

DATE IN <u>9.3.10</u>	SUSPENSE	ENGINEER <u>W.J.</u>	LOGGED IN <u>9.3.10</u>	TYPE <u>DHC</u>	APP NO. <u>1024654114</u>
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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



Apache
Berta Barber #23

ADMINISTRATIVE APPLICATION CHECKLIST 30-025-39265

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]

4319

[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 _____

RECEIVED OCD
 2010 SEP - 3 P 2:37

[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. Engineering Tech
 Title

8/31/2010
 Date

Reesa.Holland@apachecorp.com
 e-mail Address



August 31, 2010

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

**RE: Application for Exception for Downhole Commingling
Bertha Barber #23 – Monument Field – API 30-025-39565
Unit L, Section 5, T-20-S, R-37-E
Tubb & Abo 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,

A handwritten signature in cursive script that reads "Reesa Holland".

**Reesa Holland
Sr. Engineering Technician**

District I
1625 N. French Drive, Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Drazos 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 023 L 5 20S 37E Lea
Lease Well No. Unit Letter-Section-Township-Range County
OGRID No. 873 Property Code 306595 API No. 30-025-39565 Lease Type: ☐ Federal ☐ State ☒ Fee

DATA ELEMENT	UPPER ZONE	INTERMEDIATE ZONE	LOWER ZONE
Pool Name	Monument; Tubb		Monument; Abo
Pool Code	47090		46970
Top and Bottom of Pay Section (Perforated or Open-Hole Interval)	6300'-6520' (Act Perf)		7070'-7600' (Act Perf)
Method of Production (Flowing or 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
Oil Gravity or Gas BTU (Degree API or Gas ETU)	35.8 API		35.8 API
Producing, Shut-In or New Zone	Producing		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: 8/19/2010 Rates: 25 oil 81 gas 110 water	Date: Rates:	Date: 8/19/2010 Rates: 18 oil 92 gas 93 water
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 59 % 47 %	Oil Gas % %	Oil Gas 41 % 53 %

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. Engineering Tech DATE 8/31/2010
TYPE OR PRINT NAME Reesa Holland TELEPHONE NO. (432) 818-1062
E-MAIL ADDRESS Reesa.Holland@apachecorp.com

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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 30-025-39565	² Pool Code 47090	³ Pool Name Monument; Tubb
⁴ Property Code 306595	⁵ Property Name Bertha Barber	⁶ Well Number 023
⁷ OGRID No. 873	⁸ Operator Name Apache Corporation: 303 Veterans Airpark Lane, Suite 3000 Midland, TX 79705	⁹ Elevation 3562' GR

¹⁰ Surface Location

UL or lot no. L	Section 5	Township 20S	Range 37E	Lot Idn	Feet from the 2290	North/South line South	Feet from the 990	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 40	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ 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.

<div style="border: 1px solid black; padding: 5px; margin-bottom: 10px;"> ¹⁶ </div>	¹⁷ OPERATOR CERTIFICATION <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> <div style="display: flex; justify-content: space-between; align-items: center;"> <div style="text-align: center;"> </div> <div>08/25/2010</div> </div> <div style="display: flex; justify-content: space-between; align-items: center;"> <div>Signature</div> <div>Date</div> </div> <div style="border-top: 1px solid black; padding-top: 5px;"> Reesa Holland Printed Name </div>			
	¹⁸ SURVEYOR CERTIFICATION <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>			
	Date of Survey Signature and Seal of Professional Surveyor: Certificate Number			

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WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-025-39565	² Pool Code 46970	³ Pool Name Monument; Abo
⁴ Property Code 306595	⁵ Property Name Bertha Barber	⁶ Well Number 023
⁷ OGRID No. 873	⁸ Operator Name Apache Corporation: 303 Veterans Airpark Lane, Suite 3000 Midland, TX 79705	⁹ Elevation 3562' GR

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¹⁶ 	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. <div style="display: flex; justify-content: space-between;"> <div> Signature </div> <div> 08/25/2010 Date </div> </div> <div> Reesa Holland Printed Name </div>			
	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.			
	Date of Survey Signature and Seal of Professional Surveyor: Certificate Number			

