

DATE 11/14/12	SUSPENSE	ENGINEER WJS	LOGGED IN 11/14/12	TYPE DHC 2506 A	APP NO. PWJS 1231947090
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ABOVE THIS LINE FOR DIVISION USE ONLY

NEW MEXICO OIL CONSERVATION DIVISION

- Engineering Bureau -

1220 South St. Francis Drive, Santa Fe, NM 87505



2012 NOV 13 P 2:14

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 HOLLAND
Print or Type Name

Reesa Holland
Signature

SR STAFF REG TECH
Title

11/8/2012
Date

Reesa.Holland@apachecorp.com
e-mail Address

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

Form C-107A
Revised June 10, 2003

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

APPLICATION TYPE

☒ Single Well

☐ Establish Pre-Approved Pools

EXISTING WELLBORE

☒ Yes ☐ No

APPLICATION FOR DOWNHOLE COMMINGLING

Apache Corporation

303 Veterans Airpark Lane Suite 3000 Midland TX 79705

Operator

Address

Bertha Barber

016

K

5

20S

37E

Lea

Lease

Well No.

Unit Letter-Section-Township-Range

County

OGRID No. 873 Property Code 306595 API No. 30-025-33919 Lease Type: ☐ Federal ☐ State ☒ Fee

DATA ELEMENT	UPPER ZONE	INTERMEDIATE ZONE	LOWER ZONE
Pool Name	Monument; Blinebry	Monument; Tubb	Monument; Abo
Pool Code	46990	47090	46970
Top and Bottom of Pay Section (Perforated or Open-Hole Interval)	5604'-5802' (Perfs)	6418'-6481' (Perfs)	7204'-7230' (Perfs)
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)	NA	NA	NA
Oil Gravity or Gas BTU (Degree API or Gas BTU)	35.3 API	35.3 API	35.3 API
Producing, Shut-In or New Zone	Abandoned	Abandoned	Abandoned
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 78 % 37 %	Oil Gas 13 % 32 %	Oil Gas 9 % 31 %

ADDITIONAL DATA

Are all working, royalty and overriding royalty interests identical in all commingled zones? Yes ☒ No ☐
If not, have all working, royalty and overriding royalty interest owners been notified by certified mail? Yes ☐ No ☐

Are all produced fluids from all commingled zones compatible with each other? Yes ☒ No ☐

Will commingling decrease the value of production? Yes ☐ No ☒

If this well is on, or communitized with, state or federal lands, has either the Commissioner of Public Lands
or the United States Bureau of Land Management been notified in writing of this application? Yes ☐ No ☐

NMOCD Reference Case No. applicable to this well: _____

Attachments:

- C-102 for each zone to be commingled showing its spacing unit and acreage dedication.
- Production curve for each zone for at least one year. (If not available, attach explanation.)
- For zones with no production history, estimated production rates and supporting data.
- Data to support allocation method or formula.
- Notification list of working, royalty and overriding royalty interests for uncommon interest cases.
- Any additional statements, data or documents required to support commingling.

PRE-APPROVED POOLS

If application is to establish Pre-Approved Pools, the following additional information will be required:

- List of other orders approving downhole commingling within the proposed Pre-Approved Pools
- List of all operators within the proposed Pre-Approved Pools
- Proof that all operators within the proposed Pre-Approved Pools were provided notice of this application.
- Bottomhole pressure data.

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

SIGNATURE Reesa Holland TITLE Sr. Staff Reg Tech DATE 11/8/2012

TYPE OR PRINT NAME Reesa Holland TELEPHONE NO. (432) 818-1062

E-MAIL ADDRESS Reesa.Holland@apachecorp.com



November 8, 2012

Mr. Will Jones
New Mexico Oil Conservation Division
1220 South Saint Francis Drive
Santa Fe, New Mexico 87505-4225

RE: Amend Order DHC-2506 to include Blinebry Pool
Bertha Barber #16 – API 30-025-33919
Unit K, Section 5, T-20-S, R-37-E
Monument; Blinebry (46990), Monument; Tubb (Oil-47090) & Monument; Abo (Oil-46970) Pools
Lea County, New Mexico

Dear Mr. Jones:

Enclosed please find form C-107A and attachments for downhole commingling the captioned well. The ownerships (WI, NRI and ORRI) of these pools are identical in this wellbore. The fluids from each of these pools are compatible as seen in other similar commingles in the area. Combining these fluids will not result in any damage to these pools nor will it reduce the value of the total remaining production. Commingling will improve the efficiency of present and future recovery operations. Cross flow will not be a problem due to having a production lift system capable of keeping the well pumped off thereby maximizing production.

