

DATE IN 4/12/10	SUSPENSE	ENGINEER DB	LOGGED IN 4/13/10	TYPE NSL	APP NO. PWVS 1010331560
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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



6181

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 _____

[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 SLO
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

SR. Reg. Analyst
Title

4/8/10
Date

david_stewart@oky.com
e-mail Address

OKY USA Inc.
Federal 29 #9

Handwritten notes:
DHC
Federal 29-9
Pay w/2 Sec 29
T235/R31E
30-015-37697



OXY USA Inc.

PO Box 50250
Midland, TX 79710-0250

April 8, 2010

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

Attention: Richard Ezeanyim

Re: ***Application for Administrative Approval of Non-Standard Location –
Sand Dunes Delaware, West
Federal 29 #9
Surface/Penetration Point – 2030 FNL 1650 FEL Ut G
Bottom Hole – 2450 FNL 2310 FWL Ut F
Section 29 T23S R31E
Eddy County, New Mexico***

Dear Mr. Ezeanyim:

OXY USA Inc. respectfully requests administrative approval under Rule 104 (F) of this application for the subject non-standard well location on the Federal 29 #9. The #9 well is proposed in the Delaware with a TVD of 8000'. The kickoff point for the well is at approximately 4200' and the top of the Delaware formation is expected at 4035', which is above the kickoff point. The wellbore will not be orthodox at either the top of the Delaware or when it penetrates the Delaware Brushy Canyon reservoir. The non-standard location is necessary for reasons of potash surface restrictions and topography, as required by the BLM.

The #9 encroaches on the 40-acre spacing unit of F, G, J, K of 29-23S-31E. All of the interest owners have joined in the drilling of the #9 and waivers have been attached.

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

1. Application for Permit to Drill.
2. NMOCD C-102 Plat for the proposed well with offsetting well and affected spacing units.
3. List of affected offset parties that adjoin the non-standard well and the spacing unit being encroached upon, along with a copy of the certified returned receipts and signed waivers. Copies of the signed certified 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 Analyst
OXY USA Inc.

Attachments

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

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

Operator Copy

R-111-POTASH

FORM APPROVED
OMB NO. 1004-0136
Expires: November 30, 2000

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of Work <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. NMNM0545035
1b. Type of Well <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other <input checked="" type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		6. If Indian, Allottee or Tribe Name
2. Name of Operator OXY USA Inc.		7. Unit or CA Agreement Name and No.
3a. Address P.O. Box 50250 Midland, TX 79710-0250	3b. Phone No (include area code) 16696 432-685-5717	8. Lease Name and Well No. Federal 29 #9
4. Location of Well (Report location clearly and in accordance with any State requirements)* At surface 2030 FWL 1650 FEL SWNE (G) Bottom hole At proposed prod. zone 2450 FNL 2310 FWL SENW (F)		9. API Well No. 30-015-37697
14. Distance in miles and direction from nearest town or post office* 20 miles northeast from Loving, NM		10. Field and Pool, or Exploratory Sand Dunes Delaware, West
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drg. unit line, if any)		11. Sec., T., R., M., or Blk. and Survey or Area Sec 23 T23S R31E
16. No. of Acres in lease 320		12. County or Parish Eddy
17. Spacing Unit dedicated to this well 320		13. State NM
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 50'		19. Proposed Depth 8253' 8300' m 8000' V
20. BLM/BIA Bond No. on file ES0136		
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3345.9' GL		22. Approximate date work will start* 11/10
		23. Estimated duration 45

24. Attachments

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

- | | |
|---|--|
| 1. Well plat certified by a registered surveyor. | 4. Bond to cover the operations unless covered by an existing bond on file (see item 20 above). |
| 2. A Drilling Plan | 5. Operator certification. |
| 3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office). | 6. Such other site specific information and/or plans as may be required by the authorized officer. |

25. Signature 	Name (Printed/Typed) David Stewart	Date 9/2/09
Title Sr. Regulatory Analyst		
Approved by (Signature) 	Name (Printed/Typed) Linda S.C. Rundell	Date 2/5/10
Title STATE DIRECTOR	Office NM STATE OFFICE	

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

APPROVAL FOR TWO YEARS

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 Reverse)

