| DATE IN 03/12/2013 | SUSPENSE | ENGINEER PRG | LOGGED IN 03/12/2013 | TYPE DHC | APP NO. pPRG1307152373 |
|---|---|---|---|---|---|

ABOVE THIS LINE FOR DIVISION USE ONLY

**NEW MEXICO OIL CONSERVATION DIVISION**
- Engineering Bureau -
1220 South St. Francis Drive, Santa Fe, NM 87505

30-025-36689
White Owl #1
Apache Corp.

# 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 | Reesa Holland | SR STAFF REG TECH | 3/7/2013 |
|---|---|---|---|
| Print or Type Name | Signature | Title | Date |

WHITE OWL #1

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

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

**APPLICATION FOR DOWNHOLE COMMINGLING**

Form C-107A
Revised June 10, 2003

APPLICATION TYPE
X Single Well
___Establish Pre-Approved Pools
EXISTING WELLBORE
X Yes ___No

Apache Corporation — Operator
303 Veterans Airpark Lane Suite 3000 Midland TX 79705 — 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 X 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:<br>Rates: SEE ATTACHED | Date:<br>Rates: SEE ATTACHED | Date:<br>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 15 % Gas 21 % | Oil 10 % Gas 23 % | Oil 50 % Gas 45 % |

## ADDITIONAL DATA

Are all working, royalty and overriding royalty interests identical in all commingled zones? Yes X 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 X No ___

Will commingling decrease the value of production? Yes ___ No X

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

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

**APPLICATION FOR DOWNHOLE COMMINGLING**

Form C-107A
Revised June 10, 2003

APPLICATION TYPE
X Single Well
___Establish Pre-Approved Pools
EXISTING WELLBORE
X Yes ___No

Apache Corporation — Operator
303 Veterans Airpark Lane Suite 3000 Midland TX 79705 — 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 X Fee

| 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:<br>Rates: SEE ATTACHED | Date:<br>Rates: | Date:<br>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 25 % Gas 11 % | Oil % Gas % | Oil % Gas % |

## ADDITIONAL DATA

Are all working, royalty and overriding royalty interests identical in all commingled zones? Yes X 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 X No

Will commingling decrease the value of production? Yes No X

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

# Apache Corporation – White Owl #1

## Wellbore Diagram – Current

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

Date : 2/15/2012

API: 30-025-36689

R. Taylor

**Surface Location**

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**

Hole Size =17"

Hole Size =12 1/4"

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

Hole Size =7-7/8"

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'

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

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

# Apache Corporation – White Owl #1

## Wellbore Diagram – Proposed

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

Date : 2/15/2012

API: 30-025-36689

R. Taylor

**Surface Location**

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**

Hole Size =17"

Hole Size =12 1/4"

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

TAC @ TBD'
SN @ TBD'

Hole Size =7-7/8"

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

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

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

| Order Number | API Number | Operator | County |
|---|---|---|---|
| 496 | 30025-36689 | Apache Corp | Lea |

| Order Date | Well Name | Number | UL | Sec | Location T (+Dir) | Location R (+Dir) |
|---|---|---|---|---|---|---|
| 7-3-2012 | White Owl | 1 | D | 2 | 20S | 38E |

| | | | 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

JUL 03 2012

30-025-36689
DHC-HOB-496

DOWNHOLE COMMINGLE CALCULATIONS:

OPERATOR: Apache Corporation

PROPERTY NAME: White Owl 1

WNULSTR: 1-D-2-20S-38E

| SECTION I: | | ALLOWABLE AMOUNT | |
|---|---|---|---|
| POOL NO. 1 | House; Blinebry | 142 | 284 MCF |
| POOL NO. 2 | House; Tubb | 142 | 284 MCF |
| POOL NO. 3 | House; DrinKard | 142 | 284 MCF |
| POOL NO. 4 | | | MCF |
| | POOL TOTALS | 426 | ~~852~~ |

| SECTION II: | | Oil | Gas |
|---|---|---|---|
| POOL NO. 1 | House; Blinebry | 18% | 21% |
| POOL NO. 2 | House; Tubb | 12% | 26% |
| POOL NO. 3 | House; DrinKard | 70% X 426 = 298.2 < 298 > | 53% |
| POOL NO. 4 | | | |

| SECTION III: | OIL | GAS |
|---|---|---|
| | 70% ÷ 142 = 202.85 | <203> |

| SECTION IV: | | |
|---|---|---|
| | 18% X 203 = 36.54 | <37> |
| | 12% X 203 = 24.36 | <24> |
| | 70% X 203 = 142.10 | <142> |

