

ABOVE THIS LINE FOR DIVISION USE ONLY

**RECEIVED**  
**NEW MEXICO OIL CONSERVATION DIVISION**  
 - Engineering Bureau -  
 2008 DEC 17 PM 1:12  
 1220 South St. Francis Drive, Santa Fe, NM 87505



API 30-045-22345  
 Pritchard 003A  
 BP America  
 000778

AMENDED

**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.**

Cherry Hlava	<i>Cherry Hlava</i>	Regulatory Analyst	12-12-08
Print or Type Name	Signature	Title	Date
		hlavacl@bp.com	
		e-mail Address	

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

State of New Mexico  
 Energy, Minerals and Natural Resources

Form C-103  
 June 19, 2008

OIL CONSERVATION DIVISION  
 1220 South St. Francis Dr.  
 Santa Fe, NM 87505

AMENDED

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.)		WELL API NO. <b>30-045-22345</b>
1. Type of Well: Oil Well <input type="checkbox"/> Gas Well <input checked="" type="checkbox"/> Other <input type="checkbox"/>		5. Indicate Type of Lease STATE <input type="checkbox"/> FEE <input type="checkbox"/>
2. Name of Operator <b>BP America Production Company</b>		6. State Oil & Gas Lease No.
3. Address of Operator <b>P.O. Box 3092 Houston, Tx 77253-3092</b>		7. Lease Name or Unit Agreement Name <b>Pritchard</b>
4. Well Location Unit Letter <u>P</u> : <u>1000</u> feet from the <u>South</u> line and <u>800</u> feet from the <u>East</u> line Section <u>31</u> Township <u>29N</u> Range <u>08W</u> NMPM San Juan County		8. Well Number <b>3A</b>
11. Elevation (Show whether DR, RKB, RT, GR, etc.)		9. OGRID Number <b>000778</b>
10. Pool name or Wildcat <b>Basin MV, PC &amp; Basin FC</b>		10. Pool name or Wildcat <b>72359 B<sup>PC</sup> 72319 B<sup>MV</sup></b>

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

<b>NOTICE OF INTENTION TO:</b> PERFORM REMEDIAL WORK <input type="checkbox"/> PLUG AND ABANDON <input type="checkbox"/> TEMPORARILY ABANDON <input type="checkbox"/> CHANGE PLANS <input type="checkbox"/> PULL OR ALTER CASING <input type="checkbox"/> MULTIPLE COMPL <input type="checkbox"/> DOWNHOLE COMMINGLE <input type="checkbox"/>		<b>SUBSEQUENT REPORT OF:</b> REMEDIAL WORK <input type="checkbox"/> ALTERING CASING <input type="checkbox"/> COMMENCE DRILLING OPNS. <input type="checkbox"/> P AND A <input checked="" type="checkbox"/> CASING/CEMENT JOB <input type="checkbox"/>	
OTHER: Amend DHC 3446 permit <input checked="" 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.

**COMPLIANCE WELL**

DHC 3446 dated 5-9-05 approved the Quad-Mingling of MV, PC, FC & Otero Chacra in the above mentioned well.

BP respectfully requests permission to amend said permit. It is BP's intent to DHC the MV, PC & FC. This change eliminates the Otero Chacra Pool.

The working, royalty & overriding royalty interest owner in the proposed commingled pools are identical, therefore no notification is required.

The Allocation will be based on the subtraction method using production declines for the PC & MV with remaining production attributed to the Basin Fruitland Coal.

Commingling production downhole in the subject well from the proposed pools will not reduce the value of the total remaining production. Please see the attached revised procedure and the MV & PC declines.

The BLM has been notified of this Amended request.

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

SIGNATURE Cherry Hlava TITLE Regulatory Analyst DATE 12-12-08 Type or print name Cherry Hlava E-mail address: hlavacl@bp.com PHONE: 281-366-4081

**For State Use Only**

APPROVED BY: \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_  
 Conditions of Approval (if any): \_\_\_\_\_

## **BP SJ Basin Proposed Regulatory Well Work Procedure DHC MV, PC & FC**

**Well Name:** Pritchard 3A  
**Date:** December 15, 2008  
**Location:** Sec 31 T29N R08W  
**API:** 30-045-22345  
**Engineer:** Matthew Mientka (281.366.5721)

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**Objective:** Perforate and frac Fruitland Coal, and downhole Tri-mingle FC, PC, and Mesa Verde.

