

**District I**  
1625 N. French Dr., Hobbs, NM 88240  
Phone:(575) 393-6161 Fax:(575) 393-0720

**District II**  
811 S. First St., Artesia, NM 88210  
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**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-101  
August 1, 2011  
Permit 188059

**APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE**

1. Operator Name and Address QUANTUM RESOURCES MANAGEMENT, LLC 1401 McKinney St Houston, TX 77010		2. OGRID Number 243874
4. Property Code 307932		3. API Number 30-025-41942
5. Property Name ENCORE M STATE		6. Well No. 014

**7. 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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**8. Proposed Bottom Hole Location**

UL - Lot N	Section 20	Township 22S	Range 37E	Lot Idn N	Feet From 579	N/S Line S	Feet From 2042	E/W Line W	County Lea
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**9. Pool Information**

BLINEBRY OIL AND GAS (OIL)	6660
DRINKARD	19190
WANTZ;ABO	62700

**Additional Well Information**

11. Work Type New Well	12. Well Type OIL	13. Cable/Rotary	14. Lease Type State	15. Ground Level Elevation 3377
16. Multiple Y	17. Proposed Depth 7150	18. Formation Abo	19. Contractor	20. Spud Date 7/7/2014
Depth to Ground water		Distance from nearest fresh water well		Distance to nearest surface water

☒ We will be using a closed-loop system in lieu of lined pits

**21. Proposed Casing and Cement Program**

Type	Hole Size	Casing Size	Casing Weight/ft	Setting Depth	Sacks of Cement	Estimated TOC
Surf	17.5	13.375	54.5	1175	1050	0
Int1	11	8.625	32	4000	960	0
Prod	7.875	5.5	20	7150	650	3750

**Casing/Cement Program: Additional Comments**

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**22. Proposed Blowout Prevention Program**

Type	Working Pressure	Test Pressure	Manufacturer
Annular	3000	1500	
Double Ram	3000	2500	

23. I hereby certify that the information given above is true and complete to the best of my knowledge and belief. I further certify I have complied with 19.15.14.9 (A) NMAC <input checked="" type="checkbox"/> and/or 19.15.14.9 (B) NMAC <input checked="" type="checkbox"/> if applicable.  Signature:	<b>OIL CONSERVATION DIVISION</b>
Printed Name: Electronically filed by Yolanda Perez	Approved By: Paul Kautz
Title: Regulatory Manager	Title: Geologist
Email Address: yperez@qracq.com	Approved Date: 7/2/2014      Expiration Date: 7/2/2016
Date: 6/19/2014      Phone: 713-634-4696	Conditions of Approval Attached

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**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**

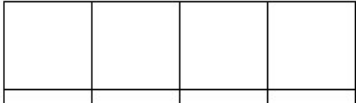
UL - Lot N	Section 20	Township 22S	Range 37E	Lot Idn	Feet From 579	N/S Line S	Feet From 2042	E/W Line W	County Lea
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**11. Bottom Hole Location If Different From Surface**

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**

<table border="1" style="width: 100%; height: 150px; border-collapse: collapse;"> <tr><td style="width: 25%; height: 40px;"></td><td style="width: 25%; height: 40px;"></td><td style="width: 25%; height: 40px;"></td><td style="width: 25%; height: 40px;"></td></tr> <tr><td style="height: 40px;"></td><td style="height: 40px;"></td><td style="height: 40px;"></td><td style="height: 40px;"></td></tr> <tr><td style="height: 40px;"></td><td style="height: 40px;"></td><td style="height: 40px;"></td><td style="height: 40px;"></td></tr> <tr><td style="height: 40px;"></td><td style="height: 40px; text-align: center; vertical-align: middle;">■</td><td style="height: 40px;"></td><td style="height: 40px;"></td></tr> </table>														■			<p style="text-align: center;"><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(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></p> <p>E-Signed By: Yolanda Perez Title: Regulatory Manager Date: 6/19/2014</p> <hr/> <p style="text-align: center;"><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>Surveyed By: Michael Stanford Date of Survey: 6/2/2014 Certificate Number: 10324</p>
	■																

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	E-Signed By:	Yolanda Perez
	Title:	Regulatory Manager
	Date:	6/19/2014
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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

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Form APD Comments

Permit 188059

**PERMIT COMMENTS**

Operator Name and Address: QUANTUM RESOURCES MANAGEMENT, LLC [243874] 1401 McKinney St Houston, TX 77010		API Number: 30-025-41942
		Well: ENCORE M STATE #014
Created By	Comment	Comment Date
YOPEREZ	Please reference "Rebuttal of Presumption Letter" dated 06/13/14 that addresses being over our allowed number of inactive wells.	6/19/2014

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Form APD Conditions

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**PERMIT CONDITIONS OF APPROVAL**

Operator Name and Address: QUANTUM RESOURCES MANAGEMENT, LLC [243874] 1401 McKinney St Houston, TX 77010	API Number: 30-025-41942
	Well: ENCORE M STATE #014

OCD Reviewer	Condition
pkautz	Once the well is spud, to prevent ground water contamination through whole or partial conduits from the surface, the operator shall drill without interruption through the fresh water zone or zones and shall immediately set in cement the water protection string
pkautz	If using a pit for drilling and completion operations, must have an approved pit from prior to spudding the well.
pkautz	1) SURFACE & INTERMEDIATE CASING - Cement must circulate to surface -- 2) PRODUCTION CASING - Cement must tie back into intermediate casing --
pkautz	Surface casing must be set 25' below top of Rustler Anhydrite in order to seal off protectable water