30-005-21067

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

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OIL CONSERVATION DIVISION

P. O. BOX 2088
SANTA FE, NEW MEXICO 87501

Form C-101
Revised 10-1-78

5A. Indicate Type of Lease: STATE [X] FEE [ ]

5. State Oil & Gas Lease No.: LG 4750-2

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. Type of Work

b. Type of Well: DRILL [X] DEEPEN [ ] PLUG BACK [ ]
OIL WELL [X] GAS WELL [ ] OTHER SINGLE ZONE [X] MULTIPLE ZONE [ ]

7. Unit Agreement Name:

8. Farm or Lease Name: Hanks State 34 ~~35~~ A

2. Name of Operator: ARCO Oil & Gas Company

9. Well No.: 1

3. Address of Operator: Box 1610, Midland, TX 79702

10. Field and Pool, or Wildcat: Wildcat

4. Location of Well: UNIT LETTER J LOCATED 1850 FEET FROM THE South LINE AND 1930 FEET FROM THE East LINE OF SEC. 36 TWP. 15S RGE. 31E NMPM

12. County: Chaves

19. Proposed Depth	19A. Formation	20. Rotary or C.T.
11,200	Canyon	Rotary

21. Elevations (Show whether DF, RT, etc.)	21A. Kind & Status Plug. Bond	21B. Drilling Contractor	22. Approx. Date Work will start
4343.3 GR	GCA #8	Not assigned	9-14-87

23.

PROPOSED CASING AND CEMENT PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	SACKS OF CEMENT	EST. TOP
17-1/2	13-3/8	54.5	500	500	Surface
12-1/4	8-5/8	24,32	4250	1300	Surface
7-7/8	5-1/2	17,15.5	11200	1250	4000

Propose to drill to total depth of 11,200 feet and evaluate three potential zones:

Wolfcamp @ 9,035
Cisco @ 10,050
Canyon @ 10,660

Prognosis and BOP program 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. 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.

Signed Ken W Gosnell Title Engr. Tech. 915/688-5672 Date 9-3-87

(This space for State Use)

APPROVED BY Eddie W. Seay Oil & Gas Inspector TITLE _____ DATE SEP 17 1987

CONDITIONS OF APPROVAL, IF ANY:

Permit Expires 6 Months From Approval Date Unless Drilling Underway.

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	Lease	Well No.
Arco Oil & Gas Co.	Hanks State 36	1

Unit Letter	Section	Township	Range	County
J	36	15 South	31 East	Chaves

Actual Footage Location of Well:
1850 feet from the south line and 1930 feet from the east line

Ground Level Elev.	Producing Formation	Pool	Dedicated Acreage:
4043.3	Canyon	Wildcat	40 Acres

1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.

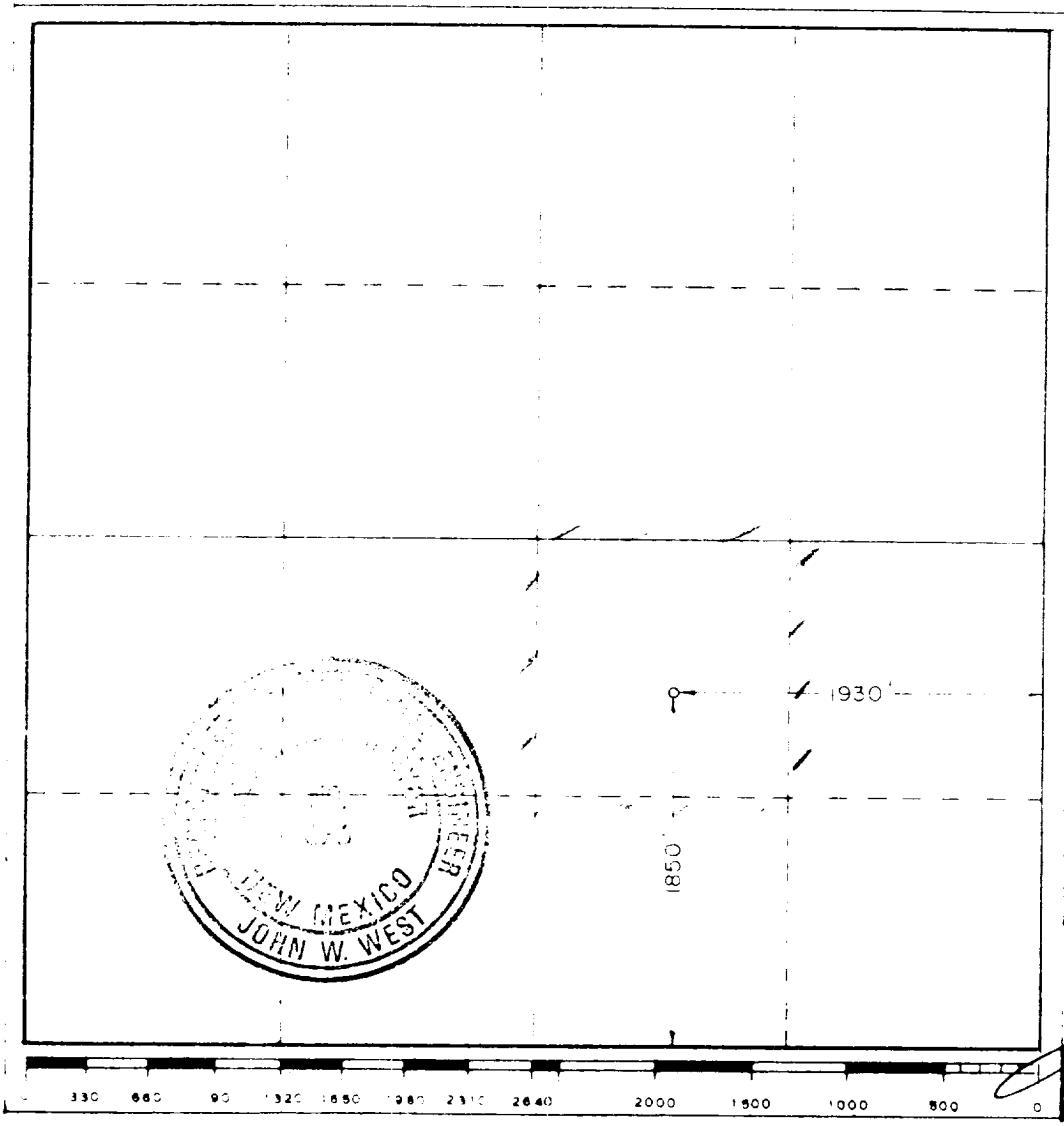
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).