1. TOH with PC completion.
2. TOH with Packer and MV completion
3. Perforate and fracture Fruitland Coal
4. Land tbg and return well to production.
5. Downhole tri-mingle FC, PC, and Mesaverde.

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### **Well History:**

This well has been producing from the Mesa Verde since 1977. In 1979 the Pictured Cliffs formation was added and the well was completed as a dual producer. The 2-3/8" tubing is landed at 4695' and the 1 1/4" tubing is landed at 2335'. The well is currently not producing from either formation.

The objective is to recompleate this well to include the Fruitland Coal and commingle with the existing MV and PC production. The job scope is to pull the dual completion, perforate and fracture stimulate the Fruitland Coal formation, clean out to TD, and commingle production. A cast iron bridge plug will be set at ~ 2600' to isolate the Mesa Verde throughout the recompleation.

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**Pertinent Information:** Gas BTU content for this well is above 950. Therefore, venting and flaring document needs to be followed.

**Notes:**

Casing data : 4 1/2" production liner, 10.5# J-55 @ 4820' (75% of burst is 3592 psi)

7" Casing 23# K-55 @ 2703' (75% of burst is 3270 psi)

PBTD: ~4800'

Vertical well

Well site will require inspection and possible clearing for rig and fracture treatment

Isolation tool (stinger) required for stimulation treatment

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## Regulatory Procedure:

1. Perform pre-rig site inspection.
2. RU wireline unit. Pressure test lubricator and equipment. RIH and set **two** barriers for isolation in both tubing strings.
3. Check and record tubing, casing, and bradenhead pressures. Ensure production casing has double casing valves installed. Double valve all casing strings.
4. MIRU workover rig. LO/TO all necessary equipment including but not limited to: meter run, Automation, Separators and water lines.
5. Blow down well. Kill with 2% KCL water ONLY if necessary.
6. Nipple down Wellhead. NU BOPs and diversion spool with 3" outlets and 3" pipe to the blow tank. Pressure test BOPs
7. Install stripping rubber.
8. TOH and LD 1 1/4" production tubing currently set at 2,335'. Using approved "Under Balance Well Control Tripping Procedure".
9. TOH and LD 2 3/8" production tubing currently set at 4695'. Using approved "Under Balance Well Control Tripping Procedure".
10. Fish and TOH w/ 4 1/2" model D packer.
11. TIH w/ BHA for scraper run. Scrape 4 1/2" casing to ~2600' and 7" casing to top of PC @ 2294'.
12. RIH and set 4 1/2" bridge plug at 2600'.
13. RU E-line equipment. Pressure test lubricator and equipment. Log well w/ CBL from TOL @ 2383' to surface.
14. TIH w/ RBP for 7" casing and set above Pictured Cliffs. Spot 3 sx of sand on RBP.
15. Rig up wireline and pressure test lubricator. RIH with 3-1/8" casing guns. Perforate FC formation.
16. Rig up Frac equipment and personal. Pressure test equipment. Frac Fruitland Coal according to designed frac procedure.

17. Flowback frac immediately. Flow well through choke manifold on 1/8" 1/4", 1/2" and 3/4" chokes increasing drawdown until well dies or stabilizes. This is to aid in reducing sand flowback. Recommend 8 hours of flow for each choke size.
18. Rig up air package/unit, pressure test all lines. TIH with tubing and cleanout fill to top of plug set at 2600'. **Perform well test on FC for regulatory and document well test in DIMS.**
19. RIH with retrieving head and pull RBP set above Pictured Cliffs.
20. Pick up bit for 4 1/2" and drillout CIBP @ 2600' and cleanout to PBTB @ 4,800'. Blow well dry. POOH
21. Rabbit tubing and RIH with 2-3/8" production tubing (with wireline entry guide, F-nipple with plug, 4 ft pup, X-nipple with plug).
22. Land 2-3/8" production tubing at +/-4,730'. Lock down hanger.
23. Pressure test tubing to 500 psi with air unit.
24. ND BOP's. NU Wellhead. During Master valve placement ensure the top of hanger has spacer nipple in place to bottom of bonnet flange so plunger equipment will not hang up through tree. Pressure test Wellhead.
25. RU WL unit. Broach 2-3/8" tubing. Pull plugs and set tubing stop for plunger. Communicate plunger equipment status to IC room personnel.
26. RD slickline unit.
27. Test well for air. Return well to production and downhole tri-mingle FT, PC, and Mesa Verde.