CARLSBAD CONTROLLED WATER BASIN

SEE ATTACHED FOR
CONDITIONS OF APPROVAL

APPROVAL SUBJECT TO
GENERAL REQUIREMENTS
AND SPECIAL STIPULATION
ATTACHED

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

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 October 12, 2005
Submit to Appropriate District Office
State Lease- 4 Copies
Fee Lease- 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-015-37697	Pool Code 53815	Pool Name Sand Dunes Delaware, West
Property Code 304820	Property Name FEDERAL 29	Well Number 9
OGRID No. 16696	Operator Name OXY USA INC.	Elevation 3345.9'

Surface Location

UL or lot no. G	Section 29	Township 23 SOUTH	Range 31 EAST, N.M.P.M.	Lot Idn	Feet from the 2030'	North/South line NORTH	Feet from the 1650'	East/West line EAST	County EDDY
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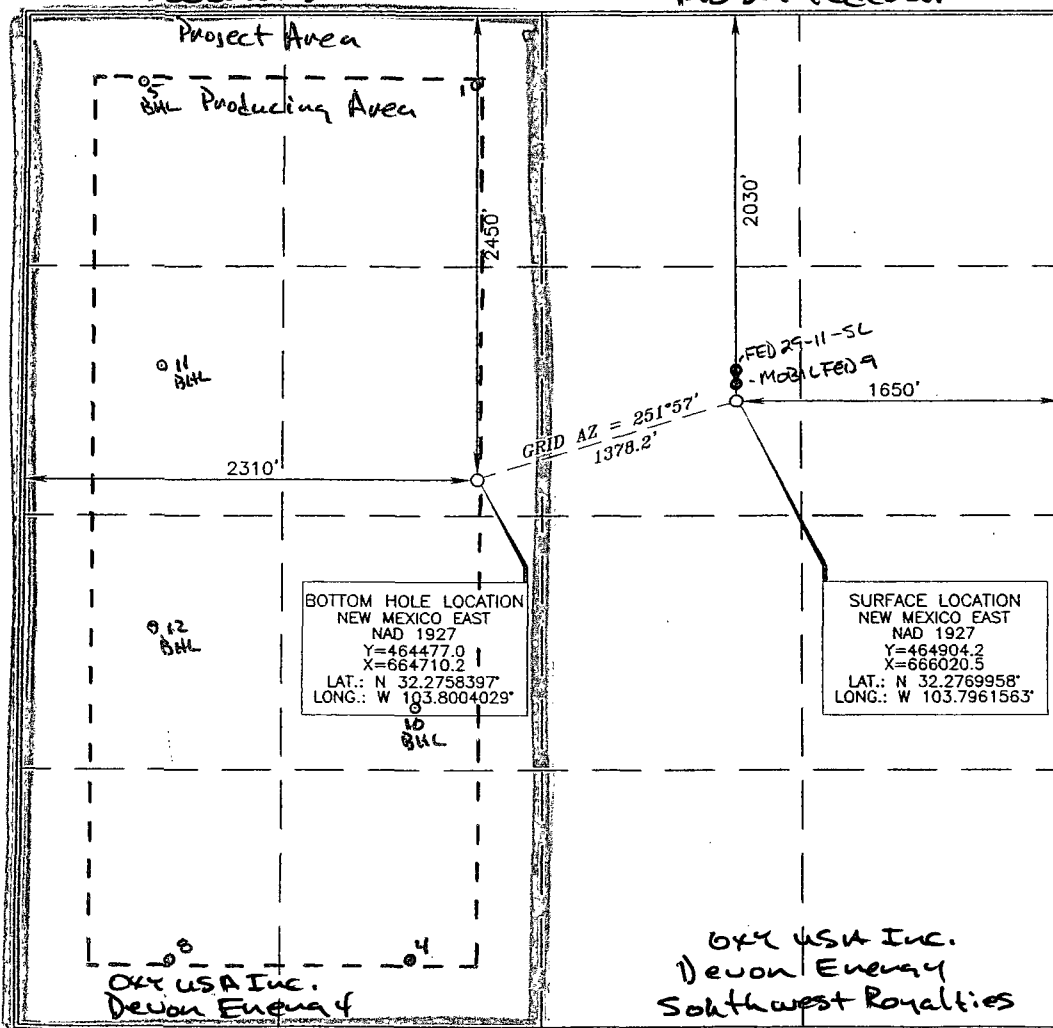
Bottom Hole Location If Different From Surface

UL or lot no. F	Section 29	Township 23 SOUTH	Range 31 EAST, N.M.P.M.	Lot Idn	Feet from the 2450'	North/South line NORTH	Feet from the 2310'	East/West line WEST	County EDDY
Dedicated Acres 320	Joint or Infill Y	Consolidation Code	Order No.						

