30-039-24914

UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK la. TYPE OF WORK 5. LEASE NUMBER DRILL SF-078945 1b. TYPE OF WELL 6. IF INDIAN, ALL. OR TRIBE NAME GAS 2. OPERATOR 14538 7. UNIT AGREEMENT NAME EL PASO NATURAL GAS CO. SAN JUAN 29-7 UNIT - Mordian al In ADDRESS & PHONE NO. OF OPERATOR 8. FARM OR LEASE NAME P O BOX 4289 7465 SAN JUAN 29-7 UNIT FARMINGTON, NM 87499 9. WELL NO. 581 LOCATION OF WELL 10. FIELD, POOL, OR WILDCAT 1695'FSL 1595'FWL 1/629 BASIN FRUITLAND COAL 11. SEC. T. R. M OR BLK. SEC. 1 T29N R07W NMPM DISTANCE IN MILES FROM NEAREST TOWN 12. COUNTY 13.STATE 5 miles s/e of navajo dam RIO ARRIBA DISTANCE FROM 16. ACRES IN LEASE 17. ACRES ASSIGNED TO WELL PROPOSED LOCATION 1595' 320.00 TO NEAREST PROPERTY 2543.15 This william to consider an indicate our endosalast review placos a selás desa desaces OR LEASE LINE. AND HARRY A CHARLE TO SEE AT 18 \$1 CO. C. 19. PROPOSED DEPTH 20. ROTARY OR CABLE TOOLS DISTANCE FROM PROPOSED LOCATION 3681' ROTARY TO NEAREST WELL DR. 100' DEILLING OPERATIONS AUTHORIZED ARE COMPL., OR APPLIED SUBJECT TO COMPLIANCE WITH ATTACHED FOR ON THIS LEASE. "GENERAL REQUIREMENTS". ELEVATIONS (DF, FT, GR, ETC.) 22. APPROX. DATE WORK WILL START 6796'GL PROPOSED CASING AND CEMENTING PROGRAM *SEE OPERATIONS PROPERED W SEP1 3 1990 24. AUTHORIZED BY: < REG. DRILLING ENGR. OIL CON. DIV. DIST. 3 PERMIT NO. APPROVAL DATE APPROVED BY TITLE NOTE: THIS FORMAT IS ISSUED IN LIEU OF US BLM FORM 3160-3.

Submit to Appropriate District Office State Lease - 4 conies Fee Lease - 3 copies

State of New-Mexico Energy, Minerals and Natural Resources Department

Form C-102 Revised 1-1-89

DISTRICT I P.O. Box 1980, Hobbs, NM 88240

990 1320 1650 1980 2310 2640

330 660

OIL CONSERVATION DIVISION P.O. Box 2088 Santa Fe. New Mexico 87504-2088

DISTRICT II P.O. Drawer DD, Artesia, NM 88210

WELL LOCATION AND ACREAGE DEDICATION PLAT

DISTRICT III 1000 Rio Brazos Rd., Aztec, NM 87410 All Distances must be from the outer boundaries of the section --- Operator L (SF-078945) San Juan 29-7 Unit 581 Unit Letter Section Township 29 North 7 West Rio Arriba NMPM. Actual Footage Location of Well: 1695 South feet from the line and feet from the West line Ground level Elev. Producing Formation Dedicated Acresgs: 67961 Fruitland Coal Basin Acres 1. Outline the acreage dedicated to the subject well by colored pencil or hackure marks on the plat below. 2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty). 3. If more than one lease of different ownership is dedicated to the well, have the interest of all owners been consolidated by communitization. unitization, force-pooling, etc.? unitization ∑ Yes ☐ No. If answer is "yes" type of consolidation 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 communicization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interest, has been approved by the Division. OPERATOR CERTIFICATION I hereby certify that the informa d hartin in true and complete to the best of phy/mowledge and belief. Peggy Bradfield Printed Name Regulatory Affairs Position El Paso Natural Gas SF-078945 Company SEP1 3 1990 1-18-90 Date OIL CON DIV SURVEYOR CERTIFICATION 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 supervison, and that the same is true and correct to the best of my knowledge and 1595' belief. 0 WE NEARC 685 Certifica 5280

2000

1500

1000

500

DATE: JUL 19,1990

Well Name: 581 SAN JUAN 29-7 UNIT

Sec. 1 T29N R07W

BASIN FRUITLAND COAL

1695'FSL 1595'FWL RIO ARRIBA NEW MEXICO Elevation 6796'GL

Formation tops: Surface- SAN JOSE

Ojo Alamo- 2695

Kirtland- 2910

Fruitland- 3370

Fruitland Coal Top- 3528 Intermediate TD- 3508 Fruitland Coal Base- 3679 Total Depth- 3681

Pictured Cliffs- 3687

Logging Program: Mud logs from intermediate to total depth.

Mud Program: Interval Type Weight Visc. Fl. Loss 0 - 400Spud 8.4 - 8.940-50 no contro 400 - 3508Non-dispersed 8.4 - 9.1 30-60 no contro. 3508 - 3681 Formation Water 8.4 no contro.

Casing Program: Hole Size Depth Interval Csq. Size Weight Grade 12 1/4" 0 - 4009 5/8" H - 4032.3# 8 3/4" 0 - 35087" 20.0# K-55 6 1/4" 3458 - 3681 5 1/2" 15.5# K-55 Tubing Program: 0 - 36812 7/8" 6.5# J-55

Float Equipment: 9 5/8" surface casing - saw tooth guide shoe. Centralizers will be run in accordance with Onshore Order #2.

7" intermediate casing - guide shoe and self-fill insert float valve. Three centralizers run every other joint above shoe. Run insert float one joint above the guide shoe. Two turbolizing type centralizers - one below and one into the base of the Ojo Alamo @ 2910'. Standard centralizers thereafter every fourth joint up to the base of the surface pipe.

5 1/2" production casing - float shoe on bottom and a pre-drilled liner run to the 7" casing with a minimum 50' overlap. Liner hanger is a double slip grip type.

Wellhead Equipment: 9 5/8" x 7" x 2 7/8" x 11" 3000 psi xmas tree assembly.

Cementing:

9 5/8" surface casing - cement with 319 sacks of class "B" cement with 1/4# flocele/sack and 3% calcium chloride (376 cu ft. of slurry, 200% excess to circulate to surface). WOC 12 hours. Test casing to 600 psi for 30 minutes.

7" intermediate casing - lead with 523 sacks of 65/35 class "B" poz with 6% gel, 2% calcium chloride and 1/2 cu ft. Perlite/sack (10.3 gallons of water/sack) tail with 100 sacks of class "B" with 2% calcium chloride. 1128 cu ft. of slurry, 110% excess to circulate to surface. If hole conditions permit, a 600 ft spacer will be run ahead of the cement slurry to avoid mud contamination of the cement. WOC 12 hours. If cement does not circulate to surface, a temperature log will be run after 8 hours to determine TOC.

5 1/2" liner - do not cement.