

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

30-045-23214

5. LEASE DESIGNATION AND SERIAL NO.
SF-078510

6. IF INDIAN, ALLOTTEE OR TRIBE NAME
-

7. UNIT AGREEMENT NAME
-

8. FARM OR LEASE NAME
Blanco

9. WELL NO.
1

10. FIELD AND POOL, OR WILDCAT
Blanco-Mesaverde

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
5-31N-8W

12. COUNTY OR PARISH
San Juan

13. STATE
New Mexico

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
Atlantic Richfield Company

3. ADDRESS OF OPERATOR
501 Lincoln Twr. Bldg., 1860 Lincoln St., Denver, Colo. 80295

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

1650' FNL & 1650' FEL Section 5 (SW NE) (Unit G)
At proposed prod. zone
Approx. Same

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*
1 1/4 miles Southwest of Ignacio, Colorado

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any)
1650' f/lease line

16. NO. OF ACRES IN LEASE
2207.19

17. NO. OF ACRES ASSIGNED TO THIS WELL
E/2 320.88

18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT. NE/4 Sec. 6
Approx. 4900' f/well in

19. PROPOSED DEPTH
6110'

20. ROTARY OR CABLE TOOLS
Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.)
6579' GR (Ungraded)

22. APPROX. DATE WORK WILL START*
Dirt work when appl. rec'd.
Est. Sep. 30, 1978

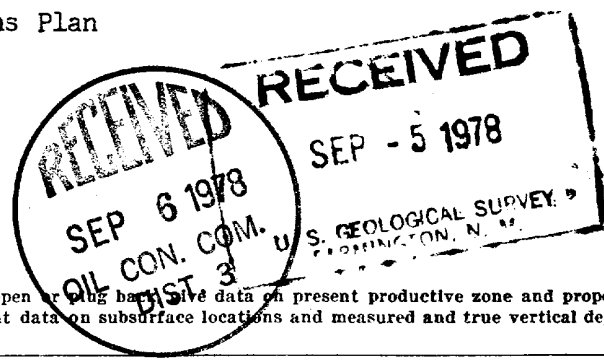
23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
13-3/4"	9-5/8" OD	36#	250'	250 sx.
8-3/4"	7" OD	23#	3875'	300 sx.
6-1/4"	4 1/2" OD Liner	10.5#	f/3725'-T.D.	250 sx.

Propose to drill well to depth sufficient to test the Mesaverde formation. If productive set 4 1/2" OD liner at T. D., perforate productive intervals, treat if necessary, and complete.

Attached are: Well Location and Acreage Dedication Plat
Drilling Plan
Surface Use and Operations Plan

gas not identified



IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, give pertinent 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 [Signature] TITLE Operations Manager DATE September 1, 1978

(This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE _____

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

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.

