

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK DRILL <input checked="" type="checkbox"/> DEEPEN <input type="checkbox"/> PLUG BACK <input type="checkbox"/>			5. LEASE DESIGNATION AND SERIAL NO. USA NM-10183	
b. TYPE OF WELL OIL WELL <input type="checkbox"/> GAS WELL <input checked="" type="checkbox"/> OTHER <input type="checkbox"/>			6. IF INDIAN, ALLOTTEE OR TRIBE NAME	
2. NAME OF OPERATOR Palmer Oil & Gas Company			7. UNIT AGREEMENT NAME	
3. ADDRESS OF OPERATOR P. O. Box 2564, Billings, Montana 59103			8. FARM OR LEASE NAME Federal Land 1	
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.) At surface 1820' from West Line & 1525' from South Line At proposed prod. zone same			9. WELL NO. No. 2 1A	
14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE* Two (2) miles east of La Plata			10. FIELD AND POOL, OR WILDCAT Blanco Mesaverde	
15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any) 1120'			11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA NE $\frac{1}{4}$ SW $\frac{1}{4}$ Sec. 1-T31N-R13W	
16. NO. OF ACRES IN LEASE 479.63			12. COUNTY OR PARISH San Juan	
17. DISTANCE FROM PROPOSED* LOCATION TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT. 2640'			13. STATE New Mexico	
18. PROPOSED DEPTH 4800'			17. NO. OF ACRES ASSIGNED TO THIS WELL 160 5/320	
19. ROTARY OR CABLE TOOLS Rotary			20. APPROX. DATE WORK WILL START* March 1, 1977	
21. ELEVATIONS (Show whether DF, RT, GR, etc.) 5785' GR				

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12-1/4"	9-5/8"	24#	200'	185 sacks
8-1/4"	7"	23#	3875'	350 sacks
6-1/2"	4-1/2"	9.5#	4800'	350 sacks

- Palmer Oil & Gas Company has communitized 240 acres of Federal Lease USA NM-10183 with 80 acres of fee acreage as illustrated and outlined in red on the attached plat.
- We plan to drill a 4800' Mesaverde test in the NE $\frac{1}{4}$ SW $\frac{1}{4}$ of Section 1-T31N-R13W.
- Well will be drilled with rotary tools. 200' of 9-5/8" surface casing will be set and cemented to surface. An 8-1/4" hole will be mud drilled to approximately 3875' and a string of 7" 23# intermediate casing will be set and cemented to surface. The hole will be reduced to 6-1/4" and gas drilled to approximate T.D. of 4800' to test the Mesaverde. Intermediate logs will be run at 3875'. At T.D., logs will be run and, if productive, 4-1/2" X 9.5# liner will be set from 3800' to T.D. and cemented with approximately 350 sacks cement.
- The well will be perforated 2 JSPF and fraced in 2 stages utilizing 2% KCl water and 20/40 and 10/20 sand.

Has is dedicated
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.

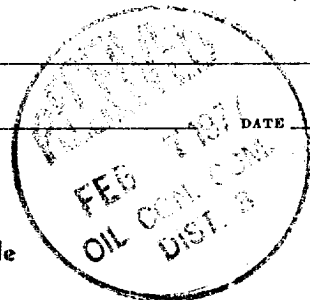
24. SIGNED Harold W. Schaefer TITLE Engineer DATE Jan 28, 1977
(This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE _____

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

Ok

*See Instructions On Reverse Side



NEW MEXICO OIL CONSERVATION COMMISSION

WELL LOCATION AND ACERAGE DEDICATION PLAT

All distances must be from the outer boundaries of the Section

Operator PALMER OIL COMPANY			Lease FEDERAL 1 1		Well No. 1A
Unit Letter K	Section 1	Township 31 NORTH	Range 13 WEST	County SAN JUAN	
Actual Footage Location of Well: <div style="display: flex; justify-content: space-between;"> 1525 feet from the South line and 1820 feet from the West line </div>					
Ground Level Elev. 5759	Producing Formation Mesaverde		Pool Blanco Mesaverde	Dedicated Acreage: 5/320 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?

