

ILLEGIBLE

SUBMIT IN TRIPPLICATE*
(Other instructions on reverse side)

Form approved.
Budget Bureau No. 42-R1425.

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

30-039-21364

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
 Caudill Oil Company

3. ADDRESS OF OPERATOR
 P.O. Box 740, Farmington, New Mexico

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)
 At surface 1/2 mile from the East and 1010 From the South
 At proposed prod. zone Same

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*
 2.5 miles Southwest of Blanco, New Mexico

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drilg. unit line, if any) 1010

16. NO. OF ACRES IN LEASE 1600

17. NO. OF ACRES ASSIGNED TO THIS WELL 160

18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT. 1930

19. PROPOSED DEPTH 3225

20. ROTARY OR CABLE TOOLS Rotary

21. ELEVATIONS (Show whether DE, RT, GR, etc.) 4412 ft.

22. APPROX. DATE WORK WILL START* April 20, 1977

5. LEASE DESIGNATION AND SERIAL NO.
 NM 03547

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME
 Breach "F"

9. WELL NO.
 44

10. FIELD AND POOL, OR WILDCAT
 South Blanco *PICTURED CLIFFS*

11. SEC., T., R., M., OR BLE. AND SURVEY OR AREA
 Section 34 27N 6W

12. COUNTY OR PARISH Rio Arriba

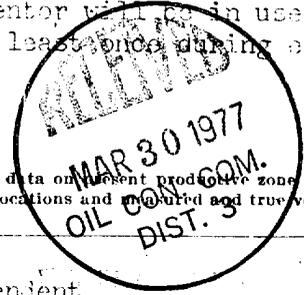
13. STATE New Mexico

22. APPROX. DATE WORK WILL START* April 20, 1977

PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
10 3/4"	8 5/8"	21	100	Sufficient to circulate 425 Sacks
7 7/8"	6 1/2"	10.5	3225	

Surface formation San Jose. No abnormal pressure or temperature anticipated.
 It is proposed to drill well to 3225' using gel based 9# mud. Drill pipe float will be used with float installed at bit. ES Induction log will be run providing hole conditions permit tools to open hole, if not Neutron log will be run in pipe.
 New 1 1/2" E-40, 10.5# casing will be cemented at TB with 325 sacks 50-50 pas containing 10% gel per sack, followed by 100 sacks Neat cement.
 Casing will have rotating scratchers and centralizers through Pictured Cliffs Zone.
 New 1" 13 rd thd. V-55 Ni tubing will be run to top of Pictured Cliffs perforation.
 A Shaffer 8" Model EMP, 6000# test, 3000# BP Blowout Preventor will be in use at all times while drilling below 100'. Blowout Preventor will be tested at least once during each 24 hour day.



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 recorded and true vertical depths. Give blowout preventer program, if any.

24. SIGNED Armando E. Vergara TITLE Superintendent DATE March 17, 1977

(This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE MAR 13 1977

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

ST
 *See Instructions On Reverse Side

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.

