

RECEIVED: <u>5-26-2017</u>	REVIEWER: <u>MAM</u>	TYPE: <u>CTB</u>	APP NO: <u>PKSC1715037985</u>
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ABOVE THIS TABLE FOR OCD DIVISION USE ONLY

**NEW MEXICO OIL CONSERVATION DIVISION**  
 - Geological & Engineering Bureau -  
 1220 South St. Francis Drive, Santa Fe, NM 87505



**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

**Applicant:** Devon Energy Production Co., LP **OGRID Number:** 6137  
**Well Name:** Aldabra 25 Fed 1H, 2H, 3H, 6H, & 7H **API:** \_\_\_\_\_  
**Pool:** Sand Dunes; Bone Spring, South **Pool Code:** 53805

*CTB-823*

**SUBMIT ACCURATE AND COMPLETE INFORMATION REQUIRED TO PROCESS THE TYPE OF APPLICATION INDICATED BELOW**

**1) TYPE OF APPLICATION:** Check those which apply for [A]

A. Location – Spacing Unit – Simultaneous Dedication

☐ NSL

☐ NSP (PROJECT AREA)

☐ NSP (PRORATION UNIT)

☐ SD

B. Check one only for [I] or [II]

[I] Commingling – Storage – Measurement

☐ DHC

☒ CTB

☒ PLC

☐ PC

☐ OLS

☐ OLM

[II] Injection – Disposal – Pressure Increase – Enhanced Oil Recovery

☐ WFX

☐ PMX

☐ SWD

☐ IPI

☐ EOR

☐ PPR

*Devon Energy Production Company, L.P. (6137)  
 Aldabra 25 Fed. Com #1H  
 30-015-38612  
 Sand Dunes; Bone Springs, South (53805)*

**2) NOTIFICATION REQUIRED TO:** Check those which apply.

A. ☐ Offset operators or lease holders

B. ☒ Royalty, overriding royalty owners, revenue owners

C. ☐ Application requires published notice

D. ☐ Notification and/or concurrent approval by SLO

E. ☒ Notification and/or concurrent approval by BLM

F. ☐ Surface owner

G. ☐ For all of the above, proof of notification or publication is attached, and/or,

H. ☐ No notice required

**FOR OCD ONLY**

☐ Notice Complete

☐ Application Content Complete

**3) 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.**

**05/25/17**

**Erin Workman**

Print or Type Name

Signature

*Erin Workman*

Date

**(405) 552-7970**

Phone Number

**Erin.workman@dv.com**

e-mail Address



Devon Energy Corporation  
333 West Sheridan Avenue  
Oklahoma City, OK 73102-5010

405 552-7970 Phone  
Erin.workman@devon.com

May 25, 2017

RECEIVED OCD

2017 MAY 26 P 3:07

Mr. Michael McMillan  
State of New Mexico  
Oil Conservation Division  
1220 S. St. Francis Drive  
Santa Fe, New Mexico 87505

Re: Central Tank Battery  
Aldabra 25 Fed 3H, 6H, 7H, Aldabra 25 Fed Com 1H, & 2H  
API: 30-015-38612, 30-015-38613, 30-015-38614, 30-015-38602, & 30-015-38603  
Pool: (53805) Sand Dunes; Bone Spring, South  
Lease: NMNM0544986, NMNM405444A, & NMNM135070  
County: Eddy Co., NM

Dear Mr. McMillan:

Please find attached the OCD Form C-107B application for a Central Tank Battery for the aforementioned wells.

A copy of the Approved Bureau of Land Management Application is attached.

The working interest, royalty interest and overriding royalty interest owners are not identical; notification has been sent via certified mail (see attached).

Subsequently drilled wells that produce from the subject pools within the project areas approved by this order may be added to this commingling authority by submittal of a Sundry Notice to the Engineering Bureau in Santa Fe.

Should you have any questions or need further assistance, please do not hesitate to contact me at (405) 552-7970.

Sincerely,

Erin Workman  
Regulatory Compliance Professional

Enclosures

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

State of New Mexico  
Energy, Minerals and Natural Resources Department

Form C-107-B  
Revised June 10, 2003

**OIL CONSERVATION DIVISION**

1220 S. St Francis Drive  
Santa Fe, New Mexico 87505

Submit the original  
application to the Santa Fe  
office with one copy to the  
appropriate District Office.

**APPLICATION FOR SURFACE COMMINGLING (DIVERSE OWNERSHIP)**

OPERATOR NAME: Devon Energy Production Co., LP

OPERATOR ADDRESS: 333 W Sheridan Avenue, Oklahoma City, OK 73102

APPLICATION TYPE:

☐ Pool Commingling ☒ Lease Commingling ☐ Pool and Lease Commingling ☐ Off-Lease Storage and Measurement (Only if not Surface Commingling)

LEASE TYPE: ☐ Fee ☐ State ☒ Federal

Is this an Amendment to existing Order? ☐ Yes ☒ No If "Yes", please include the appropriate Order No. \_\_\_\_\_  
Have the Bureau of Land Management (BLM) and State Land office (SLO) been notified in writing of the proposed commingling  
☒ Yes ☐ No

**(A) POOL COMMINGLING**

Please attach sheets with the following information

(1) Pool Names and Codes	Gravities / BTU of Non-Commingled Production	Calculated Gravities / BTU of Commingled Production		Calculated Value of Commingled Production	Volumes

- (2) Are any wells producing at top allowables? ☐ Yes ☐ No  
(3) Has all interest owners been notified by certified mail of the proposed commingling? ☐ Yes ☐ No.  
(4) Measurement type: ☐ Metering ☐ Other (Coriolis Test Method)  
(5) Will commingling decrease the value of production? ☐ Yes ☐ No If "yes", describe why commingling should be approved.

**(B) LEASE COMMINGLING**

Please attach sheets with the following information

- (1) Pool Name and Code.  
(2) Is all production from same source of supply? ☒ Yes ☐ No  
(3) Has all interest owners been notified by certified mail of the proposed commingling? ☒ Yes ☐ No  
(4) Measurement type: ☒ Metering ☒ Other (Well Test Method & Coriolis Test )

**(C) POOL and LEASE COMMINGLING**

Please attach sheets with the following information

- (1) Complete Sections A and E.

**(D) OFF-LEASE STORAGE and MEASUREMENT**

Please attached sheets with the following information

- (1) Is all production from same source of supply? ☒ Yes ☐ No  
(2) Include proof of notice to all interest owners.

**(E) ADDITIONAL INFORMATION (for all application types)**

Please attach sheets with the following information

- (1) A schematic diagram of facility, including legal location.  
(2) A plat with lease boundaries showing all well and facility locations. Include lease numbers if Federal or State lands are involved.  
(3) Lease Names, Lease and Well Numbers, and API Numbers.

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE: Erin Workman TITLE: Regulatory Compliance Prof. DATE 05/25/2017

TYPE OR PRINT NAME: Erin Workman TELEPHONE NUMBER: 405-552-7970

E-MAIL ADDRESS: Erin.workman@dvn.com

# APPLICATION FOR COMMINGLING AT A CENTRAL TANK BATTERY\OFF LEASE MEASUREMENT SALES, & STORAGE

## Proposal for Aldabra 25 Federal 1H, 2H, 3H, 6H, & 7H

Devon Energy Production Company, LP is requesting approval for a Central Tank Battery\Off-Lease measurement, sales, and storage for the following wells:

Federal Lease NMNM 0544986 (12.5%)					Oil		
Well Name	Location	API #	Pool 53805	BOPD	Gravities	MCFPD	BTU
Aldabra 25 Fed 3H	SESW, Sec 25, T23S, R31E	30-015-38614	Sand Dunes; Bone Spring, South	220	45	820	1195.4

Federal Lease NMNM 0544986(12.5%)					Oil		
Well Name	Location	API #	Pool 53805	BOPD	Gravities	MCFPD	BTU
Aldabra 25 Fed 6H	SESE, Sec 25, T23S, R31E	30-015-38602	Sand Dunes; Bone Spring: South	25	44	180	1180.9
Aldabra 25 Fed 7H	SESW, Sec 25, T23S, R31E	30-015-38603	Sand Dunes; Bone Spring: South	11	44	45	1187.6

Federal Lease NMNM 0544986 & NMNM0405444A CA NMNM103507 (12.5%)					Oil		
Well Name	Location	API #	Pool 53805	BOPD	Gravities	MCFPD	BTU
Aldabra 25 Fed Com 1H	SWSW, Sec 25, T23S, R31E	30-015-38612	Sand Dunes; Bone Spring: South	178	43.4	755	1291
Aldabra 25 Fed Com 2H	SWSW, Sec 25, T23S, R31E	30-015-38613	Sand Dunes; Bone Spring: South	103	43.4	439	1291

Attached is a map that displays the federal leases and well locations in Section 25-T23S-R31E.

The BLM's interest in all five wells is 12.5%

### Oil & Gas metering:

The central tank battery is located on the shared pad of the Aldabra 25 Fed 6H & 7H in Sec. 25-SWSW-T23S-R31E, Eddy County, New Mexico. The Aldabra 25 Fed 6H & 7H will flow into a common header. Both wells will be routed to a 2 phase separator with gas allocation meter to meter the gas and produced fluids will route to a Heater Treater with a turbine meter to meter oil and a flow meter to meter water. Both the Aldabra 25 Fed 6H and 7H will be shut-in once a month for a minimum of 24 hours on alternate days to meter the oil, gas, and water of each well. The Aldabra 25 Fed 1H, 2H, & 3H production will flow through each of their own three phase separator with Coriolis to meter the oil, flow meter to meter the water, and gas allocation meter to meter the gas. VRU will be allocated back to each well utilizing a percentage of each wells monthly oil production.

The Aldabra 25 Fed 6H & 7H have been on production for over a year and are in Range 3 of decline. These wells can be reasonably expected to have a decline rate of less than 5 percent, as specified in Hearing Order R-14299. Therefore, wells will be tested monthly for a minimum of 24 hours.

The Aldabra 25 Fed 6H & 7H battery will have four oil tanks that all five wells will utilize. The Aldabra 25 Fed 1H, 2H, & 3H have a common gas sales meter DCP CDP #728891-00 located northwest corner in Section 25, T23S, R31E. The Aldabra 25 Fed 6H & 7H will share a common gas sales meter SUG CDP #57447 located SWNW in Section 16, T23S, R31E. All five wells will share a common LACT Smith Meter TT563020HP002F.

The Aldabra 25 Fed 1H well will have its own three phase test separator, where after separation gas is routed to the gas test meter #390-49-281, then to the DCP CPD #728891-00 located northwest corner in Sec. 25-T23S-R31E. Produced water and oil are separated, the oil is then metered with a Micro Motion Coriolis Meter #14405881, flows into an oil production line where it is combined with the Aldabra 25 Fed 2H & 3H oil and then flows into the Production heater/treater, and into one of the 500 bbl. oil tanks. The water is metered using a mag meter #0392319, combines with water from the Aldabra 25 Fed 2H & 3H, flows into the FWKO, is metered with a turbine meter, then dumps and combines with produced water from the production and test heater/treater, then routed to either one of the 500 bbl. produced water tanks.

The Aldabra 25 Fed 2H well will have its own three phase test separator, where after separation gas is routed to the gas test meter #390-49-282, then to the DCP CPD #728891-00 on location on the west side of the facility in Sec. 25-T23S-R31E. Produced water and oil are separated, the oil is then metered with a Micro Motion Coriolis Meter #14405873, flows into an oil production line

where it is combined with the Aldabra 25 Fed 1H & 3H oil and then flows into the Production heater/treater, and into one of the 500 bbl. oil tanks. The water is metered using a mag meter #0392319, combines with water from the Aldabra 25 Fed 1H & 3H, flows into the FWKO, is metered with a turbine meter, then dumps and combines with produced water from the production and test heater/treater, then routed to either one of the 500 bbl. produced water tanks.

The Aldabra 25 Fed 3H well will have its own three phase test separator, where after separation gas is routed to the gas test meter # #390-49-283, then to the DCP CPD #728891-00 on location on the west side of the facility in Sec. 25-T23S-R31E. Produced water and oil are separated, the oil is then metered with a Micro Motion Coriolis Meter #14405890, flows into an oil production line where it is combined with the Aldabra 25 Fed 1H & 2H oil and then flows into the Production heater/treater, and into one of the 500 bbl. oil tanks. The water is metered using a mag meter #0392319, combines with water from the Aldabra 25 Fed 1H & 2H, flows into the FWKO, is metered with a turbine meter, then dumps and combines with produced water from the production and test heater/treater, then routed to either one of the 500 bbl. produced water tanks.

The Aldabra 25 Fed 6H & 7H, under normal operation flows into a common header, then both wells' produced fluid is routed to the test 2 phase vessel. Gas from the 2 phase is routed to the gas allocation meter # 390-49-131, then flows to the SUG CPD #57447 due to CO2 in the 6H & 7H gas. Produced water and oil are routed to the Test Heater Treater Separator. Produced water and oil are separated, the oil is then metered with a Turbine Meter #365360, then flows into an oil production line where it is combined with the other wells oil, and then to the 500 bbl oil tank. The water is metered using a turbine meter, then flows to the 500 bbl. produced water tank, along with the water from the other wells. Once a month for a period of no less than 24 hours the Aldabra 25-6 is shut-in while the Aldabra 25-7 remains in production. Also, once a month for a period of no less than 24 hours the Aldabra 25-7 is shut-in while the Aldabra 25-6 remains in production. Each well's 24 hour test is then used to allocate that months produced volumes.

Oil production from the Aldabra 25 Fed 1H, 2H, & 3H will be allocated on a daily basis based on the Coriolis Test meter located downstream of the three phase separator. Oil production from the Aldabra 25 Fed 6H & 7H will be allocated on a monthly basis based on the turbine meter located downstream of the heater/treater. The Coriolis meter will be proven, as per API, NMOCD, and BLM specifications, when installed, once per month for the first 3 months (to establish a consistent repeatability factor), and then quarterly thereafter, the factor obtained will be used to allocate the production volumes. Gas production from the Aldabra 25 Fed 1H, 2H, & 3H wells will be allocated on a daily basis using the gas allocation meter and will flow through DCP CDP #728891-00. Gas production from the Aldabra 25 Fed 6H & 7H wells will be allocated on a monthly basis using the gas allocation meter and will flow through SUG CDP #57447. The gas off the VRU allocation meter will flow to the DCP CDP #728891-00. These meters will be calibrated on a regular basis per API, NMOCD and BLM specifications. The BLM and OCD will be notified of any future changes in the facilities.

