Form 3160-5
(June 2015)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

Carlsbad Field Office
OCD Artesia

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

SUNDRY NOTICES AND REPORTS ON WELLS

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

SUBMIT IN TRIPLICATE - Other instructions on page 2

5. Lease Serial No.
NMNM19199

6. If Indian, Allottee or Tribe Name

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

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

8. Well Name and No.
CAL-MON MDP1 35 FEDERAL 2H

2. Name of Operator
OXY USA INCORPORATED
Contact: DAVID STEWART
E-Mail: david_stewart@oxy.com

9. API Well No.
30-015-44772-00-X1

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

3b. Phone No. (include area code)
Ph: 432.685.5717

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

4. Location of Well *(Footage, Sec., T., R., M., or Survey Description)*
Sec 35 T23S R31E NWNW 110FNL 1002FWL
32.267883 N Lat, 103.753883 W Lon

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 to Original APD
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	
	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	

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

OXY USA Inc. respectfully request that the filed APD for the Cal-Mon MDP1 35 Federal #2H, APD No. 10400015177, API No. 30-015-44772 be amended due to a buried pipeline, flowline and meter runs on the proposed pad. The well was moved 167' south and 110' east of the original location.

Please see attached for the following amended attachments.
1. C-102
2. Drilling Plan
3. Directional Plan/Plot
4. SUPO
5. Site Plan/Rig Diagram/Misc Survey Plats/Facility

NM OIL CONSERVATION
ARTESIA DISTRICT
MAR 28 2018
RECEIVED

SEE ATTACHED FOR CONDITIONS OF APPROVAL

3/21/2018: Engineering review completed by M Hogue
3-21-2018: NRS 2B USE Existing COA's

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

Electronic Submission #406760 verified by the BLM Well Information System
For OXY USA INCORPORATED, sent to the Carlsbad
Committed to AFMSS for processing by PRISCILLA PEREZ on 03/06/2018 (18PP1234SE)

Name *(Printed/Typed)* DAVID STEWART — Title REGULATORY ADVISOR

Signature (Electronic Submission) — Date 03/06/2018

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By Cody A. Layton — Title PETM-L & M — Date 03/22/2

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 CFO

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 ****

RWP 3-29-18

District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720
District III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

NM OIL CONSERVATION
ARTESIA DISTRICT
MAR 28 2018
RECEIVED

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	Pool Code	Pool Name
30-015-44772	133367	Cotton Draw Bone Spring

Property Code	Property Name	Well Number
320932	CAL MON MDP1 "35" FEDERAL	2H

OGRID No.	Operator Name	Elevation
16696	OXY USA INC.	3458.4'

Surface Location

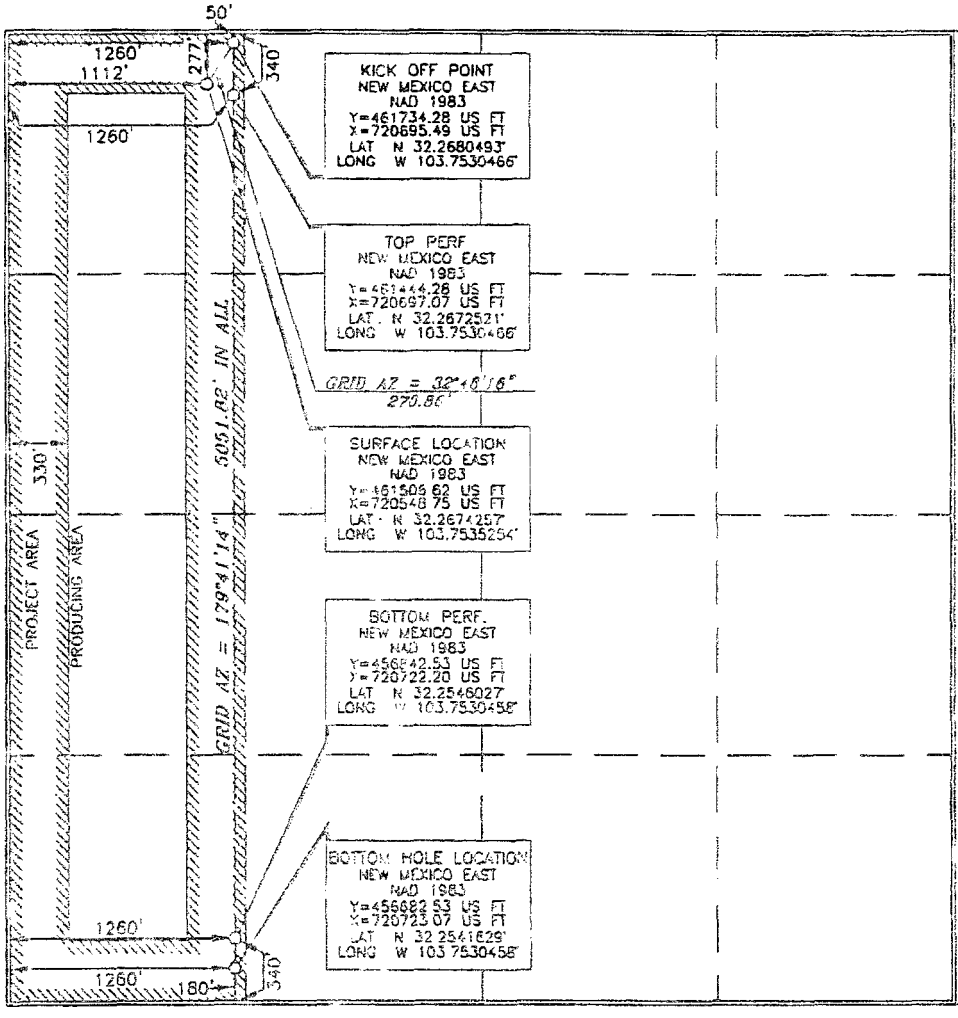
UL or lot no	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
D	35	23 SOUTH	31 EAST, N.M.P.M		277'	NORTH	1112'	WEST	EDDY

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
M	35	23 SOUTH	31 EAST, N.M.P.M		180'	SOUTH	1260'	WEST	EDDY

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
160	Y		

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.



OPERATOR CERTIFICATION

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

Signature — Date: 3/6/18

David Stewart
Printed Name

david_stewart@oxy.com
E-mail Address

SURVEYOR CERTIFICATION

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

15079
FEBRUARY 15, 2018
Date of Survey

Signature and Seal of Professional Surveyor

TERRY J. ASEL
NEW MEXICO
15079
REGISTERED PROFESSIONAL LAND SURVEYOR

Terry J. Asel 2/21/2018
Certificate Number 15079

WO# 161019WL-b (Rev A) (NH)

OXY

PRD NM DIRECTIONAL PLANS (NAD 1983)
CAL-MON MDP1 35 FED
CAL-MON MDP1 35 FED 2H

WB00

Plan: Permitting Plan

Standard Planning Report

21 February, 2018

Database:	HOPSPP	**Local Co-ordinate Reference:**	Well CAL-MON MDP1 35 FED 2H
Company:	ENGINEERING DESIGNS	**TVD Reference:**	DATUM @ 3484.90ft
Project:	PRD NM DIRECTIONAL PLANS (NAD 1983)	**MD Reference:**	DATUM @ 3484.90ft
Site:	CAL-MON MDP1 35 FED	**North Reference:**	Grid
Well:	CAL-MON MDP1 35 FED 2H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	WB00		
Design:	Permitting Plan		

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	CAL-MON MDP1 35 FED				
Site Position:		**Northing:**	461,672.99 usft	**Latitude:**	32° 16' 4.386302 N
From:	Map	**Easting:**	720,407.82 usft	**Longitude:**	103° 45' 14.322166 W
Position Uncertainty:	0.00 ft	**Slot Radius:**	13.200 in	**Grid Convergence:**	0.31 °

Well	CAL-MON MDP1 35 FED 2H					
Well Position	**+N/-S**	-166.38 ft	**Northing:**	461,506.62 usft	**Latitude:**	32° 16' 2.732458 N
	+E/-W	140.94 ft	**Easting:**	720,548.75 usft	**Longitude:**	103° 45' 12.691259 W
Position Uncertainty		0.00 ft	**Wellhead Elevation:**	3,458.40 ft	**Ground Level:**	3,458.40 ft

Wellbore	WB00				
Magnetics	**Model Name**	**Sample Date**	**Declination (°)**	**Dip Angle (°)**	**Field Strength (nT)**
	HDGM	2/21/2018	6.88	60.02	48,099

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	177.93	

Plan Sections

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7,515.00	0.00	0.00	7,515.00	0.00	0.00	0.00	0.00	0.00	0.00	
8,014.67	9.99	32.80	8,012.14	36.53	23.55	2.00	2.00	0.00	32.80	
9,074.61	9.99	32.80	9,056.00	191.14	123.20	0.00	0.00	0.00	0.00	
9,574.28	0.00	179.69	9,553.14	227.67	146.75	2.00	-2.00	0.00	180.00	Cal-Mon_MDP1_35
10,473.28	89.90	179.69	10,126.10	-344.28	149.87	10.00	10.00	0.00	179.69	
14,953.44	89.95	179.69	10,132.10	-4,824.36	174.33	0.00	0.00	0.00	0.00	Cal-Mon_MDP1_35

Database:	HOPSPP	**Local Co-ordinate Reference:**	Well CAL-MON MDP1 35 FED 2H
Company:	ENGINEERING DESIGNS	**TVD Reference:**	DATUM @ 3484.90ft
Project:	PRD NM DIRECTIONAL PLANS (NAD 1983)	**MD Reference:**	DATUM @ 3484.90ft
Site:	CAL-MON MDP1 35 FED	**North Reference:**	Grid
Well:	CAL-MON MDP1 35 FED 2H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	WB00		
Design:	Permitting Plan		

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
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00
1,700.00	0.00	0.00	1,700.00	0.00	0.00	0.00	0.00	0.00	0.00
1,800.00	0.00	0.00	1,800.00	0.00	0.00	0.00	0.00	0.00	0.00
1,900.00	0.00	0.00	1,900.00	0.00	0.00	0.00	0.00	0.00	0.00
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00
2,100.00	0.00	0.00	2,100.00	0.00	0.00	0.00	0.00	0.00	0.00
2,200.00	0.00	0.00	2,200.00	0.00	0.00	0.00	0.00	0.00	0.00
2,300.00	0.00	0.00	2,300.00	0.00	0.00	0.00	0.00	0.00	0.00
2,400.00	0.00	0.00	2,400.00	0.00	0.00	0.00	0.00	0.00	0.00
2,500.00	0.00	0.00	2,500.00	0.00	0.00	0.00	0.00	0.00	0.00
2,600.00	0.00	0.00	2,600.00	0.00	0.00	0.00	0.00	0.00	0.00
2,700.00	0.00	0.00	2,700.00	0.00	0.00	0.00	0.00	0.00	0.00
2,800.00	0.00	0.00	2,800.00	0.00	0.00	0.00	0.00	0.00	0.00
2,900.00	0.00	0.00	2,900.00	0.00	0.00	0.00	0.00	0.00	0.00
3,000.00	0.00	0.00	3,000.00	0.00	0.00	0.00	0.00	0.00	0.00
3,100.00	0.00	0.00	3,100.00	0.00	0.00	0.00	0.00	0.00	0.00
3,200.00	0.00	0.00	3,200.00	0.00	0.00	0.00	0.00	0.00	0.00
3,300.00	0.00	0.00	3,300.00	0.00	0.00	0.00	0.00	0.00	0.00
3,400.00	0.00	0.00	3,400.00	0.00	0.00	0.00	0.00	0.00	0.00
3,500.00	0.00	0.00	3,500.00	0.00	0.00	0.00	0.00	0.00	0.00
3,600.00	0.00	0.00	3,600.00	0.00	0.00	0.00	0.00	0.00	0.00
3,700.00	0.00	0.00	3,700.00	0.00	0.00	0.00	0.00	0.00	0.00
3,800.00	0.00	0.00	3,800.00	0.00	0.00	0.00	0.00	0.00	0.00
3,900.00	0.00	0.00	3,900.00	0.00	0.00	0.00	0.00	0.00	0.00
4,000.00	0.00	0.00	4,000.00	0.00	0.00	0.00	0.00	0.00	0.00
4,100.00	0.00	0.00	4,100.00	0.00	0.00	0.00	0.00	0.00	0.00
4,200.00	0.00	0.00	4,200.00	0.00	0.00	0.00	0.00	0.00	0.00
4,300.00	0.00	0.00	4,300.00	0.00	0.00	0.00	0.00	0.00	0.00
4,400.00	0.00	0.00	4,400.00	0.00	0.00	0.00	0.00	0.00	0.00
4,500.00	0.00	0.00	4,500.00	0.00	0.00	0.00	0.00	0.00	0.00
4,600.00	0.00	0.00	4,600.00	0.00	0.00	0.00	0.00	0.00	0.00
4,700.00	0.00	0.00	4,700.00	0.00	0.00	0.00	0.00	0.00	0.00
4,800.00	0.00	0.00	4,800.00	0.00	0.00	0.00	0.00	0.00	0.00
4,900.00	0.00	0.00	4,900.00	0.00	0.00	0.00	0.00	0.00	0.00
5,000.00	0.00	0.00	5,000.00	0.00	0.00	0.00	0.00	0.00	0.00
5,100.00	0.00	0.00	5,100.00	0.00	0.00	0.00	0.00	0.00	0.00
5,200.00	0.00	0.00	5,200.00	0.00	0.00	0.00	0.00	0.00	0.00
5,300.00	0.00	0.00	5,300.00	0.00	0.00	0.00	0.00	0.00	0.00

