

9/29/2014 DATE IN	SUSPENSE	MAM ENGINEER	9/29/2014 LOGGED IN	DHC TYPE	PMAW1427239342 APP NO.
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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 ☐ OI

[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.

David Catanach
Print or Type Name

David Catanach
Signature

Agent for Quantum Resources Management, LLC
Title

9/29/14
Date

drcatanach@netscape.com
E-Mail Address

- DHC - 4704
- ENCORE in State #14
30-025-41942
- Quantum Resources
LLC
243874
Pool
- Blinby Oil and
Gas
06660
- Drink And
19190
- want 2, 460
62700

September 29, 2014

Hand Delivered

New Mexico Oil Conservation Division
1220 S. St. Francis Drive
Santa Fe, New Mexico 87505

Attention: Ms. Jami Bailey, CPG
Division Director

Re: Form C-107A: Application for Downhole Commingling
Quantum Resources Management, LLC ("Quantum")
Encore M State No. 14
API No. (30-025-41942)
579' FSL & 2042' FWL (Unit N)
Section 20, T-22 South, R-37 East, NMPM,
Lea County, New Mexico

Dear Ms. Bailey:

Attached is a C-107A Application to downhole commingle the Blinebry Oil & Gas (Oil-06660), Drinkard (19190), and Wantz-Abo (62700) Pools within Quantum's Encore M State Well No. 14.

The Encore M State Well No. 14 was drilled in September, 2014 and was completed in the Blinebry, Drinkard and Abo formations. At the time the well was completed, Quantum submitted a C-103 Sundry Notice to the Hobbs OCD District Office requesting approval to downhole commingle the Blinebry Oil & Gas, Drinkard and Wantz-Abo Pools within the wellbore. Quantum was under the impression at the time that the three subject pools were "pre-approved" as per Division Rule 19.15.12.11, and therefore the downhole commingling of these zones would qualify for District Office approval.

An examination of Division Rule 19.15.12.11 indicates that the Blinebry Oil & Gas and Wantz-Abo Pools and the Drinkard and Wantz-Abo Pools are "pre-approved", however the combination of Blinebry Oil & Gas, Drinkard and Wantz-Abo Pools are not a valid "pre-approved" pool combination.

The Hobbs OCD District Office has recently informed Quantum that in order to obtain downhole commingling approval for this well, it is necessary to file a Form C-107A with the Santa Fe Office of the Division.

Quantum proposes that the allocation of production for the Encore M State No. 14 be based upon the 2014 average well production from six offset wells. Attached is a table showing 2014 average production from six wells operated by Quantum that currently produce by downhole commingling completion in the Blinebry Oil & Gas,

Drinkard and Wantz-Abo Pools. This data indicates that the average oil and gas production for 2014 for these wells is as follows:

	<u>Oil (B/D)</u>	<u>Gas (MCF/D)</u>	<u>Water (B/D)</u>
Blinebry Oil & Gas Pool	11.73	61	48
Drinkard Pool	11.73	61	58
Wantz-Abo Pool	11.73	61	48

Based upon this production data, Quantum requests that production be allocated as follows:

	<u>Oil</u>	<u>Gas</u>	<u>Water</u>
Blinebry Oil & Gas Pool	33 1/3%	33 1/3%	31%
Drinkard Pool	33 1/3%	33 1/3%	38%
Wantz-Abo Pool	33 1/3%	33 1/3%	31%

Please note that the working, royalty and overriding royalty interest ownership in this well is common throughout. Consequently notice of this application is not required to any interest owner.

Also please note that a copy of the Form C-103 that was filed with the Hobbs OCD District Office on September 12, 2014 was provided to the Commissioner of Public Lands for the State of New Mexico. Consequently, notice of this commingling has already been provided to the State Land Office.

Approval of this application will afford Quantum the opportunity to recover additional oil and gas reserves from the Blinebry Oil & Gas, Drinkard and Wantz-Abo Pools within the Encore M State No. 14 that may otherwise not be recovered, thereby preventing waste, and will not violate correlative rights.

If you should have any questions, please call me at (505) 690-9453.

Sincerely,



David Catanach, Agent
Quantum Resources Management, LLC
1401 McKinney Street, Suite 2400
Houston, Texas 77010

Xc: OCD-Hobbs

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

District II
811 S. First Street, Artesia, NM 88210

District III
1000 Rio Brazos Road, Aztec, NM 87410

District IV
1220 S. St. Francis Dr., Santa Fe, NM 87501

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-107A
Revised August 1, 2011

APPLICATION TYPE

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

APPLICATION FOR DOWNHOLE COMMINGLING

Operator Quantum Resources Management, LLC Address 1401 McKinney St., Suite 2400 Houston, Texas 77010

Lease Encore M State Well No. 14 Unit N., Section 20, T-22 South, R-37 East County Lea
Unit Letter-Section-Township-Range

OGRID No. 243874 Property Code 307932 API No. 30-025-41942 Lease Type: ☐ Federal ☒ State ☐ Fee

