State of New Mexico Submit to Appropriate Form C-101 Energy, Minerals and Natural Resources Department District Office State Lease - 6 copies Fee Lease - 5 copies Revised 1-1-89 OIL CONSERVATION DIVISION DISTRICT API NO. (assigned by OCD on New Wells) P.O. Box 1980, Hobbs, NM 88240 P.O. Box 2088 30-045-27904 Santa Fe, New Mexico 87504-2088 DISTRICT II 5. Indicate Type of Lease P.O. Drawer DD, Artesia, NM 88210 FEE X 6. State Oil & Gas Lease No. 1000 Rio Brazos Rd., Aztec, NM 87410 APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK la. Type of Work: 7. Lease Name or Unit Agreement Name DRILL X RE-ENTER DEEPEN PLUG BACK b. Type of Well: Elliott Gas Com "AA" METT [GAS WELL S OTHER SINGLE MULTIPLE coal seam ZONE ZONE 2. Name of Operator 8. Well No. Amoco Production Company ATTN: J.L. Hampton 3. Address of Operator 9. Pool name or Wildcat P. O. Box 800 Denver, Co. 80201 Basin Fruitland Coal Gas 4. Well Location 790' Feet From The south Line and Feet From The West 1100 Section Township 31N NMPM San Juan County 10. Proposed Depth 11. Formation 12. Rotary or C.T. (TD) Fruitland Coal Rotary 2680' 13. Elevations (Show whether DF, RT, GR, etc.) 14. Kind & Status Plug. Bond 15. Drilling Contractor 16. Approx. Date Work will start State-wide 5958' GR unknown As soon as permitted 17. PROPOSED CASING AND CEMENT PROGRAM SIZE OF HOLE SIZE OF CASING WEIGHT PER FOOT SETTING DEPTH SACKS OF CEMENT EST. TOP 12 1/4" 8 5/8" 250' 250 cf (cement to surface) 7/8" 1/2" 7680' 780 cf (cement to surface) (TD) Lease Description: JUN2 2 1990 APPROVAL EXPIRES_12-2 UNLESS DRILLING IS COMMENCED. SPUD NOTICE MUST BE SUBMITTED OIL CON. DIV. T31N-R11W: WITHIN 10 DAYS. Lot 3, E/2 SW/4, Lot 4, Lots 1,2, E/2 NW/4, NE/4 NE/4, W/2SE/4, SE/4 Sec. 5: Lots 5-12, S/2 Sec. 8: W/2Sec. 17: W/2Sec. 18: E/2JUN1 5 1990 IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: IF PROPOSAL IS TO DEEPEN OR PLUG BACK, GIVE DATA COLLEGE AND PROPOSED NEW PRODUCTIVE ZONE. GIVE BLOWOUT PREVENTER PROGRAM, IF ANY. I hereby certify that the information above is true and complete to the best of my knowledge and belief. mus Sr. Staff Admin.

J.L. TYPE OR PRINT NAME Hampton TELEPHONE NO. 830-5119(This space for State Use) DEPUTY OIL & GAS INSPECTOR, DIST. #3

CONDITIONS OF AITTROVAL, IF ANY:

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

State of New Mexico Energy, Minerals and Natural Resources Department

Form C-102 Revised 1-1-89

OIL CONSERVATION DIVISION

P.O. Box 2088 Santa Fe, New Mexico 87504-2088

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

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

DISTRICT III
1000 Rio Brazos Rd., Azzec, NM 87410

WELL LOCATION AND ACREAGE DEDICATION PLAT
All Distances must be from the outer boundaries of the section

