

**District I**  
1625 N. French Dr., Hobbs, NM 88240  
Phone:(575) 393-8161 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-101  
August 1, 2011  
Permit 174119

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

1. Operator Name and Address MURCHISON OIL & GAS INC 1100 Mira Vista Blvd. Plano, TX 75093		2. OGRID Number 15363
4. Property Code 40159		3. API Number 30-025-41438
5. Property Name Bettis 20 State Com		6. Well No. 004H

**7. Surface Location**

UL - Lot N	Section 20	Township 24S	Range 33E	Lot Idn N	Feet From 200	N/S Line S	Feet From 1670	E/W Line W	County Lea
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**8. Proposed Bottom Hole Location**

UL - Lot C	Section 20	Township 24S	Range 33E	Lot Idn C	Feet From 330	N/S Line N	Feet From 1670	E/W Line W	County Lea
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**9. Pool Information**

TRIPLE X;BONE SPRING, WEST	96674
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**Additional Well Information**

11. Work Type New Well	12. Well Type OIL	13. Cable/Rotary	14. Lease Type State	15. Ground Level Elevation 3535
16. Multiple N	17. Proposed Depth 15650	18. Formation Bone Spring	19. Contractor	20. Spud Date 7/15/2014
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	16	13.375	54.5	1200	600	0
Int1	12.25	9.625	40	5100	1700	0
Prod	8.5	7	26	10500	1000	4000
Liner1	6.125	4.5	11.6	15650	600	10400

**Casing/Cement Program: Additional Comments**

Cement with 100% excess and circulate to surface on surface and intermediate casing. Cement 100% excess on production casing to bring TOC to 4,000' MD. Cement liner with 25% excess to bring TOC to 10,400' MD.

**22. Proposed Blowout Prevention Program**

Type	Working Pressure	Test Pressure	Manufacturer
Annular	5000	5000	Schaffer
Double Ram	5000	5000	Schaffer

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: _____ Printed Name: Electronically filed by Michael Daugherty Title: COO Email Address: ccottrell@dmii.com Date: 9/30/2013	<b>OIL CONSERVATION DIVISION</b>  Approved By: Paul Kautz Title: Geologist Approved Date: 10/4/2013 Expiration Date: 10/4/2015 Conditions of Approval Attached
Phone: 972-931-0700	

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State of New Mexico  
Energy, Minerals & Natural Resources Department  
OIL CONSERVATION DIVISION  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Form C-102  
Revised August 1, 2011  
Submit one copy to appropriate  
District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

<sup>1</sup> API Number	<sup>2</sup> Pool Code 96674	<sup>3</sup> Pool Name Triple X; Bone Spring, West
<sup>4</sup> Property Code	<sup>5</sup> Property Name BETTIS 20 STATE COM	<sup>6</sup> Well Number 4H
<sup>7</sup> OGRID No. 15363	<sup>8</sup> Operator Name MURCHISON OIL & GAS, INC.	<sup>9</sup> Elevation 3534.6

<sup>10</sup> Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
N	20	24 S	33 E		200	SOUTH	1670	WEST	LEA

<sup>11</sup> 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
C	20	24 S	33 E		330	NORTH	1670	WEST	LEA

<sup>12</sup> Dedicated Acres 160	<sup>13</sup> Joint or Infill	<sup>14</sup> Consolidation Code	<sup>15</sup> 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.

<p>NE CORNER SEC. 20 LAT. = 32°12'37.404"N LONG. = 103°35'08.838"W</p> <p>W QUARTER CORNER SEC. 20 LAT. = 32°12'11.408"N LONG. = 103°36'10.330"W</p> <p>E QUARTER CORNER SEC. 20 LAT. = 32°12'11.327"N LONG. = 103°35'08.807"W</p> <p>SE CORNER SEC. 20 LAT. = 32°11'45.204"N LONG. = 103°35'08.794"W</p> <p>SW CORNER SEC. 20 LAT. = 32°11'45.309"N LONG. = 103°36'10.293"W</p> <p>BETTIS "20" STATE COM #4H ELEV. = 3534.6' LAT. = 32°11'47.244"N (NAD83) LONG. = 103°35'50.865"W</p> <p>BOTTOM OF HOLE LAT. = 32°12'34.224"N LONG. = 103°35'50.917"W</p> <p>NOTE: LATITUDE AND LONGITUDE COORDINATES ARE SHOWN USING THE NORTH AMERICAN DATUM OF 1983 (NAD83). LISTED NEW MEXICO STATE PLANE EAST COORDINATES ARE GRID (NAD83). BASIS OF BEARING AND DISTANCES USED ARE NEW MEXICO STATE PLANE EAST COORDINATES MODIFIED TO THE SURFACE.</p>		<p><sup>17</sup> OPERATOR CERTIFICATION</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 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.</p> <p><i>Michael S. Daugherty</i> 9/30/13 Signature Date</p> <p>Michael S. Daugherty Printed Name</p> <p>mdaugherty@jdmii.com E-mail Address</p>	
<p><sup>18</sup> 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>SEPTEMBER 30, 2013 MEXICO Date of Survey</p> <p><i>Samuel J. Jaramillo</i> Signature and Seal of Professional Surveyor</p> <p>Certificate Number: FIDELIX F. JARAMILLO, PLS 12797 SURVEY NO. 2315A</p>			

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**Santa Fe, NM 87505**

Form APD Comments  
  
Permit 174119

**PERMIT COMMENTS**

Operator Name and Address: MURCHISON OIL & GAS INC [15363] 1100 Mira Vista Blvd. Plano, TX 75093		API Number: 30-025-41438
		Well: Bettis 20 State Com #004H

Created By	Comment	Comment Date
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Form APD Conditions  
Permit 174119

**PERMIT CONDITIONS OF APPROVAL**

Operator Name and Address: MURCHISON OIL & GAS INC [15363] 1100 Mira Vista Blvd. Plano, TX 75093	API Number: 30-025-41438
	Well: Bettis 20 State Com #004H

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	Surface casing must be set at least 25' below top of Rustler Anhydrite in order to seal off protectable water
DMULL	Will require a directional survey with the C-104
DMULL	Pit construction and closure must satisfy all requirements of your approved plan, O.C.D. Rule 19.15.2.50, and the Pit and Below-Grade Tank Guidelines