

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK

DRILL ☒DEEPEN ☐PLUG BACK ☐

b. TYPE OF WELL

OIL
WELL ☐GAS
WELL ☒

OTHER

SINGLE
ZONE ☒MULTIPLE
ZONE ☐

2. NAME OF OPERATOR

AMOCO PRODUCTION COMPANY

3. ADDRESS OF OPERATOR

501 AIRPORT DRIVE, FARMINGTON, NM 87401

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)*

At surface

990' FNL x 1650' FEL, Section 36, T-28-N, R-4-W

At proposed prod. zone

Same

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*

11 miles SE of Gobernador

15. DISTANCE FROM PROPOSED*

LOCATION TO NEAREST

PROPERTY OR LEASE LINE, FT.

(Also to nearest drlg. unit line, if any)

990'

18. DISTANCE FROM PROPOSED LOCATION*

TO NEAREST WELL, DRILLING, COMPLETED,
OR APPLIED FOR, ON THIS LEASE, FT.

2200'

16. NO. OF ACRES IN LEASE

640

19. PROPOSED DEPTH

4300'

17. NO. OF ACRES ASSIGNED
TO THIS WELL

160

20. ROTARY OR CABLE TOOLS

Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.)

7205' est. GL

22. APPROX. DATE WORK WILL START*

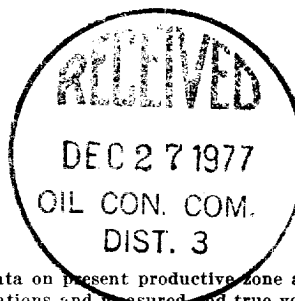
As soon as well permitted

23.

PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12-1/4"	8-5/8"	24#	300'	250 sx
7-7/8"	4-1/2"	10.5#	4300'	1220 sx

The above well is being drilled to further develop the Choza Mesa-Pictured Cliffs Field. The well will be drilled with a low solids non-dispersed mud system. Completion design will be based on open hole logs. This acreage is not dedicated. Additional information required by NTL-6 for the application to drill and a Multi-Point Surface Use Plan are attached.



IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24.

SIGNED

TITLE

Area Engineer

DATE

12/19/77

(This space for Federal or State office use)

PERMIT NO.

APPROVAL DATE

APPROVED BY

TITLE

DATE

CONDITIONS OF APPROVAL, IF ANY:

DEC 21 1977

*See Instructions On Reverse Side

U. S. GEOLOGICAL SURVEY
DURANGO, COLO.

Instructions

General: This form is designed for submitting proposals to perform certain well operations, as indicated, on all types of lands and leases for appropriate action by either a Federal or a State agency, or both, pursuant to applicable Federal and/or State laws and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local, area, or regional procedures and practices, either are shown below or will be issued by, or may be obtained from, the local Federal and/or State office.

Item 1: If the proposal is to redrill to the same reservoir at a different subsurface location or to a new reservoir, use this form with appropriate notations. Consult applicable State or Federal regulations concerning subsequent work proposals or reports on the well.

Item 4: If there are no applicable State requirements, locations on Federal or Indian land should be described in accordance with Federal requirements. Consult local State or Federal office for specific instructions.

Item 14: Needed only when location of well cannot readily be found by road from the land or lease description. A plat, or plats, separate or on this reverse side, showing the roads to, and the surveyed location of, the well, and any other required information, should be furnished when required by Federal or State agency offices.

Items 15 and 18: If well is to be, or has been directionally drilled, give distances for subsurface location of hole in any present or objective production zone.

Item 22: Consult applicable Federal or State regulations, or appropriate officials, concerning approval of the proposal before operations are started.

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.

