

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK PLUG BACK	5. LEASE NUMBER SF-077980-A
1b. TYPE OF WELL GAS	6. IF INDIAN, ALL. OR TRIBE NAME
2. OPERATOR <del>EL PASO NATURAL GAS CO.</del> <i>Meridian Oil Inc.</i>	7. UNIT AGREEMENT NAME HUERFANO UNIT
3. ADDRESS & PHONE NO. OF OPERATOR P.O. BOX 4289 FARMINGTON, NM 87499 (505) 326-9700	8. FARM OR LEASE NAME
4. LOCATION OF WELL  970' FSL; 1150' FEL	9. WELL NO. 232
14. DISTANCE IN MILES FROM NEAREST TOWN	10. FIELD, POOL, OR WILDCAT BASIN FRUITLAND COAL
	11. SEC. T. R. M OR BLK. <i>p</i> SEC. 8, <del>T28N</del> , R09W
	12. COUNTY SAN JUAN
	13. STATE NM
15. DISTANCE FROM PROPOSED LOCATION TO NEAREST PROPERTY OR LEASE LINE.	16. ACRES IN LEASE
	17. ACRES ASSIGNED TO WELL 320.00
18. DISTANCE FROM PROPOSED LOCATION TO NEAREST WELL DR. COMPL., OR APPLIED FOR ON THIS LEASE.	19. PROPOSED DEPTH
	20. ROTARY OR CABLE TOOLS
21. ELEVATIONS (DF, FT, GR, ETC.) 6495' GR	22. APPROX. DATE WORK WILL START

23. PROPOSED CASING AND CEMENTING PROGRAM

\*SEE OPERATIONS PLAN

24. AUTHORIZED BY: *[Signature]* (SHL)  
REGULATORY AFFAIRS

*8-2-90*  
DATE

PERMIT NO. \_\_\_\_\_ APPROVAL DATE \_\_\_\_\_

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_

NOTE: THIS FORMAT IS ISSUED IN LIEU OF US BLM FORM 3160-3.  
(NO ADDITIONAL DIRT WORK WILL BE REQUIRED)

*Hold C-104 FOR NSL*  
*[Signature]* NMOC

APPROVED *[Signature]*  
AUG 13 1990  
Ken Townseng  
AREA MANAGER

NEW MEXICO OIL CONSERVATION COMMISSION  
WELL LOCATION AND ACREAGE DEDICATION PLAT

Form C-102  
Supersedes C-128  
Effective 1-1-65

All distances must be from the outer boundaries of the Section.

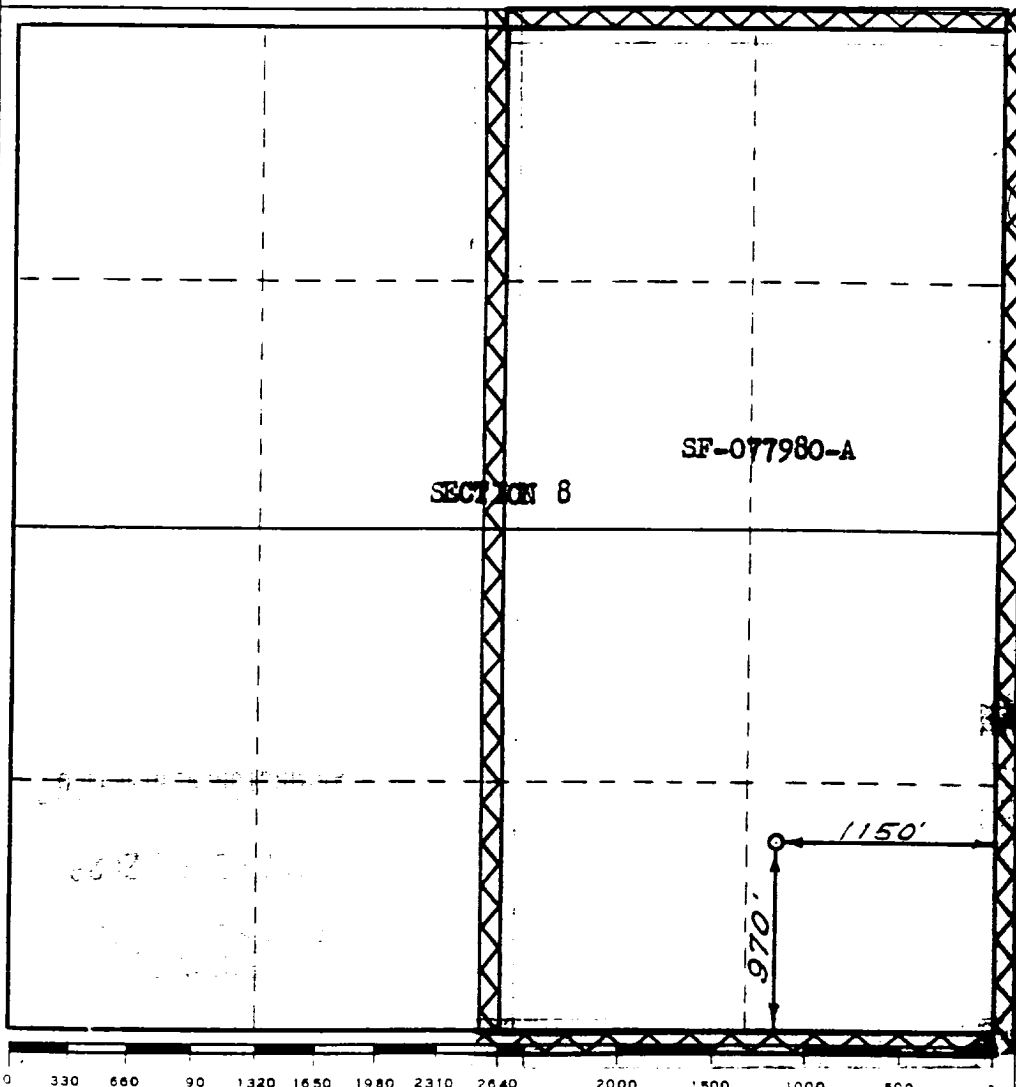
Operator <b>EL PASO NATURAL GAS COMPANY</b>		Lease <b>HUERFANO UNIT (SF-077980-A)</b>		Well No. <b>232</b>
Unit Letter <b>P</b>	Section <b>8</b>	Township <b>26-N</b>	Range <b>9-W</b>	County <b>SAN JUAN</b>
Actual Footage Location of Well:				
<b>970</b>	feet from the	<b>SOUTH</b>	line and	<b>1150</b>
				feet from the
				<b>EAST</b>
Ground Level Elev. <b>6495</b>	Producing Formation <b>Fruitland Coal</b>	Pool <b>Basin</b>	Dedicated Acreage: <b>320.00</b> Acres	

- Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.
- If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
- If more than one lease of different ownership is dedicated to the well, have the interests of all owners been consolidated by communitization, unitization, force-pooling, etc?

☒ Yes ☐ No If answer is "yes," type of consolidation Unitization

If answer is "no," list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.)

No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Commission.



CERTIFICATION	
I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.	
Name	<b>Regulatory Affairs</b>
Position	<b>El Paso Natural Gas Company</b>
Company	<b>8-2-90</b>
Date	
I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.	
Date Surveyed	<b>NOVEMBER 1, 1972</b>
Registered Professional Engineer and/or Land Surveyor	<b>David Kilmer</b>
Certificate No.	<b>1760</b>

HUERFANO UNIT #232

RECOMPLETION PROCEDURE  
GALLUP PLUG AND ABANDONMENT

**\*\*NO WORK IS TO BE PERFORMED OR EQUIPMENT TO BE LOCATED OFF APPROVED WELL PAD\*\***

1. MOL and RU. ND wellhead. NU BOP. Load hole with water.
2. Release Guiberson VI packer set at 5584'. TOOH with packer and 2 3/8" tubing.
3. PU 4 1/2" casing scraper on 2 3/8" 4.7# J-55 EUE tubing and TIH to 6083'. TOOH.
4. TIH with tubing. Spot a cement plug from 6083'-5600' with 55 sx of Class B neat cement (65 cf, 50% excess to cover 50' above the top of the Gallup). Pull up to 5600' and circulate the casing with 92 bbls of 9.0 PPG mud with a minimum viscosity of 50 sec/qt. TOOH. Tag cement top with wireline after 4 hours.
5. Perforate 4 squeeze holes at 3821'. Establish a rate into the perforations with water. Set a 4 1/2" cement retainer at 3721'. TIH with 2 3/8" tubing and sting into test position in cement retainer. Pressure test tubing to 1000 psi. Establish rate into perforations with water. Squeeze cement with 50 sx of Class B neat cement (59 cf, 100% excess to cover 50' above the top of the Cliff House). Sting out of cement retainer and spot 6 sx Class B neat cement on top of cement retainer (7cf, 81' in 4 1/2" casing). TOOH.
6. Proceed with Fruitland recompletion.