The allocation method used for this well was determined by analyzing the cumulative oil, gas and water production in a nine section area of review surrounding this well. Supporting documentation is shown on the attached spreadsheet. Production for active and inactive wells was grouped by pool in the area of review. The totals for each phase were then divided by the number of wells associated with this pool yielding an average. This average was used to determine the percentage allocation. The area of review used encompasses what has been accepted as a good statistical representation for allocation purposes. By using this allocation method all zones will be brought online in a more effective and efficient manner. This will in turn generate a higher productive rate and quicker revenue streams not only for the operator but for the State of New Mexico too.

If you need additional information or have any questions, please give me a call at (432) 818-1062.

Sincerely,

Reesa Holland
Sr. Staff Regulatory Technician

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

Form C-102
Revised October 12, 2005
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-025-33919		² Pool Code 46990	³ Pool Name Monument; Blinebry
⁴ Property Code 306595	⁵ Property Name Bertha Barber		⁶ Well Number 016
⁷ OGRID No. 873	⁸ Operator Name Apache Corporation: 303 Veterans Airpark Lane, Suite 3000 Midland, TX 79705		⁹ Elevation 3554'

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
K	2	20S	37E		2140	South	1650	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
¹² Dedicated Acres 40	¹³ Joint or Infill	¹⁴ Consolidation Code		¹⁵ Order No. DHC-2506					

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.

<div style="text-align: center;">16</div>	<p>¹⁷ OPERATOR CERTIFICATION</p> <p><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></p> <p><u>Reesa Holland</u> 11/08/2012 Signature Date</p> <p>Reesa Holland Printed Name</p>	
	<p>¹⁸ SURVEYOR CERTIFICATION</p> <p><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></p>	
	<p>Date of Survey</p> <p>Signature and Seal of Professional Surveyor:</p>	
	<p>Certificate Number</p>	

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OIL CONSERVATION DIVISION
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☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-025-33919		² Pool Code 47090	³ Pool Name Monument; Tubb
⁴ Property Code 306595	⁵ Property Name Bertha Barber		⁶ Well Number 016
⁷ OGRID No. 873	⁸ Operator Name Apache Corporation: 303 Veterans Airpark Lane, Suite 3000 Midland, TX 79705		⁹ Elevation 3554'

¹⁰ Surface Location

UL or lot no. K	Section 2	Township 20S	Range 37E	Lot Idn	Feet from the 2140	North/South line South	Feet from the 1650	East/West line West	County Lea
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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
¹² Dedicated Acres 80	¹³ Joint or Infill	¹⁴ Consolidation Code		¹⁵ Order No. DHC-2506					

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.

<div style="position: relative; height: 400px;"> <div style="position: absolute; top: 10px; left: 10px;">16</div> <div style="position: absolute; bottom: 10px; left: 10px;"> </div> </div>	<p>¹⁷ OPERATOR CERTIFICATION</p> <p><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></p> <p><u>Reesa Holland</u> 11/08/2012 Signature Date</p> <p>Reesa Holland Printed Name</p>	
	<p>¹⁸ SURVEYOR CERTIFICATION</p> <p><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></p> <p>Date of Survey Signature and Seal of Professional Surveyor:</p>	
	<p>Certificate Number</p>	

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☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

* API Number 30-025-33919		* Pool Code 46970	* Pool Name Monument; Abo
* Property Code 306595	* Property Name Bertha Barber		* Well Number 016
* OGRID No. 873	* Operator Name Apache Corporation: 303 Veterans Airpark Lane, Suite 3000 Midland, TX 79705		* Elevation 3554'

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
K	2	20S	37E		2140	South	1650	West	Lea