★ U.S. GOVERNMENT PRINTING OFFICE: 1974-781-025/VIII-239

NEW MEXICO OIL CONSERVATION COMMISSION
WELL LOCATION AND ACREAGE DEDICATION PLAT

Form O-102
Supersedes O-12P
Effective 1-1-65

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

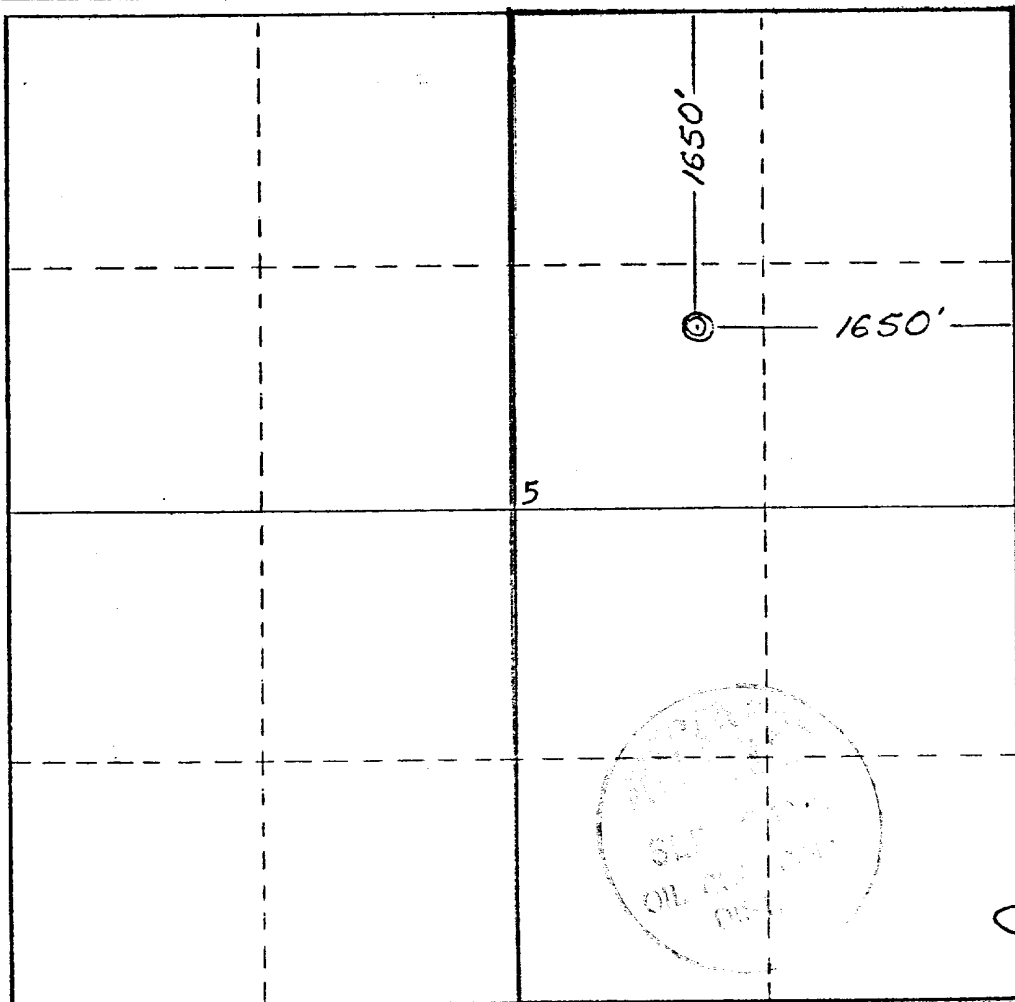
Operator THE ATLANTIC RICHFIELD COMPANY			Lease BLANCO		Well No. 1
Unit Letter G	Section 5	Township 31 NORTH	Range 8 WEST	County SAN JUAN	
Actual Footage Location of Well: 1650 feet from the NORTH line and 1650 feet from the EAST line					
Ground Level Elev. 6579	Producing Formation Mesaverde		Pool Blanco	Dedicated Acreage: E/2 320 <i>88</i> acres	

- Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.
- If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
- 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? **N/A 100% Atlantic Richfield Company**

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

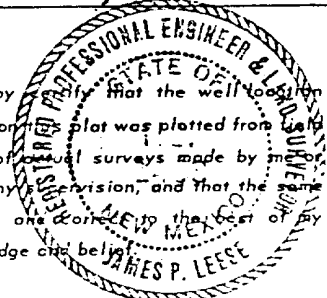
I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.