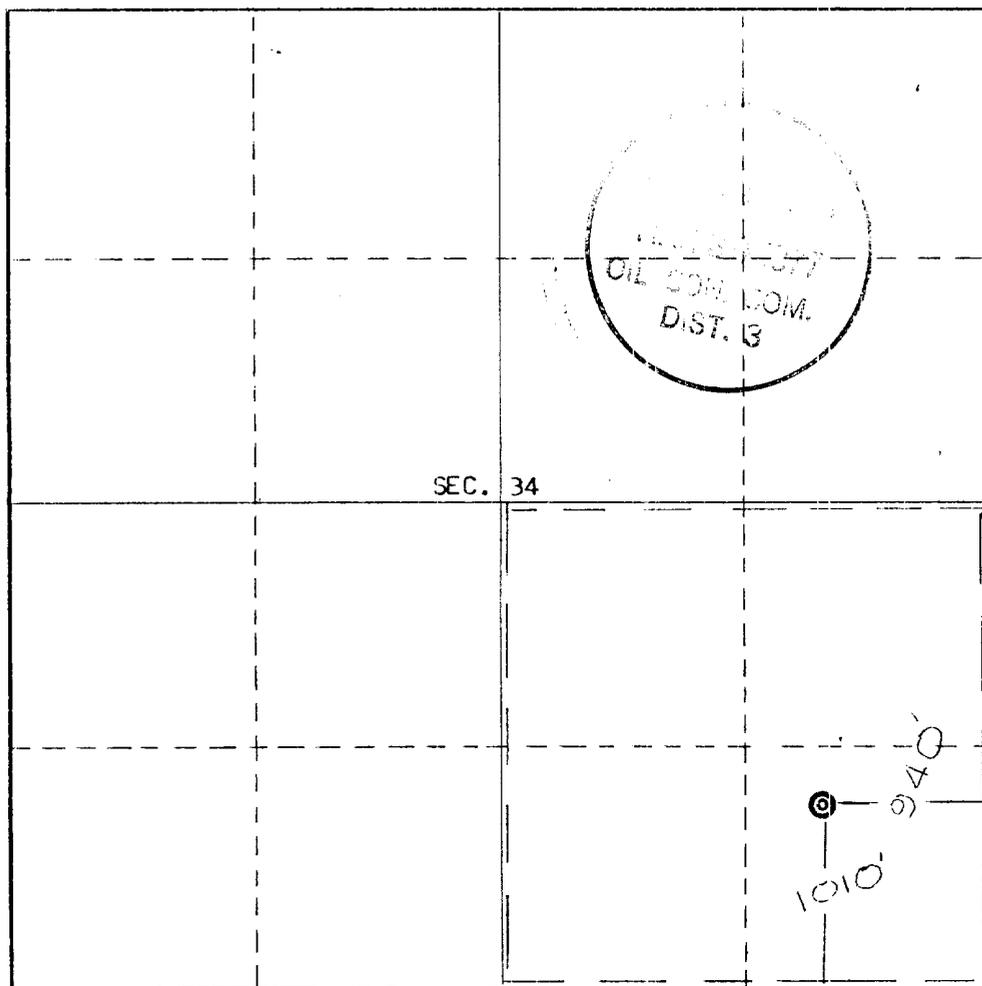
Operator Caulkins Oil Company		Lease NM 03547		Well No. 44
Well Letter P	Section 34	Township 27 North	Range 6 West	County Rio Arriba
Actual Well Location of Well: 1010 feet from the South line and 940 feet from the East line				
Ground Level Elev. 6612	Producing Formation Pictured Cliffs	Pool South Blanco	Dedicated Acreage 160 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?

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
Walter C. Cargue

Position
Superintendent

Company
Caulkins Oil Co.

Date
March 17, 1977

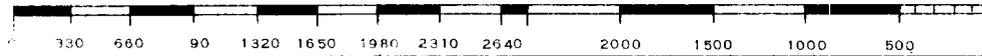
REGISTERED PROFESSIONAL ENGINEER AND LAND SURVEYOR
I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same are and correct to the best of my knowledge and belief.

Date Surveyed
March 5, 1977

Registered Professional Engineer and/or Land Surveyor

E.V. Echhawk

Certificate No. **3602**
E.V. Echhawk LS



CAULKINS OIL CO.

Post Office Box 780
Farmington, New Mexico 87401

March 17, 1977

United States Dept. of the Interior
Geological Survey
Post Office Box 1309
Durango, Colorado 81301

Gentlemen:

Following is our multi-point development plan for surface use and restoration for our well No. 44, located in Southeast Quarter of Section 34 27N 6W, Rio Arriba County, New Mexico.

