

**District I**  
1625 N. French Dr., Hobbs, NM 88240  
Phone: (575) 393-6161 Fax: (575) 393-0720

**District II**  
811 S. First St., Artesia, NM 88210  
Phone: (575) 748-1283 Fax: (575) 748-9720

**District III**  
1000 Rio Brazos Road, Aztec, NM 87410  
Phone: (505) 334-6178 Fax: (505) 334-6170

**District IV**  
1220 S. St. Francis Dr., Santa Fe, NM 87505  
Phone: (505) 476-3460 Fax: (505) 476-3462

# State of New Mexico

Form C-101  
Revised November 14, 2012

## Energy Minerals and Natural Resources

**HOBBS OCD**

### Oil Conservation Division

☐ AMENDED REPORT

**MAR 11 2013**

**1220 South St. Francis Dr.**

**Santa Fe, NM 87505**

**RECEIVED**

### APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE

<sup>1</sup> Operator Name and Address Apache Corporation: 303 Veterans Airpark Lane, Suite 3000 Midland, TX 79705		<sup>2</sup> OGRID Number 873
		<sup>3</sup> API Number 30-025-36689
<sup>4</sup> Property Code 303233	<sup>5</sup> Property Name White Owl	<sup>6</sup> Well No. 001

#### <sup>7</sup> Surface Location

UL - Lot	Section	Township	Range	Lot Idn	Feet from	N/S Line	Feet From	E/W Line	County
D	02	20S	38E	04	582	North	330	West	Lea

#### <sup>8</sup> Proposed Bottom Hole Location

UL - Lot	Section	Township	Range	Lot Idn	Feet from	N/S Line	Feet From	E/W Line	County
D	02	20S	38E	04	1268	North	335	West	Lea

#### <sup>9</sup> Pool Information

Pool Name House; Abo	Pool Code 33210
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#### Additional Well Information

<sup>11</sup> Work Type A	<sup>12</sup> Well Type O	<sup>13</sup> Cable/Rotary R	<sup>14</sup> Lease Type P	<sup>15</sup> Ground Level Elevation 3573'
<sup>16</sup> Multiple N	<sup>17</sup> Proposed Depth 7740'	<sup>18</sup> Formation Abo	<sup>19</sup> Contractor	<sup>20</sup> Spud Date 06/16/2004
Depth to Ground water		Distance from nearest fresh water well		Distance to nearest surface water

#### <sup>21</sup> Proposed Casing and Cement Program

Type	Hole Size	Casing Size	Casing Weight/ft	Setting Depth	Sacks of Cement	Estimated TOC
S	17"	13-3/8"	48#	127'	200 sx	
I	12-1/4"	8-5/8"	24#	1636'	725 sx	
P	7-7/8"	5-1/2"	17#	7741'	1710 sx	

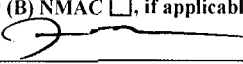
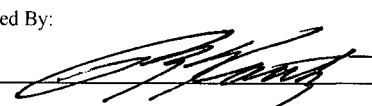
#### Casing/Cement Program: Additional Comments

Apache would like to recomplete the Abo and commingle the Blinebry-Tubb-Drinkard-Abo.

#### <sup>22</sup> Proposed Blowout Prevention Program

Type	Working Pressure	Test Pressure	Manufacturer

**Permit Expires 2 Years From Approval Date Unless Drilling Underway**

<sup>23</sup> I hereby certify that the information given above is true and complete to the best of my knowledge and belief. I further certify that I have complied with 19.15.14.9 (A) NMAC <input type="checkbox"/> and/or 19.15.14.9 (B) NMAC <input type="checkbox"/> , if applicable. Signature: 		OIL CONSERVATION DIVISION	
Printed name: Fatima Vasquez		Approved By: 	
Title: Regulatory Tech I		Title:	
E-mail Address: Fatima.Vasquez@apachecorp.com		Approved Date: 03/12/13 Expiration Date: 03/12/15	
Date: 03/04/2013	Phone: (432) 818-1015	Conditions of Approval Attached	

**MAR 13 2013**

GL=3573'  
KB=3590'  
Spud:6/16/04

## Apache Corporation – White Owl #1

### Wellbore Diagram – Proposed

Date : 2/15/2012

API: 30-025-36689

#### Surface Location

R. Taylor



582' FNL & 330' FWL,  
Lot D Sec 2, T20S, R38E, Lea County, NM

#### Surface Casing

13-3/8" 48# @ 127' w/ 200 sxs to surface

#### Intermediate Casing

8-5/8" 24# J-55 @ 1636' w/ 725 sxs

TAC @ TBD'

SN @ TBD'

9/12: Acidize w/ 1500 gal 15% NEFE HCL w/ 110 gal Super A-SOL  
across all perfs

9/04: Perf Blinebry @ 5982-86; 6042-47; 6068-84; 6134-39 w/ 4 jspf.  
Acidized w/ 4000 gal 20% AS290. Frac'd w/ 60k gal gelled w/ 807 SCF N2  
w/ 90k# 20/40 snd & 30k# 20/40 PropNet

9/04: Perf Tubb @ 6802-08; 6818-20; 6827-30; 6835-38; 6843-49; 6858-60;  
6885-90 w/ 4 jspf. Acidized w/ 3000 gal 20% AS290. Frac'd w/ 30k gal 2%  
KCL w/ 52k# 20/40 snd.

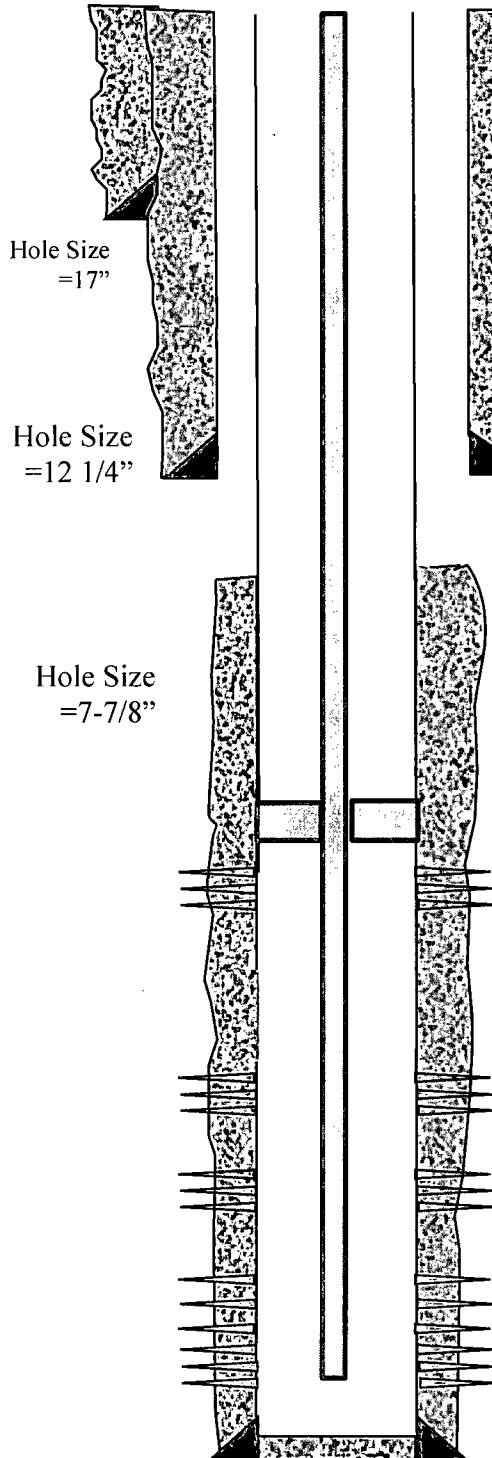
8/04: Perf Drinkard @ 6986-94; 7062-70; 7082-86; 7100-06 w/ 4 jspf.  
Acidized w/ 3000 gal 15% NEFE. Frac'd w/ 42k gal 30Q 15 & 20% SXE w/  
20k# 20/40 snd.