#### **Process and Flow Descriptions:**

The flow of produced fluids is shown in detail on the enclosed facility diagram, along with a description of each vessel and map which shows the lease boundaries, location of wells, facility, and gas sales meter. The proposed commingling is appropriate based on the BLM's guidance in IM 2013-152. The proposed commingling will maximize the ultimate recovery of oil and/or gas from the federal leases and will reduce environmental impacts by minimizing surface disturbance and emissions. The proposed commingling will reduce operating expenses, as well as, not adversely affect federal royalty income, production accountability, or the distribution of royalty.

Devon Energy Production Company, LP understands the requested approval will not constitute the granting of any right-of-way or construction rights not granted by the lease instrument. ROW 1990-A & 2232.

Working, royalty, and overriding interest owners have been notified of this proposal via certified mail (see attached).

Signed: 

Printed Name: Brent Schroeder

Title: Production Engineer

Date: 05.12.17



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 15, 2009  
Submit one copy to appropriate  
District Office

☒ AMENDED REPORT

**WELL LOCATION AND ACREAGE DEDICATION PLAT**

<sup>1</sup> API Number <b>30-015-38612</b>	<sup>2</sup> Pool Code <b>53805</b>	<sup>3</sup> Pool Name <b>Sand Dunes; Bone Springs, South</b>
<sup>4</sup> Property Code <b>38553</b>	<sup>5</sup> Property Name <b>ALDABRA "25" FED. COM</b>	<sup>6</sup> Well Number <b>1H</b>
<sup>7</sup> OGRID No. <b>6137</b>	<sup>8</sup> Operator Name <b>DEVON ENERGY PRODUCTION COMPANY, L.P.</b>	<sup>9</sup> Elevation <b>3483.8</b>

<sup>10</sup> Surface Location

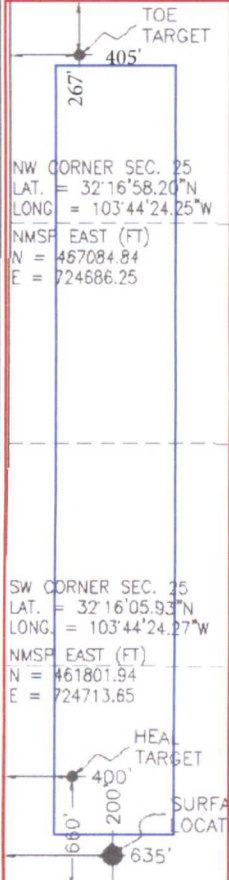


UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
<b>M</b>	<b>25</b>	<b>23 S</b>	<b>31 E</b>		<b>200</b>	<b>SOUTH</b>	<b>635</b>	<b>WEST</b>	<b>EDDY</b>

<sup>11</sup> 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
<b>D</b>	<b>25</b>	<b>23 S</b>	<b>31 E</b>		<b>267</b>	<b>NORTH</b>	<b>405</b>	<b>WEST</b>	<b>EDDY</b>

<sup>12</sup> Dedicated Acres <b>160</b>	<sup>13</sup> Joint or Infill	<sup>14</sup> Consolidation Code	<sup>15</sup> Order No.
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No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.

	<b>TOE TARGET</b> LAT. = 32°16'54.93"N LONG. = 103°44'19.59"W NMSP EAST (FT) N = 466756.88 E = 725088.03	<b>NE CORNER SEC. 25</b> LAT. = 32°16'58.17"N LONG. = 103°43'22.78"W NMSP EAST (FT) N = 467111.87 E = 729964.84	<b><sup>17</sup> OPERATOR CERTIFICATION</b> <i>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.</i>   Signature _____ Date <b>09/07/2016</b> Printed Name <b>Erin Workman, Regulatory Analyst</b>
	<b>ALDABRA "25" FED. #1H</b> ELEV. = 3483.8' LAT. = 32°16'07.913"N (NAD83) LONG. = 103°44'16.876"W NMSP EAST (FT) N = 462005.54 E = 725347.71		<b><sup>18</sup> SURVEYOR CERTIFICATION</b> <i>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.</i> SEPTENBER 18, 2010 Date of Survey _____  Signature and Seal of Professional Surveyor Certificate No. <b>HELMON P. ARAMILLO, PLS 12797</b> SURVEY NO. <b>217</b>
	<b>HEAL TARGET</b> LAT. = 32°16'12.46"N LONG. = 103°44'19.61"W NMSP EAST (FT) N = 462464.25 E = 725110.37	<b>SE CORNER SEC. 25</b> LAT. = 32°16'05.94"N LONG. = 103°43'22.80"W NMSP EAST (FT) N = 461832.84 E = 729992.42	

PP: 260' FSL & 420' FWL, Sec 25, T23S, R31E

Project Area:

Producing Area:

**NM OIL CONSERVATION**  
ARTESIA DISTRICT

JAN 13 2015

**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

**RECEIVED**

Form C-102  
Revised October 15, 2009  
Submit one copy to appropriate  
District Office

☐ AMENDED REPORT

**WELL LOCATION AND ACREAGE DEDICATION PLAT**

<sup>1</sup> API Number <b>30-015-38613</b>	<sup>2</sup> Pool Code <b>53805</b>	<sup>3</sup> Pool Name <b>SAND DUNES; BONE SPRING, SOUTH</b>
<sup>4</sup> Property Code <b>38553</b>	<sup>5</sup> Property Name <b>ALDABRA "25" FED. COM</b>	
<sup>6</sup> OGRID No. <b>6137</b>	<sup>7</sup> Operator Name <b>DEVON ENERGY PRODUCTION COMPANY, L.P.</b>	<sup>8</sup> Well Number <b>2H</b>
		<sup>9</sup> Elevation <b>3484.7</b>

<sup>10</sup> Surface Location

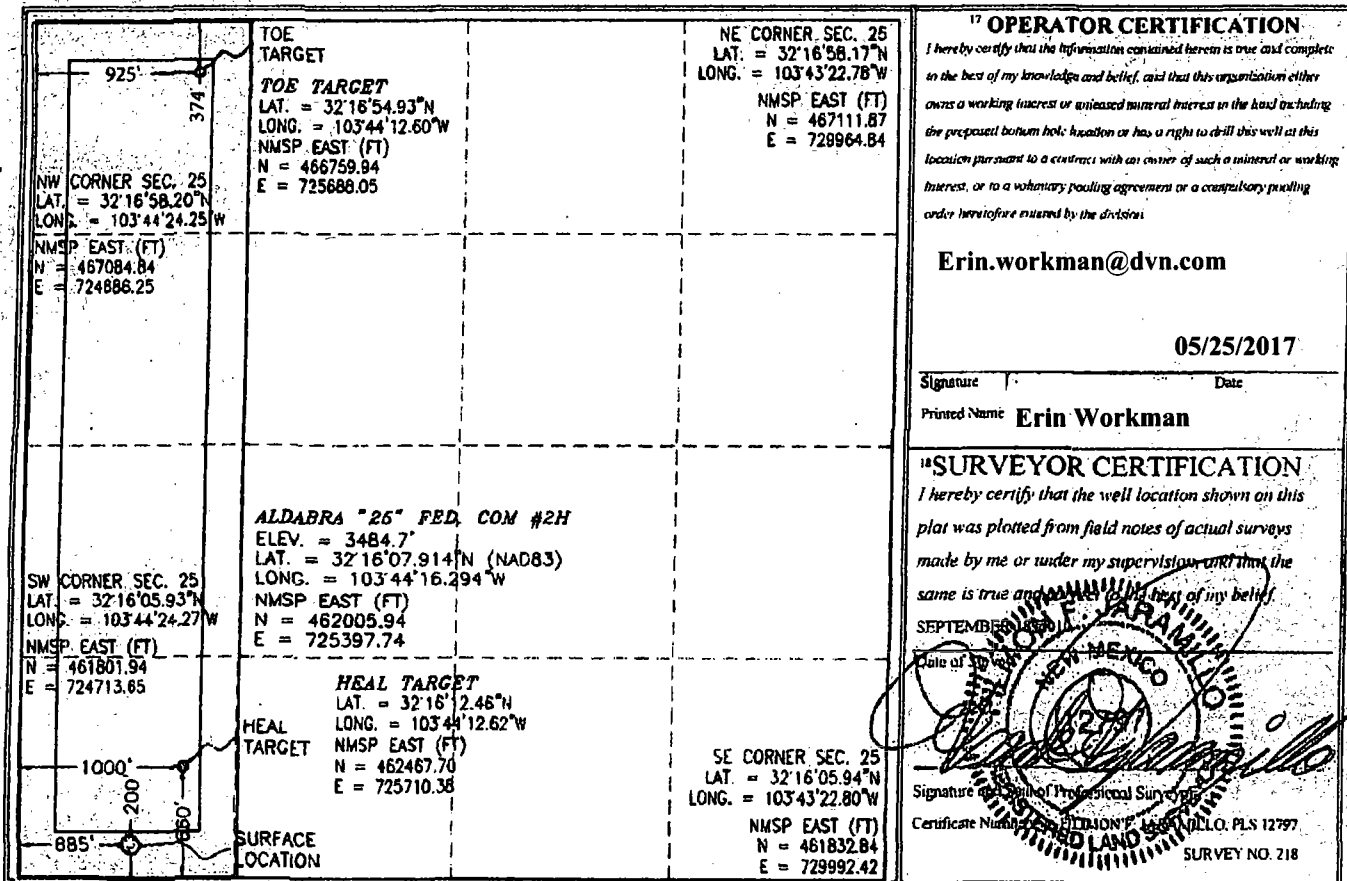
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
<b>M</b>	<b>25</b>	<b>23 S</b>	<b>31 E</b>		<b>200</b>	<b>SOUTH</b>	<b>685</b>	<b>WEST</b>	<b>EDDY</b>

<sup>11</sup> 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
<b>D</b>	<b>25</b>	<b>23 S</b>	<b>31 E</b>		<b>374</b>	<b>NORTH</b>	<b>925</b>	<b>WEST</b>	<b>EDDY</b>

<sup>12</sup> Dedicated Acres <b>160</b>	<sup>13</sup> Joint or Infill	<sup>14</sup> Consolidation Code	<sup>15</sup> 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.



<sup>17</sup> OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete in 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.

Erin.workman@dvn.com

05/25/2017

Signature \_\_\_\_\_ Date \_\_\_\_\_  
Printed Name **Erin Workman**

<sup>18</sup> 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.

SEPTEMBER 2009  
Date of Survey  
Signature of Professional Surveyor  
Certificate Number **EDMOND P. LANDAU, PLS 12797**  
SURVEY NO. 218

PP: 120' FSL & 684' FWL, Sec 25, T23S, R31E

Project Area:   
Producing Area:

**RECEIVED**

SEP 10 2013

**District I**

1625 N. French Dr., Hobbs, NM 88240

**District II**

1301 W. Grand Avenue, Artesia, NM 88218

**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 &amp; Natural Resources Department

**NMOC ARTESIA**

CONSERVATION DIVISION

1220 South St. Francis Dr.

Santa Fe, NM 87505

Form C-102

Revised October 15, 2009

Submit one copy to appropriate

District Office

☐ AMENDED REPORT**WELL LOCATION AND ACREAGE DEDICATION PLAT**

<sup>1</sup> API Number 30-015-38614	<sup>2</sup> Pool Code 96403	<sup>3</sup> Pool Name SAND DUNES; BONE SPRING
<sup>4</sup> Property Code 38553	<sup>5</sup> Property Name ALDABRA "25" FED.	<sup>6</sup> Well Number 3H
<sup>7</sup> OGRID No. 6137	<sup>8</sup> Operator Name DEVON ENERGY PRODUCTION COMPANY, L.P.	<sup>9</sup> Elevation 3503.8

<sup>10</sup> Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
N	25	23 S	31 E		200	SOUTH	2260	WEST	EDDY

<sup>11</sup> 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
C	25	23 S	31 E		334	NORTH	1478	WEST	EDDY

<sup>12</sup> Dedicated Acres	<sup>13</sup> Joint or Infill	<sup>14</sup> Consolidation Code	<sup>15</sup> Order No.
160			

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.