- (1) Location to be built adjacent to existing road. Copy of Topo map showing proposed location and existing roads in area.
- (2) No new road required. Access roads from Ercan Camp to location marked on Topo map.
- ((3) Location of existing wells shown on Topo map.
- (4) No tank battery or production facilities required. Note: Gas Company of New Mexico as purchaser of gas will apply for permit for pipelines and production equipment.
- (5) Water will be hauled from Caulkins Oil Company well number 130, located in Northwest Quarter of Section 9 26N 6W, Rio Arriba County, New Mexico, identified with red circle on topo map. Roads on Federal lands used haul water from water well to location also shown on topo map.
- (6) No construction materials needed for roads of location.
- (7) All cuttings, trash, garbage and etc, will be confined to reserve pit and small fenced pit on location. After rig is moved out, area will be cleaned up, small pit covered and reserve pit fenced until fluid in pit evaporates. Reserve pit will be covered as soon as it dries sufficiently to proceed without damage to outside surface.
- (8) No camp required.
- (9) Layout plat for location and reserve pit attached. Location lays on hillside with approx. 6% slope. A 6' cut on North end of location will be required. When complete slopes on location will no more than 3:1. Reserve pit will be built from earth materials, banks will be packed by tractor and pit will not be lined.
- (10) Reserve pit will be covered and cleaned up then reseeded with BLM recommended seeding program with 2 $\frac{1}{2}$ # Crested Wheatgrass, 2 $\frac{1}{2}$ # Smooth Brome, $\frac{1}{2}$ # Fourwing Saltbrush (dewinged) and 1# Nomad Alfalfa per acre. Reseeded area will include all location and reserve pit area to within 5' of all facilities. Seeding shall be done between July 15 and Oct. 15. All facilities maintained by Caulkins Oil Company shall be painted Grey, Number 36357.

(11) New location will be along side existing road, area to be disturbed has medium coverage of Blue Gama and sage brush. Soil is sandy clay loam.

(12) Operator's Representative:

Charles Verquer, Supt.
Post Office Box 780
Farmington, New Mexico, 87401

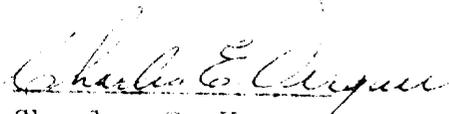
Phone: 325 0481

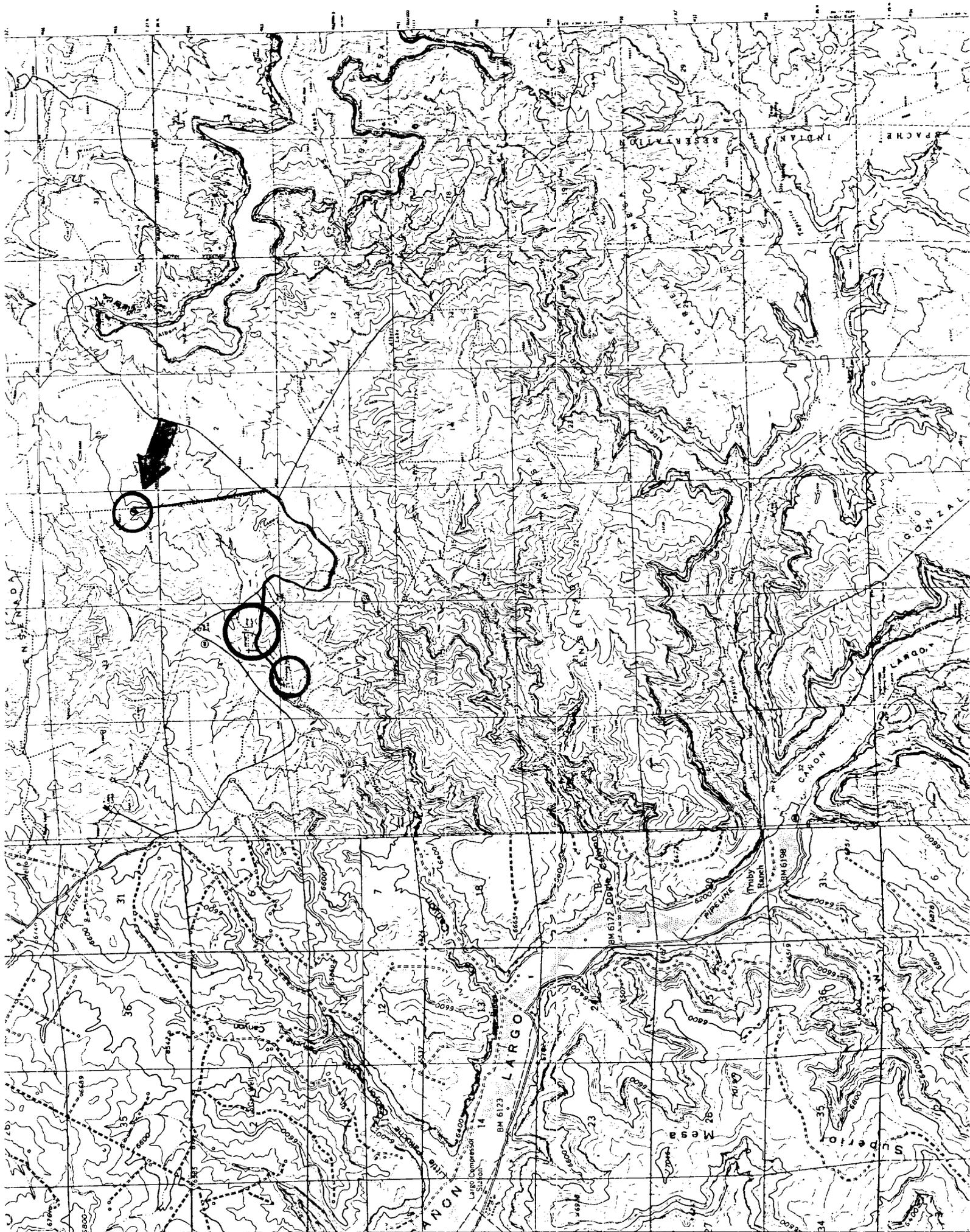
(13) Certification:

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 CAULKINS OIL COMPANY and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved

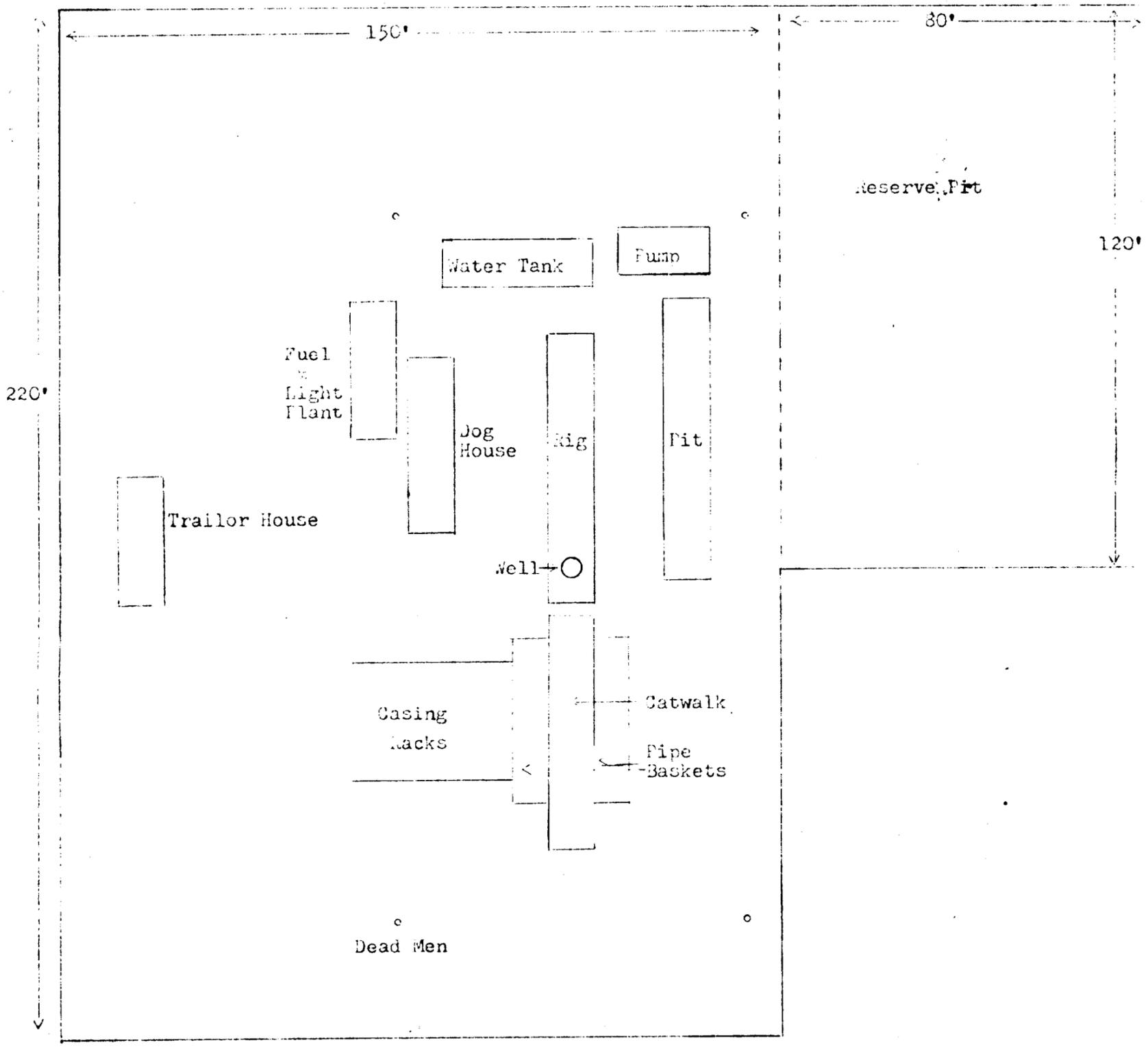
March 17, 1977

Date


Charles E. Verquer, Supt.



BY _____ DATE _____ SUBJECT _____
 CHKD BY _____ DATE _____
 SHEET NO. _____ OF _____
 JOB NO. _____



Scale - 1 inch = 25'

Well Number 44
 SE SE Section 34 27N 6W
 Rio Arriba County, New Mexico

NEW MEXICO OIL CONSERVATION COMMISSION
MULTI-POINT BACK PRESSURE TEST FOR GAS WELL

Form C-122
Revised 12-1-55

Pool South Blanco		Formation Pictured Cliffs			County Rio Arriba	
Initial X	Annual	Special	Date of Test 6-19-77			
Company Caulkins Oil Company			Lease Breech "A"		Well No. 44	
Unit P	Sec. 34	Twp. 27 N	Range 6 W	Purchaser Gas Company of New Mexico		
Casing 4.5	Wt. 10.5	I.D. 4.000	Set at 3250	Perf. 3152	To 3214	
Tubing 1"	Wt. 1.7	I.D. 1.049	Set at 3178	Perf. 3178	To	
Gas Pay:	From 3152	To 3214	L	G	GL	Bar. Press.
Producing Through:			Yes		Type Well - Single - Braden head - G.G. or G.O. Dual Single Gas	
Date of Completion 5-18-77		Packer		Reservoir Temp.		

OBSERVED DATA

Tested Through:					Type of Tests					
Prever <input type="checkbox"/>		Choke <input checked="" type="checkbox"/>		Meter <input type="checkbox"/>						