8/04: CCL/CBL would not fall past 7557'

TBD: Perf Abo @ 7425-29; 7457-64; 7472-74; 7492-7501; 7523-28; 7533-  
47; 7560-68; 7590-7604; 7612-16; 7632-38 w/ 2 jspf. (146 holes). Acidize  
w/ 5,000 gal 15% NEFE

#### Production Casing

5-1/2" 17# N-80 @ 7741' w/ 1710 sxs to surface



PBTD = 7,557'  
MD = 7,741'

GL=3573'  
KB=3590'  
Spud:6/16/04

## Apache Corporation – White Owl #1

### Wellbore Diagram – Current

Date : 2/15/2012

API: 30-025-36689

#### Surface Location

R. Taylor



582' FNL & 330' FWL,  
Lot D Sec 2, T20S, R38E, Lea County, NM

#### Surface Casing

13-3/8" 48# @ 127' w/ 200 sxs to surface

#### Intermediate Casing

8-5/8" 24# J-55 @ 1636' w/ 725 sxs

TAC @ 5938'  
SN @ 7105'

9/12: Acidize w/ 1500 gal 15% NEFE HCL w/ 110 gal Super A-SOL  
across all perfs

9/04: Perf Blinbry @ 5982-86; 6042-47; 6068-84; 6134-39 w/ 4 jspf.  
Acidized w/ 4000 gal 20% AS290. Frac'd w/ 60k gal gelled w/ 807  
SCF N2 w/ 90k# 20/40 snd & 30k# 20/40 PropNet

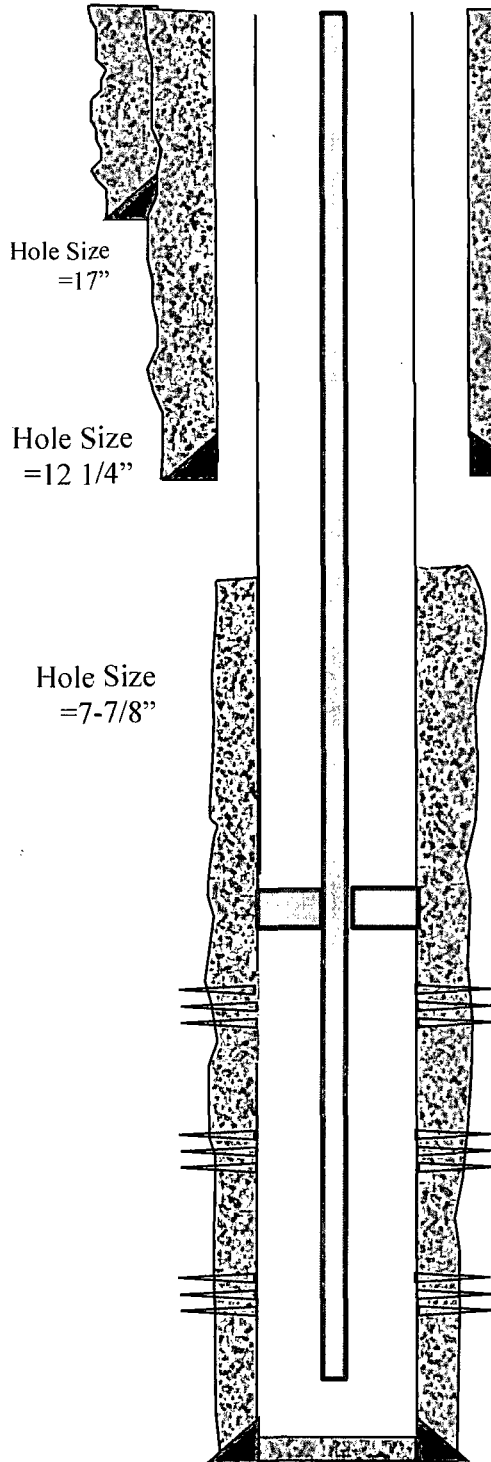
9/04: Perf Tubb @ 6802-08; 6818-20; 6827-30; 6835-38; 6843-49;  
6858-60; 6885-90 w/ 4 jspf. Acidized w/ 3000 gal 20% AS290. Frac'd  
w/ 30k gal 2% KCL w/ 52k# 20/40 snd.

8/04: Perf Drinkard @ 6986-94; 7062-70; 7082-86; 7100-06 w/ 4 jspf.  
Acidized w/ 3000 gal 15% NEFE. Frac'd w/ 42k gal 30Q 15 & 20%  
SXE w/ 20k# 20/40 snd.

8/04: CCL/CBL would not fall past 7557'

#### Production Casing

5-1/2" 17# N-80 @ 7741' w/ 1710 sxs to surface



PBD = 7,557'  
MD = 7,741'

White Owl #1

API # 30-025-36689

Sec 2, T20S, R38E

Elevation: 3590' KB, 3573' GL

TD: 7,741'

PBTD: 7,557'

Casing Record:        13-3/8" 48# @ 127' w/ 200 sxs  
                             8-5/8" 24# J-55 @ 1636' w/ 725 sxs  
                             5-1/2" 17# N-80 @ 7,741' w/ 1710 sxs

Perfs: Blinbry: 5,982-6,139

      Tubb: 6,802-6,890

      Drinkard: 6,986-7,106

Objective: Perforate the Abo and commingle the B-T-D-A

AFE: PA-13-3408

1. MIRU unit. Kill well as necessary. Unseat pump. POOH W/ rods and pump.
2. ND WH. NU BOP. Release TAC. POOH w/ tubing and TAC.
3. PU & RIH w/ SN and PKR to 7,150'. Set PKR. Pressure casing to 500 psi and ensure that the Abo is not perforated previously by Capataz. POOH. *If able to pump into, POOH and run CCL to identify perforations. Report results to Midland and wait on evaluation.*
4. PU & RIH w/ 2-7/8" tubing to be used as WS, and 4-3/4" bit, bit sub and collars and 5-1/2" scrapper to PBTD. (Tight spot or plug at 7,557'). May need to break circulation and drill out obstruction at 7,557'. POOH.
5. MIRU WL. RIH w/ perforating gun and perforate the Abo from 7425-29; 7457-64; 7472-74; 7492-7501; 7523-28; 7533-47; 7560-68; 7590-7604; 7612-16; 7632-38 w/ 2 jspf 60° phasing Connex BH charges (146 holes). **Correlate to Schlumberger Three Detector Litho-Density Compensated Neutron/Gamma Ray log dated 7/13/2004.** POOH w/ WL. RDMO WL.
6. RIH w/ SN+ PKR on 2-7/8" production tubing to bottom perfs @ 7,638'. Spot 1000 gal 15% NEFE HCL across all perfs from 7,425'-7,638'. TOH and set PRK above new perfs at 7,375'.
7. MIRU acid services. Acidize the Abo (7,425-7,638) with 5000 gallons 15% NEFE HCL w/ additives using 260 ball sealers to divert evenly spaced through the job at a max rate. Max treating pressure not to exceed 6000 psi at surface. Displace to bottom perf with 44 BBLs of flush. Surge balls.
8. Release PKR and TIH to knock balls off perforations. TOH and set PKR at 7,375'
9. RU swab equipment and recover load and swab test perfs for fluid entry and oil cut. Report results to Midland. RD swab equipment.
10. Kill well if necessary. Release PKR and TOH.
11. RIH w/ production tbg and rods as per the Monument office specification.
12. RDMOPU. Return well to production in B-T-D and Abo. Place into test for 10 days.