<p><b>TOE TARGET</b> LAT. = 32°16'54.93"N LONG. = 103°44'05.04"W NMSP EAST (FT) N = 466763.26 E = 726338.06</p> <p><b>NE CORNER SEC. 25</b> LAT. = 32°16'58.17"N LONG. = 103°43'22.78"W NMSP EAST (FT) N = 467111.87 E = 729964.84</p> <p><b>SW CORNER SEC. 25</b> LAT. = 32°16'05.93"N LONG. = 103°44'24.25"W NMSP EAST (FT) N = 467084.84 E = 724686.25</p> <p><b>ALDABRA "25" FED. #3H</b> ELEV. = 3503.8 LAT. = 32°16'07.917"N (NAD83) LONG. = 103°43'57.954"W NMSP EAST (FT) N = 462015.03 E = 726972.73</p> <p><b>HEAL TARGET</b> LAT. = 32°16'12.46"N LONG. = 103°44'05.05"W NMSP EAST (FT) N = 462471.43 E = 726360.39</p> <p><b>SE CORNER SEC. 25</b> LAT. = 32°16'05.94"N LONG. = 103°43'22.80"W NMSP EAST (FT) N = 461832.84 E = 729992.42</p>	<p><b><sup>17</sup> OPERATOR CERTIFICATION</b></p> <p>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 undivided mineral interest in the land including the proposed bottom hole location or has a right to drill this well on 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.</p> <p>Signature: <i>D. R.</i> Date: 9/4/2013</p> <p>Printed Name: David H. Cook Regulatory Specialist</p> <p><b><sup>18</sup> SURVEYOR CERTIFICATION</b></p> <p>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.</p> <p>SEPTEMBER 20, 2013</p> <p>Date of Survey: 9/4/2013</p> <p>Signature and Seal: <i>[Signature]</i></p> <p>Certificate Number: FILMONT, TARAMILLO, PLS 12797</p> <p>SURVEY NO. 219</p>
	<p>PP: 141 FSL &amp; 2316 FWL</p>



**RECEIVED****AUG 28 2013****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 &amp; Natural Resources Department

**OIL CONSERVATION DIVISION**

1220 South St. Francis Dr.

Santa Fe, NM 87505

Form C-102

October 15, 2009

Submit one copy to appropriate

District Office

☐ AMENDED REPORT**WELL LOCATION AND ACREAGE DEDICATION PLAT**

<sup>1</sup> API Number <b>30-015-38602</b>	<sup>2</sup> Pool Code <b>53805</b>	<sup>3</sup> Pool Name <b>Sand Dunes; Bone Spring, South</b>
<sup>4</sup> Property Code <b>38553</b>	<sup>5</sup> Property Name <b>ALDABRA "25" FED.</b>	<sup>6</sup> Well Number <b>6H</b>
<sup>7</sup> OGRID No. <b>6137</b>	<sup>8</sup> Operator Name <b>DEVON ENERGY PRODUCTION COMPANY, L.P.</b>	<sup>9</sup> Elevation <b>3535.7</b>

**<sup>10</sup> Surface Location**

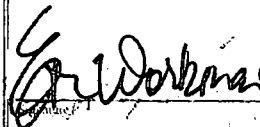
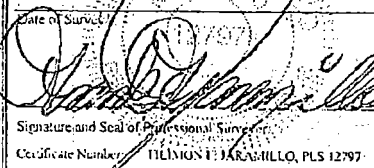
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
<b>P</b>	<b>25</b>	<b>23 S</b>	<b>31 E</b>		<b>200</b>	<b>SOUTH</b>	<b>1050</b>	<b>EAST</b>	<b>EDDY</b>

**<sup>11</sup> 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
<b>B</b>	<b>25</b>	<b>23 S</b>	<b>31 E</b>		<b>330</b>	<b>NORTH</b>	<b>1650</b>	<b>EAST</b>	<b>EDDY</b>

<sup>12</sup> Dedicated Acres	<sup>13</sup> Joint or Infill	<sup>14</sup> Consolidation Code	<sup>15</sup> Order No.
<b>160</b>			

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.

<b>NW CORNER SEC. 25</b> LAT. = 32°16'58.20"N LONG. = 103°44'24.25"W NMSP EAST (FT) N = 467084.34 E = 724685.25	<b>TOE TARGET</b> LAT. = 32°16'54.92"N LONG. = 103°43'41.99"W NMSP EAST (FT) N = 466773.39 E = 728316.56	<b>NE CORNER SEC. 25</b> LAT. = 32°16'58.17"N LONG. = 103°43'22.76"W NMSP EAST (FT) N = 457111.87 E = 723964.84	<b>" OPERATOR CERTIFICATION</b> 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 mineral mineral interest in the land underlying the proposed bottom hole location or has a right to drill this well in 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.   Date: 08/27/13 Printed Name: Erin L. Workman Regulatory Compliance Assoc.
<b>ALDABRA "25" FED. #6H</b> ELEV. = 3535.7 LAT. = 32°16'07.922"N (NAD83) LONG. = 103°43'35.031"W NMSP EAST (FT) N = 452026.58 E = 728941.35	<b>HEAL TARGET</b> LAT. = 32°16'12.47"N LONG. = 103°43'47.01"W NMSP EAST (FT) N = 462183.01 E = 728339.00	<b>SE CORNER SEC. 25</b> LAT. = 32°16'05.94"N LONG. = 103°43'22.80"W NMSP EAST (FT) N = 451832.84 E = 729992.42	
<b>SW CORNER SEC. 25</b> LAT. = 32°16'05.93"N LONG. = 103°44'24.27"W NMSP EAST (FT) N = 461801.94 E = 724713.65	<b>HEAL TARGET</b> LAT. = 32°16'12.47"N LONG. = 103°43'47.01"W NMSP EAST (FT) N = 462183.01 E = 728339.00	<b>" SURVEYOR CERTIFICATION</b> 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. Date of Survey: SEPTEMBER 20, 2010  Signature and Seal of Professional Surveyor Certificate Number: HUNTER J. JARAMILLO, PLS 12797 SURVEY NO. 222	

District I  
1625 N. French Dr., Hobbs, NM 88240

District II  
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District III  
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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 15, 2009  
Submit one copy to appropriate  
District Office  
☐ AMENDED REPORT

**WELL LOCATION AND ACREAGE DEDICATION PLAT**

<sup>1</sup> API Number <b>30-015-38603</b>	<sup>2</sup> Pool Code <b>53805</b>	<sup>3</sup> Pool Name <b>SAND DUNES UPPER BONE SPRING; SOUTH</b>
<sup>4</sup> Property Code <b>38553</b>	<sup>5</sup> Property Name <b>ALDABRA "25" FED.</b>	
<sup>7</sup> OGRID No. <b>6137</b>	<sup>8</sup> Operator Name <b>DEVON ENERGY PRODUCTION COMPANY, L.P.</b>	<sup>6</sup> Well Number <b>7H</b>
		<sup>9</sup> Elevation <b>3535.9</b>

<sup>10</sup> 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>P</b>	<b>25</b>	<b>23 S</b>	<b>31 E</b>		<b>200</b>	<b>SOUTH</b>	<b>1000</b>	<b>EAST</b>	<b>EDDY</b>

<sup>11</sup> 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
<b>A</b>	<b>25</b>	<b>23 S</b>	<b>31 E</b>		<b>334</b>	<b>NORTH</b>	<b>1004</b>	<b>EAST</b>	<b>EDDY</b>

<sup>12</sup> Dedicated Acres <b>160</b>	<sup>13</sup> Joint or Infill	<sup>14</sup> Consolidation Code	<sup>15</sup> Order No.
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No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.

**RECEIVED**

**AUG 4 2011**

**NMOC D ARTESIA  
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 undivided 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 \_\_\_\_\_

Printed Name  
**Judy A. Barnett** Regulatory Specialist

**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.

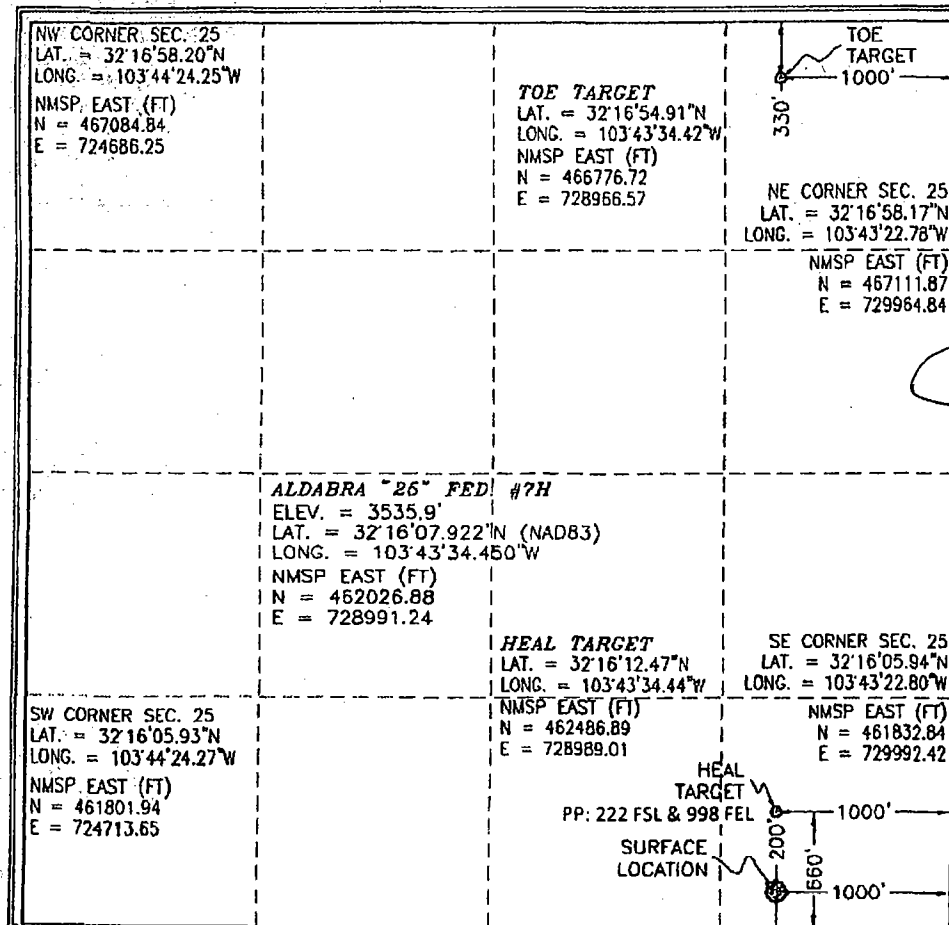
SEPTEMBER 30, 2010

Date of Survey \_\_\_\_\_

Signature and Seal of Professional Surveyor \_\_\_\_\_

Certificate Number: **ALCIN P. JARAMILLO, PLS 12797**

SURVEY NO. 223





Devon Energy Production Company  
333 W. Sheridan Avenue  
Oklahoma City, Oklahoma 73102  
Phone: (405) 552-7970  
Erin.Workman@dev.com

May 25, 2017

**CERTIFIED MAIL**  
**RETURN RECEIPT REQUESTED**

Interest Owners

**Re: Central Tank Battery**  
**Aldabra 25 Fed 3H, 6H, 7H, Aldabra 25 Fed Com 1H, & 2H**  
**API: 30-015-38612, 30-015-38613, 30-015-38614, 30-015-38602, & 30-015-38603**  
**Pool: (53805) Sand Dunes; Bone Spring, South**  
**Lease: NMNM0544986, NMNM405444A, & NMNM135070**  
**County: Eddy Co., NM**

To whom it may concern:

This is to advise you that Devon Energy Production Company, LP, is filing an application with the New Mexico Oil Conservation Division ("NMOCD") seeking approval for a Central Tank Battery for the above mentioned wells.

A copy of the BLM Approved application is attached.

Any objections or requests that a hearing should be held regarding this application must be submitted to the New Mexico Oil Conservation Division Santa Fe office within 20 days from the date of this letter.

Subsequently drilled wells that produce from the subject pools within the project areas approved by this order may be added to this commingling authority by submittal of a Sundry Notice to the Engineering Bureau in Santa Fe.

Please contact the undersigned at (405) 552-7970 should you have any questions or need anything further.

Sincerely,

Devon Energy Production Company, L.P.

A handwritten signature in cursive script that reads 'Erin Workman'.

Erin Workman  
Regulatory Compliance Professional

Enclosure

## CERTIFIED MAILING LIST

**Mailing Reference:** Aldabra 25 Fed 6H & 7H Battery

<u>Repondent Name/Address:</u>	<u>Certified Mailing Number:</u>
Albert H. Spencer 608 E. Coronado Way Payson, AZ 85541	9214 8901 5271 8100 1836 00
Alfred Giles IV P.O. Box 50360 Austin, TX 78763-0360	9214 8901 5271 8100 1836 17
Bascom Mitchell Family Partnership LP 1 Live Oak Drive Midland, TX 79705	9214 8901 5271 8100 1836 24
Catherine M. Grace 6031 Interstate 20W, Suite 251LB Arlington, TX 76017	9214 8901 5271 8100 1836 31
CBR Oil Properties, LLC P.O. Box 1518 Roswell, NM 88202	9214 8901 5271 8100 1836 48
Figure 4 Investment Trust 11010 Crestmore Street Houston, TX 77096	9214 8901 5271 8100 1836 55
George Karabatsos 2220 Bering Drive, Apt #30 Houston, TX 77057	9214 8901 5271 8100 1836 62
Georgia B. Bass 6203 Alden Bridge Drive, Apt #7201 The Woodlands, TX 77382-5135	9214 8901 5271 8100 1836 79
Hoover & Betty Wright Living Trust P.O. Box 2312 Santa Fe, NM 87504	9214 8901 5271 8100 1836 86
Jay Lee Touchstone Trust 10000 Memorial Drive, Suite 650 Houston, TX 77024-3417	9214 8901 5271 8100 1836 93
Joe N. Gifford P.O. Box 51187 Midland, TX 79710-1187	9214 8901 5271 8100 1837 09
John Geoffrey Giles 2600 Escondido CV Austin, TX 78703-1610	9214 8901 5271 8100 1837 16
John L. Anderson, Jr. 4067 Mattison Avenue Fort Worth, TX 76107-2408	9214 8901 5271 8100 1837 23
L. Edward Innerarity, Jr. P.O. box 2113 Midland, TX 79702	9214 8901 5271 8100 1837 30
Linda Kay Neighbors 1711 Douglas Avenue Midland, TX 79701	9214 8901 5271 8100 1837 47
Mabee Flynt Lease Trust 11010 Crestmore Street Houston, TX 77096-6120	9214 8901 5271 8100 1837 54
Marathon Oil Company 14194 Collection Center Drive Chicago, IL 60693	9214 8901 5271 8100 1837 61