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.

Federal 29

Mobil Federal



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.

David Stewart 9/3/09
Signature Date

David Stewart
Printed Name

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
APRIL 29, 2009
Date of Survey

Terry G. Asel
Signature and Seal
Professional Surveyor

Terry G. Asel 8/31/2009
Certificate Number 15079

**Service List – NSL
OXY USA Inc.
Federal 29 #9
Sec 29 T23S R31E**

United States Dept of Interior
Bureau of Land Management
620 E. Greene Street
Carlsbad, NM 88220-6292

New Mexico Oil Conservation Division
1301 W. Grand Ave.
Artesia, NM 88210

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

Affected Offset Parties:

Devon Energy Production Co., LP
Attn: Mr. Ken Gray
20 N. Broadway
Oklahoma City, OK 73102

Southwest Royalties Inc.
Attn: Mr. Randy Howard
6 Desta Drive, Suite 2100
Midland, TX 79705



OXY USA Inc.

PO Box 50250
Midland, TX 79710-0250

April 8, 2010

CERTIFIED MAIL – RETURN RECEIPT REQUESTED

Devon Energy Production Co., LP
Attn: Ken Gray
20 N. Broadway
Oklahoma City, OK 73102

Re: *Application for Administrative Approval of Non-Standard Location –
Sand Dunes Delaware, West
Federal 29 #9
Surface/Penetration Point – 2030 FNL 1650 FEL Ut G
Bottom Hole – 2450 FNL 2310 FWL Ut F
Section 29 T23S 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 under Rule 104 (F) of an unorthodox well location. As an affected party, notice is being provided to you pursuant to Rule 104 (F). The well is located in the SWNE/4 of Section 29 T23S R31E, Eddy County, NM. 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: Richard Ezeanyim).

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

Sincerely,

A handwritten signature in black ink, appearing to read "David Stewart".

David Stewart
Sr. Regulatory Analyst
OXY USA Inc.

Attachments



OXY USA Inc.

A subsidiary of Occidental Petroleum Corporation

5 Greenway Plaza, Suite 110, Houston, Texas 77046-0521
P.O. Box 27570, Houston, Texas 77227-7570
Phone 713.215.7000

February 24, 2010

Ken Gray
Devon Energy Production Company, LP
20 North Broadway
Oklahoma City, OK 73102

RE: **Federal 29 #9 Well**
Surface Location 2,030' FNL & 1,650' FEL (SWNE)
Bottom Hole Location 2,450' FNL & 2,310' FWL (SENE)
Section 29-23S-31E
Eddy County, New Mexico

Gentlemen:

The surface location for the Federal 29 #9 well is located 2,030' FNL & 1,650' FEL in the SW/4 NE/4 and the bottom hole location is 2,450' FNL & 2,310' FWL in the SE/4 NW/4 of Section 29-23S-31E, Eddy County, NM. This location is an unorthodox location for the objective Delaware formation.

OXY is filing an application with the New Mexico Oil Conservation Division (OCD) for administrative approval of this non-standard location (NSL). The owners of the Mobil Federal lease covering the E/2 of Section 29-23S-31E are the only affected parties entitled to notice. Your execution of this waiver will facilitate administrative approval of OXY's NSL application. OXY requests that you waive any protest or objection to the NSL for the referenced well.

Your favorable consideration and early reply will be appreciated. Please return a signed copy of this waiver letter to me at the address shown above.

Very truly yours,

OXY USA Inc.

Donna G Havins
Land Negotiator
Dir: (713) 215-7232
Cell: (713) 202-7559
Fax: (713) 985-1818
email: donna_havins@oxy.com

Devon Energy Production Company, LP hereby waives any protest or objection to the non-standard location of the Federal 29 #9 well.

Devon Energy Production Company, LP

By _____

Dated 3/2/10



OXY USA Inc.

PO Box 50250
Midland, TX 79710-0250

April 8, 2010

CERTIFIED MAIL – RETURN RECEIPT REQUESTED

Southwest Royalties Inc.
Attn: Mr. Randy Howard
6 Desta Drive, Suite 2100
Midland, TX 79705

Re: *Application for Administrative Approval of Non-Standard Location –
Sand Dunes Delaware, West
Federal 29 #~~1~~ 9
Surface/Penetration Point – 2030 FNL 1650 FEL Ut G
Bottom Hole – 2450 FNL 2310 FWL Ut F
Section 29 T23S R31E
Eddy County, New Mexico*

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David Stewart
Sr. Regulatory Analyst
OXY USA Inc.

