

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

Energy Reserves Group, Inc.

3. ADDRESS OF OPERATOR

Box 3280, Casper, Wyoming 82602

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

At surface

☒ At proposed prod. zone 810' FSL & 1540' FEL

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

Approximately 4 miles south of Farmington, New Mexico

10. DISTANCE FROM PROPOSED*

LOCATION TO NEAREST
PROPERTY OR LEASE LINE, FT.
(Also to nearest drlg. unit line, if any) 810'

16. NO. OF ACRES IN LEASE

Unitized ? 1235.40

17. NO. OF ACRES ASSIGNED
TO THIS WELL

160 (137.61) ✓

18. DISTANCE FROM PROPOSED LOCATION*

TO NEAREST WELL, DRILLING, COMPLETED,
OR APPLIED FOR, ON THIS LEASE, FT. 2,300'

19. PROPOSED DEPTH

1,700'

20. ROTARY OR CABLE TOOLS

Rotary

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

5,684' GR (ungraded)

22. APPROX. DATE WORK WILL START*

Nov.-Dec., 1980

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#	120'	cement to surface
6-3/4"	4-1/2"	9.5#	1,700'	cement to surface

Energy Reserves Group, Inc. proposes to drill the above referenced well with rotary tools from the surface to T.D.

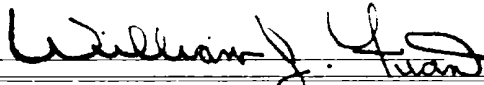
See attached plan of operations.

Gas is dedicated to El Paso Natural Gas Company.

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 Field Services Administrator DATE

(This space for Federal or State office use)

PERMIT NO.

APPROVAL DATE

APPROVED BY

TITLE

DATE

CONDITIONS OF APPROVAL IF ANY:

1980
Bruce Hamley
for
ENGINEER

*See Instructions On Reverse Side

OIL CONSERVATION DIVISION

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

P. O. BOX 2088

SANTA FE, NEW MEXICO 87501

Form C-107
Revised 10-1-77

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

Operator ENERGY RESERVES GROUP			Lease GALLEGOS CANYON UNIT		Well No. 321
Unit Letter 0	Section 12	Township 28N	Range 13W	County San Juan	
Actual Footage Location of Well: 810 feet from the South line and 1540 feet from the East line					
Ground Level Elev: 5684	Producing Formation Pictured Cliffs		Pool West Kutz Pictured Cliffs		Dedicated Acreage: 137.61 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

Field Services Administrator

Position

Energy Reserves Group, Inc.

Company

9-18-80

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

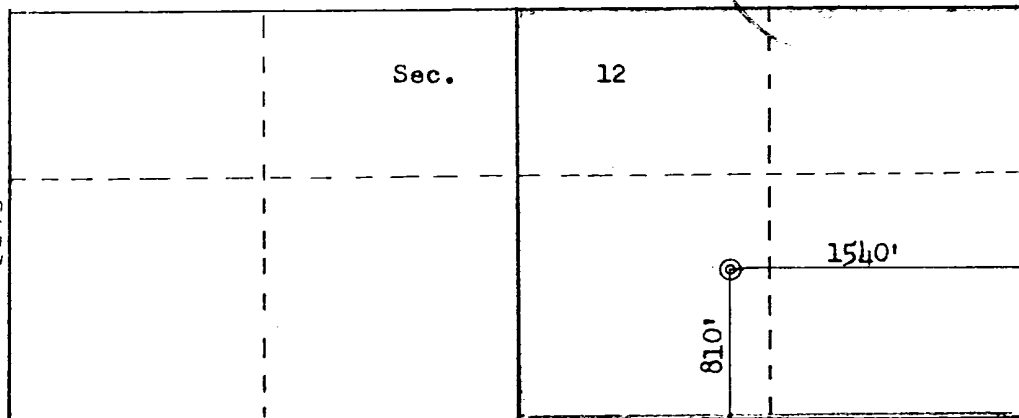
August 23, 1980

Registered Professional Engineer
and Land Surveyor

Fred B. Kerr Jr.
Fred B. Kerr Jr.

Certificate No.

