

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 1520' FNL &amp; 800' FWL

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

Approximately six miles north west of Farmington, New Mexico

## 15. DISTANCE FROM PROPOSED\*

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

800'

## 18. DISTANCE FROM PROPOSED LOCATION\*

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

2,300'

## 16. NO. OF ACRES IN LEASE

320

## 19. PROPOSED DEPTH

6,300'

## 17. NO. OF ACRES ASSIGNED

TO THIS WELL

N/ 320 (460)

## 20. ROTARY OR CABLE TOOLS

Rotary

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

5,564' GR (ungraded)

## 22. APPROX. DATE WORK WILL START\*

September, 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#	370'	325 sx
7-7/8"	4-1/2"	10.5#	6300	1205 sx. (3 stage)

\* The above referenced well was drilled in September of 1980.



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 10-2-80

(This space for Federal or State office use)

PERMIT NO.

APPROVAL DATE

APPROVED BY

TITLE

DATE

CONDITIONS OF APPROVAL IF ANY:

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

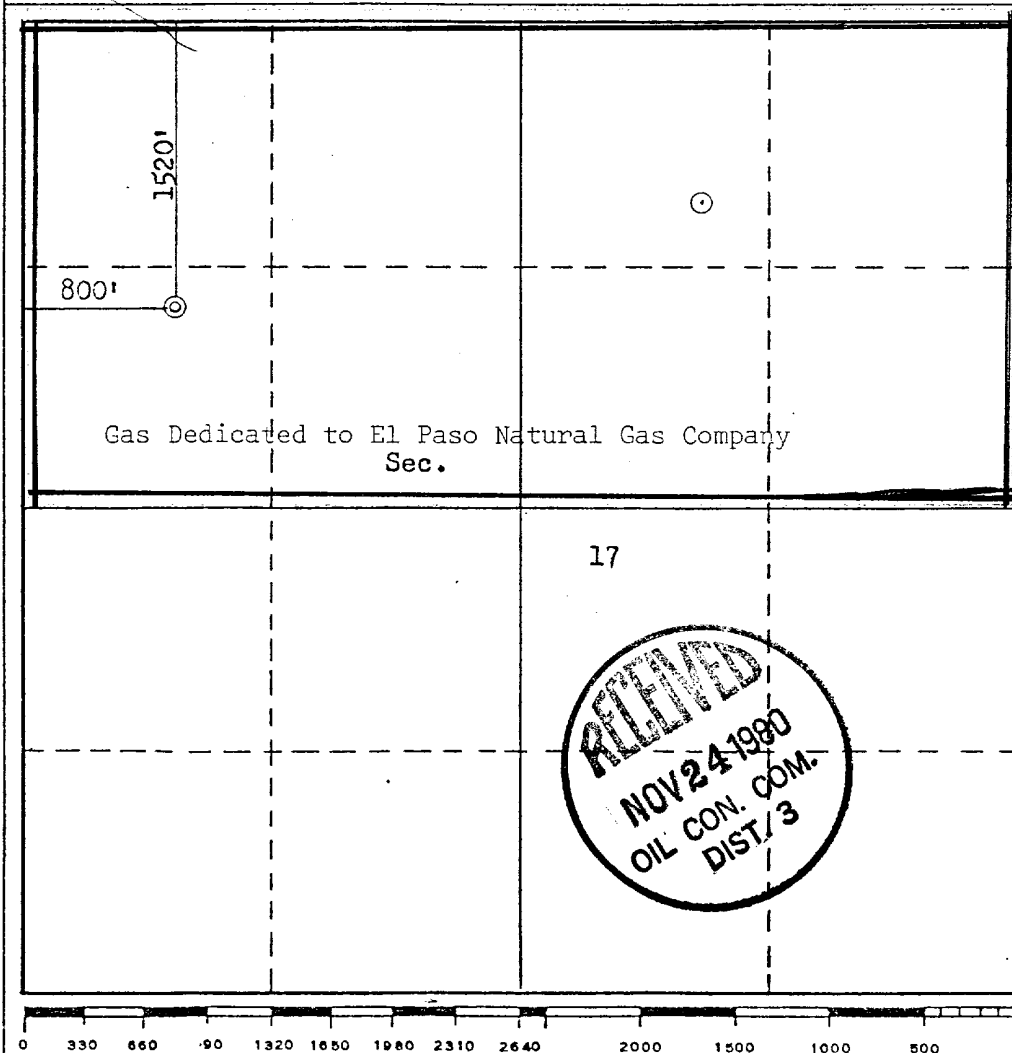
Operator <b>ENERGY RESERVES GROUP</b>			Lease <b>FARNSWORTH GAS COM "A"</b>		Well No. <b>1-E</b>
Unit Letter <b>E</b>	Section <b>17</b>	Township <b>30N</b>	Range <b>13W</b>	County <b>San Juan</b>	
Actual Footage Location of Well: <b>1520</b> feet from the <b>North</b> line and <b>800</b> feet from the <b>West</b> line					
Ground Level Elev. <b>5564</b>	Producing Formation <b>Dakota</b>		Pool <b>Basin Dakota</b>		Dedicated Acreage: <b>320 (160)</b> 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.