Attachments



OXY USA Inc.

A subsidiary of Occidental Petroleum Corporation

5 Greenway Plaza, Suite 110, Houston, Texas 77046-0521
P.O. Box 27570, Houston, Texas 77227-7570
Phone 713.215.7000

February 24, 2010

Randy Howard
Southwest Royalties Inc.
#6 Desta Drive, Suite 2100
Midland, TX 79705

RE: **Federal 29 #9 Well**
Surface Location 2,030' FNL & 1,650' FEL (SWNE)
Bottom Hole Location 2,450' FNL & 2,310' FWL (SENE)
Section 29-23S-31E
Eddy County, New Mexico

Gentlemen:

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Very truly yours,

OXY USA Inc.

Donna G Havins
Land Negotiator
Dir: (713) 215-7232
Cell: (713) 202-7559
Fax: (713) 985-1818
email: donna_havins@oxy.com

Southwest Royalties Inc hereby waives any protest or objection to the non-standard location of the Federal 29 #9 well.

Southwest Royalties Inc.

By

Dated

2/24/10



Azimuths to Grid North
True North: -0.29°
Magnetic North: 7.61°

Magnetic Field
Strength: 48832.1snT
Dip Angle: 60.26°
Date: 2009/08/28
Model: IGRF200510



Project: Eddy County, NM
Site: Sand Dune Fed 29 #11
Well: Well #9
Wellbore: OH
Plan: Plan #1 (Well #9/OH)

WELL DETAILS: Well #9

Ground Elevation: 3345.90
RKB Elevation: RKB to MSL @ 3362.40ft
Rig Name:

TVD	CASING DETAILS MD	Name	Size
4000.00	4000.00	8 5/8"	8-5/8

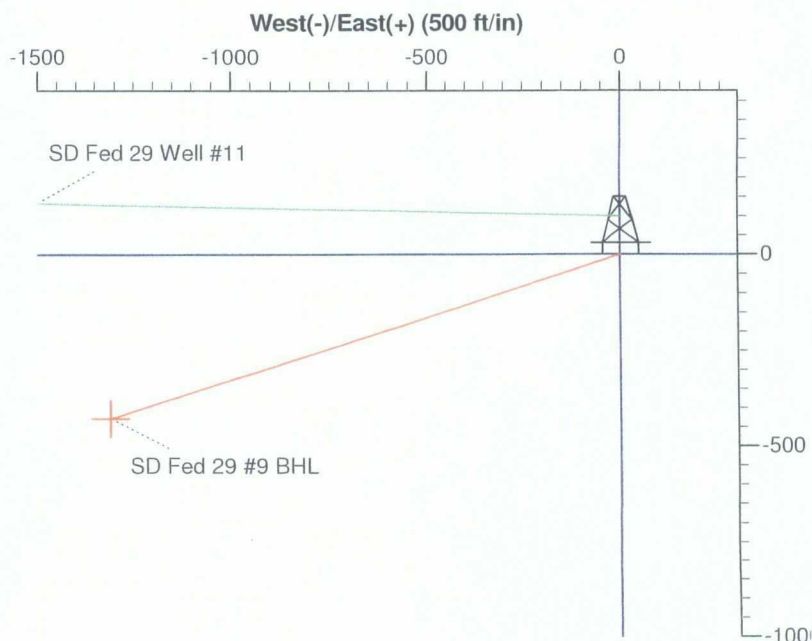
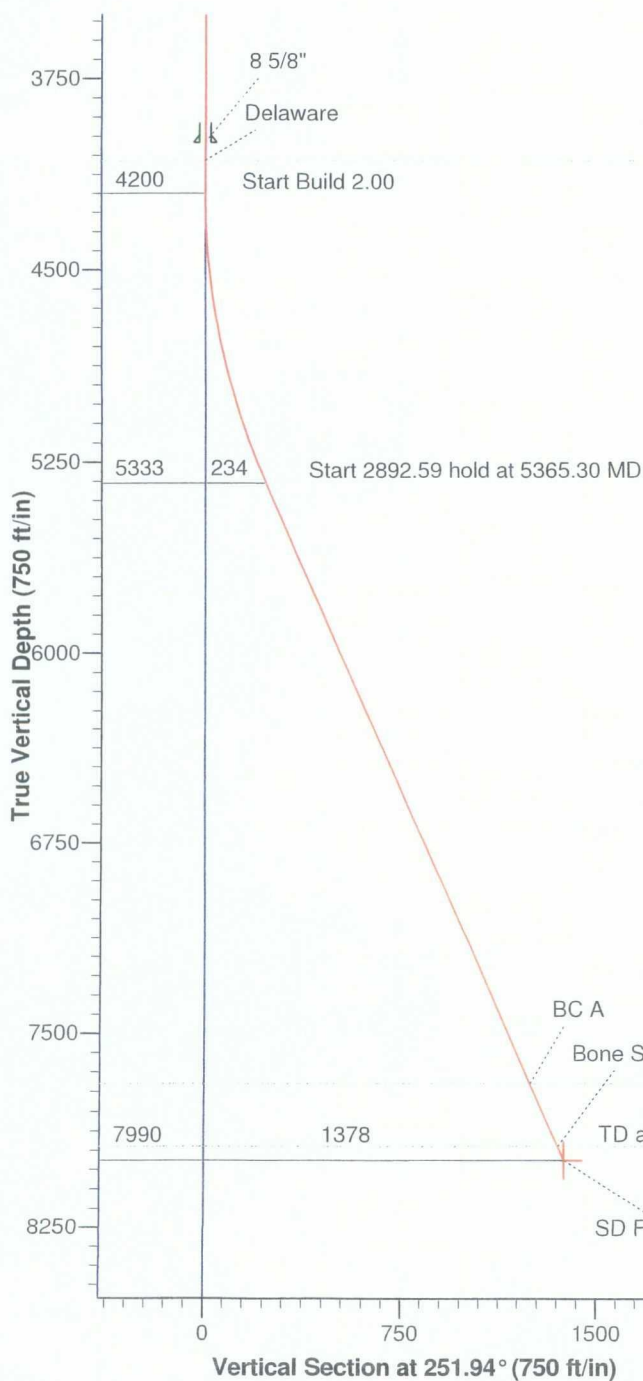
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Sk
0.00	0.00	464904.20	666020.50	32° 16' 37.18527 N	103° 47' 46.16306 W	

