

DATE IN <u>6.10.11</u>	SUSPENSE	ENGINEER <u>WVT</u>	LOGGED IN <u>6.10.11</u>	TYPE <u>DHC</u>	APP NO. <u>1116155062</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

Hansen State #12

ADMINISTRATIVE APPLICATION CHECKLIST

30-025-39563

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-El

Lea

- [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.

BEVERLY HATFIELD		SR STAFF ENGINEERING TECH	6-10-2011
Print or Type Name	Signature	Title	Date
		Beverly.Hatfield@apachecorp.com	
		e-mail Address	

District I
1835 N. Foothill Drive, El Paso, NM 88501-240

District II
1521 W. Grand Avenue, Santa Fe, NM 87501

District III
1500 Rio Rancho Road, Santa Fe, NM 87505

District IV
1220 S. Lincoln Drive, 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 3000 Midland TX 79705
Operator Address
HANSEN STATE 012 H 16 20S 37E LEA
Lease Well No. Unit Letter-Section-Township-Range County
OGRID No. 873 Property Code 306601 API No. 30-025-39563 Lease Type: Federal State ☒ Fee

DATA ELEMENT	UPPER ZONE	INTERMEDIATE ZONE	LOWER ZONE
Pool Name	MONUMENT; TUBB (oil)	SE	MONUMENT; ABO (oil)
Pool Code	47090		98764
Top and Bottom of Pay Section (Perforated or Open-Hole Interval)	6354-6546' (perms)		6928-7532' (perms)
Method of Production (Flowing or Artificial Lift)	ARTIFICIAL LIFT		ARTIFICIAL LIFT
Bottomhole Pressure (Note: Pressure data will not be required if the bottom perforation is 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 BTU)	38.7		38.7
Producing, Shut-In or New Zone	NEW ZONE		PRODUCING
Date and Oil/Gas/Water Rates of Last Production. (Note: For new wells with no production history, applicant shall be required to attach production estimates and supporting data.)	Date: EST. Rates: 41 BO 84 MCF 170 BW	Date: Rates:	Date: 6/5/2011 Rates: 17 BO 120 MCF 2 BW
Fixed Allocation Percentage (Note: If allocation is based on production, data must be submitted to support production estimates and supporting data or explanation will be required.)	Oil Gas 86 % 60 %	Oil Gas % %	Oil Gas 14 % 40 %

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 Beverly Hatfield TITLE Sr. Engineering Tech DATE 06/10/2011
TYPE OR PRINT NAME Beverly Hatfield TELEPHONE NO. (432) 818-1906
E-MAIL ADDRESS BeverlyHatfield@apachecorp.com

Jones, William V., EMNRD

From: Hatfield, Beverly [Beverly.Hatfield@apachecorp.com]
Sent: Friday, June 10, 2011 10:26 AM
To: Jones, William V., EMNRD
Subject: DHC - Hansen State 012
Attachments: 20110610121227669.pdf

Hope your Friday is going better than mine. Here is another DHC they need as soon as you can get to it. I appreciate all your time.

Bev

-----Original Message-----

From: midmidr55003@apachecorp.com [<mailto:midmidr55003@apachecorp.com>]
Sent: Friday, June 10, 2011 11:12 AM
To: Gawloski, Ted; Hatfield, Beverly
Subject:

This E-mail was sent from "midmidr50003" (Aficio MP C5000).

Scan Date: 06.10.2011 12:12:27 (-0400)
Queries to: midmidr55003@apachecorp.com



June 10, 2011

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

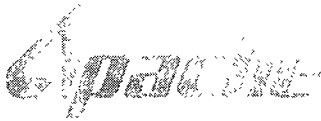
RE: Application for Exception to Rule 303-C – Downhole Commingling
HANSEN STATE 012 - API 30 025 39563
Unit H, Section 16, T-20-S, R-37-E
Monument; Abo, Southeast (Oil) & Monument; Tubb (Oil)
Lea County, New Mexico

Dear Mr. Jones,

Enclosed please find form C-1037A 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. 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. This commingling will not reduce the value of the total remaining 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 main reason for using this method is based on economics and minimizing reservoir damage. Past completion practices had all zones perforated and fracture stimulated during one full week. Each zone was isolated by a retrievable bridge plug to allow for production testing of each zone for allocation purposes. This testing period lasted as long as one month before a stabilized rate was observed thus allowing the next zone to be brought on and tested.



During this time period the completion fluids used were still confined to the other reservoirs causing gel damage. It is a common practice to get these fluids out of the wellbore as soon as possible to help maximize productivity. On a cost basis it is more expensive to have a completion rig move in and out multiple times to bring on each new zone. Several other factors such as weather, other new completions and regulatory well work may interfere with these new wells.

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) 818-1906.

Sincerely,

A handwritten signature in cursive script that reads "Beverly Hatfield".

Beverly Hatfield
Sr. Staff Engineering Tech

attachments

Proposed Allocations	Oil	Gas	Water
Refinery	63%	7%	5%
Tubing	36%	82%	8%
Drill bits	5%	12%	4%
Age	8%	21%	4%
TOTAL	100%	100%	100%

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

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

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-025-39563		¹ Pool Code 96764	¹ Pool Name MONUMENT; ABO, SOUTHEAST
⁴ Property Code 306601	⁴ Property Name HANSEN STATE		⁴ Well Number 012
¹ OGRID No. 873	¹ Operator Name Apache Corporation: 303 Veterans Airpark Lane, Suite 3000 Midland, TX 79705		¹ Elevation 3547'

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
H	16	20 S	37 E		1650	NORTH	330	EAST	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		¹² Joint or Infill		¹² Consolidation Code		¹² 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.

16				1650'	330'	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 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.	
						When signed and filed by the division.	
						Signature <i>Beverly Hatfield</i>	Date 06/10/2011
						BEVERLY HATFIELD	
						Printed Name	
						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.	
						10/22/2009	
						Date of Survey	
						Signature and Seal of Professional Surveyor:	
						21859	
						Certificate Number	

District I
1625 N. French Dr., Hobbs, NM 88240
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Form C-102
Revised October 12, 2005
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Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-025-39563		² Pool Code 47090	³ Pool Name MONUMENT;TUBB
⁴ Property Code 306601	⁵ Property Name HANSEN STATE		⁶ Well Number 012
⁷ OGRID No. 873	⁸ Operator Name Apache Corporation: 303 Veterans Airpark Lane, Suite 3000 Midland, TX 79705		⁹ Elevation 3547'

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UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
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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.
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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.

<div style="position: relative; height: 400px;"> <div style="position: absolute; top: 0; left: 0; width: 100%; height: 100%; border: 1px solid black; background: repeating-linear-gradient(45deg, transparent, transparent 2px, black 2px, black 4px);"></div> <div style="position: absolute; top: 0; right: 0; width: 50px; height: 100%; text-align: center; font-size: 24px;">1650'</div> <div style="position: absolute; bottom: 0; right: 0; width: 50px; height: 100%; text-align: center; font-size: 24px;">330'</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 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 hereby entered by the division.</i></p> <p><i>Beverly Hatfield</i> 06/10/2011 Signature Date</p> <p>BEVERLY HATFIELD 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>10/22/2009 Date of Survey</p> <p>Signature and Seal of Professional Surveyor:</p>
	<p>21859 Certificate Number</p>