FLOW DATA					TUBING DATA		CASING DATA		DURATION OF FLOW HR.	
No.	(Prever) (Line) Size	(Choke) (Orifice) Size	Press. psig.	Diff. h _w	Temp. °F.	Press. psig.	Temp. °F.	Press. psig.		Temp. °F.
1.	7 days					1065		1065		3 hrs.
2.						62		607		
3.										
4.										
5.										

FLOW CALCULATIONS

No.	Coefficient (24 Hour)	$\sqrt{h_w P_t}$	Pressure psia	Flow Temp. Factor F_t	Gravity Factor F_g	Compress. Factor F_{pv}	Rate of Flow Q-MCFPD @ 15.025 psia
1.	14.1605		74	1.000	1.000	1.000	1048
2.							
3.							
4.							
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio _____ cf/bbl. Specific Gravity Separator Gas _____
 Gravity of Liquid Hydrocarbons _____ deg. Specific Gravity Flowing Fluid _____
 $F_c = (1 - e^{-S})$ _____ $P_c = P_w^2$ _____

No.	$\frac{P_w}{P_t}$ psia	P_t^2	$F_c Q$	$(F_c Q)^2$	$(F_c Q)^2 (1 - e^{-S})$	P_w^2	$P_c^2 - P_w^2$	Cal $\frac{P_w}{P_c}$	$\frac{P_w}{P_c}$
1.						383,161	776,768		
2.									
3.									
4.									
5.									

ABSOLUTE POTENTIAL: 14.73 MCFPD; n .85

COMPANY Caulkins Oil Company WITNESSED _____
 ADDRESS P.O. Box 340, Bloomfield, N.M. COMPANY _____
 AGENT AND TITLE Charles Auger
Superintendent

This acreage dedicated to Gas Company of New Mexico