

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

ARCO Oil & Gas Company

3. ADDRESS OF OPERATOR

Division of Atlantic Richfield

Suite 501

1860 Lincoln Street, Denver, Colorado 80295

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

At surface

985' FSL & 1530' FEL Section 27-28N-11W

At proposed prod. zone

Approximately Same

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

5 1/2 miles South of Broomfield, New Mexico

15. DISTANCE FROM PROPOSED*

LOCATION TO NEAREST
PROPERTY OR LEASE LINE, FT.

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

1530'

18. DISTANCE FROM PROPOSED LOCATION*

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

950'

16. NO. OF ACRES IN LEASE

2566.96

19. PROPOSED DEPTH

6500'

17. NO. OF ACRES ASSIGNED
TO THIS WELL

E 1530/320

20. ROTARY OR CABLE TOOLS

Rotary

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

5651 GL. Ungraded

22. APPROX. DATE WORK WILL START*
When approved application
rec'd/Approx. 1-20-80

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 OD	24#	300'	300 sx
7 7/8	4 1/2 OD	10.5#	T.D.	500 sx

Propose to drill well to a depth sufficient to test the Dakota Formation, setting surface casing and if productive setting production casing. If the Dakota Formation is productive will perforate, test and treat if necessary.

Pursuant to the provisions of NTL-6 attached are: Certified Location Plat
Drilling Plan with attachment
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

CS Latta for W.A.N.

TITLE Operations Manager

DATE

12-14-79

(This space for Federal or State office use)

PERMIT NO.

APPROVAL DATE

APPROVED BY

TITLE

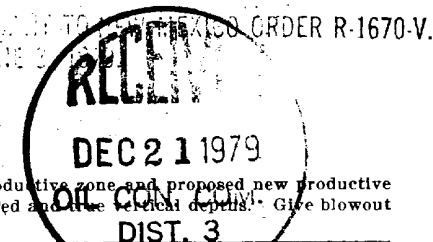
DATE

CONDITIONS OF APPROVAL, IF ANY:

DRILLING OPERATIONS AUTHORIZED ARE
SUBJECT TO COMPLIANCE WITH ATTACHED
"GENERAL REQUIREMENTS"

ack Smith

NADCCC



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.

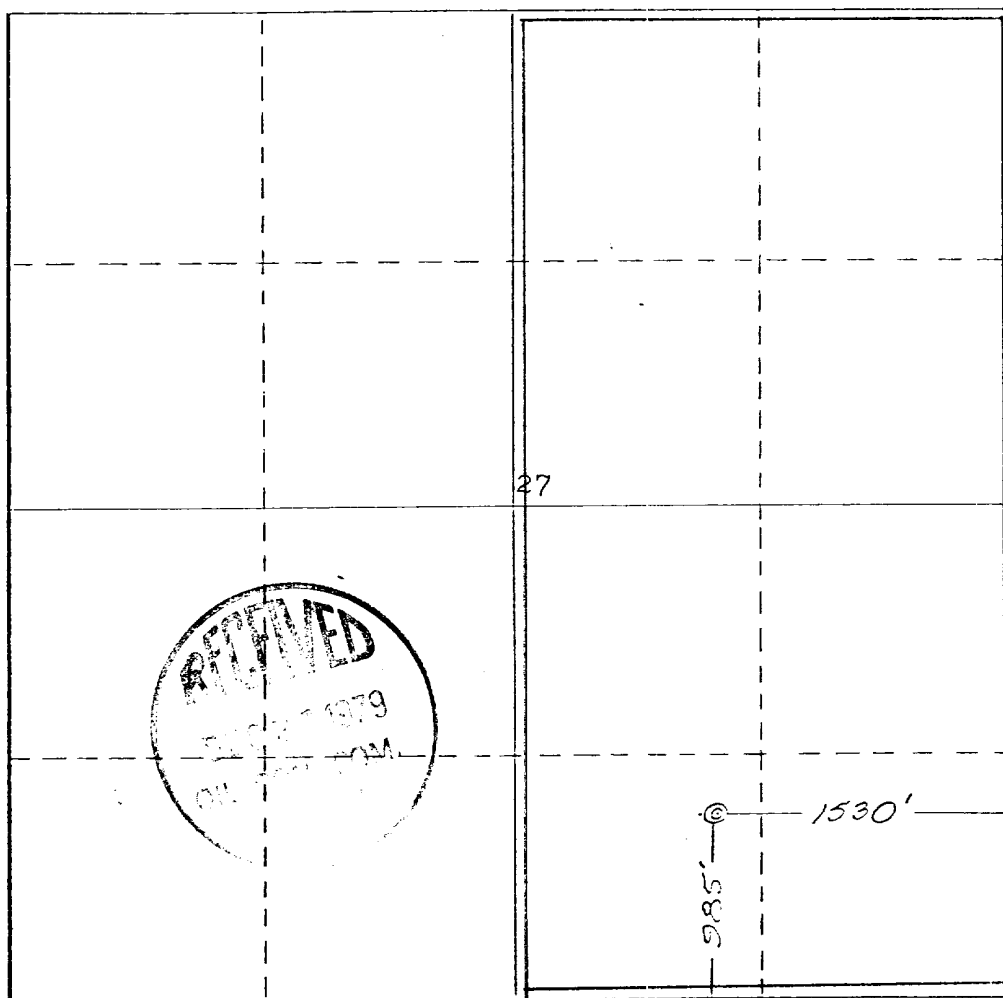
Operator ARCO OIL & GAS COMPANY			Lease SCHLOSSER WN FEDERAL		Well No. 3 E
Unit Letter 0	Section 27	Township 28 NORTH	Range 11 WEST	County SAN JUAN	
Actual Footage Location of Well: 985 feet from the SOUTH line and 1530 feet from the EAST line					
Ground Level Elev. 5651	Producing Formation Paleota		Pool Busin	Dedicated Acreage: 320 Acres	

1. Outline the acreage dedicated to the subject well by colored pencil or hatchure 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 *C. S. Hatch* for NAM
Position
Operations Manager
Company ARCO Oil & Gas Co.
Div. of Atlantic Richfield Co.
Date

12-12-79

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.