*William J. Hines*  
Name  
Field Services Administrator  
Position  
Energy Reserves Group, Inc.  
Company  
7-4-80  
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  
April 2, 1980  
Registered Professional Engineer  
and/or Land Surveyor  
*Fred B. Kerr Jr.*  
Certification No. MEX. 3950  
F. B. KERR, JR.

Supplemental to Form 9-331C

1. The geologic name of the surface formation.

Nacimiento

2. & 3. The estimated tops of important geologic markers. The estimated depths at which anticipated water, oil, gas, or other mineral bearing formations are expected to be encountered.

Kirtland	@	985'	possible gas
Fruitland	@	1225'	possible gas
Pictured Cliffs	@	1525'	possible gas
Lewis	@	1675'	
Mesaverde	@	3090'	
Pt. Lookout	@	3990'	possible gas
Mancos	@	4330'	
Gallup	@	5265'	
Greenhorn	@	6015'	
Dakota	@	6130'	primary objective
Total Depth	@	6219'	KB

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

8-5/8" O.D., 24#, K-55, 8Rth, ST&C, R-3, New Casing  
4-1/2" O.D., 10.5#, K-55, 8Rth, R-3, ST&C, New Casing

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.

(see attached diagram) Minimum BOE will include a series 900, 3000# dual ram preventor with annular type preventor. BOE to be tested to 1000 psi after setting surface casing and prior to drilling out cement.

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.

0-370' spud mud.

370'-6,219' Fresh water base chemical gel mud.

Maximum mud weight of 9 ppg. Vis 28-55,

WL 6cc, PH 9-10.

Sufficient mud materials to maintain mud properties, control minor lost circulation and to contain blow out will be available at well site.

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.

(1) Kelly Cock

(2) Drill pipe floats will be available if needed.

(3) Mud monitoring will be visual.

(4) A sub with drill pipe thread and full opening valve will be available on rig floor.

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

Logs will consist of DIL, FDC - CNL - GR.

Coring None

Testing None

Stimulation see attached completion program

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.

None anticipated.

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

September 10, 1980 -

Duration of operations - 20 days -

## MULTI POINT SURFACE USE PLAN

### 1. Existing Roads

There is an existing improved road to within 500' of the proposed well site. Existing roads are maintained by El Paso Natural Gas Company.

### 2. Planned Access Roads

It is proposed to construct approximately 500' of new road. (see attached topo map) (Private surface)

### 3. Location of Existing Wells

Energy Reserves Group operates the Farnsworth Gas Unit "A" with No. 1 located in the NW $\frac{1}{4}$  NE $\frac{1}{4}$  of Section 17, T30N-R13W. Also the Miller Gas Comm in the NW $\frac{1}{4}$  of Section 20, T30N-R13W Energy Reserves Group has no other wells within a one mile radius.

