

11/13/2014	SUPERVISOR	MAN	11/13/2014	DHC	PMA 11431734222
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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 Poration Unit] [SD-Simultaneous Dedication]
 [DHC-Downhole Commingling] [CTB-Lease Commingling] [PLC-Pool/Lease Commingling]
 [PC-Pool Commingling] [OLS-On-Lease Storage] [OLM-On-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.

RANDALL Hicks
 Print or Type Name

RANDALL Hicks
 Signature

Sr. Ops. Eng.
 Title

11/6/14
 Date

rhicks@vnrllc.com
 e-mail Address

- EWNILL, SAN
 Andrew, Southwest
 24180
 - Pennrose
 SKELLY, GRABBY
 50350

RECEIVED 000
 NOV 13 A 9 24

- DHC 4717
 - Vanguard Permian, LLC
 258350
 WCI

- Cole State 18
 30-025-37827
 Pool
 - E4mont, Yates 7-244
 - (94 eea (oil)
 22800



November 6, 2014

Engineering and Geological Services Bureau, Oil Conservation Division
Attn: Michael A. McMillan
1220 South St. Francis Dr.
Santa Fe, NM 87505

Re: DHC Application
Cole State #18 API#30-025-37827

Dear Mr. McMillan:

The Pools to be comingled in the Cole State #18 well are the Eumont;Yates, 7R-Queen (22800), Penrose Skelly;Grayburg (50350) and the Eunice; San Andres, Southwest (24180). The comingling of the Eumont;Yates, 7R-Queen, Penrose Skelly;Grayburg and the Eunice, San Andres, Southwest will not reduce the value of total remaining production.

The production percentages were calculated based on an even split of the last 24 hr daily test from the Eunice; San Andres, Southwest and Penrose Skelly;Grayburg dated 5/13/2014 prior to the workover. The Eumont;Yates, 7R-Queen production was based on the most recent 24 hr daily test dated 10/2/14 which was 6 months after the workover. Those tests were then divided by the combined tests to get a percentage for each pool. This was done for both oil and gas.

Ownership between all pools is identical.

This is a State property and the SLO is being notified by this letter.

Thank you,

Randall Hicks
Sr. Operations Engineer
Vanguard Natural Resources

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1220 South St. Francis Dr.
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1220 South St. Francis Dr.
Santa Fe, NM 87503

State of New Mexico
Energy, Minerals and Natural Resources Department

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, New Mexico 87503

Form C-107A
Revised August 1, 2011

APPLICATION FOR DOWNHOLE COMMINGLING

APPLICATION TYPE
Single Well ☒
Establish Pre-Approved Pools ☐
EXISTING WELL BORE ☒
Yes ☒ No ☐

Operator Vanguard Permian, LLL Address 5847 San Felipe, Suite 3000 Houston, TX 77057
Lease Cole State Well No 18 A 16 22S 37E Lea
UGRID No 258350 Property Code 312404 API No. 30-025-37827 Lease Type: ☐ Federal ☒ State ☐ Fee

DATA ELEMENT	UPPER ZONE	INTERMEDIATE ZONE	LOWER ZONE
Pool Name	<u>Emmett Yates, JR - On</u>	<u>Penrose Kelly, Grayburg</u>	<u>Eunice, San Andres, SW</u>
Pool Code	<u>22800</u>	<u>50350</u>	<u>24180</u>
Top and Bottom of Pay Section (Perforated or Open-Hole Interval)	<u>3470' - 3575'</u>	<u>3684' - 3772'</u>	<u>3815' - 4000'</u>
Method of Production (Flowing or Artificial Lift)	<u>A.L.</u>	<u>A.L.</u>	<u>A.L.</u>
Bottomhole Pressure (Note: Pressure is a well bore pressure at the bottom of the well, not a static pressure. It is the pressure of the fluid in the well bore at the bottom of the well.)			
Oil Gravity or Gas BTU/ (Based on API or Gas BTU)	<u>38° / 1100 Btu</u>	<u>33.1 / 1100 Btu</u>	<u>33.1° / 1100 Btu</u>
Producing Shut-In or New Zone	<u>Producing</u>	<u>Shut in</u>	<u>Shut in</u>
Date and Oil Gas/Water Rates of Last Production (Note: For each zone, attach production history or appropriate data to support the rates.)	Date: <u>10/2/2014</u> Rates: <u>1/43/1</u>	Date: <u>5/13/2014</u> Rates: <u>0.5/15/1.5</u>	Date: <u>5/13/2014</u> Rates: <u>.5/15/1.5</u>
Fixed Allocation Percentage (Note: If the well is a producing well, the allocation of production to each zone is based on the relative permeability of each zone.)	Oil: <u>50</u> Gas: <u>59</u>	Oil: <u>25</u> Gas: <u>20</u>	Oil: <u>25</u> Gas: <u>21</u>

