

submitted in lieu of Form 3160-5

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

Sundry Notices and Reports on Wells

1. Type of Well  
GAS

2. Name of Operator  
MERIDIAN OIL

3. Address & Phone No. of Operator  
PO Box 4289, Farmington, NM 87499 (505) 326-9700

4. Location of Well, Footage, Sec., T, R, M  
1090' FN1, 1840' FWL Sec.9, T-26-N, R-10-W, NMPM

5. Lease Number  
NM-0433

6. If Indian, All. or  
Tribe Name

7. Unit Agreement Name  
Huerfano Unit

8. Well Name & Number  
Huerfano Unit #215

9. API Well No.  
30-045-20800

10. Field and Pool  
Basin Ft Coal  
San Juan Co, NM

12. CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE, REPORT, OTHER DATA

Type of Submission

Type of Action

<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Abandonment	<input type="checkbox"/> Change of Plans
<input type="checkbox"/> Subsequent Report	<input checked="" type="checkbox"/> Recompletion	<input type="checkbox"/> New Construction
<input type="checkbox"/> Final Abandonment	<input checked="" type="checkbox"/> Plugging Back	<input type="checkbox"/> Non-Routine Fracturing
	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> Water Shut off
	<input type="checkbox"/> Altering Casing	<input type="checkbox"/> Conversion to Injectio
	<input type="checkbox"/> Other -	

13. Describe Proposed or Completed Operations

It is intended to plugback this well from the Gallup and recomplete in the Fruitland Coal per the attached procedure.

RECEIVED  
JUL 10 5 1994  
N.M. DIV.  
DIST. 3

070 FARMINGTON, NM  
JUN 15 PM 2:45

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

Signed John Bradwell (MP) Title Regulatory Affairs Date 6/13/94

(This space for Federal or State Office use)

APPROVED BY \_\_\_\_\_ Title \_\_\_\_\_ Date \_\_\_\_\_

CONDITION OF APPROVAL, if any:

APPROVED

C-104 for 1196-547

NMCCD

APPROVED

**Continued from page 1**

Huerfano Unit #215 FRTC  
FRTC RECOMPLETION  
C 9 26 10  
Lat. Long. = 36.506912 - 107.903549  
San Juan County, N.M.

PLUGGING:

1. Comply to all NMOC, BLM, & MOI rules & regulations. MOL and RU P & A rig. NU 6" 900 series BOP W/offset rams, flow tee and stripping head. NU blooie line and 2-7/8" relief line.
2. TOH w/pump & rods & lay down. Set blanking plug in S.N. @ 6095' in 2-3/8" tbg & pressure test to 3000 psi. TOH w/196 Jts 2-3/8" tbg.
3. TIH w/2-3/8" tbg open ended to PBTD 6591' & spot 50' cmt plug on top BP w/6 sx Cl "G" cmt. This will fill csg from 6591' to 6541' w/50% excess cmt. TOH.
4. Run 4-1/2" gauge ring on sand line to 5928' (50' above top Gallup perf). TIH w/4-1/2" cmt ret on tested 2-3/8" tbg & set @ 5928'. Establish rate & sq Gallup perms w/18 sx Cl "G" cmt. This will fill Gallup perms & 4-1/2" csg to 5928' w/100% excess cmt.
5. Sting out of cmt ret & spot 4 sx cmt on top ret. Spot hole w/ 28 bbl mud: 15# sodium bentonite w/non-fermenting polymer, 8.4# gal weight, & 40 qs vis or greater. TOH.
6. PU tbg to 4188' (50' below top Mesaverde). W/ pipe rams open spot 12 sx cmt. This will fill csg from 4188' to 4088' ( 50' above top MV) w/ 50% excess cmt.
7. Spot hole w/ 27 bbl mud: 15# sodium bentonite w/non-fermenting polymer, 8.4# gal weight, & 40 qs vis or greater.
8. MI wireline truck. Run CNL log, which will be used to pick FRTC perms, and CBL (2400'-1500'). Coorelate logs to open hole induction log. Set top drillable BP @ 2400' & top w/2 sx sand. TIH w/2-3/8" tbg & land @ 2300'.
9. Release P & A rig.

COMPLETION:

LOWER FRTC:

10. MOL and RU completion rig. NU 6" 900 series BOP with flow tee and stripping head. NU blooie line and 2-7/8" relief line.
11. Spot and fill 3 - 400 bbl. frac tanks with 1% KCL water. Filter all water to 25 microns. On 1st stg, one tank is for gel & one tank for breakdown water. Usable gel water required for frac is 241 bbls.