3950



Scale: 1"=1000'

Supplemental to Form 9-331C

1. The geologic name of the surface formation is the Nacimiento.

2. The estimated tops of important geologic markers.

Kirtland	@	210'
Fruitland	@	1,150'
Pictured Cliffs	@	1,450'
Total Depth	@	1,700'

3. The estimated depths at which anticipated water, oil, gas, or other mineral-bearing formations are expected to be encountered.

The Ojo Alamo Formation is located between 100'-700' depending on the area.
The Ojo Alamo is fresh water bearing sand.

Fruitland @ 1150' may be gas productive
Pictured Cliffs @ 1450' is expected to be gas productive.

4. The proposed casing program, including the size, grad, and weight-per-foot of each string and whether new or used.

8-5/8", 24#, K-55, ST&C, New Casing
4-1/2", 9.5#, K-55, ST&C, New Casing
(4-1/2" will be cemented to the surface)

5. The lessee's or operator's minimum specifications for pressure control equipment which is to be used, a schematic diagram thereof showing sizes, pressure ratings (or API series), and the testing procedures and testing frequency.

BOE will consist of and 8" series 900, 3000 psi double ram BOP. The BOP will be tested to 500 psi after installation and prior to drilling out from under surface casing.

6. The type and characteristics of the proposed circulating medium or mediums to be employed for rotary drilling and the quantities and types of mud and weighting material to be maintained.

This well will be drilled using a chemical ge mud plus required additives for hole conditions and formations drilled. Normally about 25 sacks of gel will be on location at one time. Additional materials are available locally in the Farmington Area which could be hauled to the location within thirty minutes.

7. The auxiliary equipment to be used, such as (1) kelly cocks, (2) floats at the bit, (3) monitoring equipment on the mud system, (4) a sub on the floor with a full opening valve to be stabbed into drill pipe when the kelly is not in the string.

A kelly cock stop for 3-1/2" drill pipe plus a sub with a full opening valve with drill pipe thread will be available on the rig floor

8. The testing, logging, fracing, and coring programs to be followed with provision made for required flexibility.

No coring is planned and no DST's are planned. Logs will consist of IES, CNL and FDC. Fracing will consist of Nitrogen water (foam) fracing, approximately 20,000 gallons of 70% quality foam with 25,000 pounds of 10-20 sand.

9. Any anticipated abnormal pressures or temperatures expected to be encountered or potential hazards such as hydrogen sulfide gas, along with plans for mitigating such hazards.

No abnormal pressures or temperatures are anticipated.
H₂S is not a problem in this area.

10. The anticipated starting date and duration of the operations.

It is planned to commence operations as soon as regulatory approval has been received and a rig becomes available. It is anticipated that it will take approximately 3 to 4 days to drill and log this well.

MULTI POINT SURFACE USE PLAN

1. Existing Roads

There are existing improved roads within 800' of the proposed well site. These roads are maintained by Energy Reserves Group, Amoco, and El Paso Natural Gas Company

2. Planned Access Roads

Approximately 800' of new access road will be required.

3. Location of Existing Wells

(See attached map)

This well is within the Gallegos Canyon Unit, Pictured Cliffs participating area. There are numerous wells operated by Amoco and Energy Reserves Group.

4. Location of Existing and/or Proposed Facilities

(See attached map)

Most Energy Reserves Group wells in the Gallegos Canyon Unit are equipped with a separator to remove free water. El Paso Natural Gas Co. (gas purchaser) usually installs a Glycol unit at each site. In addition all gas gathering lines are owned by El Paso. There are 4 disposal systems within the Gallegos Canyon Unit. These systems consist of buried plastic pipelines. If the well becomes productive all facilities will be within the previously disturbed areas. A small (20'x20'x6') pit may be required if any water is produced. The pit will be fenced sheep tight to protect livestock and wildlife. The reserve pit will be fenced and allowed to dry. As soon as it is sufficiently dry it will be backfilled and recontoured to its original contour.

5. Location and Type of Water Supply

Water will be hauled from Energy Reserves Group's disposal system or from the San Juan River. Method of transportation will be by truck.

6. Sources of Construction Materials

None are necessary.

7. Methods for Handling Waste Disposal

All drill currings and fluids will be disposed of in the reserve pit. Any produced fluids will be contained in portable tanks. A portable chemical toilet will be used during drilling and completions operations. Trash will be disposed of in a small trash pit constructed along-side of the reserve pit.

