

ABOVE THIS LINE FOR DIVISION USE ONLY

**NEW MEXICO OIL CONSERVATION DIVISION**

- 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

**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.

REESA FISHER  
 Print or Type Name

*Reesa Fisher*  
 Signature

SR STAFF REG ANALYST  
 Title

6/29/2015  
 Date

MAE F CURRY #003

Reesa.Fisher@apachecorp.com  
 e-mail Address

- DHL 4769  
 - Apache Corporation  
 873

RECEIVED OGD  
 09 JUL 14 10 33 50

WEL  
 - MAE F CURRY #3  
 30-025-35853  
 POB  
 - Paddock  
 49210  
 - Handy Blincoy  
 29710  
 - Handy, Tubb-  
 Shirk and  
 29760

**District I**  
1625 N. French Drive, Hobbs, NM 88240

**District II**  
1301 W. Grand Avenue, 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

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

Form C-107A  
Revised June 10, 2003

APPLICATION TYPE  
 Single Well  
 Establish Pre-Approved Pools  
EXISTING WELLBORE  
 Yes  No

**APPLICATION FOR DOWNHOLE COMMINGLING**

Apache Corporation 303 Veterans Airpark Lane Suite 1000 Midland TX 79705  
Operator Address  
Mae F Curry 003 D 7 21S 37E Lea  
Lease Well No. Unit Letter-Section-Township-Range County  
OGRID No. 873 Property Code 309145 API No. 30-025-35853 Lease Type:  Federal  State  Fee

DATA ELEMENT	UPPER ZONE	INTERMEDIATE ZONE	LOWER ZONE
Pool Name	Paddock	Hardy; Blinebry	Hardy; Tubb-Drinkard
Pool Code	49210	29710	29760
Top and Bottom of Pay Section (Perforated or Open-Hole Interval)	5664'-5685'	5708'-5878'	6420'-6810'
Method of Production (Flowing or Artificial Lift)	Artificial Lift	Artificial Lift	Artificial Lift
Bottomhole Pressure (Note: Pressure data will not be required if the bottom perforation in the lower zone is within 150% of the depth of the top perforation in the upper zone)			
Oil Gravity or Gas BTU (Degree API or Gas BTU)	35.0	38.0	38.0
Producing, Shut-In or New Zone	New Zone	New Zone	Producing
Date and Oil/Gas/Water Rates of Last Production. (Note: For new zones with no production history, applicant shall be required to attach production estimates and supporting data.)	Date: Rates: See Attached	Date: Rates: See Attached	Date: Rates: See Attached
Fixed Allocation Percentage (Note: If allocation is based upon something other than current or past production, supporting data or explanation will be required.)	Oil      Gas 37 %      26 %	Oil      Gas 50 %      34 %	Oil      Gas 13 %      40 %

## Downhole Commingle Request



Date: June 1, 2015  
From: Bret Shapot  
Subject: Downhole Commingle Request  
Mae F Curry #3 (API: 30-025-35853)  
Lea County, New Mexico  
(APA: 100% WI, 87.53% NRI)

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### Summary

The Mae F. Curry #3 is located at 660' FNL & 660' FWL of Section 7, Township 21S & Range 37E, Lea County, NM. The well was drilled in April 2002, and completed and placed on production from the Hardy Tubb-Drinkard in May 2002. An off-set well to the east, Mae F. Curry #5, was completed in the Hardy Blinebry pool in October 2014. The original plan was to complete the Mae F. Curry #3 in the Hardy Blinebry pool similar to the Mae F. Curry #5. However, after review of the downhole logs for Mae F. Curry #3, the best course of action is to also complete the lower Hardy Paddock zone. We request approval to downhole commingle the Hardy Tubb-Drinkard with the Hardy Blinebry pool and Hardy Paddock pool in this well.

### Discussion

The Hardy-Tubb Drinkard has been producing in the Mae F. Curry #3 since May 2002 and is currently producing at a rate of approximately 3 BOPD, 84 MCFD, and 15 BWPD based on recent well tests. Estimated remaining recoverable reserves from the Hardy-Tubb Drinkard are 6.3 MBO, 200.0 MMCF, along with 35.4 MBW (see attachments). Remaining oil reserves were determined using decline curve analysis. Remaining gas reserves were forecasted using a gas-oil ratio of 31.7 MMCF/MBO (average over the last 12-months) and water production forecasted at a water-oil ratio of 5.6 MBW/MBO (average over the last 12-months).