Lease Name	Well Number	10DIGITAPI	Location	Cum Oil (BBL)		Cum Gas (MCF)		Cum Wtr (BBL)	
				Tubb	Abo	Tubb	Abo	Tubb	Abo
L M LAMBERT	2	3002505926	6G 20S 37E C SW NE	66		4418		176127	
L M LAMBERT	4	3002505928	6H 20S 37E C SE NE	1981	1466	830357	6991	6011	799
G C MATTHEWS	5	3002505946	6J 20S 37E NW NW SE	121	22337	3228	206022	17248	38034
G C MATTHEWS	12	3002505953	6P 20S 37E SW SE SE	2702		313478		2538	
J R PHILLIPS	5	3002505958	6D 20S 37E		24428		1376245		166279
J R PHILLIPS	6	3002505959	6E 20S 37E N2 SW NW	2568	84770	11369	2522178	2944	150923
BERTHA J BARBER	12	3002505978	7A 20S 37E N2 NE NE	862	2743	1136650	13506	1776	160
BERTIE WHITMIRE	6	3002506016	8B 20S 37E SW NW NE		36765		100568		52363
BERTIE WHITMIRE	8	3002506018	8F 20S 37E		36176		154854		79683
L VAN ETTEN	11	3002520217	9I 20S 37E C NE SE	68230		768554		12149	
BARBER ADKINS 8	1	3002520436	8D 20S 37E C NW NW	12561		136884		20333	
LAUGHLIN	1	3002521652	9H 20S 37E	53957		462225		61699	
L VAN ETTEN	12	3002521773	9O 20S 37E NW SW SE	3536		1009082		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	12260		29946		101798	
L VAN ETTEN	13	3002531727	9K 20S 37E SE NE SW	621	16793	368786	62692	2997	5342
L VAN ETTEN	14	3002532518	9M 20S 37E NE SW SW	1564	14009	197064	188770	18214	25609
W H LAUGHLIN	7	3002533141	9E 20S 37E	38990		391696		94255	
BERTHA BARBER	16	3002533919	5K 20S 37E NW NE SW	33442	88931	85789	317485	3104	1808
THEODORE ANDERSON	12	3002534021	8P 20S 37E SE SE SE		21997		436600		48086
LAUGHLIN	2	3002534067	9G 20S 37E SW SW NE	9753		116602		31187	
BERTHA BARBER	17	3002534204	5F 20S 37E SW SE NW	85128	3182	590308	13432	10070	1245
BERTHA BARBER	18Y	3002534327	5L 20S 37E SE NW SW	24837	3565	134986	70677	195999	29732
W H LAUGHLIN	8	3002534341	9F 20S 37E NW SE NW		16152		178085		14920
L VAN ETTEN	19	3002534528	9 20S 37E SE SW SE	1530	8512	106	18095	2664	9949
LAUGHLIN	1	3002534975	4N 20S 37E SW SE SW	31270	4626	107399	14213	10272	1869
J R PHILLIPS	15	3002535119	6 20S 37E W2 NE NW	3	16855	505392	71897	33	96703
COOPER 5	6	3002535151	5G 20S 37E SW SW NE	15927		53312		13564	
LAUGHLIN	2	3002535182	4L 20S 37E W2 NW SW	53947		388586		23714	
LAUGHLIN	3	3002535348	4O 20S 37E SE SW SE	45584		117905		30979	
COOPER 5	7	3002535399	5H 20S 37E S2 SE NE	115239		642985		26552	
LAUGHLIN	4	3002535477	4J 20S 37E SW NW SE	103644		278745		35073	
J R PHILLIPS	16	3002535501	6F 20S 37E NE SE NW		5177		244913		169907
LAUGHLIN	5	3002535584	4H 20S 37E SE SE NE	17815		86514		95460	
LAUGHLIN	6	3002535676	4F 20S 37E SW SE NW	24750		71062		25432	
BAXTER CULP 31	5	3002535692	31P 19S 37E SE SE SE	6220	14778	1715	25089	22631	16467
LOVE 32	3	3002535694	32O 19S 37E SW SW SE	31114		34585		64572	
LAUGHLIN 5	1	3002535827	5P 20S 37E NE SE SE	32975		156218		95138	
LAUGHLIN 5	2	3002535862	5J 20S 37E SE NW SE	55301		587465		27618	
LAUGHLIN	8	3002535870	4M 20S 37E SE SW SW	27770		116915		15909	
LAUGHLIN	7	3002535891	4K 20S 37E SW NE SW	30454		121277		29624	
COOPER 4	3	3002535934	4E 20S 37E SW SW NW	2297		2101		1558	
LAUGHLIN	9	3002535958	4I 20S 37E SE NE SE	21401		47552		57933	
COOPER 5	9	3002535990	5 20S 37E SE NW NE	34091		111841		90689	
LAUGHLIN 5	3	3002536000	5I 20S 37E NW NE SE	79189		652785		100707	
LAUGHLIN 5	4	3002536023	5O 20S 37E N2 SW SE	68044		150742		21131	
COOPER 5	8	3002536045	5 20S 37E SW NE NE	83332		312844		311655	
BERTHA BARBER	21	3002536134	5 20S 37E SE NE NW	47229		584253		96633	
LAUGHLIN 8	1	3002536147	8A 20S 37E W2 NE NE	42768	13929	223213	44908	17817	8516
LAUGHLIN	10	3002536161	4P 20S 37E NW SE SE	23212		68545		65908	
BERTIE WHITMIRE	11	3002536331	8B 20S 37E W2 NW NE	47758		177109		77669	
BERTHA BARBER 7	1	3002536472	7I 20S 37E NE NE SE		39491		666154		88177
COOPER 8	2	3002536529	8H 20S 37E NE SE NE	3307	39	16594		27301	1278
V LAUGHLIN	5	3002536675	9C 20S 37E N2 NE NW	4937	29290	10478	77943	2317	10375
BARBER ADKINS 8	2	3002536717	8L 20S 37E SW NW SW		10863		76654		29677
V LAUGHLIN	7	3002539587	9D 20S 37E NW NW NW		6172		10866		10858
TOTALS				1,446,044	523,046	12,400,329	6,898,837	2,301,309	1,058,759
AVERAGES				30,126	20,922	258,340	287,452	47,944	42,350

Proposed Allocations	Oil	Gas	Water
Tubb	59%	47%	54%
Abo	41%	53%	46%
TOTAL	100%	100%	100%