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

Position
Operations Manager
Company
Atlantic Richfield Company

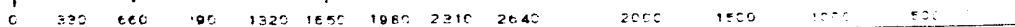
Date
September 1, 1978

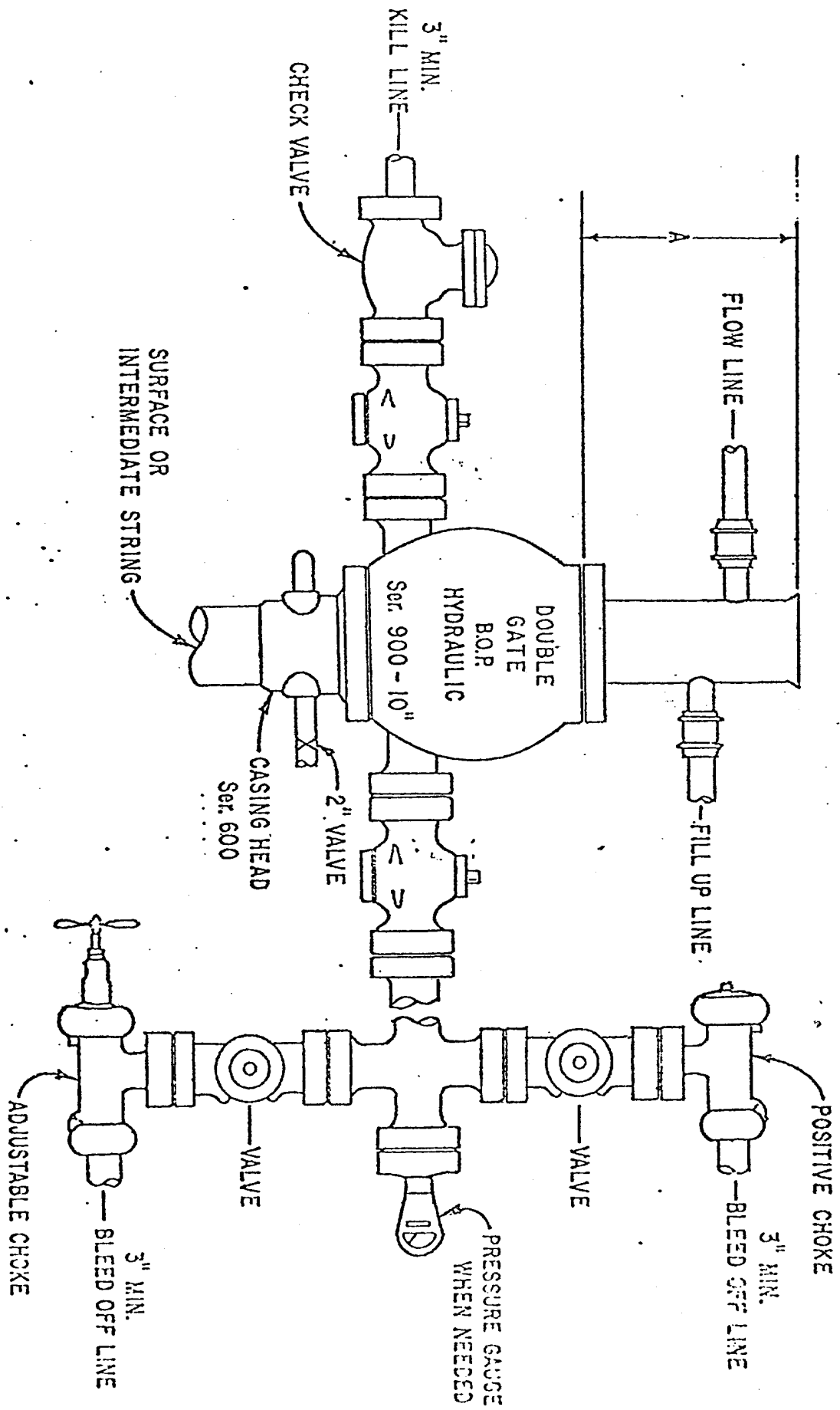
I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.



Date Surveyed
17 August 1978
Registered Professional Engineer
Land Surveyor
James P. Leese
James P. Leese

Certificate No. **1463**





DRILLING PLAN

Blanco Well No. 1
SW NE Section 5-31N-8W
San Juan County, New Mexico

1. Surface Formation: Tertiary - Wasatch

2. Geologic Markers: Pictured Cliffs 3525'
Lewis Shale 3735'
Mesaverde
Cliff House 5150'
Menefee 5550'
Point Lookout 5840'
Upper Mancos 6025'

3. Anticipated Mineral Bearing Formations:

Pictured Cliffs (Poss Gas) 3525'
Mesaverde
Cliff House (Poss Gas) 5150'
Menefee (Poss Gas) 5550'
Point Lookout (Poss Gas) 5840'
Upper Mancos (Poss Gas) 6025'

4. Casing Program: Surface 250' 9-5/8" 36# K55 ST&C New
Intermediate 3875' 7" 23# K55 ST&C New
Liner From 3725' to T. D. 4 1/2" 10.5# K55 ST&C New

5. Control Equipment: Blowout Preventer - 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 @ 1000 psi prior to drilling out of casing string.
Operational checks to be made daily and on trips.
Rotating Head - Type 50 Shaffer or equivalent.
Sketch Attached.

6. Drilling Fluid: 0-250' Gel and lime to drill surface hole and set casing.
250'-3875' Gel-Chem to maintain hole and set intermediate casing.
3875'-T.D. Gas drill.

7. Auxiliary Equipment: Kelly cock
Sub on floor with full opening valve for use in drill pipe when kelly is not in the string.
Drill pipe float while gas drilling.

8. Testing, Logging, Coring: At this time no drill stem tests or cores are planned. Hole conditions or information obtained while drilling may alter these plans.

Logs: Intermediate - IES	TD - Surf. Csg. 2" & 5" = 100'
CNL-FDC/GR	TD - 2000' 2" & 5" = 100'
T.D. to base 7" casing:	
Dual Ind. w/GR	2" & 5" = 100'
SW Neutron	2" & 5" = 100'
Fm. Dens.	2" & 5" = 100'

9. Abnormal Pressures, Temperatures, Potential Hazards: There are no abnormal pressures, temperatures or potential hazards in the area. The maximum anticipated pressure is 1000 psi. Weight material will be maintained on location and BOP will be pressure tested and kept in good working condition.

10. Starting Date - Completion: We are currently utilizing one drilling rig to drill our wells in this area. Depending upon approval of our application for permit to drill and availability of equipment, drilling operations could be commenced approximately September 30, 1978 and the well could be completed about November 10, 1978.