8. Ancillary Facilities

10. Plans for Restoration of Surface

Upon completion of the well the reserve pit will be fenced and allowed to dry. Any accumulation of oil will be skimmed off the pit and trucked to a disposal site. The disturbed areas will be recontoured to its original contour and re-seeded as per Bureau of Land Management or Bureau of Indian Affairs recommendations. It is planned to commence rehabilitation as soon as the pit has dried and weather permits.

11. Other Information

The topography of the general area slopes from the south to the San Juan River Drainage. The majority of the surrounding drainages are of a non-perennial nature with a normal flow limited to spring run off and heavy rain storms.

The soils in this semi-arid area are of the Nacimento formation and are largely light brown, sandy soils with poorly graded gravels. Out crops of sandstone and conglomerates are common.

Due to the low precipitation average, climatic conditions, and this marginal types of soils, the vegetation that is found in the area is common of the semi arid region we are located in and consists of pinion pins and juniper trees, sagebrush, rabbit brush, some sparse grasses and cacti as the primary flora. The fauna of the area consists predominantly of mule deer, coyotes, rabbits, and varieties of small rodents.

The area is used by man for the primary purpose of domestic livestock grazing. Some of the area is within the Navajo Irrigation Project which is presently under cultivation. These areas are used for farming a variety of different crops.

12. Lessee's or Operator's Representative

Bill Fiant
P.O. Box 3280
Casper, Wyoming 82602

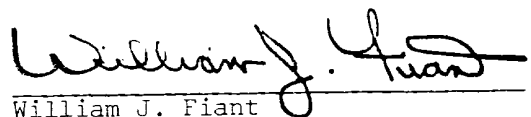
Telephone: 1-307-265-7331

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 operations proposed herein will be performed by ENERGY RESERVES GROUP and its contractors and sub-contractors and in conformity with this plan and terms and conditions under which it is approved.