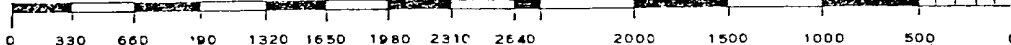
Date Surveyed
October 29, 1979

Registered Professional Engineer
and/or Land Surveyor

James P. Leese
James P. Leese

Certificate No.

1463



DRILLING PLAN

SCHLOSSER WN FEDERAL #3E
SE¼ SECTION 27-T28N-R11W
San Juan County, New Mexico

1. SURFACE FORMATION: Tertiary

2. GEOLOGICAL MARKERS:

Kirtland	999'	Upper Mancos	4247'
Fruitland	1351'	Gallup	5147'
Pictured Cliffs	1553'	Lower Mancos	5685'
Lewis	1631'	Greenhorn	5933'
Chacra	2483'	Graneros	5995'
Cliff House	3097'	Dakota	6110'
Point Lookout	3957'	Morrison	6340'

3. ANTICIPATED MINERAL BEARING FORMATIONS:

Fruitland	(Poss. Gas)
Pictured Cliffs	(Poss. Gas)
Cliff House	(Poss. Gas)
Gallup	(Poss. Gas)
Dakota	(Poss. Oil/Gas)

4. CASING PROGRAM:

Surface	to	300'	8-5/8" 24# K55 ST&C,
Production	to	T.D.	4-1/2" 10.5# K55, ST&C

5. CONTROL EQUIPMENT: Blowout Preventor - Ram Type, hydraulic operated
Rams - Two: One blind ram and one pipe ram.
Series - 900 (3000#WP, 6000#T)
Manufacturer - Cameron or Shaffer
Pressure test at 1000 psi prior to drilling out of casing string.
Operational checks to be made daily and on trips.
Sketch attached.

6. DRILLING FLUIDS:

0	to	300'	Gel and lime to drill surface hole and set casing.
300'	to	T.D.	Low solids non-dispersed 9.0-9.1#gal., 38-45 vis., WL 8 cc or less.

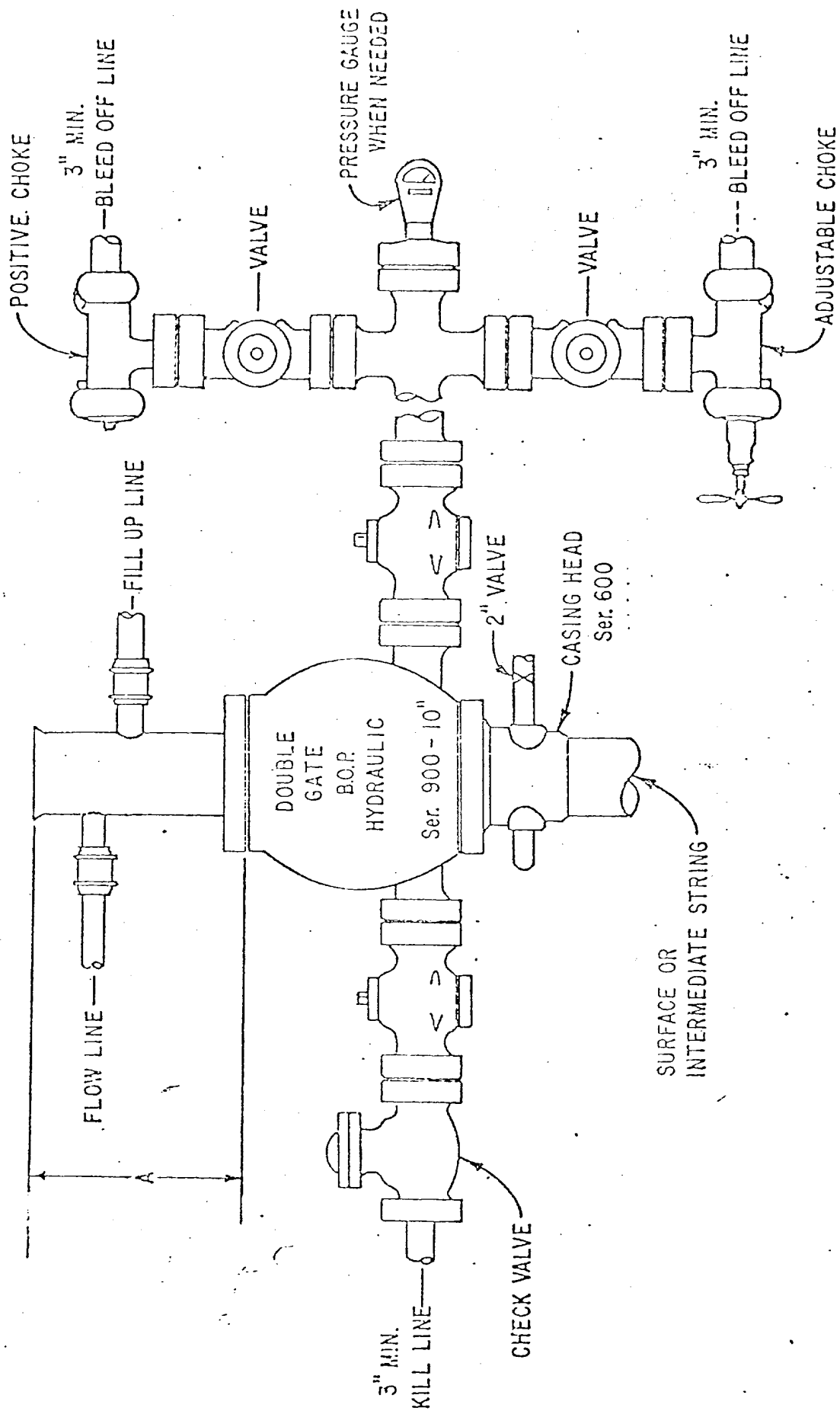
7. AUXILIARY EQUIPMENT: Kelly cock
Sub on floor with full opening valve for use in drill pipe when Kelly is not in the string.