Database:	HOPSPP	**Local Co-ordinate Reference:**	Well CAL-MON MDP1 35 FED 2H
Company:	ENGINEERING DESIGNS	**TVD Reference:**	DATUM @ 3484.90ft
Project:	PRD NM DIRECTIONAL PLANS (NAD 1983)	**MD Reference:**	DATUM @ 3484.90ft
Site:	CAL-MON MDP1 35 FED	**North Reference:**	Grid
Well:	CAL-MON MDP1 35 FED 2H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	WB00		
Design:	Permitting Plan		

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)
5,400.00	0.00	0.00	5,400.00	0.00	0.00	0.00	0.00	0.00	0.00
5,500.00	0.00	0.00	5,500.00	0.00	0.00	0.00	0.00	0.00	0.00
5,600.00	0.00	0.00	5,600.00	0.00	0.00	0.00	0.00	0.00	0.00
5,700.00	0.00	0.00	5,700.00	0.00	0.00	0.00	0.00	0.00	0.00
5,800.00	0.00	0.00	5,800.00	0.00	0.00	0.00	0.00	0.00	0.00
5,900.00	0.00	0.00	5,900.00	0.00	0.00	0.00	0.00	0.00	0.00
6,000.00	0.00	0.00	6,000.00	0.00	0.00	0.00	0.00	0.00	0.00
6,100.00	0.00	0.00	6,100.00	0.00	0.00	0.00	0.00	0.00	0.00
6,200.00	0.00	0.00	6,200.00	0.00	0.00	0.00	0.00	0.00	0.00
6,300.00	0.00	0.00	6,300.00	0.00	0.00	0.00	0.00	0.00	0.00
6,400.00	0.00	0.00	6,400.00	0.00	0.00	0.00	0.00	0.00	0.00
6,500.00	0.00	0.00	6,500.00	0.00	0.00	0.00	0.00	0.00	0.00
6,600.00	0.00	0.00	6,600.00	0.00	0.00	0.00	0.00	0.00	0.00
6,700.00	0.00	0.00	6,700.00	0.00	0.00	0.00	0.00	0.00	0.00
6,800.00	0.00	0.00	6,800.00	0.00	0.00	0.00	0.00	0.00	0.00
6,900.00	0.00	0.00	6,900.00	0.00	0.00	0.00	0.00	0.00	0.00
7,000.00	0.00	0.00	7,000.00	0.00	0.00	0.00	0.00	0.00	0.00
7,100.00	0.00	0.00	7,100.00	0.00	0.00	0.00	0.00	0.00	0.00
7,200.00	0.00	0.00	7,200.00	0.00	0.00	0.00	0.00	0.00	0.00
7,300.00	0.00	0.00	7,300.00	0.00	0.00	0.00	0.00	0.00	0.00
7,400.00	0.00	0.00	7,400.00	0.00	0.00	0.00	0.00	0.00	0.00
7,500.00	0.00	0.00	7,500.00	0.00	0.00	0.00	0.00	0.00	0.00
7,515.00	0.00	0.00	7,515.00	0.00	0.00	0.00	0.00	0.00	0.00
7,600.00	1.70	32.80	7,599.99	1.06	0.68	-1.03	2.00	2.00	0.00
7,700.00	3.70	32.80	7,699.87	5.02	3.24	-4.90	2.00	2.00	0.00
7,800.00	5.70	32.80	7,799.53	11.91	7.67	-11.62	2.00	2.00	0.00
7,900.00	7.70	32.80	7,898.84	21.71	13.99	-21.19	2.00	2.00	0.00
8,000.00	9.70	32.80	7,997.69	34.43	22.19	-33.60	2.00	2.00	0.00
8,014.67	9.99	32.80	8,012.14	36.53	23.55	-35.66	2.00	2.00	0.00
8,100.00	9.99	32.80	8,096.18	48.98	31.57	-47.81	0.00	0.00	0.00
8,200.00	9.99	32.80	8,194.66	63.57	40.97	-62.05	0.00	0.00	0.00
8,300.00	9.99	32.80	8,293.14	78.15	50.37	-76.28	0.00	0.00	0.00
8,400.00	9.99	32.80	8,391.62	92.74	59.78	-90.52	0.00	0.00	0.00
8,500.00	9.99	32.80	8,490.11	107.33	69.18	-104.76	0.00	0.00	0.00
8,600.00	9.99	32.80	8,588.59	121.91	78.58	-118.99	0.00	0.00	0.00
8,700.00	9.99	32.80	8,687.07	136.50	87.98	-133.23	0.00	0.00	0.00
8,800.00	9.99	32.80	8,785.56	151.08	97.38	-147.47	0.00	0.00	0.00
8,900.00	9.99	32.80	8,884.04	165.67	106.78	-161.71	0.00	0.00	0.00
9,000.00	9.99	32.80	8,982.52	180.26	116.19	-175.94	0.00	0.00	0.00
9,074.61	9.99	32.80	9,056.00	191.14	123.20	-186.56	0.00	0.00	0.00
9,100.00	9.49	32.80	9,081.02	194.75	125.53	-190.09	2.00	-2.00	0.00
9,200.00	7.49	32.80	9,179.92	207.15	133.52	-202.19	2.00	-2.00	0.00
9,300.00	5.49	32.80	9,279.28	216.64	139.64	-211.46	2.00	-2.00	0.00
9,400.00	3.49	32.80	9,378.97	223.22	143.88	-217.88	2.00	-2.00	0.00
9,500.00	1.49	32.80	9,478.87	226.86	146.23	-221.43	2.00	-2.00	0.00
9,574.28	0.00	179.69	9,553.14	227.67	146.75	-222.22	2.00	-2.00	0.00
9,600.00	2.57	179.69	9,578.85	227.10	146.75	-221.65	10.00	10.00	0.00
9,700.00	12.57	179.69	9,677.85	213.94	146.82	-208.49	10.00	10.00	0.00
9,800.00	22.57	179.69	9,773.07	183.78	146.99	-178.36	10.00	10.00	0.00
9,900.00	32.57	179.69	9,861.60	137.56	147.24	-132.15	10.00	10.00	0.00
10,000.00	42.57	179.69	9,940.75	76.66	147.57	-71.28	10.00	10.00	0.00
10,100.00	52.57	179.69	10,008.14	2.94	147.98	2.40	10.00	10.00	0.00
10,200.00	62.57	179.69	10,061.69	-81.36	148.44	86.66	10.00	10.00	0.00
10,300.00	72.57	179.69	10,099.80	-173.67	148.94	178.94	10.00	10.00	0.00

Database:	HOPSPP	**Local Co-ordinate Reference:**	Well CAL-MON MDP1 35 FED 2H
Company:	ENGINEERING DESIGNS	**TVD Reference:**	DATUM @ 3484.90ft
Project:	PRD NM DIRECTIONAL PLANS (NAD 1983)	**MD Reference:**	DATUM @ 3484.90ft
Site:	CAL-MON MDP1 35 FED	**North Reference:**	Grid
Well:	CAL-MON MDP1 35 FED 2H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	WB00		
Design:	Permitting Plan		

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)
10,400.00	82.57	179.69	10,121.29	-271.20	149.47	276.43	10.00	10.00	0.00
10,473.28	89.90	179.69	10,126.10	-344.28	149.87	349.46	10.00	10.00	0.00
10,500.00	89.90	179.69	10,126.14	-370.99	150.02	376.17	0.00	0.00	0.00
10,600.00	89.90	179.69	10,126.32	-470.99	150.56	476.12	0.00	0.00	0.00
10,700.00	89.90	179.69	10,126.49	-570.99	151.11	576.08	0.00	0.00	0.00
10,800.00	89.90	179.69	10,126.66	-670.99	151.65	676.03	0.00	0.00	0.00
10,900.00	89.90	179.69	10,126.83	-770.99	152.20	775.98	0.00	0.00	0.00
11,000.00	89.91	179.69	10,126.99	-870.99	152.75	875.93	0.00	0.00	0.00
11,100.00	89.91	179.69	10,127.16	-970.98	153.29	975.89	0.00	0.00	0.00
11,200.00	89.91	179.69	10,127.32	-1,070.98	153.84	1,075.84	0.00	0.00	0.00
11,300.00	89.91	179.69	10,127.48	-1,170.98	154.38	1,175.79	0.00	0.00	0.00
11,400.00	89.91	179.69	10,127.64	-1,270.98	154.93	1,275.75	0.00	0.00	0.00
11,500.00	89.91	179.69	10,127.79	-1,370.98	155.48	1,375.70	0.00	0.00	0.00
11,600.00	89.91	179.69	10,127.95	-1,470.98	156.02	1,475.65	0.00	0.00	0.00
11,700.00	89.91	179.69	10,128.10	-1,570.98	156.57	1,575.60	0.00	0.00	0.00
11,800.00	89.91	179.69	10,128.25	-1,670.97	157.11	1,675.56	0.00	0.00	0.00
11,900.00	89.91	179.69	10,128.40	-1,770.97	157.66	1,775.51	0.00	0.00	0.00
12,000.00	89.92	179.69	10,128.55	-1,870.97	158.21	1,875.46	0.00	0.00	0.00
12,100.00	89.92	179.69	10,128.70	-1,970.97	158.75	1,975.42	0.00	0.00	0.00
12,200.00	89.92	179.69	10,128.84	-2,070.97	159.30	2,075.37	0.00	0.00	0.00
12,300.00	89.92	179.69	10,128.98	-2,170.97	159.84	2,175.32	0.00	0.00	0.00
12,400.00	89.92	179.69	10,129.12	-2,270.96	160.39	2,275.27	0.00	0.00	0.00
12,500.00	89.92	179.69	10,129.26	-2,370.96	160.94	2,375.23	0.00	0.00	0.00
12,600.00	89.92	179.69	10,129.40	-2,470.96	161.48	2,475.18	0.00	0.00	0.00
12,700.00	89.92	179.69	10,129.53	-2,570.96	162.03	2,575.13	0.00	0.00	0.00
12,800.00	89.92	179.69	10,129.67	-2,670.96	162.57	2,675.09	0.00	0.00	0.00
12,900.00	89.93	179.69	10,129.80	-2,770.96	163.12	2,775.04	0.00	0.00	0.00
13,000.00	89.93	179.69	10,129.93	-2,870.95	163.67	2,874.99	0.00	0.00	0.00
13,100.00	89.93	179.69	10,130.06	-2,970.95	164.21	2,974.95	0.00	0.00	0.00
13,200.00	89.93	179.69	10,130.18	-3,070.95	164.76	3,074.90	0.00	0.00	0.00
13,300.00	89.93	179.69	10,130.31	-3,170.95	165.30	3,174.85	0.00	0.00	0.00
13,400.00	89.93	179.69	10,130.43	-3,270.95	165.85	3,274.80	0.00	0.00	0.00
13,500.00	89.93	179.69	10,130.55	-3,370.95	166.39	3,374.76	0.00	0.00	0.00
13,600.00	89.93	179.69	10,130.67	-3,470.95	166.94	3,474.71	0.00	0.00	0.00
13,700.00	89.93	179.69	10,130.79	-3,570.94	167.49	3,574.66	0.00	0.00	0.00
13,800.00	89.93	179.69	10,130.90	-3,670.94	168.03	3,674.62	0.00	0.00	0.00
13,900.00	89.94	179.69	10,131.02	-3,770.94	168.58	3,774.57	0.00	0.00	0.00
14,000.00	89.94	179.69	10,131.13	-3,870.94	169.12	3,874.52	0.00	0.00	0.00
14,100.00	89.94	179.69	10,131.24	-3,970.94	169.67	3,974.47	0.00	0.00	0.00
14,200.00	89.94	179.69	10,131.34	-4,070.94	170.22	4,074.43	0.00	0.00	0.00
14,300.00	89.94	179.69	10,131.45	-4,170.93	170.76	4,174.38	0.00	0.00	0.00
14,400.00	89.94	179.69	10,131.56	-4,270.93	171.31	4,274.33	0.00	0.00	0.00
14,500.00	89.94	179.69	10,131.66	-4,370.93	171.85	4,374.29	0.00	0.00	0.00
14,600.00	89.94	179.69	10,131.76	-4,470.93	172.40	4,474.24	0.00	0.00	0.00
14,700.00	89.94	179.69	10,131.86	-4,570.93	172.95	4,574.19	0.00	0.00	0.00
14,800.00	89.94	179.69	10,131.95	-4,670.93	173.49	4,674.15	0.00	0.00	0.00
14,900.00	89.95	179.69	10,132.05	-4,770.93	174.04	4,774.10	0.00	0.00	0.00
14,953.44	89.95	179.69	10,132.10	-4,824.36	174.33	4,827.51	0.00	0.00	0.00