Neither the Hardy Blinebry nor the Hardy Paddock has been completed in the Mae F. Curry #3; however, similar zones have been completed and produced commercially from several offset wells, with the average ultimate reserve recovery from the Hardy Blinebry for six of these offset wells estimated to be 46 MBO, 281.5 MMCF, along with 224.2 MBW. These offsets were chosen for evaluation due to their proximity to the Mae F. Curry #3 and availability of quality production data for the Hardy Blinebry.

Based on well logs, the performance of the Hardy Blinebry in the Mae F. Curry #3 is expected to be comparable to these offsets; however, there is a decent pay zone approximately 90 feet above the Blinebry top marker that appears to be productive. This bottom most Paddock pay zone is comparable to the upper Blinebry in off-set wells. For this reason it is recommended to include the lower Paddock in the downhole commingle. The combined EUR will still be the same as the Blinebry only off-sets since the producing zone is similar, but the Paddock allocation will be estimated based on percent net pay in the completed section.

An incremental rate and reserve profile for completing the Blinebry/Paddock in this well was generated by fitting a production profile for both oil and gas to wells that have been completed in the Blinebry with allocations.

The results predict a differential production increase from the Blinebry/Paddock to be 26.2 BOPD and 75.0 MCF with an EUR of 37.5 MBO and 268 MCF. Using the estimated remaining reserve recovery for the Hardy Tubb-Drinkard and the expected reserve recovery for completing the Hardy Blinebry and Hardy Paddock, a fixed allocation percentage allocation is recommended for the Mae F. Curry #3 as shown in Table 1 below:

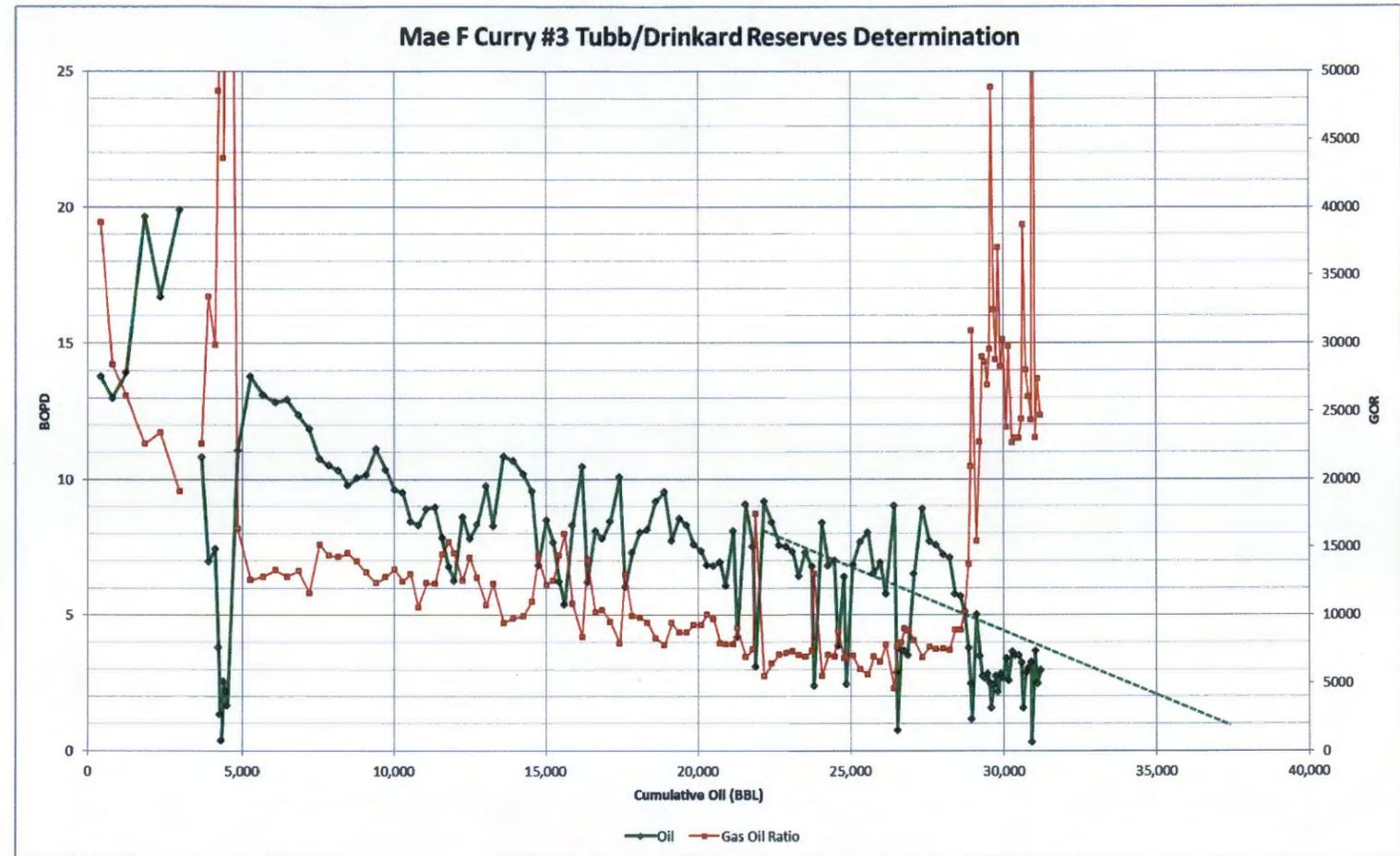
**Table 1: Mae F Curry #3 Allocations**

Pool	Fluid	Expected Recovery	Percent Allocation
Hardy Paddock	Oil (MBO)	16.1	37.3%
	Gas (MMCF)	115.0	25.6%
	Water (MBW)	66.4	35.6%
Hardy Blinebry	Oil (MBO)	21.4	49.5%
	Gas (MMCF)	152.5	34.0%
	Water (MBW)	88.2	47.2%
Hardy Tubb-Drinkard	Oil (MBO)	5.7	13.2%
	Gas (MMCF)	180.9	40.3%
	Water (MBW)	32.0	17.2%
Cumulative	Oil (MBO)	43.2	100%
	Gas (MMCF)	448.4	100%
	Water (MBW)	186.7	100%

**List of Attachments**

- A1. Mae F. Curry #3 Production Plot and Remaining Reserve Determination
- A2. Hardy Blinebry Reserve Determination for Offset Wells
- A3. Mae F. Curry #3 Area Map
- A4. Proposed Wellbore Diagram
- A5. Proposed Procedure

A1. Mae F. Curry #3 Production Plot and Remaining Reserve Determination



	Oil (BBL)	Gas (MCF)	Water (BBL)
Cumulative Production	31,797	448,426	60,241
Estimated EUR	37,500	636,369	93,418
Remaining Recoverable	5,703	187,943	33,177