All Distances must be from the outer boundaries of the section

Operator					Lease	·····			Well No.	$\neg \neg$	
AMOC	D PR	ODUCTI	ON COMPA	٧Y	ELLIOTT GAS COM /AA/				# 1		
Unit Letter M	Section	19	Township 31 NO	DRTH	Range 1 1	WEST	NMPM	County	SAN JUAN		
Actual Footage Loca			CO	1711	· · · · · · · · · · · · · · · · · · ·	1100			WEST _{line}		
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Ground level Elev.	ŀ		Formation		Pool		~ I		Dedicated Acresge:	o	
5958		Fruit		<u> </u>	Basin 1	rustand	(04)	(Tas	Acres		
1. Outline	e the acr	eage dedicated	to the subject well	by colored pen	cil or hathure ma	rks on the plat belo	w.				
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.?											
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Amoco proposes to drill the well to further develop the Fruitland Coal reservoir. The well will be drilled to the surface casing point using native mud. The well will then be drilled to the total depth with a non-dispersed mud system. The attached modified 12" 3000 psi blowout preventer will be used (please see attached BOP information). The well will be completed in the Fruitland Coal with a fracture stimulation.

Quantity	Size	Weight	Description	Cementing Program
SURFACE C	ASING 8-5/8"	24#	K55 ST&C	250 cf Class B, 2% CaCl ₂ 15.6 ppg
INTERMEDIA 5	ATE STR	ING 17#	K55 ST&C	750 cf Class B, 65:35:6 10% salt, .25% dispersant 13.1 ppg 118 cf Class B, 2% CaCl ₂ 15.6 ppg

The above casing design is based upon a 11.0 #/gal mud weight.

EVALUATION

The log surveys (FDC/GR/CAL, Microlog) will be run per attached drilling and completion program.

SAN JUAN BASIN FRUITLAND COAL DEGASIFICATION (DRILL THROUGH WELLS) PRESSURE CONTROL EQUIPMENT

Background

The objective Fruitland Coal formation maximum surface pressure is anticipated to be 1400 PSI, based on completion testing. Pressure control equipment working pressure minimum requirements are therefore 2000 PSI. Equipment to be used will conform to API RP-53 (Figure 2.C.2) for a 2000 PSI system per Federal Onshore Order No. 2. Due to available conventional equipment within the area, 3000 PSI rated pressure control equipment will typically be utilized in a double ram type arrangement. Regional drilling rigs to be utilized have substructure height limitations which exclude use of annular preventers; therefore a rotating head will be installed above these rams. This pressure control equipment will be utilized for conventional drilling below surface to total depth in the Pictured Cliffs.