Database:	HOPSPP	**Local Co-ordinate Reference:**	Well CAL-MON MDP1 35 FED 2H
Company:	ENGINEERING DESIGNS	**TVD Reference:**	DATUM @ 3484.90ft
Project:	PRD NM DIRECTIONAL PLANS (NAD 1983)	**MD Reference:**	DATUM @ 3484.90ft
Site:	CAL-MON MDP1 35 FED	**North Reference:**	Grid
Well:	CAL-MON MDP1 35 FED 2H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	WB00		
Design:	Permitting Plan		

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
Cal-Mon_MDP1_35_F - plan hits target center - Point	0.00	0.00	9,553.14	227.67	146.75	461,734.28	720,695.49	32° 16' 4.977417 N	103° 45' 10.967887
Cal-Mon_MDP1_35_F - plan hits target center - Point	0.00	0.00	10,132.10	-4,824.36	174.33	456,682.53	720,723.07	32° 15' 14.986361 N	103° 45' 10.964755

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates +N/-S (ft)	Local Coordinates +E/-W (ft)	Comment
7,515.00	7,515.00	0.00	0.00	STEP OUT DLS 2.00
8,014.67	8,012.14	36.53	23.55	HOLD 10 DEG TANGENT
9,074.61	9,056.00	191.14	123.20	DROP BACK TO VERTICAL DLS 2.00
9,574.28	9,553.14	227.67	146.75	BUILD CURVE 10 DEG / 100
10,473.28	10,126.10	-344.28	149.87	LANDING POINT
14,953.44	10,132.10	-4,824.36	174.33	TD at 14953.44

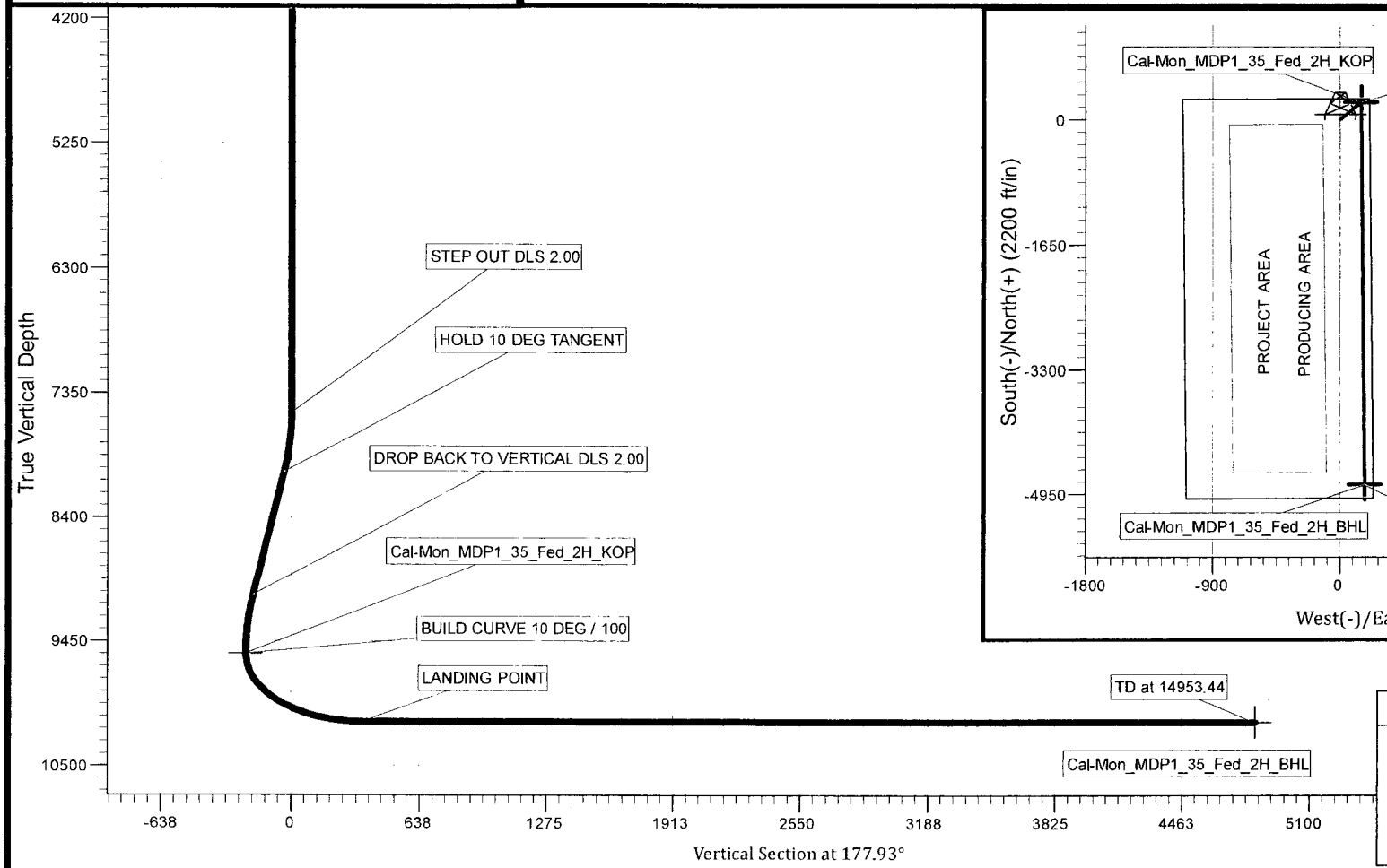
Project: PRD NM DIRECTIONAL PLANS (NAD 1983)
Site: CAL-MON MDP1 35 FED
Well: CAL-MON MDP1 35 FED 2H
Wellbore: WB00
Design: Permitting Plan

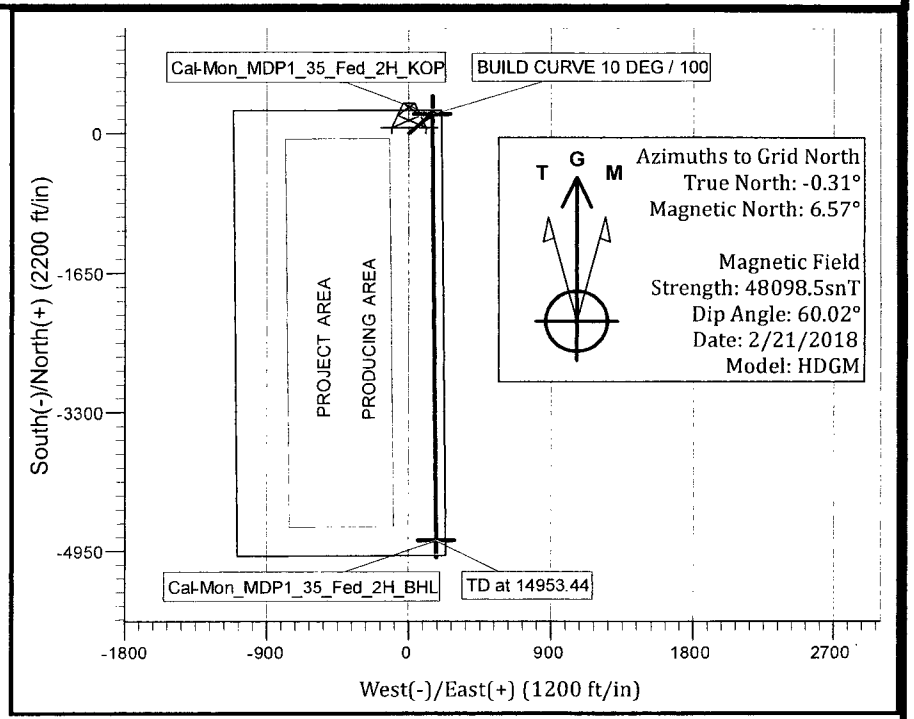
WELL DETAILS: CAL-MON MDP1 35 FED 2H

Ground Level: 3458.40

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	461506.62	720548.75	32° 16' 2.732458 N	103° 45' 12.691259 W

DATUM @ 3484.90ft





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

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	7515.00	0.00	0.00	7515.00	0.00	0.00	0.00	0.00	0.00	
3	8014.67	9.99	32.80	8012.14	36.53	23.55	2.00	32.80	-35.66	
4	9074.61	9.99	32.80	9056.00	191.14	123.20	0.00	0.00	-186.56	
5	9574.28	0.00	179.69	9553.14	227.67	146.75	2.00	180.00	-222.22	
6	10473.28	89.90	179.69	10126.10	-344.28	149.87	10.00	179.69	349.46	
7	14953.44	89.95	179.69	10132.10	-4824.36	174.33	0.00	0.00	4827.51	

Annotation

STEP OUT DLS 2.00
HOLD 10 DEG TANGENT
DROP BACK TO VERTICAL DLS 2.00
BUILD CURVE 10 DEG / 100
LANDING POINT
TD at 14953.44

OXY USA Inc. - Cal-Mon MDP1 35 Federal 2H – Amended Drill Plan

1. Geologic Formations

TVD of target	10132'	Pilot Hole Depth	N/A
MD at TD:	14953'	Deepest Expected fresh water:	708'

Delaware Basin

Formation	TVD - RKB	Expected Fluids
Rustler	708	Brine
Salado	1003	Brine/Losses
Castile	2908	
Lamar/Delaware	4382	
Bell Canyon	4423	Brine
Cherry Canyon	5180	Oil/Gas
Brushy Canyon	6550	Oil/Gas
Bone Spring	8239	Oil/Gas
1st Bone Spring	9315	Oil/Gas
2nd Bone Spring	**9560**	**Oil/Gas**

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

2. Casing Program

Hole Size (in)	Casing Interval From (ft)	Casing Interval To (ft)	Csg. Size (in)	Weight (lbs)	Grade	Conn.	SF Collapse	SF Burst	Buoyant Body SF Tension	Buoyant Joint SF Tension
17.5	0	758	13.375	54.5	J-55	BTC	1.125	1.2	1.4	1.4
12.25	0	4432	9.625	43.5	L-80	BTC	1.125	1.2	1.4	1.4
8.5	0	14953	5.5	20	P-110	DQX	1.125	1.2	1.4	1.4
							SF Values will meet or Exceed			

All casing strings will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.h
*OXY requests the option to set casing shallower yet still below the salts if losses or hole conditions require this. Cement volumes may be adjusted if casing is set shallower and a DV tool may be run in case hole conditions merit pumping a second stage cement job to comply with permitted top of cement. If cement circulated to surface during first stage we will drop a cancelation cone and not pump the second stage.

	Y or N
Is casing new? If used, attach certification as required in Onshore Order #1	Y
Does casing meet API specifications? If no, attach casing specification sheet.	Y
Is premium or uncommon casing planned? If yes attach casing specification sheet.	Y
Does the above casing design meet or exceed BLM's minimum standards? If not provide justification (loading assumptions, casing design criteria).	Y
Will the intermediate pipe be kept at a minimum 1/3 fluid filled to avoid approaching the collapse pressure rating of the casing?	Y

Is well located within Capitan Reef?	N
If yes, does production casing cement tie back a minimum of 50' above the Reef?	
Is well within the designated 4 string boundary.	
Is well located in SOPA but not in R-111-P?	N
If yes, are the first 2 strings cemented to surface and 3rd string cement tied back 500' into previous casing?	
Is well located in R-111-P and SOPA?	Y
If yes, are the first three strings cemented to surface?	Y
Is 2nd string set 100' to 600' below the base of salt?	Y
Is well located in high Cave/Karst?	N
If yes, are there two strings cemented to surface?	
(For 2 string wells) If yes, is there a contingency casing if lost circulation occurs?	
Is well located in critical Cave/Karst?	N
If yes, are there three strings cemented to surface?	

3. Cementing Program

Casing String	# Sks	Wt. (lb/gal)	Yld (ft3/sack)	H20 (gal/sk)	500# Comp. Strength (hours)	Slurry Description
Surface	732	14.2	1.68	6.53	6:50	Class C Cement, Accelerator
Intermediate	1277	12.9	1.74	8.67	15:07	Pozzolan Cement, Retarder, Salt
	158	14.8	1.326	6.34	6:31	Class C Cement, Retarder, Salt
Production (1st Stage)	259	13.2	1.57	7.43	9:23	Class H Cement, Retarder, Dispersant
	1007	13.2	1.61	8.08	14:44	Class H Cement, Retarder, Dispersant, Salt
Pumped as Bradenhead squeeze from surface down annulus. Oxy requests to pump a contingency tail slurry ahead of the lead slurry at our discretion.						
Production (Squeeze)	1133	12.9	1.78	9.10	4:55	Class C Cement, Retarder, 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	758	N/A	100%
Intermediate	0	3932	3932	4432	75%	20%
Production (1st Stage)	6550	8239	8239	14953	5%	5%
Production (Squeeze)	N/A	N/A	0	6550	N/A	25%

OXY proposes a 2-stage production cement job as follows: -D SEE COA

- Stage 1: Cement TD to Top of Brushy Canyon
- Stage 2: Bradenhead squeeze with planned cement column from top of Brushy to surface (KPLA / R-111P)

4. Pressure Control Equipment

BOP installed and tested before drilling which hole?	Size?	Min. Required WP	Type	✓	Tested to:
12.25" Hole	13-5/8"	5M	Annular	✓	70% of working pressure
			Blind Ram	✓	250/5000psi
			Pipe Ram		
			Double Ram	✓	
			Other*		

*Specify if additional ram is utilized.