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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 August 1, 2011  
Submit one copy to appropriate  
District Office

☐ AMENDED REPORT

HOBBS OCD

MAR 11 2013

WELL LOCATION AND ACREAGE DEDICATION PLAT

<sup>1</sup> API Number 30-025-36689	<sup>2</sup> Pool Code 33210	<sup>3</sup> Pool Name House; Abo
<sup>4</sup> Property Code 303233	<sup>5</sup> Property Name White Owl	<sup>6</sup> Well Number 001
<sup>7</sup> OGRID No. 873	<sup>8</sup> Operator Name Apache Corporation: 303 Veterans Airpark Lane, Suite 3000 Midland, TX 79705	<sup>9</sup> Elevation 3573' GR

<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	02	20S	38E	04	582	North	330	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
D	02	20S	38E	04	1268	North	335	West	Lea

<sup>12</sup> Dedicated Acres 80.0	<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.

	<p><b><sup>17</sup> OPERATOR CERTIFICATION</b></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>Signature:  Date: 03/04/2013</p> <p>Printed Name: Fatima Vasquez</p> <p>E-mail Address: Fatima.Vasquez@apachecorp.com</p>		
	<p><b><sup>18</sup> SURVEYOR CERTIFICATION</b></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>		

**HOBBS OCD**

**MAR 11 2013**

State of New Mexico

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Energy, Minerals & Natural Resources Department  
**RECEIVED** OIL CONSERVATION DIVISION  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Revised August 1, 2011  
Submit one copy to appropriate  
District Office

☐ AMENDED REPORT

**WELL LOCATION AND ACREAGE DEDICATION PLAT**

<sup>1</sup> API Number 30-025-36689		<sup>2</sup> Pool Code 33230		<sup>3</sup> Pool Name House; Blinebry	
<sup>4</sup> Property Code 303233		<sup>5</sup> Property Name White Owl			<sup>6</sup> Well Number 001
<sup>7</sup> OGRID No. 873		<sup>8</sup> Operator Name Apache Corporation: 303 Veterans Airpark Lane, Suite 3000 Midland, TX 79705			<sup>9</sup> Elevation 3573' GR

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

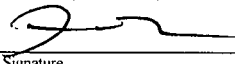
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
D	02	20S	38E	04	582	North	330	West	Lea

**<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
D	02	20S	38E	04	1268	North	335	West	Lea

<sup>12</sup> Dedicated Acres 40.0	<sup>13</sup> Joint or Infill	<sup>14</sup> Consolidation Code	<sup>15</sup> Order No.
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				<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>
				<div>Date of Survey</div> <div>Signature and Seal of Professional Surveyor:</div>
				<div>Certificate Number</div>

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MAR 11 2013

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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 August 1, 2011

Submit one copy to appropriate

District Office

☐ AMENDED REPORT

# WELL LOCATION AND ACREAGE DEDICATION PLAT

<sup>1</sup> API Number 30-025-36689		<sup>2</sup> Pool Code 78760		<sup>3</sup> Pool Name House; Tubb	
<sup>4</sup> Property Code 303233		<sup>5</sup> Property Name White Owl			<sup>6</sup> Well Number 001
<sup>7</sup> OGRID No. 873		<sup>8</sup> Operator Name Apache Corporation: 303 Veterans Airpark Lane, Suite 3000 Midland, TX 79705			<sup>9</sup> Elevation 3573' GR

## <sup>10</sup> Surface Location

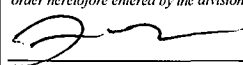
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
D	02	20S	38E	04	582	North	330	West	Lea

## <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
D	02	20S	38E	04	1268	North	335	West	Lea

<sup>12</sup> Dedicated Acres 40.0	<sup>13</sup> Joint or Infill	<sup>14</sup> Consolidation Code	<sup>15</sup> Order No.
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				<p><b><sup>18</sup> SURVEYOR CERTIFICATION</b></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>
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**Energy, Minerals & Natural Resources Department**  
**OIL CONSERVATION DIVISION**  
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### WELL LOCATION AND ACREAGE DEDICATION PLAT

<sup>1</sup> API Number 30-025-36689		<sup>2</sup> Pool Code 33250		<sup>3</sup> Pool Name House; Drinkard	
<sup>4</sup> Property Code 303233		<sup>5</sup> Property Name White Owl			<sup>6</sup> Well Number 001
<sup>7</sup> OGRID No. 873		<sup>8</sup> Operator Name Apache Corporation: 303 Veterans Airpark Lane, Suite 3000 Midland, TX 79705			<sup>9</sup> Elevation 3573' GR

#### <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
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#### <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
D	02	20S	38E	04	1268	North	335	West	Lea

<sup>12</sup> Dedicated Acres 40.0	<sup>13</sup> Joint or Infill	<sup>14</sup> Consolidation Code	<sup>15</sup> Order No.
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	Signature: Date: 03/05/2013		
	Printed Name: Fatima Vasquez		
	E-mail Address: Fatima.Vasquez@apachecorp.com		
	<b><sup>18</sup> 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:		
	Signature and Seal of Professional Surveyor:		
	Certificate Number:		





HOBBS OCD

MAR 11 2013

March 7, 2013

RECEIVED

Mr. Will 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  
White Owl #1  
Unit D, Section 2, T20S, R38E  
House; Blinbry (33230), House; Tubb (78760), House; Drinkard (33250)  
& House; Abo (33210)  
Lea County, New Mexico

Dear Mr. Jones:

Apache is requesting to amend DHC-496 to add the Abo formation. 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. 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.

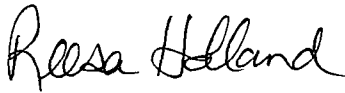
The main reason for using this method is based on economics and minimizing reservoir damage. Past completion practices had all three zones perforated and fracture stimulated during one full week. Each zone was isolated by a retrievable bridge plug to allow for production testing of each zone for allocation 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) 818-1062.

Sincerely,

A handwritten signature in black ink that reads "Reesa Holland". The signature is written in a cursive, flowing style.

**Reesa Holland**  
**Sr Staff Regulatory Technician**

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

HOBBS OCD

State of New Mexico  
Energy, Minerals and Natural Resources Department

Form C-107A  
Revised June 10, 2003

District II  
1301 W. Grand Avenue, Artesia, NM 88210

MAR 11 2013

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

APPLICATION TYPE

District III  
1000 Rio Brazos Road, Aztec, NM 87410

RECEIVED

☒ Single Well  
Establish Pre-Approved Pools  
EXISTING WELLBORE  
☒ Yes ☐ No

District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

APPLICATION FOR DOWNHOLE COMMINGLING

Apache Corporation 303 Veterans Airpark Lane Suite 3000 Midland TX 79705  
Operator Address  
White Owl 1 D 2 20S 38E Lea  
Lease Well No. Unit Letter-Section-Township-Range County  
OGRID No. 873 Property Code 303233 API No. 30-025-36689 Lease Type: ☐ Federal ☐ State ☒ Fee

DATA ELEMENT	UPPER ZONE	INTERMEDIATE ZONE	LOWER ZONE
Pool Name	House; Blinebry	House; Tubb	House; Drinkard
Pool Code	33230	78760	33250
Top and Bottom of Pay Section (Perforated or Open-Hole Interval)	5982'-6139'	6802'-6890'	6986'-7106'
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)	40.1	40.1	40.1
Producing, Shut-In or New Zone	Producing	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:  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 15 % 21 %	Oil Gas 10 % 23 %	Oil Gas 50 % 45 %

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 Regulatory Tech DATE 3/6/2013