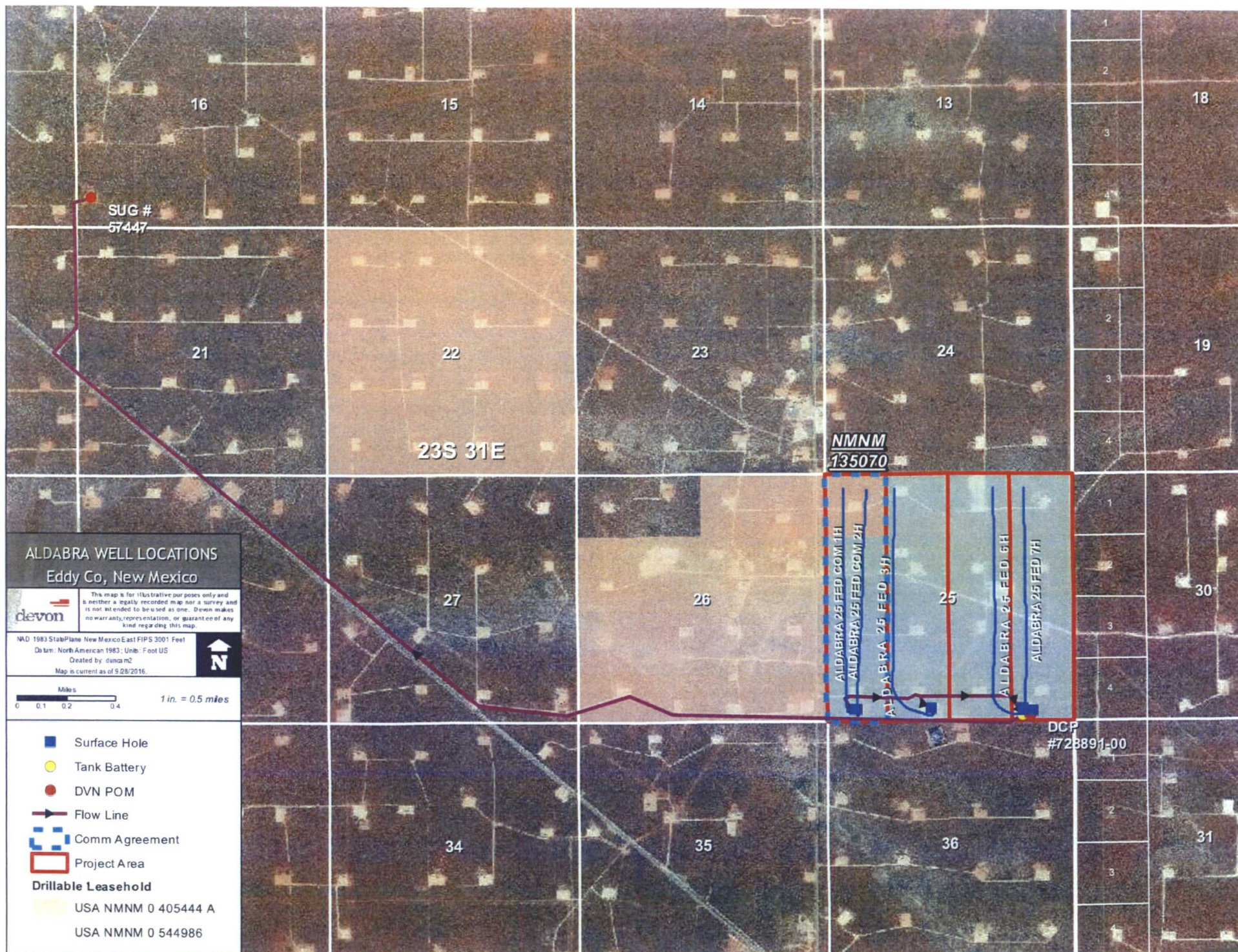
## CERTIFIED MAILING LIST

**Mailing Reference:** Aldabra 25 Fed 6H & 7H Battery

<u>Repondent Name/Address:</u>	<u>Certified Mailing Number:</u>
Mary Margaret Olson Trust 6031 Interstate 20W, Suite 251 Arlington, TX 76017	9214 8901 5271 8100 1837 85
Mary Patricia Dougherty Trust P.O. Box 226270 Dallas, TX 75222-6270	9214 8901 5271 8100 1837 92
Miranda Energy Corp 24 Smith Road, Suite 601 Midland, TX 79705-4403	9214 8901 5271 8100 1838 08
Nortex Corporation 1415 Louisiana Street, Suite 3100 Houston, TX 77002	9214 8901 5271 8100 1838 15
Obie & Company P.O. Box 99084 Fort Worth, TX 76199-0084	9214 8901 5271 8100 1838 22
ONRR P.O. Box 25627 Denver, CO 80225-0627	9214 8901 5271 8100 1838 46
Otto E. Schroeder, Jr. 915 N. Fielder Road, Apt #1101 Arlington, TX 76012	9214 8901 5271 8100 1838 39
Patricia Kay Lorenz 32 Chaparral Drive #16 Kerrville, TX 78028	9214 8901 5271 8100 1838 53
Shenandoah Petroleum Prop Inc. 24 Smith Road, Suite 601 Midland, TX 79705	9214 8901 5271 8100 1838 60
TEK Properties, Ltd. 4705 Miramont Circle Bryan, TX 77802	9214 8901 5271 8100 1838 77
Truman Estes Touchstone Trust 10000 Memorial Drive, Suite 650 Houston, TX 77024-3417	9214 8901 5271 8100 1838 84
XTO Energy, Inc. P.O. Box 730586 Dallas, TX 75373-0586	9214 8901 5271 8100 1838 91









Aldabra 25 Fed 6H  
 Sec. 25, T23S, R31E  
 200 FSL, 1050 FEL  
 Eddy County, New Mexico  
 API: #30-015-37362

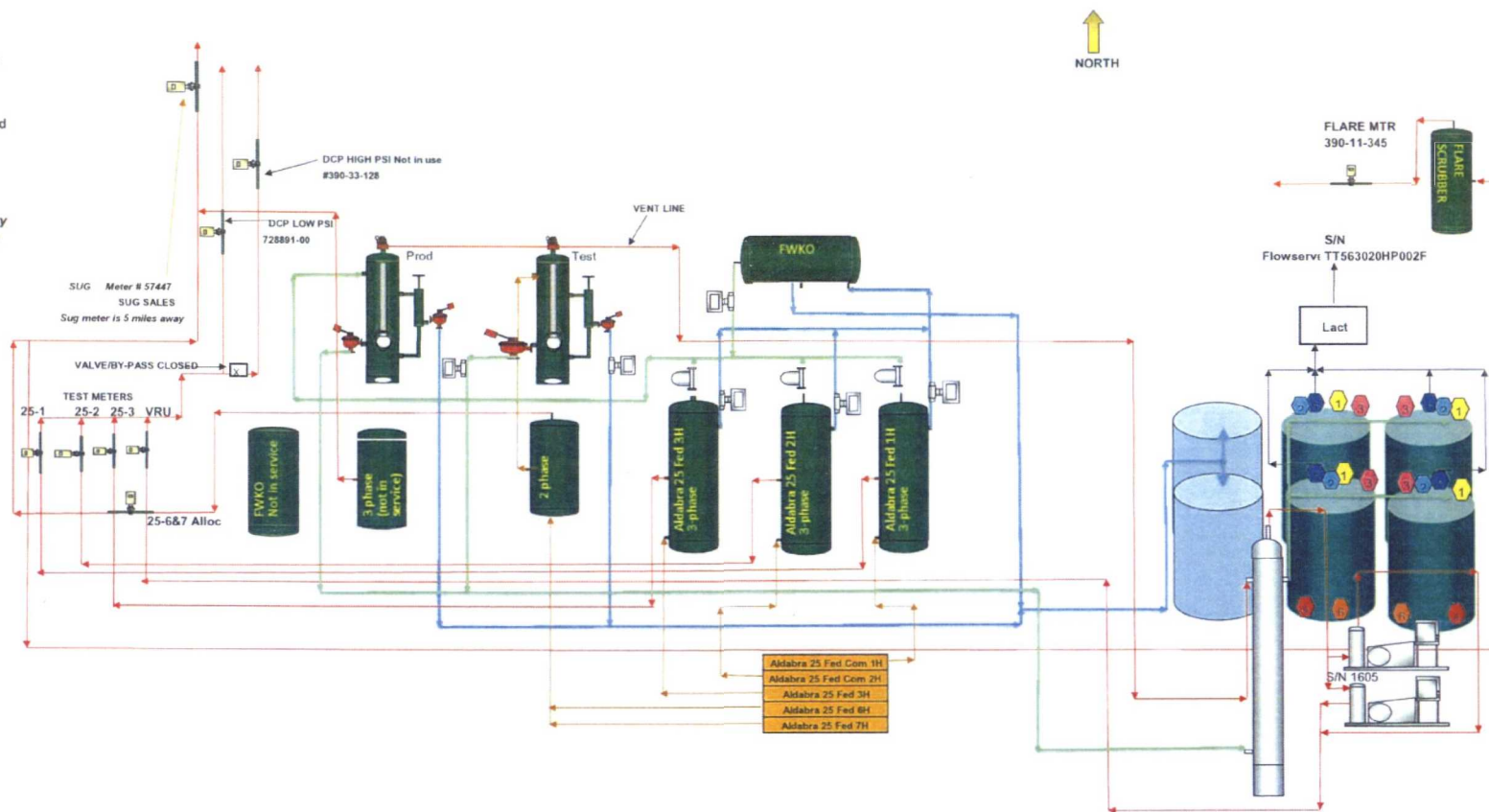
Production System: Closed

Note:  
 Devon Energy Site Security  
 Plan located in the Artesia  
 Main Office

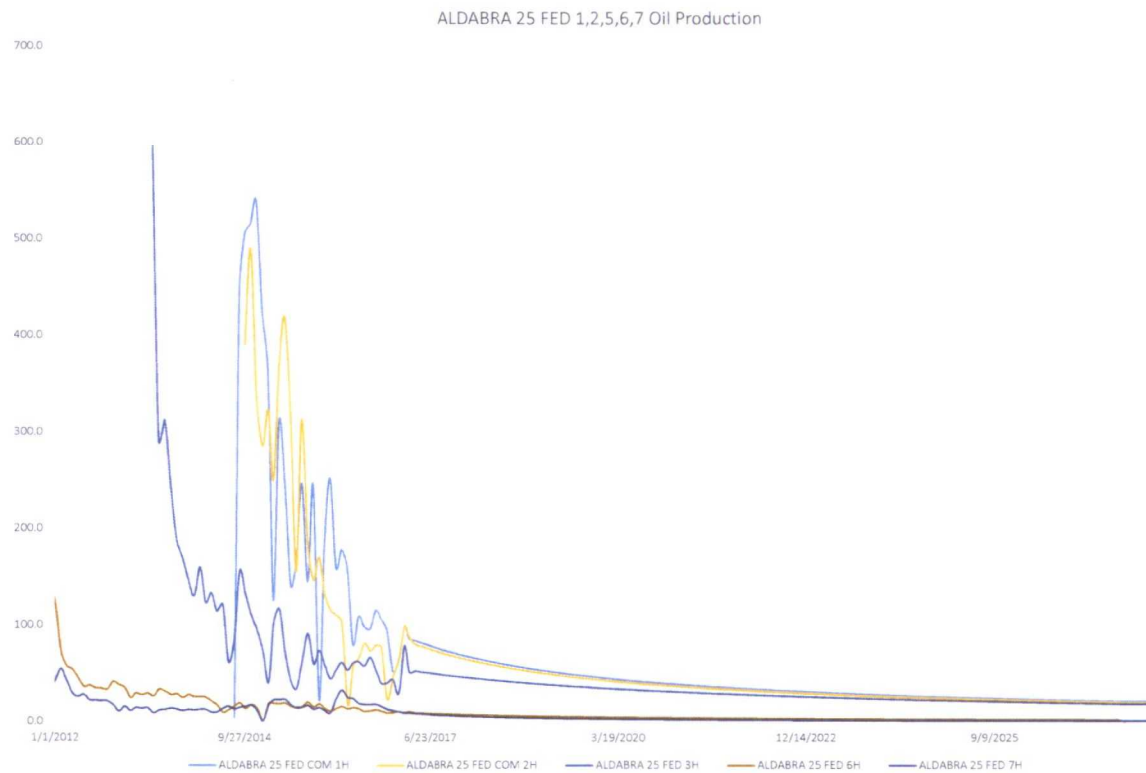
Alloc meters  
 25-1 meter # 390-49-281  
 25-2 meter # 390-49-282  
 25-3 Meter # 390-49-283  
 25-6&7 Alloc # 390-49-131  
 VRU Mtr # 390-00-284

Coriolis Meter S/N #s  
 25-1 14405881  
 25-2 14405873  
 25-3 14405890  
 Model # for all is Below  
 F200S418CQB AEZZZ

Test Heater Oil Meter- #365360  
 Test Heater Water Meter- #69900A  
 25-1 Mag Meter- #0392319  
 25-2 Mag Meter- #0394259  
 25-3 Mag Meter- #0394257  
 FWKO Turbine Meter - Supply upon receipt



	ALDABRA 25 FED COM 1H	ALDABRA 25 FED COM	ALDABRA 25 FED 3H	ALDABRA 25 FED 6H	ALDABRA 25 FED 7H
Peak Rate	539.8	490.1	596.4	216.8	162.0
6 Months Later	141.3	419.4	147.5	125.4	42.0
% Decline	74%	14%	75%	42%	74%