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 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

HOBBS OCD
JUL 02 2012
RECEIVED

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

WELL API NO. 30-025-36689

5. Indicate Type of Lease STATE ☐ FEE ☒

6. State Oil & Gas Lease No.

SUNDRY NOTICES AND REPORTS ON WELLS
(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)

7. Lease Name or Unit Agreement Name: White Owl

1. Type of Well: ☒ Oil Well ☐ Gas Well ☐ Other:

8. Well Number 001

2. Name of Operator: Apache Corporation

9. OGRID Number 873

3. Address of Operator: 303 Veterans Airpark Lane, Suite 3000 Midland, TX 79705

10. Pool name or Wildcat: House;Blinebry/House;Tubb/House;Drinkard

4. Well Location
Unit Letter D : 582 feet from the North line and 330 feet from the West line
Section 2 Township 20S Range 38E NMPM County Lea

11. Elevation (*Show whether DR, RKB, RT, GR, etc.*) 3573' GL

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

| NOTICE OF INTENTION TO: | | | | SUBSEQUENT REPORT OF: | | | |
|---|---|---|---|---|---|---|---|
| PERFORM REMEDIAL WORK | ☐ | PLUG AND ABANDON | ☐ | REMEDIAL WORK | ☐ | ALTERING CASING | ☐ |
| TEMPORARILY ABANDON | ☐ | CHANGE PLANS | ☐ | COMMENCE DRILLING OPNS. | ☐ | P AND A | ☐ |
| PULL OR ALTER CASING | ☐ | MULTIPLE COMPL | ☐ | CASING/CEMENT JOB | ☐ | | |
| DOWNHOLE COMMINGLE | ☒ | | | | | | |
| OTHER: | ☐ | | | OTHER: | ☐ | | |

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: TITLE PETROLEUM ENGINEER DATE JUL 03 2012
Conditions of Approval (if any):

JUL 03 2012

Apache

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; Blinebry, 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,**

Reesa Holland

**Reesa Holland**
**Sr Staff Engr Technician**

White Owl #001
API 30-025-36689
Apache Corp

| Lease Name | Well Number | 10DIGITAPI | Location | Cum Oil (BBL) Blinebry | Cum Oil (BBL) Tubb | Cum Oil (BBL) Drinkard | Cum Gas (MCF) Blinebry | Cum Gas (MCF) Tubb | Cum Gas (MCF) Drinkard | Cum Water (BBL) Blinebry | Cum Water (BBL) Tubb | Cum Water (BBL) Drinkard |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 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 | 3002507781 | 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 | 6772 | 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 | | | 653402 | | | 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 | 579 | 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 | 28536 | 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 | 21983 | | | 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 | 30669 | 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 | 6588 | 5276 | 20019 | 5058 | 11525 |
| MAGNOLIA | 2 | 3002539090 | 11D 20S 38E NE NW NW | 1741 | 555 | 4669 | 62616 | 34150 | 92974 | 15912 | 3409 | 3409 |
| L & M | 2 | 3002539450 | 2N 20S 38E | 1185 | 849 | 6430 | 18698 | 23618 | 56095 | 9793 | 4895 | 17954 |
| DIXIE QUEEN | 3 | 3002539451 | 11I 20S 38E | 1679 | 433 | 3303 | 6104 | 2595 | 6562 | | | |
| 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 | 5,306 | 30,311 | 73,573 | 93,530 | 186,186 | 14,906 | 7,269 | 18,705 |

| Proposed Allocations | Oil | Gas | Water |
|---|---|---|---|
| Blinebry | 18% | 21% | 36% |
| Tubb | 12% | 26% | 18% |
| Drinkard | 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'
PBTD: 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" scrapper and tag CBP @ 6,920'. Drill out CBP. Continue in hole to PBTD 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.