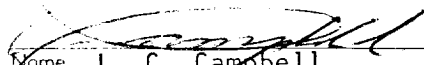
(X) Yes () No If answer is "yes," type of consolidation Communitization

If answer is "no," list the owners and tract descriptions which have actually consolidated. (Use reverse side of this Form if necessary.)

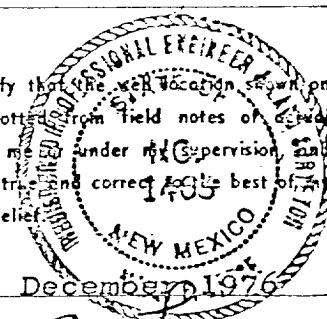

No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non standard unit, eliminating such interests, has been approved by the Commission.

CERTIFICATION

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

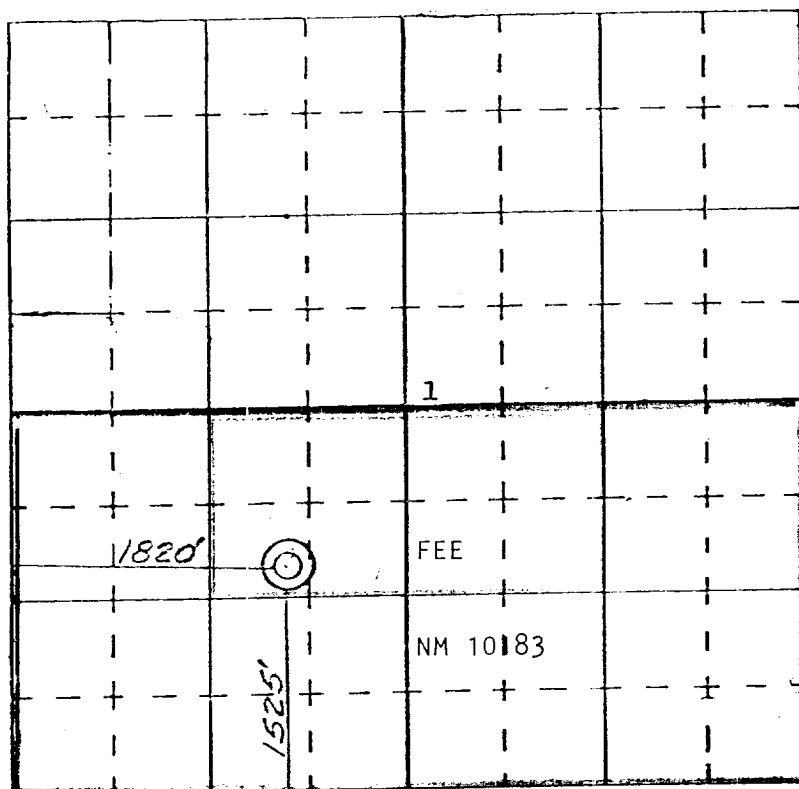

 Name **L. C. Campbell**
 Land Manager
 Position
Palmer Oil & Gas Company
 Company
January 28, 1977
 Date

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.


21 December 1976
 Date Surveyed

 Registered Professional Engineer
 and/or Land Surveyor **James P. Lees**

1463

Certificate No.



TWELVE POINT PLAN OF DEVELOPMENT

For Surface Use for Palmer Oil & Gas Company's
Federal Com. No. 2
NE $\frac{1}{4}$ SW $\frac{1}{4}$ Section 1-T31N-R13W
San Juan County, New Mexico

