submitted in lieu of Form 3160-5

UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

Sundry Notices and Reports on Wel	/	
sundry Notices and Reports on Web		
1. Type of Well GAS	5. 6.	Lease Number NM-0433 If Indian, All. or Tribe Name
	7.	Unit Agreement Name
2. Name of Operator MERIDIAN OIL	Ω	Huerfano Unit Well Name & Number
3. Address & Phone No. of Operator PO Box 4299 Farmington NM 97499 (505) 326 0700	-	Huerfano Unit #215
PO Box 4289, Farmington, NM 87499 (505) 326-9700	-	API Well No. 30-045-20800
4. Location of Well, Footage, Sec., T, R, M 1090'FNl, 1840'FWL Sec.9, T-26-N, R-10-W, NMPM	10.	Field and Pool Basin Ft Coal San Juan Co, NM
12. CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE		PORT, OTHER DATA
Type of Submission Type of Actual Abandonment	Ch	ange of Plans
	_ Ne _ No	w Construction n-Routine Fracturing
Casing Repair Altering Casing Other -	_ Wa _ Co	ter Shut off nversion to Injectio
13. Describe Proposed or Completed Operations	-	
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14. I hereby certify that the foregoing is true and c		
Signed Jagy Deadhiel (MP) Title Regulatory Af	fair	<u>s</u> Date 6/13/94
(This space for Federal or State Office use)		
APPROVED BYTitleTotal CONDITION OF APPROVAL, if any:	· ·	Date TIPROVED
+ TA# 547	_	July 1859
C104 for 1196-6 # TA# 547	7	A

District I PO Box 1980, Hobbs, NM 88241-1980 District II PO Drawer DD, Artesia, NM 88211-0719 District III

State of New Mexico
Energy, Minerais & Natural Resources Department

Revised February 21, 1994 Instructions on back

OIL CONSERVATION DIVISION PO Box 2088

Submit to Appropriate District Office State Lease - 4 Copies

1000 Rio Brazos I District IV	Rd., Aztec,	NM 87410		Sa	nta Fe, NM	1 87504-2 08 8	JH 16 PH 2	: 45	Fee	Lease - 3 Copie:
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					10 Surface	e Location				
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Huerfano Unit #215 FRTC FRTC RECOMPLETION

C 9 26 10

Lat. Long. = 36.506912 - 107.903549 San Juan County, N.M.

PLUGGING:

- Comply to all NMOCD, 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 perfs w/18 sx Cl "G" cmt. This will fill Gallup perfs & 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 perfs, 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.

HUERFANO UNIT #215 - FRTC RECOMPLETION Page 2

- 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:

Stage	Foam Vol. (Gals.)	Gel Vol. (Gals.)	Sand Vol (1bs.)
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# GVW3 (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. <u>Take pitot gauges when possible.</u> 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.

HUERFANO UNIT #215 - FRTC RECOMPLETION Page 3

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:

Stage	Foam Vol. (Gals.)	Gel Vol. (Gals.)	Sand Vol (lbs.)
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	(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'. <u>Take</u> <u>pitot gauges when possible.</u> When well is sufficiently clean, retrieve BP & TOH.

HUERFANO UNIT #215 - FRTC RECOMPLETION Page 4

- 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.	Α.	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.

<u>Field:</u> Angel Peak Gallup <u>Elevation:</u> 6639' <u>TD:</u> 6919' 11'KB **PBTD:** 6591'

Prop#: 007972200

<u>Lease:</u> Federal NM-0433 <u>DP#:</u> 45030C - FRTC <u>GWI:</u> 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:

Casing Reco	<u>pra:</u>					
Hole Size Csq. Size		<u>Wt.</u>	& Grade	Depth Se	t Cement	Top/Cmt
12-1/4" 8-5/8"		24#	K-55	2081	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 Reco	ord: 2-3/8"	4.7#	J-55	6127'	196 Jts	
			S.N.	@ 6095'	Pump & rods	in tbg
Formation T	ops:					_
Ojo Al	.amo	1217'	Gal:	lup	5700'	
Kirtla	ınd	1370'	Gre	enhorn	6604'	
Fruitland		1955'	Graneros		6648'	
Pictur	ed Cliffs	2190'	Dake	ota	6808'	
Mesave	erde	4138'				
Point	Lookout	4612'				

Logging Record: Induction, Density, CBL

<u>Stimulation:</u> 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.

<u>Production History:</u> DK cummulative = 1201 MMCF. Gallup 1st delivered 9-92. Gal cummulative = 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