SURFACE USE AND OPERATIONS PLAN

Blanco Well Number 1
SW NE Section 5-31N-8W
San Juan County, New Mexico

1. Existing Roads: A portion of the Navajo Dam, New Mexico Quadrangle is attached with existing roads colored green. Main access would be from Blanco, New Mexico, approximately 15.5 miles east on State Highway 511 to Navajo Dam. From Navajo Dam proceed approximately 11.5 miles north and northwest on the "Ignacio Highway" to a turn off in the northern part of Section 33-32N-8W. Turn southwest approximately 1.8 miles as shown on the attached map. Approximately 1000' of this existing road will require improvement prior to using it for the movement of drilling equipment.
2. Planned Access Road: The planned access road will leave the existing road in Section 5-31N-8W and will be approximately 1300' in length traveling in a southeast direction. This planned access road will be approximately 30' in width sufficient to handle drilling equipment. No grades are anticipated in excess of 8%. Grading will be kept to a minimum and very little alteration of the natural drainage of the area is expected. There will be no major cuts, fills, culverts, turnouts, gates or cattle-guards. The area is a sandy type soil and no special surfacing material will be required.
3. Existing Wells: As shown on the attached map.

Atlantic Richfield Company Jacquez Well #1 NE NE Section 6-31N-8W
Atlantic Richfield Company Jacquez Well #1A SE SE Section 6-31N-8W
4. Existing and or Proposed Facilities:

Each of the above Atlantic Richfield Company wells is equipped with a Production Unit which are located approximately 100-125' from the well and are connected to the well with a buried gas line. The gas gathering company connects at the Production Unit.

This well is proposed as a Mesaverde single completion. The anticipated facilities would include one production unit erected on a pad approximately 18' x 24' (incl. small drain pit). The unit will be erected on concrete piers and connected to the well head with buried gas line approximately 125' from the well. The drain pit will be fenced for protection of wildlife and livestock.

The area not required for facilities or operation of the well, will be contoured as near as possible to the original contours and restored as directed by the Bureau of Land Management and the United States Geological Survey.
5. Water Supply: It is anticipated that it will be necessary to obtain water from the Pine River near La Boca, Colorado. The water will be trucked and no new roads (other than 2 above) will be required.
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 pit and trash pit will be filled upon completion of the well, and the reserve pit will be fenced to be filled when sufficiently dry.

Any produced fluids will be disposed of in the reserve pit. Any oil accumulations on the reserve pit during drilling and completion will be skimmed and disposed of immediately after the completion rig is moved off. Oil produced during completion will be held in a temporary tank for later disposition. Trash and debris cleanup will commence as soon as the completion rig moves out, and final cleanup and contouring will begin as soon as possible.

SURFACE USE AND OPERATIONS PLAN (CON'T)

8. Ancillary Facilities: None are proposed.
9. Well Site Layout: Per the attached sketch. The reserve pit which will be approximately 50' x 125', will be unlined.
10. Restoration of Surface: Upon completion of the well, the drill site will be cleaned, rat and mouse holes filled, and trash pit filled. If sufficiently dry, the reserve pit will be filled. If not, any oil accumulation will be removed and the pit fenced for protection of livestock and wildlife. Other than the area needed for operation and production facilities, the site will be contoured as near as possible to its original state. Gas line ditch will be backfilled and the access road graded for proper drainage and minimum surface damage. Reseeding, or any other restoration, will be as specified by the Bureau of Land Management. Any topsoil will be stockpiled for distribution over the disturbed area upon final grading and for reseeded.
11. Other Information: The area of this location slopes to the south and west. Reserve pit will be on west side of location. A 15 to 20' fill required on south and west side and a 20 to 25' cut on east side of location. The surface is sand and clay. It is very rough with large sand rock and rock boulders. The nearest dwelling is approximately 5 miles north in La Boca, Colorado.

The lands involved are Federal lands in a gas field. There is sheep and cattle grazing in the area. To our knowledge there are no archaeological, historical or cultural sites which will be involved, however, an archaeological survey report will be submitted.