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.



CERTIFICATION

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

Name: Ken W. Gosnell

Position: Engr. tech.

Company: ARCO Oil & Gas Co.

Date: 9-3-87

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:

Registered Professional Engineer and/or Land Surveyor

Certificate No. JOHN W. WEST 676
RONALD J. EIDSON 3239

Drilling Prognosis

Well name
Hank State "36" No. 1

Date
Revised August 10, 1987

Authorization numbers

District or province
Central District - North Area

Location
1700' FSL and 1700' FEL, Section 36-T15S-R31E

Chaves County, New Mexico

Objectives
Wolfcamp @ 9035', Cisco @ 10,050', Canyon @ 10,660'

Total vertical depth
11,000'

Total measured depth
11,000'

Elevation
Record GL and RKB Elevations on 1st Daily Drilling Report

Estimated formation tops

Base of Salt	- 2400'	Glorieta	- 5717'	Cisco	- 10,050'
Yates	- 2530'	Tubb	- 6925'	Canyon	- 10,660'
Queen	- 3386'	Abo	- 7775'	Proposed TD	- 11,000'
San Andres	- 4223'	Wolfcamp	- 9035'		

Well design

Conductor
20", 94# conductor pipe set @ ±40' GL and grouted to surface with redimix.

Surface casing - 17-1/2" Hole - 0 - 500'

13-3/8", 54.5#, K-55, STC — Cemented to surface with ±500 sxs Class "C" cement w/2% $CaCl_2$ (volumes based on 100% excess

Protective casings and liners - 12-1/4" Hole - 500' - 4250'

8-5/8", 24#, K-55, STC 0 - 3000'
8-5/8", 32#, K-55, STC* 3000' - 4250'

*Special drifted to 7-7/8"

Cemented to surface with ±1200 sxs "Lite" cmt followed by 100 sxs Class "H" cement (volumes based on 50% excess)

Production casing - 7-7/8" hole - 4250' - 11,000'

5-1/2", 17#, K-55, BTC 0-2000'
5-1/2", 15.5#, K-55, LTC 2000' - 8500'
5-1/2", 17#, L-80, LTC 8500' - 11,000'

Cemented to 4000' in two stages (DV @ 8800')
1st stage - 600 sxs Cl "H" cmt w/FLA (API FL 250c
2nd stage - 600 sxs "Lite" cmt followed by 50 sxs Class "H" cmt

Production liner

Casinghead
13-3/8" weld-on x 13-5/8", 3000 psi WP casinghead
13-5/8", 3000 psi WP x 11", 3000 psi WP casing-spool
11", 3000 psi WP x 7-1/16", 5000 psi WP tubinghead

Mud program

0-500'	Fresh water Gel-Lime Spud Mud
500'-4250'	Fresh water/Native Mud converted to ±10.0 ppg SBW @ ±1400' (Top of evaporite interval)
4250'-8800'	Fresh water
8800'-TD	LSND-Drispac-XC Polymer Cut Brine Water System - WT-9.0-9.2 ppg, API FL 10-1

Logging program

OPEN HOLE		CASED HOLE
DLL/MSFL/SP/GR	TD - 500'	CBL/VDL/CCL/GR - TD - 4000'
CNL/LDT/GR/Caliper	TD - 500'	
BHCS/GR/Caliper	TD - 500'	