RECOMPLETION PROCEDURE  
HUERFANO UNIT #232

\*\*NO WORK IS TO BE PERFORMED OR EQUIPMENT TO BE LOCATED OFF APPROVED WELL PAD\*\*

1. Load hole with water.
2. Isolate casing failure between squeeze packer and bridge plug. Establish rate into failure. Spot appropriate quantity of cement. Displace tubing volume with water. Displace cement volume into failed portion of casing. Release squeeze packer and reverse circulate with two tubing volumes of water. TOOH with squeeze packer. Pressure up on casing to 1000#, and shut well. WOC 18 hours. TIH with 3 7/8" bit on 2 3/8" tubing and drill out cement. Circulate hole clean. TOOH. Pressure test casing to 1000# for 15 minutes. If casing holds, proceed with recompletion.
3. NU low pressure packoff.
4. Run logs. Pick perforations from log. TIH with 4-1/2" CIBP and set at 2190' to isolate the Pictured Cliffs. TOOH.
5. Pressure test casing to 1000 psi for 15 minutes. If casing fails, isolate casing leak(s) with a test packer. A squeeze procedure will be provided if the casing has not been compromised beyond repair.
6. Perforate using 3 1/8" HSC guns. Shoot 2 SPF.

Projected zones: To be selected from CNL log run.

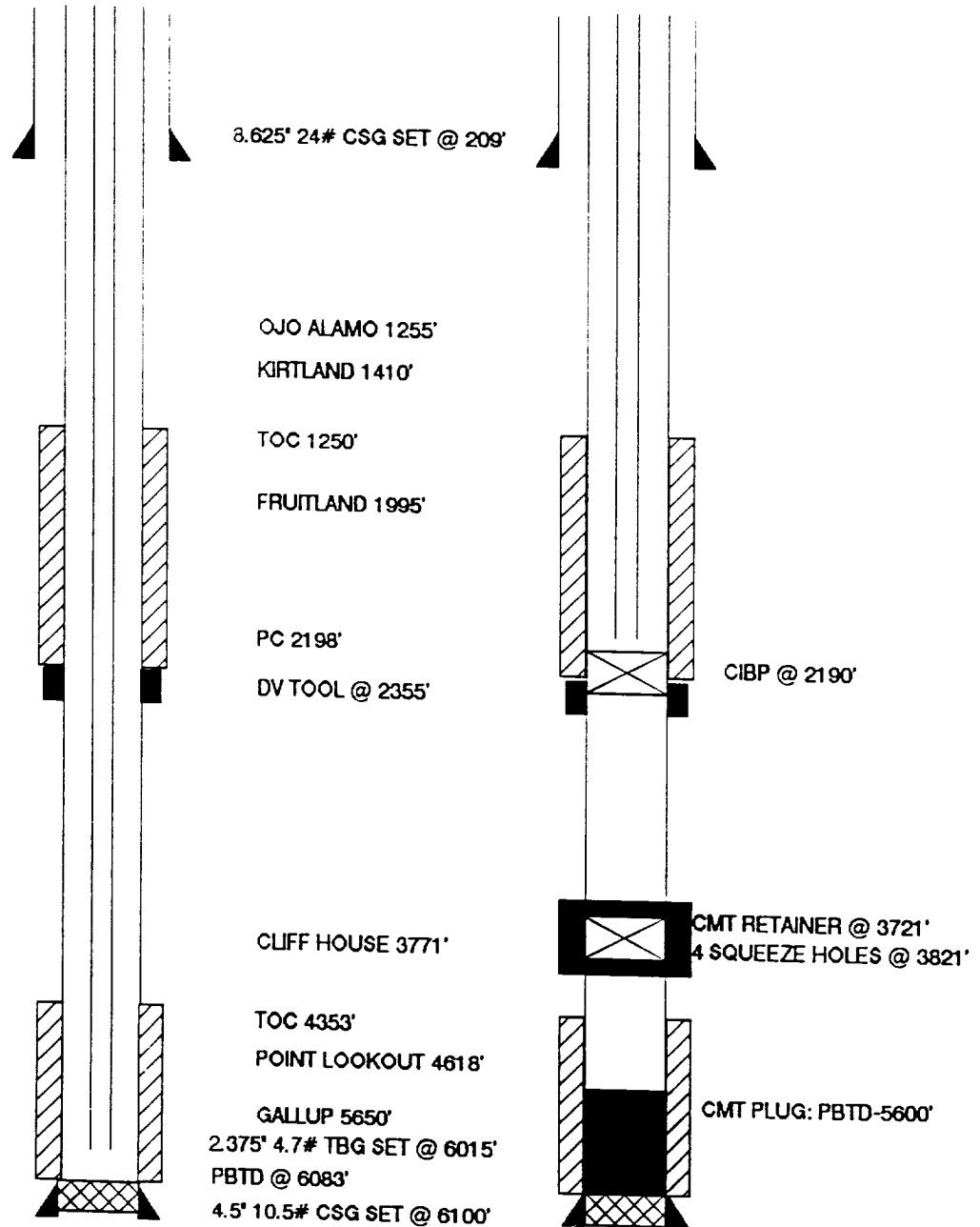
7. TIH with 2 3/8" tubing and swab wellbore dry. Check well for gas flow. Evaluate well overnight.
8. Check well for buildup pressure and gas flow.
9. TIH with tubing and clean out to 2190'.
10. Land tubing with an expendable check on bottom, and a common pump seating nipple one joint off bottom. Land tubing 10 feet above bottom perforation. Swab well in. Record final 30, 45, and 60 minute gauges on morning report. ND BOP. NU tree. RD and release rig.
11. Evaluate well's performance for possible fracture stimulation. A fracture stimulation procedure will be provided if necessary.