With the short period of operations 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.
Atlantic Richfield Company
1860 Lincoln Street, Suite 501
Denver, Colorado 80295
Phone: (303) 573-4049
(303) 798-5729

B. J. Sartain
Atlantic Richfield Company
1860 Lincoln Street, Suite 501
Denver, Colorado 80295
Phone: (303) 573-4053
(303) 770-7849

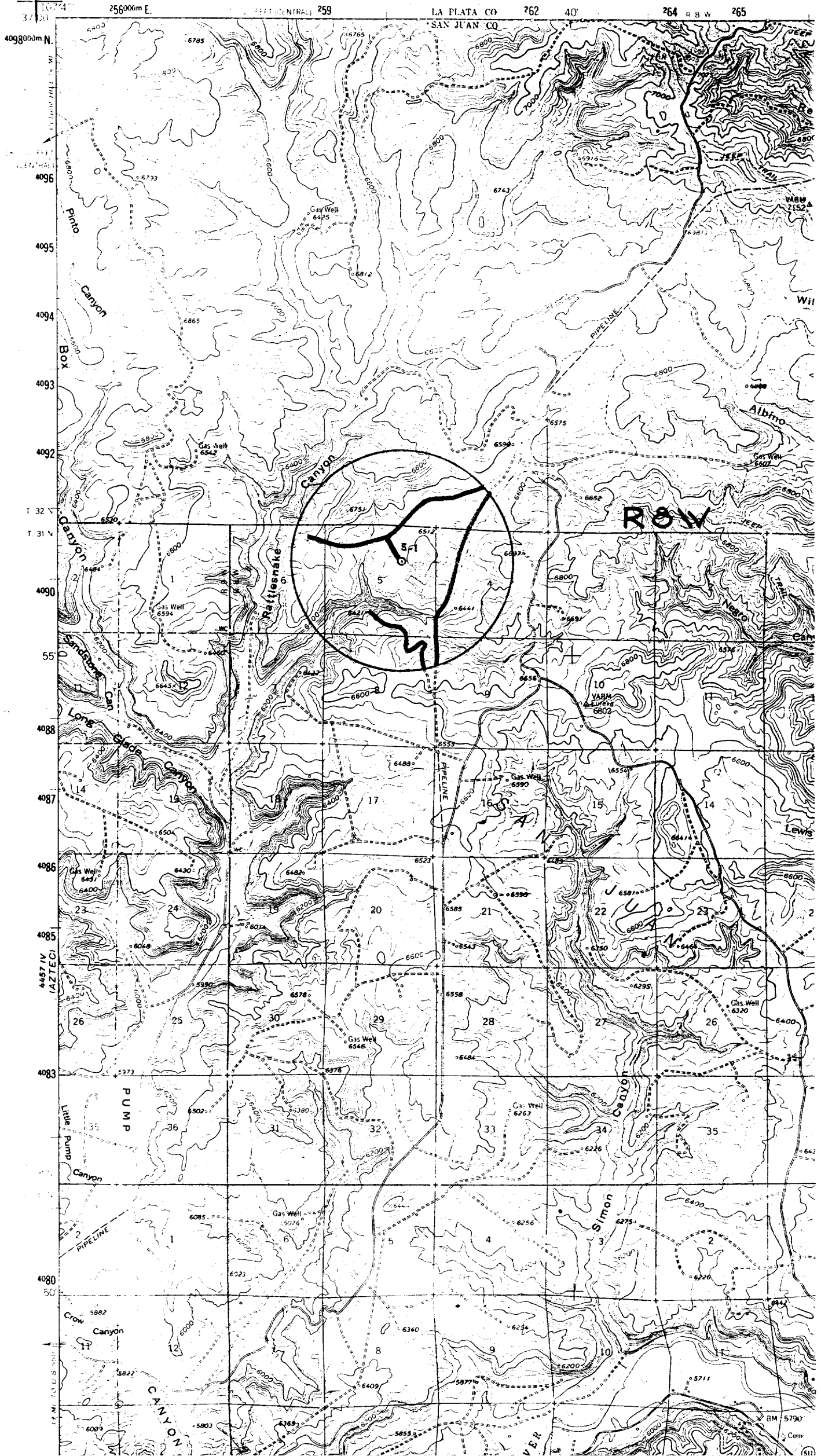
Local Representative: Mr. J. E. Taylor
Atlantic Richfield Company
P. O. Box 2197
Farmington, New Mexico 87401
Phone: (505) 325-7527
(505) 325-7968

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 Atlantic Richfield Company and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved.