8. TESTING, LOGGING AND CORING: At this time no drill stem tests or cores are planned. However, hole conditions and information obtained while drilling may alter these plans.

9. ABNORMAL PRESSURES, TEMPERATURES, POTENTIAL HAZARDS: There are no abnormal pressures, temperatures or potential hazards in the area. The maximum anticipated pressure is 3600 psi. Weight material will be maintained on location at all times.

10. STARTING DATE - COMPLETION: Dirtwork and road work for this location will require 2 or 3 days. Moving in and rigging up 2 to 3 days. Drilling and completion will require approximately 30 days, for a total of 36 days. In the event of bad weather or other delays this time could be considerably extended.

NTL-6 indicates a minimum of 30 days are required to obtain District Engineer's approval, in which case operations on this well could not be commenced until approximately January 20, 1980. Depending upon rig availability, equipment, weather, etc., this starting date could be extended.



SURFACE USE AND OPERATIONS PLAN

SCHLOSSER WN FEDERAL #3E
SE $\frac{1}{4}$ Section 27-T28N-R11W
N.M.P.M., San Juan County, New Mexico

1. EXISTING ROADS: A portion of topographic map is attached showing the existing roads within a one (1) mile radius of the location (colored green). Main access will be from Broomfield, New Mexico approximately 5 $\frac{1}{2}$ miles north. None of the existing roads will require any improvement. However, due to road conditions, weather, etc., these roads will be maintained to whatever extent is required.
2. PLANNED ACCESS ROAD: The planned access road will leave the existing road approximately 1500 feet east of this location. The road will be approximately 18' wide (sufficient to handle drill equipment). The grade will not exceed 8%. There will be no cattle-guards, culverts, fence cuts, etc.
3. LOCATION OF EXISTING WELLS: Existing wells within one (1) mile radius of this location are shown on the attached map.
4. EXISTING AND/OR PROPOSED FACILITIES: ARCO Oil & Gas Company, Division of Atlantic Richfield Company has 2 existing wells within the one (1) mile radius of this location, they are:

Schlosser WN Federal #8 SW SW SECTION 27-T28N-R11W
Schlosser WN Federal #4 NE NE SECTION 34-T28N-R11W

The above wells each have 1-300 bbl storage tank and production unit which is located approximately 150' from the well head and is connected to the well with a buried gas line.

There are numerous other Schlosser WN Federal wells proposed for this area, but due to the drilling rig availability it is not possible at this time to anticipate which wells will be drilled prior to the drilling of this well. The production facilities for this well will be similar to the above wells.

5. WATER SUPPLY: It is anticipated that water will be obtained from the San Juan River approximately five (5) miles north of this location. The water will be trucked over New Mexico Highway 44, existing roads and the planned access road in item number 2 above.
6. CONSTRUCTION MATERIALS: None anticipated.
7. WASTE DISPOSAL: Cuttings and drilling fluids will be disposed of in the reserve pit. A trash or burn pit will be used to dispose of trash, garbage, etc. If the reserve pit is sufficiently dry when the well is completed, both the reserve and trash pit will be filled. If the reserve pit is not sufficiently dry when the well is completed it will be fenced for the protection of livestock and wildlife to be filled at such time when it is sufficiently dry.

Produced fluids will be disposed of in the reserve pit. Any oil accumulation on the reserve pit during drilling and completion operations will be skimmed off and held in a temporary storage tank for later disposition. Trash and debris cleanup will be commenced as soon as the completion rig moves out.

8. ANCILLARY FACILITIES: None are proposed.
9. WELL SITE LAYOUT: Per the attached sketches. The reserve pit will be approximately 100' by 100' and will be unlined.
10. RESTORATION OF SURFACE: Other than the area needed for operation and production facilities the site will be contoured as near as possible to its original state. Reseeding or any other restoration will be as specified by the Bureau of Indian Affairs and the United States Geological Survey. Any stockpiled topsoil will be distributed over the disturbed area for final grading and reseeded.
11. OTHER INFORMATION: Vegetation in this area consists of very sparse amounts of rabbit brush, yucca, sage brush, mormon tea, and a few scrub cedars. Drainage is to the east into Kutz Canyon and on to the San Juan River. This location will require a 20 cut on the south side and a 15 fill on the north east side.

The V door of the rig will be to the northeast with the pits on northwest side.

11. (Con't.) The nearest dwelling is 4 miles north and 1 mile east along Highway 44.

To the best of our knowledge there are no domestic water wells in the area.

To our knowledge there are no archaeological, cultured, or historical sites in the area which will be involved. However, an archaeological survey will be made and the report submitted as soon as it is received.

With the short period of operation and the restoration of the surface, any disturbance to vegetation and wildlife will be temporary and minimal. It is not anticipated that there will be any substantial impact on the environment.