### 4. Location of Existing and/or Proposed Facilities

Existing facilities @ Energy Reserves Group wells consist of a separator, 200 bbl. storage tank and El Paso's dehy unit. Gas gathering lines are owned by El Paso. It is proposed to install a separator, 200 bbl tank, and dehy unit to this well. A gas gathering line will be installed by El Paso under a right of way. All Facilities will be restricted to those areas originally disturbed by the drilling operation.

### 5. Location and Type of Water Supply

Water will be hauled by truck from the LaPlata River.

### 6. Sources of Construction Materials

Any construction materials will be obtained from private sources.

### 7. Methods of Handling Waste Disposal

Cuttings and drilling fluids will be contained in the reserve pit. Produced fluids will be stored in tanks. Sewage will be contained in a portable toilet during drilling and completion operations. Garbage and other waste will be buried or burned in a small pit adjacent to the well site.

### 8. Ancillary Facilities

None Needed

### 9. Well-Site Layout

See attached layout.

All equipment and material will be placed in accordance with State and Federal regulations.

### 10. Plans for Restoration of Surface

See attached surface owners agreement.

### 11. Other Information

This site is located on private surface owned by Richard L. Kannard of Farmington, New Mexico. The area is typically high dessert country with sage brush, cacti and assorted native grasses. Wildlife includes mule deer, coyotes, rabbits and other small rodents and birds. Surface us is restricted to livestock grazing.

12. Lessee's or Operators Representative

Mr. Bill Fiant and/or Mr. Roscoe Gillespie will represent Energy Reserves Group, Inc. for assuring compliance with the approved use and operations plan.

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

Roscoe Gillespie  
P.O. Box 3280  
Casper, Wyoming 82602

Office Ph: 307-265-7331  
Home Ph: 307-265-2529

Office Ph: 307-265-7331  
Home Ph: 307-234-0745  
Mobile Ph: 307-265-4541

13. Certification

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drillsite 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 \_\_\_\_\_

JACK FRITZ  
and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved.

10-3-80  
Date

William J. Fiant  
Name and Title  
Field Services Adm.

SURFACE USE AGREEMENT

This Agreement is made and entered into this 13 day of AUG, 1980.  
by and between Richard L. Kannard, Owner, of Farmington New Mexico, and Energy  
Reserves Group, Inc., Lessee, of Casper, Wyoming.

WHEREAS the Lessee desires to obtain Owner's consent for access to and from a  
drill site, identified as Farnsworth Gas Com "A" No. 1-E. 1520 ft. N - 800 ft. W  
SEC. 17 TOWNSHIP 30 N 13 W

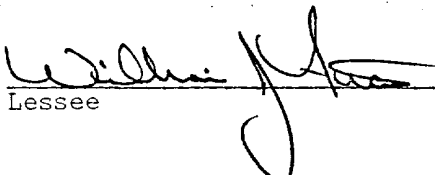
NOW, THEREFORE, for and in consideration of mutual covenants herinafter contained  
and other good and valuable consideration passing between the parties, the adequacy  
and receipt of which consideration is acknowledged, it is agreed as follows:

1. Owner grants to Lessee the right to use existing roads across Owners deeded lands. Owner further grants Lessee the right to construct a road, of some 600'+ length to well site No. 1-E.
2. The parties agree that Lessee may construct a well site to be used in drilling, and that such site will be restricted to two acres or less during drilling operations. That upon installation of producing equipment the well site will utilize one acre or less for the placement of required equipment.
3. Upon request the Owner will be entitled to such information as may be within the custody of Lessee disclosing information on water sands encountered.
4. Lessee shall indemnify and hold Owner harmless from any injury or damages occasioned by Lessee's activities on the Owner's lands and shall be responsible to the Owner for all the damages done to Owner's buildings, fences, gates, livestock, tanks and other improvements which may be damaged by Lessee's operation on Owners lands but not located within the drill site.
5. Lessee shall pay to the Owner surface damages for the drill site and for new access roads.
6. Lessee, at the drill site location, agrees to remove the top soil, said top soil shall be bladed to the side and stockpiled. At the conclusion of the drilling operations, the drill site will be leveled and the reserve pit backfilled. The areas no longer needed for the producing operations will be recontoured and the top soil bladed over the area. Lessee will reseed the disturbed areas to the Owner's satisfaction after completion.
7. Lessee shall conduct all operations in a fair and reasonable manner, and all necessary precautions shall be taken to avoid damage, other than normal wear and tear to roads, culverts, cattleguards and fences. Lessee agrees to maintain and repair all roads used upon Owners deeded lands.

