

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENTFORM APPROVED  
OMB NO. 1004-0135  
Expires: November 30, 2000

## 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 reverse side

## 1. Type of Well

☐ Oil Well ☒ Gas Well ☐ Other

## 2. Name of Operator

MERRION OIL &amp; GAS

Contact: CONNIE DINNING  
E-Mail: merrion@bldm.com

## 3a. Address

610 REILLY AVE.  
FARMINGTON, NM 87401

## 3b. Phone No. (include area code)

Ph: 505.327.9801 Ext: 126  
Fx: 505.326.5900

## 4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

Sec 24 T24N R6W NESE 1850FSL 790FEL

## 5. Lease Serial No.

SF-079086

## 6. If Indian, Allottee or Tribe Name

## 7. If Unit or CA/Agreement, Name and/or No.

8. Well Name and No.  
CANADA MESA 29. API Well No.  
30-039-2057110. Field and Pool, or Exploratory  
BASIN DAKOTA11. County or Parish, and State  
SAN JUAN COUNTY, NM

## 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 type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	
	<input type="checkbox"/> Convert to Injection	<input checked="" 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 recompleat 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 recompleat 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.)

Merrion Oil & Gas had planned to plug and abandon the subject wellbore. There is Pictured Cliffs potential in the area and we propose to plug back the wellbore to the Pictured Cliffs according to the attached procedure.

14. I hereby certify that the foregoing is true and correct.

Electronic Submission #8446 verified by the BLM Well Information System  
For MERRION OIL & GAS, sent to the Farmington  
Committed to AFMSS for processing by Lucy Bee on 11/05/2001 ()

Name (Printed/Typed) CONNIE DINNING

Title ENGINEER

Signature (Electronic Submission)

Date 11/02/2001

## THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By

Title

Date 11/16/01

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

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.

\*\* ORIGINAL \*\* ORIGINAL \*\* ORIGINAL \*\* ORIGINAL \*\* ORIGINAL \*\* ORIGINAL \*\* ORIGINAL \*\*

NMOC

## **Workover Justification**

### **Canada Mesa No. 2**

1850' fsl & 790' fel (ne se)  
Sec 24, T24N, R06W, NMPM  
Rio Arriba County, New Mexico

### **Summary**

The Canada Mesa No. 2 is no longer capable of economic production from the Dakota. It last produced in August 1996. The BLM requires that we plug and abandon the wellbore or return it to production. We propose to plug the well back to the Pictured Cliffs formation and return it to production.

If the Pictured Cliffs is productive, we estimate the workover expenditure of \$104,245 will payout in 1.9 years and generate future gross reserves of 300000 mcf of gas. The project will return \$309,300 of future undiscounted value.

Economic indicators are as follows:

Gas Reserves (Gross) -	300000 mcf	Payout -	1.9 years
Oil Reserves (Gross) -	0 bbls	Future Value -	\$309300
DCFRoR -	44.7%	NPV @ 15% -	\$118000
IROI -	\$3.00/\$ Invested	Well Life -	15 years
EROI -	\$4.00/\$ Invested	NRI - Gas	87.5%

### **Background**

The subject well was drilled and completed in the Dakota in 1972. It was a flowing well, on a shallow decline with no production problems. In 1995 the well developed a casing leak. The leak was repaired, but the water volume remained high. A pumping unit was installed to lift the liquids, but gas production never returned to the level produced before the leak. When the pumping unit went down in 1996, it was uneconomic to repair. The well has not produced since that time.

On October 15, 1999 we received a letter from the BLM instructing us to return the well to production, or to submit plans to plug and abandon the wellbore. We requested additional time to try and sell the wellbore, but we were unsuccessful. We then filed a sundry indicating that we would plug and abandon the wellbore. The deadline for plugging the well was not met due to rig scheduling. The BLM allowed additional time to complete the work, and the current deadline is **December 1, 2001**.

### **Proposed Project**

Further geologic investigation indicates that there is Pictured Cliffs potential in the well. We propose to plug the well back to the Pictured Cliffs and test for economic production. We project that gas production will be about 100 MCFD initially. Economic details are listed above. Two economic runs are attached. The offset wells' PC production varies. There is a well to the north that has produced over 500,000 MCF. The average offset production including that well is about 300,000 MCF. If that well is not included, the average cumulative production is about 230,000. We have included a second economic analysis to describe the less favorable scenario. We believe the project is worthwhile even at the lower gas cum value.

We propose to begin work as soon as we receive AFE approval. This will allow us to return the well to production within the BLM timeframe.