1/1/2012	40909.00
12/31/2027	46752.00

Date	ALDABRA 25 FED COM 1H Oil, BOD	ALDABRA 25 FED COM 2H Oil, BOD	ALDABRA 25 FED 3H Oil, BOD	ALDABRA 25 FED 6H Oil, BOD	ALDABRA 25 FED 7H Oil, BOD
7/1/2011				216.8	162.0
8/1/2011				162.7	159.1
9/1/2011					119.2
10/1/2011				4.8	46.1
11/1/2011					74.1
12/1/2011				145.3	37.3
1/1/2012				125.4	42.0
2/1/2012				73.0	54.8
3/1/2012				58.2	43.2
4/1/2012				54.4	29.8
5/1/2012				45.8	26.1
6/1/2012				36.6	28.1
7/1/2012				37.9	22.5
8/1/2012				35.0	22.2
9/1/2012				34.6	21.7
10/1/2012				33.6	21.6
11/1/2012				41.8	17.6
12/1/2012				38.5	11.0
1/1/2013				35.5	15.8
2/1/2013				25.1	11.6
3/1/2013				29.7	14.6
4/1/2013				28.0	13.9
5/1/2013				29.7	14.6
6/1/2013			596.4	26.8	9.2
7/1/2013			290.3	33.8	12.0
8/1/2013			312.7	31.8	12.7
9/1/2013			242.4	28.2	14.1
10/1/2013			188.8	29.0	13.1
11/1/2013			169.8	25.4	11.7
12/1/2013			147.5	28.3	12.8
1/1/2014			130.4	26.3	12.2
2/1/2014			160.4	26.1	13.0
3/1/2014			123.8	25.7	12.8
4/1/2014			133.6	21.6	9.9
5/1/2014			114.3	17.6	10.3
6/1/2014			121.5	10.0	13.9
7/1/2014			61.8	12.6	16.2
8/1/2014	4.3		86.8	16.5	13.3
9/1/2014	440.7		156.5	19.8	15.2
10/1/2014	505.1	390.9	133.0	13.8	15.9
11/1/2014	515.7	490.1	111.0	17.9	17.4
12/1/2014	539.8	331.8	95.4	14.3	12.0
1/1/2015	424.0	285.2	73.4	1.5	1.2
2/1/2015	361.0	323.3	40.5	19.1	17.0
3/1/2015	125.8	250.5	101.4	19.3	22.7
4/1/2015	310.5	368.2	117.0	18.8	22.9
5/1/2015	247.1	419.4	71.7	19.6	23.3
6/1/2015	141.3	317.7	41.9	16.1	17.6
7/1/2015	166.6	155.7	34.0	15.1	14.4
8/1/2015	246.6	313.5	62.4	15.8	15.1
9/1/2015	144.7	183.1	91.5	20.6	17.0
10/1/2015	245.1	146.7	59.7	15.6	13.0
11/1/2015	22.5	170.6	73.7	18.7	14.6
12/1/2015	182.5	133.3	59.3	14.3	11.7
1/1/2016	252.4	116.2	44.4	11.2	9.2
2/1/2016	159.5	110.5	54.1	14.0	24.5
3/1/2016	178.2	103.4	61.4	15.9	32.7
4/1/2016	157.8	17.6	53.7	13.5	25.3
5/1/2016	80.1	57.5	60.9	14.7	24.0
6/1/2016	108.8	66.0	62.2	13.7	19.2
7/1/2016	98.7	81.6	57.8	10.9	17.9
8/1/2016	96.5	73.6	66.6	11.5	17.8
9/1/2016	115.0	79.4	53.4	12.4	18.2
10/1/2016	106.2	77.2	40.0	11.2	15.8
11/1/2016	94.6	23.6	40.2	9.2	13.1
12/1/2016	52.6	46.9	43.6	9.7	11.7
1/1/2017	65.2	64.9	29.4	10.6	10.6
2/1/2017	98.9	99.0	78.8	9.6	9.0
3/1/2017	86.2	87.9	51.6	10.7	9.3
4/1/2017	84.2	80.7	52.5	9.4	8.7

5/1/2017	82.0	78.5	51.7	9.1	8.2
6/1/2017	80.0	76.5	50.9	8.9	7.8
7/1/2017	78.0	74.6	50.2	8.7	7.4
8/1/2017	76.2	72.8	49.4	8.5	7.1
9/1/2017	74.4	71.1	48.7	8.3	6.8
10/1/2017	72.7	69.5	48.0	8.1	6.5
11/1/2017	71.1	67.9	47.4	7.9	6.2
12/1/2017	69.6	66.4	46.7	7.7	6.0
1/1/2018	68.1	65.0	46.1	7.6	5.7
2/1/2018	66.7	63.7	45.5	7.4	5.5
3/1/2018	65.5	62.4	44.9	7.3	5.3
4/1/2018	64.2	61.2	44.3	7.1	5.2
5/1/2018	62.9	60.0	43.7	7.0	5.0
6/1/2018	61.7	58.9	43.2	6.9	4.8
7/1/2018	60.6	57.8	42.7	6.7	4.7
8/1/2018	59.5	56.7	42.1	6.6	4.5
9/1/2018	58.4	55.7	41.6	6.5	4.4
10/1/2018	57.4	54.7	41.1	6.4	4.3
11/1/2018	56.4	53.7	40.6	6.3	4.2
12/1/2018	55.5	52.8	40.2	6.2	4.1
1/1/2019	54.6	51.9	39.7	6.1	4.0
2/1/2019	53.7	51.1	39.3	6.0	3.9
3/1/2019	52.9	50.3	38.8	5.9	3.8
4/1/2019	52.1	49.5	38.4	5.8	3.7
5/1/2019	51.3	48.8	38.0	5.7	3.6
6/1/2019	50.5	48.0	37.6	5.6	3.5
7/1/2019	49.7	47.3	37.2	5.5	3.4
8/1/2019	49.0	46.6	36.8	5.4	3.3
9/1/2019	48.3	45.9	36.4	5.3	3.3
10/1/2019	47.6	45.3	36.0	5.3	3.2
11/1/2019	47.0	44.6	35.6	5.2	3.1
12/1/2019	46.3	44.0	35.3	5.1	3.1
1/1/2020	45.6	43.3	34.8	5.0	3.0
2/1/2020	45.0	42.7	34.5	5.0	2.9
3/1/2020	44.4	42.1	34.2	4.9	2.9
4/1/2020	43.8	41.6	33.8	4.8	2.8
5/1/2020	43.2	41.1	33.5	4.8	2.8
6/1/2020	42.7	40.5	33.2	4.7	2.7
7/1/2020	42.2	40.0	32.9	4.6	2.7
8/1/2020	41.7	39.5	32.6	4.6	2.6
9/1/2020	41.1	39.1	32.3	4.5	2.6
10/1/2020	40.7	38.6	32.0	4.5	2.6
11/1/2020	40.2	38.1	31.7	4.4	2.5
12/1/2020	39.7	37.7	31.4	4.4	2.5
1/1/2021	39.4	37.3	31.2	4.3	2.4
2/1/2021	38.9	36.9	30.9	4.3	2.4
3/1/2021	38.5	36.5	30.7	4.2	2.4
4/1/2021	38.1	36.1	30.4	4.2	2.3
5/1/2021	37.7	35.7	30.2	4.1	2.3
6/1/2021	37.3	35.3	29.9	4.1	2.3
7/1/2021	36.9	35.0	29.7	4.0	2.2
8/1/2021	36.5	34.6	29.4	4.0	2.2
9/1/2021	36.1	34.2	29.2	3.9	2.2
10/1/2021	35.7	33.9	28.9	3.9	2.1
11/1/2021	35.4	33.5	28.7	3.9	2.1
12/1/2021	35.0	33.2	28.5	3.8	2.1
1/1/2022	34.6	32.8	28.2	3.8	2.0
2/1/2022	34.3	32.5	28.0	3.7	2.0
3/1/2022	34.0	32.2	27.8	3.7	2.0
4/1/2022	33.7	31.9	27.6	3.7	2.0
5/1/2022	33.3	31.6	27.4	3.6	1.9
6/1/2022	33.0	31.3	27.2	3.6	1.9
7/1/2022	32.7	31.0	27.0	3.6	1.9
8/1/2022	32.4	30.7	26.8	3.5	1.9
9/1/2022	32.1	30.4	26.6	3.5	1.8
10/1/2022	31.8	30.1	26.4	3.5	1.8
11/1/2022	31.5	29.9	26.2	3.4	1.8
12/1/2022	31.2	29.6	26.0	3.4	1.8
1/1/2023	31.0	29.3	25.8	3.4	1.8
2/1/2023	30.7	29.1	25.6	3.3	1.7
3/1/2023	30.5	28.8	25.5	3.3	1.7
4/1/2023	30.2	28.6	25.3	3.3	1.7

5/1/2023	29.9	28.3	25.1	3.2	1.7
6/1/2023	29.7	28.1	24.9	3.2	1.7
7/1/2023	29.4	27.9	24.8	3.2	1.6
8/1/2023	29.2	27.6	24.6	3.2	1.6
9/1/2023	28.9	27.4	24.4	3.1	1.6
10/1/2023	28.7	27.2	24.3	3.1	1.6
11/1/2023	28.5	27.0	24.1	3.1	1.6
12/1/2023	28.3	26.7	23.9	3.0	1.6
1/1/2024	28.0	26.5	23.7	3.0	1.5
2/1/2024	27.7	26.3	23.6	3.0	1.5
3/1/2024	27.5	26.1	23.4	3.0	1.5
4/1/2024	27.3	25.9	23.3	2.9	1.5
5/1/2024	27.1	25.7	23.1	2.9	1.5
6/1/2024	26.9	25.5	23.0	2.9	1.5
7/1/2024	26.7	25.3	22.8	2.9	1.5
8/1/2024	26.5	25.1	22.7	2.8	1.4
9/1/2024	26.3	24.9	22.5	2.8	1.4
10/1/2024	26.1	24.7	22.4	2.8	1.4
11/1/2024	25.9	24.5	22.3	2.8	1.4
12/1/2024	25.7	24.4	22.1	2.8	1.4
1/1/2025	25.6	24.2	22.1	2.7	1.4
2/1/2025	25.4	24.1	21.9	2.7	1.4
3/1/2025	25.3	23.9	21.8	2.7	1.4
4/1/2025	25.1	23.7	21.7	2.7	1.3
5/1/2025	24.9	23.6	21.5	2.7	1.3
6/1/2025	24.7	23.4	21.4	2.6	1.3
7/1/2025	24.6	23.3	21.3	2.6	1.3
8/1/2025	24.4	23.1	21.1	2.6	1.3
9/1/2025	24.2	22.9	21.0	2.6	1.3
10/1/2025	24.1	22.8	20.9	2.6	1.3
11/1/2025	23.9	22.6	20.8	2.6	1.3
12/1/2025	23.8	22.5	20.6	2.5	1.3
1/1/2026	23.6	22.3	20.5	2.5	1.2
2/1/2026	23.5	22.2	20.4	2.5	1.2
3/1/2026	23.3	22.0	20.3	2.5	1.2
4/1/2026	23.2	21.9	20.2	2.5	1.2
5/1/2026	23.0	21.8	20.0	2.4	1.2
6/1/2026	22.9	21.6	19.9	2.4	1.2
7/1/2026	22.7	21.5	19.8	2.4	1.2
8/1/2026	22.6	21.4	19.7	2.4	1.2
9/1/2026	22.4	21.2	19.5	2.4	1.2
10/1/2026	22.3	21.1	19.4	2.4	1.2
11/1/2026	22.2	21.0	19.3	2.4	1.2
12/1/2026	22.0	20.8	19.2	2.3	1.1
1/1/2027	21.9	20.7	19.1	2.3	1.1
2/1/2027	21.8	20.6	19.0	2.3	1.1
3/1/2027	21.6	20.5	18.9	2.3	1.1
4/1/2027	21.5	20.3	18.7	2.3	1.1
5/1/2027	21.4	20.2	18.6	2.3	1.1
6/1/2027	21.3	20.1	18.5	2.2	1.1
7/1/2027	21.1	20.0	18.4	2.2	1.1
8/1/2027	21.0	19.9	18.3	0.3	1.1
6/1/2028	20.9	19.7	18.2		1.1
7/1/2028	20.7	19.6	18.1		1.1
8/1/2028	20.6	19.5	18.0		1.1
6/1/2029	20.5	19.4	17.9		1.1
7/1/2029	20.3	19.2	17.7		1.0
8/1/2029	20.2	19.1	17.6		1.0
6/1/2030	20.1	19.0	17.5		1.0
7/1/2030	20.0	18.9	17.4		1.0
8/1/2030	19.8	18.8	17.3		1.0
6/1/2031	19.7	18.6	17.2		1.0
7/1/2031	19.6	18.5	17.1		1.0
8/1/2031	19.5	18.4	17.0		1.0
6/1/2032	19.4	18.3	16.9		1.0
7/1/2032	19.2	18.2	16.8		1.0
8/1/2032	19.1	18.1	16.7		1.0
6/1/2033	19.0	18.0	16.6		1.0
7/1/2033	18.9	17.9	16.5		1.0
8/1/2033	18.8	17.8	16.4		1.0
6/1/2034	18.7	17.7	16.3		1.0
7/1/2034	18.6	17.6	16.2		0.9



8/1/2034	18.5	17.5	16.1		0.9
6/1/2035	18.4	17.4	16.0		0.9
7/1/2035	18.3	17.3	15.9		0.9
8/1/2035	18.2	17.2	15.8		0.9
6/1/2036	18.1	17.1	15.7		0.9
7/1/2036	17.9	17.0	15.6		0.9
8/1/2036	17.8	16.9	15.5		0.9
6/1/2037	17.7	16.8	15.4		0.9
7/1/2037	17.6	16.7	15.3		0.9
8/1/2037	17.5	16.6	15.3		0.9
6/1/2038	17.4	16.5	15.2		0.9
7/1/2038	17.3	16.4	15.1		0.9
8/1/2038	17.2	16.3	15.0		0.9
6/1/2039	17.1	16.2	14.9		0.9
7/1/2039	17.0	16.1	14.8		0.9
8/1/2039	16.9	16.0	14.7		0.9
6/1/2040	16.8	15.9	14.6		0.9
7/1/2040	16.7	15.8	14.5		0.8
8/1/2040	16.6	15.7	14.4		0.8
6/1/2041	16.5	15.6	14.4		0.8
7/1/2041	16.4	15.5	14.3		0.8
8/1/2041	16.3	15.4	14.2		0.8
6/1/2042	16.2	15.3	14.1		0.8
7/1/2042	16.1	15.2	14.0		0.8
8/1/2042	16.0	15.1	13.9		0.8
6/1/2043	15.9	15.0	13.9		0.8
7/1/2043	15.8	14.9	13.8		0.8
8/1/2043	15.7	14.9	13.7		0.8
6/1/2044	15.6	14.8	13.6		0.8
7/1/2044	15.5	14.7	13.5		0.8
8/1/2044	15.4	14.6	13.4		0.8
6/1/2045	15.3	14.5	13.4		0.8
7/1/2045	15.2	14.4	13.2		0.8
8/1/2045	15.1	14.3	13.2		0.8
6/1/2046	15.0	14.2	13.1		0.8
7/1/2046	14.9	14.1	13.0		0.8
8/1/2046	14.8	14.0	12.9		0.8
6/1/2047	14.7	13.9	12.8		0.8
7/1/2047	14.7	13.9	12.8		0.7
8/1/2047	14.6	13.8	12.7		0.7
6/1/2048	14.5	13.7	12.6		0.7
7/1/2048	14.4	13.6	12.5		0.7
8/1/2048	14.3	13.5	12.5		0.7
6/1/2049	14.2	13.4	12.4		0.7
7/1/2049	14.2	13.4	12.3		0.7
8/1/2049	14.1	13.3	12.3		0.7
6/1/2050	14.0	13.2	12.2		0.7
7/1/2050	13.9	13.2	12.1		0.7
8/1/2050	13.8	13.1	12.1		0.7
6/1/2051	13.8	13.0	12.0		0.7
7/1/2051	13.7	12.9	11.9		0.7
8/1/2051	13.6	12.8	11.8		0.7
6/1/2052	13.5	12.8	11.8		0.7
7/1/2052	13.4	12.7	11.7		0.7
8/1/2052	13.3	12.6	11.6		0.7
6/1/2053	13.3	12.5	11.6		0.7
7/1/2053	13.2	12.5	11.5		0.7
8/1/2053	13.1	12.4	11.4		0.7
6/1/2054	13.0	12.3	11.3		0.7
7/1/2054	12.9	12.2	11.3		0.7
8/1/2054	12.9	12.2	11.2		0.7
6/1/2055	12.8	12.1	11.1		0.7
7/1/2055	12.7	12.0	11.1		0.6
8/1/2055	12.6	11.9	11.0		0.6
6/1/2056	12.6	11.9	10.9		0.6
7/1/2056	12.5	11.8	10.9		0.6
8/1/2056	12.4	11.7	10.8		0.6
6/1/2057	12.3	11.7	10.7		0.6
7/1/2057	12.3	11.6	10.7		0.6
8/1/2057	12.2	11.5	10.6		0.6
6/1/2058	12.1	11.5	10.6		0.6
7/1/2058	12.0	11.4	10.5		0.6