# Apache Corporation – White Owl #1

## Wellbore Diagram – Proposed

**API: 30-025-36689**

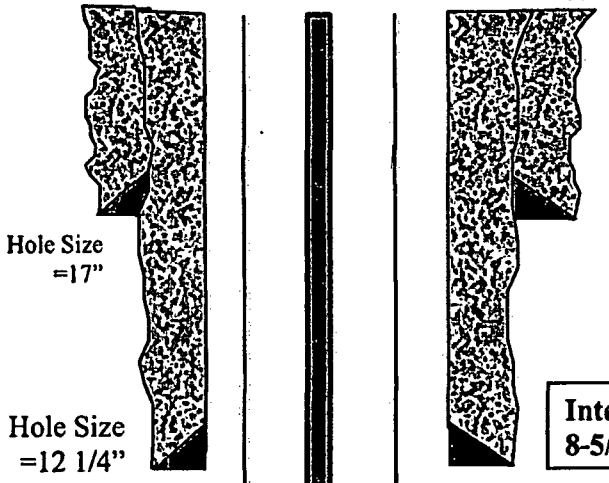
**GL=3573'**
**KB=3590'**
**Spud:6/16/04**

Date : 6/25/2012

R. Taylor

**Surface Location**

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.

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

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

White Owl #1
30-025-36689
Apache Corp.