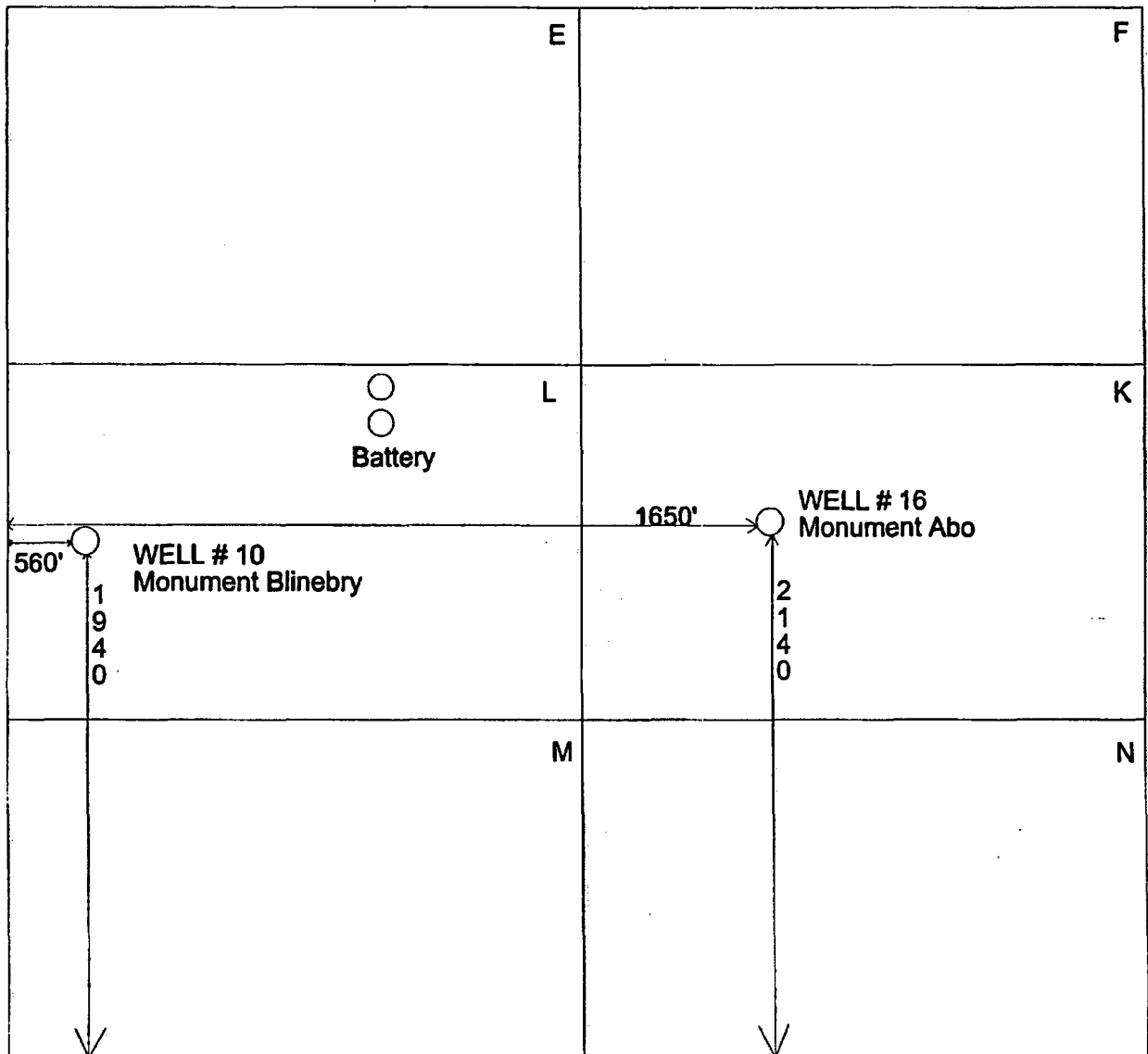
11 Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
* Dedicated Acres 40		* Joint or Infill		* Consolidation Code		* Order No. DHC-2506			

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 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><u>Reesa Holland</u> 11/08/2012 Signature Date Reesa Holland Printed Name</p>
	<p>18 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.</p> <p>Date of Survey Signature and Seal of Professional Surveyor:</p>
	<p>Certificate Number</p>