BOP/BOPE will be tested by an independent service company to 250 psi low and the high pressure indicated above per Onshore Order 2 requirements. The System may be upgraded to a higher pressure but still tested to the working pressure listed in the table above. If the system is upgraded all the components installed will be functional and tested.

Pipe rams will be operationally checked each 24 hour period. Blind rams will be operationally checked on each trip out of the hole. These checks will be noted on the daily tour sheets. Other accessories to the BOP equipment will include a Kelly cock and floor safety valve (inside BOP) and choke lines and choke manifold. See attached schematics.

	Formation integrity test will be performed per Onshore Order #2. On Exploratory wells or on that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.i.
	A variance is requested for the use of a flexible choke line from the BOP to Choke Manifold. See attached for specs and hydrostatic test chart.
	Y | Are anchors required by manufacturer?
	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 wellhead through the rotary prior to cementing surface casing as discussed with the BLM on October 8, 2015. See attached schematics.

5. Mud Program

Depth		Type	Weight (ppg)	Viscosity	Water Loss
From (ft)	To (ft)				
0	758	Water-Based Mud	8.4-8.6	40-60	N/C
758	4432	Brine	9.8-10.0	35-45	N/C
4432	9574	Water-Based Mud or Oil-Based Mud	8.2-9.2	38-50	N/C
9574	14953	Oil-Based Mud	8.2-9.2	35-50	N/C

Sufficient mud materials to maintain mud properties and meet minimum lost circulation and weight increase requirements will be kept on location at all times. The following is a general list of products: Barite, Bentonite, Gypsum, Lime, Soda Ash, Caustic Soda, Nut Plug, Cedar Fiber, Cotton Seed Hulls, Drilling Paper, Salt Water Clay, CACL2. Oxy will use a closed mud system.

What will be used to monitor the loss or gain of fluid?	PVT/MD Totco/Visual Monitoring

6. Logging and Testing Procedures

Logging, Coring and Testing.	
Yes	Will run GR from TD to surface (horizontal well – vertical portion of hole). Stated logs run will be in the Completion Report and submitted to the BLM.
No	Logs are planned based on well control or offset log information.
No	Drill stem test? If yes, explain
No	Coring? If yes, explain

Additional logs planned		Interval
No	Resistivity	
No	Density	
No	CBL	
Yes	Mud log	ICP - TD
No	PEX	

7. Drilling Conditions

Condition	Specify what type and where?
BH Pressure at deepest TVD	5058 psi
Abnormal Temperature	No
BH Temperature at deepest TVD	162°F

Pump high viscosity sweeps as needed for hole cleaning. The mud system will be monitored visually/manually as well as with an electronic PVT. The necessary mud products for additional weight and fluid loss control will be on location at all times. Appropriately weighted mud will be used to isolate potential gas, oil, and water zones until such time as casing can be cemented into place for zonal isolation.

Hydrogen Sulfide (H2S) monitors will be installed prior to drilling out the surface shoe. If H2S is detected in concentrations greater than 100 ppm, the operator will comply with the provisions of Onshore Oil and Gas Order #6. If Hydrogen Sulfide is encountered, measured values and formations will be provided to the BLM.	
N	H2S is present
Y	H2S Plan attached

8. Other facets of operation

	Yes/No
Will the well be drilled with a walking/skidding operation? If yes, describe. • We plan to drill the two well pad in batch by section: all surface sections, intermediate sections and production sections. The wellhead will be secured with a night cap whenever the rig is not over the well.	Yes
Will more than one drilling rig be used for drilling operations? If yes, describe. • Oxy requests the option to contract a Surface Rig to drill, set surface casing, and cement for this well. If the timing between rigs is such that Oxy would not be able to preset surface, the Primary Rig will MIRU and drill the well in its entirety per the APD. Please see the attached document for information on the spudder rig.	Yes

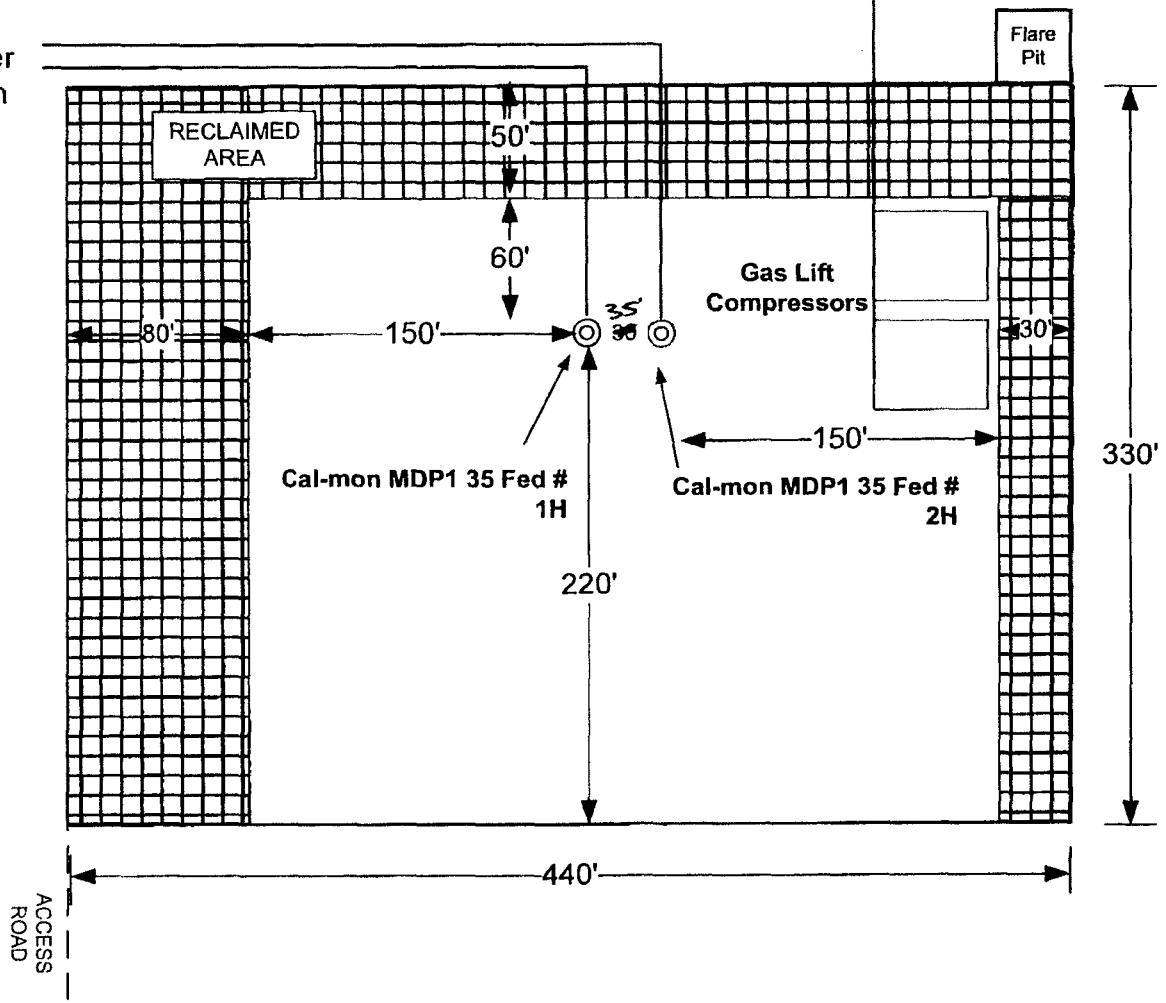
Total estimated cuttings volume: 1499.5 bbls.

9. Company Personnel

Name	Title	Office Phone	Mobile Phone
Philippe Haffner	Drilling Engineer	713-985-6379	832-767-9047
Diego Tellez	Drilling Engineer Supervisor	713-350-4602	713-303-4932
Simon Benavides	Drilling Superintendent	713-522-8652	281-684-6897
John Willis	Drilling Manager	713-366-5556	713-259-1417

(1) 4" Buried Gas Lift Supply Lines from Calmon 35 CTB

(2) 4" Flowlines per well to the Calmon 35 CTB

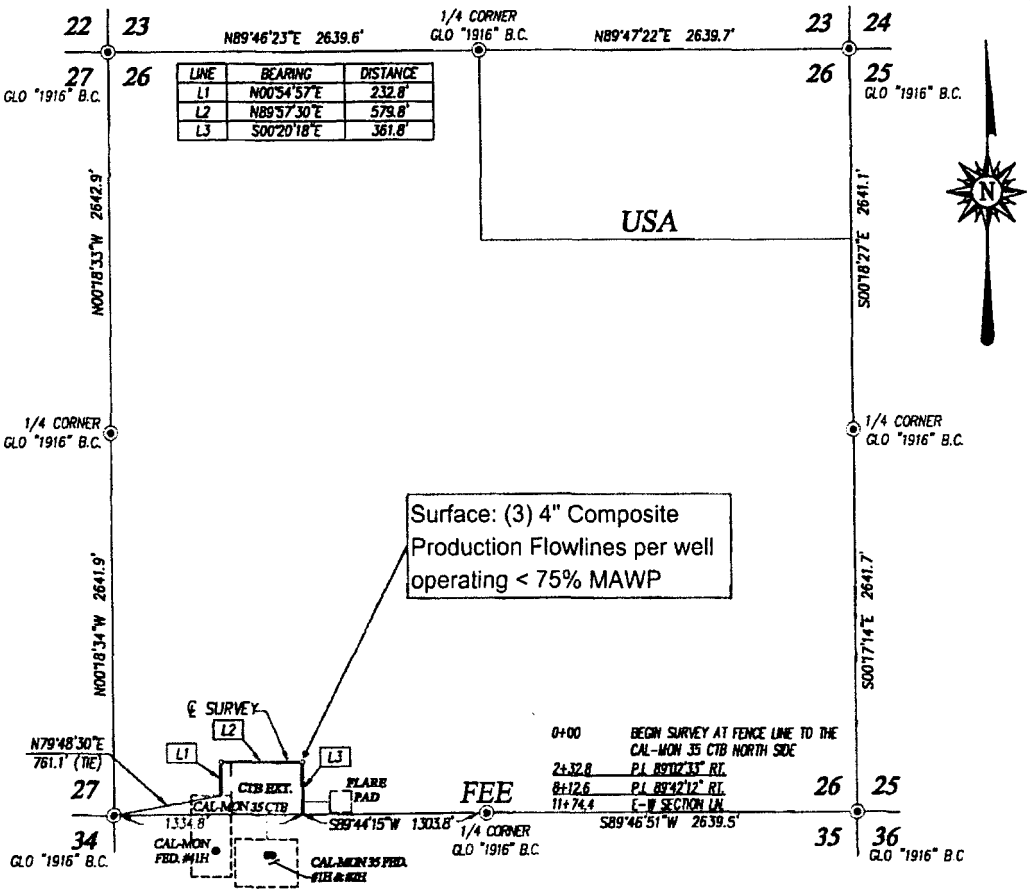


REVISION BLOCK						ENGINEERING RECORD	
NO.	DATE	DESCRIPTION	BY	CHK	APP	BY	DATE

FACILITY LAYOUT DIAGRAM

Cal-mon MDP1 35 Fed # 1H & 2H

EDDY COUNTY, NEW MEXICO



DESCRIPTION

SURVEY FOR A FLOW LINE CROSSING SECTION 26, TOWNSHIP 23 SOUTH, RANGE 31 EAST, N.M.P.M., EDDY COUNTY, NEW MEXICO, AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT A POINT IN THE SOUTHWEST QUARTER OF SECTION 26, WHICH LIES N79°48'30"E 761.1 FEET FROM THE SOUTHWEST CORNER OF SAID SECTION; THEN N00°54'57"E 232.8 FEET; THEN N89°57'30"E 579.8 FEET; THEN S00°20'18"E 361.8 FEET TO A POINT ON THE SOUTH LINE OF SAID SECTION, WHICH LIES S89°44'15"W 1303.8 FEET FROM THE SOUTH QUARTER CORNER OF SAID SECTION.

TOTAL LENGTH EQUALS 1174.4 FEET OR 71.18 RODS.

NOTE

BEARINGS SHOWN HEREON ARE MERCATOR GRID AND CONFORM TO THE NEW MEXICO COORDINATE SYSTEM "NEW MEXICO EAST ZONE" NORTH AMERICAN DATUM 1983. DISTANCES ARE SURFACE VALUES.