| | | | | Cum Oil (BBL) | | | | Cum Gas (MCF) | | | | Cum Water (BBL) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lease Name | Well Number | 10DIGITAPI | Location | Blinebry | Tubb | Drinkard | Abo | Blinebry | Tubb | Drinkard | Abo | Blinebry | Tubb | Drinkard | Abo |
| L D JONES | 1 | 3002507722 | 20S 38E 1H SE NE | 3476 | | | | 186180 | | | | 5043 | | | |
| PHILLIPS HOUSE STATE | 1 | 3002507725 | 20S 38E 2O | | | 103514 | | | | 496179 | | | | 26444 | |
| STATE U | 1 | 3002507727 | 20S 38E 2P | | | 157611 | | | | 97687 | | | | 184324 | |
| ARNOLD A | 1 | 3002507761 | 20S 38E 11F | 1835 | 30283 | 670 | | 5231 | 1369833 | | | 9446 | 5407 | | |
| HOUSE B | 1 | 3002507764 | 20S 38E 11P | | 9855 | | | | 118752 | | | | | | |
| BLANKENSHIP | 1 | 3002507766 | 20S 38E 12E | | | 54657 | | | | 16638 | | | | 7010 | |
| BLANKENSHIP | 2 | 3002507767 | 20S 38E 12L | 3906 | 20 | 134312 | | 9570 | 42 | 1177187 | | 2664 | 114 | 37126 | |
| BLANKENSHIP | 3 | 3002507768 | 20S 38E 12M NE SW SW | 7838 | 9044 | 39616 | | 41101 | 50483 | 2435461 | | 11062 | 17662 | 22235 | |
| CONE A | 1 | 3002507770 | 20S 38E 12F | | 17845 | 206877 | | | 67631 | 242107 | | | 57330 | 84845 | |
| CONE B | 1 | 3002507771 | 20S 38E 12J | | | 239833 | | | | 591551 | | | | 69199 | |
| HESTER 12 | 3 | 3002507772 | 20S 38E 12O | | | 150171 | | | | 853402 | | | | 32702 | |
| HESTER 12 | 2 | 3002507773 | 20S 38E 12N | | | 82932 | | | | 540453 | | | | 17896 | |
| HESTER 12 | 1 | 3002512549 | 20S 38E 12K | | | 97448 | | | | 457760 | | | | 16669 | |
| HOWSE C | 1 | 3002522165 | 20S 38E 11H SE NE | | | 26370 | 35571 | | | 143078 | 92577 | | | 6340 | 8034 |
| CONE B | 2 | 3002525921 | 20S 38E 12G | | | 398 | | | | 86772 | | | | 1460 | |
| WERTA FEDERAL | 1 | 3002527696 | 19S 38E 35O SW SE | 47078 | 14640 | 11778 | | 233989 | 10262 | 24012 | | 57597 | 10929 | 29470 | |
| L & M | 1 | 3002528287 | 20S 38E 2N C S2 SW | 2560 | 10419 | 631 | | 21491 | 134959 | 2528 | | 4760 | 2050 | 1393 | |
| FRANCES EVELYN | 1 | 3002532163 | 19S 38E 35N SE SW | 5470 | | | | 61072 | | | | 35070 | | | |
| PICAYUNE | 1 | 3002534734 | 20S 38E 11J C NW SE | | 16255 | 30054 | | 3461 | 78847 | 405064 | | | | 17895 | |
| DREESSEN | 1 | 3002534857 | 20S 38E 1G C SW NE | 2199 | | | | 7175 | | | | 23039 | | | |
| HOWSER | 1 | 3002534970 | 20S 38E 1J C NW SE | 1371 | | | | 28097 | | | | 35934 | | | |
| MERIT | 1 | 3002535240 | 20S 38E 11O SW SE | 627 | 10297 | 1270 | | 6157 | 605547 | 7691 | | 1997 | 35141 | 1997 | |
| REDTAG | 1 | 3002535333 | 20S 38E 2J NW NW SE | 27858 | 5139 | 5412 | | 84339 | 17652 | 30027 | | 19613 | 31372 | 42128 | |
| MERIT II | 1 | 3002535448 | 20S 38E 11G C SW NE | 6417 | 18648 | 21816 | | 31016 | 34931 | 153963 | | | 11887 | 19464 | |
| DUKES | 1 | 3002535614 | 20S 38E 11K E2 NE SW | | 7818 | 39338 | | | 38544 | 171445 | | | 8390 | 39391 | |