**BERTHA BARBER LEASE
SEC. 5, T-20-S, R-37-E
MONUMENT FIELD
LEA COUNTY, NM**



Lease Name	Well Number	10DIGITAPI	Location	Cum Oil (BBL)			Cum Gas (MCF)			Cum Water (BBL)		
				Blinbry	Tubb	Abo	Blinbry	Tubb	Abo	Blinbry	Tubb	Abo
B V CULP NCT B	4	3002505765	31P 19S 37E SE SE	198252			183901			29640		
J R PHILLIPS A	5	3002505772	31M 19S 37E	243327			210592			1149128		
ARCO PHILLIPS A	7	3002505779	31N 19S 37E	95814			710698			42074		
ADKINS	5	3002505902	5M 20S 37E	27199								
BERTHA BARBER	9	3002505914	5E 20S 37E	201740			342078			3452		
BERTHA BARBER	10	3002505915	5L 20S 37E	353315			417692			859204		
BRITT B	2	3002505924	5N 20S 37E	22264								
L M LAMBERT	2	3002505926	6G 20S 37E C SW NE		66			5728			272903	
L M LAMBERT	4	3002505928	6H 20S 37E C SE NE		1981	1466		830357	6991		6011	799
L M LAMBERT	5	3002505929	6G 20S 37E	364740			614936			325410		
L M LAMBERT	6	3002505930	6H 20S 37E	349153			749966			472710		
L M LAMBERT	7	3002505931	6 20S 37E	274780			304251			1095031		
L M LAMBERT	8	3002505932	6B 20S 37E	222824			122253			445350		
BRITT A 6	3	3002505939	6 20S 37E N2 NW SW	169496			47786			646122		
BRITT A 6	5	3002505941	6 20S 37E	408901			343755			3362560		
G C MATTHEWS	5	3002505946	6J 20S 37E NW NW SE	249429	357	22337	250562	7819	206022	364649	47267	38034
G C MATTHEWS	6	3002505947	6I 20S 37E SW NE SE	86491								
G C MATTHEWS	7	3002505948	6P 20S 37E	6900								
G C MATTHEWS	8	3002505949	6O 20S 37E	218997			98409			7372		
G C MATTHEWS	11	3002505952	6I 20S 37E	102097			258898			634476		
G C MATTHEWS	12	3002505953	6P 20S 37E SW SE SE	94675	2703		52244	313478		16231	2538	
J R PHILLIPS	5	3002505958	6D 20S 37E	236984		24428	41728		1376245	179500		166279
J R PHILLIPS	6	3002505959	6 20S 37E N2 SW NW		4571	84770		36027	2522178		5713	150923
J R PHILLIPS	7	3002505960	6E 20S 37E	128158			100336			55418		
J R PHILLIPS	8	3002505961	6F 20S 37E	246145			262945			467428		
J R PHILLIPS	9	3002505962	6F 20S 37E NE NW	391165			303595			1639361		
BRITT A	3	3002505968	6K 20S 37E	131314								
BRITT A	4	3002505969	6N 20S 37E	90467								
BERTHA J BARBER	9	3002505977	7A 20S 37E NE NE	366428			467005			125773		
BERTHA J BARBER	12	3002505978	7A 20S 37E N2 NE NE		862	2743		1136650	13506		1776	160
BERTHA J BARBER	14	3002505979	7H 20S 37E SE NE	388068			386810			5478438		
BERTHA J BARBER	17	3002505980	7I 20S 37E	220859			220155			476247		
COOPER B	10	3002505988	7 20S 37E	139367			673160			29621		
BRITT	10	3002505997	7B 20S 37E	330545			732403			2975528		
BRITT	11	3002505998	7G 20S 37E	115833			139138			297420		
BRITT	12	3002505999	7C 20S 37E	36450								
BRITT	13	3002506000	7J 20S 37E	3168								
T ANDERSON	3	3002506003	8K 20S 37E	153040			188321			233194		
T ANDERSON	4	3002506004	8K 20S 37E	388115			549378			181947		
BRITT B 8	2	3002506007	8C 20S 37E NE NE NW	47192			15587			13621		
BERTIE WHITMIRE	5	3002506015	8F 20S 37E	276693			336767			106967		
BERTIE WHITMIRE	6	3002506016	8B 20S 37E SW NW NE			40215			114747			56944
BERTIE WHITMIRE	8	3002506018	8F 20S 37E			38705			162422			90452
BERTHA J BARBER	8	3002506023	8D 20S 37E NW NW	433875			843601			150423		
BERTHA J BARBER	10	3002506024	8E 20S 37E SW NW	504809			698774			162140		