1. Existing roads including location of the exit from the main highway.
Refer to attached highway map. The location will be right off State Highway 173, 2 miles east of La Plata.
2. Planned access road.
See Topographic Map attached. Only minor road work is planned for the drilling phase of this work. Grading of rough spots will be performed with very little disturbance of ground. The width of access road will be kept to a minimum of not more than 25' and natural drainage will not be changed. Any existing gates and cattle guards will be used and maintained.
3. Location of wells. No additional wells are planned on this lease.
See attached plat.
4. Location of existing and/or proposed facilities.
There are no existing production facilities owned or controlled by the lessee. Should commercial production result in this well, the tanks will be 12' in diameter with 4' between same. A skid mounted production unit will be used. All equipment will be set on gravel pad. The gravel will be purchased and hauled in from Farmington. Livestock and wildlife will be protected by a guard around the wellhead unit. No fence is planned around the tanks or separator as no hazard exists. The location of the tank battery will be as close as practical to the well and on the high side of same. The tank battery graded site will approximate 175' X 50'.
5. Location and type of water supply.
Plan to haul water from the Aztec Irrigation Ditch by tank truck.
6. Source of construction materials.
All construction material such as gravel, sand, timbers, etc., will be purchased in Farmington and hauled to the location. No water, sand, or gravel will be used from this lease.
7. Methods for handling waste disposal.
At the time of drilling, a reserve pit will be in use to dispose of waste drilling fluids. An earthen pit will be dug adjacent to the reserve pit for waste disposal such as food wrappers, rags, empty containers, etc. Upon completion of the operation, the reserve pit and other earthen pits will be covered with a minimum of 3' of clean soil and reseeded as per USGS requirements for this area.
8. Ancillary Facilities.
No camps or airstrips will be used.
9. Wellsite layout.
See attached plat. Top soil will be stockpiled and placed back in place upon completion. The pits will be unlined.

10. Plans for restoration of surface.

Upon completion of the drilling of the well, all pits will be backfilled and top soil replaced and recontoured back to the original terrain. The location of the separator unit and tanks will be left level with gravel pad under each piece of equipment. Pits will be backfilled as soon as they evaporate enough to permit such work. If well is drilled as planned in early 1977, complete restoration and clean up will be accomplished by Fall, 1977. Should it be necessary to protect livestock or wild game, pits will be fenced and maintained until clean up operations are commenced. Should oil accumulate on the pit, it will be removed and buried 6' deep or overhead flagging will be employed to protect wildlife. The location will be reseeded as per USGS requirements prior to September, 1977.

11. Other Information.

- 1) Topography — very low relief, rolling sand hills.
- 2) Vegetation — sparse grassland, sandy soil.
- 3) Land use — land is used for grazing with no reservoir or water on this lease. There are no known archeological, cultural, or historical sites on this lease.

12. Lessee's or operator's representative.

Elledge Consulting and Production Company
1701 Bloomfield Highway
Farmington, New Mexico 87401