# HUERFANO UNIT #232

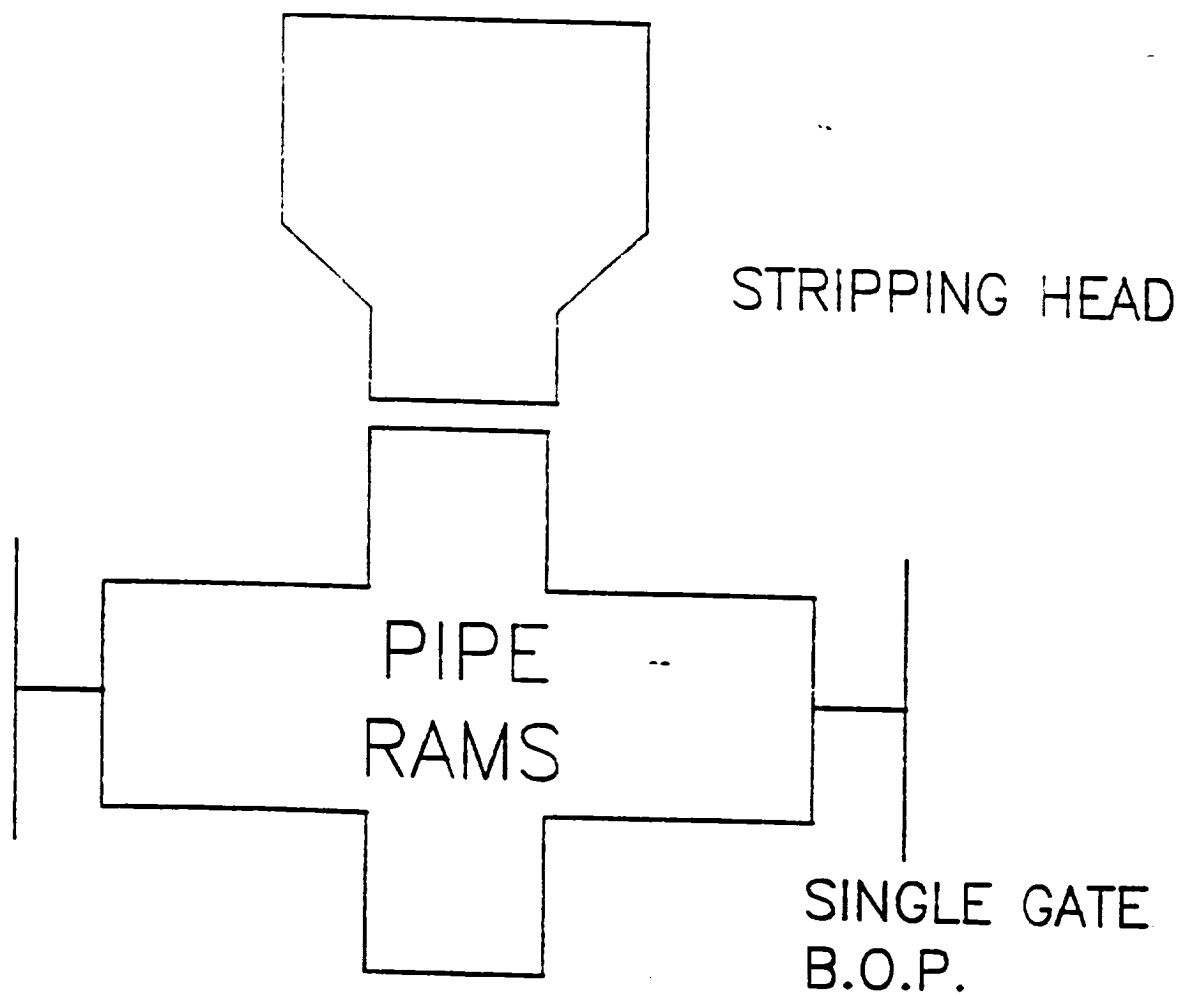
## WELLBORE DIAGRAMS

BEFORE R/C

AFTER R/C



# WORKOVER / RECOMPLETION B. O. P. SCHEMATIC



MINIMUM: 2 7/8" 1500 PSI SINGLE GATE B.O.P.

MAXIMUM ANTICIPATED SHUT-IN WELLHEAD  
PRESSURE IS LESS THAN 1500 PSI