September 1, 1978
Date


W. A. Walther, Jr.
Operations Manager

UNITED STATES
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GEOLOGICAL SURVEY



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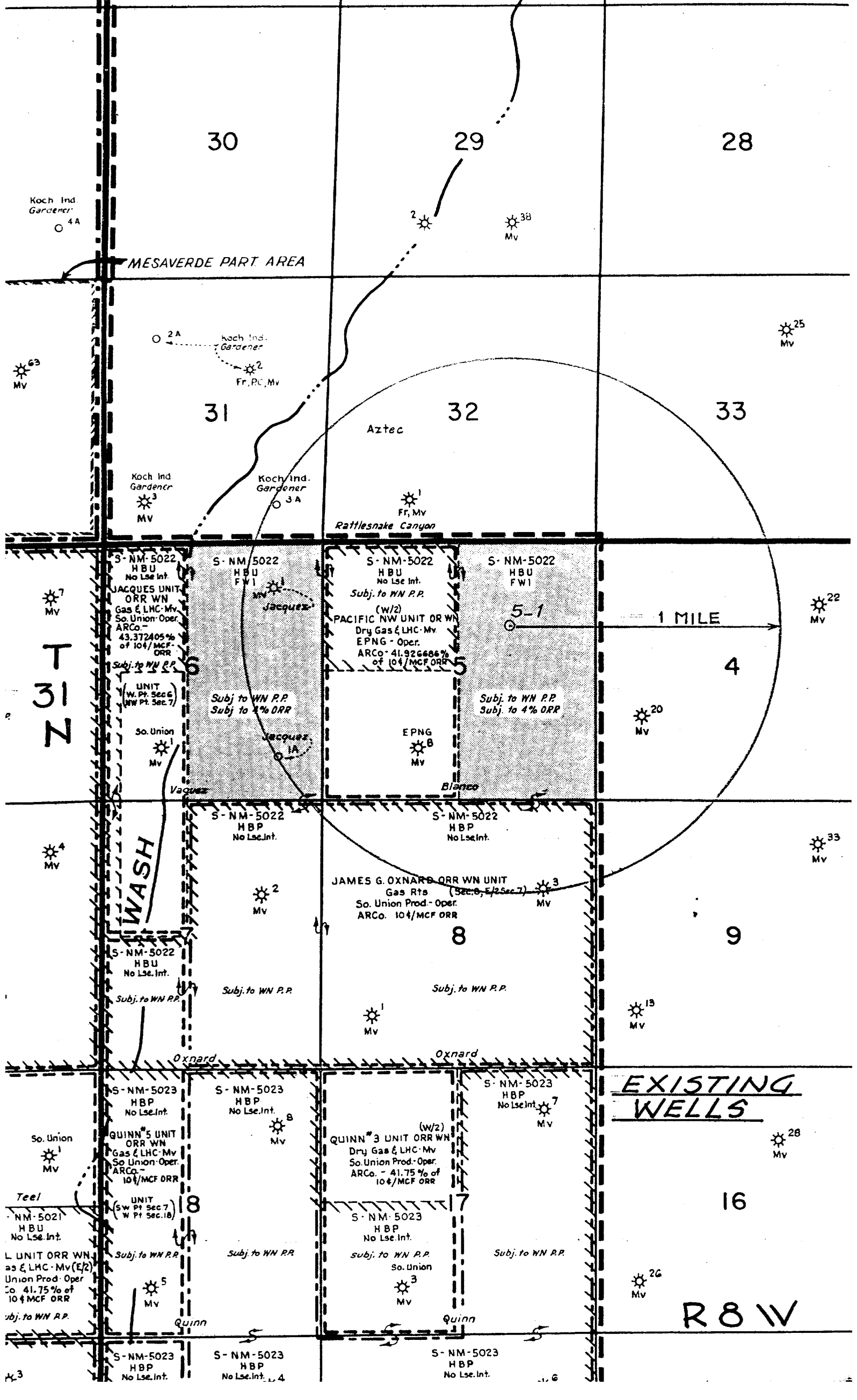
ROW

4457 IV
(AZTEC)

4080

50

1 P.M. TO U.S. GEOLOGICAL SURVEY



30

29

28

MESAVERDE PART AREA

31

32

33

Aztec

Rattlesnake Canyon

1 MILE

T
31
N

WASH

EXISTING WELLS

R 8 W

S-NM-5022
HBU
No Lse Int.
JACQUES UNIT
ORR WN
Gas & LHC-Mv
So. Union Oper.
ARCo -
43.372405%
of 104/MCF ORR
Subj. to WN P.P.

S-NM-5022
HBU
FWI
Subj. to WN P.P.
Subj. to 4% ORR

S-NM-5022
HBU
No Lse Int.
Subj. to WN P.P.
(w/2)
PACIFIC NW UNIT ORR WN
Dry Gas & LHC-Mv
EPNG - Oper.
ARCo - 41.926666%
of 104/MCF ORR

S-NM-5022
HBU
FWI
5-1
Subj. to WN P.P.
Subj. to 4% ORR

S-NM-5022
HBP
No Lse Int.

S-NM-5022
HBP
No Lse Int.

JAMES G. OXNARD ORR WN UNIT
Gas Rts (Sec. 6, E/2 Sec. 7)
So. Union Prod. Oper.
ARCo - 104/MCF ORR

S-NM-5022
HBU
No Lse Int.
Subj. to WN P.P.