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	4200.00	0.00	0.00	4200.00	0.00	0.00	0.00	0.00	0.00	
3	5365.30	23.31	251.94	5333.43	-72.46	-222.24	2.00	251.94	233.75	
4	8257.89	23.31	251.94	7990.00	-427.20	-1310.30	0.00	0.00	1378.18	SD Fed 29 #9 BHL

WELLBORE TARGET DETAILS (MAP CO-ORDINATES)

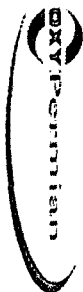
Name	TVD	+N/-S	+E/-W	Northing	Easting	Shape Point
SD Fed 29 #9 BHL	7990.00	-427.20	-1310.30	464477.00	664710.20	



FORMATION TOP DETAILS

TVDPath	MDPath	Formation
4071.00	4071.00	Delaware
7695.00	7936.68	BC A
7935.00	8198.00	Bone Springs

PROJECT DETAILS: Eddy County, NM
Geodetic System: US State Plane 1927 (Exact sol)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: New Mexico East 3001
System Datum: Mean Sea Level
Local North: Grid



Company:	OXY Permian	Local Co-ordinate Reference:	Well Well #9
Project:	Eddy County, NM	TVD Reference:	RKB to MSL @ 3362.40ft
Site:	Sand Dune Fed 29 #11	MD Reference:	RKB to MSL @ 3362.40ft
Well:	Well #9	North Reference:	Grid
Wellbore:	OH	Survey/Calculation Method:	Minimum Curvature
Design:	Plan #1	Database:	Landmark Network DB

Project:	Eddy County, NM	System Datum:	Mean Sea Level
Map System:	US State Plane 1927 (Exact solution)		
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico East 3001		

Site:	Sand Dune Fed 29 #11		
Site Position:		Northing:	465,004.10 ft
From:	Map	Easting:	666,020.00 ft
Position Uncertainty:	0.00 ft	Slot Radius:	"
		Latitude:	32° 16' 38.17389 N
		Longitude:	103° 47' 46.16305 W
		Grid Convergence:	0.29 °

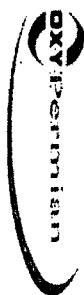
Well:	Well #9		
Well Position	+N-S 0.00 ft	Northing:	464,904.20 ft
	+E-W 0.00 ft	Easting:	666,020.50 ft
Position Uncertainty	0.00 ft	Wellhead Elevation:	ft
		Latitude:	32° 16' 37.18527 N
		Longitude:	103° 47' 46.16306 W
		Ground Level:	3,345.90 ft