| REDTAG | 2 | 3002535630 | 20S 38E 2K NE NE SW | 17863 | | | 1333 | 928809 | | | 10611 | 7038 | | | 138 |
| DIXIE QUEEN | 1 | 3002536421 | 20S 38E 11P SE SE | 2209 | 11331 | 4726 | | 23342 | 545000 | 29175 | | 8560 | 2723 | 8170 | |
| WHITE OWL | 1 | 3002536689 | 20S 38E 2D NW NW NW | 37260 | | | | 135458 | | | | 10308 | | | |
| HESTER 12 | 6 | 3002536795 | 20S 38E 12N | 29296 | 8804 | 17799 | 3421 | 350441 | 196586 | 98169 | 13677 | 33369 | 8273 | 10174 | 3178 |
| HESTER 12 | 4 | 3002536800 | 20S 38E 12O SW SW SE | 17307 | 7008 | 6231 | | 274563 | 153475 | 139195 | | 58627 | | 3926 | |
| PLOW BOY FEDERAL | 1 | 3002536962 | 19S 38E 35J NW NW SE | 25683 | 189 | 189 | | 95788 | 1380 | 1632 | | | | | |
| ROUND-UP | 1 | 3002537100 | 19S 38E 35H SW SE NE | | | 9745 | | | | 21133 | | | | | |
| SALEM | 1 | 3002537316 | 20S 38E 3A SE NE NE | 4742 | | 9038 | | 12134 | | 25944 | | 12633 | | 5255 | |
| HESTER 12 | 8 | 3002538076 | 20S 38E 12K SW NE SW | 15840 | 5241 | 5022 | | 143579 | 111951 | 70995 | | 13659 | 15410 | 5958 | |
| HESTER 12 | 5 | 3002538211 | 20S 38E 12P NW SE SE | 21566 | 6904 | 14103 | | 199221 | 93675 | 95364 | | 42537 | 14308 | 3425 | |
| HESTER 12 | 7 | 3002538369 | 20S 38E 12N NE SE SW | 8366 | 9445 | 4565 | | 75445 | 70695 | 43936 | | 20054 | 10856 | 14134 | |
| MELOT | 1 | 3002538370 | 20S 38E 11C SW NE NW | 6792 | 8730 | 3874 | | 61320 | 47695 | 27258 | | 30801 | 29924 | 27284 | |
| BLANKENSHIP | 4 | 3002538397 | 20S 38E 12L NE NW SW | 3750 | 4037 | 7879 | | 17033 | 28617 | 27496 | | 25515 | 10556 | 7918 | |
| BLANKENSHIP | 5 | 3002538399 | 20S 38E 12M SW SW SW | 15182 | 5770 | 7320 | | 49346 | 107308 | 323948 | | 32739 | 7276 | 5458 | |
| BLANKENSHIP | 6 | 3002538400 | 20S 38E 12L SW NW SW | 8098 | 7073 | 1583 | | 39656 | 2454 | 88435 | | 15478 | 1134 | 21131 | |
| RHINO | 2 | 3002538484 | 20S 38E 11K SE NE SW | 12985 | 3711 | 7416 | | 40584 | 28234 | | | | | | |
| MAGNOLIA | 1 | 3002538660 | 20S 38E 11E NE SW NW | 7057 | 7249 | 5528 | | 99371 | 19486 | 21434 | | 20260 | 3397 | 45121 | |
| DIXIE QUEEN | 2 | 3002538661 | 20S 38E 11P NE SE SE | 16297 | 4510 | 8972 | | 94028 | 43474 | 93259 | | 6203 | 1940 | 4780 | |
| HESTER 12 | 10 | 3002538662 | 20S 38E 12O NE SW SE | 5878 | 896 | 7040 | | 51443 | 19318 | 51521 | | 35334 | 6675 | 17352 | |
| HESTER 12 | 11 | 3002538663 | 20S 38E 12P SW SE SE | 2247 | 2231 | 4446 | | 105338 | 107044 | 10474 | | 10101 | 14260 | 8800 | |
| MELOT | 2 | 3002538700 | 20S 38E 11C NW NE NW | 20490 | 7495 | 2943 | | 61649 | 11981 | 34935 | | 17949 | 29103 | 21827 | |
| HESTER 12 | 9 | 3002538791 | 20S 38E 12K NE NE SW | 3053 | 1876 | 7908 | | 73346 | 7825 | 8476 | | 28455 | 6155 | 17619 | |
| MAGNOLIA | 2 | 3002539090 | 20S 38E 11D NE NW NW | 3359 | 1067 | 9008 | | 90356 | 49286 | 134167 | | 31747 | 6803 | 6803 | |