12. LESSEE'S OR OPERATOR'S REPRESENTATIVE:

W. A. Walther, Jr.
(303) 575-7031
575-7153

C. E. Latchem
(303) 575-7127
575-7152

B. J. Sartain
(303) 575-7035
770-7849

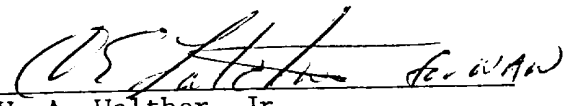
ARCO Oil and Gas Company
Division of Atlantic Richfield Company
Suite 501
1860 Lincoln Street
Denver, Colorado 80295

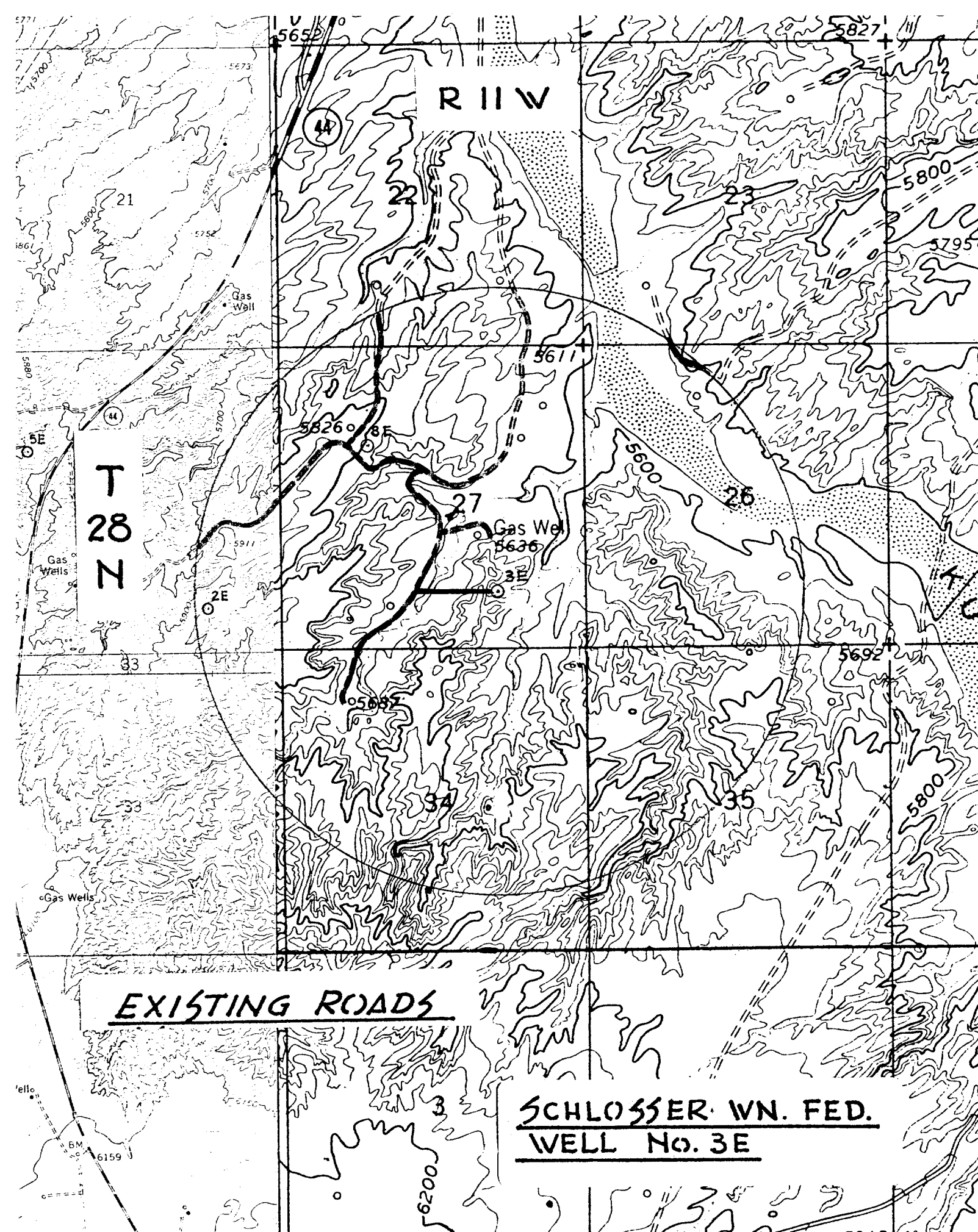
LOCAL REPRESENTATIVE:

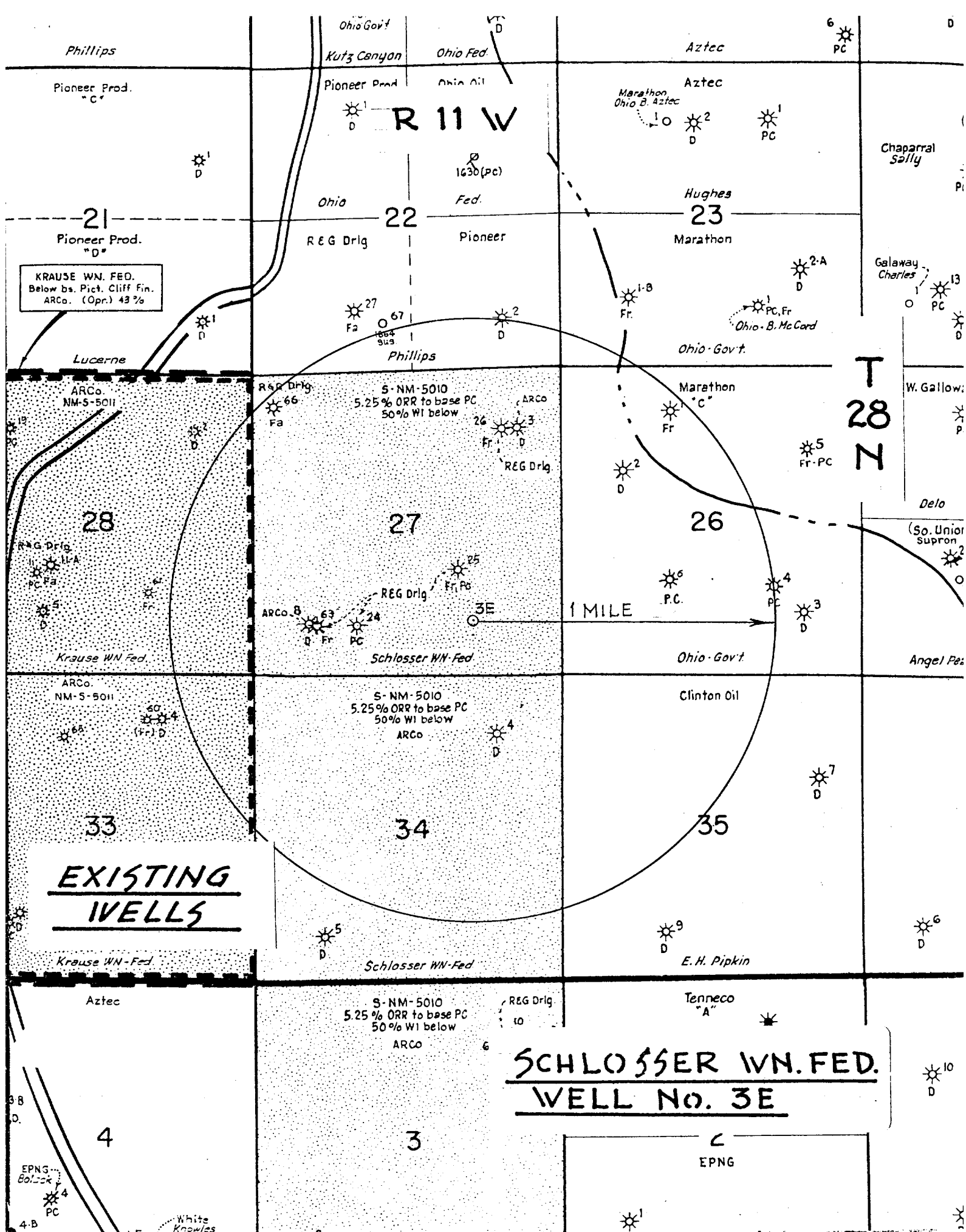
J. E. Taylor
ARCO Oil and Gas Company
Division of Atlantic Richfield Company
P. O. Box 2197
Farmington, New Mexico 87401
(505) 325-7527
325-7968

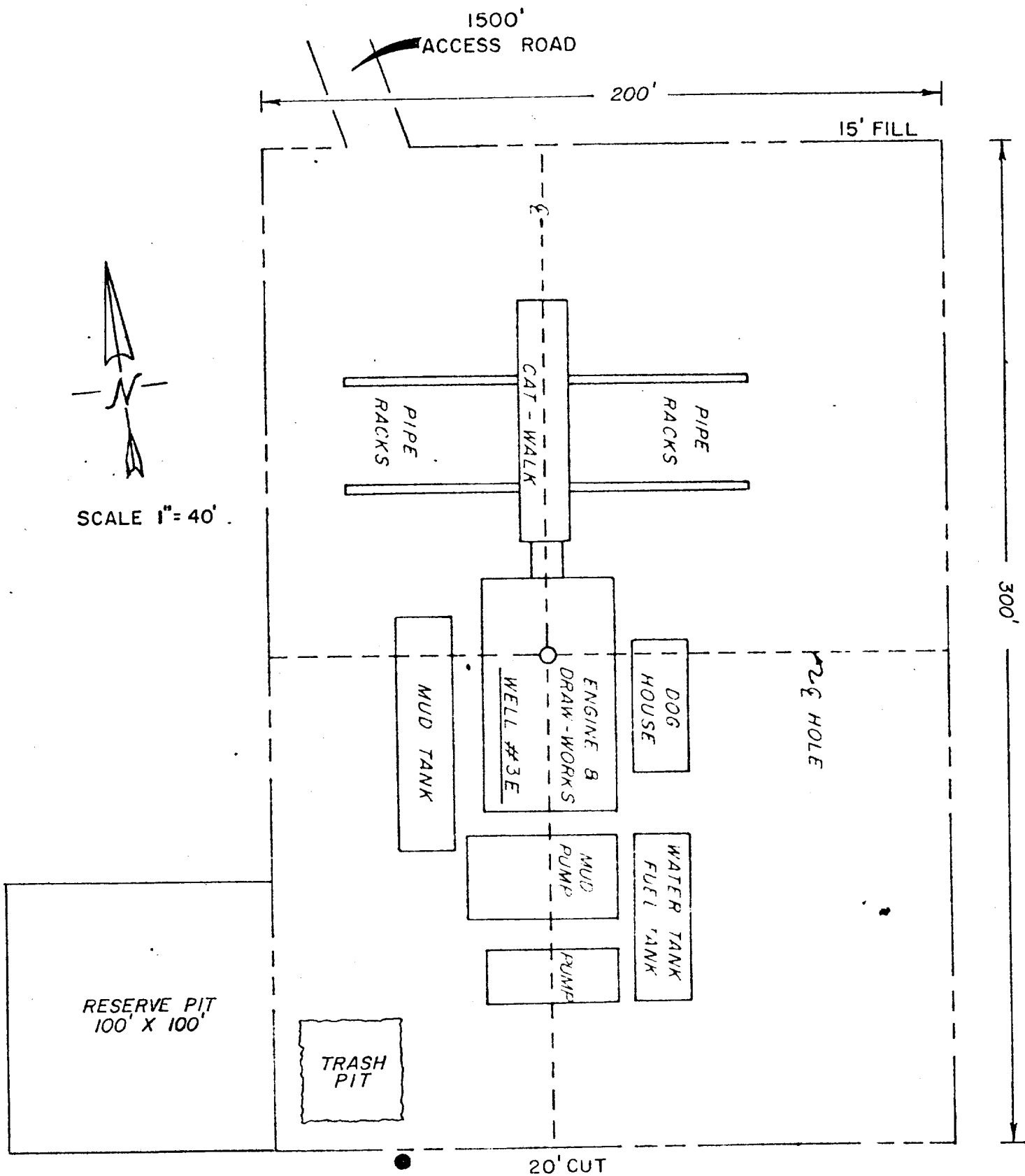
- 13 CERTIFICATION: I hereby certify that I, or persons under my direct supervision have inspected the proposed drill site and access route; that I am familiar with the conditions which presently exist, that the statements made in this plan are to the best of my knowledge true and correct; and that the work associated with the operations proposed herein will be performed by ARCO Oil and Gas Company, Division of Atlantic Richfield Company and its contractors and sub contractors in conformity with this plan and the terms and conditions under which it is approved.