**A2. Hardy Blinebry Reserve Determination for Offset Wells**

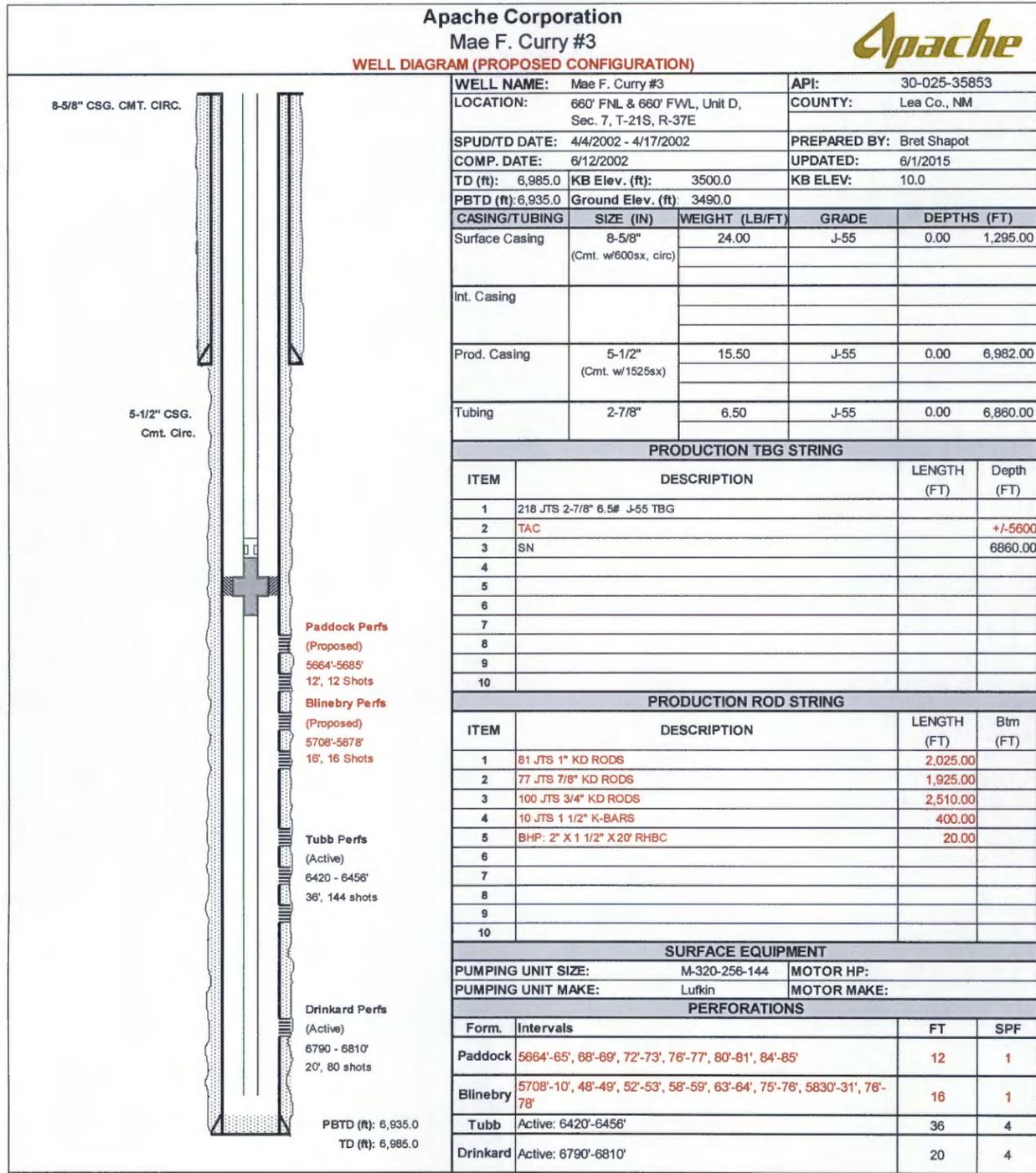
Lease	Well No.	API	Hardy Blinebry Production Dates		Hardy Blinebry Cumulative Production to Date			Hardy Blinebry Estimated EUR*			Hardy Blinebry Peak IP30		
			Start	End	Oil (BBL)	Gas (MCF)	Water (BBL)	Oil (BBL)	Gas (MCF)	Water (BBL)	(BOPD)	(MCFD)	
Deck Estate 7	1	30-025-33677	Apr-05	Dec-14	43,280	145,307	37,295	135,000	275,000	106,977	23.6	67.5	
H.T. Mattern NCT-C	12	30-025-25547	Mar-78	Sep-87	20,679	131,604	194,812	22,500	152,000	264,588	24.9	179.3	
Oxy State F 1	1	30-025-35176	May-03	Dec-14	23,831	194,629	265,505	37,500	340,000	567,538	21.2	105.6	
State F-1	10	30-025-27034	Sep-86	Aug-08	34,999	213,861	32,583	40,500	570,000	36,154	32.2	151.5	
State F-1	11	30-025-35466	Jan-04	Dec-14	25,054	119,878	173,773	38,000	160,000	202,254	18.4	44.2	
State F-1	17	30-025-38429	Sep-07	Dec-14	27,077	178,965	315,745	37,500	220,000	532,207	55.6	249.9	
State F-1	15	30-025-35771	Jan-04	Dec-14	24,550	187,793	59,219	32,500	260,000	75,602	13.5	74.6	
WBDU	25	30-025-26265	Jul-80	Feb-07	21,939	186,114	24,738	25,000	275,000	30,518	19.9	79.7	
					<b>Mean</b>	<b>27,676</b>	<b>169,769</b>	<b>137,959</b>	<b>46,063</b>	<b>281,500</b>	<b>226,980</b>	<b>26.2</b>	<b>119.1</b>
					<b>P50</b>	<b>24,802</b>	<b>182,540</b>	<b>116,496</b>	<b>37,500</b>	<b>267,500</b>	<b>154,615</b>	<b>22.4</b>	<b>92.7</b>