Wellbore:	OH		
-----------	----	--	--

Magnetics:	Model Name	Sample Date	Declination	Dip Angle	Field Strength
	IGRF200510	2009/08/28	(°)	(°)	(nT)
			7.90	60.26	48,832

Design:	Plan #1			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	
			0.00	
Vertical Section:	Depth From (TVD)	+N-S	+E-W	Direction
	(ft)	(ft)	(ft)	(°)
	0.00	0.00	0.00	251.94

Survey/Tool Program:	Date	2009/08/28	
From	To	Survey (Wellbore)	Tool Name
(ft)	(ft)		
0.00	8,257.89	Plan #1 (OH)	MWD
			MWD - Standard



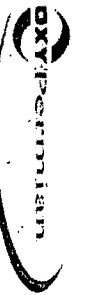
PathFinder Energy Services
Global X&Y Report



Company	OXY Permian	Local Co-ordinate Reference	Well Well #9
Project	Eddy County, NM	TVD Reference	RKB to MSL @ 3362.40ft
Site	Sand Dune Fed 29	MD Reference	RKB to MSL @ 3362.40ft
Well	Well #9	North Reference	Grid
Wellbore	OH	Survey Calculation Method	Minimum Curvature
Design	Plan #1	Database	Landmark Network DB

Planned Survey

MD (ft)	Inc (°)	Azi (°)	TVD (ft)	TVDSS (ft)	V. Sec (ft)	Northing (ft)	Easting (ft)	Dleg (°/100ft)
4,000.00	0.00	0.00	4,000.00	-637.60	0.00	464,904.20	666,020.50	0.00
4,071.00	0.00	0.00	4,071.00	-708.60	0.00	464,904.20	666,020.50	0.00
Delaware								
4,100.00	0.00	0.00	4,100.00	-737.60	0.00	464,904.20	666,020.50	0.00
4,200.00	0.00	0.00	4,200.00	-837.60	0.00	464,904.20	666,020.50	0.00
4,300.00	2.00	251.94	4,299.98	-937.58	1.75	464,903.66	666,018.84	2.00
4,400.00	4.00	251.94	4,399.84	-1,037.44	6.98	464,902.04	666,013.87	2.00
4,500.00	6.00	251.94	4,499.45	-1,137.05	15.69	464,899.34	666,005.58	2.00
4,600.00	8.00	251.94	4,598.70	-1,236.30	27.88	464,895.56	665,993.99	2.00
4,700.00	10.00	251.94	4,697.47	-1,335.07	43.52	464,890.71	665,979.12	2.00
4,800.00	12.00	251.94	4,795.62	-1,433.22	62.60	464,884.79	665,960.98	2.00
4,900.00	14.00	251.94	4,893.06	-1,530.66	85.10	464,877.82	665,939.59	2.00
5,000.00	16.00	251.94	4,989.64	-1,627.24	110.98	464,869.80	665,914.99	2.00
5,100.00	18.00	251.94	5,085.27	-1,722.87	140.21	464,860.74	665,887.19	2.00
5,200.00	20.00	251.94	5,179.82	-1,817.42	172.77	464,850.65	665,856.24	2.00
5,300.00	22.00	251.94	5,273.17	-1,910.77	208.60	464,839.54	665,822.17	2.00
5,365.30	23.31	251.94	5,333.43	-1,971.03	233.75	464,831.74	665,798.26	2.00
5,400.00	23.31	251.94	5,365.30	-2,002.90	247.48	464,827.49	665,785.21	0.00
5,500.00	23.31	251.94	5,457.14	-2,094.74	287.05	464,815.22	665,747.59	0.00
5,600.00	23.31	251.94	5,548.98	-2,186.58	326.61	464,802.96	665,709.98	0.00
5,700.00	23.31	251.94	5,640.82	-2,278.42	366.17	464,790.70	665,672.36	0.00
5,800.00	23.31	251.94	5,732.66	-2,370.26	405.74	464,778.43	665,634.75	0.00
5,900.00	23.31	251.94	5,824.50	-2,462.10	445.30	464,766.17	665,597.13	0.00
6,000.00	23.31	251.94	5,916.34	-2,553.94	484.87	464,753.90	665,559.52	0.00
6,100.00	23.31	251.94	6,008.18	-2,645.78	524.43	464,741.64	665,521.90	0.00
6,200.00	23.31	251.94	6,100.02	-2,737.62	563.99	464,729.38	665,484.28	0.00
6,300.00	23.31	251.94	6,191.86	-2,829.46	603.56	464,717.11	665,446.67	0.00