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 commingled with, state or federal lands, has either the Commissioner of Public Land or the United States Bureau of Land Management been notified in writing of this application? Yes ☒ No ☐

NMOC 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 Randall Hicks TITLE Sr. Ops. Eng. DATE 11-5-2014
TYPE OR PRINT NAME RANDALL Hicks TELEPHONE NO. 832 377-2207
E-MAIL ADDRESS rhicks@vnrllc.com

DISTRICT I

1625 N. FRANCHIS DR., ROSA, NM 87540

DISTRICT II

1301 V. GRAND AVENUE, ALBUQUERQUE, NM 87102

DISTRICT III

1000 Rio Brazos Rd., Aztec, NM 87410

DISTRICT IV

1625 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

Form C-102

Revised October 12, 2005

Submit to Appropriate District Office

State Lease - 4 Copies

Fee Lease - 3 Copies

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number 30-025-37827	Pool Code 24180	Pool Name Ennise, San Andres, Southwest
Property Code 312404	Property Name COLE STATE	Well Number 18
OGRID No. 258350	Operator Name RANGE OPERATING NEW MEXICO, INC.	Elevation 3403'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
A	16	22-S	37-E		330	NORTH	990	EAST	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.
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NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

	OPERATOR CERTIFICATION I hereby certify that the information 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 mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division. Signature: <u>Randall Hicks</u> Date: <u>10/27/06</u> Printed Name: <u>RANDALL HICKS</u>	
	SURVEYOR CERTIFICATION I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief. APRIL 10, 2006 Date Surveyed: _____ Signature & Seal of Professional Surveyor: <u>GARY EDISON</u> Certificate No. <u>06110605</u>	
	GEODETIC COORDINATES NAD 27 NME Y=510517.7 N X=861471.8 E LAT.=32°23'53.11" N LONG.=103°09'44.00" W	
	Certificate No. <u>GARY EDISON</u> 12841	

DISTRICT I

1625 N. FRANCHIS DR., BOBBS, NM 87210

DISTRICT II

1301 W. GRAND AVENUE, ARTESIA, NM 87210

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

OIL CONSERVATION DIVISION

1220 SOUTH ST. FRANCIS DR.

Santa Fe, New Mexico 87505

Form C-102

Revised October 12, 2005

Submit to Appropriate District Office

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WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number 30-025-37827	Pool Code 50350	Pool Name Penrose Skelly; Grayburg
Property Code 312404	Property Name COLE STATE	Well Number 18
OGRID No. 258350	Operator Name RANGE OPERATING NEW MEXICO, INC.	Elevation 3403'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
A	16	22-S	37-E		330	NORTH	990	EAST	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.
-----------------------	-----------------	--------------------	-----------

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>OPERATOR CERTIFICATION</p> <p>I hereby certify that the information 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 mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.</p> <p><i>Randall Hicks</i> 10/27/14 Signature Date</p> <p><i>RANDALL HICKS</i> Printed Name</p>	
	<p>SURVEYOR CERTIFICATION</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>APRIL 10, 2006</p> <p>Date Surveyed JR</p> <p>Signature & Seal of Professional Surveyor <i>GARY EIDSON</i> 4/19/06 06110605</p> <p>Certificate No. GARY EIDSON 12841</p>	
	<p>GEODETIC COORDINATES NAD 27 NME</p> <p>Y=510517.7 N X=861471.8 E</p> <p>LAT.=32°23'53.11" N LONG.=103°09'44.00" W</p>	