**Matthew Mientka**

Wellwork PE

BP San Juan - Base Conventional Team

Office: 281.366.5721

Email: [Matt.Mientka@bp.com](mailto:Matt.Mientka@bp.com)



**WELL NAME:** Pritchard 3A  
**LOCATION:** 1000' FSL      800' FEL  
**SEC/TWN/RNG:** 31      T29N      R8W  
**COUNTY, ST:** San Juan Co., NM  
**WELL TYPE:** Gas  
**BP WI:** 50.0%      **NRI:** 33.6%  

BCPD	BWPD	MCFD
		2,385
		5,135

**SPUD DATE:** 05/19/77  
**RIG REL:** 05/23/77  
**COMP DATE:** 06/20/77  
**FORMATION:** Pictured Cliffs / Mesa Verde  
**API#:** 30-045-22345

**Pritchard 3A**

**INTERMEDIATE CASING DESIGN**

7"  
 63 jnts      k-55      23#/ft  
  
**SET @** 2703'  
**1st Stg CEMENT** 250 sx POZ  
**TAIL IN W/** 150 sx Class 'B'  
**TOC** Surface  
**Det. By** Circulated

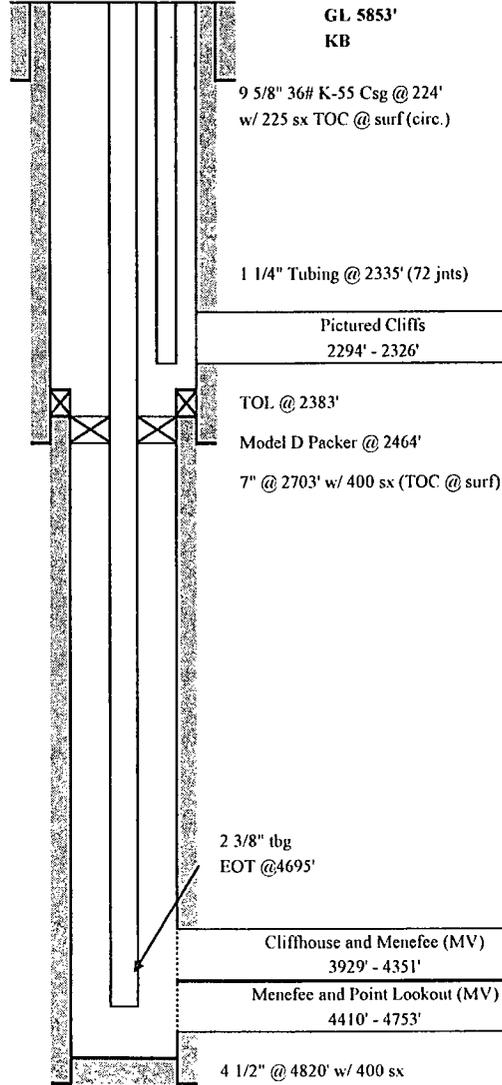
**PRODUCTION LINER DESIGN**

4 1/2"  
 68 jnts      J-55      10.5# & 11.6#  
  
**SET @** 2383' - 4820'  
**CEMENT W/** 250 sx 65-35 Pznix + 12% gel  
 +12.5# gilsonite  
**TAIL IN W/** 150 sx Class 'B' w/ 3% CaCl  
**CMT TOP @**  
**DETER. BY** Circulated

	PERF. DATA:	SPF	FORM.
3	2294' - 2300'	4	PC
3	2304' - 2308'	4	PC
3	2316' - 2326'	4	PC
2	3929' - 4351'	20 holes	Mesa Verde
1	4410' - 4753'	20 holes	Mesa Verde

**TUBING DATA**

2 3/8"      J-55      4.7 #/ft  
  
**SET @** 4695'  
**PACKER** Model D @ 2465'  
**S.N ID / @**



**FRAC JOB:** (1) - Sand/water' Frac with 100,000# 20/40 sand  
 (2) - 'Sand/Water' Frac with 100,000# 20/40  
 (3) - 25,000 gal 70Q N2 Foam w/ 30000# 10/20 sand and 300,500 SCF N2  
 AVG 1500psi @ 20 BPM.