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12. Roll hole w/1% KCL water & pressure test csg to 1000 psi for 15 min. TOH w/2-3/8" tbg.
13. Using CNL log, perf basal FRTC using w/2 spf @ about 2173'-80'. Total 14 holes. Perforate using 3-1/8" hollow steel carrier guns loaded w/Owen HSC 13 gm. charges phased at 180 degrees & 2 spf. Avg. perf dia.= 0.48". Average penetration is 18" in Berea.
14. TIH w/4-1/2" pkr & 2-7/8" NUE N-80 rental tbg w/shaved collars & set @ 1900'. Load backside w/1% KCL water. W/ 500 psi on backside, breakdown lower FRTC perforations w/1500 gal. 15% HCL acid & 40-7/8" 1.3 sp gr RCN perf balls. (1gal/1000 corrosion inhibitor). Lower pkr to 2200' to knock off perf balls. Reset pkr @ 2100'.
15. Pressure backside to 500 psi. Monitor & record backside pressure during frac. Fracture treat lower FRTC down frac string with 33,000 gals. of 70 quality foam using 30# gel as the base fluid & 60,000# 20/40 Arizona sand. Pump at 25 BPM. Monitor bottomhole and surface treating pressures, rate, foam quality, & sand concentration with computer van. Sand to be tagged with 0.4 mCi/1000# Ir-192 tracer. Max. pressure is 6000 psi and estimated treating pressure is ???? psi. Frac string friction @ 25 BPM is ???? psi. Treat per the following schedule:

<u>Stage</u>	<u>Foam Vol. (Gals.)</u>	<u>Gel Vol. (Gals.)</u>	<u>Sand Vol. (lbs.)</u>
Pad	8,000	2,400	----
1.0 ppg	5,000	1,500	5,000
2.0 ppg	10,000	3,000	20,000
3.0 ppg	5,000	1,500	15,000
4.0 ppg	5,000	1,500	20,000
Flush	( 510)	( 153)	-----
Totals	33,000	9,900#	60,000#

Shut well in after frac for six hours to allow gel to break.  
Treat frac fluid with the following additives per 1000 gallons:

- \* 30# LGC8 (Gel)
- \* 3.0 gal. AQF2 (Non-ionic Surfactant)
- \* 1.0# GVV3 (Enzyme Breaker)
- \* 1.0# B-5 (Breaker)

16. Open well through choke manifold and monitor flow. Flow @ 20 bbl/hr, or less if sand is observed. Take pitot gauges when possible. TOH w/pkr & frac string.
17. Set 4-1/2" ret BP @ 2160' on wireline & top w/1 sx sand. Pressure test csg to 1000 psi for 15 min.

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18. Fill 3 - 400 bbl. frac tanks with 1% KCL water. Filter all water to 25 microns. Two tanks are for gel & one tank for breakdown water. Usable gel water required for frac is 241 bbls.

UPPER FRTC:

19. Using CNL log, perf upper FRTC w/2 spf @ about 2152'-52' & 2035'-47'. Total 34 holes. Perforate using 3-1/8" hollow steel carrier guns loaded w/Owen HSC 13 gm. charges phased at 180 degrees. Avg. perf dia.= 0.48". Average penetration is 18" in Berea.
20. TIH w/4-1/2" pkr & 2-7/8" NUE N-80 rental tbg w/shaved collars & set @ 1800'. W/ 500 psi on backside, breakdown upper FRTC perforations w/1500 gal. 15% HCL acid & 85-7/8" 1.3 sp gr RCN perf balls. (1 gal/1000 corrosion inhibitor). Lower pkr to 2160' to knock off perf balls. Reset pkr @ 2000'.
21. Fracture treat upper FRTC down frac string with 33,000 gals. of 70 quality foam using 30# gel as the base fluid & 60,000# 20/40 Arizona sand. Pump at 35 BPM. Monitor bottomhole and surface treating pressures, rate, foam quality, & sand concentration with computer van. Sand to be tagged with 0.4 mCi/1000# Ir-192 tracer. Max. pressure is 6000 psi and estimated treating pressure is ???? psi. Treat per the following schedule:

<u>Stage</u>	<u>Foam Vol.</u> <u>(Gals.)</u>	<u>Gel Vol.</u> <u>(Gals.)</u>	<u>Sand Vol.</u> <u>(lbs.)</u>
Pad	8,000	2,400	----
1.0 ppq	5,000	1,500	5,000
2.0 ppq	10,000	3,000	20,000
3.0 ppq	5,000	1,500	15,000
4.0 ppq	5,000	1,500	20,000
Flush	( 486)	( 145)	-----
Totals	33,000	9,900#	60,000#

Shut well in after frac for six hours to allow the gel to break.  
Treat frac fluid with the following additives per 1000 gallons:

- \* 30# LGC8 (Gel)
- \* 3.0 gal. AQF2 (Non-ionic Surfactant)
- \* 1.0# GVW3 (Enzyme Breaker)
- \* 1.0# B-5 (Breaker)

22. Open well through choke manifold and monitor flow. Flow @ 20 bbl/hr, or less if sand is observed. Take pitot gauges when possible. TOH w/pkr & frac string.
23. TIH w/ret head on 2-3/8" tbg & C.O. w/air/mist to ret BP @ 2160'. Take pitot gauges when possible. When well is sufficiently clean, retrieve BP & TOH.

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24. TIH w/notched collar on 2-3/8" tbg & C.O. to 2300'. Monitor gas and water returns and take pitot gauges when possible.
25. When wellbore is sufficiently clean, TOH and run after frac gamma-ray log from 2300'-1500'.
26. TIH with 2-3/8" tbg with standard seating nipple one joint off open ended bottom and again cleanout to 2300'. When wellbore is sufficiently clean, land tbg at 2100'KB. Take final water and gas samples & rates.
27. Replace any bad valves on wellhead. ND BOP and NU wellhead & tree. Rig down & release rig.

Approve: \_\_\_\_\_  
J. A. Howieson

VENDORS:

Wireline:	Blue Jet	325-5584
Fracturing:	Western	327-6222
RA Tagging:	Pro-Technics	326-7133

PMP

Pertinent Data Sheet - HUERFANO UNIT #215 GAL

Location: 1090'FNL 1840' FWL SEC. 9 T26N R10W, SAN JUAN COUNTY, N.M.

Field: Angel Peak Gallup

Elevation: 6639' TD: 6919'

11'KB PBTD: 6591'

Prop#: 007972200

Lease: Federal NM-0433

DP#: 45030C - FRTC

GWI: 64.67% - FRTC

NRI: 43.18% - FRTC

Completed: 7-16-71

Recompleted: 1-15-91

Initial Potential:

DK: AOF=1727 MCF/D, Q=1594 MCF/D, SICP=2005 PSI

Gal: AOF=678 MCF/D, Q=437 MCF/D, SICP=680 PSI

Casing Record:

Hole Size	Csg. Size	Wt. & Grade	Depth Set	Cement	Top/Cmt
12-1/4"	8-5/8"	24# K-55	208'	150 sx	Circ. Cmt
7-7/8"	4-1/2"	10.5# K-55	6919'	270 sx	5800' - CBL
		DV Tool @	4999'	230 sx	4105'@ 75% Eff.
		DV Tool @	2413'	230 sx	1450' - Survey

Tubing Record: 2-3/8" 4.7# J-55 6127' 196 Jts  
S.N. @ 6095' Pump & rods in tbg

Formation Tops:

Ojo Alamo	1217'	Gallup	5700'
Kirtland	1370'	Greenhorn	6604'
Fruitland	1955'	Graneros	6648'
Pictured Cliffs	2190'	Dakota	6808'
Mesaverde	4138'		
Point Lookout	4612'		

Logging Record: Induction, Density, CBL

Stimulation: Perf DK @ 6715'-21', 6754'-60', 6769'-75', 6816'-22' w/18 spf & fraced w/50,000# sand in water.

Workover History: 10-15-91: Set CIBP @ 6591'. Perfed Gallup @ 5978'-81', 5984'-88', 5994'-6001', 6009'-19', 6072'-77', 6081'-85' w/2 spf & fraced w/104,600# sand in 70Q foam. Set RBP @ 5965'. Perfed upper Gallup @ 5894'-97', 5906'-23', 5932'-36', 5947'-52' w/2 spf & fraced w/47,300# sand in 70Q foam. Pulled RBP.