| L & M | 2 | 3002539450 | 20S 38E 2 | 2668 | 1912 | 14477 | | 38807 | 49018 | 116426 | | 19963 | 9980 | 36599 | |
| DIXIE QUEEN | 3 | 3002539451 | 20S 38E 11 | 3676 | 952 | 7234 | | 23194 | 9858 | 24936 | | 5982 | 1101 | 5127 | |
| MELOT | 3 | 3002539458 | 20S 38E 11 | 3359 | 863 | 6608 | | 16601 | 7056 | 17847 | | 26625 | 4890 | 22821 | |
| BLANKENSHIP | 7 | 3002539488 | 20S 38E 12 | 1911 | 524 | 4152 | | 5590 | 2375 | 6004 | | 33493 | 6979 | 29304 | |
| MAGNOLIA | 3 | 3002539489 | 20S 38E 11 | 3752 | 976 | 7384 | | 50461 | 21444 | 54236 | | 26179 | 4808 | 22439 | |
| ARNOLD A | 2 | 3002539490 | 20S 38E 11 | 2305 | 578 | 4325 | | 29076 | 12356 | 31256 | | 15418 | 3147 | 12901 | |
| CONE A | 2 | 3002539491 | 20S 38E 12 | 2966 | 818 | 6450 | | 10281 | 4625 | 10798 | | 15100 | 3081 | 12637 | |
| ARNOLD A | 3 | 3002539636 | 20S 38E 11 NE SE NW | 3571 | 887 | 6686 | | 22495 | 9564 | 24185 | | 21723 | 4433 | 18175 | |
| DIXIE QUEEN | 4 | 3002539650 | 20S 38E 11 | 4536 | 1162 | 8922 | | 33250 | 14128 | 35736 | | 10000 | 1836 | 8573 | |
| L & M | 3 | 3002539652 | 20S 38E 2 | 2630 | 1880 | 14291 | | 18066 | 22821 | 54200 | | 13290 | 6430 | 23152 | |
| MERIT | 2 | 3002539653 | 20S 38E 11 | 3470 | 1113 | 7804 | | 51273 | 26368 | 68850 | | 13824 | 4184 | 14149 | |
| MERIT | 3 | 3002539654 | 20S 38E 11 SW SE | 2886 | 1595 | 5475 | | 63824 | 48262 | 43591 | | 15468 | 3376 | 9284 | |
| REDTAG | 3 | 3002539655 | 20S 38E 2 | 2160 | 2556 | 14934 | | 8433 | 18815 | 37636 | | 24647 | 16998 | 43348 | |
| USA HOWSE | 2 | 3002539839 | 20S 38E 12I | 3037 | 155 | 1052 | | 23996 | 2817 | 6674 | | 24234 | 1927 | 5776 | |
| CONE B | 2 | 3002539907 | 20S 38E 12J | 1149 | 345 | 2332 | | 21950 | 4006 | 9488 | | 7306 | 2324 | 6974 | |
| REDTAG | 4 | 3002539966 | 20S 38E 2K NE SW | 1039 | 686 | 4044 | | 16758 | 20744 | 42289 | | 2970 | 1485 | 3795 | |
| PICAYUNE | 2 | 3002539967 | 20S 38E 11J | 1606 | 479 | 3267 | | 7128 | 3762 | 8911 | | 22515 | 7004 | 20510 | |
| MELOT | 4 | 3002539968 | 20S 38E 11B | 4053 | 1218 | 8255 | | 21121 | 11145 | 26399 | | 30934 | 9624 | 28183 | |
| MAGNOLIA | 4 | 3002539969 | 20S 38E 11D | 2586 | 774 | 5253 | | 10333 | 5453 | 12916 | | 14745 | 4587 | 13436 | |
| DUKES | 2 | 3002540022 | 20S 38E 11K | 1566 | 521 | 3132 | | 6779 | 3766 | 8284 | | 18178 | 6059 | 16158 | |
| L & M | 8 | 3002540262 | 20S 38E 2N | 863 | 616 | 4687 | | 5918 | 7472 | 17753 | | 7183 | 3592 | 13171 | |
| REDTAG | 6 | 3002540432 | 20S 38E 2K | 255 | 171 | 993 | | 8492 | 10514 | 21432 | | 5351 | 2676 | 6837 | |
| | | | TOTALS | 451,999 | 274,611 | 1,691,800 | 40,325 | 4,234,955 | 4,489,336 | 9,959,798 | 116,865 | 1,042,720 | 459,596 | 1,266,472 | 11,350 |
| | | | AVERAGES | 8,071 | 5,181 | 26,854 | 13,442 | 74,297 | 84,704 | 163,275 | 38,955 | 19,674 | 9,575 | 21,466 | 3,783 |

