

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

FORM APPROVED  
OMB No. 1004-0137  
Expires: October 31, 2014

**SUNDRY NOTICES AND REPORTS ON WELLS**  
*Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.*

**SUBMIT IN TRIPLICATE** - Other instructions on page 2

1. Type of Well <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other		8. Well Name and No. <b>Willis Federal Com 2</b>
2. Name of Operator <b>Murchison Oil &amp; Gas, Inc.</b>		9. API Well No. <b>30-015-30832</b>
3a. Address <b>7250 Dallas Pkwy, #1400, Plano TX 75024</b>	3b. Phone No. (include area code) <b>972-931-0700</b>	10. Field and Pool, or Exploratory Area <b>Logan Draw; Morrow (Gas)</b>
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) <b>660 FSL 660 FEL, 28-17S-27E</b>		11. County or Parish, State <b>Eddy County, NM</b>

12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input type="checkbox"/> Other _____
	<input type="checkbox"/> Change Plans	<input checked="" type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.

1. M.I.R.U. plugging equipment.
2. Set 5-1/2" CIBP @ 9,350'. Circulate hole with 10 ppg mud laden fluid. Spot 20 sxs cement on top of C.I.B.P.
3. Spot 20 sxs cement plug from 8,870' - 8,670'.
4. Spot 20 sxs cement plug from 8,460' - 8,260'.
5. Spot 25 sxs cement plug from 7,440' - 7,220'.
6. Perf and squeeze 35 sxs cement plug from 4,890' - 4,740'. WOC and tag plug.
7. Perf and squeeze 35 sxs cement plug from 4,220' - 4,080'. WOC and tag plug.
8. Perf and squeeze 35 sxs cement plug from 2,720' - 2,600'. WOC and tag plug.
9. Cut and pull 1,819' 5-1/2" casing.
10. Spot 45 sxs cement plug @ 1,869' - 1,769'. WOC and tag plug.
11. Spot 110 sxs cement from 400' to surface.
12. Cut off wellhead and weld on Dry Hole marker. Move equipment off location and clean location.

SEE ATTACHED FOR  
CONDITIONS OF APPROVAL  
*See page 3 for  
Changes to procedure*

*UOD 4/27/15*  
**Accepted for record  
NMBCD**

**NM OIL CONSERVATION  
ARTESIA DISTRICT  
APR 27 2015**

14. I hereby certify that the foregoing is true and correct. Name (Printed/Typed) <b>Gary Cooper</b>		<b>RECEIVED</b>
Signature <i>[Signature]</i>	Title <b>Vice President Operations</b> Date <b>3/27/2015</b>	

**THIS SPACE FOR FEDERAL OR STATE OFFICE USE**

Approved by <i>[Signature]</i>	Title <b>SPET</b>	Date <b>4-21-15</b>
Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.	Office <b>CFD</b>	

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

**Willis Federal Com #2**

API# 30-015-30832

GL = 3486 ft

KB = 3504 ft

**Surface Casing**

13 3/8" 61 lb/ft j-55

Buttress

Setting Depth - 1218 ft

Float Shoe - 1217 ft

Float Collar - 1165.43 ft

**Intermediate Casing**

8 5/8" 32 lb/ft j-55 LTC

Setting Depth - 1819ft

Float Shoe - 1818 ft

Float Collar - 1772.2 ft

**Production casing**

5 1/2" 17 lb/ft N-80

LT&C

Setting Depth -9665 ft

Float Shoe - 9663.7ft

Float Collar - 9574.1 ft

**TOC-4800 ft**

**TD - 9665ft MD / ft TVD**

**PBTD - 9440ft MD / ft**

**TVD**

**Perforated Interval:**

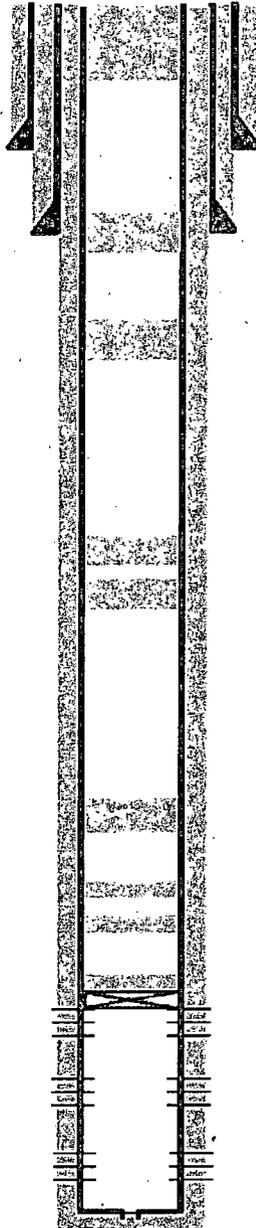
9411'-9370' 41'

9415'-9413' 2'

9420'-9417' 3'

9528'-9542' 14'

9494'-9488' 6'



400' - 0' 110 sx cmt

1869' - 1769' 45 sx cmt

2720' - 2600' 35 sx cmt

4220' - 4080' 35 sx cmt

4890' - 4740' 35 sx cmt

7440' - 7220' 25 sx cmt

8460' - 8260' 20 sx cmt

8870' - 8670' 20 sx cmt

9350' CIBP & 20 sx cmt

Murchison Oil & Gas Inc.  
7250 Dallas Pkwy, #1400  
Plano, TX 75024

RE: NMNM025527; Willis Federal Com NO. 2  
660' FSL & 660' FEL, Sec. 28, T17S-R27E  
Eddy County, New Mexico