8/1/2058	12.0	11.3	10.4	0.6
6/1/2059	11.9	11.2	10.4	0.6
7/1/2059	11.8	11.2	10.3	0.6
8/1/2059	11.8	11.1	10.2	0.6
6/1/2060	11.7	11.0	10.2	0.6
7/1/2060	11.6	11.0	10.1	0.6
8/1/2060	11.5	10.9	10.1	0.6
6/1/2061	11.5	10.8	10.0	0.6
7/1/2061	11.4	10.7	9.9	0.6
8/1/2061	11.3	10.7	9.8	0.6
6/1/2062	11.2	10.6	9.8	0.6
7/1/2062	11.2	10.6	9.7	0.6
8/1/2062	11.1	10.5	9.7	0.6
6/1/2063	11.0	10.4	9.6	0.6
7/1/2063	11.0	10.4	9.6	0.6
8/1/2063	10.9	10.3	9.5	0.6
6/1/2064	10.8	10.2	9.4	0.6
7/1/2064	10.8	10.2	9.4	0.5
8/1/2064	10.7	10.1	9.3	0.5
6/1/2065	10.6	10.1	9.3	0.5
7/1/2065	10.6	10.0	9.2	0.5
8/1/2065	10.5	10.0	9.2	0.5
6/1/2066	10.5	9.9	9.1	0.5
7/1/2066	10.4	9.8	9.1	0.5
8/1/2066	10.4	9.8	9.0	0.5
6/1/2067	10.3	9.7	9.0	0.5
7/1/2067	10.2	9.7	8.9	0.5
8/1/2067	10.2	9.6	8.9	0.5
6/1/2068	10.1	9.6	8.8	0.5
7/1/2068	10.0	9.5	8.7	0.5
8/1/2068	10.0	9.4	8.7	0.5
6/1/2069	9.9	9.4	8.6	0.5
7/1/2069	9.9	9.3	8.6	0.0
8/1/2038	9.8	9.3	8.5	
9/1/2038	9.7	9.2	8.5	
10/1/2038	9.7	9.2	8.4	
11/1/2038	9.6	9.1	8.4	
12/1/2038	9.6	9.0	8.3	
1/1/2039	9.5	9.0	8.3	
2/1/2039	9.5	8.9	8.2	
3/1/2039	9.4	8.9	8.2	
4/1/2039	9.3	8.8	8.1	
5/1/2039	9.3	8.8	8.1	
6/1/2039	9.2	8.7	8.0	
7/1/2039	9.2	8.7	8.0	
8/1/2039	9.1	8.6	7.9	
9/1/2039	9.1	8.6	7.9	
10/1/2039	9.0	8.5	7.8	
11/1/2039	9.0	8.5	7.8	
12/1/2039	8.9	8.4	7.8	
1/1/2040	8.8	8.4	7.7	
2/1/2040	8.8	8.3	7.7	
3/1/2040	8.7	8.3	7.6	
4/1/2040	8.7	8.2	7.6	
5/1/2040	8.6	8.2	7.5	
6/1/2040	8.6	8.1	7.5	
7/1/2040	8.5	8.0	7.4	
8/1/2040	8.5	8.0	7.4	
9/1/2040	8.4	7.9	7.3	
10/1/2040	8.4	7.9	7.3	
11/1/2040	8.3	7.9	7.2	
12/1/2040	8.3	7.8	7.2	
1/1/2041	8.2	7.8	7.1	
2/1/2041	8.2	7.7	7.1	
3/1/2041	8.1	7.7	7.1	
4/1/2041	8.1	7.6	7.0	
5/1/2041	8.0	7.6	7.0	
6/1/2041	8.0	7.5	6.9	
7/1/2041	7.9	7.5	6.9	
8/1/2041	7.9	7.5	6.9	
9/1/2041	7.8	7.4	6.8	
10/1/2041	7.8	7.4	6.8	

11/1/2041	7.7	7.3	6.7	
12/1/2041	7.7	7.3	6.7	
1/1/2042	7.7	7.2	6.7	
2/1/2042	7.6	7.2	6.6	
3/1/2042	7.6	7.1	6.6	
4/1/2042	7.5	7.1	6.5	
5/1/2042	7.5	7.1	6.5	
6/1/2042	7.4	7.0	6.5	
7/1/2042	7.4	7.0	6.4	
8/1/2042	7.3	6.9	6.4	
9/1/2042	7.3	6.9	6.4	
10/1/2042	7.2	6.9	6.3	
11/1/2042	7.2	6.8	6.3	
12/1/2042	7.2	6.8	6.2	
1/1/2043	7.1	6.7	6.2	
2/1/2043	7.1	6.7	6.2	
3/1/2043	7.0	6.6	6.1	
4/1/2043	7.0	6.6	6.1	
5/1/2043	6.9	6.6	6.1	
6/1/2043	6.9	6.5	6.0	
7/1/2043	6.9	6.5	6.0	
8/1/2043	6.8	6.4	5.9	
9/1/2043	6.8	6.4	5.9	
10/1/2043	6.7	6.4	5.9	
11/1/2043	6.7	6.3	5.8	
12/1/2043	6.7	6.3	5.8	
1/1/2044	6.6	6.3	5.8	
2/1/2044	6.6	6.2	5.7	
3/1/2044	6.5	6.2	5.7	
4/1/2044	6.5	6.1	5.7	
5/1/2044	6.5	6.1	5.6	
6/1/2044	6.4	6.1	5.6	
7/1/2044	6.4	6.0	5.5	
8/1/2044	6.3	6.0	5.5	
9/1/2044	6.3	5.9	5.5	
10/1/2044	6.3	5.9	5.4	
11/1/2044	6.2	5.9	5.4	
12/1/2044	6.2	5.8	5.4	
1/1/2045	6.1	5.8	5.3	
2/1/2045	6.1	5.8	5.3	
3/1/2045	6.1	5.7	5.3	
4/1/2045	6.0	5.7	5.3	
5/1/2045	6.0	5.7	5.2	
6/1/2045	6.0	5.6	5.2	
7/1/2045	5.9	5.6	5.2	
8/1/2045	5.9	5.6	5.1	
9/1/2045	5.9	5.5	5.1	
10/1/2045	5.8	5.5	5.1	
11/1/2045	5.8	5.5	5.0	
12/1/2045	5.8	5.4	5.0	
1/1/2046	5.7	5.4	5.0	
2/1/2046	5.7	5.4	5.0	
3/1/2046	5.7	5.3	4.9	
4/1/2046	5.6	5.3	4.9	
5/1/2046	5.6	5.3	4.9	
6/1/2046	5.6	5.3	4.8	
7/1/2046	5.5	5.2	4.8	
8/1/2046	5.5	5.2	4.8	
9/1/2046	5.5	5.2	4.8	
10/1/2046	5.4	5.1	4.7	
11/1/2046	5.4	5.1	4.7	
12/1/2046	5.4	5.1	4.7	
1/1/2047	5.3	5.0	4.6	
2/1/2047	5.3	5.0	4.6	
3/1/2047	5.3	5.0	4.6	
4/1/2047	5.2	4.9	4.6	
5/1/2047	5.2	4.9	4.5	
6/1/2047	5.2	4.9	4.5	
7/1/2047	5.1	4.9	4.5	
8/1/2047	5.1	4.8	4.4	
9/1/2047	5.1	4.8	4.4	
10/1/2047	5.0	4.8	4.4	

11/1/2047	5.0	4.7	4.4	
12/1/2047	5.0	4.7	4.3	
1/1/2048	5.0	4.7	4.3	
2/1/2048	4.9	4.7	4.3	
3/1/2048	4.9	4.6	4.3	
4/1/2048	4.9	4.6	4.2	
5/1/2048	4.8	4.6	4.2	
6/1/2048	4.8	4.5	4.2	
7/1/2048	4.8	4.5	4.1	
8/1/2048	4.7	4.5	4.1	
9/1/2048	4.7	4.4	4.1	
10/1/2048	4.7	4.4	4.1	
11/1/2048	4.6	4.4	4.1	
12/1/2048	4.6	4.4	4.0	
1/1/2049	4.6	4.3	4.0	
2/1/2049	4.6	4.3	4.0	
3/1/2049	4.5	4.3	4.0	
4/1/2049	4.5	4.3	3.9	
5/1/2049	4.5	4.2	3.9	
6/1/2049	4.5	4.2	3.9	
7/1/2049	4.4	4.2	3.9	
8/1/2049	4.4	4.2	3.8	
9/1/2049	4.4	4.2	3.8	
10/1/2049	4.4	4.1	3.8	
11/1/2049	4.3	4.1	3.8	
12/1/2049	4.3	4.1	3.8	
1/1/2050	4.3	4.1	3.7	
2/1/2050	4.3	4.0	3.7	
3/1/2050	4.2	4.0	3.7	
4/1/2050	4.2	4.0	3.7	
5/1/2050	4.2	4.0	3.6	
6/1/2050	4.2	3.9	3.6	
7/1/2050	4.1	3.9	3.6	
8/1/2050	4.1	3.9	3.6	
9/1/2050	4.1	3.9	3.6	
10/1/2050	4.1	3.8	3.5	
11/1/2050	4.0	3.8	3.5	
12/1/2050	4.0	3.8	3.5	
1/1/2051	4.0	3.8	3.5	
2/1/2051	4.0	3.7	3.5	
3/1/2051	3.9	3.7	3.4	
4/1/2051	3.9	3.7	3.4	
5/1/2051	3.9	3.7	3.4	
6/1/2051	3.9	3.7	3.4	
7/1/2051	3.8	3.6	3.3	
8/1/2051	3.8	3.6	3.3	
9/1/2051	3.8	3.6	3.3	
10/1/2051	3.8	3.6	3.3	
11/1/2051	3.8	3.5	3.3	
12/1/2051	3.7	3.5	3.2	
1/1/2052	3.7	3.5	3.2	
2/1/2052	3.7	3.5	3.2	
3/1/2052	3.7	3.5	3.2	
4/1/2052	3.6	3.4	3.2	
5/1/2052	3.6	3.4	3.2	
6/1/2052	3.6	3.4	3.1	
7/1/2052	3.6	3.4	3.1	
8/1/2052	3.5	3.3	3.1	
9/1/2052	3.5	3.3	3.1	
10/1/2052	3.5	3.3	3.0	
11/1/2052	3.5	3.3	3.0	
12/1/2052	3.5	3.3	3.0	
1/1/2053	3.4	3.3	3.0	
2/1/2053	3.4	3.2	3.0	
3/1/2053	3.4	3.2	3.0	
4/1/2053	3.4	3.2	2.9	
5/1/2053	3.4	3.2	2.9	
6/1/2053	3.3	3.2	2.9	
7/1/2053	3.3	3.1	2.9	
8/1/2053	3.3	3.1	2.9	
9/1/2053	3.3	3.1	2.9	
10/1/2053	3.3	3.1	2.8	

