FIELD: SAND DUNES MDP1

COUNTY: EDDY STATE: NEW MEXICO

LOCATION: 335' FNL 2092' FEL, SEC. 18, T-24S, R-31E

Spud Date: 08/22/2017

Started: 08/25/2017 At: 4400'

Ended: 10/19/2017 At: 15810'

Api No.: 30015443180000

G.L.: 3533.3'

K.B.: 3559.8'

Geologist: DENNIS LEE

Abbreviations:

NB...New Bit	DST...Drill Stem Test
CO...Circ Out	DS...Directional Survey
NRL...No Returns	CG...Connection gas
TG...Trip Gas	LAT...Logged After Trip
WOB...Wt on Bit	PP...Pump Pressure
RPM...Rev/Min	SPM...Strokes/Min
SG...Survey Gas	DTG...Down Time Gas

Mud Data

Lithology Symbols:

	Anhydrite		Salt		Granite
	Siltstone		Chert		Sandstone
	Dolomite		Conglomerate		Limestone
	Coal		Shale		Bentonite
	Carb Shale		Granite Wash		Quartz Wash
	Red Sh		Org Sh		Green Sh
	Cust Sh1		Cust Sh2		Cust Sh3
	Cust Sh4		Cust Sh5		Cust Sh6

Accessories

Gas Chromatograph Analysis:

TG	-----
C1	-----
C2	-----
C3	-----
IC4	-----
NC4	-----
IC5	-----
NCS	-----

WEATHERFORD SLS

COMPANY: OXY USA INC.
 WELL: PATTON MDP1 18 FEDERAL 73H
 LOCATION: 335' FNL 2092' FEL. SEC. 18, T-24S, R-31E
 COUNTY: EDDY STATE: NEW MEXICO
 GL: 3533.3' KB: 3559.8'
 Start Date 08/25/2017 End Date 10/19/2017
 Start Depth 4400' End Depth 15810'
 API NO: 30015443180000
 FILE: OXY-PATTON-MDP1-18-FEDERAL-73H.mlw
 LOGGERS: THOMAS L. RAWLS, CRAIG W. HARRIS
 GEOLOGIST: DENNIS LEE

Sand	Dolo	Lime	Chert	Anhydrite
Shale	Carb Sh	Salt	Granite	Siltstone
Coal	Bentonite	Granite Wash	Quartz Wash	
Carb Wash	Conglomerate	Cement		

ACCESSORIES

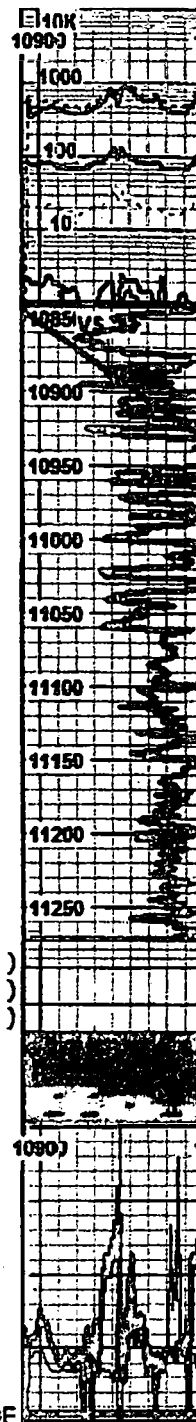
GLAUC'C	PYRITE	FOSSILS	OOLITES	FRACTURES

TG----- 1 to 10000

C1 _____
 C2 _____
 C3 _____
 IC4 _____
 NC4 _____

CUT (PFG)
 FLU 0-100% (PFG)
 POR (PFG)

Horz _____
 Rop _____ 1 to 5.0
 Gamma _____ 1 to 150



WEATHERFORD SLS

COMPANY: OXY USA INC.
 WELL: PATTON MDP1 18 FEDERAL 73H
 LOCATION: 33S FNL 2092 FEL SEC. 18, T-24S, R-31E
 COUNTY: EDDY STATE: NEW MEXICO
 GL: 3533.3' KB: 3559.8'
 Start Date 08/25/2017 End Date 10/19/2017
 Start Depth 4400' End Depth 15810'
 API NO: 30015443180000
 FILE: OXY-PATTON-MDP1-18-FEDERAL-73H.mlw
 LOGGERS: THOMAS L. RAWLS, CRAIG W. HARRIS
 GEOLOGIST: DENNIS LEE

Sand	Dolo	Lime	Chert	Anhydrite
Shale	Carb Sh	Salt	Granite	Siltstone
Coal	Bentonite	Granite Wash	Quartz Wash	
Carb Wash	Conglomerate	Cement		

ACCESSORIES

GLAUC'C	PYRITE	FOSSILS	OOLITES	FRACTURES

TG ----- 1 to 10000

C1 _____

C2 _____

C3 -----

IC4 _____

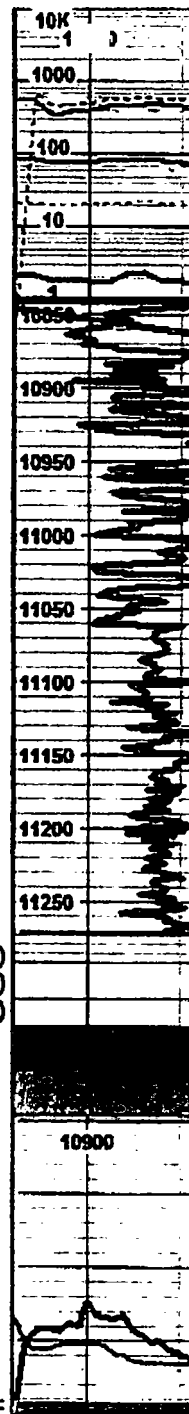
NC4 _____

Horz _____

Rop _____ 1 to 5.0

Gamma _____ 1 to 150

CUT (PFG)
 FLU 0-100% (PFG)
 POR (PFG)





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432.561.8892 Main
432.561.8895 Fax

Logging Personnel:

THOMAS L. RAWLS

CRAIG W. HARRIS

Unit No.: SLS - 078

Rig: H&P 639

Filename: OXY-PATTON-MDP1-18-FEDERAL-73H.mlw

COMPANY: OXY USA INC.

WELL: PATTON MDP1 18 FEDERAL 73H

FIELD: SAND DUNES MDP1

COUNTY: EDDY STATE: NEW MEXICO

LOCATION: 335' FNL 2092' FEL, SEC. 18, T-24S, R-31E

Spud Date: 08/22/2017

Started: 08/25/2017 At: 4400'

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	Cust Sh4		Cust Sh5		Cust Sh6

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C1	-----
C2	-----
C3	-----
IC4	-----
NC4	-----
IC5	-----
NC5	-----