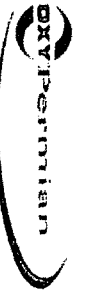
PathFinder Energy Services

Global X&Y Report



Company:	OXY Permian	Local Co-ordinate Reference:	Well Well #9
Project:	Eddy County, NM	TVD Reference	RKB to MSL @ 3362.40ft
Site:	Sand Dune Fed 29	MD Reference	RKB to MSL @ 3362.40ft
Well:	Well #9	North Reference	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Plan #1	Database:	Landmark Network DB

Planned Survey									
MD (ft)	Inc (°)	Azi (°)	TVD (ft)	TVDSS (ft)	V. Sec (ft)	Northing (ft)	Easting (ft)	DLeg (ft/100ft)	
6,400.00	23.31	251.94	6,283.70	-2,921.30	643.12	464,704.85	665,409.05	0.00	
6,500.00	23.31	251.94	6,375.54	-3,013.14	682.69	464,692.58	665,371.44	0.00	
6,600.00	23.31	251.94	6,467.38	-3,104.98	722.25	464,680.32	665,333.82	0.00	
6,700.00	23.31	251.94	6,559.22	-3,196.82	761.82	464,668.06	665,296.21	0.00	
6,800.00	23.31	251.94	6,651.07	-3,288.67	801.38	464,655.79	665,258.59	0.00	
6,900.00	23.31	251.94	6,742.91	-3,380.51	840.94	464,643.53	665,220.98	0.00	
7,000.00	23.31	251.94	6,834.75	-3,472.35	880.51	464,631.27	665,183.36	0.00	
7,100.00	23.31	251.94	6,926.59	-3,564.19	920.07	464,619.00	665,145.75	0.00	
7,200.00	23.31	251.94	7,018.43	-3,656.03	959.64	464,606.74	665,108.13	0.00	
7,300.00	23.31	251.94	7,110.27	-3,747.87	999.20	464,594.47	665,070.51	0.00	
7,400.00	23.31	251.94	7,202.11	-3,839.71	1,038.76	464,582.21	665,032.90	0.00	
7,500.00	23.31	251.94	7,293.95	-3,931.55	1,078.33	464,569.95	664,995.28	0.00	
7,600.00	23.31	251.94	7,385.79	-4,023.39	1,117.89	464,557.68	664,957.67	0.00	
7,700.00	23.31	251.94	7,477.63	-4,115.23	1,157.46	464,545.42	664,920.05	0.00	
7,800.00	23.31	251.94	7,569.47	-4,207.07	1,197.02	464,533.16	664,882.44	0.00	
7,900.00	23.31	251.94	7,661.31	-4,298.91	1,236.59	464,520.89	664,844.82	0.00	
7,936.68	23.31	251.94	7,695.00	-4,332.60	1,251.10	464,516.39	664,831.02	0.00	
BCA									
8,000.00	23.31	251.94	7,753.15	-4,390.75	1,276.15	464,508.63	664,807.21	0.00	
8,100.00	23.31	251.94	7,844.99	-4,482.59	1,315.71	464,496.36	664,769.59	0.00	
8,198.00	23.31	251.94	7,935.00	-4,572.60	1,354.49	464,484.34	664,732.73	0.00	
Bone Springs									
8,200.00	23.31	251.94	7,936.83	-4,574.43	1,355.28	464,484.10	664,731.98	0.00	
8,257.89	23.31	251.94	7,990.00	-4,627.60	1,378.18	464,477.00	664,710.20	0.00	
SD Fed 29 #9 BHL									



PathFinder Energy Services
Global X&Y Report



Company:	OXY Perminian	Local Co-ordinate Reference:	Well Well #9
Project:	Eddy County, NM	TVD Reference:	RKB to MSL @ 3362.40ft
Site:	Sand Dune Fed 29	MD Reference:	RKB to MSL @ 3362.40ft
Well:	Well #9	North Reference:	Grid
Wellbore:	OH	Survey/Calculation Method:	Minimum Curvature
Design:	Plan #1	Database:	Landmark Network DB