Harold W. Elledge, President

Office Phone (505) 327-1181

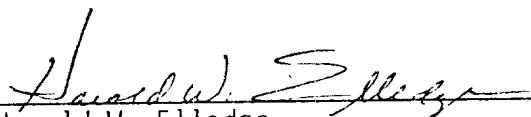
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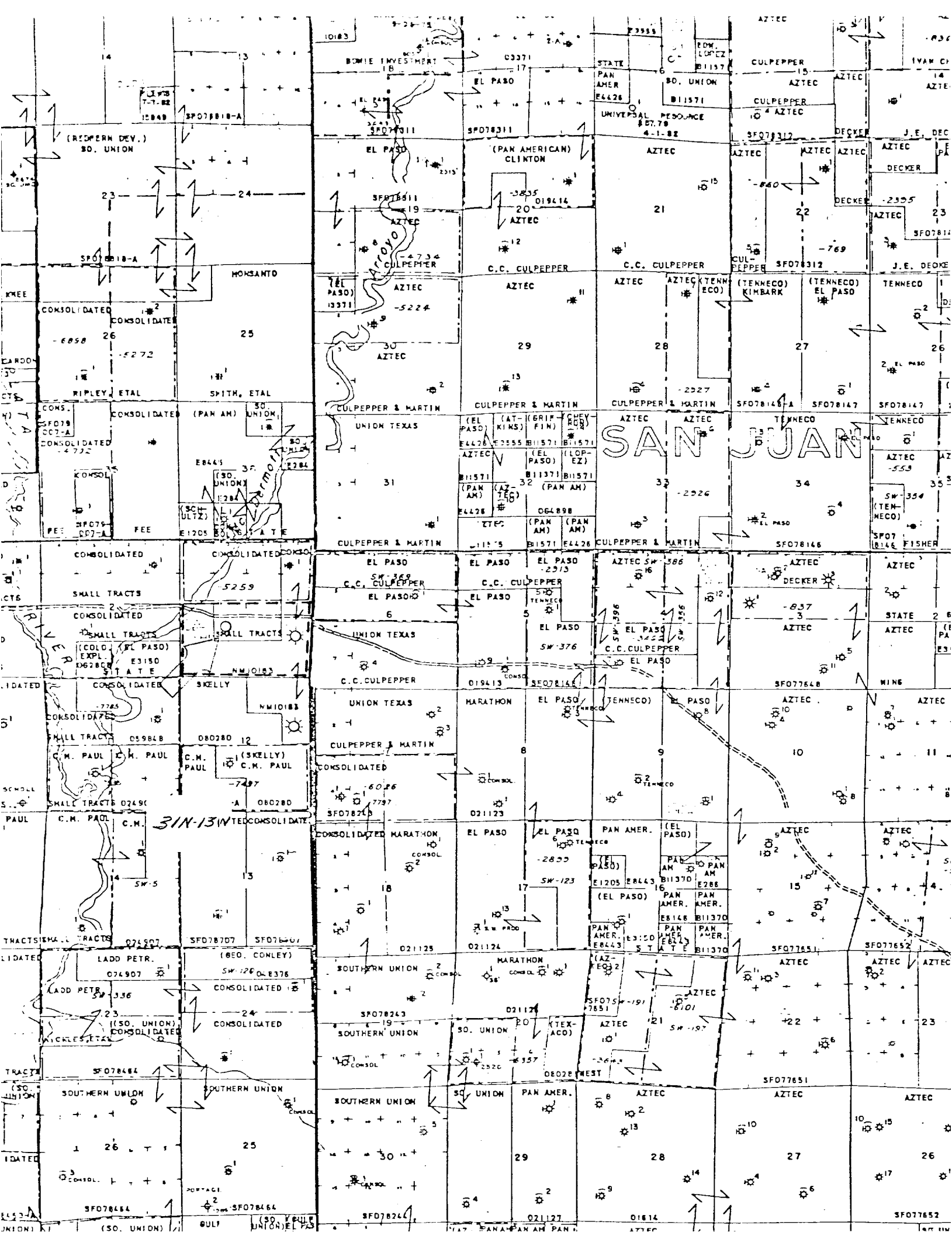
Robert Ballantyne
P. O. Box 2564
Billings, Montana 59103