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

E-MAIL ADDRESS Reesa.Holland@apachecorp.com

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  
Operator  
White Owl  
Lease  
OGRID No. 873  
Property Code 303233  
API No. 30-025-36689  
Lease Type: ☐ Federal ☐ State ☒ Fee

303 Veterans Airpark Lane Suite 3000 Midland TX 79705  
Address  
2  
20S 38E  
Lea  
County  
Unit Letter-Section-Township-Range

DATA ELEMENT	UPPER ZONE	INTERMEDIATE ZONE	LOWER ZONE
Pool Name	House; Abo		
Pool Code	33210		
Top and Bottom of Pay Section (Perforated or Open-Hole Interval)	7425'-7638'		
Method of Production (Flowing or 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)	40.1		
Producing, Shut-In or New Zone	New Zone		
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:	Date: Rates:
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 25 % 11 %	Oil Gas % %	Oil Gas % %

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.  
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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 Regulatory Tech DATE 3/6/2013  
TYPE OR PRINT NAME Reesa Holland TELEPHONE NO. (432) 818-1062  
E-MAIL ADDRESS Reesa.Holland@apachecorp.com

Lease Name			Well Number	Location	Blindery	Cum Oil (BBL)	Cum Gas (MCF)	Cum Water (BBL)
L.D. Jones	PHILLIPS HOUSE STATE	1	3002507122	205 39E 11E SE NE	3476	103514	168180	5043
STATE U	1	1	3002507127	205 39E 20	157611	1369833	97867	28444
ARNOLD A	1	1	3002507161	205 39E 11E	1635	30283	5231	9446
HOUSE B	1	1	3002507164	205 39E 11P		9555	118752	5407
BLANKENSHIP	1	1	3002507166	205 39E 12E		54657		7010
BLANKENSHIP	2	2	3002507167	205 39E 12E	3906	20	9570	2894
BLANKENSHIP	3	3	3002507168	205 39E 12N NE SW	7838	9044	41101	11062
CONC A	1	1	3002507170	205 39E 12E		17845	67631	57330
CONC B	1	1	3002507172	205 39E 12E		299933	591551	69199
HESTER 12	3	3	3002507172	205 39E 12O		150171	853402	32702
HESTER 12	1	1	3002507173	205 39E 12N		62932	540453	17895
HOUSE C	1	1	3002512549	205 39E 11E SE NE		97448	457768	16669
CONC B	2	2	3002512549	205 39E 11E SE NE		26370	143078	6340
WERTIA FEDERAL	1	1	3002527696	195 39E 2O SW SE	47078	14640	233989	57597
L & M	1	1	3002527696	195 39E 2O SW SE	2560	10419	21491	4760
FRANCES EVELYN	1	1	3002531163	195 39E 35N SE SW	5470	631	134959	2636
PICAYUNE	1	1	3002534734	205 39E 11C SW NE	2199	16255	30054	35970
HOWSE	1	1	3002534687	205 39E 10C SW NE		2199	3265	17855
MEERT	1	1	3002535240	205 39E 11C NW SE	1371		28491	23038
REIDING	1	1	3002535333	205 39E 21N NW SE	627	10297	6150	35944
MEERT II	1	1	3002535333	205 39E 21N NW SE	27858	5139	84238	31372
DUKES	1	1	3002535614	205 39E 11K E2 NE SW	6417	18648	31016	18613
REIDING	2	2	3002535630	205 39E 2K NE NE SW	7818	39338	39544	117445
WHITE OWL	1	1	3002536421	205 39E 11P SE SE	17863	11331	929809	7038
HESTER 12	6	6	3002536689	205 39E 12O NW NW NW	37280	4726	23342	8590
HESTER 12	4	4	3002536795	205 39E 12O SW SW SE	28296	8804	196586	10308
FLOW BOY FEDERAL	1	1	3002536800	195 39E 35J NW NW SE	71307	7008	350441	33569
ROUND-UP	1	1	3002537100	195 39E 35J NW NW SE	25693	189	153475	86627
SALEM	1	1	3002537316	205 39E 3A SE NE NE	9745	9745	95788	1632
HESTER 12	8	8	3002538076	205 39E 12K SW NE SW	4742	8038	12134	21133
HESTER 12	5	5	3002538211	205 39E 12P NW SE SE	15840	5041	143579	5255
HESTER 12	7	7	3002538369	205 39E 12N NE SE SW	199221	6222	195571	13659
MELOT	1	1	3002538370	205 39E 11C SW NE NW	8366	9445	93675	15410
BLANKENSHIP	4	4	3002538597	205 39E 12L NE NW SW	6792	8730	75455	42337
BLANKENSHIP	5	5	3002538699	205 39E 12L NE NW SW	3750	4037	61320	20054
BLANKENSHIP	6	6	3002539400	205 39E 12L SW NW SW	15182	5770	17033	30801
BLANKENSHIP	2	2	3002539440	205 39E 11K SE NE SW	8058	7073	28617	25515
RHINO	1	1	3002538640	205 39E 11K SE NE SW	12985	3711	49346	32738
MAGNOLIA	1	1	3002538660	205 39E 11E NE SW NW	7057	7249	26234	1134
DIXIE QUEEN	1	1	3002538661	205 39E 11P NE SE SE	16297	4510	99371	20250
HESTER 12	10	10	3002538662	205 39E 12P SW SE SE	5878	886	94028	3397
HESTER 12	11	11	3002538663	205 39E 12P SW SE SE	5878	886	94028	3397
MELOT	2	2	3002538701	205 39E 11C NW NE NW	2247	2231	105338	55324
HESTER 12	9	9	3002538701	205 39E 11C NW NE NW	20490	7495	100444	6675
MAGNOLIA	2	2	3002539090	205 39E 11E NE NW NW	3053	7908	2943	14280
L & M	2	2	3002539090	205 39E 11O NE NW NW	3359	1067	61645	28103
L & M	2	2	3002539450	205 39E 12O NE NW NW	2668	1912	34935	17956
DIXIE QUEEN	3	3	3002539451	205 39E 11	3676	952	7234	82845
MELOT	3	3	3002539459	205 39E 11	3365	883	6086	11863
BLANKENSHIP	7	7	3002539489	205 39E 12	1911	524	4182	29825
MAGNOLIA	3	3	3002539489	205 39E 12	3732	978	7384	33793
ARNOLD A	2	2	3002539491	205 39E 11	2205	578	4253	26776
CONC A	2	2	3002539636	205 39E 11E NE SE NW	2966	678	6450	15418
ARNOLD A	3	3	3002539636	205 39E 11E NE SE NW	3571	887	6566	3147
L & M	4	4	3002539652	205 39E 11	4539	1182	14291	12837
MEERT	2	2	3002539652	205 39E 2	2630	1880	14291	12837
MEERT	3	3	3002539653	205 39E 11 SW SE	3470	1113	7804	13950
REIDING	3	3	3002539653	205 39E 11 SW SE	2885	1595	9475	15669
USA HOUSE	2	2	3002539907	205 39E 12J	2160	2556	14934	24641
CONC B	4	4	3002539966	205 39E 12J	3037	155	1092	16998
REIDING	2	2	3002539967	205 39E 12J	1149	345	2332	1927
PICAYUNE	4	4	3002539967	205 39E 11J	1039	668	4044	7906
MELOT	2	2	3002539969	205 39E 11B	1606	479	3287	2324
MAGNOLIA	4	4	3002539969	205 39E 11B	4053	1218	8285	1485
DUKES	2	2	3002540022	205 39E 11K	2566	721	5253	2705
REIDING	6	6	3002540262	205 39E 2N	1565	521	3132	2970
L & M	8	8	3002540362	205 39E 2K	863	616	4687	1458
TOTALS					451999	274611	1691800	9595798
AVERAGES					8.071	5.181	26.854	163.275