Subj. to WN P.P.

Subj. to WN P.P.

S-NM-5023
HBP
No Lse Int.
QUINN 5 UNIT
ORR WN
Gas & LHC-Mv
So. Union Oper.
ARCo -
104/MCF ORR
UNIT
(Sw Pt Sec 7)
(W Pt Sec. 18)

S-NM-5023
HBP
No Lse Int.
Subj. to WN P.P.

(w/2)
QUINN 3 UNIT ORR WN
Dry Gas & LHC-Mv
So. Union Prod. Oper.
ARCo - 41.75% of
104/MCF ORR

S-NM-5023
HBP
No Lse Int.
Subj. to WN P.P.

S-NM-5021
HBU
No Lse Int.
L UNIT ORR WN
Gas & LHC-Mv (E/2)
Union Prod. Oper.
So. 41.75% of
104/MCF ORR
Subj. to WN P.P.

Subj. to WN P.P.

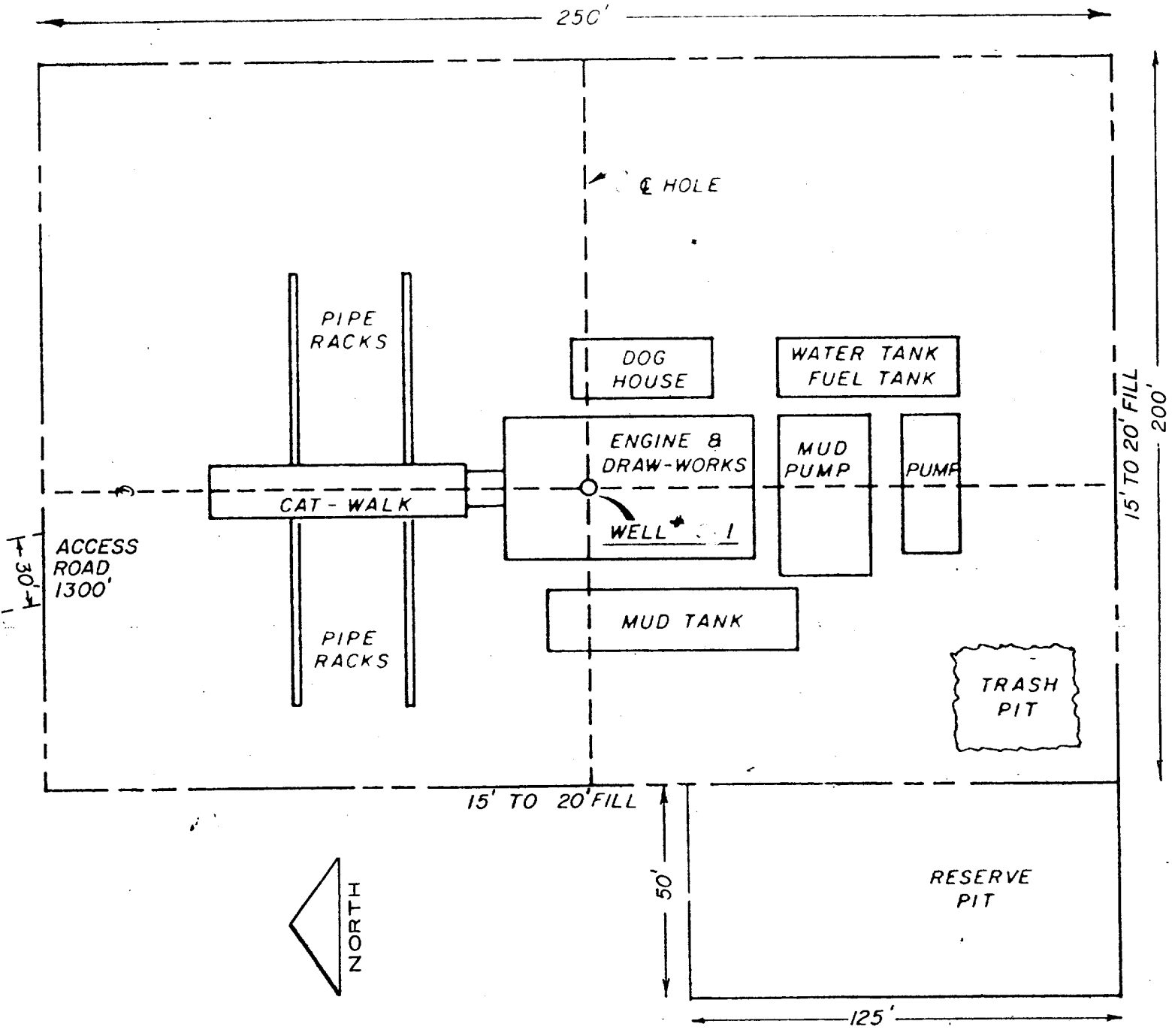
S-NM-5023
HBP
No Lse Int.
Subj. to WN P.P.
So. Union

Subj. to WN P.P.

