

UNITED STATES
DEPARTMENT OF THE INTERIOR

GEOLOGICAL SURVEY

APPLICATION FOR PERMIT TO DRILL OR PLUG BACK

1a. TYPE OF WORK

DRILL ☒DEEPEN ☐PLUG BACK ☐

b. TYPE OF WELL

OIL
WELL ☒GAS
WELL ☐OTHER ☐SINGLE
ZONED ☒MULTIPLE
ZONED ☐

2. NAME OF OPERATOR

ARCO Oil and Gas Company, Division of Atlantic Richfield Company

3. ADDRESS OF OPERATOR

P. O. Box 5540, Denver, Colorado 80217

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

At surface 1590' FNL & 1460' FEL Unit G

At proposed prod. zone

Approx the same

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

Shiprock, New Mexico approximately 11 miles northeast

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT.
(Also to nearest drlg. unit line, if any) boundary140' to lease line
5516' to unit16. NO. OF ACRES IN LEASE
557.76

18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.

818'

19. PROPOSED DEPTH
1695'17. NO. OF ACRES ASSIGNED TO THIS WELL
40 NA UNIT20. ROTARY OR CABLE TOOLS
Rotary

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

5398' GR

DRILLING OPERATIONS AUTHORIZED ARE

SUBJECT TO COMPLIANCE WITH ATTACHED

22. APPROX. DATE WORK WILL START*

When appr'd app'l rec'd

23.

"GENERAL REQUIREMENTS CONCERNING AND CEMENTING PROGRAM"

This action is subject to administrative

appeal pursuant to 30 CFR 290.

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
17-1/2"	13-3/8"	48.0#	30'	57 sx (67.26 cu.ft.) C1 "B" + add
12-1/4"	8-5/8"	24.0#	140'	105 sx (123.9 cu.ft.) C1 "B" + add
7-7/8"	5-1/2"	14.0#	1200' or 200' below top of Gallup Sand	210 sx (357.15 cu.ft.) C1 "B" + add

Propose to drill well to sufficient depth to test the Gallup formation, setting surface and intermediate casing as above. Logging and setting production casing, perforate, test and treat if necessary, and fracture as required. Will apply to permit this well as a water injection well if it is not an economically productive oil well.

Pursuant to NTL-6, attached are: Certified Location Plat
Drilling Plan with attachments
Surface Use and Operations Plan with attachments

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

W.A. Walther, Jr.

TITLE

Operations Manager

DATE

March 21, 1983

(This space for Federal or State office use)

PERMIT NO.

APPROVAL DATE

APPROVED
AS AMENDED

DATE

APPROVED BY

TITLE

CONDITIONS OF APPROVAL, IF ANY:

H-12 C104 or C108 for NSL

MAY 16 1983

JAMES F. SIMS
DISTRICT ENGINEER

Acting Area Manager

Joint well H-64 #23

sh2

NMDC

OIL CONSERVATION DIVISION

STATE OF NEW MEXICO

P. O. BOX 2048

Form C-107
Revised 10-1-

ENERGY AND MINERALS DEPARTMENT

SANTA FE, NEW MEXICO 87501

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

Operator ARCO OIL & GAS COMPANY			Lease HORSESHOE GALLUP UNIT C		Well No. 300
Unit Letter G	Section 4	Township 30N	Range 16W	County San Juan	
Actual Footage Location of Well: 1590 feet from the North line and 1460 feet from the East line					
Ground Level Elev: 5398	Producing Formation Gallup Sand		Pool Gallup		Dedicated Acreage: Joint with # NA UNIT 90 Acres 233

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.

<div>RECEIVED MAR 20 1983 U.S. GEOLOGICAL SURVEY M.</div>		1590'	
Sec.		1460'	
<div>RECEIVED MAY 17 1983 OIL CON. DIV. DIST. 3</div>		4	

CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.

Name **W. A. Walther, Jr.**

Operations Manager

Position **ARCO Oil and Gas Company**
Division of **Atlantic Richfield**

Company _____

March 17, 1983

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 _____

February 18, 1983

Registered Professional Engineer
and Land Surveyor

Fred B. Kerr Jr.

Certificate No. _____

2050

Section 11-10001

TEN POINT DRILLING PLAN

Attach to APD Form 9-331-C
ARCO Oil and Gas Company
Horseshoe Gallup Unit "C" #300
Section 4-30N-16W
San Juan County, New Mexico

1. Surface Geological Formation: Upper Mancos Shale
2. Estimated Tops of Geological Markers: Gallup Sand - 993'
3. Estimated Tops of Possible Water, Oil, Gas or Minerals:

Upper Mancos Shale Sands - 0-933' Water
Gallup Sand - 933' Oil and/or Water

4. Proposed Casing Program:

<u>Casing</u>	<u>Hole Size</u>	<u>Interval</u>	<u>Section Length</u>	<u>Size OD</u>	<u>Weight Grade and Joint</u>	<u>New Used</u>
Conductor	17-1/2"	0- 30'	30'	13-3/8"	48#, H-40, STC	New or Used
Surface	12-1/4"	30- 140'	110'	8-5/8"	24#, K-55, STC	New
Intermediate		---- None ----				
Production	7-7/8"	140-1200' or +200' below top of Gallup Sd	1060'	5-1/2"	14#, K-55, STC	New
Liner		---- None ----				

Cement Program:

Conductor	Cement w/57 sx Cl "B" + 3% CaCl ₂ . Yield = 1.18 cu ft/sx. Cement w/100% volumetric excess.
Surface	Cement w/105 sx Cl "B" + 2% CaCl ₂ + 1/4#/sx Flocele. Yield = 1.13 cu ft/sx. Cement w/100% open hole volumetric excess.
Intermediate	None
Production	Cement w/10 bbls mud flush (or 200' annular column) foll'd w/135 sx Cl "B" + 12-1/2#/sx Gilsonite + 6% gel + 3/4% CFR-2 (top slurry @ surface). Yield = 1.99 cu ft/sx, foll'd w/75 sx Cl "B" + 1/4#/sx Flocele + 2% CaCl ₂ . Yield = 1.18 cu ft/sx. Use calipered hole ID to calculate lead and tail slurry volumes.