I, RONALD J. EIDSON, NEW MEXICO PROFESSIONAL SURVEYOR No. 3239, DO HEREBY CERTIFY THAT THIS SURVEY PLAT AND THE ACTUAL SURVEY ON THE GROUND UPON WHICH IT IS BASED WERE PERFORMED BY ME OR UNDER MY DIRECT SUPERVISION; THAT I AM RESPONSIBLE FOR THIS SURVEY; THAT THIS SURVEY MEETS THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO; AND THAT IT IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

RONALD J. EIDSON Ronald J Eidson

DATE: 03/01/2018

LEGEND

◉ DENOTES FOUND CORNER AS NOTED

1000 0 1000 2000 FEET

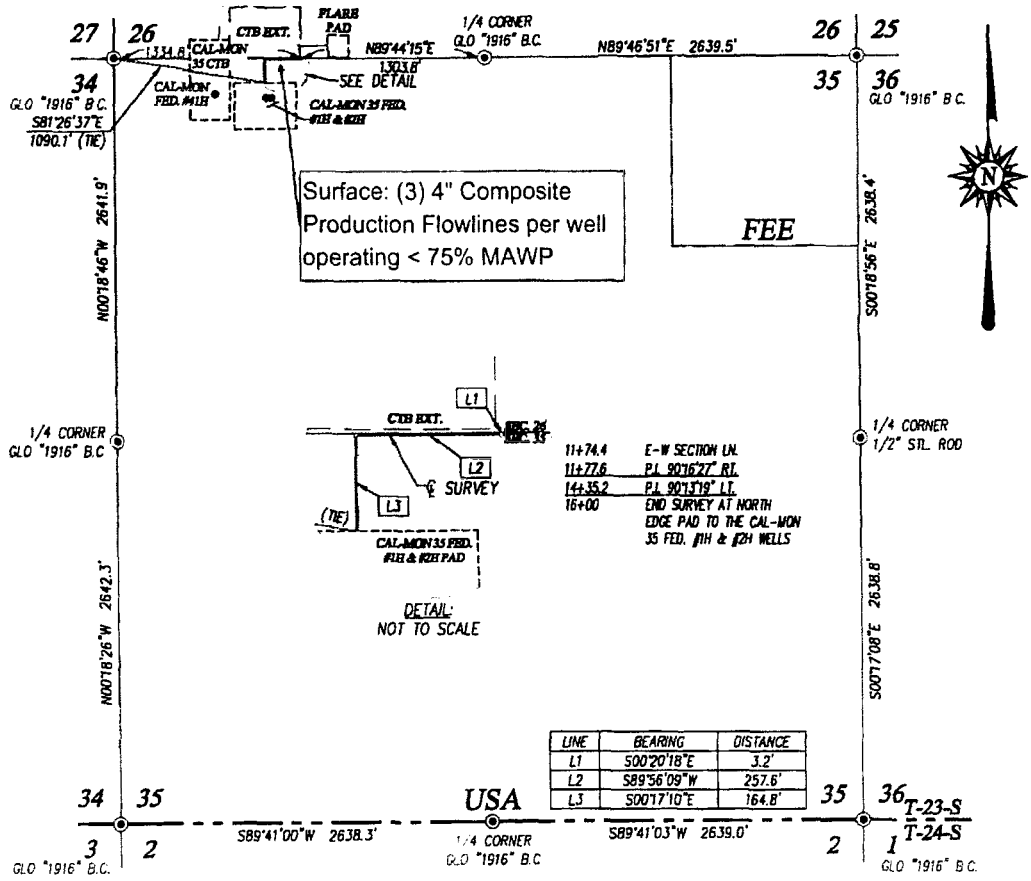
Scale: 1"=1000'

PROVIDING SURVEYING SERVICES SINCE 1946
JOHN WEST SURVEYING COMPANY
412 N. DAL PASO HOBBS, N.M. 88240
(575) 393-3117 www.jwsc.biz
TBPLS# 10021000

OXY U.S.A. INC.

SURVEY FOR A FLOW LINE FROM THE CAL-MON 35 CTB TO THE CAL-MON 35 FEDERAL #1H & #2H WELLS CROSSING SECTION 26, TOWNSHIP 23 SOUTH, RANGE 31 EAST, N.M.P.M. EDDY COUNTY, NEW MEXICO

Survey Date: 2/19/18	CAD Date: 3/01/18	Drawn By: ACK
W.O. No.: 18110209	Rev: .	Rel. W.O.:	Sheet 1 of 1



DESCRIPTION

SURVEY OF A STRIP OF LAND 30.0 FEET WIDE AND 425.6 FEET OR 0.081 MILES IN LENGTH CROSSING USA LAND IN SECTION 35, TOWNSHIP 23 SOUTH, RANGE 31 EAST, N.M.P.M., EDDY COUNTY, NEW MEXICO, AND BEING 15.0 FEET LEFT AND 15.0 FEET RIGHT OF THE ABOVE PLATTED CENTERLINE SURVEY.

NOTE

BEARINGS SHOWN HEREON ARE MERCATOR GRID AND CONFORM TO THE NEW MEXICO COORDINATE SYSTEM "NEW MEXICO EAST ZONE" NORTH AMERICAN DATUM 1983. DISTANCES ARE SURFACE VALUES.

I, RONALD J. EIDSON, NEW MEXICO PROFESSIONAL SURVEYOR No. 3239, DO HEREBY CERTIFY THAT THIS SURVEY PLAT AND THE ACTUAL SURVEY ON THE GROUND UPON WHICH IT IS BASED WERE PERFORMED BY ME OR UNDER MY DIRECT SUPERVISION; THAT I AM RESPONSIBLE FOR THIS SURVEY; THAT THIS SURVEY MEETS THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO; AND THAT IT IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

RONALD J. EIDSON Ronald J Eidson

DATE: 03/01/2018

RONALD J. EIDSON NEW MEXICO 3239 PROFESSIONAL SURVEYOR

LEGEND

◉ DENOTES FOUND CORNER AS NOTED

1000 0 1000 2000 FEET

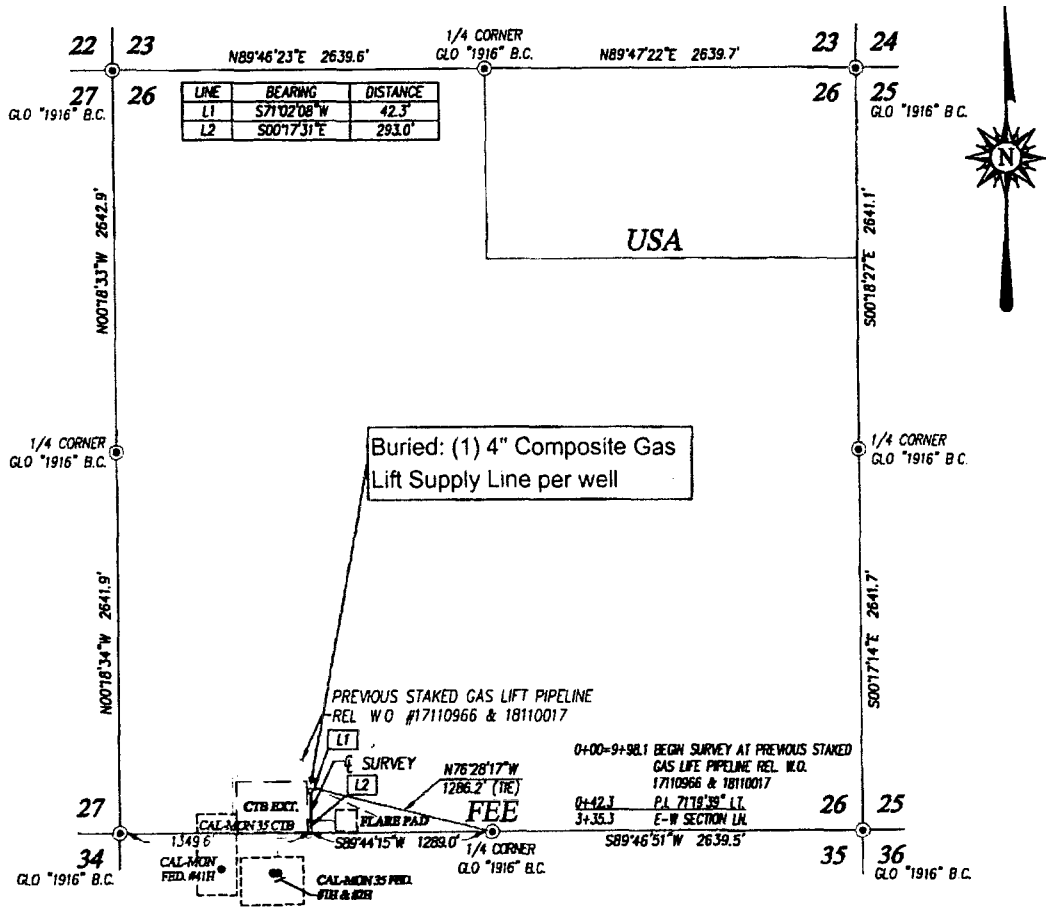
Scale: 1"=1000'

PROVIDING SURVEYING SERVICES SINCE 1946
JOHN WEST SURVEYING COMPANY
412 N. DAL PASO HOBBS, N.M. 88240
(575) 393-3117 www.jwsc.biz
TBPLS# 10021000

OXY U.S.A. INC.

SURVEY FOR A FLOW LINE FROM THE CAL-MON 35 CTB TO THE CAL-MON 35 FEDERAL #1H & #2H WELLS CROSSING SECTION 35, TOWNSHIP 23 SOUTH, RANGE 31 EAST, N.M.P.M., EDDY COUNTY, NEW MEXICO

Survey Date: 2/19/18	CAD Date: 3/01/18	Drawn By: ACK
W.O. No.: 18110209	Rev: .	Rel. W.O.:	Sheet 1 of 1



DESCRIPTION

SURVEY OF A STRIP OF LAND 30.0 FEET WIDE AND 335.3 FEET OR 0.063 MILES IN LENGTH CROSSING SECTION 26, TOWNSHIP 23 SOUTH, RANGE 31 EAST, N.M.P.M., EDDY COUNTY, NEW MEXICO, AND BEING 15.0 FEET LEFT AND 15.0 FEET RIGHT OF THE ABOVE PLATTED CENTERLINE SURVEY.

NOTE

BEARINGS SHOWN HEREON ARE MERCATOR GRID AND CONFORM TO THE NEW MEXICO COORDINATE SYSTEM, "NEW MEXICO EAST ZONE" NORTH AMERICAN DATUM 1983. DISTANCES ARE SURFACE VALUES.

I, RONALD J. EIDSON, NEW MEXICO PROFESSIONAL SURVEYOR No. 3239, DO HEREBY CERTIFY THAT THIS SURVEY PLAT AND THE ACTUAL SURVEY ON THE GROUND UPON WHICH IT IS BASED WERE PERFORMED BY ME OR UNDER MY DIRECT SUPERVISION; THAT I AM RESPONSIBLE FOR THIS SURVEY; THAT THIS SURVEY MEETS THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO; AND THAT IT IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

RONALD J. EIDSON Ronald J Eidson

DATE: 03/01/2018

LEGEND

◉ DENOTES FOUND CORNER AS NOTED

1000 0 1000 2000 FEET

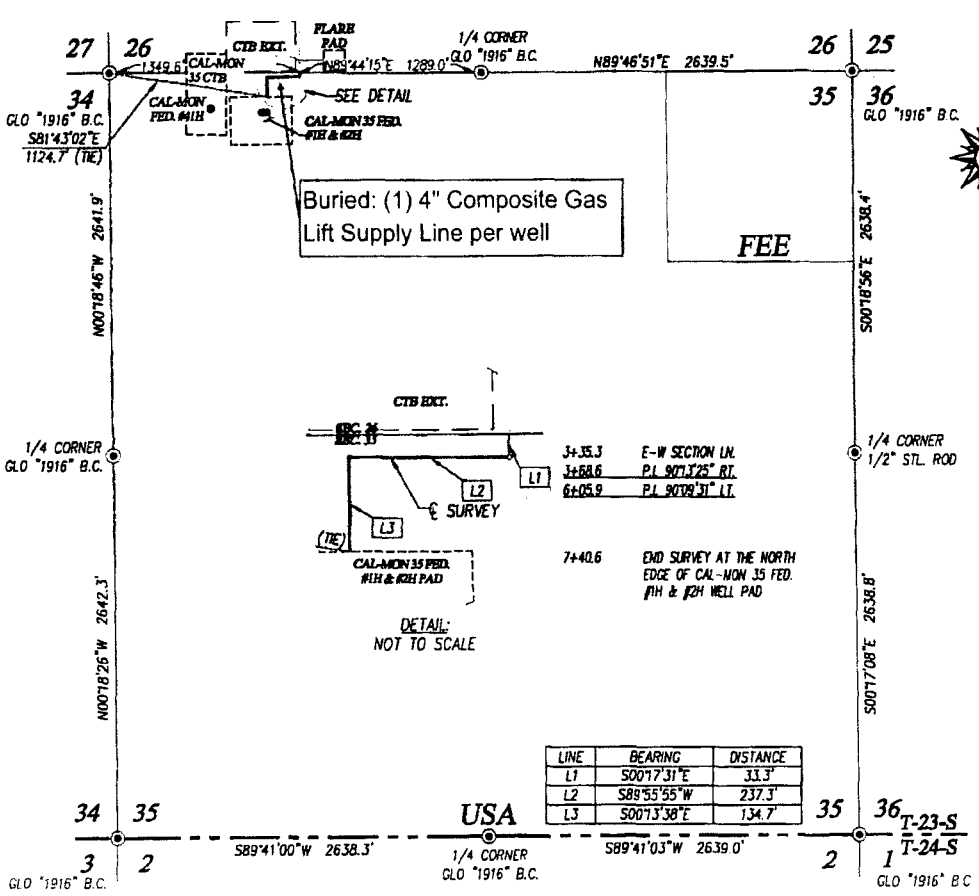
Scale: 1"=1000'

PROVIDING SURVEYING SERVICES SINCE 1946
JOHN WEST SURVEYING COMPANY
412 N. DAL PASO HOBBS, N.M. 88240
(575) 393-3117 www.jwsc.biz
TBPLS# 10021000

OXY U.S.A. INC.