12-14-79
DATE

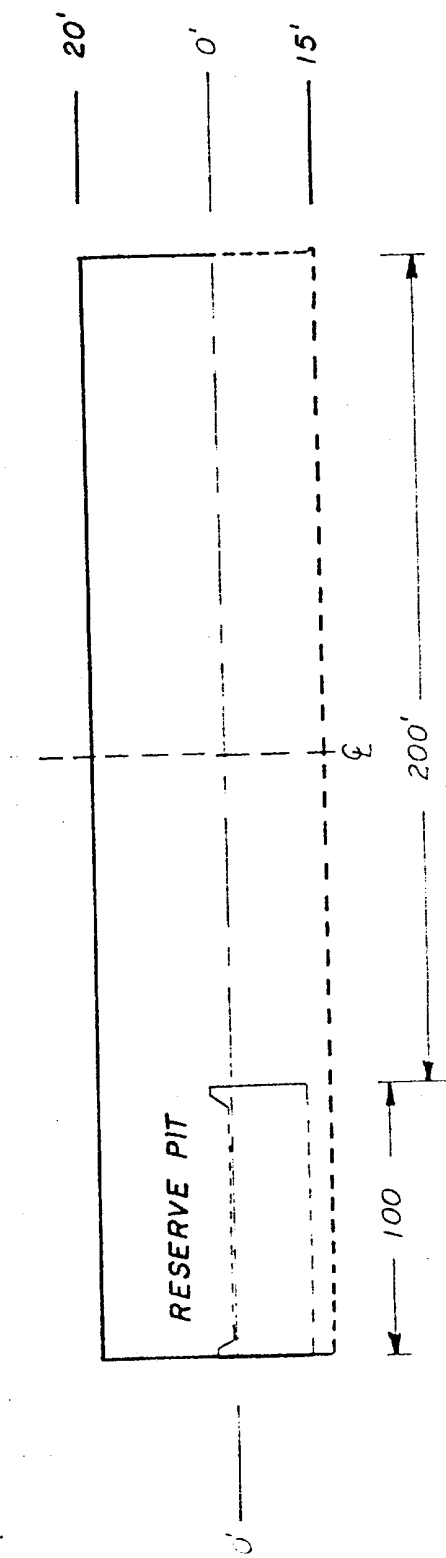

W. A. Walther, Jr.
Operations Manager



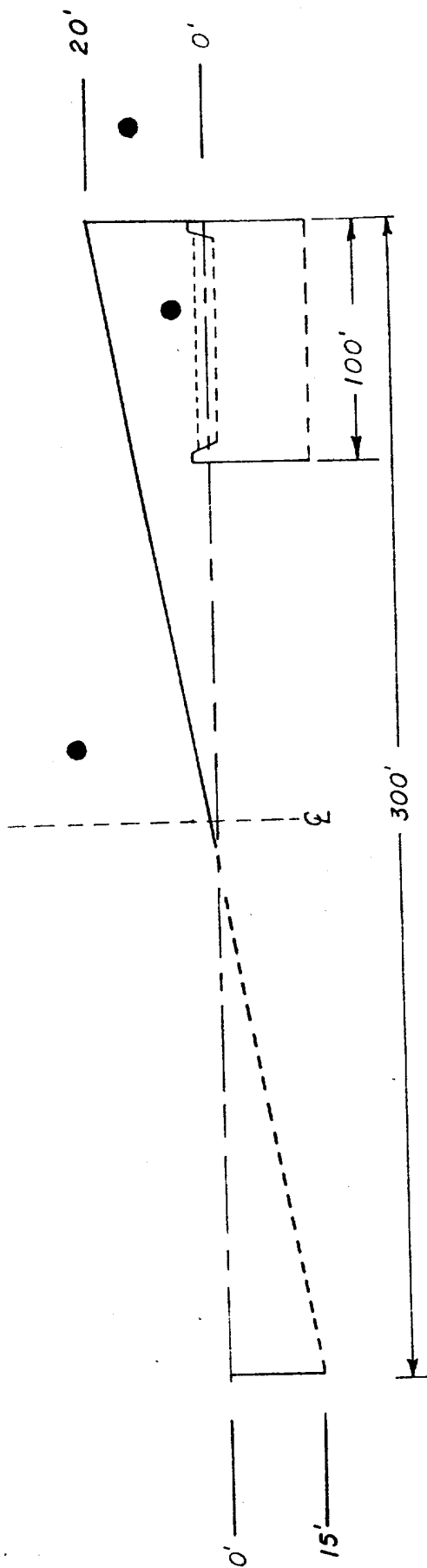




SCHLOSSER WN FEDERAL No. 3 E
985' FSL, 1530' FEL, Sec. 29-27 N-11 W



SOUTHWEST TO NORTHEAST



NORTHWEST TO SOUTHEAST

SCHLOSSER WN FEDERAL
WELL No 3 E

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUNDRY NOTICES AND REPORTS ON WELLS

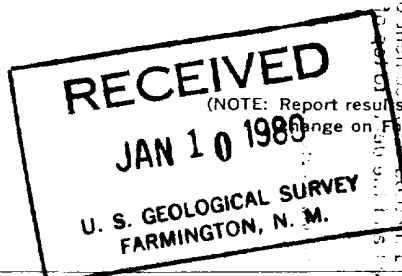
(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir. Use Form 9-331-C for such proposals.)