Targets						
Target Name	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing
Shape	(°)	(°)	(ft)	(ft)	(ft)	(ft)
SD Fed 29 #9 BHL	0.00	0.00	7,990.00	-427.20	-1,310.30	464,477.00
- plan hits target center						664,710.20
- Point						32° 16' 33.02242 N 103° 48' 1.44982 W

Casing Points				
Measured Depth	Vertical Depth		Casing Diameter	Hole Diameter
(ft)	(ft)		(")	(")
4,000.00	4,000.00	8 5/8"	8-5/8	12-1/4

Formations				
Measured Depth	Vertical Depth	Name	Lithology	Dip
(ft)	(ft)			(°)
4,071.00	4,071.00	Delaware		0.00
8,198.00	7,935.00	Bone Springs		0.00
7,936.68	7,695.00	BC A		0.00

Checked By: _____	Approved By: _____	Date: _____
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SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

BLM
620 E. Greene St.
Carlsbad NM
88220

2. Article Number

(Transfer from service label)

7005 0390 0002 9920 7610

PS Form 3811, February 2004

Domestic Return Receipt

102595-02-M-1540

COMPLETE THIS SECTION ON DELIVERY

A. Signature

X

☐ Agent☐ Addressee

B. Received by (Printed Name)

C. Date of Delivery

D. Is delivery address different from item 1? ☐ YesIf YES, enter delivery address below: ☐ No

3. Service Type

☒ Certified Mail☐ Express Mail☐ Registered☐ Return Receipt for Merchandise☐ Insured Mail☐ C.O.D.

4. Restricted Delivery? (Extra Fee)

☐ Yes

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

NMOCO
1301 W. Grand Ave.
Artesia NM
88210

2. Article Number

(Transfer from service label)

7005 0390 0002 9920 7627

PS Form 3811, February 2004

Domestic Return Receipt

102595-02-M-1540

COMPLETE THIS SECTION ON DELIVERY

A. Signature

X

☐ Agent☐ Addressee

B. Received by (Printed Name)

C. Date of Delivery

D. Is delivery address different from item 1? ☐ YesIf YES, enter delivery address below: ☐ No

3. Service Type

☒ Certified Mail☐ Express Mail☐ Registered☐ Return Receipt for Merchandise☐ Insured Mail☐ C.O.D.

4. Restricted Delivery? (Extra Fee)

☐ Yes

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

NMOCO
1220 S. St. Francis Dr.
Santa Fe NM
87505

2. Article Number

(Transfer from service label)

7005 0390 0002 9920 7634

PS Form 3811, February 2004

Domestic Return Receipt

102595-02-M-1540

COMPLETE THIS SECTION ON DELIVERY

A. Signature

X

☐ Agent☐ Addressee

B. Received by (Printed Name)

C. Date of Delivery

D. Is delivery address different from item 1? ☐ YesIf YES, enter delivery address below: ☐ No

3. Service Type

☒ Certified Mail☐ Express Mail☐ Registered☐ Return Receipt for Merchandise☐ Insured Mail☐ C.O.D.

4. Restricted Delivery? (Extra Fee)

☐ Yes

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Devon Energy Prod Co.
Attn: Ken Gray
20 N. Broadway
Oklahoma City, OK
73102

2. Article Number

(Transfer from service label)

7005 0390 0002 9920 7641

PS Form 3811, February 2004

Domestic Return Receipt

102595-02-M-1540

A. Signature

X

☐ Agent☐ Addressee

B. Received by (Printed Name)

C. Date of Delivery

D. Is delivery address different from item 1? ☐ YesIf YES, enter delivery address below: ☐ No

3. Service Type

☒ Certified Mail☐ Express Mail☐ Registered☐ Return Receipt for Merchandise☐ Insured Mail☐ C.O.D.

4. Restricted Delivery? (Extra Fee)

☐ Yes

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Southwest Royalties Inc.
Attn: Randy Howard
6 Destia Dr. Ste. 2100
Midland TX 79705

2. Article Number

(Transfer from service label)

7005 0390 0002 9920 7658

COMPLETE THIS SECTION ON DELIVERY

A. Signature

X

☐ Agent☐ Addressee

B. Received by (Printed Name)

C. Date of Delivery

D. Is delivery address different from item 1? ☐ YesIf YES, enter delivery address below: ☐ No

3. Service Type

☒ Certified Mail☐ Express Mail☐ Registered☐ Return Receipt for Merchandise☐ Insured Mail☐ C.O.D.

4. Restricted Delivery? (Extra Fee)

☐ Yes