\*Oil and gas EUR forecast using decline curve analysis. Water forecast using last 12 months average WOR

Lease	Well No.	API	Notes
Deck Estate 7	1	30-025-33677	Blinebry completed and zone tested to determine allocation. Placed on production DHC with Drinkard April 2005
H.T. Mattern NCT-C	12	30-025-25547	Blinebry completed and zone tested to determine allocation. Placed on production DHC with Drinkard January 1979. No digital log
Oxy State F 1	1	30-025-35176	Well produced from the Blinebry only from May 2003 to Current
State F-1	10	30-025-27034	Well produced from the Blinebry only from September 1986 to November 1996. No digital log
State F-1	11	30-025-35466	Blinebry completed and zone tested to determine allocation. Placed on production DHC with Tubb/Drinkard January 2004
State F-1	17	30-025-38429	Blinebry completed and zone tested to determine allocation. Placed on production DHC with Tubb/Drinkard September 2007. No digital log
State F-1	15	30-025-35771	Blinebry completed and zone tested to determine allocation. Placed on production DHC with Tubb/Drinkard January 2004. No digital log
WBDU	25	30-025-26265	Blinebry completed and zone tested to determine allocation. Placed on production DHC with Drinkard February 1981



A4. Proposed Wellbore Diagram



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

HOBBS OCD  
JUN 08 2015

AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

<sup>1</sup> API Number 30-025-35853	<sup>2</sup> Pool Code 49210	<sup>3</sup> Pool Name Paddock
<sup>4</sup> Property Code 309145	<sup>5</sup> Property Name Mae F Curry	<sup>6</sup> Well Number 003
<sup>7</sup> OGRID No. 873	<sup>8</sup> Operator Name Apache Corporation: 303 Veterans Airpark Lane, Suite 1000 Midland, TX 79705	<sup>9</sup> Elevation 3490' GL

<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
D	7	21S	37E		660	North	660	West	Lea

<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

<sup>12</sup> Dedicated Acres 40	<sup>13</sup> Joint or Infill	<sup>14</sup> Consolidation Code	<sup>15</sup> Order No. DHC-HOB-533
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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.

				<sup>17</sup> 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. <i>Reesa Fisher</i> 06/04/2015 Signature Date Reesa Fisher Printed Name	
				<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.	
				Date of Survey Signature and Seal of Professional Surveyor:	
				Certificate Number	

JUN 09 2015

pm

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

HOBBS OCD  
MAR 30 2015

RECEIVED  AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-025-35853		Pool Code 29710	Pool Name Hardy; Blinebry
Property Code 309145	Property Name Mae F Curry		Well Number 003
GRID No. 873	Operator Name Apache Corporation: 303 Veterans Airpark Lane, Suite 1000 Midland, TX 79705		Elevation 3490' GL

10 Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
D	7	21S	37E		660	North	660	West	Lea

11 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				
<table border="1"> <tr> <td>Dedicated Acres 48 36.63</td> <td>Joint or Infill</td> <td>Consolidation Code</td> <td>Order No.</td> </tr> </table>										Dedicated Acres 48 36.63	Joint or Infill	Consolidation Code	Order No.
Dedicated Acres 48 36.63	Joint or Infill	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.