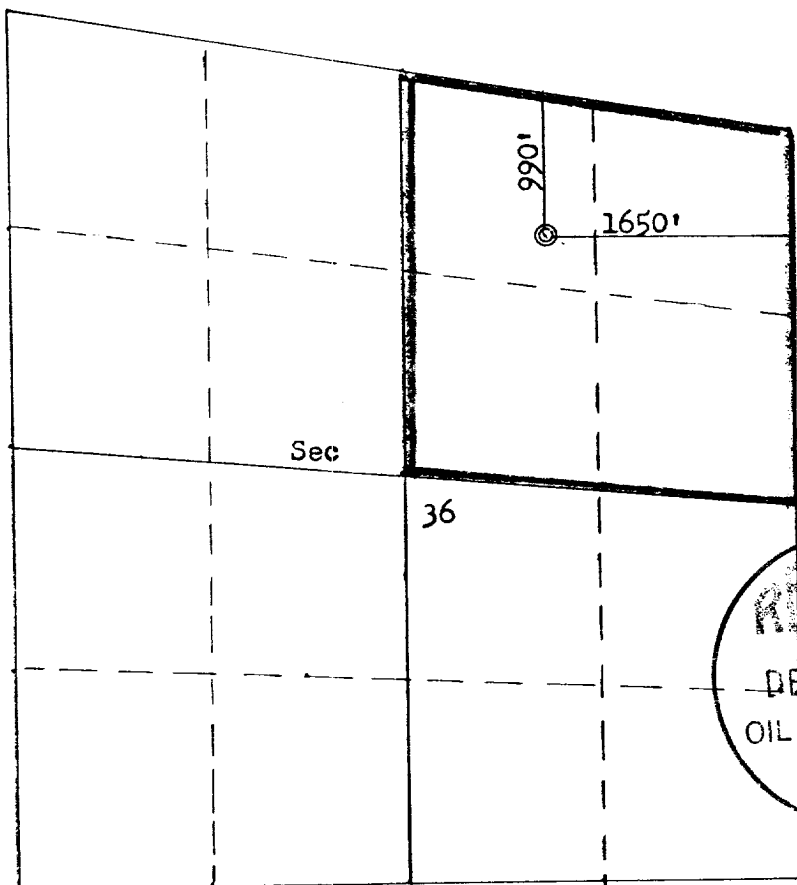
Operator Amoco Production Company		Lease Valencia Canyon Unit		Well No. 20
Unit Letter B	Section 36	Township 28N	Range 4W	County Rio Arriba
Actual Footage Location of Well: 990 feet from the North line and 1650 feet from the East line				
Ground Level Elev. 7205	Producing Formation Pictured Cliffs	Pool Choza Mesa Pictured Cliffs	Dedicated Acreage: 160	Acres

1. Outline the acreage dedicated to the subject well by colored pencil or hachure 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 interests of all owners been consolidated by communitization, unitization, force-pooling, etc?

☐ 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 communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Commission.



SCALE: 1"=1320'

CERTIFICATION	
I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.	
Name	J.L. KRUPKA
Position	AREA ENGINEER
Company	AMOCO PRODUCTION COMPANY
Date	DECEMBER 9, 1977
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	December 3, 1977
Registered Professional Engineer and Land Surveyor	
Fred B. Kerr Jr.	
Certificate No.	3950

SUPPLEMENTAL INFORMATION TO FORM 9-331C
 REQUIRED BY NTL-6
 VALENCIA CANYON UNIT NO. 20
 990' FNL & 1650' FEL, SECTION 36, T-28-N, R-4-W
 RIO ARriba COUNTY, NEW MEXICO

The geologic name of the surface formation is the Paleozoic San Juan.

The estimated tops of important geological formations bearing hydrocarbons are:

<u>FORMATION</u>	<u>DEPTH</u>	<u>ELEVATION</u>
Pictured Cliffs	3995'	+3220'
Lewis Shale	4195'	+3020'
TD	4300'	

Estimated KB Elevation: 7215'

<u>EST. DEPTH</u>	<u>CSG. SIZE</u>	<u>WEIGHT</u>	<u>HOLE SIZE</u>	<u>SACKS CEMENT - TYPE</u>
300'	8-5/8"	24#	12-1/4"	250 sx - Class "B", 2% CaCl ₂ .
<u>4300'</u>	4-1/2"	10.5#	7-7/8"	<u>1120</u> sx - Class "B", 6% Gel, 2# Med. Tuf Plug/sx.
				<u>100</u> sx - Class "B" Neat.