| Proposed Allocations | Oil | Gas | Water |
|---|---|---|---|
| Blinebry | 15% | 21% | 36% |
| Tubb | 10% | 23% | 18% |
| Drinkard | 50% | 45% | 39% |
| Abo | 25% | 11% | 7% |
| 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: Blinebry: 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.

Apache

RECEIVED OCD

2013 MAR 11 P 1:41

March 7, 2013

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; Blinebry (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,

Reesa Holland

Reesa Holland
Sr Staff Regulatory Technician

**30-015-33362-00-00** **POKER LAKE UNIT No. 192Q**

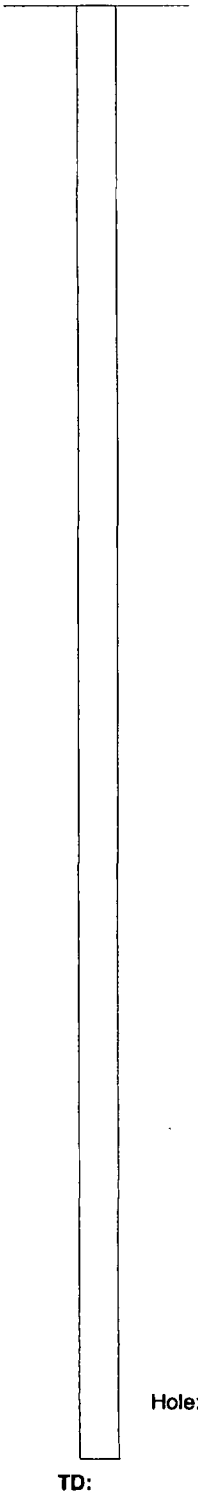
**Company Name:** BASS ENTERPRISES PRODUCTION CO

**Location:** Sec: 8 T: 24S R: 30E Spot:

Lat: 32.2307951440196 Long: -103.910962272597

**Property Name:** POKER LAKE UNIT

**County Name:** Eddy



Hole: Unknown

**TD:** **TVD:** 0 **PBTD:**

## String Information

## Cement Information

## Perforation Information

| Top (ft sub) | Bottom (ft sub) | Shts/Ft | No Shts | Dt Sqz |
|---|---|---|---|---|
| 0 | 0 | | | |

## Formation Information

| St Code | Formation | Depth |
|---|---|---|
| Prust | Rustler | 856 |
| Psal | Salado | 1370 |
| Pbslt | Base of Salt | 3272 |
| Pdel | Delaware | 3486 |

28b. Production - Interval C

| Date First Produced | Test Date | Hours Tested | Test Production → | Oil BBL | Gas MCF | Water BBL | Oil Gravity Corr. API | Gas Gravity | Production Method |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | |

| Choke Size | Tbg. Press. Flwg. SI | Csg. Press. | 24 Hr. Rate → | Oil BBL | Gas MCF | Water BBL | Gas : Oil Ratio | Well Status |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | |

28c. Production - Interval D

| Date First Produced | Test Date | Hours Tested | Test Production → | Oil BBL | Gas MCF | Water BBL | Oil Gravity Corr. API | Gas Gravity | Production Method |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | |

| Choke Size | Tbg. Press. Flwg. SI | Csg. Press. | 24 Hr. Rate → | Oil BBL | Gas MCF | Water BBL | Gas : Oil Ratio | Well Status |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | |

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29. Disposition of Gas *(Sold, used for fuel, vented, etc.)*
SOLD

30. Summary of Porous Zones (Include Aquifers):

Show all important zones or porsity and contents thereof: Cored intervals and all drill-stem tests, inlcuding depth interval tested, cushion used, time tool open, flowing and shut-in pressures and recoveries.

31. Formation (Log) Markers

| Formation | Top | Bottom | Descriptions, Contents, etc. | Name | Top Meas. Depth |
|---|---|---|---|---|---|
| | | | | T/RUSTLER ANHYDRITE | 858' |
| | | | | T/SALT | 1370' |
| | | | | B/SALT | 3272' |
| | | | | T/LAMAR LIME | 3486' |
| | | | | T/BELL CANYON | 3512' |
| | | | | T/LOWER CHERRY CANYON | 5616' |
| | | | | T/BRUSHY CANYON | 6337' |
| | | | | T/LOWER BRUSHY CANYON | 7031' |
| | | | | T/BONE SPRING LIME | 7291' |
| | | | | T/AVALON SAND | 7380' |

32. Additional remarks (include plugging procedure):
Additional Top's for Poker Lake Unit #192 - API # 30-015-33362

33. Indicate which itmes have been attached by placing a check in the appropriate boxes:

☐ Electrical/Mechanical Logs (1 full set req'd.) ☐ Geological Report ☐ DST Report ☐ Directional Survey
☐ Sundry Notice for plugging and cement verification ☐ Core Analysis ☐ Other

34. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records (see attached instructions)*

Name *(please print)* Cindi Goodman Title Production Clerk

Signature Cindi Goodman Date 06/28/2005 2/15/06

Title 18 U.S.C. Section 101 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States and false, fictitious or fradulent statements or representations as to any matter within its jurisdiction.