SURVEY FOR A GAS LIFT PIPELINE TO THE CAL-MON 35 FEDERAL #1H & #2H WELLS CROSSING SECTION 26, TOWNSHIP 23 SOUTH, RANGE 31 EAST, N.M.P.M. EDDY COUNTY, NEW MEXICO

Survey Date: 2/19/18	CAD Date: 3/01/18	Drawn By: ACK
W.O. No.: 18110210	Rev: .	Rel. W.O.: 18110017	Sheet 1 of 1



DESCRIPTION

SURVEY OF A STRIP OF LAND 30.0 FEET WIDE AND 405.3 FEET OR 0.077 MILES IN LENGTH CROSSING USA LAND IN SECTION 35, TOWNSHIP 23 SOUTH, RANGE 31 EAST, N.M.P.M., EDDY COUNTY, NEW MEXICO, AND BEING 15.0 FEET LEFT AND 15.0 FEET RIGHT OF THE ABOVE PLATTED CENTERLINE SURVEY.

NOTE

BEARINGS SHOWN HEREON ARE MERCATOR GRID AND CONFORM TO THE NEW MEXICO COORDINATE SYSTEM, "NEW MEXICO EAST ZONE" NORTH AMERICAN DATUM 1983. DISTANCES ARE SURFACE VALUES.

I, RONALD J. EIDSON, NEW MEXICO PROFESSIONAL SURVEYOR No. 3239, DO HEREBY CERTIFY THAT THIS SURVEY PLAT AND THE ACTUAL SURVEY ON THE GROUND UPON WHICH IT IS BASED WERE PERFORMED BY ME OR UNDER MY DIRECT SUPERVISION; THAT I AM RESPONSIBLE FOR THIS SURVEY; THAT THIS SURVEY MEETS THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO; AND THAT IT IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

RONALD J. EIDSON Ronald J. Eidson

DATE: 03/01/2018

RONALD J. EIDSON NEW MEXICO 3239 PROFESSIONAL SURVEYOR

LEGEND

◉ DENOTES FOUND CORNER AS NOTED

1000 0 1000 2000 FEET

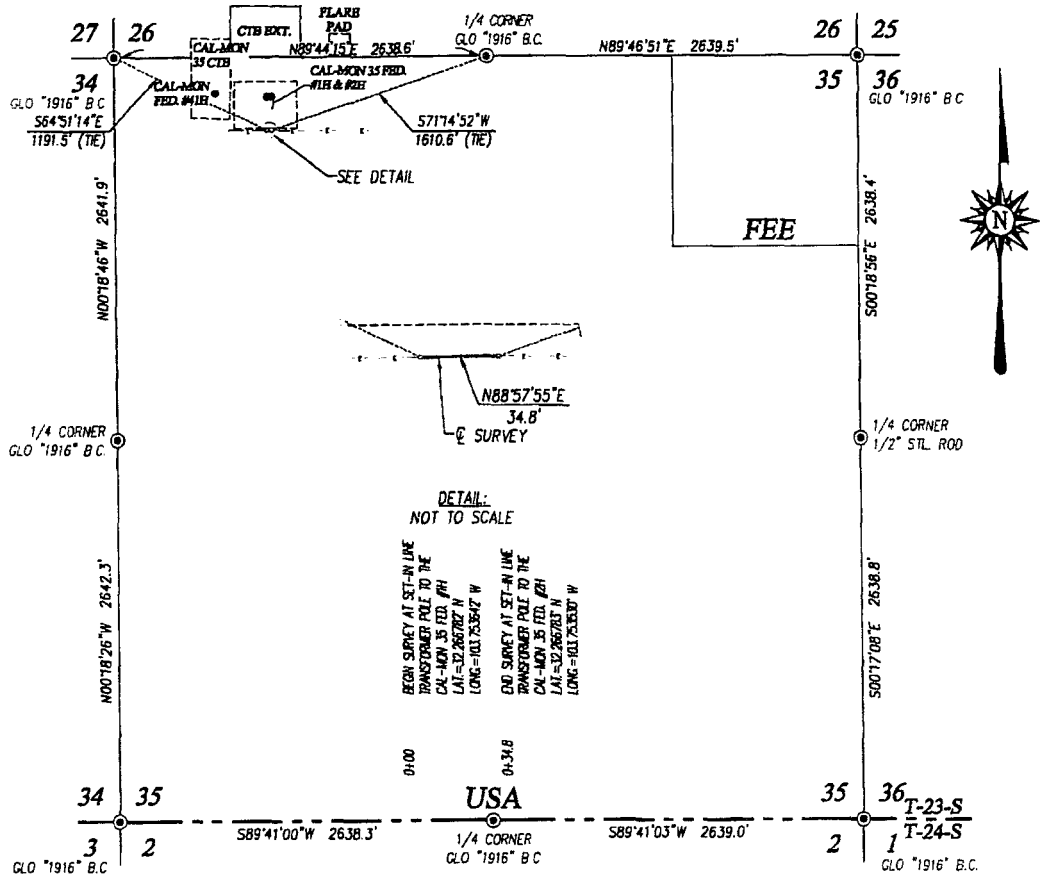
Scale: 1"=1000'

PROVIDING SURVEYING SERVICES SINCE 1946
JOHN WEST SURVEYING COMPANY
412 N. DAL PASO HOBBS, N.M. 88240
(575) 393-3117 www.jwsc.biz
TBPLS# 10021000

OXY U.S.A. INC.

SURVEY FOR A GAS LIFT PIPELINE TO THE CAL-MON 35 FEDERAL #1H & #2H WELLS CROSSING SECTION 35, TOWNSHIP 23 SOUTH, RANGE 31 EAST, N.M.P.M. EDDY COUNTY, NEW MEXICO

Survey Date: 2/19/18	CAD Date: 3/01/18	Drawn By: ACK
W.O. No.: 18110210	Rev: .	Rel. W.O.: 18110017	Sheet 1 of 1



DESCRIPTION

SURVEY OF A STRIP OF LAND 30.0 FEET WIDE AND 34.8 FEET OR 0.007 MILES IN LENGTH CROSSING USA LAND IN SECTION 35, TOWNSHIP 23 SOUTH, RANGE 31 EAST, N.M.P.M., EDDY COUNTY, NEW MEXICO, AND BEING 15.0 FEET LEFT AND 15.0 FEET RIGHT OF THE ABOVE PLATTED CENTERLINE SURVEY.

NOTE

1) BEARINGS SHOWN HEREON ARE MERCATOR GRID AND CONFORM TO THE NEW MEXICO COORDINATE SYSTEM "NEW MEXICO EAST ZONE" NORTH AMERICAN DATUM 1983. DISTANCES ARE SURFACE VALUES.

2) LATITUDE AND LONGITUDE VALUES SHOWN HEREON ARE RELATIVE TO THE NORTH AMERICAN DATUM 1983 (NAD83).

I, RONALD J. EIDSON, NEW MEXICO PROFESSIONAL SURVEYOR No 3239, DO HEREBY CERTIFY THAT THIS SURVEY PLAT AND THE ACTUAL SURVEY ON THE GROUND UPON WHICH IT IS BASED WERE PERFORMED BY ME OR UNDER MY DIRECT SUPERVISION; THAT I AM RESPONSIBLE FOR THIS SURVEY; THAT THIS SURVEY MEETS THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO; AND THAT IT IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

RONALD J. EIDSON Ronald J Eidson

DATE: 03/01/2018

RONALD J. EIDSON NEW MEXICO 3239 PROFESSIONAL SURVEYOR

LEGEND

◉ DENOTES FOUND CORNER AS NOTED

1000 0 1000 2000 FEET

Scale: 1"=1000'

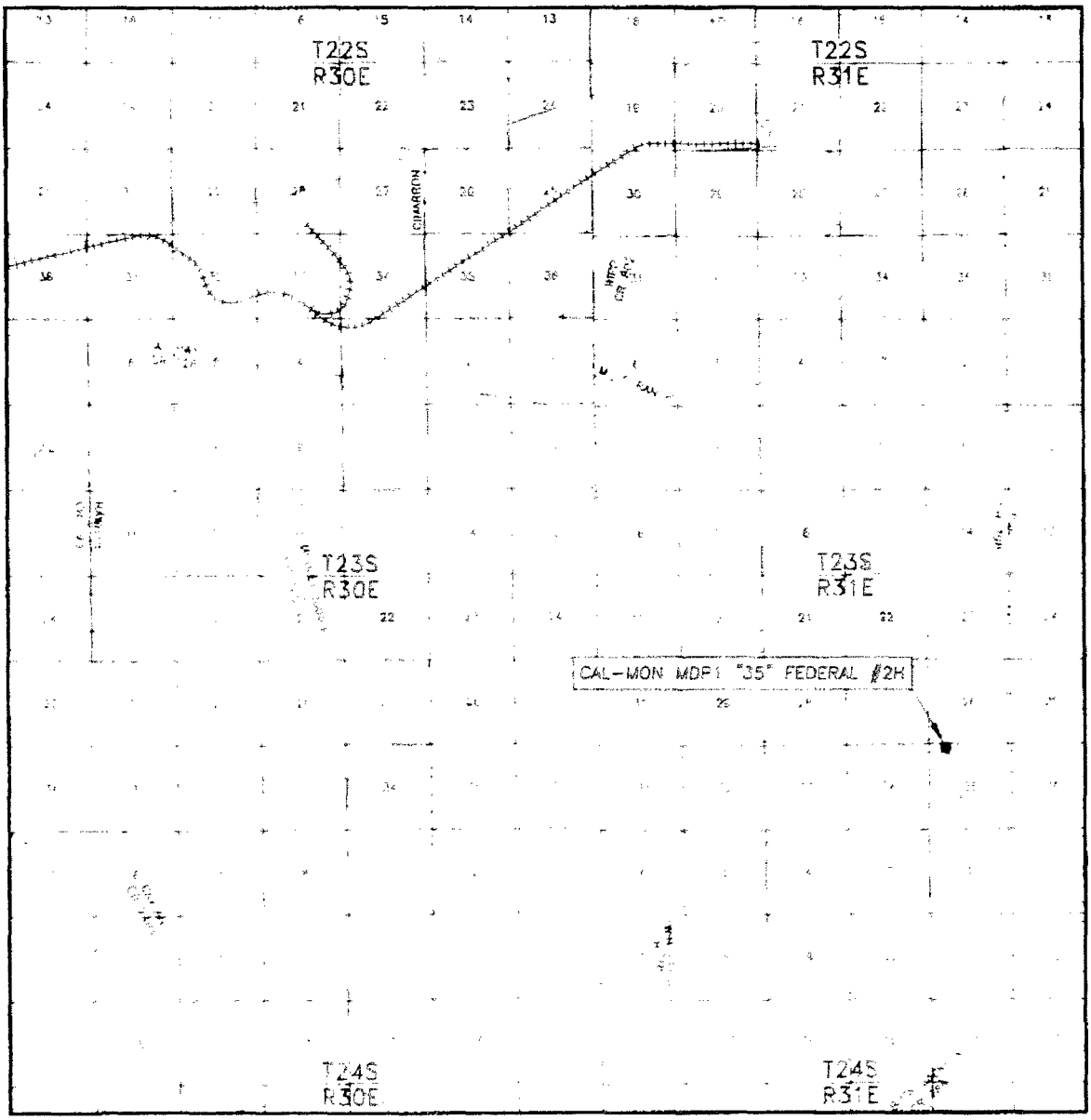
PROVIDING SURVEYING SERVICES SINCE 1946
JOHN WEST SURVEYING COMPANY
412 N. DAL PASO HOBBS, N.M. 88240
(575) 393-3117 www.jwsc.biz
TBPLS# 10021000

OXY U.S.A. INC.