**NOTES:** PC added in 1979, fraced down annulus.

**Prepared By :** Matt Mientka  
**Date :** 11-Aug-08



Pritchard 3A												
MesaVerde Formation												
API #		3004522345										
Starting 1/96 thru 11/11												
Exponential Decline												
Qi =	69.0	mcf/d	1-Nov-2005									
Qf =	53.54	mcf/d										
D =	8.11%	per year										
Starting 12/11 thru 12/36												
Exponential Decline												
Qi =	53.54	mcf/d										
Qf =	5.00	mcf/d										
D =	9.00%	per year										
Date	Gas Rate mcf/d	Gas Volume MMSCF	Date	Gas Rate mcf/d	Gas Volume MMSCF	Date	Gas Rate mcf/d	Gas Volume MMSCF	Date	Gas Rate mcf/d	Gas Volume MMSCF	
Nov-08	68.63	2.06	Nov-11	53.37	1.60	Nov-14	40.22	1.21	Nov-17	30.31	0.91	
Dec-08	68.15	2.11	Dec-11	52.95	1.64	Dec-14	39.90	1.24	Dec-17	30.07	0.93	
Jan-09	67.84	2.10	Jan-12	52.39	1.62	Jan-15	39.59	1.23	Jan-18	29.83	0.93	
Feb-09	67.38	1.89	Feb-12	51.98	1.51	Feb-15	39.29	1.10	Feb-18	29.60	0.83	
Mar-09	66.92	2.08	Mar-12	51.58	1.60	Mar-15	38.99	1.21	Mar-18	29.38	0.91	
Apr-09	66.45	1.99	Apr-12	51.18	1.54	Apr-15	38.68	1.16	Apr-18	29.15	0.87	
May-09	65.98	2.05	May-12	50.78	1.57	May-15	38.38	1.19	May-18	28.92	0.90	
Jun-09	65.52	1.97	Jun-12	50.38	1.51	Jun-15	38.08	1.14	Jun-18	28.69	0.86	
Jul-09	65.06	2.02	Jul-12	49.99	1.55	Jul-15	37.78	1.17	Jul-18	28.47	0.88	
Aug-09	64.59	2.00	Aug-12	49.59	1.54	Aug-15	37.48	1.16	Aug-18	28.24	0.88	
Sep-09	64.14	1.92	Sep-12	49.20	1.48	Sep-15	37.18	1.12	Sep-18	28.02	0.84	
Oct-09	63.68	1.97	Oct-12	48.82	1.51	Oct-15	36.89	1.14	Oct-18	27.80	0.86	
Nov-09	63.24	1.90	Nov-12	48.43	1.45	Nov-15	36.60	1.10	Nov-18	27.58	0.83	
Dec-09	62.79	1.95	Dec-12	48.06	1.49	Dec-15	36.31	1.13	Dec-18	27.36	0.85	
Jan-10	62.34	1.93	Jan-13	47.80	1.48	Jan-16	35.93	1.11	Jan-19	27.15	0.84	
Feb-10	61.92	1.73	Feb-13	47.44	1.33	Feb-16	35.65	1.03	Feb-19	26.94	0.75	
Mar-10	61.49	1.91	Mar-13	47.08	1.46	Mar-16	35.37	1.10	Mar-19	26.74	0.83	
Apr-10	61.06	1.83	Apr-13	46.71	1.40	Apr-16	35.10	1.05	Apr-19	26.53	0.80	
May-10	60.63	1.88	May-13	46.34	1.44	May-16	34.82	1.08	May-19	26.32	0.82	
Jun-10	60.20	1.81	Jun-13	45.98	1.38	Jun-16	34.55	1.04	Jun-19	26.11	0.78	
Jul-10	59.78	1.85	Jul-13	45.62	1.41	Jul-16	34.28	1.06	Jul-19	25.91	0.80	
Aug-10	59.35	1.84	Aug-13	45.26	1.40	Aug-16	34.01	1.05	Aug-19	25.70	0.80	
Sep-10	58.93	1.77	Sep-13	44.90	1.35	Sep-16	33.74	1.01	Sep-19	25.50	0.77	
Oct-10	58.52	1.81	Oct-13	44.55	1.38	Oct-16	33.48	1.04	Oct-19	25.30	0.78	
Nov-10	58.11	1.74	Nov-13	44.20	1.33	Nov-16	33.21	1.00	Nov-19	25.10	0.75	
Dec-10	57.70	1.79	Dec-13	43.85	1.36	Dec-16	32.95	1.02	Dec-19	24.90	0.77	
Jan-11	57.28	1.78	Jan-14	43.50	1.35	Jan-17	32.78	1.02	Jan-20	24.64	0.76	
Feb-11	56.89	1.59	Feb-14	43.17	1.21	Feb-17	32.53	0.91	Feb-20	24.45	0.71	
Mar-11	56.51	1.75	Mar-14	42.84	1.33	Mar-17	32.29	1.00	Mar-20	24.26	0.75	
Apr-11	56.11	1.68	Apr-14	42.51	1.28	Apr-17	32.03	0.96	Apr-20	24.07	0.72	
May-11	55.71	1.73	May-14	42.17	1.31	May-17	31.78	0.99	May-20	23.88	0.74	
Jun-11	55.32	1.66	Jun-14	41.84	1.26	Jun-17	31.53	0.95	Jun-20	23.69	0.71	
Jul-11	54.93	1.70	Jul-14	41.51	1.29	Jul-17	31.28	0.97	Jul-20	23.51	0.73	
Aug-11	54.54	1.69	Aug-14	41.18	1.28	Aug-17	31.03	0.96	Aug-20	23.32	0.72	
Sep-11	54.15	1.63	Sep-14	40.86	1.23	Sep-17	30.79	0.92	Sep-20	23.14	0.69	
Oct-11	53.77	1.67	Oct-14	40.54	1.26	Oct-17	30.55	0.95	Oct-20	22.96	0.71	