Proposed Allocations	Oil	Gas	Water
Blindery	15%	21%	36%
Flow	15%	23%	18%
Drilled	25%	15%	39%
And	100%	100%	100%
TOTAL	100%	100%	100%

White Owl #1

API # 30-025-36689

Sec 2, T20S, R38E

Elevation: 3590' KB, 3573' GL

TD: 7,741'

PBTD: 7,557'

Casing Record: 13-3/8" 48# @ 127' w/ 200 sxs  
8-5/8" 24# J-55 @ 1636' w/ 725 sxs  
5-1/2" 17# N-80 @ 7,741' w/ 1710 sxs

Perfs: Blinbry: 5,982-6,139

Tubb: 6,802-6,890

Drinkard: 6,986-7,106

Objective: Perforate the Abo and commingle the B-T-D-A

AFE: PA-13-3408

1. MIRU unit. Kill well as necessary. Unseat pump. POOH W/ rods and pump.
2. ND WH. NU BOP. Release TAC. POOH w/ tubing and TAC.
3. PU & RIH w/ SN and PKR to 7,150'. Set PKR. Pressure casing to 500 psi and ensure that the Abo is not perforated previously by Capataz. POOH. *If able to pump into, POOH and run CCL to identify perforations. Report results to Midland and wait on evaluation.*
4. PU & RIH w/ 2-7/8" tubing to be used as WS, and 4-3/4" bit, bit sub and collars and 5-1/2" scrapper to PBTD. (Tight spot or plug at 7,557'). May need to break circulation and drill out obstruction at 7,557'. POOH.
5. MIRU WL. RIH w/ perforating gun and perforate the Abo from 7425-29; 7457-64; 7472-74; 7492-7501; 7523-28; 7533-47; 7560-68; 7590-7604; 7612-16; 7632-38 w/ 2 jspf 60° phasing Connex BH charges (146 holes). **Correlate to Schlumberger Three Dectector Litho-Density Compensated Neutron/Gamma Ray log dated 7/13/2004.** POOH w/ WL. RDMO WL.
6. RIH w/ SN+ PKR on 2-7/8" production tubing to bottom perfs @ 7,638'. Spot 1000 gal 15% NEFE HCL across all perfs from 7,425'-7,638'. TOH and set PRK above new perfs at 7,375'.
7. MIRU acid services. Acidize the Abo (7,425-7,638) with 5000 gallons 15% NEFE HCL w/ additives using 260 ball sealers to divert evenly spaced through the job at a max rate. Max treating pressure not to exceed 6000 psi at surface. Displace to bottom perf with 44 BBLs of flush. Surge balls.
8. Release PKR and TIH to knock balls off perforations. TOH and set PKR at 7,375'
9. RU swab equipment and recover load and swab test perfs for fluid entry and oil cut. Report results to Midland. RD swab equipment.
10. Kill well if necessary. Release PKR and TOH.
11. RIH w/ production tbg and rods as per the Monument office specification.
12. RDMOPU. Return well to production in B-T-D and Abo. Place into test for 10 days.

GL=3573'  
KB=3590'  
Spud:6/16/04

## Apache Corporation – White Owl #1

### Wellbore Diagram – Current

Date : 2/15/2012

API: 30-025-36689

#### Surface Location

R. Taylor



582' FNL & 330' FWL,  
Lot D Sec 2, T20S, R38E, Lea County, NM

#### Surface Casing

13-3/8" 48# @ 127' w/ 200 sxs to surface

#### Intermediate Casing

8-5/8" 24# J-55 @ 1636' w/ 725 sxs

TAC @ 5938'  
SN @ 7105'

9/12: Acidize w/ 1500 gal 15% NEFE HCL w/ 110 gal Super A-SOL  
across all perfs

9/04: Perf Blinebry @ 5982-86; 6042-47; 6068-84; 6134-39 w/ 4 jspf.  
Acidized w/ 4000 gal 20% AS290. Frac'd w/ 60k gal gelled w/ 807  
SCF N2 w/ 90k# 20/40 snd & 30k# 20/40 PropNet

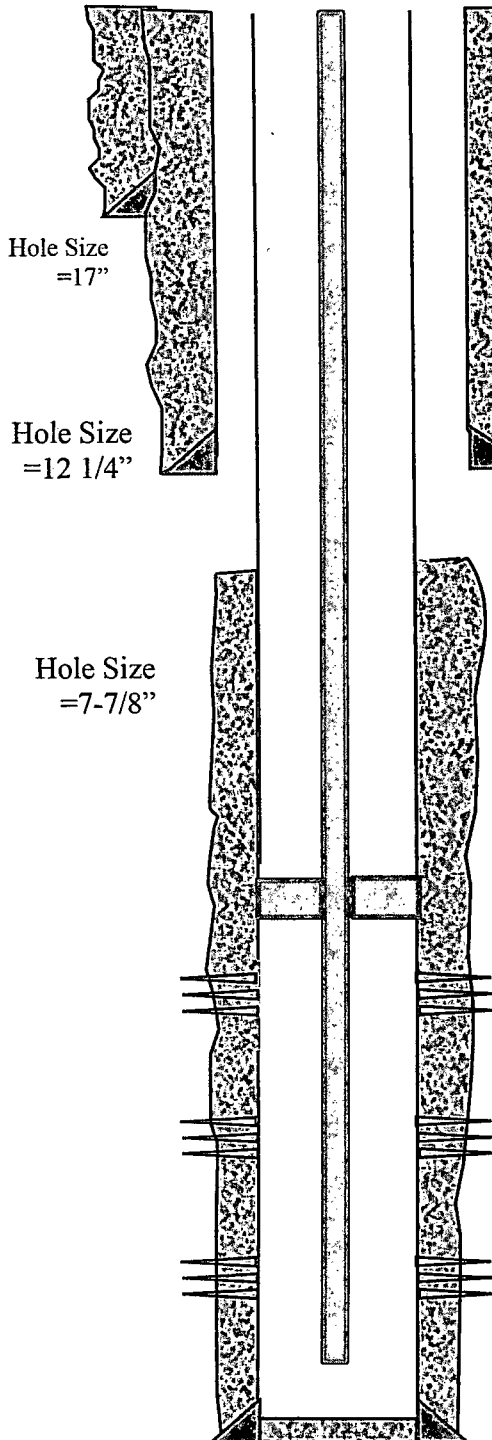
9/04: Perf Tubb @ 6802-08; 6818-20; 6827-30; 6835-38; 6843-49;  
6858-60; 6885-90 w/ 4 jspf. Acidized w/ 3000 gal 20% AS290. Frac'd  
w/ 30k gal 2% KCL w/ 52k# 20/40 snd.

8/04: Perf Drinkard @ 6986-94; 7062-70; 7082-86; 7100-06 w/ 4 jspf.  
Acidized w/ 3000 gal 15% NEFE. Frac'd w/ 42k gal 30Q 15 & 20%  
SXE w/ 20k# 20/40 snd.

8/04: CCL/CBL would not fall past 7557'

#### Production Casing

5-1/2" 17# N-80 @ 7741' w/ 1710 sxs to surface



PBTD = 7,557'  
MD = 7,741'

GL=3573'  
KB=3590'  
Spud:6/16/04

## Apache Corporation – White Owl #1

### Wellbore Diagram – Proposed

Date : 2/15/2012

API: 30-025-36689

#### Surface Location

R. Taylor



582' FNL & 330' FWL,  
Lot D Sec 2, T20S, R38E, Lea County, NM

#### Surface Casing

13-3/8" 48# @ 127' w/ 200 sxs to surface

#### Intermediate Casing

8-5/8" 24# J-55 @ 1636' w/ 725 sxs

TAC @ TBD'

SN @ TBD'

9/12: Acidize w/ 1500 gal 15% NEFE HCL w/ 110 gal Super A-SOL  
across all perfs

9/04: Perf Blinbry @ 5982-86; 6042-47; 6068-84; 6134-39 w/ 4 jspf.  
Acidized w/ 4000 gal 20% AS290. Frac'd w/ 60k gal gelled w/ 807 SCF N2  
w/ 90k# 20/40 snd & 30k# 20/40 PropNet

9/04: Perf Tubb @ 6802-08; 6818-20; 6827-30; 6835-38; 6843-49; 6858-60;  
6885-90 w/ 4 jspf. Acidized w/ 3000 gal 20% AS290. Frac'd w/ 30k gal 2%  
KCL w/ 52k# 20/40 snd.