11/1/2053	3.2	3.1	2.8		
12/1/2053	3.2	3.1	2.8		
1/1/2054	3.2	3.0	2.8		
2/1/2054	3.2	3.0	2.8		
3/1/2054	3.2	3.0	2.8		
4/1/2054	3.1	3.0	2.7		
5/1/2054	3.1	3.0	2.7		
6/1/2054	3.1	2.9	2.7		
7/1/2054	3.1	2.9	2.7		
8/1/2054	3.1	2.9	2.7		
9/1/2054	3.1	2.9	2.7		
10/1/2054	3.0	2.9	2.6		
11/1/2054	3.0	2.9	2.6		
12/1/2054	3.0	2.8	2.6		
1/1/2055	3.0	2.8	2.6		
2/1/2055	3.0	2.8	2.6		
3/1/2055	2.9	2.8	2.6		
4/1/2055	2.9	2.8	2.6		
5/1/2055	2.9	2.8	2.5		
6/1/2055	2.9	2.7	2.5		
7/1/2055	2.9	2.7	2.5		
8/1/2055	2.9	2.7	2.5		
9/1/2055	2.8	2.7	2.5		
10/1/2055	2.8	2.7	2.5		
11/1/2055	2.8	2.7	2.4		
12/1/2055	2.8	2.6	2.4		
1/1/2056	2.8	2.6	2.4		
2/1/2056	2.8	2.6	2.4		
3/1/2056	2.7	2.6	2.4		
4/1/2056	2.7	2.6	2.4		
5/1/2056	2.7	2.6	2.4		
6/1/2056	2.7	2.5	2.3		
7/1/2056	2.7	2.5	2.3		
8/1/2056	2.7	2.5	2.3		
9/1/2056	2.6	2.5	2.3		
10/1/2056	2.6	2.5	2.3		
11/1/2056	2.6	2.5	2.3		
12/1/2056	2.6	2.4	2.3		
1/1/2057	2.6	2.4	2.2		
2/1/2057	2.6	2.4	2.2		
3/1/2057	2.5	2.4	2.2		
4/1/2057	2.5	2.4	2.2		
5/1/2057	2.5	2.4	2.2		
6/1/2057	2.5	2.4	2.2		
7/1/2057	2.5	2.4	2.2		
8/1/2057	2.5	2.3	2.2		
9/1/2057	2.5	2.3	2.1		
10/1/2057	2.4	2.3	2.1		
11/1/2057	2.4	2.3	2.1		
12/1/2057	2.4	2.3	2.1		
1/1/2058	2.4	2.3	2.1		
2/1/2058	2.4	2.3	2.1		
3/1/2058	2.4	2.2	2.1		
4/1/2058	2.4	2.2	2.1		
5/1/2058	2.3	2.2	2.0		
6/1/2058	2.3	2.2	2.0		
7/1/2058	2.3	2.2	2.0		
8/1/2058	2.3	2.2	2.0		
9/1/2058	2.3	2.2	2.0		
10/1/2058	2.3	2.1	2.0		
11/1/2058	2.3	2.1	2.0		
12/1/2058	2.2	2.1	2.0		
1/1/2059	2.2	2.1	1.9		
2/1/2059	2.2	2.1	1.9		
3/1/2059	2.2	2.1	1.9		
4/1/2059	2.2	2.1	1.9		
5/1/2059	2.2	2.1	1.9		
6/1/2059	2.2	2.0	1.9		
7/1/2059	2.2	2.0	1.9		
8/1/2059	2.1	2.0	1.9		
9/1/2059	2.1	2.0	1.9		
10/1/2059	2.1	2.0	1.8		

11/1/2059	2.1	2.0	1.8		
12/1/2059	2.1	2.0	1.8		
1/1/2060	2.1	2.0	1.8		
2/1/2060	2.1	2.0	1.8		
3/1/2060	2.1	1.9	1.8		
4/1/2060	2.0	1.9	1.8		
5/1/2060	2.0	1.9	1.8		
6/1/2060	2.0	1.9	1.8		
7/1/2060	2.0	1.9	1.7		
8/1/2060	2.0	1.9	1.7		
9/1/2060	2.0	1.9	1.7		
10/1/2060	2.0	1.9	1.7		
11/1/2060	1.9	1.8	1.7		
12/1/2060	1.9	1.8	1.7		
1/1/2061	1.9	1.8	1.7		
2/1/2061	1.9	1.8	1.7		
3/1/2061	1.9	1.8	1.7		
4/1/2061	1.9	1.8	1.6		
5/1/2061	1.9	1.8	1.6		
6/1/2061	1.9	1.8	1.6		
7/1/2061	1.9	1.8	1.6		
8/1/2061	1.9	1.8	1.6		
9/1/2061	1.8	1.7	1.6		
10/1/2061	1.8	1.7	1.6		
11/1/2061	1.8	1.7	1.6		
12/1/2061	1.8	1.7	1.6		
1/1/2062	1.8	1.7	1.6		
2/1/2062	1.8	1.7	1.6		
3/1/2062	1.8	1.7	1.5		
4/1/2062	1.8	1.7	1.5		
5/1/2062	1.8	1.7	1.5		
6/1/2062	1.7	1.6	1.5		
7/1/2062	1.7	1.6	1.5		
8/1/2062	1.7	1.6	1.5		
9/1/2062	1.7	1.6	1.5		
10/1/2062	1.7	1.6	1.5		
11/1/2062	1.7	1.6	1.5		
12/1/2062	1.7	1.6	1.5		
1/1/2063	1.7	1.6	1.4		
2/1/2063	1.7	1.6	1.4		
3/1/2063	1.7	1.6	1.4		
4/1/2063	1.6	1.5	1.4		
5/1/2063	1.6	1.5	1.4		
6/1/2063	1.6	1.5	1.4		
7/1/2063	1.6	1.5	1.4		
8/1/2063	1.6	1.5	1.4		
9/1/2063	1.6	1.5	1.4		
10/1/2063	1.6	1.5	1.4		
11/1/2063	1.6	1.5	1.4		
12/1/2063	1.6	1.5	1.4		
1/1/2064	1.6	1.5	1.4		
2/1/2064	1.5	1.4	1.3		
3/1/2064	1.5	1.4	1.3		
4/1/2064	1.5	1.4	1.3		
5/1/2064	1.5	1.4	1.3		
6/1/2064	1.5	1.4	1.3		
7/1/2064	1.5	1.4	1.3		
8/1/2064	1.5	1.4	1.3		
9/1/2064	1.5	1.4	1.3		
10/1/2064	1.5	1.4	1.3		
11/1/2064	1.5	1.4	1.3		
12/1/2064	1.5	1.4	1.3		
1/1/2065	1.4	1.3	1.2		
2/1/2065	1.4	1.3	1.2		
3/1/2065	1.4	1.3	1.2		
4/1/2065	1.4	1.3	1.2		
5/1/2065	1.4	1.3	1.2		
6/1/2065	1.4	1.3	1.2		
7/1/2065	1.4	1.3	1.2		
8/1/2065	1.4	1.3	1.2		
9/1/2065	1.4	1.3	1.2		
10/1/2065	1.4	1.3	1.2		



11/1/2065	1.4	1.3	1.2		
12/1/2065	1.4	1.3	1.2		
1/1/2066	1.3	1.3	1.2		
2/1/2066	1.3	1.3	1.2		
3/1/2066	1.3	1.3	1.2		
4/1/2066	1.3	1.2	1.2		
5/1/2066	1.3	1.2	1.1		
6/1/2066	1.3	1.2	1.1		
7/1/2066	1.3	1.2	1.1		
8/1/2066	1.3	1.2	1.1		
9/1/2066	1.3	1.2	1.1		
10/1/2066	1.3	1.2	1.1		
11/1/2066	1.3	1.2	1.1		
12/1/2066	1.3	1.2	1.1		
1/1/2067	1.3	1.2	1.1		
2/1/2067	1.2	1.2	1.1		
3/1/2067	1.2	1.2	1.1		
4/1/2067	1.2	1.2	1.1		
5/1/2067	1.2	1.2	1.1		
6/1/2067	1.2	1.1	1.1		
7/1/2067	1.2	1.1	1.1		
8/1/2067	1.2	1.1	1.0		
9/1/2067	1.2	1.1	1.0		
10/1/2067	1.2	1.1	1.0		
11/1/2067	1.2	1.1	1.0		
12/1/2067	1.2	1.1	1.0		
1/1/2068	1.2	1.1	1.0		
2/1/2068	1.2	1.1	0.9		
3/1/2068	1.1	1.1			
4/1/2068	1.1	1.1			
5/1/2068	1.1	1.1			
6/1/2068	1.1	1.1			
7/1/2068	1.1	1.1			
8/1/2068	1.1	1.1			
9/1/2068	1.1	1.0			
10/1/2068	1.1	1.0			
11/1/2068	1.1	1.0			
12/1/2068	1.1	1.0			
1/1/2069	1.1	1.0			
2/1/2069	1.1	1.0			
3/1/2069	1.1	1.0			
4/1/2069	1.1	0.5			
5/1/2069	1.1				
6/1/2069	1.0				
7/1/2069	1.0				
8/1/2069	1.0				
9/1/2069	1.0				
10/1/2069	1.0				
11/1/2069	1.0				
12/1/2069	1.0				
1/1/2070	0.8				

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENTFORM APPROVED  
OMB NO. 1004-0135  
Expires: July 31, 2010

## 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.*

Lease Serial No.  
NMNM0544986

6. If Indian, Allottee or Tribe Name

SUBMIT IN TRIPLICATE - Other instructions on reverse side.

7. If Unit or CA/Agreement, Name and/or No.  
NMNM135070

1. Type of Well

☒ Oil Well ☐ Gas Well ☐ Other8. Well Name and No.  
Multiple--See Attached

2. Name of Operator

Contact: ERIN WORKMAN  
DEVON ENERGY PRODUCTION COMPANY  
Email: Erin.workman@devn.com9. API Well No.  
Multiple--See Attached

3a. Address

6488 SEVEN RIVERS HIGHWAY  
ARTESIA, NM 88211

3b. Phone No. (include area code)

Ph: 405-552-7970

10. Field and Pool, or Exploratory  
SAND DUNES  
UNDESIGNATED

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

Multiple--See Attached

11. County or Parish, and State

EDDY COUNTY, NM

## 12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input checked="" type="checkbox"/> Other
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	Surface Commingling
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> 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 recomple 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 shall 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 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

Devon Energy Production Company, LP respectfully requests approval for a Lease Commingle for the following wells:

Aldabra 25 Fed Com 1H  
30-015-38612  
SWSW, Sec. 25, T23S, R31E  
53805 Sand Dunes; Bone Spring  
Lease NMNM 0544986, NMNM 405444A, & CANNMNM135070

Aldabra 25 Fed Com 2H  
30-015-38613  
SWSW, Sec. 25, T23S, R31E

Artesia, N.M.  
OCT 24 2016

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

Electronic Submission #355063 verified by the BLM Well Information System  
For DEVON ENERGY PRODUCTION COMPANY LP, sent to the Carlsbad  
Committed to AFMSS for processing by DUNCAN WHITLOCK on 10/18/2016 (17DW0003SE)

Name (Printed/Typed) ERIN WORKMAN

Title REGULATORY COMPLIANCE PROF.

Signature (Electronic Submission)

Date 10/18/2016

## THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By <i>J.D. Whitlock</i>	Title <i>TLOET</i>	Date <i>10/18/16</i>
Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.		Office <i>CFO</i>

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

\*\* BLM REVISED \*\* BLM REVISED \*\* BLM REVISED \*\* BLM REVISED \*\* BLM REVISED \*\*

REVISED

**Additional data for EC transaction #355063 that would not fit on the form**

**Wells/Facilities, continued**

Agreement	Lease	Well/Fac Name, Number	API Number	Location
NMNM0544986	NMNM0544986	ALDABRA 25 FEDERAL 6H	30-015-38602-00-S1	Sec 25 T23S R31E SESE Lot P 200FSL 1050FEL
NMNM0544986	NMNM0544986	ALDABRA 25 FEDERAL 3H	30-015-38614-00-S1	Sec 25 T23S R31E SESW 200FSL 2260FWL
NMNM0544986	NMNM0544986	ALDABRA 25 FEDERAL 7H	30-015-38603-00-S1	Sec 25 T23S R31E SESE Lot P 200FSL 1000FEL
NMNM135070	NMNM0405444A	ALDABRA 25 FEDERAL COM 1H	30-015-38612-00-S1	Sec 25 T23S R31E SWSW 200FSL 635FWL
NMNM135070	NMNM0405444A	ALDABRA 25 FEDERAL COM 2H	30-015-38613-00-S1	Sec 25 T23S R31E SWSW 200FSL 685FWL

**32. Additional remarks, continued**

53805 Sand Dunes; Bone Spring  
Lease NMNM 0544986, NMNM 405444A, & CANNMNM135070

Aldabra 25 Fed 3H  
30-015-38614  
SESW, Sec. 25, T23S, R31E  
53805 Sand Dunes; Bone Spring  
Lease NMNM 0544986

Aldabra 25 Fed 6H  
30-015-38602  
SESE, Sec. 25, T23S, R31E  
53805 Sand Dunes; Bone Spring  
Lease NMNM 0544986

Aldabra 25 Fed 7H  
30-015-38603  
SESE, Sec. 25, T23S, R31E  
53805 Sand Dunes; Bone Spring  
Lease NMNM 0544986

The central tank battery is located on the shared pad of the Aldabra 25 Fed 6H & 7H in Sec. 25-SESE-T23S-R31E, Eddy County, New Mexico. The Aldabra 25 Fed 6H & 7H will flow into a common header. Both wells will be routed to a 2 phase separator with gas allocation meter to meter the gas and produced fluids will route to a Heater Treater with a turbine meter to meter oil and a flow meter to meter water. Both the Aldabra 25 Fed 6H and 7H will be shut-in once a month for a minimum of 24 hours on alternate days to meter the oil, gas, and water of each well. The Aldabra 25 Fed 1H, 2H, & 3H production will flow through each of their own three phase separator with Coriolis to meter the oil, flow meter to meter the water, and gas allocation meter to meter the gas. VRU gas will be allocated back to each well utilizing a percentage of each wells monthly oil production.

The Aldabra 25 Fed 6H & 7H battery will have four oil tanks that all five wells will utilize. The Aldabra 25 Fed 1H, 2H, & 3H have a common gas sales meter DCP CDP #728891-00 located northwest corner of CTB in Section 25, T23S, R31E. The Aldabra 25 Fed 6H & 7H will share a common gas sales meter SUG CDP #57447 located SWNW in Section 16, T23S, R31E. All five wells will share a common LACT Smith Meter TT563020HP002F.

Devon Energy Production Company, LP understands the requested approval will not constitute the granting of any right-of-way or construction rights not granted by the lease instrument. ROW 1990-A & 2232.

Working, royalty, and overriding interest owners have been notified of this proposal via certified mail (see attached).

ATTACHMENTS: SENT TO DUNCAN WHITLOCK

**Bureau of Land Management  
Carlsbad Field Office  
620 East Greene Street  
Carlsbad, New Mexico 88220  
575-234-5972**

**Devon Energy Production Co.**

October 2, 2016

**Condition of Approval**

Surface commingling, off lease storage measurement and sales, and alternate method of measurement.