  
Richard L. Kannard - Owner

RECEIVED

AUG 19 1980

Energy Reserves Group, Inc. by:   
Lessee

RMD CASPER

COMPLETION PROGRAM

WELL DATA: TD - 6,220'; PBTD 6,178'; KB Elev. 5,578' (GL + 14')  
Casing - 4-1/2", 10.5#, K-55, 8Rd, ST&C @ 6,219'  
Cement - 1st stage - 360 sx "B" w/10% salt.  
2nd stage - 275 sx Lite w/1/4# Flocele/sx followed by 350 sx  
50-50 Poz, w/2% gel & 1/4# flocele/sx.  
3rd stage - 570 sx Lite w/1/4# flocele/sx.

PROCEDURE:

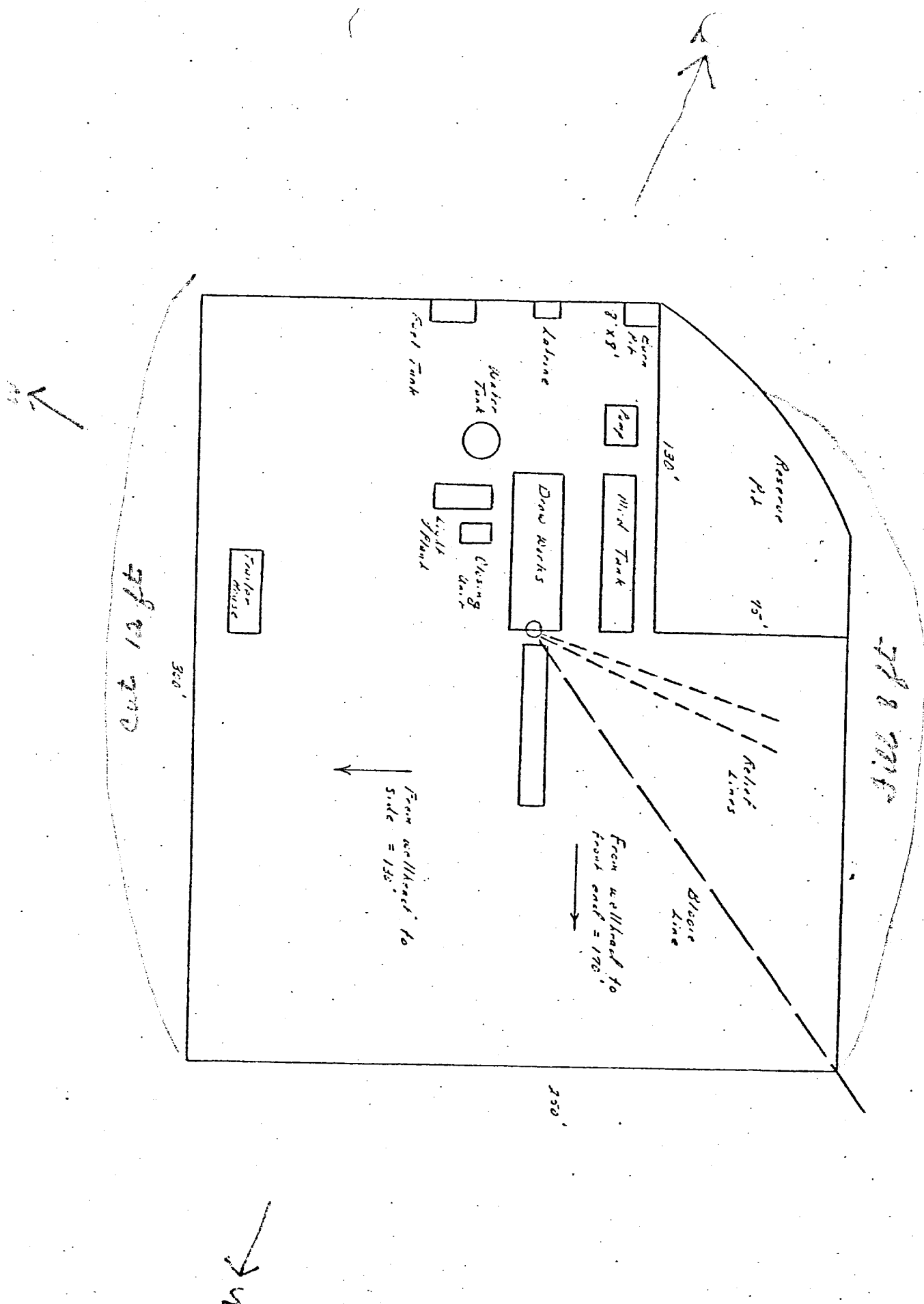
1. MURCT. Install tubing spool & BOPE. MI & clean out frac tanks ( $\pm$  1000 bbl capacity). Add 1/2 gal of bactericide (Smith) per 1000 gal to water while filling tanks.
  2. PU & run 3-7/8" bit & scraper on 2-3/8", 4.7#, J-55, 8Rd tubing. Drill out stage collars @ 1,652' & 4,270'. Clean out to PBTD 6,178'. Circulate hole clean, then circulate hole w/clean 1% KCl water w/1 gal/1000 "SCP-2" clay stabilizer. Pressure test BOPE to 3500 psi. Pressure test casing to 3500 psi. Swab fluid level to  $\pm$  4,500'. TOH w/tubing, casing scraper, & bit.
  3. Run GR/CCL correlation from PBTD to  $\pm$  4,300' (minimum footage). Correlate to Dresser-Atlas CNL/FDC log of 9-20-80. PU 2000 psi lubricator. Perforate Dakota @ 6,138'-6,158' w/1 JSPF w/3-3/8" hollow-carrier casing gun w/premium charges and w/90° or 120° phasing. (21 perforations 20' net, 20' gross).
  4. TIH w/tubing & retrievable packer w/60' stinger. Set @  $\pm$  6,050'. Test gas flow if volume is significant.