DATA ELEMENT	UPPER ZONE	INTERMEDIATE ZONE	LOWER ZONE
Pool Name	Blineby Oil & Gas (Oil)	Drinkard	Wantz-Abo
Pool Code	06660	19190	62700
Top and Bottom of Pay Section (Perforated or Open-Hole Interval)	5,498'-5,955'	6,291'-6,646'	6,719'-6,781'
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)	Not Required	Not Required	Not Required
Oil Gravity or Gas BTU (Degree API or Gas BTU)	38 Deg. API 1342 BTU	38 Deg. API 1342 BTU	38 Deg. API 1342 BTU
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: See Attached Rates: 11.73 BOPD 61.0 MCFGPD 48.0 BWPD	Date: See Attached Rates: 11.73 BOPD 61.0 MCFGPD 58.0 BWPD	Date: See Attached Rates: 11.73 BOPD 61.0 MCFGPD 48.0 BWPD
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 Water 33 1/3% 33 1/3% 31%	Oil Gas Water 33 1/3% 33 1/3% 38%	Oil Gas Water 33 1/3% 33 1/3% 31%

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: David Catanach TITLE: Agent-Quantum Resources Management, LLC DATE: 9/29/14

TYPE OR PRINT NAME: David Catanach TELEPHONE NO.: (505) 690-9453

E-MAIL ADDRESS: drcatanach@netscape.com

District I

1825 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720

District II

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

District III

1000 Rio Brazos Rd., Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170

District IV

1220 S. St Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3470 Fax: (505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

Form C-102
August 1, 2011

Permit 188059

WELL LOCATION AND ACREAGE DEDICATION PLAT

1. API Number 30-025-41942	2. Pool Code 6660	3. Pool Name BLINEBRY OIL AND GAS (OIL)
4. Property Code 307932	5. Property Name ENCORE M STATE	6. Well No. 014
7. OGRID No. 243874	8. Operator Name QUANTUM RESOURCES MANAGEMENT, LLC	9. Elevation 3377

10. Surface Location

UL - Lot N	Section 20	Township 22S	Range 37E	Lot Idn	Feet From 579	N/S Line S	Feet From 2042	E/W Line W	County Lea
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11. Bottom Hole Location If Different From Surface

UL - Lot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County
12. Dedicated Acres 40.00	13. Joint or Infill		14. Consolidation Code				15. 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

	OPERATOR CERTIFICATION	
	<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(s) or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.</i>	
	E-Signed By: Yolanda Perez Title: Regulatory Manager Date: 6/19/2014	
	SURVEYOR CERTIFICATION	
<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>		
Surveyed By: Michael Stanford Date of Survey: 6/2/2014 Certificate Number: 10324		

District I

1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-0161 Fax: (575) 393-0720

District II

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

District III

1000 Rio Brazos Rd., Aztec, NM 87410
Phone: (505) 334-0178 Fax: (505) 334-0170

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Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

Form C-102
August 1, 2011

Permit 188059

WELL LOCATION AND ACREAGE DEDICATION PLAT

1. API Number 30-025-41942	2. Pool Code 19190	3. Pool Name DRINKARD
4. Property Code 307932	5. Property Name ENCORE M STATE	6. Well No. 014
7. OGRID No. 243874	8. Operator Name QUANTUM RESOURCES MANAGEMENT, LLC	9. Elevation 3377

10. Surface Location

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State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

Form C-102
August 1, 2011
Permit 188059

WELL LOCATION AND ACREAGE DEDICATION PLAT

1. API Number 30-025-41942	2. Pool Code 62700	3. Pool Name WANTZ:ABO
4. Property Code 307932	5. Property Name ENCORE M STATE	6. Well No. 014
7. OGRID No. 243874	8. Operator Name QUANTUM RESOURCES MANAGEMENT, LLC	9. Elevation 3377

10. Surface Location

UL - Lot N	Section 20	Township 22S	Range 37E	Lot Idn	Feet From 579	N/S Line S	Feet From 2042	E/W Line W	County Lea
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UL - Lot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County
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Surveyed By: Michael Stanford Date of Survey: 6/2/2014 Certificate Number: 10324		

Form C-107A
Encore M State No. 14
Offset Well Production

[illegible]

pDSM1426725221

Order Number DHC HOB-530		API Number 30- 025-41942		Operator QUANTUM RES.MGMT. LLC		County LEA / STATE									
Order Date 09/24/2014		Well Name ENCORE M STATE		Number 014		Location									
						<table border="1"> <tr> <td>N</td> <td>20</td> <td>22S</td> <td>37E</td> </tr> <tr> <td>UL</td> <td>Sec</td> <td>T (+Dir)</td> <td>R (+Dir)</td> </tr> </table>		N	20	22S	37E	UL	Sec	T (+Dir)	R (+Dir)
N	20	22S	37E												
UL	Sec	T (+Dir)	R (+Dir)												
Pool 1	06660	BLINEBRY OIL & GAS <OIL>		Oil % 50%	Gas % 50%	<table border="1"> <tr> <td>Wtr % 50%</td> </tr> <tr> <td>50%</td> </tr> <tr> <td></td> </tr> <tr> <td></td> </tr> </table>		Wtr % 50%	50%						
Wtr % 50%															
50%															
Pool 2	19190	DRINKARD		50%	50%										
Pool 3															
Pool 4															

Comments: Posted RBDMs 9/24/2014 dn

SEP 25 2014