Aldabra 25 Fed Com 1H, Aldabra 25 Fed Com 2H, Aldabra 25 Fed 3H, Aldabra 25 Fed 6H, Aldabra 25 Fed 7H

3001538612, 3001538613, 3001538614, 3001538602 & 3001538603

Lease NM0544986, NM0405444A & CA NM135070

1. This approval is subject to like approval by the New Mexico Oil Conservation Division.
2. This agency shall be notified of any spill or discharge as required by NTL-3A.
3. This agency reserves the right to modify or rescind approval whenever it determines continued use of the approved method may adversely affect the surface or subsurface environments.
4. This approval does not constitute right-of-way approval for any off-lease activities. Within 30 days, an application for right-of-way approval must be submitted to the Realty Section if not already done.
5. Approval for combining production from various sources is a privilege which is granted to lessees for the purpose of aiding conservation and extending the economic life of leases. Applicants should be cognizant that failure to operate in accordance with the provisions outlined in the Authorized Officer's conditions of approval and/or subsequent stipulations or modifications will subject such approval to revocation.
6. Gas measurement for allocation must be measured as per Onshore Order #5 for sales meters.
7. All gas and oil subject to royalty shall be measured as per federal regulations and shall be reported to ONRR as required. All gas which is vented, flared or used on lease shall be reported as per NTL-4A to ONRR. All gas which is vented or flared shall be subject to royalty, unless prior approval was given by the authorized officer.
8. This agency shall be notified of any change in sales method or location of sales point.
9. Additional wells and/or leases require additional commingling approvals.
10. Notify this office 24 Hrs. prior to any meter proving to allow time for an inspector to witness.
11. Approval for alternate method of measurement for oil production. Coriolis meters will be used off 3 phase separators for allocation of oil production and oil will be sold through a common LACT meter at facility.

**STATE OF NEW MEXICO  
ENERGY, MINERALS, AND NATURAL RESOURCES DEPARTMENT  
OIL CONSERVATION DIVISION**

**IN THE MATTER OF THE HEARING  
CALLED BY THE OIL CONSERVATION  
DIVISION FOR THE PURPOSE OF  
CONSIDERING:**

**CASE NO. 15540  
ORDER NO. R-14299**

**APPLICATION OF OXY USA, INC. FOR APPROVAL OF SURFACE LEASE  
COMMINGLING, OFF-LEASE STORAGE, AND OFF-LEASE MEASUREMENT,  
EDDY COUNTY, NEW MEXICO.**

**ORDER OF THE DIVISION**

**BY THE DIVISION:**

This case came on for hearing at 8:15 a.m. on September 15, 2016 at Santa Fe, New Mexico, and again on January 5, 2017, both before Examiner William V. Jones.

NOW, on this 14th day of February, 2017, the Division Director, having considered the testimony, the record, and the recommendations of the Examiner,

**FINDS THAT:**

(1) Due public notice has been given, and the Division has jurisdiction of this case and its subject matter.

(2) The applicant, OXY USA, Inc. ("OXY"), seeks approval for surface lease commingling within one pool, off-lease storage, and off-lease measurement of oil and associated gas production.

(3) OXY also seeks an exception to the metering requirements of 19.15.12.10 C.(1) NMAC by authorizing the allocation of production from diversely owned, horizontally drilled oil wells on the basis of periodic well tests.

(4) OXY proposes to commingle oil and gas production from all current and future wells producing from the Pierce Crossing; Bone Spring, East Pool (96473) underlying the following acreage ("subject acreage"):

Township 24 South, Range 29 East, NMPM, Eddy County, New Mexico.

Section 22: S/2 N/2 and N/2 S/2

Section 23: All

Section 24: W/2

(5) The following wells (with associated acreage dedication) are drilled or currently planned for drilling within the subject acreage:

Cedar Canyon 22 Federal Well No. 21H S/2 N/2 Section 22	(API No. 30-015-43642) (160 acres)
Cedar Canyon 22 Federal Com Well No. 4H N/2 S/2 Section 22	(API No. 30-015-43708) (160 acres)
Cedar Canyon 23 Federal Well No. 3H Cedar Canyon 23 Federal Well No. 4H S/2 N/2 Section 23 and S/2 NW/4 Section 24	(API No. 30-015-43290) (API No. 30-015-43281) (240 acres)
Cedar Canyon 23 Federal Well No. 5H N/2 N/2 Section 23 and N/2 SW/4 Section 24	(API No. 30-015-43282) (240 acres)
Cedar Canyon 23 Federal Com Well No. 6H Cedar Canyon 23 Federal Com Well No. 33H N/2 S/2 Section 23 and N/2 SW/4 Section 24	(API No. 30-015-Pending) (API No. 30-015-Pending) (240 acres)
S/2 S/2 Section 23 SW/4 Section 24	No Wells Permitted at this time No Wells Permitted at this time

(6) Each well proposed for commingling within this acreage produces from the Pierce Crossing; Bone Spring, East Pool (96473) which is governed by Special Rules promulgated by Division Order No. R-13248 in Case No. 14420. Said rules allow a Limiting Gas Oil Ratio of 5000 to 1, but retain all other Division rules for oil wells.

(7) OXY intends to utilize a production and a test separator at the Cedar Canyon 23-3H satellite facility (the "facility"), located at the well pad of the Cedar Canyon 23 Federal Well No. 3H in Unit I of Section 22, and use periodic well tests to allocate oil and gas production back to diversely owned wells feeding into that facility.

(8) Gas from that facility will be metered from both separators and combined into the low pressure gas gathering system and transported approximately two miles north to the Enterprise Sales Meter.

(9) Oil from that facility will be measured using a test turbine meter and a production turbine meter, then combined and transported southwest to the Cedar Canyon 22 Satellite located in Unit L of Section 22 where it will be tanked, metered through a Coriolis meter and sold at the nearby central tank battery, also within Unit L.

(10) OXY provided the following testimony at the hearing from a Landman and two engineers:



- (a) OXY proposed this diversely owned commingle using well tests for allocation in an earlier administrative application. The Division asked that it be presented before an examiner where the well test method for horizontal Bone Spring wells which have been hydraulically fractured and are exhibiting hyperbolic oil production decline behavior could be presented in more detail.
- (b) The SW/4 SW/4 of Section 23 is privately owned and leased at higher than 1/8<sup>th</sup> royalty rate. All other lands being proposed for commingling are federally owned and leased at 1/8<sup>th</sup> royalty. Four Federal oil and gas leases (NMNM013996, NMNM088138, NMNM081586, and NMNM093477) cover the federal lands being proposed for commingling.
- (c) The horizontal well project areas being proposed for commingling are diversely owned. There are numerous overriding royalty owners in the federal leases. The leases in Section 23 are 100 percent OXY working interest.
- (d) All owners, including the Bureau of Land Management ("BLM"), were noticed of the administrative application as well as the application(s) for hearing, and no one has voiced an objection.
- (e) The production from each well will be gathered into the Cedar Canyon 23-3H satellite facility, located on fee surface at the well pad of the Cedar Canyon 23 Federal Well No. 3H in Unit I of Section 22 where the oil and gas from each well will be tested and measured using periodic well tests.
- (f) The Cedar Canyon 22 Satellite is located in Unit L of Section 22 where oil production from all the wells will be tanked, metered through a Coriolis LACT and sold at the nearby central tank battery, also within Unit L.
- (g) There would be considerable additional costs to install the additional separators needed to provide constant metering from the diversely owned tracts; and those additional meters would also be turbine meters and not Coriolis meters.
- (h) Approval of this commingle as proposed would allow OXY to efficiently and effectively transport, store, and market production from the subject acreage.
- (i) OXY's proposed testing methodology is based on the American Petroleum Institute Manual of Petroleum Measurement Standards, Chapter 20 (API MPMS 20.1).

- (j) The decline life cycle of these Bone Spring horizontal wells would be partitioned into four stages beginning with the flow back after fracturing to peak production rate. For each of these stages, the wells would be tested at differing frequencies for optimum accuracy. For example, the early time stage would need more frequent testing of that well to accurately utilize well tests to allocate monthly production volumes among all wells being commingled prior to sales.
- (k) For this commingle application consisting of hyperbolically declining horizontally drilled Bone Spring wells, OXY is proposing Range 1 as the period from peak production to two months after peak production. Range 2 would be months 3 to 12. Range 3 would begin at month 12 and continue through the life of the well. Range 1 would require more frequent well testing, with an adequately sized test separator, than the frequency needed while the same well is within Range 3.
- (l) To adequately install production equipment for each well would require equipment designed for the peak production, which would be an over design for the period commencing only a few months after peak production from that well due to the rapid decline. The wells would in most cases begin production at staggered times; therefore, production equipment designed around the concept of well testing is most efficient and increases the likelihood of a proper design and utilization of the turbine and gas meters.
- (m) The initial production from these wells sometimes includes slug flow which requires larger vessels to have adequate retention time. Early flow also sometimes contains sand from the hydraulic fracture treatment which also creates problems with operation of equipment.
- (n) The time increment for sales through the custody transfer meters is monthly.
- (o) Most of the newer oil custody transfer sites (or LACT) include a Coriolis meter which is fed by a pump; while the older LACTs had displacement meters. The Coriolis meter has been accepted as a sales measurement by the BLM in Onshore Order No. 4 and is regarded as more accurate than the displacement meters. The turbine meters handle gas better than the Coriolis meters and are less expensive, so they are used upstream of the actual sales point.
- (p) OXY generated "type curves" for production from the various Bone Spring sands using available production "Rate vs Time" data and volumetric estimates of recoverable oil. The generated Rate vs

Time plots were supplied to the facilities engineer for properly designing production equipment. The engineers identified the separate segments of the decline behavior for purposes of frequency of well testing.

- (q) These wells may produce over the top allowable for a short, three month period in their early life, then are expected to produce below top allowable for the remaining life of each well. After an initial period of hyperbolic decline, production stabilizes at a more predictable exponential decline rate.

The Division concludes as follows:

(11) The application was properly advertised to affected parties including to the BLM. No other parties entered appearances in this case or otherwise opposed this application.

(12) The proposed method of measurement and allocation of production between the subject wells is reasonable and sufficiently reliable to protect the correlative rights of owners of separate interests in the production from the wells.

(13) The requested exception to the metering requirements of 19.15.12.10 C.(1) NMAC should be approved. The use of periodic well tests for diversely owned wells prior to commingling for oil and gas production and sales should be approved to ensure efficient use of surface facilities and to protect correlative rights. The operator should use more frequent well tests, as proposed in this application, during the earlier stages of each well to ensure accuracy of allocation.

(14) Measurement and allocation methods for commingling of diversely owned production is governed by Division Rule 19.15.12.10 C (1) NMAC. These methods include continuous metering or: "~~other methods the division has specifically approved~~ prior to commingling." There is a need to allow the commonly used "well test method" as proposed in this case, as an "other method".

(15) Henceforth the Division, upon receiving administrative requests for diversely owned commingling of oil wells, should have the option of considering approval of the Well Testing Method. Any such proposed application should include "type curves" showing expected oil production versus time behavior, the expected completion schedule of all wells to be serviced by the test separator, the maximum number of wells to be serviced at any time by each test separator, the maximum expected daily production from any well, the size and type of the test separator and specifics of the test meters. The application should propose a well testing frequency which is acceptable based on these parameters, which varies based on the stages of oil production decline, and which follows guidance provided in the American Petroleum Institute Manual of Petroleum Measurement Standards, Chapter 20 (API MPMS 20.1). These requirements should be in the application advertised to all affected parties and the administrative application must be unopposed.

(16) OXY's proposed commingling of oil and gas production from the Pierce Crossing; Bone Spring, East Pool (96473) within the lands described above for all existing and future wells should be approved to protect correlative rights and prevent waste.

(17) Off-lease storage, measurement, and sales should be approved for all leases not located on measurement or sales points.

(18) This application should be approved.

**IT IS THEREFORE ORDERED THAT:**

(1) The applicant, OXY USA, Inc. ("OXY"), is hereby authorized to surface commingle oil and gas production from all current and future wells producing from the Pierce Crossing; Bone Spring, East Pool (96473) underlying the following acreage:

Township 24 South, Range 29 East, NMPM, Eddy County, New Mexico.

Section 22: S/2 N/2 and N/2 S/2

Section 23: All

Section 24: W/2

(2) The production facilities for well testing and measurement shall be the Cedar Canyon 23-3H satellite facility, located at the well pad of the Cedar Canyon 23 Federal Well No. 3H in Unit I of Section 22, and the Cedar Canyon 22 Satellite located in Unit L. The sales point for oil is located within Unit L. The sales point for gas is located off-lease approximately two miles north of this commingle. Off-lease storage, measurement, and sales is approved for all leases not located on these measurement or sales locations.

(3) The requested exception to the metering requirements of Rule 19.15.12.10 C.(1) NMAC is hereby approved. The use of periodic well tests for diversely owned wells prior to commingling for oil and gas production and sales is approved. The operator shall use more frequent well tests, as proposed in this application, during the earlier stages of each well's oil production to ensure accuracy of allocation.

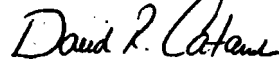
(4) Henceforth the Division, upon receiving administrative requests for commingling of oil and associated gas from diversely owned leases, shall have the option of considering approval of the Well Testing Method if the operator supplies evidence in the application acceptable to the Division of proper test facility design, proposes a well testing frequency which is acceptable, which varies based on the stages of oil production decline, and which follows guidance provided in the American Petroleum Institute Manual of Petroleum Measurement Standards, Chapter 20 (API MPMS 20.1).

(5) Expansion of this permitted area as specified in ordering Paragraph (1) or the addition of any pool other than the pool specified in ordering Paragraph (1) shall entail an amended permit application. Amendments shall be permitted administratively, after proper notice, unless deemed necessary for Division hearing by the Division Director.

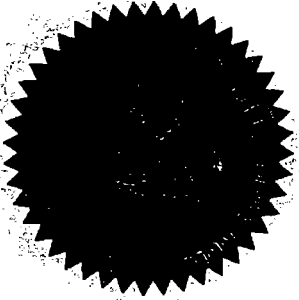
(6) Jurisdiction is hereby retained for the entry of such further orders as the Division may deem necessary.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO  
OIL CONSERVATION DIVISION



DAVID R. CATANACH  
Director



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