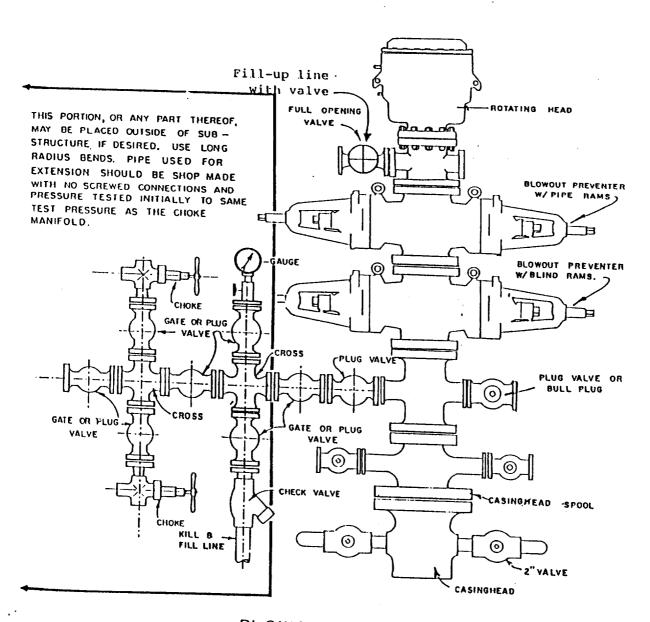
Equipment Specification

Interval
Below Surface Casing
to
Total Depth

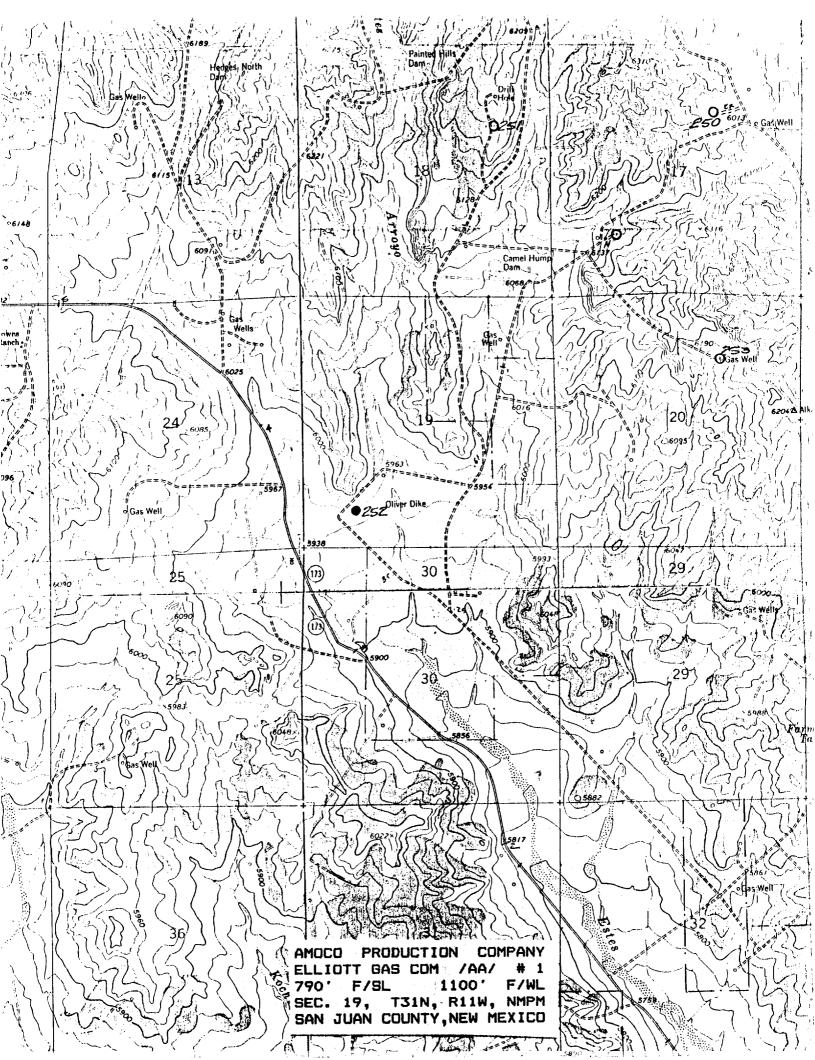
BOP Equipment
12" nominal, 3000 PSI double ram
preventer with rotating head (see
Exhibit No. 1 - BOPE)

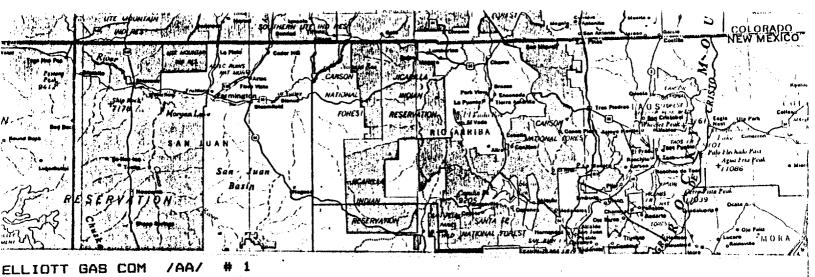
All ram type preventers and related control equipment will be hydraulically tested to 250 PSI (low pressure) and 2000 PSI (high pressure), upon installation, following any repairs or equipment replacements, or at 30 day intervals. Accessories to BOP equipment will include kelly cock, floor safety valves and choke manifold which will also be tested to equivalent pressure.

Please direct any questions to George Gray at (303) 830-5190 in our Denver office.



BLOWOUT PREVENTER HOOKUP





790' F/SL 1100' F/WL
SEC. 19, T31N, R11W, NMPM
RAIL POINT: 147 miles - Montrose, Co
MUD POINT: 4 miles - Artec, MM
CEMENT POINT: 18 miles - Farmeneton, MM