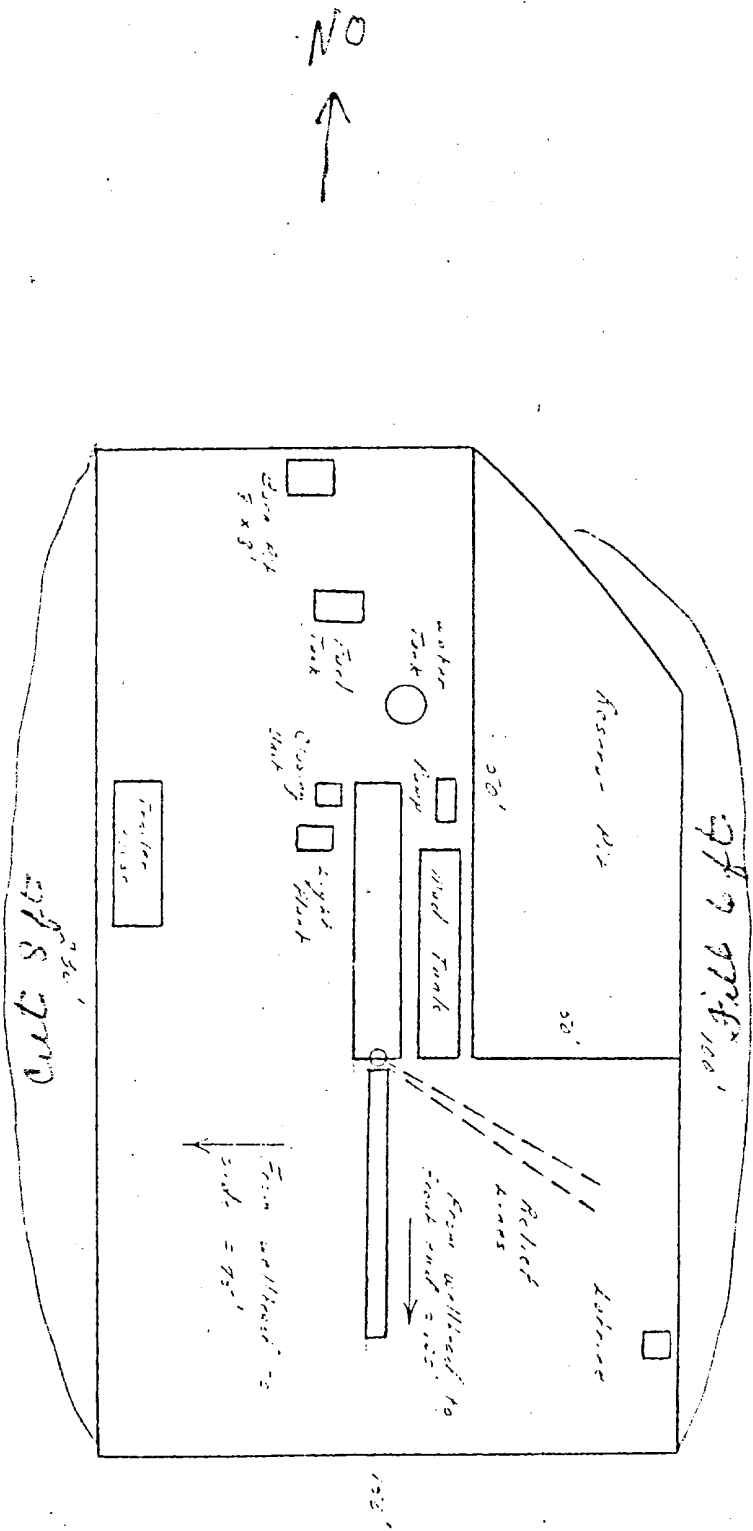
Date

9-18-80


William J. Fiant

E

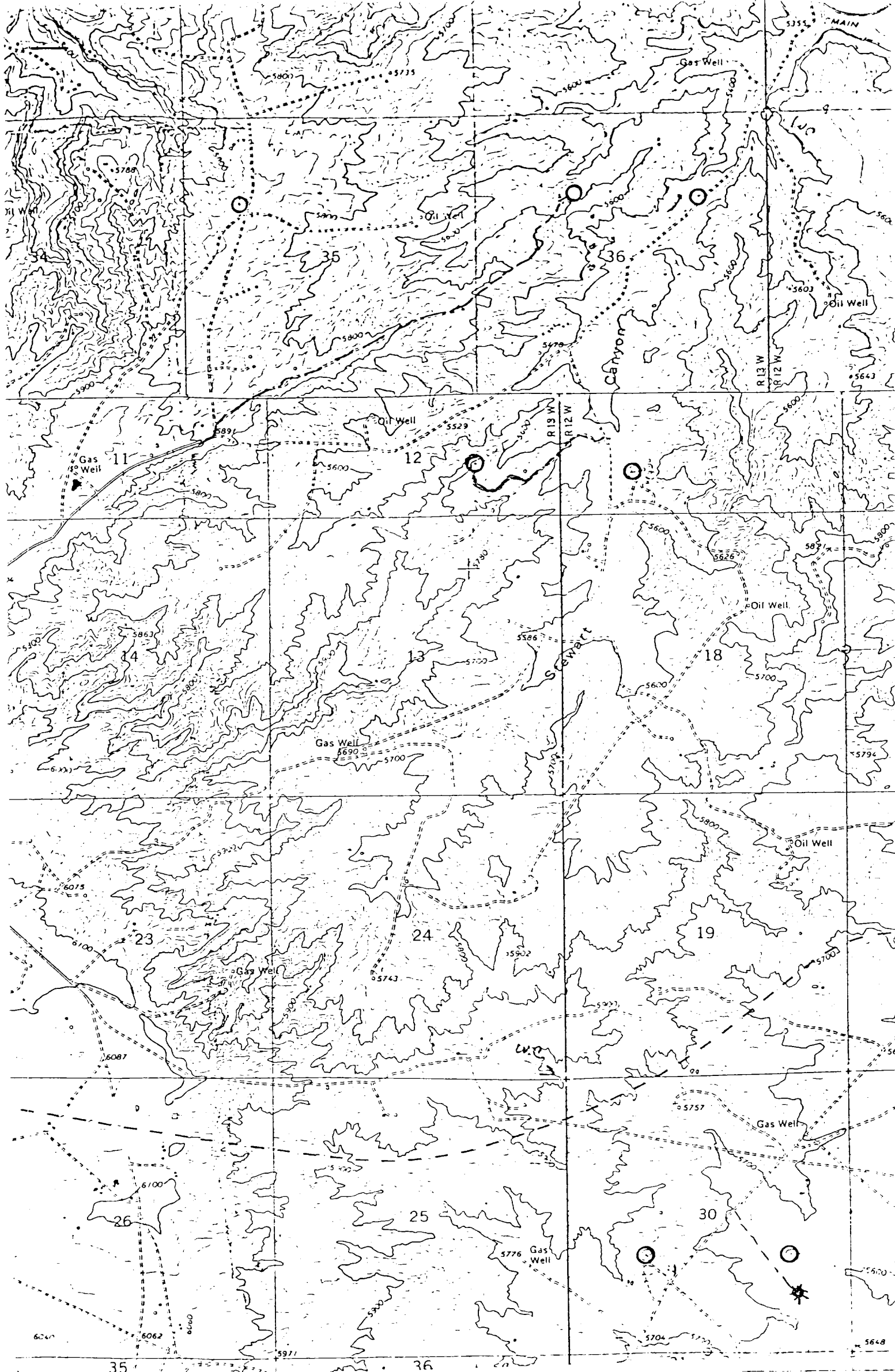
Typical location Plt for Richard's Units Well