BERTHA J BARBER	11	3002506025	8L 20S 37E NW SW	496776			464654			4377292		
T ANDERSON	3	3002506031	8J 20S 37E NW SE	55960			137847			123047		
L VAN ETEN	8	3002506048	9P 20S 37E	174251			554644			75875		
L VAN ETEN	11	3002520217	9I 20S 37E C NE SE		68230			768554			12149	
BARBER ADKINS 8	1	3002520436	8D 20S 37E C NW NW		13773			175027			28202	
LAUGHLIN	1	3002521652	9H 20S 37E	901	53957		5902	462225		6360	61699	
L VAN ETEN	12	3002521773	9O 20S 37E NW SW SE	119285	3536		344426	1009082		99495	125654	
V LAUGHLIN	4	3002521926	9A 20S 37E	39976				172669			7415	
T ANDERSON	4	3002525292	8I 20S 37E		1781			8000			19238	
ANDERSON	1	3002529962	8O 20S 37E SW SE	13664	12260		61381	29946		91036	101798	
L VAN ETEN	13	3002531727	9K 20S 37E SE NE SW	52506	621	16793	70423	368786	62692	8670	2997	5342
L VAN ETEN	14	3002532518	9M 20S 37E NE SW SW	55715	1564	14009	141968	197064	188770	5373	18214	25609
L VAN ETEN	15	3002532880	9N 20S 37E N2 SE SW	46458			131592			184634		
L VAN ETEN	16	3002532881	9L 20S 37E	114070			415574			154627		
W H LAUGHLIN	7	3002533141	9E 20S 37E		41001			423750			98695	
THEODORE ANDERSON	10	3002533236	8P 20S 37E	181473			561888			59291		
T ANDERSON	5	3002533296	8I 20S 37E	46133			93892			76504		
J R PHILLIPS	13	3002533306	6 20S 37E	11920			5294			135429		
BERTHA BARBER	16	3002533919	5K 20S 37E NW NE SW	299	33442	88931	2895	85789	317485	31961	3104	1808
THEODORE ANDERSON	12	3002534021	8P 20S 37E SE SE SE		21997				436600			48086
LAUGHLIN	2	3002534067	9G 20S 37E SW SW NE		10798			122756			34270	
BERTHA BARBER	17	3002534204	5F 20S 37E SW SE NW	88544	3182		633508	13432		21454	1245	
BERTHA BARBER	18Y	3002534327	5L 20S 37E SE NW SW	7303	24837		34250	134986	70677	622050	195999	29732
W H LAUGHLIN	8	3002534341	9F 20S 37E NW SE NW		16152			178085			14920	
L VAN ETEN	19	3002534528	9 20S 37E SE SW SE	3252	1530	8512	4223	106	18095	2664	2664	9949
LAUGHLIN	1	3002534975	4N 20S 37E SW SE SW		33304	4626		117724	14213		11594	1869
J R PHILLIPS	15	3002535119	6 20S 37E W2 NE NW		3	16855		551205	71897		33	96703
COOPER 5	6	3002535151	5G 20S 37E SW SW NE		16754			56621			14741	
LAUGHLIN	2	3002535182	4L 20S 37E W2 NW SW		56973			411419			27763	
LAUGHLIN	3	3002535348	4O 20S 37E SE SW SE		50185			137655			34636	
COOPER 5	7	3002535399	5H 20S 37E S2 SE NE		119715			685186			28870	
LAUGHLIN	4	3002535477	4J 20S 37E SW NW SE		112360			308899			38022	
J R PHILLIPS	16	3002535501	6F 20S 37E NE SE NW			5177			244913			169907
LAUGHLIN	5	3002535584	4H 20S 37E SE SE NE		18782			93700			112939	
LAUGHLIN	6	3002535676	4F 20S 37E SW SE NW		28386			78080			31148	
BAXTER CULP 31	5	3002535692	31P 19S 37E SE SE SE		6221	14778		1715	25089		22631	16467
LOVE 32	3	3002535694	32O 19S 37E SW SW SE	9672	31693		26662	35495		93173	67605	
LAUGHLIN 5	1	3002535827	5P 20S 37E NE SE SE		35340			182192			112033	
LAUGHLIN 5	2	3002535862	5J 20S 37E SE NW SE		58600			639654			31444	
LAUGHLIN	8	3002535870	4M 20S 37E SE SW SW		32248			149227			23678	
LAUGHLIN	7	3002535891	4K 20S 37E SW NE SW		34297			136290			36460	
COOPER 4	3	3002535934	4E 20S 37E SW SW NW		2297			2101			1558	
LAUGHLIN	9	3002535958	4I 20S 37E SE NE SE		24018			56559			71380	
COOPER 5	9	3002535990	5 20S 37E SE NW NE		37106			134062			111946	