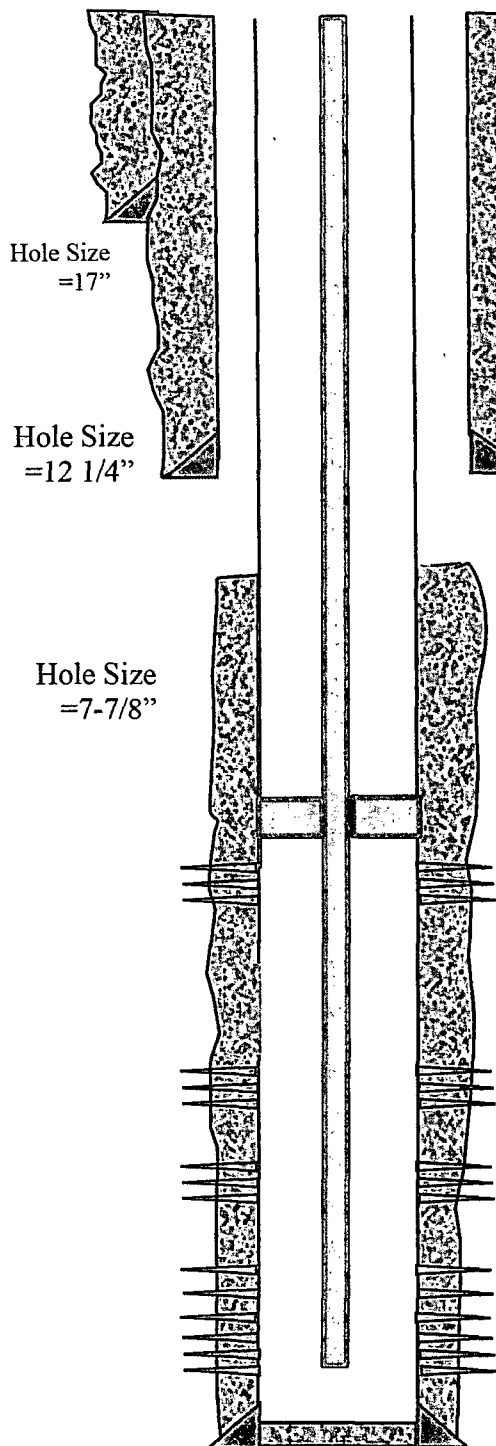
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20k# 20/40 snd.

8/04: CCL/CBL would not fall past 7557'

TBD: Perf Abo @ 7425-29; 7457-64; 7472-74; 7492-7501; 7523-28; 7533-  
47; 7560-68; 7590-7604; 7612-16; 7632-38 w/ 2 jspf. (146 holes). Acidize  
w/ 5,000 gal 15% NEFE

#### Production Casing

5-1/2" 17# N-80 @ 7741' w/ 1710 sxs to surface



PBDT = 7,557'  
MD = 7,741'



Order Number		API Number		Operator		County	
496		30025-36689		Apache Corp		Lea	
Order Date		Well Name		Number		Location	
7-3-2012		White Owl		1		<div> <div>D</div> <div>2</div> <div>20S</div> <div>38E</div> </div> <div> <div>UL</div> <div>Sec</div> <div>T (+Dir)</div> <div>R (+Dir)</div> </div>	
				Oil %		Gas %	
Pool 1	33230	House; Blinebry		18		21	
Pool 2	78760	House; Tubb		12		26	
Pool 3	33250	House; Drinkard		70		53	
Pool 4							
Comments: Posted in RBDMs 7-3-2012 CHM							

AUG 3 2012

30-025-36689  
DHC-HOB-496

DOWNHOLE COMMINGLE CALCULATIONS:

OPERATOR: Apache Corporation

PROPERTY NAME: White Owl 1

WNULSTR: 1-D-2-205-38E

SECTION I:	ALLOWABLE AMOUNT
POOL NO. 1 <u>House; Blinebry</u>	<u>142</u> <u>284</u> MCF
POOL NO. 2 <u>House; Tubb</u>	<u>142</u> <u>284</u> MCF
POOL NO. 3 <u>House; Drinkard</u>	<u>142</u> <u>284</u> MCF
POOL NO. 4 _____	_____ MCF

POOL TOTALS 426 852

SECTION II:	<u>Oil</u>	<u>Gas</u>
POOL NO. 1 <u>House; Blinebry</u>	<u>18%</u>	<u>21%</u>
POOL NO. 2 <u>House; Tubb</u>	<u>12%</u>	<u>26%</u>
POOL NO. 3 <u>House; Drinkard</u>	<u>70% X 426 = 298.2</u>	<u>53%</u>
POOL NO. 4 _____	<u>&lt;298&gt;</u>	

<u>OIL</u>	<u>GAS</u>
SECTION III: <u>70% X 142 = 202.85</u>	<u>&lt;203&gt;</u>

SECTION IV: <u>18% X 203 = 36.54</u>	<u>&lt;37&gt;</u>
<u>12% X 203 = 24.36</u>	<u>&lt;24&gt;</u>
<u>70% X 203 = 142.10</u>	<u>&lt;142&gt;</u>

Submit 3 Copies To Appropriate District Office  
District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
1301 W. Grand Ave., Artesia, NM 88210  
District III  
1000 Rio Brazos Rd., Aztec, NM 87401  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

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

Form C-103  
June 19, 2008

<b>SUNDRY NOTICES AND REPORTS ON WELLS</b> (DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS)		WELL API NO. 30-025-36689
1. Type of Well: <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other:		5. Indicate Type of Lease STATE <input type="checkbox"/> FEE <input checked="" type="checkbox"/>
2. Name of Operator Apache Corporation		6. State Oil & Gas Lease No.
3. Address of Operator 303 Veterans Airpark Lane, Suite 3000 Midland, TX 79705		7. Lease Name or Unit Agreement Name White Owl
4. Well Location Unit Letter <u>D</u> : 582 feet from the North line and 330 feet from the West line Section 2 Township 20S Range 38E NMPM County Lea		8. Well Number 001
11. Elevation (Show whether DR, RKB, RT, GR, etc.) 3573' GL		9. OGRID Number 873
		10. Pool name or Wildcat House; Blinebry; House; Tubb; House; Drinkard

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

<b>NOTICE OF INTENTION TO:</b>		<b>SUBSEQUENT REPORT OF:</b>	
PERFORM REMEDIAL WORK <input type="checkbox"/>	PLUG AND ABANDON <input type="checkbox"/>	REMEDIAL WORK <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
TEMPORARILY ABANDON <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	COMMENCE DRILLING OPNS. <input type="checkbox"/>	P AND A <input type="checkbox"/>
PULL OR ALTER CASING <input type="checkbox"/>	MULTIPLE COMPL <input type="checkbox"/>	CASING/CEMENT JOB <input type="checkbox"/>	
DOWNHOLE COMMINGLE <input checked="" type="checkbox"/>			
OTHER: <input type="checkbox"/>		OTHER: <input type="checkbox"/>	

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 1103. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

Apache would like to DHC the following pools:

Per R-11363

Pool Names:	Perforations:
/ House; Blinebry 33230	Blinebry 5982'-6139'
/ House; Tubb 78760	Tubb 6802'-6890'
/ House; Drinkard 33250	Drinkard 6986'-7106'

The allocation method will be as follows based on offset production. (See attached application for exception to Rule 303-C.)