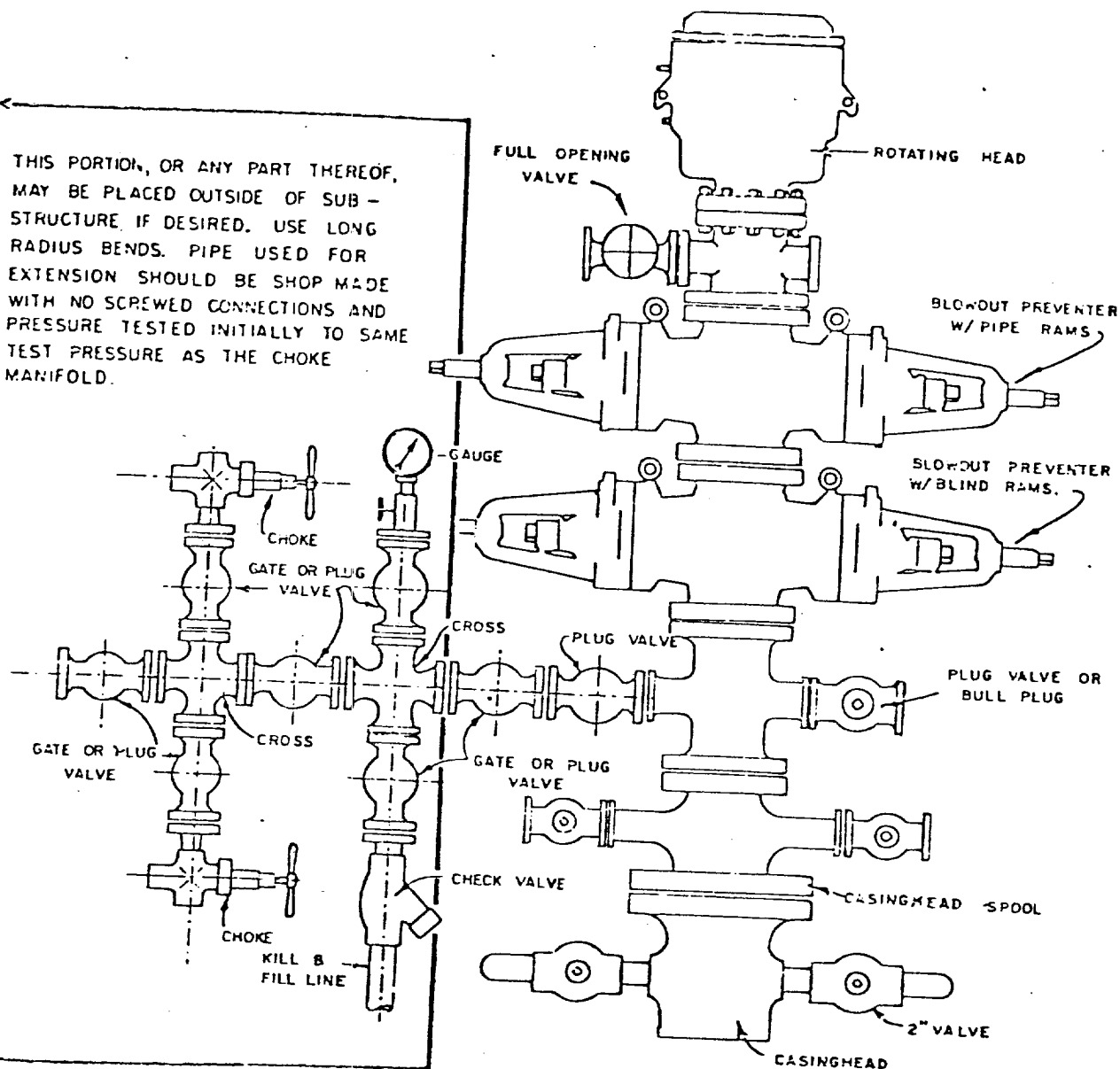
Amoco's standard blowout prevention will be employed; see attached drawing of our blowout preventer design.

Drilling fluid to TD will be a low solids non-dispersed mud system.

Amoco plans to run the following logs: from TD to 300', Induction-Electric; from TD to 2300', Density-Gamma Ray. No Cores or Drill Stem Tests will be taken.

In the past, drilling in this area has shown that no abnormal pressure, temperatures, nor hydrocarbon gas will be encountered.

THIS PORTION, OR ANY PART THEREOF, MAY BE PLACED OUTSIDE OF SUB-STRUCTURE IF DESIRED. USE LONG RADIUS BENDS. PIPE USED FOR EXTENSION SHOULD BE SHOP MADE WITH NO SCREWED CONNECTIONS AND PRESSURE TESTED INITIALLY TO SAME TEST PRESSURE AS THE CHOKE MANIFOLD.



BLOWOUT PREVENTER HOOKUP

MULTI-POINT SURFACE USE PLAN

VALENCIA CANYON UNIT NO. 20
990' FNL & 1650' FEL, SECTION 36, T-28-N, R-4-W
RIO ARriba COUNTY, NEW MEXICO

1. The attached road map and sketch show the proposed route to the location and distances from towns.
2. The planned access road will consist of improving eight-tenths of a mile of road and installing two cattleguards.
3. Existing oil and gas wells within a one mile radius of our proposed well have been spotted on the vicinity map.
4. There is a 210-barrel storage tank and facilities located at Valencia Canyon Unit No. 4 which is spotted on the vicinity map.
5. Water will be hauled from Carrizo Wash or from the El Paso water hole approximately 10 miles on existing roads.
6. No construction materials will be hauled in for this location.
7. Excess mud will be hauled out of the reserve pit and bladed into existing roads. The Forest Ranger will be notified before mud is bladed into roads.
8. There are neither airstrips nor camps in the vicinity.
9. The well site layout, reserve, burn and trash pits are shown on the attached Drill Site Specification Sheet. A 7-foot cut will be necessary on the northwest side of this location.
10. Restoration of the surface will be accomplished by cleaning up and leveling upon completion of the well. Drilling mud will be hauled away and the reserve pit back filled. Reseeding of the site will be carried out as detailed in the attached Seeding Plan.
11. The general topography and soil characteristics are a sandy-clay with various native grasses and sage brush, along with pinon and cedar trees.

Representatives of the U. S. Geological Survey and U. S. Forest Service have inspected the site and found it suitable for drilling. No cultural resources were found when inspected by Ms. Suzanne DeHoff, Archaeologist.
12. A Certification Statement by Amoco's representative is included.