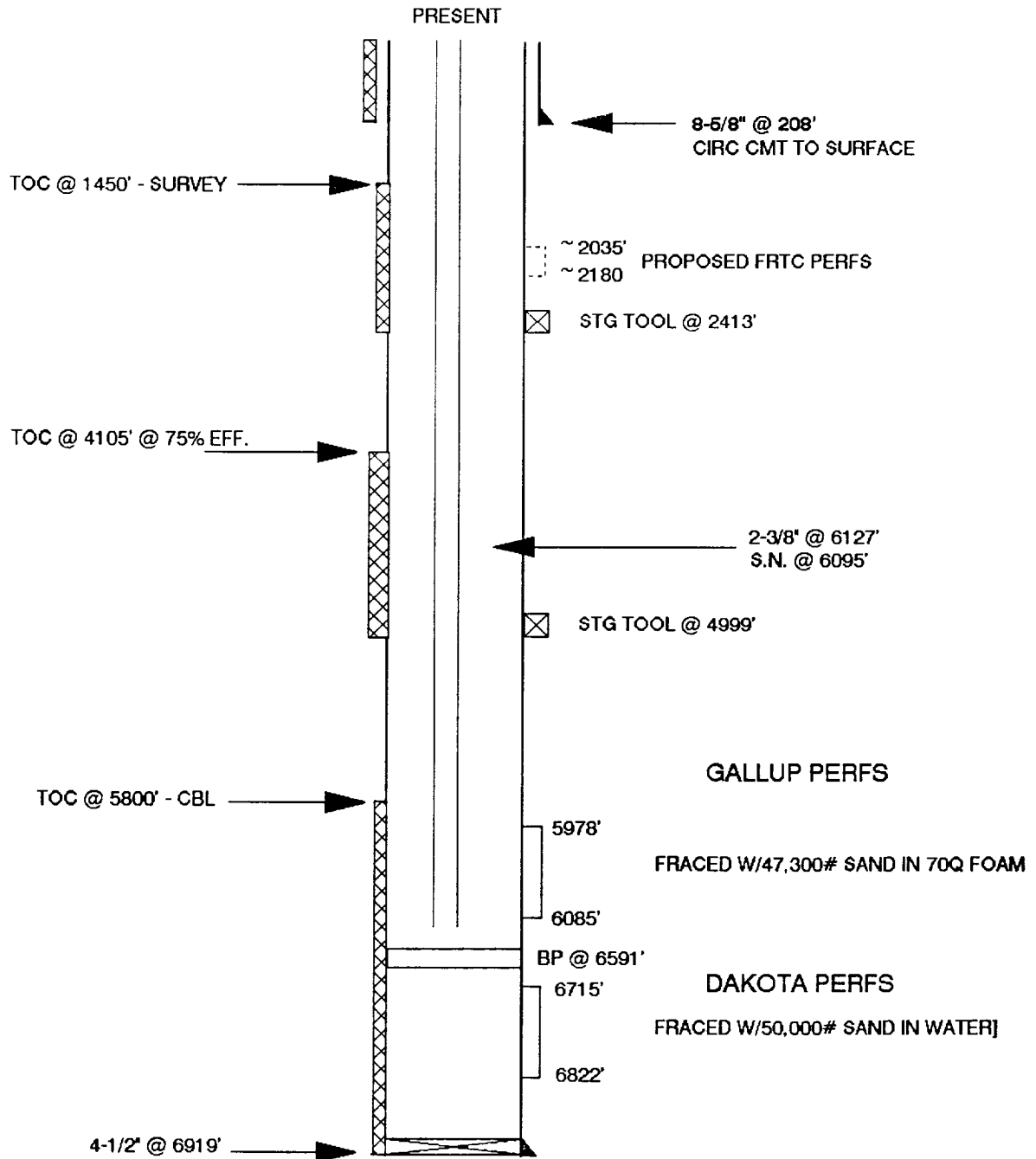
Production History: DK cumulative = 1201 MMCF. Gallup 1st delivered 9-92. Gal cumulative = 13 MMCF & 1144 BO as of 4-1-94. Bradenhead=? psi. Line=??? psi. Gallup is pumping w/current capacity of 3 BOPD & 30 MCF/D.

Pipeline: EPNG

PMP

# HUERFANO UNIT #215 GALLUP

UNIT C SECTION 9 T26N R10W  
SAN JUAN COUNTY, NEW MEXICO





HFO # 215

C 9 26 10

INDUCTION LOG

1900

2000

2100

2200

2300