Office Phone (406) 248-3151
Home Phone (406) 656-1304

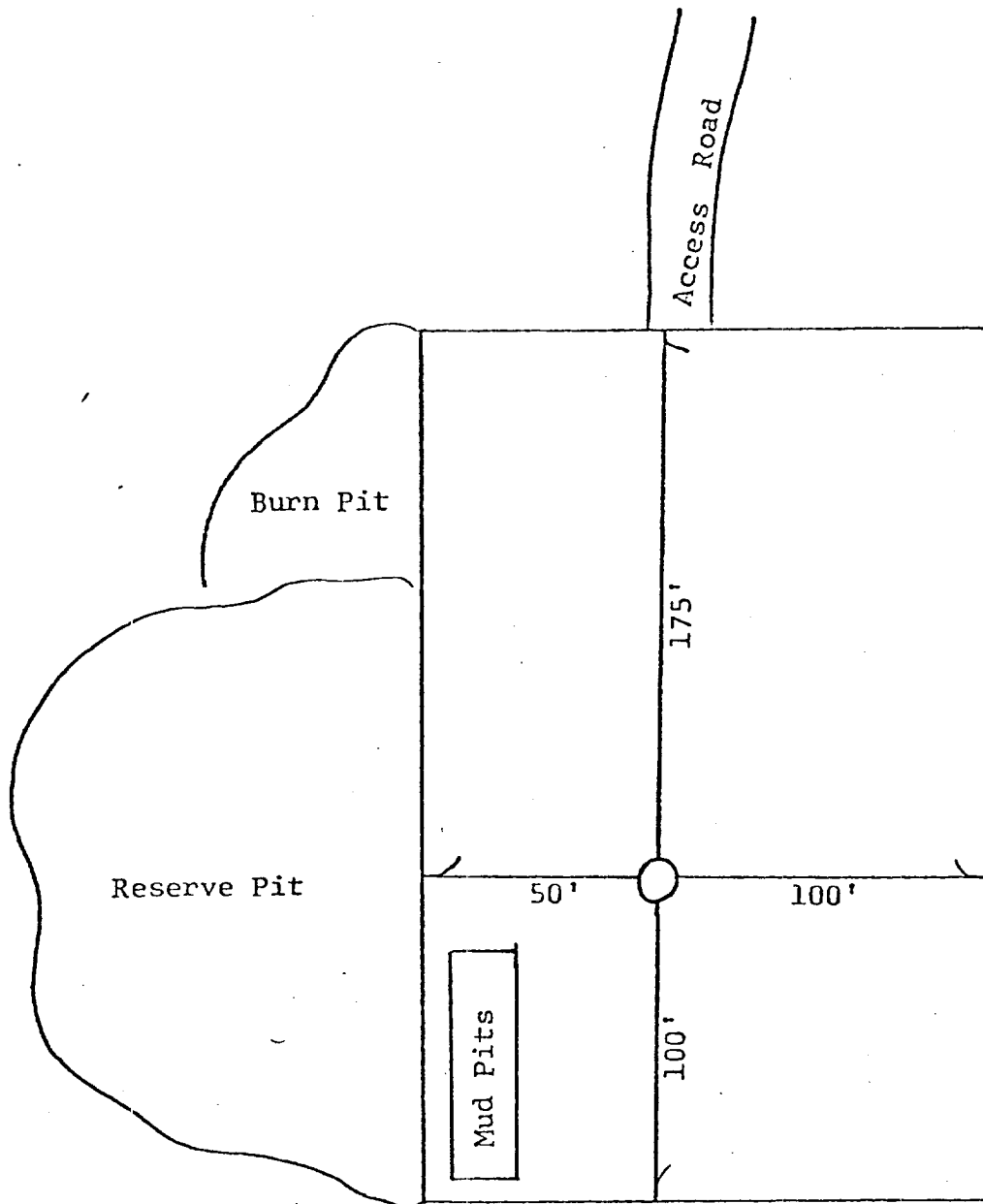
13. I hereby certify that I, or persons under my direct supervision, have inspected the proposed drillsite and access route; that I am familiar with the conditions which presently exist; that the statements made in this plan are, to the best of my knowledge, true and correct; and, that the work associated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