Plugging and Abandonment, Conditions of Approval, Changes to Original Submittal:

1. No change
2. 25 sack Class H cement plug minimum.
3. 25 sack Class H cement plug from 8744'-8564' (Top of Strawn).
4. 25 sack Class H cement plug from 7509'-7329' (Top of Cisco).
5. 25 sack Class C cement plug from 6330'-6170' (Top of Wolfcamp).
6. 25 sack Class C cement plug from 5081'-4931' (Top of Abo).
7. Perf and squeeze adequate Class C cement plug from 3173'-3043' (Top of Yeso). WOC and tag.
8. Perf and squeeze adequate Class C cement plug from 2871'-2741' (Top of Glorieta). WOC and tag.
9. Cut and pull 5-1/2" casing @ 1869'.
10. Spot adequate Class C cement from 1919'-1769' (stub and shoe). WOC and tag.  
**Add plug: Spot 100' plug from 1268'-1168' (Shoe plug). WOC and tag.**
11. Spot plug from 60'-surface.
12. No change

If any questions and/or concerns, contact Jim Amos @ 575-234-5909 or 575-361-2648 (cell).

J. Amos 4/21/15

**BUREAU OF LAND MANAGEMENT**  
**Carlsbad Field Office**  
**620 East Greene Street**  
**Carlsbad, New Mexico 88220**  
**575-234-5972**

**Permanent Abandonment of Federal Wells**  
**Conditions of Approval**

Failure to comply with the following Conditions of Approval may result in a Notice of Incidents of Noncompliance (INC) in accordance with 43 CFR 3163.1.

1. Plugging operations shall commence within **ninety (90)** days from the approval date of this Notice of Intent to Abandon.

**If you are unable to plug the well by the 90<sup>th</sup> day provide this office, prior to the 90<sup>th</sup> day, with the reason for not meeting the deadline and a date when we can expect the well to be plugged. Failure to do so will result in enforcement action.**

**The rig used for the plugging procedure cannot be released and moved off without the prior approval of the authorized officer. Failure to do so may result in enforcement action.**

2. **Notification:** Contact the appropriate BLM office at least 24 hours prior to the commencing of any plugging operations. For wells in Chaves and Roosevelt County, call 575-627-0272; Eddy County, call 575-361-2822; Lea County, call 575-393-3612.

3. **Blowout Preventers:** A blowout preventer (BOP), as appropriate, shall be installed before commencing any plugging operation. The BOP must be installed and maintained as per API and manufacturer recommendations. The minimum BOP requirement is a 2M system for a well not deeper than 9,090 feet; a 3M system for a well not deeper than 13,636 feet; and a 5M system for a well not deeper than 22,727 feet.

4. **Mud Requirement:** Mud shall be placed between all plugs. Minimum consistency of plugging mud shall be obtained by mixing at the rate of 25 sacks (50 pounds each) of gel per 100 barrels of **brine** water. Minimum nine (9) pounds per gallon.

5. **Cement Requirement:** Sufficient cement shall be used to bring any required plug to the specified depth and length. Any given cement volumes on the proposed plugging procedure are merely estimates and are not final. Unless specific approval is received, no plug except the surface plug shall be less than 25 sacks of cement. Any plug that requires a tag will have a minimum WOC time of 4 hours.

In lieu of a cement plug across perforations in a cased hole (not for any other plugs), a bridge plug set within 50 feet to 100 feet above the perforations shall be capped with 25 sacks of cement. If a bailer is used to cap this plug, 35 feet of cement shall be sufficient. **Before pumping or bailing cement on top of CIBP, tag will be required to verify depth. Based on depth, a tag of the cement may be deemed necessary.**

Unless otherwise specified in the approved procedure, the cement plug shall consist of either Neat Class "C", for up to 7,500 feet of depth or Neat Class "H", for deeper than 7,500 feet plugs.

6. Dry Hole Marker: All casing shall be cut-off at the base of the cellar or 3 feet below final restored ground level (whichever is deeper). **The BLM is to be notified a minimum of 4 hours prior to the wellhead being cut off to verify that cement is to surface in the casing and all annuluses. Wellhead cut off shall commence within ten (10) calendar days of the well being plugged. If the cut off cannot be done by the 10<sup>th</sup> day, the BLM is to be contacted with justification to receive an extension for completing the cut off.**

The well bore shall then be capped with a 4-inch pipe, 10-feet in length, 4 feet above ground and embedded in cement, unless otherwise noted in COA (requirements will be attached). The following information shall be permanently inscribed on the dry hole marker: well name and number, name of the operator, lease serial number, surveyed location (quarter-quarter section, section, township and range or other authorized survey designation acceptable to the authorized officer such as metes and bounds).

7. Subsequent Plugging Reporting: Within 30 days after plugging work is completed, file one original and three copies of the Subsequent Report of Abandonment, Form 3160-5 to BLM. The report should give in detail the manner in which the plugging work was carried out, the extent (by depths) of cement plugs placed, and the size and location (by depths) of casing left in the well. **Show date well was plugged.**

8. Trash: All trash, junk and other waste material shall be contained in trash cages or bins to prevent scattering and will be removed and deposited in an approved sanitary landfill. Burial on site is not permitted.

Following the submission and approval of the Subsequent Report of Abandonment, surface restoration will be required. See attached reclamation procedure.

J. Amos 3/6/11