	OIL	GAS	WATER
Blinebry	18%	21%	36%
Tubb	12%	26%	18%
Drinkard	70%	53%	46%

Downhole commingling will not reduce the value of these pools. Ownership is the same for each of these pools.

Spud Date: 09/01/2004

Rig Release Date: 07/12/2004

DHC-HOB-496

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 Engr Tech DATE 06/29/2012

Type or print name Reesa Holland E-mail address: Reesa.Holland@apachecorp.com PHONE: 432/818-1062

**For State Use Only**

APPROVED BY: [Signature] TITLE PETROLEUM ENGINEER DATE JUL 03 2012  
Conditions of Approval (if any):

JUL 03 2012



**June 29, 2012**

**Mr. Paul Kautz  
New Mexico Oil Conservation Division  
1625 N French Drive  
Hobbs, New Mexico 88240**

**RE: Application for Exception to Rule 303-C – Downhole Commingling  
White Owl #1  
Unit D, Section 2, T20S, R38E  
House; Blinbry, House; Tubb & House; Drinkard  
Lea County, New Mexico**

**Dear Mr. Kautz,**

**Enclosed please find form C-103 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.**

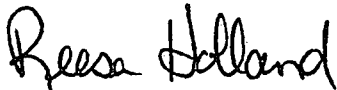
**The allocation method used for this well was determined by analyzing the cumulative oil, gas and water production in a nine section area of review surrounding this well. Supporting documentation is shown on the attached spreadsheet. Production for active and inactive wells was grouped by pool in the 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 three 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) 818-1062.**

**Sincerely,**

A handwritten signature in black ink that reads "Reesa Holland". The signature is written in a cursive, flowing style.

**Reesa Holland  
Sr Staff Engr Technician**

Lease Name	Well Number	10DIGITAPI	Location	Cum Oil (BBL)			Cum Gas (MCF)			Cum Water (BBL)		
				Blinbry	Tubb	Drnkard	Blinbry	Tubb	Drnkard	Blinbry	Tubb	Drnkard
L D JONES	1	3002507722	1H 20S 38E SE NE	3476			186180			5043		
PHILLIPS HOUSE STATE	1	3002507725	2O 20S 38E			101875			481125			25440
STATE U	1	3002507727	2P 20S 38E			157611			97687			184324
ARNOLD A	1	3002507761	11F 20S 38E	1083	29526	670	3502	1366318		7287	5113	
HOUSE B	1	3002507764	11P 20S 38E		9855			118752				
BLANKENSHIP	1	3002507766	12E 20S 38E			54657			16638			7010
BLANKENSHIP	2	3002507767	12L 20S 38E	3906	20	134312	9570	42	1177187	2664	114	37126
BLANKENSHIP	3	3002507768	12M 20S 38E NE SW SW	5854	8772	39616	33275	47735	2435461	5515	15611	22235
CONE A	1	3002507770	12F 20S 38E		17024	206476		66408	237771		56554	84069
CONE B	1	3002507771	12J 20S 38E			239833			591551			69199
HESTER 12	3	3002507772	12O 20S 38E			150171			853402			32702
HESTER 12	2	3002507773	12N 20S 38E			82932			540453			17896
HESTER 12	1	3002512549	12K 20S 38E			97448			457760			16669
HOWSE C	1	3002522165	11H 20S 38E SE NE			26370			143078			6340
CONE B	2	3002525921	12G 20S 38E			398			86772			1460
WERTA FEDERAL	1	3002527696	35O 19S 38E SW SE	42930	14640	11778	211449	10262	24012	51813	10929	29470
L & M	1	3002528287	2L 20S 38E C S2 SW		1012	9634	250	9593	130756	1129	1344	392
FRANCES EVELYN	1	3002532163	35N 19S 38E SE SW	5470				61072		35070		
PICAYUNE	1	3002534734	11J 20S 38E C NW SE		14361	26692	1421	69324	382613			17895
DREESSEN	1	3002534857	1G 20S 38E C SW NE	2199			7175			23039		
HOWSER	1	3002534970	1J 20S 38E C NW SE	1371			28097			35934		
MERIT	1	3002535240	11O 20S 38E E2 SW SE		9513			597060			7380	
REDTAG	1	3002535333	2J 20S 38E NW NW SE	27129	4037	1133	73901	9920	9535	4764	2495	3351
MERIT II	1	3002535448	11G 20S 38E C SW NE	3456	16980	21816	15627	28441	151799		11887	19464
DUKES	1	3002535614	11K 20S 38E E2 NE SW		7818	32784		38544	139480		8390	26341
REDTAG	2	3002535630	2K 20S 38E NE NE SW	15566			870166			2596		
DIXIE QUEEN	1	3002536421	11P 20S 38E S2 SE SE		7394			517209				
WHITE OWL	1	3002536689	2 20S 38E NW NW NW	32868			122087			9450		
HESTER 12	6	3002536795	12N 20S 38E	26810	8095	12000	321996	182364	63501	28538	6751	5480
HESTER 12	4	3002536800	12O 20S 38E SW SW SE	15686	5185	4610	261423	122085	110725	42191		2688
PLOW BOY FEDERAL	1	3002536962	35J 19S 38E NW NW SE	21883			71622					
ROUND-UP	1	3002537100	35H 19S 38E SW SE NE			7181			13557			
SALEM	1	3002537316	3A 20S 38E SE NE NE	2954		8592	8535		25309	7032		3185
HESTER 12	8	3002538076	12K 20S 38E SW NE SW	12938	3926	3762	124569	88335	56020	9995	11277	4360
HESTER 12	5	3002538211	12P 20S 38E NW SE SE	18890	5669	11153	177646	79110	77564	38857	6211	481
HESTER 12	7	3002538369	12N 20S 38E NE SE SW	6328	7241	3148	57135	53793	32197	16097	8422	10379
MELOT	1	3002538370	11C 20S 38E SW NE NW	4895	6293	2792	45105	35080	20051	23409	22744	20737
BLANKENSHIP	4	3002538397	12L 20S 38E NE NW SW	2908	3129	6389	13057	21937	22245	12146	5023	3768
BLANKENSHIP	5	3002538399	12M 20S 38E SW SW SW	12393	4622	5787	42451	84653	254996	20446	4543	3409
BLANKENSHIP	6	3002538400	12L 20S 38E SW NW SW	6755	5428	1218	30689	1764	63545	8849	648	12080
RHINO	2	3002538484	11N 20S 38E SE NE SW	9305	2576	5152	26295	17884				
MAGNOLIA	1	3002538660	11E 20S 38E NE SW NW	5510	5349	3981	80835	15727	16867	16978	2618	33554
DIXIE QUEEN	2	3002538661	11P 20S 38E NE SE SE	11334	3090	5222	58416	26604	52023			
HESTER 12	10	3002538662	12O 20S 38E NE SW SE	4254	446	3510	33452	9793	26121	26377	3753	9758
HESTER 12	11	3002538663	12P 20S 38E SW SE SE	1523	1408	2701	80703	80800	7794	6526	8770	5099
MELOT	2	3002538700	11C 20S 38E NW NE NW	15029	4986	1960	42159	7569	22066	14693	19337	14502
HESTER 12	9	3002538791	12K 20S 38E NE NE SW	1908	1199	4536	46737	5588	5276	20019	5058	11525
MAGNOLIA	2	3002539090	11D 20S 38E NE NW NW	1741	555	4669	62616	34150	82974	15912	3409	3409
L & M	2	3002539450	2N 20S 38E	1185	849	6430	18698	23618	58095	9793	4895	17954
DIXIE QUEEN	3	3002539451	11I 20S 38E	1679	433	3303	6104	2595	6582			
MELOT	3	3002539458	11B 20S 38E	1494	386	2941	6254	2658	6724	13100	2406	11228
BLANKENSHIP	7	3002539488	12E 20S 38E	169	46	368	2254	957	2422	11812	2461	10335
MAGNOLIA	3	3002539489	11E 20S 38E	1348	348	2653	22270	9465	23939	11919	2188	10217
ARNOLD A	2	3002539490	11F 20S 38E	980	247	1842	11166	4745	12004	7193	1468	6018
CONE A	2	3002539491	12F 20S 38E	936	258	2029	3332	1498	3499	4342	887	3634
ARNOLD A	3	3002539636	11F 20S 38E NE SE NW	1644	411	3082	7445	3165	8005	9864	2015	8253
DIXIE QUEEN	4	3002539650	11I 20S 38E	860	223	1693	4104	1743	4410			
L & M	3	3002539652	2N 20S 38E	457	326	2485	2705	3416	8114	2325	1125	4050
MERIT	2	3002539653	11O 20S 38E	610	196	1372	6572	3380	8824	887	268	908
REDTAG	3	3002539655	2J 20S 38E	314	370	2165	1350	3013	6026	2625	1811	4617
TOTALS				341,140	222,864	1,515,548	3,310,790	3,928,260	8,936,908	568,442	247,140	823,011
AVERAGES				7.753	6.306	30.311	73.673	93.530	186.186	14.906	7.269	18.705