  5. Breakdown the Dakota perfs w/1000 gal of Smith 7 1/2% "HAS-1" acid (or equal) w/2 gal "AFR-1" friction reducer, 1 gal "CIA-1" inhibitor, 25# "CA-1" iron sequesterant, & 1 gal "CSP-2" clay stabilizer. Drop 30 ball sealers through-out acid. Displace to perfs w/  $\pm$  25 bbl of 1% KCl water w/1 gal/1000 "CSP-2" & 1 gal/1000 "AFR-1". Pump @  $\pm$  5 BPM keeping pressure below 4500 psi.
  6. Swab back load ASAP. Test well if gas volume is significant. If well makes significant water, further procedures will follow, if not proceed to step 7.
  7. Kill well if necessary w/1% KCl water. TOH w/tubing & packer.
  8. RU Smith & Howco. Frac down 4-1/2" casing at  $\pm$  20 BPM total volume rate, keeping surface pressure below 3800 psi as follows:
    - a) 10,000 gal 70% Quality Foam Pad.
    - b) 10,000 gal 70% Quality Foam w/1/2 ppg 20-40 sand.
    - c) 10,000 gal 70% Quality Foam w/1 ppg 20-40 sand.
    - d) 10,000 gal 70% Quality Foam w/1-1/2 ppg 20-40 sand.
    - e) 10,000 gal 70% Quality Foam w/2 ppg 20-40 sand.
    - f) Displace to top perf w/70% Quality Foam.
    - g) SI well. RD service companies. Install adjustable choke and flowlines.
- NOTE: All water used in frac to contain 2% KCl, 1 gal/1000 "USS-N" surfactant & proper foaming agent.
9. When SIP has decreased by 500 psi below ISDP, flow well back through 12/64" choke. Initially maintain at 80% SICP just before openings. Gradually increase choke size until flow stabilizes.
  10. Run 2-3/8" production tubing (open-ended w/seating nipple 1 joint off bottom w/expendable check if necessary) Tag bottom, clean out to PBTD (6,178') w/N<sub>2</sub> if necessary. Set bottom of tubing at  $\pm$  6,158'.
  11. Test well. A squeeze procedure, and or a completion procedure for the upper zones will follow.