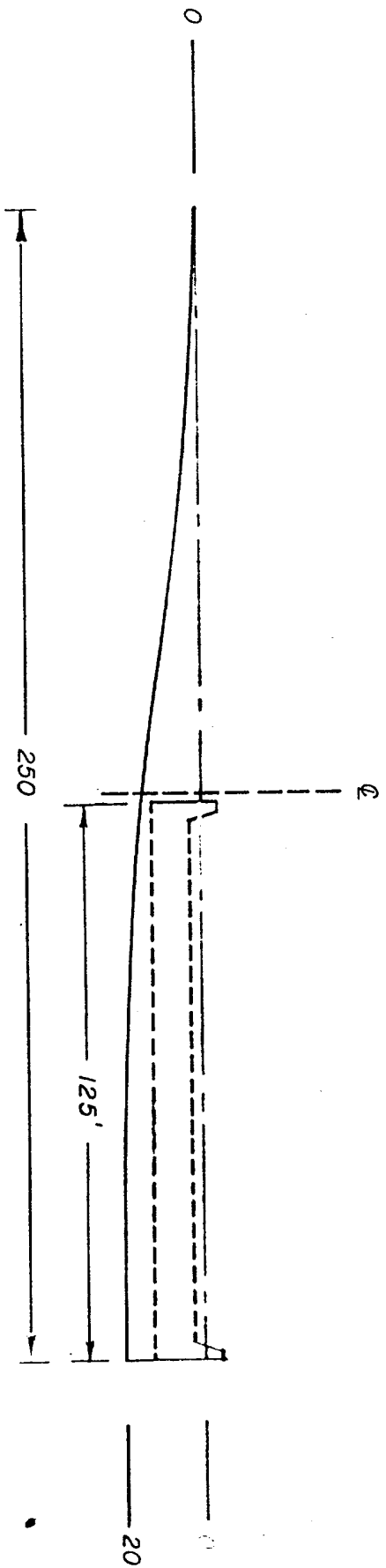
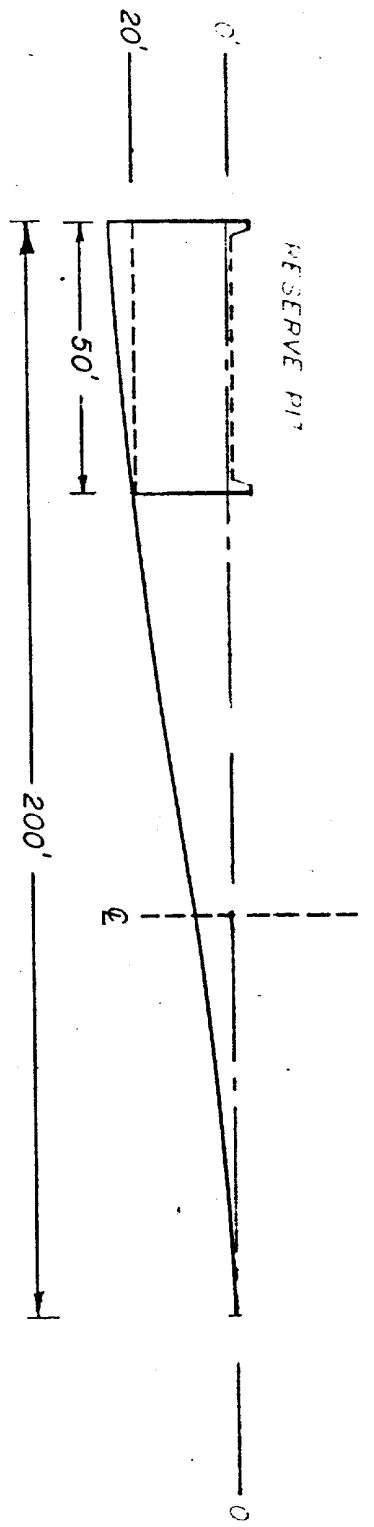
S-NM-5023
HBP
No Lse Int.

S-NM-5023
HBP
No Lse Int.

S-NM-5023
HBP
No Lse Int.



BLANCO NO. 1
 1650' FNL, 1650' FEL, Sec. 5 - T 31 N - R 8 W



BLANCO NO. 1