

**Jones, William V., EMNRD**

**From:** Jones, William V., EMNRD  
**Sent:** Friday, March 14, 2008 9:24 AM  
**To:** 'seay04@leaco.net'  
**Cc:** Ezeanyim, Richard, EMNRD; Brooks, David K., EMNRD; Williams, Chris, EMNRD; Davidson, Florene, EMNRD; Mull, Donna, EMNRD  
**Subject:** Petrohawk DHC Applications: Jalmat Gas commingled with Langlie Mattix deeper oil

Tracking: Recipient	Read
'seay04@leaco.net'	
Ezeanyim, Richard, EMNRD	
Brooks, David K., EMNRD	
Williams, Chris, EMNRD	Read: 3/14/2008 9:48 AM
Davidson, Florene, EMNRD	Read: 3/14/2008 9:39 AM
Mull, Donna, EMNRD	

Hello Eddie:

This is concerning the seven applications you recently submitted on behalf of Petrohawk to downhole commingle this Jalmat gas interval (with its odd shaped spacing units) with the 40 acre oil from the Langlie Mattix Pool and the one to DHC the Jalmat Gas with the South Eunice;7Rivers Queen Pool.

I realize that almost anything has already been done at one time or another here at the OCD - but this particular commingling of Pools is (I believe) new to me, it is a big package of similar commingles, and it triggers my curiosity to see how the reservoir(s) are to be further managed by Petrohawk.

Petrohawk should have its attorney set this package of commingles to an examiner hearing in order to cover:

- 1) a summary of owners in both pools, in each well, and how correlative rights are being protected
- 2) a review of how both reservoirs are doing and how this commingling is necessary to best manage these reservoirs.

Thanks,

William V. Jones PE  
 New Mexico Oil Conservation Division  
 1220 South St. Francis  
 Santa Fe, NM 87505  
 505-476-3448

3/14/2008

DATE IN 3/5/08	SUSPENSE	ENGINEER W Jones	LOGGED IN 3/5/08	DHC TYPE 3999	APP NO. PKUR0806559295
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ABOVE THIS LINE FOR DIVISION USE ONLY

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



### 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.

Natalie Krueger  
Print or Type Name

*Natalie Krueger*  
Signature

Regulatory Analyst  
Title

3/4/08  
Date

nkrueger@cimarex.com  
e-mail Address

RECEIVED  
 2008 MAR 5 PM 4 20

5215 N. O'Connor Blvd  
Suite 1500  
Irving, TX 75039  
972-401-3111 (phone)  
972-443-6486 (fax)

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# Cimarex Energy Co. of Colorado

March 4, 2008

New Mexico Oil Conservation Division  
1220 S. St. Francis Dr.  
Santa Fe, NM 87505  
Attn: Mr. Will V. Jones

RE: Esmeralda Federal 24 No. 1  
24-19S-33E  
Lea County, New Mexico  
C-107 A – Application for Downhole Commingling  
*Administrative Checklist*

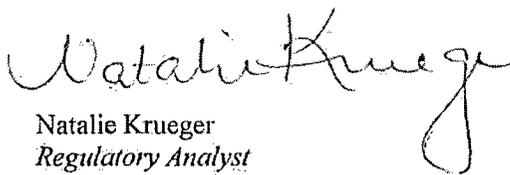
Dear Mr. Jones,

Enclosed is an Administrative Application Checklist for the C-107A I sent yesterday on the proposed DHC of the Esmeralda Federal 24 No. 1 in Lea County, NM. I apologize for the lateness and odd appearance of this checklist. I actually didn't know till today that I needed to submit one.

The fedex delivery notice that I attached is a little cryptic, so I highlighted the part that pertains to this checklist. In the future, I will send copies of C-107As Certified Mail to all affected parties.

If you have any questions or need further information, please call me at 972-443-6489.

Sincerely,

  
Natalie Krueger  
Regulatory Analyst

## Natalie Krueger

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**From:** TrackingUpdates@fedex.com  
**Sent:** Tuesday, March 04, 2008 2:01 PM  
**To:** Natalie Krueger  
**Subject:** FedEx Shipment 792015631260 Delivered

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This tracking update has been requested by:

**Company Name:** Cimarex Energy Co.

**Name:** Natalie Krueger

**E-mail:** [nkrueger@cimarèx.com](mailto:nkrueger@cimarèx.com)

**Message:** NOT DHC, C107A, SR RE Esmer 24 1, SR Add Perfs Gryn b 11 3, 31604 & SR RC Mesc 30 2 BS, 31604 Bear Bryant Sdtrk

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Our records indicate that the following shipment has been delivered:

**Ship (P/U) date:** Mar 3, 2008  
**Delivery date:** Mar 4, 2008 12:56 PM  
**Sign for by:** M. POWELL  
**Delivered to:** Receptionist/Front Desk  
**Service type:** FedEx Priority Overnight  
**Packaging type:** FedEx Pak  
**Number of pieces:** 1  
**Weight:** 1.00 lb.  
**Special handling/Services:** Deliver Weekday  
**Tracking number:** 792015631260

Shipper Information	Recipient Information
Natalie Krueger	Betty Hill
Cimarex Energy Co.	Bureau of Land Management
600 East Las Colinas Blvd Ste 1100	620 East Greene Street
Irving	Carlsbad
TX	NM
US	US
75039	88220

Please do not respond to this message. This email was sent from an unattended mailbox. This report was generated at approximately 2:00 PM CST on 03/04/2008.

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All weights are estimated.

To track the latest status of your shipment, click on the tracking number above, or visit us at [fedex.com](http://fedex.com).

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## Your Shipment Details

<b>From:</b>	Natalie Krueger Cimarex Energy Co. 600 East Las Colinas Blvd Ste 1100 Irving, TX 75039 US 4694202723	<b>Package type:</b>	FedEx Pak
		<b>Pickup/Drop Off:</b>	give to scheduled courier at my location
		<b>Weight:</b>	1 LBS
		<b>Dimensions:</b>	0 x 0 x 0 in
		<b>Declared value:</b>	0 USD
		<b>Shipper account number:</b>	75233647
<b>To:</b>	Betty Hill Bureau of Land Management 620 East Greene Street Carlsbad, NM 88220 US 505-234-5972	<b>Bill transportation to:</b>	75233647
		<b>Courtesy rate quote:*</b>	20.939999
		<b>Discounted variable %:</b>	
		<b>Cod amount:</b>	
		<b>Special services:</b>	
		<b>Shipment Purpose:</b>	
<b>Tracking no:</b>	792015631260	<b>Shipment type:</b>	Express
<b>Ship date:</b>	Mar 03 2008	<b>Commercial/Residential Status:</b>	Commercial
<b>Service type:</b>	Priority Overnight		

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FedEx will not be responsible for any claim in excess of \$100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is \$500, e.g., jewelry, precious metals, negotiable instruments and other items listed in our Service Guide. Written claims must be filed within strict time limits; Consult the applicable FedEx Service Guide for details.

RECEIVED

2008 MAR 4 PM 12:30

5215 N. O'Connor Blvd  
Suite 1500  
Irving, TX 75039  
972-401-3111 (phone)  
972-443-6486 (fax)

Cimarex Energy Co. of Colorado

March 3, 2008

New Mexico Oil Conservation Division  
1220 S. St. Francis Dr.  
Santa Fe, NM 87505  
Attn: Mr. Will V. Jones

RE: Esmeralda Federal 24 No. 1  
24-19S-33E  
Lea County, New Mexico  
C-107 A – Application for Downhole Commingling

Dear Mr. Jones,

Enclosed is an original Form C-107-A (Application for Downhole Commingling) for the well mentioned above.

The Esmeralda Federal 24 No. 1 was drilled by Matador. Surface and intermediate casing were set and then, in 09-98, the well was plugged. In 02-08, Cimarex re-entered the well, logged, and set production casing to 13118.' Our geologist's analysis of the logs indicates 2 possible pay intervals: **Gem**; **Strawn** from 12174'-12187' and **Tonto**; **Wolfcamp** from 11204'-11212.'

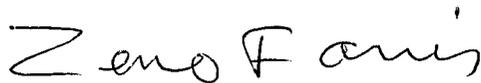
Cimarex would perf Strawn, frac Strawn, perform well test, set CBP over Strawn, perf Wolfcamp, acidize Wolfcamp, perform well test, remove CBP, and DHC. The 2 well tests will be used to establish production percentages for each zone.

It is anticipated that the reservoir pressure from these two zones will be compatible and the resulting volumes would not warrant a casing/tubing dual completion.

All royalty, overriding royalty, and working interest owners are identical in the two zones, and will not be harmed by a Strawn/Wolfcamp commingling.

If you have any questions or need further information, please call me at 972-443-6489.