RC  
R.E. Schanaman  
(9-26-80)

John Cruickshank  
Chuck Wieder  
T.C. Durham (2)

MEMORANDUM FOR HQAD Command & Staff  
 NO 17-30-13

Typical location plot for Area Units and Disha Wells



Free Surface

Richard L. Kannard

PO Box 2342

Farmington N.M. 87401

Federal minerals

RECEIVED

MAY 12 1980

RMD CASPER

Well Name Franseworth Sec Com "A" # 1E

Location NW 17-30-13

Formation Dakota

We, the undersigned, have inspected this location and road.

U. S. Forest Service

Dubney Ford  
Archaeologist

Date

5/5/80  
Date

Bureau of Indian Affairs Representative

Bob M. L.

Date

5/5/80  
Date

Bureau of Land Management Representative

Barbara L. Cortin

U. S. Geological Survey Representative - AGREES

TO THE FOOTAGE LOCATION OF THIS WELL.

REASON:

Seed Mixture:

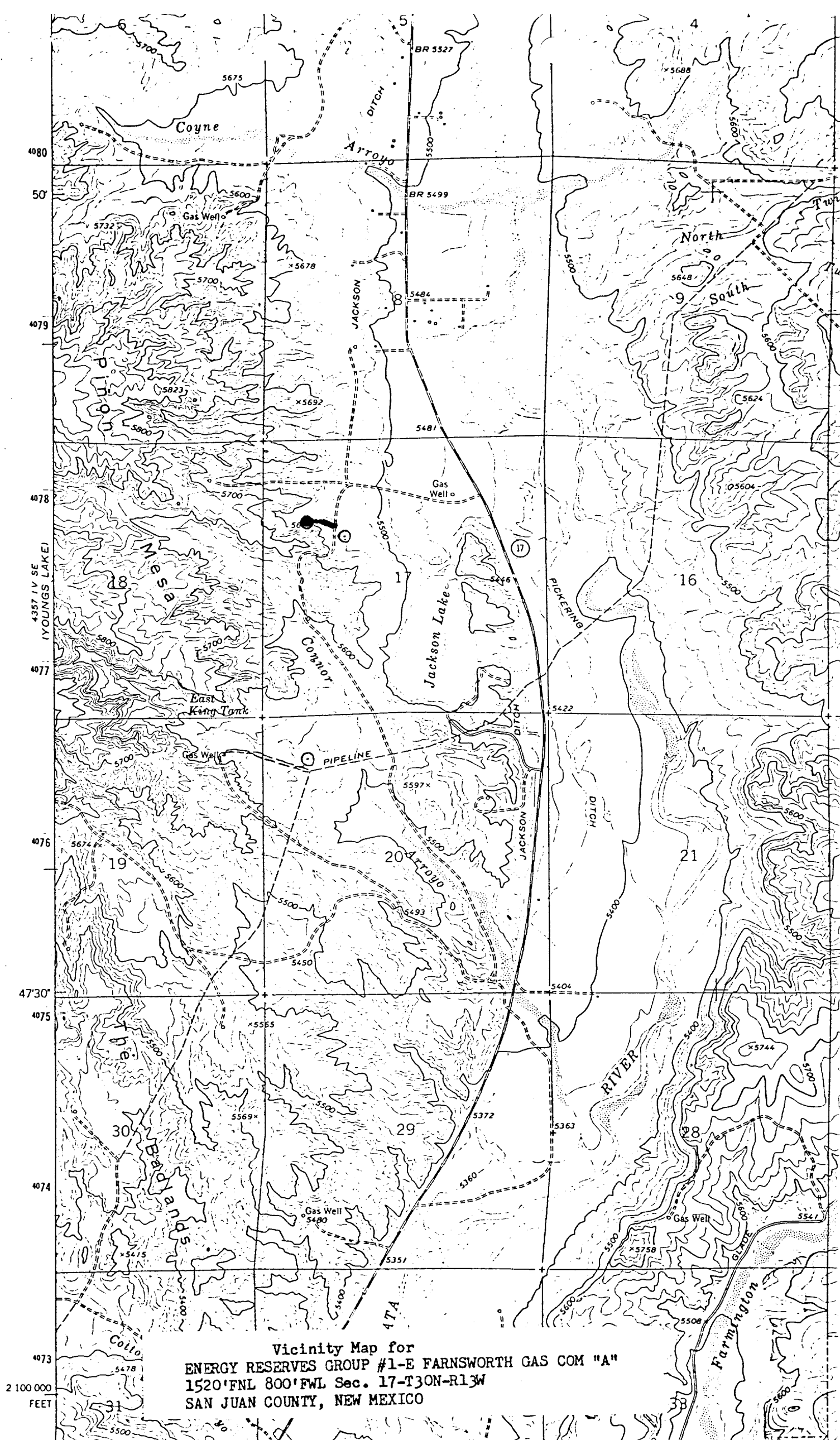
TL

Equipment Color:

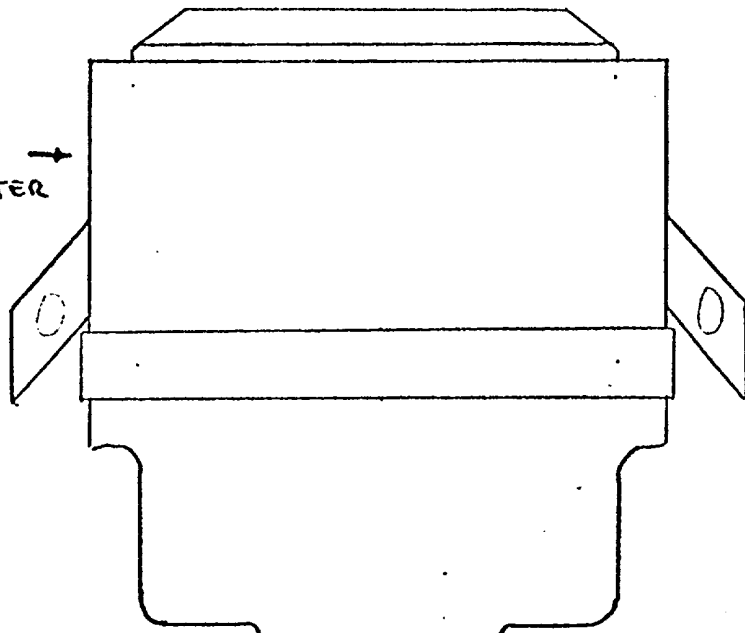
Brown

Road and Row: (Same) or (Separate)