Date: December 24, 1976

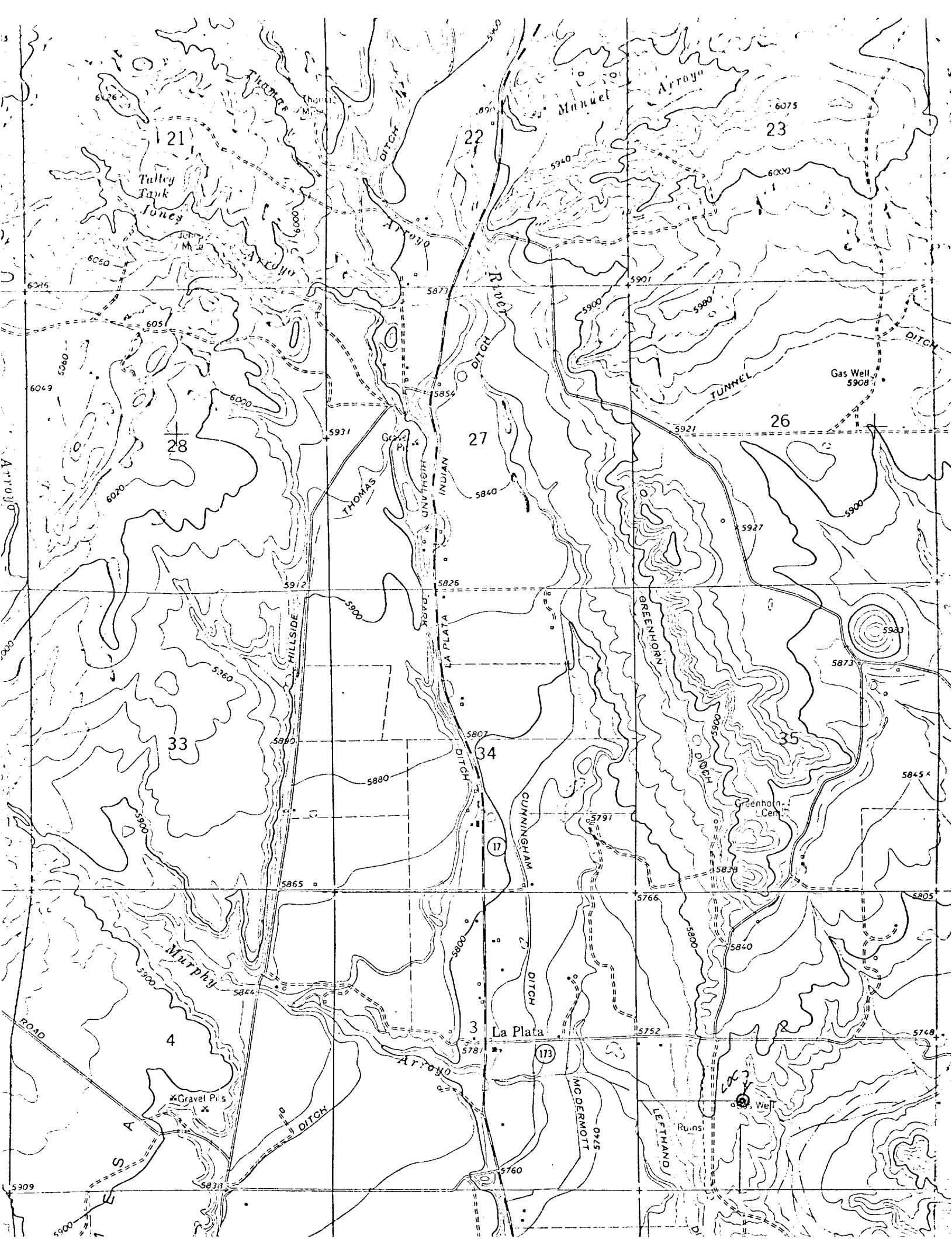

Harold W. Elledge

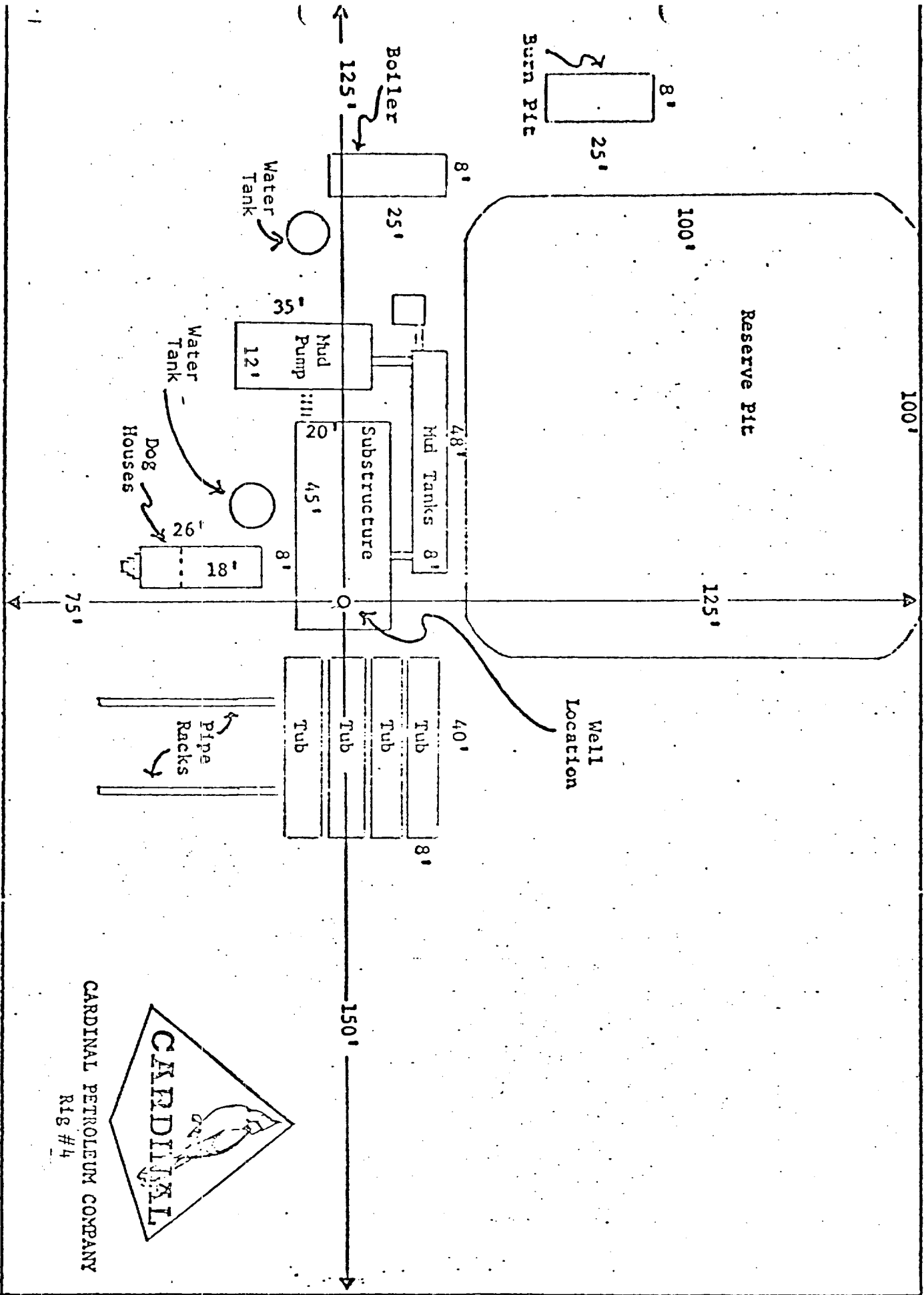


Proposed Location Layout



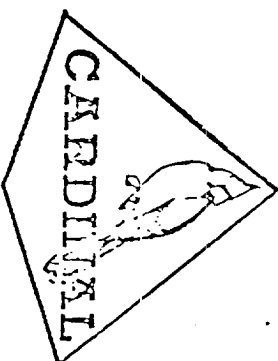
N





275'

200'



CARDINAL PETROLEUM COMPANY
Rig #4

275'

SEVEN POINT WELL CONTROL PLAN

PALMER OIL & GAS COMPANY
Federal Com. No. 2
NE $\frac{1}{4}$ SW $\frac{1}{4}$ Section 1-T31N-R13W
San Juan County, New Mexico