Bertha Barber #16
30-025-33919
Apache Corp.

Lease Name	Well Number	10DIGITAPI	Location	Cum Oil (BBL)			Cum Gas (MCF)			Cum Water (BBL)		
				Blinebry	Tubb	Abo	Blinebry	Tubb	Abo	Blinebry	Tubb	Abo
LAUGHLIN 5	3	3002536000	5I 20S 37E NW NE SE		84419			732103			117716	
LAUGHLIN 5	4	3002536023	5O 20S 37E N2 SW SE		75272			191036			27449	
COOPER 5	8	3002536045	5 20S 37E SW NE NE		93532			379217			384045	
BERTHA BARBER	21	3002536134	5 20S 37E SE NE NW		55925			667324			121704	
LAUGHLIN 8	1	3002536147	8A 20S 37E		53142	16024		258342	51411		29531	11289
LAUGHLIN	10	3002536161	4P 20S 37E NW SE SE		26422			80668			76651	
BERTIE WHITMIRE	11	3002536331	8B 20S 37E W2 NW NE		47758			177109			77669	
BERTHA BARBER 7	1	3002536472	7I 20S 37E NE NE SE			45662			750134			142754
COOPER 8	2	3002536529	8H 20S 37E SE NE		3307	39		16594			27301	1278
V LAUGHLIN	5	3002536675	9D 20S 37E		5508	31571		16304	110961		4143	17673
BARBER ADKINS 8	2	3002536717	8L 20S 37E SW NW SW			10863			79513			29677
BERTHA BARBER	22	3002539564	5K 20S 37E		9179			1622			54323	
BERTHA BARBER	23	3002539565	5L 20S 37E		14267			50488			103540	
V LAUGHLIN	7	3002539587	9D 20S 37E		2749	18983		16714	54824		9094	83629
V LAUGHLIN	8	3002539899	9C 20S 37E			9073			75689			10208
T ANDERSON	5	3002539900	8N 20S 37E		1216	4218		4921	18295		2424	22592
W H LAUGHLIN	12	3002539905	9E 20S 37E	276	623	7927	3091	4636	84885	3859	8682	18663
W H LAUGHLIN	11	3002539909	9F 20S 37E			5072			64834			1878
T ANDERSON	6	3002540145	8K 20S 37E			18976			32891			25867
T ANDERSON	7	3002540146	8N 20S 37E			12363			25424			21550
V LAUGHLIN	11	3002540148	9B 20S 37E			5428			24269			61246
LAUGHLIN	5	3002540207	9G 20S 37E		72			7157			1250	
TOTALS				9,708,983	1,578,063	615,440	13,728,330	13,304,326	7,417,189	28,177,775	2,893,763	1,373,532
AVERAGES				170,333	29,223	19,233	280,170	246,376	239,264	575,057	53,588	42,923

Proposed Allocations	Oil	Gas	Water
Blinebry	78%	37%	86%
Tubb	13%	32%	8%
Abo	9%	31%	6%
TOTAL	100%	100%	100%

Bertha Barber #16
API # 30-025-33919
Sec 5, T20S, R37E
Elevation: 3570' KB, 3554' GL
TD: 7,800'
PBTD: 5,563'

Casing Record: 13-3/8" 48# @ 490' w/ 545 sxs
8-5/8" 24# & 28# @ 2429' w/ 980 sxs
7" 23# @ 5122' w/ 150 sxs
4-1/2" 11.6# K-55 @ 7796' w/ 235 sxs
Liner HRG @ 4812 w/ 4-1/2" tie-back string to surface w/ 450 sxs

Perfs: Blinebry: 5604'-5802' (218 holes) (Temporarily Abandoned w/ CIBP @ 5563')
Tubb: 6418'-6481' (66 holes) (Abandoned w/ CIBP @ 5880' & 5900')
Abo: 7204'-7230' (54 holes) (Abandoned w/ CIBP @ 5880' & 5900')

Objective: Drill out all plugs, squeeze the Blinebry and acid stimulate the Tubb and Abo.

AFE: PA-12-4504

1. MIRU unit. Check pressure on well.
2. ND WH. NU BOP. PU and RIH w/ 3-7/8" bit, bit sub, and drill collars on 2-3/8" J-55 tubing to be used as work string to CIBP @ 5,563'. RU reverse unit and break circulation. Drill out CIBP or push to \pm 5,880'. POOH.
3. RIH w/ CICR on WS and set at \pm 5,550'. Sting into CICR.
4. MIRU cement Service Company. Establish injection rate into perforations. Pump cement as dictated by injection rate. Hesitate squeeze perforations per Monument office recommendations. Displace to bottom perf with 32 bbls of flush.
5. Sting out of CICR and POOH w/ WS.
6. PU and RIH w/ 3-7/8" bit, bit sub and drill collars on WS. Tag CICR. RU reverse unit and break circulation. Drill out CICR and cement to 5,880'. Test casing squeeze to 1000 psi. *If squeeze does not test, repeat step 3-6.*
7. Continue to drill out CIBP and cement at 5,900'. TIH and clean well out to 7,300'. POOH.
8. RIH w/ sonic hammer on 2-3/8" WS to 7230'.
9. MIRU acid services. Acidize the Abo (7204-7230) with 1500 gallons 20% NEFE and the Tubb (6418-6481) with 2000 gallons 20% NEFE, respectively, through the sonic hammer.
10. RU swab equipment and recover load and swab test for fluid entry and oil cut. Report results to Midland. RD swab equipment. *If unproductive, SI for future evaluation or plugging*
11. Kill well if necessary. TOH w/ sonic hammer and WS.
12. RIH w/ production tubing and rods as per the Monument office specifications.
13. RDMOPU. Return well to production and place into test for 10 days.