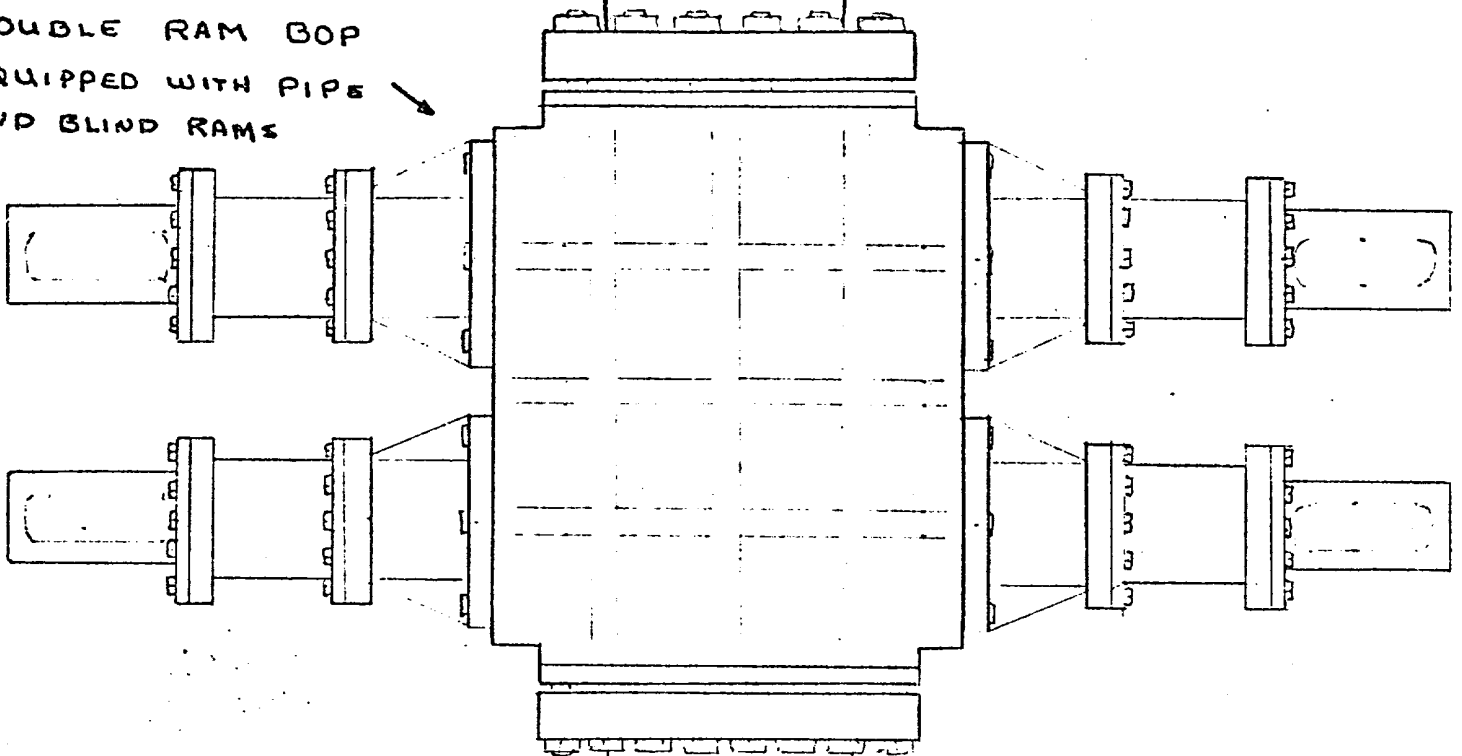
Remarks:



10" SERIES 900  
BAG TYPE PREVENTER



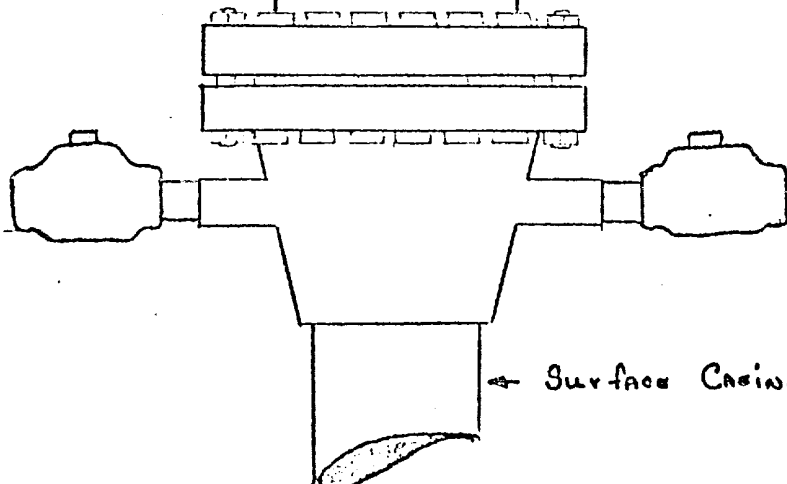
10" SERIES 900  
DOUBLE RAM BOP  
EQUIPPED WITH PIPE  
AND BLIND RAMS



KILL LINE



BLEED OFF  
LINE



Surface Casing