1. oil ☐ well gas ☒ well other ☐
2. NAME OF OPERATOR ARCO Oil & Gas Company
Division of Atlantic Richfield Company
3. ADDRESS OF OPERATOR Suite 501
1860 Lincoln Street, Denver, Colorado
4. LOCATION OF WELL (REPORT LOCATION CLEARLY. See space 17 below.)
AT SURFACE: 985' FSL & 1530' FEL Section 27
AT TOP PROD. INTERVAL:
AT TOTAL DEPTH: Approximately same
16. CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

REQUEST FOR APPROVAL TO:

SUBSEQUENT REPORT OF:

- TEST WATER SHUT-OFF ☐
- FRACTURE TREAT ☐
- SHOOT OR ACIDIZE ☐
- REPAIR WELL ☐
- PULL OR ALTER CASING ☐
- MULTIPLE COMPLETE ☐
- CHANGE ZONES ☐
- ABANDON* ☐
- (other) Change in well plan.



5. LEASE
SF 078673
6. IF INDIAN, ALLOTTEE OR TRIBE NAME
No
7. UNIT AGREEMENT NAME
None
8. FARM OR LEASE NAME
Schlosser WN Federal
9. WELL NO.
3E
10. FIELD OR WILDCAT NAME
Basin Dakota
11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
Section 27-T28N-R11W
12. COUNTY OR PARISH
San Juan
13. STATE
New Mexico
14. API NO.
15. ELEVATIONS (SHOW DF, KDB, AND WD)
5651 GL Ungraded

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

Revised Application as to the following:

- 1.) Set surface casing thru Ojo Alamo Formation and cement across the Ojo Alamo.
- 2.) Attached is a revised copy of the Drilling Plan to show change in casing plan and surface formation.
- 3.) Attached is a copy of a Plat showing the location of Well #3 and the proposed well.

Subsurface Safety Valve: Manu. and Type _____

18. I hereby certify that the foregoing is true and correct

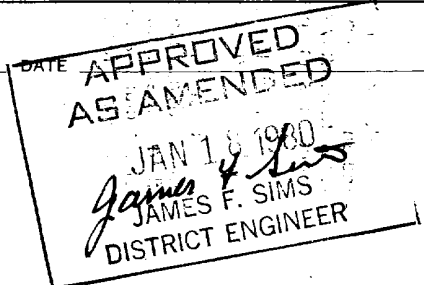
SIGNED [Signature] TITLE Operations Manager DATE JAN 9 1980

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____
CONDITIONS OF APPROVAL, IF ANY:

ok Fred

*See Instructions on Reverse Side



DRILLING PLAN

SCHLOSSER WN FEDERAL #3E
SE¼ SECTION 27-T28N-R11W
San Juan County, New Mexico

1. SURFACE FORMATION: Tertiary - Poison Canyon
2. GEOLOGICAL MARKERS:

Ojo Alamo	439'		
Kirtland	999'	Upper Mancos	4247'
Fruitland	1351'	Gallup	5147'
Pictured Cliffs	1553'	Lower Mancos	5685'
Lewis	1631'	Greenhorn	5933'
Chacra	2483'	Graneros	5995'
Cliff House	3097'	Dakota	6110'
Point Lookout	3957'	Morrison	6340'
3. ANTICIPATED MINERAL BEARING FORMATIONS:

Fruitland	(Poss. Gas)
Pictured Cliffs	(Poss. Gas)
Cliff House	(Poss. Gas)
Gallup	(Poss. Gas)
Dakota	(Poss. Oil/Gas)
4. CASING PROGRAM:

Surface	to	600' 8-5/8" 24# K55 ST&C,
Production	to	T.D. 4-1/2" 10.5# K55, ST&C
5. CONTROL EQUIPMENT: Blowout Preventor - Ram Type, hydraulic operated
Rams - Two: One blind ram and one pipe ram.
Series - 900 (3000#WP, 6000#T)
Manufacturer - Cameron or Shaffer
Pressure test at 1000 psi prior to drilling out of casing string.
Operational checks to be made daily and on trips.
Sketch attached.
6. DRILLING FLUIDS:

0	to	600' Gel and lime to drill surface hole and set casing.
600'	to	T.D. Low solids non-dispersed 9.0-9.1#gal., 38-45 vis., WL 8 cc or less.
7. AUXILIARY EQUIPMENT: Kelly cock
Sub on floor with full opening valve for use in drill pipe when Kelly is not in the string.
8. TESTING, LOGGING AND CORING: At this time no drill stem tests or cores are planned. However, hole conditions and information obtained while drilling may alter these plans.
9. ABNORMAL PRESSURES, TEMPERATURES, POTENTIAL HAZARDS: There are no abnormal pressures, temperatures or potential hazards in the area. The maximum anticipated pressure is 3600 psi. Weight material will be maintained on location at all times.
10. STARTING DATE - COMPLETION: Dirtwork and road work for this location will require 2 or 3 days. Moving in and rigging up 2 to 3 days. Drilling and completion will require approximately 30 days, for a total of 36 days. In the event of bad weather or other delays this time could be considerably extended.

NTL-6 indicates a minimum of 30 days are required to obtain District Engineer's approval, in which case operations on this well could not be commenced until approximately January 20, 1980. Depending upon rig availability, equipment, weather, etc., this starting date could be extended.