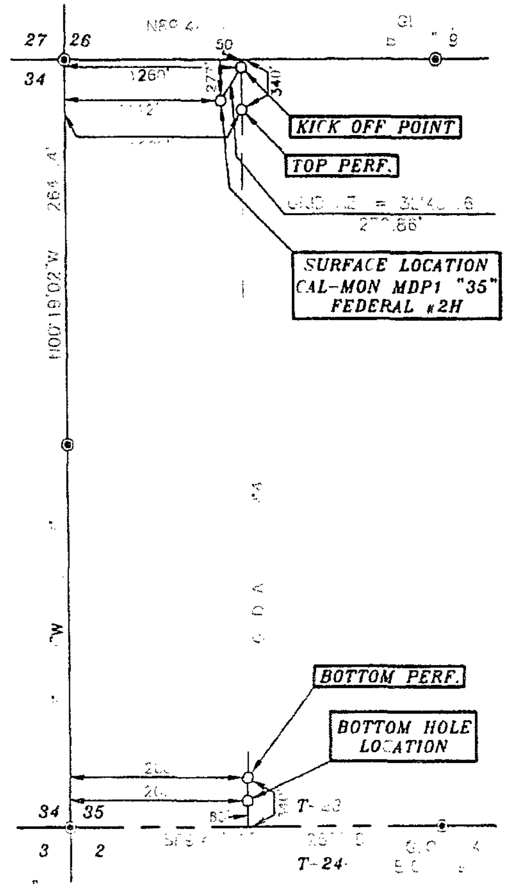
SURVEY FOR AN ELECTRIC LINE TO THE CAL-MON 35 FEDERAL #1H & #2H WELLS CROSSING SECTION 35, TOWNSHIP 23 SOUTH, RANGE 31 EAST, N.M.P.M. EDDY COUNTY, NEW MEXICO

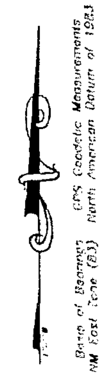
Survey Date: 2/19/18	CAD Date: 3/01/18	Drawn By: ACK
W.O. No.: 18110211	Rev. .	Rel. W.O.:	Sheet 1 of 1

VICINITY MAP



SECTION 35, TOWNSHIP 23 SOUTH, RANGE 31 EAST, N.M.P.M ,
EDDY COUNTY NEW MEXICO





SURVEYORS CERTIFICATE

I, TERRY J ASEL, NEW MEXICO PROFESSIONAL SURVEYOR NO 15079 DO HEREBY CERTIFY THAT I CONDUCTED AND AM RESPONSIBLE FOR THIS SURVEY. THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AND MEETS THE "MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO" AS ADOPTED BY THE NEW MEXICO STATE BOARD OF REGISTRATION FOR PROFESSIONAL ENGINEERS AND SURVEYORS

2/21/2018
Terry J Asel N M R P L S No 15079

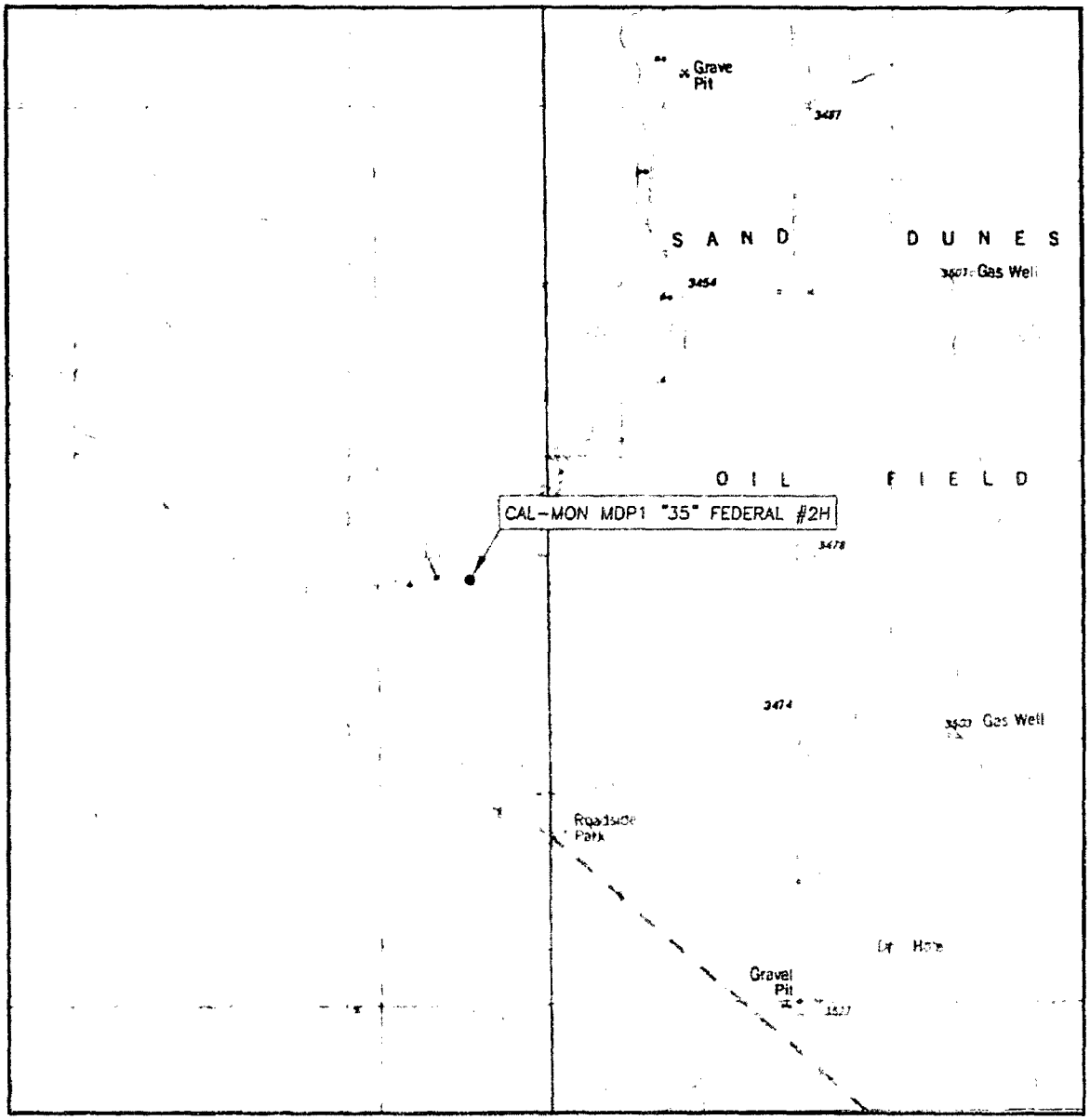
TERRY J ASEL NEW MEXICO 15079 REGISTERED PROFESSIONAL LAND SURVEYOR

LEGEND

OXY USA INC

Survey Date: 02/15/18	Sheet 1 of 1 Sheets	
W.O. Number:	Drawn By: KA	Rev: A
Date: 02/19/18	161019WL-b	Scale:

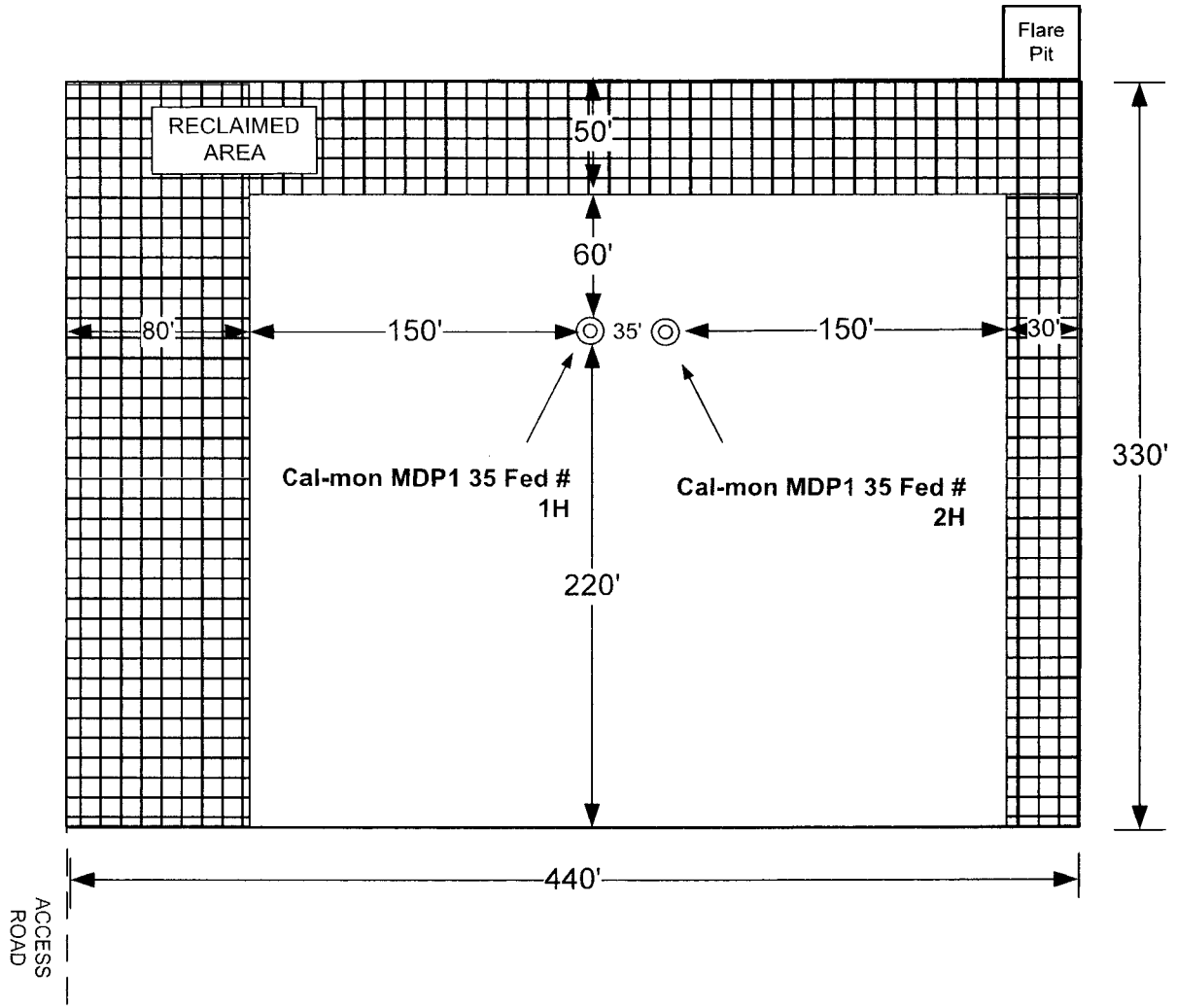
LOCATION VERIFICATION MAP



l urveying

AERIAL MAP

Asel ur in



8' Diameter x 8' Deep Tinhorn Cellar

REVISION BLOCK						ENGINEERING RECORD	
NO.	DATE	DESCRIPTION	BY	CHK	APP	BY	DATE

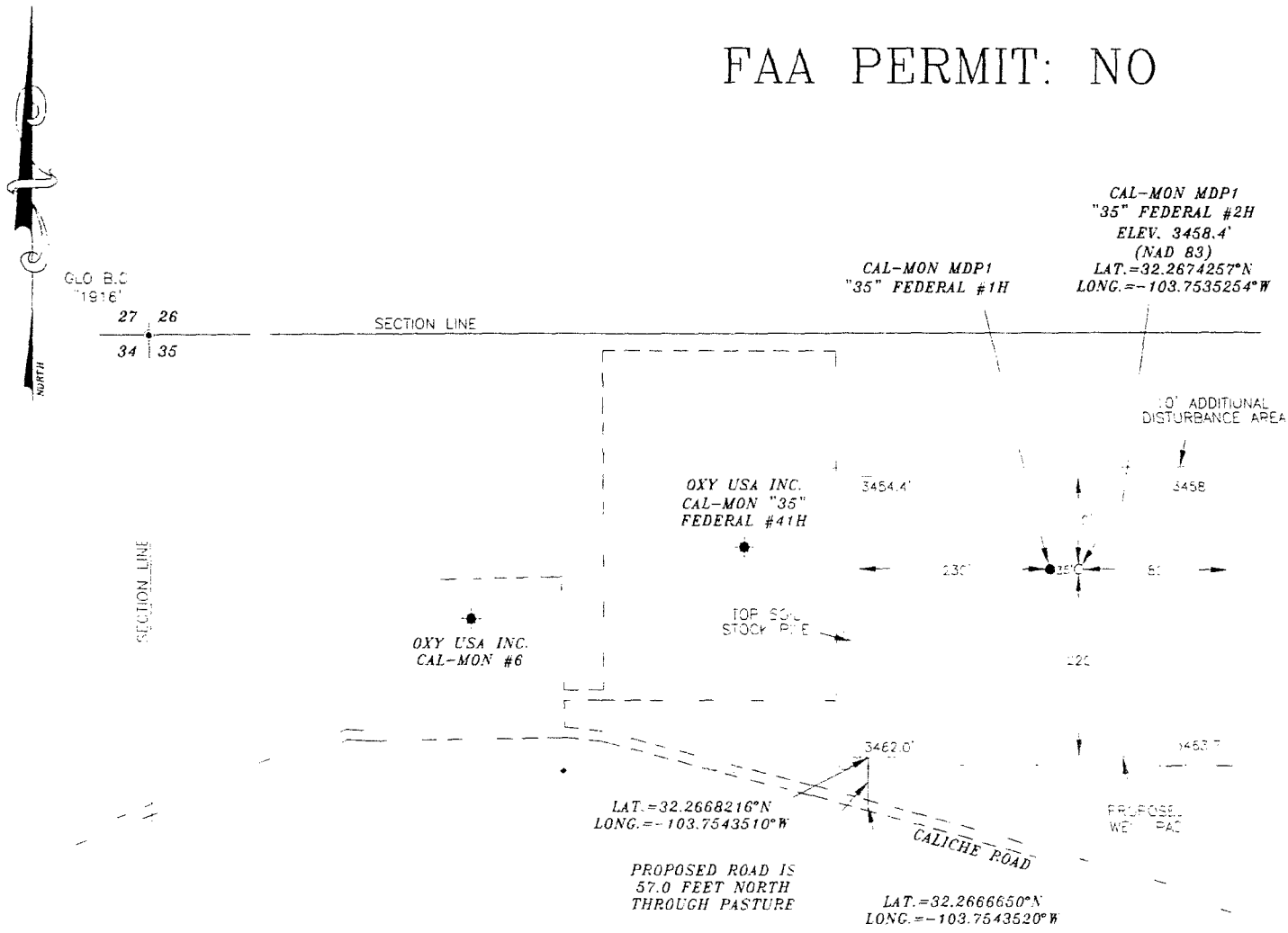
FLEX 3 RIG DIAGRAM

Cal-mon MDP1 35 Fed # 1H & 2H

EDDY COUNTY, NEW MEXICO

OXY USA INC.
CAL-MON MDP1 "35" FEDERAL #2H
SITE PLAN

FAA PERMIT: NO



TERRY J ASEL
NEW MEXICO
15079
REGISTERED PROFESSIONAL LAND SURVEYOR

LEGEND

DENOTES PROPOSED WELL PAD
DENOTES PROPOSED ROAD
DENOTES STOCK PILE AREA
DENOTES EXISTING WELL

400' 0 400' FEET

SCALE 1"=200'

SURVEYORS CERTIFICATE

I, TERRY J. ASEL, NEW MEXICO PROFESSIONAL SURVEYOR NO. 15079, DO HEREBY CERTIFY THAT I CONDUCTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND MEETS THE "MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO" AS ADOPTED BY THE NEW MEXICO STATE BOARD OF REGISTRATION FOR PROFESSIONAL ENGINEERS AND SURVEYORS.