GL=3554'
KB=3570'
Spud:5/12/97

Apache Corporation – Bertha Barber #16

Wellbore Diagram – Proposed

Date : 10/30/2012

API: 30-025-33919

Surface Location

R. Taylor



2140' FNL & 1650' FWL,
Lot K Sec 5, T20S, R37E, Lea County, NM

Surface Casing

13-3/8" 48# K-55 @ 490' w/ 545 sxs to surface

Intermediate Casing

8-5/8" 24# & 28# @ 2429' w/ 980 sxs to surface

9/99: Sqz'd csg leak @ 3,758'-3,788' w/1600 sxs 800 sx foamed, 100 sx thix, 700 sx class "C" w/ adds; multiple attempts failed

9/99: Ran 7" csg patch @ 3,753'-3793'.

9/99: Ran 108 jts 4-1/2" tie-back string to surf, pmpd 450 sx class "C" neat, then stung into liner top.

6/97: 4-1/2"x 7" Liner Hanger @ 4812'

Intermediate Casing II

7" 23# K-55 @ 5122' w/ 150 sxs

5/07: Perf Blinebry @ 5,604'-30', 5684'-5730', 5,744'-52', 56'-60', 70'-72', 80'-87', 98'-5,802'. (218 holes) Acidized w/ 8000 gal 15% HCl.

TBD: SQZ Blinebry w/ XX sxs cement

7/07: Set CIBP @ 5,737'. Isolated fr/ 5,744'-5,802'. 3/08: DO CIBP & push down to 5,880'.

5/07: Set CIBP @ 5,900' w/10'cmt.

10/99: Perf Tubb @ 6418-6422, 6437-6439, 6442-6452, 6464-6481 w/ 1 jspf. (66 holes). Acidized w/ 3000 gal 15%. Frac'd w/ 33k gal Delta frac w/ 32.5k# 20/40 snd.

TBD: Acidized w/ 2000 gallons 20% NEFE

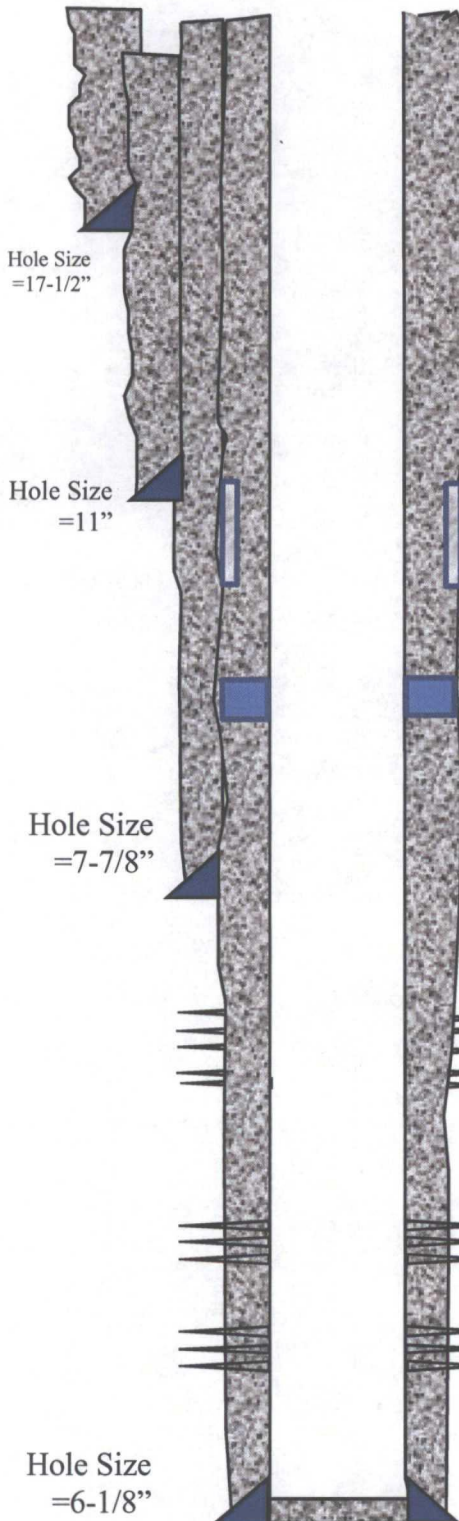
6/97: Perf Abo @ 7,204 - 7,230' w/ 2 jspf (54 holes). Acidize w/2,000 gals 15% Ferchek