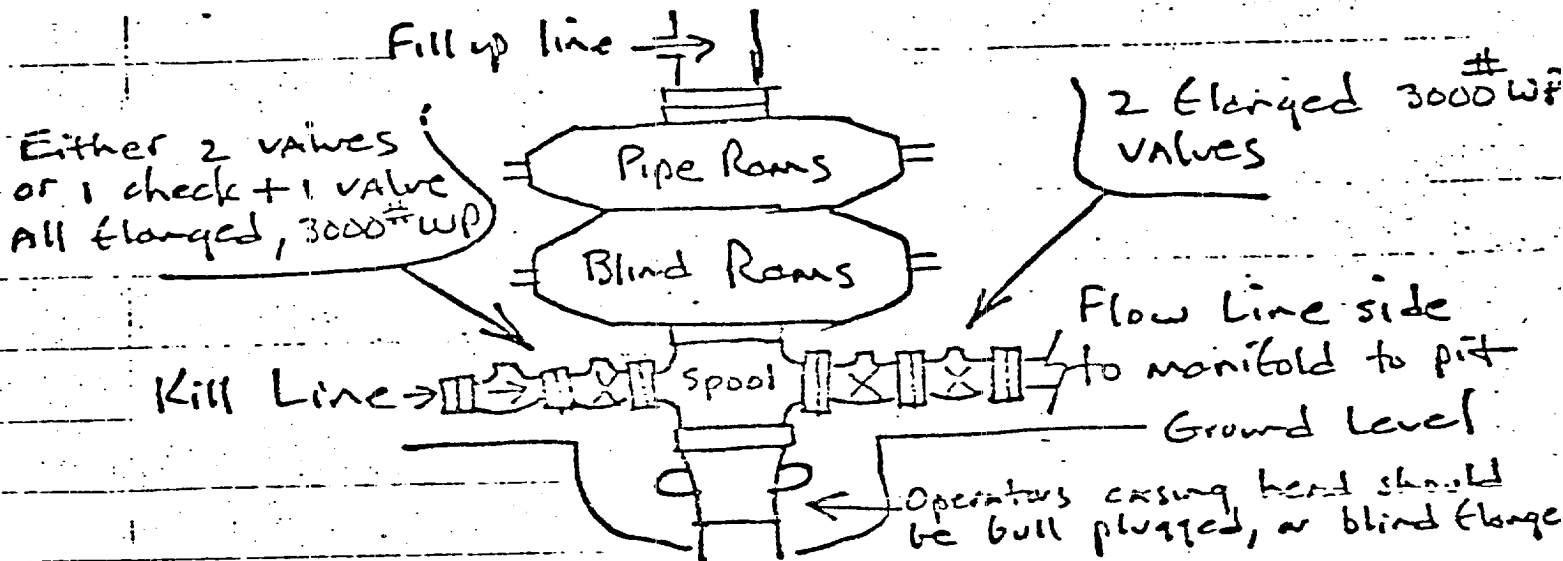
1. Surface Casing: 9-5/8" 24#/ft., Grade K-55, Short T&C, set at 200' and cemented with pump and plug method back to surface.
2. Casinghead Flange: 9-5/8" X 10-3/4" top 1500 psig W. P. Larkin (or equivalent) casinghead with two 2" 1500 psi L. P. outlets.
3. Approximately 3875' of 7" 23# intermediate casing will be set through the Point Lookout.
4. Blowout Preventor: A 8" 3000 psig W.P. Double gate hydraulic Schaffer BOP (or equivalent) with drill pipe rams and blind rams. All fill, kill, and choke lines will be minimum of 2" 2000 psi working pressure. The rams will be closed daily and checked for proper operation.
5. Auxillary Equipment: a) Drill pipe floats will be allowed at contractor's discretion. b) Visual and manual monitoring of mud system will be maintained.
6. Anticipated bottom hole pressure is less than 1000 psi at 4800' or a gradient of .229 psi/ft.
7. Well will be drilled with water base mud system with 8.8 - 9.0 ppg weight, 35 - 45 seconds viscosity to 3875. Intermediate string of 7" will be set and cemented to surface. A 6-1/2" gas drilled hole will be drilled to approximately 4800' and a 4-1/2" 9.5# liner set through the mesaverde pay and cemented back to the intermediate casing.

PALMER OIL & GAS COMPANY

By: David W. Ehlke



BLOWOUT PREVENTOR EQUIPMENT



Detail Flow Line Side (manifold)
(All fittings flanged & wp at 3000#)