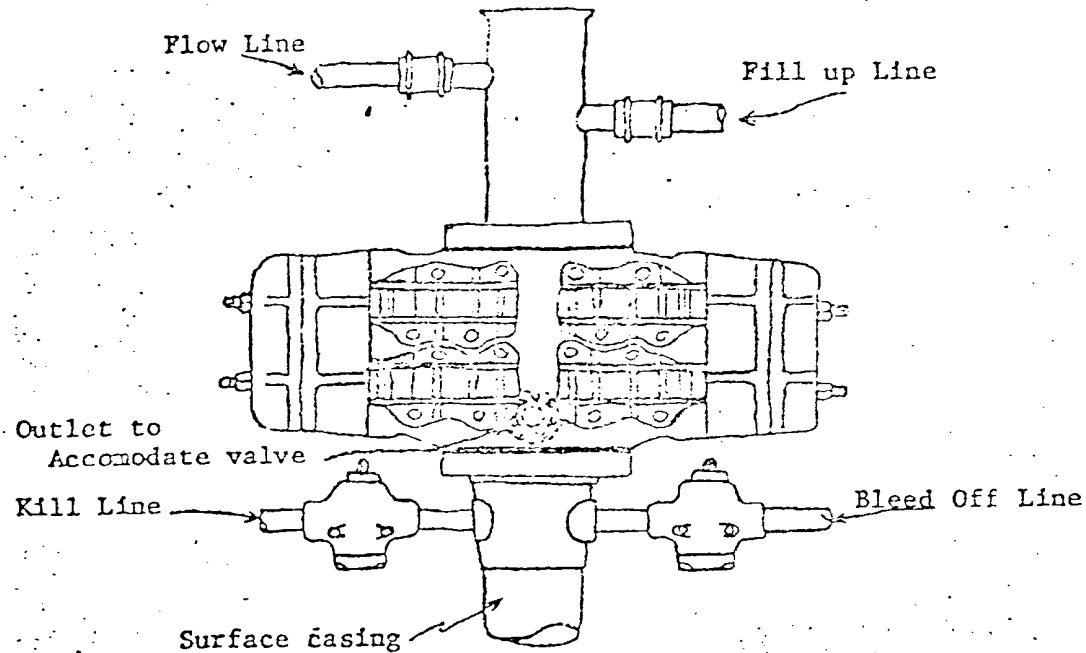
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M

Scale: 1" = 25'



Vicinity Map for
 ENERGY RESERVES GROUP #321 CALLEGOS CANYON UNIT
 810' FSL 1540' FEL Sec. 12-T28N-R13W
 SAN JUAN COUNTY, NEW MEXICO



Blowout preventer is Shaffer double hydraulic equipped with drill pipe rams in the top and blind rams in the bottom.

Blowout preventer closing unit is Kocney 30 gallon accumulator unit.

When choke manifold is used, it will be installed downstream from bleed off valve.

Kill line or bleed off line may be installed at flanged opening in blowout preventer.