				<p>17 OPERATOR CERTIFICATION</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 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.</p> <p><i>Reesa Fisher</i> 03/18/2015 Signature Date</p> <p>Reesa Fisher Printed Name</p>
				<p>18 SURVEYOR CERTIFICATION</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>Date of Survey</p> <p>Signature and Seal of Professional Surveyor:</p>
				<p>Certificate Number</p>

APR 08 2015

RICT I  
N.M. Form 1900, Hobbs, NM 88241-1900

DISTRICT II  
P.O. Drawer 88, Artesia, NM 88213-0718

DISTRICT III  
1000 Rio Brazos Rd., Artesia, NM 87410

DISTRICT IV  
P.O. BOX 2088, SANTA FE, N.M. 87504-2088

OIL CONSERVATION DIVISION  
P.O. Box 2088  
Santa Fe, New Mexico 87504-2088

Form C-102  
Revised February 10, 1994  
Submit to Appropriate District Office  
State Lease - 4 Copies  
Fee Lease - 3 Copies

WELL LOCATION AND ACREAGE DEDICATION PLAT

AMENDED REPORT

API Number <b>30-025-35853</b>	Pool Code <b>29760</b>	Pool Name <b>Hardy (Tubb-Drinkard)</b>
Property Code <b>2451309145</b>	Property Name <b>MITE F CURRY</b>	Well Number <b>3</b>
OGRID No. <b>000278 873</b>	Operator Name <b>Apache Corp</b> <del>St. Michaels Production Company</del>	Elevation <b>3490'</b>

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>D/1</b>	<b>7</b>	<b>21-S</b>	<b>37-E</b>		<b>660</b>	<b>NORTH</b>	<b>660</b>	<b>WEST</b>	<b>LEA</b>

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

Dedicated Acres <b>4.83</b>	Joint or Infill	Consolidation Code	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

		<p><b>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.</p> <p><i>Andrea J. Moore</i> Signature</p> <p><b>Andrea J. Moore</b> Printed Name</p> <p><b>Regulatory Assistant</b> Title</p> <p><b>5-14-2002</b> Date</p>
<p>36.63 AC <del>Lot 2</del></p>	<p>GEOGRAPHIC LOCATION NAD 27 Y= 547002.8 X= 846999.5 LAT. 32°29'55.63"N LONG 104°12'28.29"W</p>	<p><b>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 style="text-align: center;">FEBRUARY 20, 2002</p> <p>Date Surveyed: _____ AWB</p> <p>Signature &amp; Seal of Professional Surveyor <i>Ronald J. Eidson 2/22/02</i> 02.11.0145</p>
<p>36.65 AC LOT 3</p>		<p>Certificate No. <b>RONALD J. EIDSON 3239</b> <b>GARY EIDSON 12641</b></p>
<p>36.67 AC LOT 4</p>		
<p>36.69 AC</p>		

6/9/2015 1:18:37 PM

Clock %	Valid Test	Volumes					Fluids		Ratios					
		Ttl Liq.	Oil	Ttl Gas	Frm Gas	Water	Lift	Level	Pump	GOR	WOR	GLR	IGLR	WGR
Superintendent: NW DISTRICT (CARNES)						Foreman: EUNICE [HUNTER]								
	True	23.00	3.00	83.00	83.00	20.00				27.67	6.67	3.61		0.24
	True	18.00	3.00	80.00	80.00	15.00				26.67	5.00	4.44		0.19
	True	18.00	3.00	77.00	77.00	15.00				25.67	5.00	4.28		0.20
	True	18.00	3.00	84.00	84.00	15.00				28.00	5.00	4.67		0.18
		19.25	3.00	81.00	81.00	16.25								



June 24, 2015

State of New Mexico  
Oil Conservation Division  
1220 South St. Francis Drive  
Santa Fe, New Mexico 87505

Re: Application for Down Hole Commingling (Identical Ownership)  
Mae Curry #3  
Section 7, Township 21 South, Range 37 East  
Lea County, NM

Ladies and Gentlemen:

Identical ownership (working interest, royalty, and overriding royalty owners) exists as to all formations below 3,885 feet underlying the Mae Curry #3 in the following described lands:

Township 21 South, Range 37 East  
Section 7: Lot 1 (NW/4NW/4)  
Lea County, NM

If you have any question regarding the aforementioned, please do not hesitate contacting the undersigned at (432) 818-1846.

Sincerely,  
**APACHE CORPORATION**

Laci Lawrence  
Landman  
[laci.lawrence@apachecorp.com](mailto:laci.lawrence@apachecorp.com)