WELL LOCATION AND ACREAGE DEDICATION PLAT

Supersedes C-121
Effective 1-1-65

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

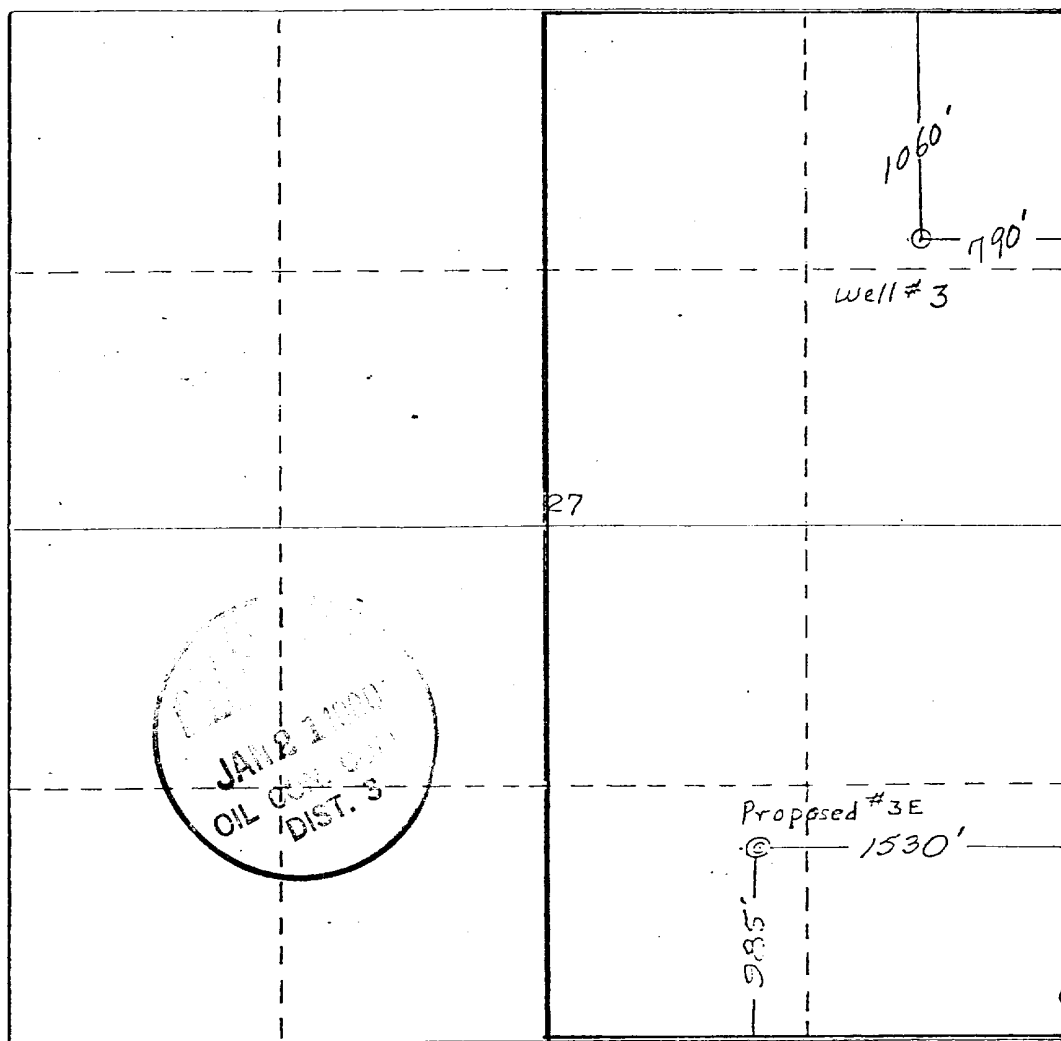
Operator: ARCO OIL & GAS COMPANY			Lease: SCHLOSSER WN FEDERAL		Well No. 3 E
Unit Letter 0	Section 27	Township 28 NORTH	Range 11 WEST	County SAN JUAN	
Actual Footage Location of Well:					
985 feet from the SOUTH line and		1530 feet from the EAST line			
Ground Level Elev. 5651	Producing Formation		Pool	Dedicated Acreage: Acres	

1. Outline the acreage dedicated to the subject well by colored pencil or hatchure 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.

James P. Leese
for N.A.

Position
Operations Manager
Company ARCO Oil & Gas Co.
Div. of Atlantic Richfield
Date

12-12-79

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
October 29, 1979

Registered Professional Engineer
and/or Land Surveyor

James P. Leese
James P. Leese

Certificate No.

1462

✓

<u>DEPTH</u>	<u>DEGREES</u>
3975'	1
4487'	1-1/4
4497'	1-3/4
5146'	1-1/4
5763'	1-3/4
6225'	1

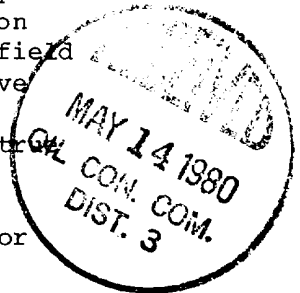
This is to certify that to the best of my knowledge the above tabulation details the deviation tests taken on ARCO Oil and Gas Company, Division of Atlantic Richfield Company's Schlosser WN Federal Well Number 3E, Basin Dakota Field, 985' FSL & 1530' FEL, Section 27-T28N-R11W, San Juan County, New Mexico.

K. L. Flinn
Operations Information Assistant

Before me, the undersigned authority, on this day personally appeared, K. L. Flinn, known to me to be the Operations Information Assistant for ARCO Oil and Gas Company, Division of Atlantic Richfield Company, and to be the person whose name is subscribed to the above statement, who, being dully sworn on oath, states that she has knowledge of the facts stated herein, and that said statement is true and correct.

Subscribed and sworn to before me, a Notary Public in and for
said County and State this 12th day of May, 1980.

10-9-81



Katherine K. Wilson