Coring program

One 60', 4" core cut in the productive intervals below ±9000'

Drill stem tests

One open-hole drill stem test anticipated in the productive interval below ±9000' as warranted by drilling breaks and shows

Samples

10' samples from base of the salt zone at ±2400' to TD*

Fluid samples

Send all fluid samples recovered during production testing to laboratory for chemical analysis

Mud logging

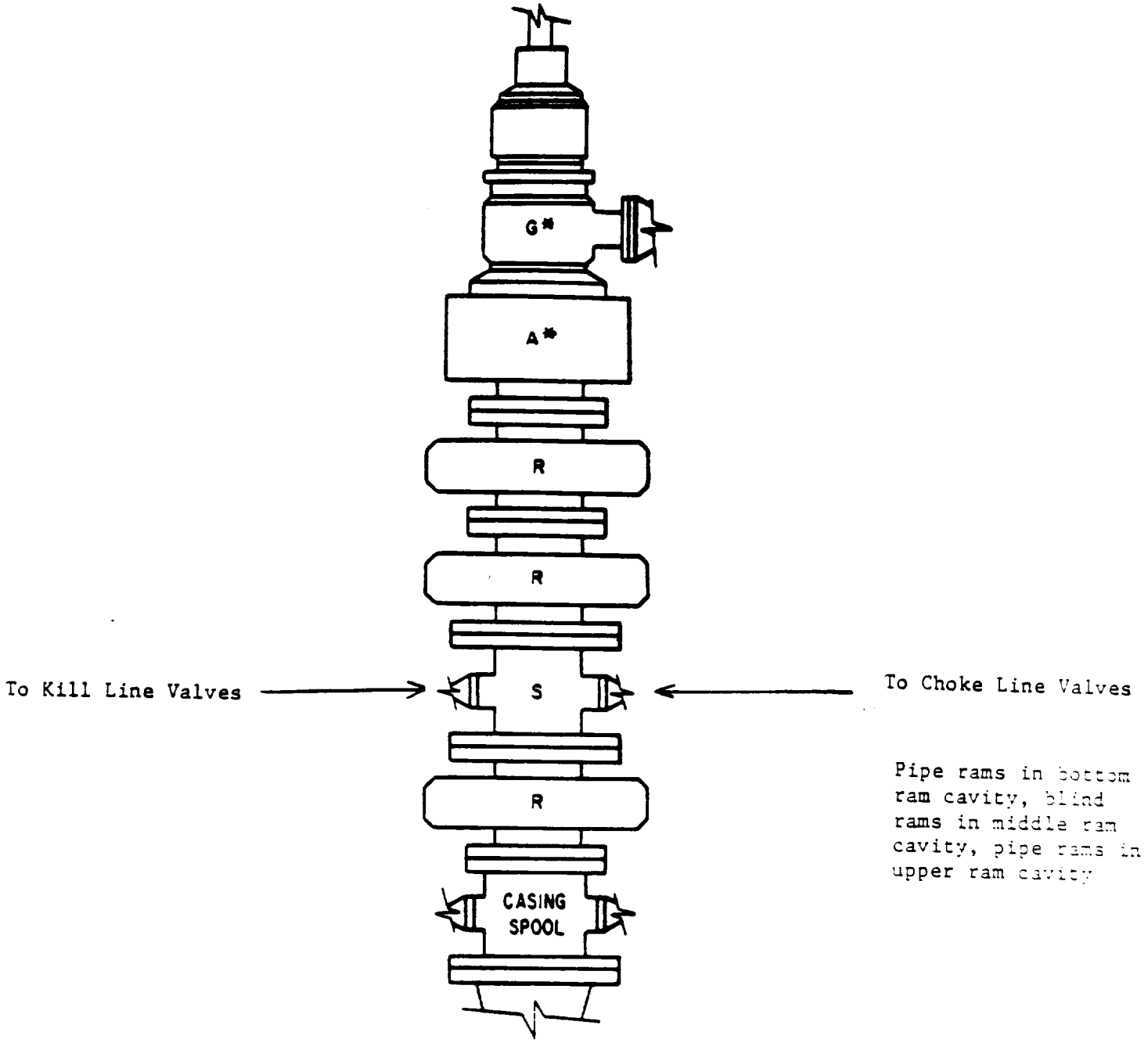
Two-Man Unit from 2400' to TD*

Evaluation

Based on the results of open-hole DST's and log evaluation, expect one zone will be tested through 2-7/8", 6.5#, L-80, EUE-8rd tubing in 5-1/2" production casing. A small acid (±2500 - 5000 gallons) stimulation is also anticipated.

Completion

Well will be completed as a single producer through 2-7/8" tubing based on the results of production testing and the engineering and production departments' recommendation.



Pipe rams in bottom ram cavity, blind rams in middle ram cavity, pipe rams in upper ram cavity

ARRANGEMENT RSRRA"G"
Double Ram Type Preventers.
R_d. Optional.

5000 psi BOP Stack

RSR_dAG