DISTRICT I

1620 N. FRANK DR., EDEN, NM 88410

DISTRICT II

1301 E. 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

OIL CONSERVATION DIVISION
1220 SOUTH ST. FRANCIS DR.
Santa Fe, New Mexico 87505

Form C-102

Revised October 12, 2005

Submit to Appropriate District Office

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Fee Lease - 3 Copies

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number 30-025-37827	Pool Code 22800	Pool Name Eumont, Yates, Trims, Queen
Property Code 312404	Property Name COLE STATE	Well Number 18
OGRID No. 258350	Operator Name RANGE OPERATING NEW MEXICO, INC.	Elevation 3403'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
A	16	22-S	37-E		330	NORTH	990	EAST	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	Joint or Infill	Consolidation Code	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>OPERATOR CERTIFICATION</p> <p>I hereby certify that the information 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 mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.</p> <p><i>Randall Hicks</i> 11/5/14 Signature Date</p> <p>RANDALL Hicks Printed Name</p>	
	<p>SURVEYOR CERTIFICATION</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>APRIL 10, 2006</p> <p>Date Surveyed JR</p> <p>Signature & Seal of Professional Surveyor <i>Gary Edson</i> 4/10/06 06.11.0605</p> <p>Certificate No. GARY EDSON 12841</p>	
	<p>GEODETIC COORDINATES NAD 27 NME</p> <p>Y=510517.7 N X=861471.8 E</p> <p>LAT.=32°23'53.11" N LONG.=103°09'44.00" W</p>	



November 5, 2014

Michael A. McMillan
Engineering & Geological Services Bureau
Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, NM 87505

RE: DHC Application
Cole State #10 (API 300252216300);
Cole State #12 (API 300252248600);
Cole State #14 (API 300252382800);
Cole State #17 (API 300253739900);
Cole State #18 (API 300253782700);
Cole State #19 (API 300253740000);
Lea County, NM

Gentlemen:

Please be advised that Vanguard Permian, LLC, ("Vanguard"), owns 100% of the working interest in the above captioned wells. Additionally, the various interest owners in all of the wells noted above are identical. In order to more efficiently produce the captioned wells and avoid waste, we respectfully request to downhole commingle the specified wells.

Should you have additional questions or comments in this regard, please feel free to contact me directly at 832.399.3764 or csledge@vnrlc.com or for technical questions please contact Randall Hicks at 832.377.2207 or rhicks@vnrlc.com.

Respectfully submitted,

Vanguard Permian, LLC

Carol M. Sledge, CPL
Senior Landman

cc: Randall Hicks via email at rhicks@vnrlc.com

Cole State #18
API # 30-025-37827

Pool Name
Pool Code
Pay Interval
Status
Rates from 24 hr tests, O,G,W
Allocation %

Eumont; Yates, 7R-Queen		
22800		
3470' - 3515'		
Producing		
1	43	1
50%	59%	
Pool 24 hrTest	1	
Combined Test	2	50.00%
Pool 24 hrTest	43	
Combined Test	73	58.90%
Pool 24 hrTest		
Combined Test		
Pool 24 hrTest		
Combined Test		

Penrose Skelly;Grayburg		
50350		
3684' - 3772'		
Shut in		
0.5	15	1.5
25%	21%	
Combined Tests		
2	73	2.5
0.5		
2	25.00%	
	15	
	73	20.55%

Eunice;San Andres, SW

24180

3815' - 4000'

Shut in

0.5 15 1.5

25% 21%

0.5

2 25.00%

15

73 20.55%

McMillan, Michael, EMNRD

From: Randall Hicks <rhicks@vnrlc.com>
Sent: Thursday, November 13, 2014 9:13 AM
To: McMillan, Michael, EMNRD; Martin, Ed
Subject: DHC applications Lea Co. NM - State Wells
Attachments: Cole State #18 DHC Application Packet.pdf; Cole State #18 Landman Letter.pdf; Cole State #18 Production Spreadsheet.xlsx; NMOCD DHC Letter Cole State #18.pdf

Gentlemen,

Attached is the Cole State #18 well needing a DHC permit. This well is very similar to the previous two in that it is a State well with consistent interest between pools.

Copies will be mailed to each of you with the necessary processing fee.

For this DHC application, the production between the Eunice; San Andres, SW (24180) and the Penrose-Skelly; Grayburg (50350) was split evenly because they were both completed in 2006 and have been producing together for the last 8 years. As you can tell from the production test of 1 BOPD and 30 MCF/D for these combined pools, an even split will make no significant difference in the allocated production for each pool.

The 24 hr production test for the combined San Andres and Grayburg is a more accurate number and should be used to determine the percentages for each pool. The daily production graph is an allocated number from a single tank battery with 17 wells producing to it. Due to certain wells contributing to the tank battery being down or other factors, the allocated production may not match the 24 hr test number exactly, however the 24 production test is an accurate indication of the production from that well. This is also true for the Eumont; Yates, 7R-Queen production graph.

If you have any other questions, feel free to call.

Thanks,

Randall Hicks
Sr Operations Engineer
Vanguard Natural Resources, LLC
832-377-2207 office
713-252-1626 mobile