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**

*DHC-3446-A*

**BP America Production Company P. O. Box 3092 Houston, TX 77253 AMENDED C-107A**

Operator **Pritchard** Address **Unit P Section 31 T29N, R08W** **San Juan**

Lease Well No. Unit Letter-Section-Township-Range County

OGRID No. 778 Property Code 959 API No. 30-045-22345 Lease Type:  Federal  State  Fee

DATA ELEMENT	UPPER ZONE	INTERMEDIATE ZONE	LOWER ZONE
Pool Name	<b>Blanco Pictured Cliffs</b>	<b>Basin Fruitland Coal</b>	<b>Blanco Mesaverde</b>
Pool Code	<b>72359</b>	<b>71629</b>	<b>72319</b>
Top and Bottom of Pay Section (Perforated or Open-Hole Interval)	<b>2294' - 2326'</b>	<b>TBD</b>	<b>4054' - 4716'</b>
Method of Production (Flowing or Artificial Lift)	<b>Artificial Lift</b>	<b>Flowing</b>	<b>Artificial Lift</b>
Bottomhole Pressure <small>(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)</small>	<b>430</b>	<b>430</b>	<b>480</b>
Oil Gravity or Gas BTU <small>(Degree API or Gas BTU)</small>	<b>950</b>	<b>1230</b>	<b>950</b>
Producing, Shut-In or New Zone	<b>Non-producing</b>	<b>New Zone</b>	<b>Non-producing</b>
Date and Oil/Gas/Water Rates of Last Production. <small>(Note: For new zones with no production history, applicant shall be required to attach production estimates and supporting data.)</small>	Date: Rates:	Date: Rates:	Date: Rates:
Fixed Allocation Percentage <small>(Note: If allocation is based upon something other than current or past production, supporting data or explanation will be required.)</small>	Oil Gas % %	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: **DHC 3446**

- 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 *Cherry Hlava* TITLE Regulatory Analyst DATE 12-16-08

TYPE OR PRINT NAME \_\_\_\_\_ TELEPHONE NO. (\_\_\_\_) \_\_\_\_\_

E-MAIL ADDRESS \_\_\_\_\_