Proposed Allocations	Oil	Gas	Water
Blinbry	18%	21%	36%
Tubb	12%	26%	18%
Drnkard	70%	53%	46%
TOTAL	100%	100%	100%

White Owl #1  
API # 30-025-36689  
Sec 2, T20S, R38E  
Elevation: 3590' KB, 3573' GL  
TD: 7,741'  
PBSD: 5,557'  
Casing Record: 13-3/8" 48# @ 127' w/ 200 sxs  
8-5/8" 24# J-55 @ 1636' w/ 725 sxs  
5-1/2" 17# N-80 @ 7,741' w/ 1710 sxs

Perfs: Blinebry: 5,982-6,139 (Open)  
Tubb: 6,802-6,890 (Behind CIBP @ 6,231')  
Drinkard: 6,986-7,106 (Behind CBP @ 6,920')

Objective: Drill out plugs and commingle zones

AFE: PA-12-4015

1. MIRU unit. Kill well as necessary. Unseat pump. POOH W/ rods and pump.
2. ND WH. NU BOP. Release TAC. POOH w/ tubing and TAC.
3. RIH w/ retrieving head and 5-1/2" casing scraper and tag fill @ 6,231'. Wash to RBP at 6400' and retrieve RBP. POOH.
4. RIH w/ 4-3/4" bit and 5-1/2" scraper and tag CBP @ 6,920'. Drill out CBP. Continue in hole to PBSD at 7,557'. Circulate bottoms up twice. POOH.
5. RIH W/ 2-7/8" production tubing to bottom perfs. Spot 1000 gal 15% NEFE HCL across all perfs from 5982'-7106'. Dump 500 gallons 200 gallons 15% NEFE down backside.
6. RU swab equipment and recover load and swab test perfs for fluid entry and oil cut. Report results to Midland. RD swab equipment.
7. RIH w/ production tbg and rods as per the Monument office specification.
8. RDMOPU. Return well to production in Blinebry, Tubb, and Drinkard. Place into test for 10 days.

GL=3573'  
KB=3590'  
Spud:6/16/04

## Apache Corporation – White Owl #1

### Wellbore Diagram – Proposed

Date : 6/25/2012

API: 30-025-36689

#### Surface Location

R. Taylor



582' FNL & 330' FWL,  
Lot D Sec 2, T20S, R38E, Lea County, NM

#### Surface Casing

13-3/8" 48# @ 127' w/ 200 sxs to surface

#### Intermediate Casing

8-5/8" 24# J-55 @ 1636' w/ 725 sxs

TAC @ TBD'

SN @ TBD'

TBD: Spot 1200 gal 15% NEFE HCL across all perfs

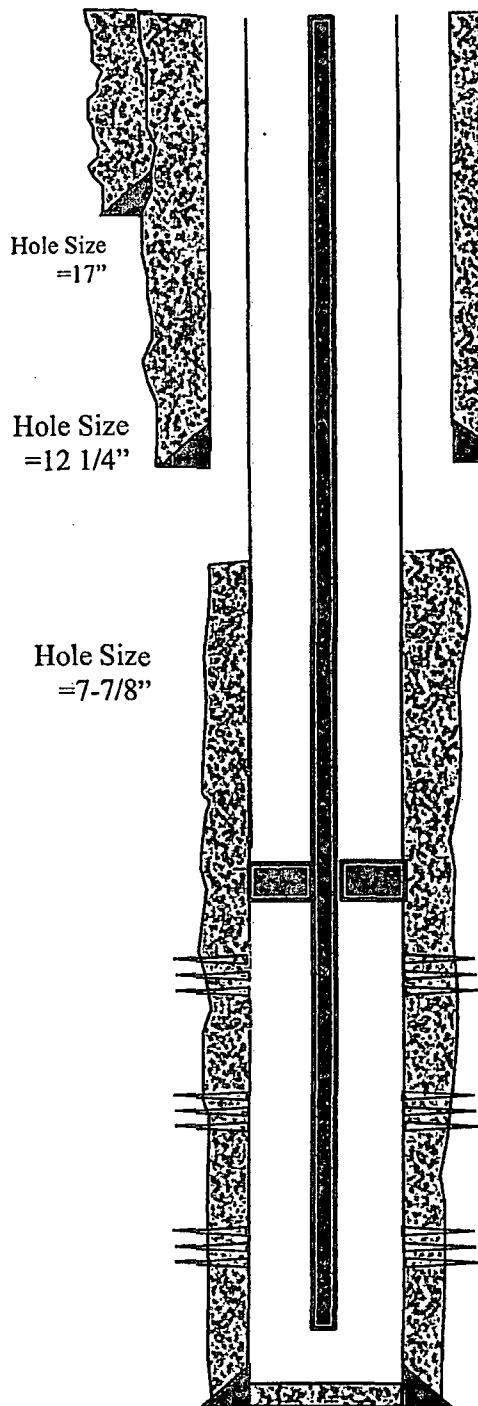
9/04: Perf Blinebry @ 5982-86; 6042-47; 6068-84; 6134-39 w/ 4 jspf.  
Acidized w/ 4000 gal 20% AS290. Frac'd w/ 60k gal gelled w/ 807  
SCF N2 w/ 90k# 20/40 snd & 30k# 20/40 PropNet

9/04: Perf Tubb @ 6802-08; 6818-20; 6827-30; 6835-38; 6843-49;  
6858-60; 6885-90 w/ 4 jspf. Acidized w/ 3000 gal 20% AS290. Frac'd  
w/ 30k gal 2% KCL w/ 52k# 20/40 snd.

8/04: Perf Drinkard @ 6986-94; 7062-70; 7082-86; 7100-06 w/ 4 jspf.  
Acidized w/ 3000 gal 15% NEFE. Frac'd w/ 42k gal 30Q 15 & 20%  
SXE w/ 20k# 20/40 snd.

#### Production Casing

5-1/2" 17# N-80 @ 7741' w/ 1710 sxs to surface



PBD = 7,557'  
MD = 7,741'