Sincerely,



Zeno Farris  
Mgr Operations Administration

zfarris@cimarex.com

**Oil Conservation Division**

APPLICATION TYPE

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

Single Well

**APPLICATION FOR DOWNHOLE COMMINGLING**

Establish Pre-Approved Pools

EXISTING WELLBORE

Yes  No

Cimarex Energy Co. of Colorado 5215 N. O'Connor Blvd., Suite 1500; Irving, TX-75039  
Operator Address

Esmeralda Federal 24 001 K-24-19S-33E Lea  
Lease Well No. Unit Letter-Section-Township-Range County

**DAC-3999**

OGRID No. 162683 Property Code \_\_\_\_\_ API No. 30-025-34484 Lease Type:  Federal \_\_\_\_\_ State \_\_\_\_\_ Fee \_\_\_\_\_

DATA ELEMENT	UPPER ZONE	INTERMEDIATE ZONE	LOWER ZONE
Pool Name	<del>UNDES</del> Tonto; Wolfcamp		<del>UNDES</del> EAST Gem; Strawn
Pool Code	59500 ✓		96244 ✓
Top and Bottom of Pay Section (Perforated or Open-Hole Interval)	11204'-11212'		12174'-12187'
Method of Production (Flowing or Artificial Lift)	Artificial Lift		Artificial Lift
Bottomhole Pressure (Note: Pressure data will not be required if the bottom perforation in the lower zone is within 150% of the depth of the top perforation in the upper zone)	Within 150% of bottom perfs		
Oil Gravity or Gas BTU (Degree API or Gas BTU)	Est 52.0°		Est 46.8°
Producing, Shut-In or New Zone	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: To be supplied Rates:	Date: Rates:	Date: To be supplied 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	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.
- 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 Zeno Farris TITLE Manager Operations Administration DATE February 26, 2008

TYPE OR PRINT NAME Zeno Farris TELEPHONE NO. (972) 443-6489

E-MAIL ADDRESS zfarris@cimarex.com

DISTRICT I  
1625 N. French Dr., Hobbs, NM 88240

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

DISTRICT III  
1000 Rio Brazos Rd., Aztec, NM 87410

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

State of New Mexico  
Energy, Minerals and Natural Resources Department

Form C-102  
Revised October 12, 2005

Submit to Appropriate District Office  
State Lease - 4 Copies  
Fee Lease - 3 Copies

**OIL CONSERVATION DIVISION**  
1220 South St. Francis Dr.  
Santa Fe, New Mexico 87505

AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code 96244	Pool Name Emer Gem; Strawn (Oil)
Property Code	Property Name ESMERALDA FEDERAL "24"	Well Number 1
OGRID No. 162683	Operator Name CIMAREX ENERGY CO. OF COLORADO	Elevation 3654'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
K	24	19 S	33 E		1650	SOUTH	1980	WEST	LEA

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
Dedicated Acres 40	Joint or Infill	Consolidation Code	Order No. DHC Pending						

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>SURFACE LOCATION</b>          Lat - N32°38'34.65"          Long - W103°37'07.63"          NMSPC E - N 589378.5          E 761281.3          (NAD-83)</p>	<p><b>OPERATOR CERTIFICATION</b></p> <p>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 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.</p> <p><i>Zeno Farris</i> 02-26-08          Signature Date</p> <p>Zeno Farris          Printed Name</p>
	<p><b>SURVEYOR CERTIFICATION</b></p> <p>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.</p> <p>NOVEMBER 28 2007</p> <p>Date Surveyed</p> <p><i>Gary L. Jones</i>          Signature &amp; Professional Surveyor</p>
	<p>Certificate No. Gary L. Jones 7977</p>
	<p>BASIN SURVEYS</p>

DISTRICT I  
1625 N. French Dr., Hobbs, NM 88240

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

DISTRICT III  
1000 Rio Brazos Rd., Aztec, NM 87410

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

State of New Mexico  
Energy, Minerals and Natural Resources Department

Form C-102  
Revised October 12, 2005

Submit to Appropriate District Office  
State Lease - 4 Copies  
Fee Lease - 3 Copies

**OIL CONSERVATION DIVISION**  
1220 South St. Francis Dr.  
Santa Fe, New Mexico 87505

AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code 59500	Pool Name Tonto; Wolfcamp
Property Code	Property Name ESMERALDA FEDERAL "24"	Well Number 1
OGRID No. 162683	Operator Name CIMAREX ENERGY CO. OF COLORADO	Elevation 3654'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
K	24	19 S	33 E		1650	SOUTH	1980	WEST	LEA

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
Dedicated Acres 40	Joint or Infill	Consolidation Code	Order No. DHC Pending						

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>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 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><i>Zeno Farris</i> 02-26-08 Signature Date</p> <p>Zeno Farris Printed Name</p>
	<p><b>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>NOVEMBER 29 2007</p> <p>Date Surveyed Signature &amp; Seal Professional Surveyor</p> <p></p> <p>Certificate No. Gary L. Jones 7977</p> <p>BASIN SURVEYS</p>

**SURFACE LOCATION**  
 Lat - N32°38'34.65"  
 Long - W103°37'07.63"  
 NMSPC - N 589378.5  
 E 761281.3  
 (NAD-83)