TBD: Acidized w/ 1500 gallons 20% NEFE

2/05: Tight spot in csg @ 7,447'.

Production Liner

4-1/2" 11.6# K-55 @ 7796' w/ 235 sxs to 4812'
Liner Hanger @ 4812'





**NEW MEXICO ENERGY, MINERALS
& NATURAL RESOURCES DEPARTMENT**

**OIL CONSERVATION DIVISION
2040 South Pacheco Street
Santa Fe, New Mexico 87505
(505) 827-7131**

AMENDED ADMINISTRATIVE ORDER DHC-2506

Marthon Oil Company
P.O. Box 2490
Hobbs, New Mexico 88240

Attention: Mr. Thomas P. Kacir

*Bertha Barber Well No. 16
API No. 30-025-33919
Unit K, Section 5, Township 20 South, Range 37 East, NMPM,
Lea County, New Mexico.
Monument-Tubb (Oil - 47090), and
Monument-Abo (Oil - 46970) Pools*

Dear Mr. Kacir:

Reference is made to your recent application for an exception to Rule 303.A. of the Division Rules and Regulations to permit the above described well to commingle production from the subject pools in the wellbore.

It appearing that the subject well qualifies for approval for such amendment pursuant to the provisions of Rule 303.C., and that reservoir damage or waste will not result from such downhole commingling, and correlative rights will not be violated thereby, you are hereby authorized to commingle the production as described above and any Division Order which authorized the dual completion and required separation of the zones is hereby placed in abeyance.

In accordance with the provisions of Rule 303.C., the daily allowable producing rates from the well are hereby established as follows:

Oil 222 B/D

Gas 2220 MCFG/D

Water 444 B/D

Assignment of allowable to the well and allocation of production from the well shall be on the following basis:

Monument-Tubb Pool	Oil-50%	Gas-28%
Monument-Abo Pool	Oil-50%	Gas-72%


Amended Administrative Order DHC-2506
Marathon Oil Company
February 1, 2000
Page 2

REMARKS: The operator shall notify the Hobbs District Office of the Division upon implementation of the commingling process.

Pursuant to Rule 303.H., the commingling authority granted herein may be rescinded by the Division Director if conservation is not being best served by such commingling.

Approved at Santa Fe, New Mexico on this 1st day of February, 2000.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION


LORI WROTENBERY
Director

SEAL

LW/DRC

cc: Oil Conservation Division - Hobbs



**NEW MEXICO ENERGY, MINERALS
& NATURAL RESOURCES DEPARTMENT**

OIL CONSERVATION DIVISION
2040 South Pacheco Street
Santa Fe, New Mexico 87505
(505) 827-7131

ADMINISTRATIVE ORDER DHC-2506

Marthon Oil Company
P.O. Box 2490
Hobbs, New Mexico 88240

Attention: Mr. Thomas P. Kacir

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In accordance with the provisions of Rule 303.C., the daily allowable producing rates from the well are hereby established as follows:

Oil 222 B/D

Gas 2220 MCFG/D

Water 444 B/D

Assignment of allowable to the well and allocation of production from the well shall be on the following basis:

Monument-Tubb Pool	Oil-76%	Gas-72%
Monument-Abo Pool	Oil-24%	Gas-28%

Administrative Order DHC-2506
Marathon Oil Company
November 10, 1999
Page 2

REMARKS: The operator shall notify the Hobbs District Office of the Division upon implementation of the commingling process.

Pursuant to Rule 303.H., the commingling authority granted herein may be rescinded by the Division Director if conservation is not being best served by such commingling.

Approved at Santa Fe, New Mexico on this 10th day of November, 1999.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION



LORI WROTENBERY
Director

SEAL

LW/DRC

cc: Oil Conservation Division - Hobbs