UNITED STATES

DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

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OIL & GAS COMPANY 3. Address & Phone No. of Operator PO Box 4289, Farmington, NM 87499 (505) 326-9700 4. Location of Well, Footage, Sec., T. R. M 1980'FNL, 990'FEL, Sed.3, T-29-N, R-10-W, NMPM 1980'FNL, 990'FEL, Sed.3, T-29-N, R-10-W, NMPM 12. CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE, REPORT, OTHER DATA Type of Submission X Notice of Intent Abandonment Change of Plans Recompletion New Construction Plugging Back Non-Routine Practuring Casing Repair Water Shut off Final Abandonment Altering Casing Conversion to Injection X Other - Pay add and commingle 13. Describe Proposed or Completed Operations It is intended to add pay to the Mesaverde formation of the subject well according to the attached procedure and wellbore diagram. The well will then be down-hole commingled. A down-hole commingle order will be applied for. DEC - 5 1997 OIL GON, DIVO CITIES Space for HADWANGE (PMPOpps) Title Regulatory Administrator Date 11/24/97 Title Date DEC - 3 1997 DEC - 3 1997		: \\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	- 1 V 12 17		
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PAY Add Recompletion-Procedure H 3 29 10

San Juan County, N.M. Lat-Long: 36-45.36" - 107-51.96"

PROJECT SUMMARY: Open Menefee to existing MV to production and commingle with DK.

- Comply to all NMOCD, BLM, and BROG rules and regulations. MOL and RU completion rig. NU 7-1/16" 3000 psi BOP w/flow tee and stripping head. Test operation of rams. NU blooie line and 2-7/8" relief line.
- 2. Set blanking plug in "F" nipple of 2-3/8" tbg @ 6681' and pressure test tbg to 3000 psi. TOH w/2-3/8" tbg and Baker Model "D" seal assembly. Run 4-1/2" C-J milling tool (pkr plucker) on 2-3/8" tbg, drill upper slips on Model "D" pkr @ 6712', retrieve pkr, and TOH.
- 3. TIH w/4-1/2" retrievable BP on 2-3/8" tbg and set @ 4710' and top w/1 sx sand. Load hole w/1% KCL water. TOH. MI wireline. Run an advanced integrated data processed GSL neutron log 4710'-4000' and correlate to attached open hole log. **Hot-shot** log to Mike Pippin (326-9848) to pick Menefee perfs. Pressure test csg to 500 psi.
- 4. TiH w/2-3/8" tbg open ended and spot 300 gal 15% HCL acid across Menefee perfs @ ~4610'-4175'. TOH.

All acid on this well to contain the following additives per 1000 gal:

2 gal CI-22

corrosion inhibitor

5 gai Ferrotrol-300L

iron control

1 gal Flo-back 20

Surfactant

0.5 gal Clay Master-5C

clay control

- 5. Perf Menefee w/ about 20 holes from 4175'-4610'. Perf w/select fire HSC gun using HSC-3125-302T 10 gr Owen jets which should give a 0.29" hole and 16.64" of penetration in concrete.
- Fill 6 400 bbl. frac tanks with 1% KCL water. If necessary, filter all water to 25 microns.
 Five tanks are for gel and one tank for breakdown water. Usable gel water required for frac is 1452 bbls.
- 7. TIH w/4-1/2" pkr on 2-7/8" 6.5# N-80 w/shaved collars (3.5" O.D. 2.441" I.D.) rental frac string and set @ 4680' and pressure test ret BP @ 4710' to 3000 psi, then reset pkr @ 4000'. (Run 2 jts 2-3/8" N-80 on top of pkr). W/ 500 psi on annulus, breakdown and attempt to balloff Menefee perfs w/1500 gal 15% HCL acid and 150% excess RCN 7/8" 1.3 sp gr perf balls. Use same acid additives as in step #4. Max. pressure is 4300 psi. Lower pkr to 4620' to knock off perf balls. Reset pkr @ 4100'.
- 8. Pressure annulus to 500 psi and monitor during frac job. Frac Menefee w/60,000 gals. of 30# gel and 90,000# 20/40 Arizona sand. Pump at 40 BPM. Sand to be tagged w/ 3 RA tracers. Max. pressure is 5500 psi and estimated treating pressure is 4200 psi. (Pipe friction estimated at 2540 psi @ 30 BPM). Treat per the following schedule:

	Water	Sand Vol.
Stage	<u>(Gals.)</u>	<u>(lbs.)</u>
Pad	15,000	
1.0 ppg	10,000	10,000
2.0 ppg	25,000	50,000
3.0 ppg	10,000	30,000
Flush	(997)	· <u> </u>
Totals	60.000	90,000#

If well is on vaccum near end of frac job, cut flush as necessary to avoid overflushing and slow rate during flush. Frac with the following additives per 1000 gal frac fluid.