Terry J. Asel 2/21/2018

Terry J. Asel, N.M. R.P.L.S. No. 15079

Asel Surveying

P. O. Box 393 311 W. TAYLOR
HOBBS, NEW MEXICO - 575-393-9146

OXY USA INC.

CAL-MON MDP1 "35" FEDERAL #2H LOCATED AT 277' FNL & 1110' FWL IN SECTION 35 TOWNSHIP 23 SOUTH, RANGE 31 EAST, N.M.P.M., EDDY COUNTY, NEW MEXICO

Survey Date: 02/15/18	Sheet 1 of 1 Sheets	
W.O. Number: 161019WL-b (Rev A)	Drawn By: KA	Rev: A
Date: 02/19/18	161019WL-b	Scale: 1"=200'

Surface Use Plan of Operations

Operator Name/Number: OXY USA Inc. – 16696
Lease Name/Number: Cal-Mon MDP1 35 Federal #2H
Pool Name/Number: Cotton Draw Bone Spring 13367
Surface Location: 277 FNL 1112 FWL NWNW (D) Sec 35 T23S R31E – NMNM19199
Bottom Hole Location: 180 FSL 1260 FWL SWSW (M) Sec 35 T23S R31E – NMNM19199

***Due to buried pipeline, flowlines and meter runs, the surface location was moved 167' south and 110' east.**

1. Existing Roads

a. A copy of the USGS "Los Medanos, NM" quadrangle map is attached showing the proposed location. The well location is spotted on the map, which shows the existing road system.

b. The well was staked by Terry J Asel, Certificate No. 15079 on 2/15/18, certified 2/21/18.

c. Directions to Location: From the intersection of SH 128 and CR 798, go northwest on SH 128 for 0.8 miles. Turn right on caliche road and go north for 0.4 miles. Turn left and go west for 0.2 miles. Turn right on proposed road and go north for 57' to location.

2. New or Reconstructed Access Roads:

a. A new access road will be built. The access road will run approximately 57' north through pasture to the southwest corner of the pad.

b. The maximum width of the road will be 14'. It will be crowned and made up of 6" of rolled and compacted caliche. Water will be deflected, as necessary, to avoid accumulation and prevent surface erosion.

c. Surface material will be native caliche. This material will be obtained from a BLM approved pit nearest in proximity to the location. The average grade will be approximately 1%.

d. No cattle guards, grates or fence cuts will be required. Turnouts are planned every 1000' as needed.

e. Blade, water and repair existing caliche roads as needed.

f. Water Bars will be incorporated every 200' during the construction of the road.

3. Location of Existing Wells:

Existing wells within a one mile radius of the proposed well are shown on attached plat.

4. Location of Existing and/or Proposed Facilities:

a. In the event the well is found productive, the Cal-Mon 35 Federal central tank battery would be utilized and the necessary production equipment will be installed at the well site. See proposed facilities layout diagram.

b. All flow lines will adhere to API standards. They will consist of 3 – 4" composite flowlines operating < 75% MAWP, surface and 1 – 4" composite gas lift supply line operating <1500 psig, buried, lines to follow surveyed route. Survey of a strip of land 30' wide and 1174.4' in length crossing Fee Land in Section 26 T23S R31E NMPM and 425.6' in length crossing USA Land in Section 35, T23S, R31E, NMPM, Eddy County, NM and being 15' left and 15' right of the centerline survey, see attached.

c. Electric line will follow a route approved by the BLM. Survey of a strip of land 30' wide and 34.8' in length crossing USA Land in Section 35 T23S R31E NMPM, Eddy County, NM and being 15' left and 15' right of the centerline survey, see attached.

d. See attached for additional information on the Cal-Mon Development Surface Production Facilities

5. Location and types of Water Supply

This well will be drilled using a combination of water mud systems. It will be obtained from commercial water stations in the area and will be hauled to location by transport truck using existing and proposed roads. See attached for information on the fresh water station.

6. Construction Materials:

Primary

All caliche utilized for the drilling pad and proposed access road will be obtained from an existing BLM/State/Fee approved pit or from prevailing deposits found on the location. Will use BLM recommended extra caliche from other locations close by for roads, if available.

Secondary

The secondary way of obtaining caliche to build locations and roads will be by "turning over" the location. This means, caliche will be obtained from the actual well site. A caliche permit will be obtained from BLM prior to pushing up any caliche. 2400 cubic yards is max amount of caliche needed for pad and roads. Amount will vary for each pad. The procedure below has been approved by BLM personnel:

a. The top 6" of topsoil is pushed off and stockpiled along the side of the location.
b. An approximate 120' X 120' area is used within the proposed well site to remove caliche.
c. Subsoil is removed and piled alongside the 120' X 120' within the pad site.
d. When caliche is found, material will be stockpiled within the pad site to build the location and road.
e. Then subsoil is pushed back in the hole and caliche is spread accordingly across entire location and road.
f. Once the well is drilled the stockpiled top soil will be used for interim reclamation and spread along areas where caliche is picked up and the location size is reduced. Neither caliche nor subsoil will be stockpiled outside of the well pad. Topsoil will be stockpiled along the edge of the pad as depicted in the attached plat.

7. Methods of Handling Waste Material:

a. A closed loop system will be utilized consisting of above ground steel tanks and haul-off bins. Disposal of liquids, drilling fluids and cuttings will be disposed of at an approved facility. Solids-CRI, Liquids-Laguna

b. All trash, junk and other waste material will be contained in trash cages or bins to prevent scattering. When the job is completed, all contents will be removed and disposed of in an approved sanitary landfill.

c. The supplier, including broken sacks, will pickup slats remaining after completion of well.

d. A Porto-john will be provided for the rig crews. This equipment will be properly maintained during the drilling and completion operations and will be removed when all operations are complete.

e. Disposal of fluids to be transported will be by the following companies. TFH Ltd, Laguna SWD Facility

8. Ancillary Facilities: None needed.

9. Well Site Layout:

The well site layout with dimensions of the pad layout and equipment location.

V-Door – East CL Tanks – North Pad – 330' X 440' – Two Well Pad

10. Plans for Surface Reclamation:

a. After concluding the drilling and/or completion operations, if the well is found non-commercial, the caliche will be removed from the pad and transported to the original caliche pit or used for other drilling locations. The road will be reclaimed as directed by the BLM. The original topsoil will again be returned to the pad and contoured, as close as

possible, to the original topography, and the area will be seeded with an approved BLM mixture to re-establish vegetation.

b. If the well is deemed commercially productive, caliche from the areas of the pad site not required for operations will be reclaimed. The original topsoil will be returned to the area of the drill pad not necessary to operate the well. These unused areas of the drill pad will be contoured, as close as possible, to match the original topography, and the area will be seeded with an approved BLM mixture to re-establish vegetation.

11. Surface Ownership:

The surface is owned by the U.S. Government and is administered by the BLM. The surface is multiple use with the primary uses of the region for the grazing of livestock and the production of oil and gas. The surface is leased to: JR Engineering & Construction, P.O. Box 487, Carlsbad, NM 88221. They will be notified of our intention to drill prior to any activity.

12. Other Information:

a. The vegetation cover is generally sparse consisting of mesquite, yucca, shinnery oak, sandsage and perennial native range grass. The topsoil is sandy in nature. Wildlife in the area is also sparse consisting of deer, coyotes, rabbits, rodents, reptiles, dove and quail.

b. There is no permanent or live water in the general proximity of the location.

c. There are no dwellings within one mile of the proposed well site.

d. Cultural Resources Examination–This well is located in the Permian Basin PA, payment was made 7/20/17, receipt number 3896926. This well shares the same pad as the Cal-Mon MDP1 35 Federal #1H.

Pad + ¼ mile road	$1550.00	$.24/ft over ¼ mile	$ 0.00	$1550.00
Pipeline-up to 1 mile	$1431.00	$.27/ft over 1 mile	$ 0.00	$1431.00
Electric Line-up to 1 mile	$717.00	$.11/ft over 1 mile	$ 0.00	$ 717.00
Total	$3698.00		$ 0.00	$3698.00

e. Copy of this application has been mailed to SWCA Environmental Consultants, 5647 Jefferson St. NE, Albuquerque, NM 87109. No Potash leases within one mile of surface location.

13. Bond Coverage:

Bond coverage is Individual-NMB000862, Nationwide-ESB00226.

14. Operators Representatives:

The OXY Permian representatives responsible for ensuring compliance of the surface use plan are listed below:

Van Barton
Supt. Operations
1502 West Commerce Dr.
Carlsbad, NM 88220
Office – 575-628-4111
Cellular – 575-706-7671

Corrie Hartman
Manager Asset
P.O. Box 4294
Houston, TX Carlsbad, NM 88220
Office – 713-215-7084
Cellular – 832-541-3190

Jim Wilson
Operation Specialist
P.O. Box 50250
Midland, TX 79710
Cellular – 575-631-2442

Cuong Q. Phan
RMT Leader
P.O. Box 4294
Houston, TX 77210
Office – 713-513-6645
Cellular – 281-832-0978

PECOS DISTRICT
DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	Oxy USA Incorporated
LEASE NO.:	NMNM19199
WELL NAME & NO.:	Cal-Mon MDPI 35 Federal 2H
SURFACE HOLE FOOTAGE:	277'/N & 1112'/W
BOTTOM HOLE FOOTAGE	180'/S & 1260'/W
LOCATION:	Section 35, T. 23 S., R. 31 E., NMPM
COUNTY:	Eddy County, New Mexico

Potash	○ None	○ Secretary	◉ R-111-P
Cave/Karst Potential	◉ Low	○ Medium	○ High
Variance	○ None	◉ Flex Hose	○ Other
Wellhead	○ Conventional	◉ Multibowl	
Other	☐4 String Area	☐Capitan Reef	☐WIPP

All previous COAs still apply except for the following:

A. CASING

1. The minimum required fill of cement behind the **5 1/2** inch production casing is:

   - Cement to surface. Operator shall provide method of verification.

Operator is approved to perform bradenhead squeeze. Operator must run a CBL from TD of the 5 1/2" casing to surface and submit result to BLM.

MHH03212018

GENERAL REQUIREMENTS

A. CASING

1. Changes to the approved APD casing program need prior approval if the items substituted are of lesser grade or different casing size or are Non-API. The Operator can exchange the components of the proposal with that of superior strength (i.e. changing from J-55 to N-80, or from 36# to 40#). Changes to the approved cement program need prior approval if the altered cement plan has less volume or strength or if the changes are substantial (i.e. Multistage tool, ECP, etc.). The initial wellhead installed on the well will remain on the well with spools used as needed.

2. Wait on cement (WOC) for Potash Areas: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi for all cement blends, 2) until cement has been in place at least 24 hours. WOC time will be recorded in the driller's log.

3. Wait on cement (WOC) for Water Basin: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi at the shoe, 2) until cement has been in place at least 8 hours. WOC time will be recorded in the driller's log. See individual casing strings for details regarding lead cement slurry requirements.

4. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. Have well specific cement details onsite prior to pumping the cement for each casing string.

5. No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.

6. On that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Formation at the shoe shall be tested to a minimum of the mud weight equivalent anticipated to control the formation pressure to the next casing depth or at total depth of the well. This test shall be performed before drilling more than 20 feet of new hole.

7. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.

8. Whenever a casing string is cemented in the R-111-P potash area, the NMOCD requirements shall be followed.