***Attachments***

- AFE (Authority for Expenditure)
- Production Forecast and Economics Spreadsheet
- Historical Decline Curve
- Workover Procedure
- Current Wellbore Schematic
- PC Production/Cum Map

# Merrion Oil & Gas Corporation

## Completion Procedure Pictured Cliffs Formation

September 10, 2001

<b>Well:</b>	<b>Canada Mesa No. 2</b>	<b>Field:</b>	Pictured Cliffs
<b>Location:</b>	1850' fsl & 790' fel (ne se) Sec 24, T24N, R6W, NMPM Rio Arriba County, New Mexico	<b>Elevation:</b>	5645' RKB 5640' GL
<b>By:</b>	Connie Dinning	<b>Lease:</b>	SF-079086
		<b>AFE No.:</b>	20120

---

**Procedure:** (Note: This procedure will be adjusted on site based upon actual conditions)

### ***Abandon Dakota Producing Zone***

**Note:** All cement volumes use 100% excess outside pipe and 50' excess inside pipe. The stabilizing wellbore fluid will be 8.33 ppg, sufficient to balance all exposed formation pressures.

1. Comply with all NMOCD, BLM and Merrion safety regulations.
2. Load casing w/ water. Tally out of hole w/ tubing and TIH w/ CIBP to  $\pm 6335'$  KB.
3. Plug #1 (Dakota perforations and top, 6285' – 6385', 50' excess): Mix 10 sx (12 cu. ft) Class B cement and spot a 50' plug on top of CIBP. POH.
4. RIH w/ wireline and perforate two shots @  $\pm 5314'$ .
5. RIH w/ wireline set CIBP, set @  $\pm 5264'$ .
6. Plug #2 (Gallup top, inside and outside casing, 5214' - 5314'): Mix 50 sx (59 cu. ft) Class B cement. Sting into retainer and pump a plug inside and outside pipe. Sting out of retainer and cap w/ 50' cement. POH to  $\pm 5310'$ .
7. Plug #3 (Mesaverde top, 3510' – 3610'): Mix 12 sx (14 cu. ft) Class B cement. Pump an inside plug to cover Mesaverde top. POH to  $\pm 2000'$ . Circulate clean. POH w/ 2 3/8" tbg.
8. MIRU wireline company, run CBL from 2200' KB to surface. If bond is poor across Pictured Cliffs, perforate and cement squeeze prior to frac job.

### ***Prep for Pictured Cliffs Completion***

1. Order in frac/test tank w/ risers, working external gages & two good 4" valves on each. Fill w/ 2% Kcl city water (refer to fracture stimulation design for required useable volume).
2. Order in 2 7/8", NUE, N-80 frac string and 2 7/8" RCP.

### ***Perf & Frac Pictured Cliffs***

1. RIH w/ dump bailer, and spot 15 gals. 15% HCl across Pictured Cliffs from 2102' – 2124' KB. POH w/ tbg.
2. MIRU wireline company. Run gamma ray correlation log from 2200' to minimum depth. Perforate Pictured Cliffs with 3-1/8" casing gun, shot density at 1 jspf per Canada Mesa No. 2 opeh hole log dated 11/22/72 as follows:

2068 - 80 ft	12 ft	13 holes	0.34" diameter
2110 – 24 ft	14 ft	15 holes	0.34" diameter

3. RIH w/ 2 7/8" RCP on workstring and set @  $\pm 2000'$  KB.
4. RU Frac crew. Fracture stimulate the Pictured Cliffs formation at 30 BPM with 70 quality foam and 20# linear gel frac fluid and 50,000 lbs of 20/40 mesh Brady sand (detail design to be provided). **Do not exceed 3500 psi.**
5. Shut well in for gel break time. Open to pit.

### ***Install Production Tubing***

1. Release RCP, POH and LD 2 7/8" workstring.
2. RIH w/ 2 3/8" tubing and clean out sand to PBTD @  $\pm 3510'$ . (Use Merrion's bailer if circulation is lost or fill is in or near top of perforations).
3. Pick up and tally SN, and 2 3/8" tubing in hole. Land tubing at  $\pm 2068'$  KB, at top of Pictured Cliffs perforations 2068' – 2124' KB.
4. Nipple down BOPs, nipple up wellhead. Run rods and pump.

### **Attachments:**

1. Wellbore Schematic after completion.
2. Canada Mesa No. 2 open hole survey strip from induction log.
3. Fracture stimulation design.