* 30# J-48	(Guar Gel mix in full tank - 16,000 gal)
* 1.0 gal. Aqua Flow	(Non-ionic Surfactant mix in full tank)
* 1.0# gvw-3	(Enzyme Breaker mix on fly)
* 1.0# B-5	(Breaker mix on fly)
* 0.38# - Fracide 20	(Bacteriacide in full tank)

- 9. Shut well in for 4 hrs to let gel break.
- 10. 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.
- 11. TIH w/retrieving tool on 2-3/8" tbg and C.O. (w/air/mist) to ret BP @ 4710' w/air/mist. Monitor gas and water returns and <u>Take pitot gauges when possible.</u> When well is sufficiently clean, retrieve BP @ 4710'. TOH.
- 12. TIH w/3-7/8" bit on 2-3/8" tbg and C.O. to PBTD 7027'. <u>Take pitot gauges when possible.</u>
- 13. When wellbore is sufficiently clean, TOH and run after frac gamma-ray log from 4800' to 3800' and perf eff log across each set of perfs from 7004'-4100'.
- 14. TIH and rabbit 2-3/8" 4.7 J-55 tbg w/standard seating nipple one joint off bottom and again cleanout to 7027'. When wellbore is sufficiently clean, land tbg @ 6850' KB. <u>Take final water and gas samples and rates.</u>
- 15. ND BOP and NU wellhead and tree. Rig down and release rig.

Recommended: Mariner Approved: Rough & 11/23/97
Production Engineer Drilling Superintendent

Approved: Team Leader

VENDORS:

Wireline: Blue Jet 325-5584
Fracturing: BJ 327-6222
RA Tag: Pro-Technics 326-7133

PMP

Pertinent Data Sheet - HARE #16 MV-DK

Location: 1980' FNL & 990' FEL, Unit H, Section 3, T29N, R10W, San Juan County, New Mexico

Field: Blanco Mesaverde

Elevation:

5962' GL 10' KB <u>TD:</u> 7058' PBTD: 7027'

Basin Dakota

Completed: 5/18/62

Spud Date: 4/30/62

DP #: MV27525-DK27241

LEASE: Fed: SF 076958

100% SRC Trust

GWI: 25%

NRI: 21%

Prop#: 0020373

Initial Potential: MV: AOF=1761 MCF/D; Q=1717 MCF/D; SICP=808 PSI DK: AOF=2431 MCF/D; Q=2199 MCF/D; SICP=1944 PSI

Casing Record:

Hole Size	Csg Size	Wt. & Grade	Depth Set	Cement	Cmt Top
e12-1/4"	8-5/8"	24# J-55	306'	230 sx	Circ Cmt
7-7/8"	4-1/2"	11.6&9.5# J-55	7058'	250 sx	5620' - Survey
		DV Tool @	4917'	550 sx	3790' CBL

Tubing Record:

<u>Tbg. Size</u>	Wt. & Grade	Depth Set	
2-3/8"	4.7# J-55	6712'	217 Jts
	Baker Model "D" D	kr @ 6712'	

"F" Nipple @ 6681'
Sliding Sleave @ 6650'

Blast Jts @ ~4700' 2-20' Jts

Formation Tops:

Ojo Alamo	1195'	Gallup	5925'
Kirtland Shale	1324'	Dakota	6835'
Fruitland:	2063'		
Pictured Cliffs:	2410'		
Cliffhouse	3990'		
Point Lookout	4730'		

Logging Record: Induction, Density, GRN, Csg Insp., CBL, Micro Log

<u>Stimulation:</u> Perf DK w/4 spf @ 6769'-76', 6838'-74', 6910'-18', 6962'-82', 6988'-7004' & fraced w/110,000# sand in water.

Workover History: 9-9-71: Perf MV @ 4730'-65' & fraced w/50,000@ sand in water. Completed as dual MV/DK.

Production History: DK 1st delivered 7/31/62. MV 1st delivery on 12/22/71. Current MV capacity is 31 MCF/D. MV cum is 481 MMCF & 3967 BO. DK capacity is 37 MCF/D & cum is 933 MMCF & 12,058 BO. Line pressure is about 45 psi.

Pipeline: Williams Field Service

HARE #16 MV-DK

UNIT H SECTION 3 T29N R10W SAN JUAN COUNTY, NEW MEXICO

