Form 9-331 C
(May 1963)

SUBMIT IN TRIPLICATE*
(Other instructions on reverse side)

Form approved.
Budget Bureau No. 42-R1425.

API # 30-047-20016

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK
DRILL [X] DEEPEN [ ] PLUG BACK [ ]

b. TYPE OF WELL
OIL WELL [X] GAS WELL [ ] OTHER SINGLE ZONE [X] MULTIPLE ZONE [ ]

2. NAME OF OPERATOR
Core Laboratories, Inc.

3. ADDRESS OF OPERATOR
P. O. Box 47547 Dallas, Texas 75247

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*)
At surface 2030' FWL & 1150' FSL Section 27 Unit N

At proposed prod. zone
T12N, R12E

5. LEASE DESIGNATION AND SERIAL NO.
NM-22137

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME
Federal

9. WELL NO.
27-1

10. FIELD AND POOL, OR WILDCAT
Wildcat

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
SE/4, SW/4 Sec. 27 T12N, R12E

12. COUNTY OR PARISH
San Miguel

13. STATE
New Mexico

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*
3.5 Miles East of White Lake

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any)
170

16. NO. OF ACRES IN LEASE
360

17. NO. OF ACRES ASSIGNED TO THIS WELL
40

18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.
None

19. PROPOSED DEPTH
3500 ft

20. ROTARY OR CABLE TOOLS
Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.)
6,584 ft GR

22. APPROX. DATE WORK WILL START*
January 22, 1979

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
17 1/2	13 3/8	48	300	300 sx class "C" circulate
9 7/8	7	20	3500	540 sx Lite, 200 sx class "C"

We proposed to drill a well to 3500 ft to test the Pennsylvanian Formation. If commercially productive, we will case as per the above and proceed to complete; if dry, we will P & A as per USGS and state of New Mexico requirements.

RECEIVED
JAN 30 1979
OIL CON. COM.
DIST. 3

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 R. W. Winter, Jr. TITLE Manager, Drilling and Production Services DATE December 14, 1978

(This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE _____

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

RECEIVED
DEC 19 1978
U. S. GEOLOGICAL SURVEY
DURANGO, COLO.

*See Instructions On Reverse Side

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 C-102
Supersedes C-128
Effective 1-1-65

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

Operator	Lease	Well No.
Core Laboratories, Inc.	NM-22137	Fed. 27-1

Unit Letter	Section	Township	Range	County
	27	12 North	12 East	San Miguel

Actual Footage Location of Well:
1150 feet from the South line and 2030 feet from the West line

Ground Level Elev.	Producing Formation	Pool	Dedicated Acreage:
6584	Pennsylvanian		40 Acres

1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.

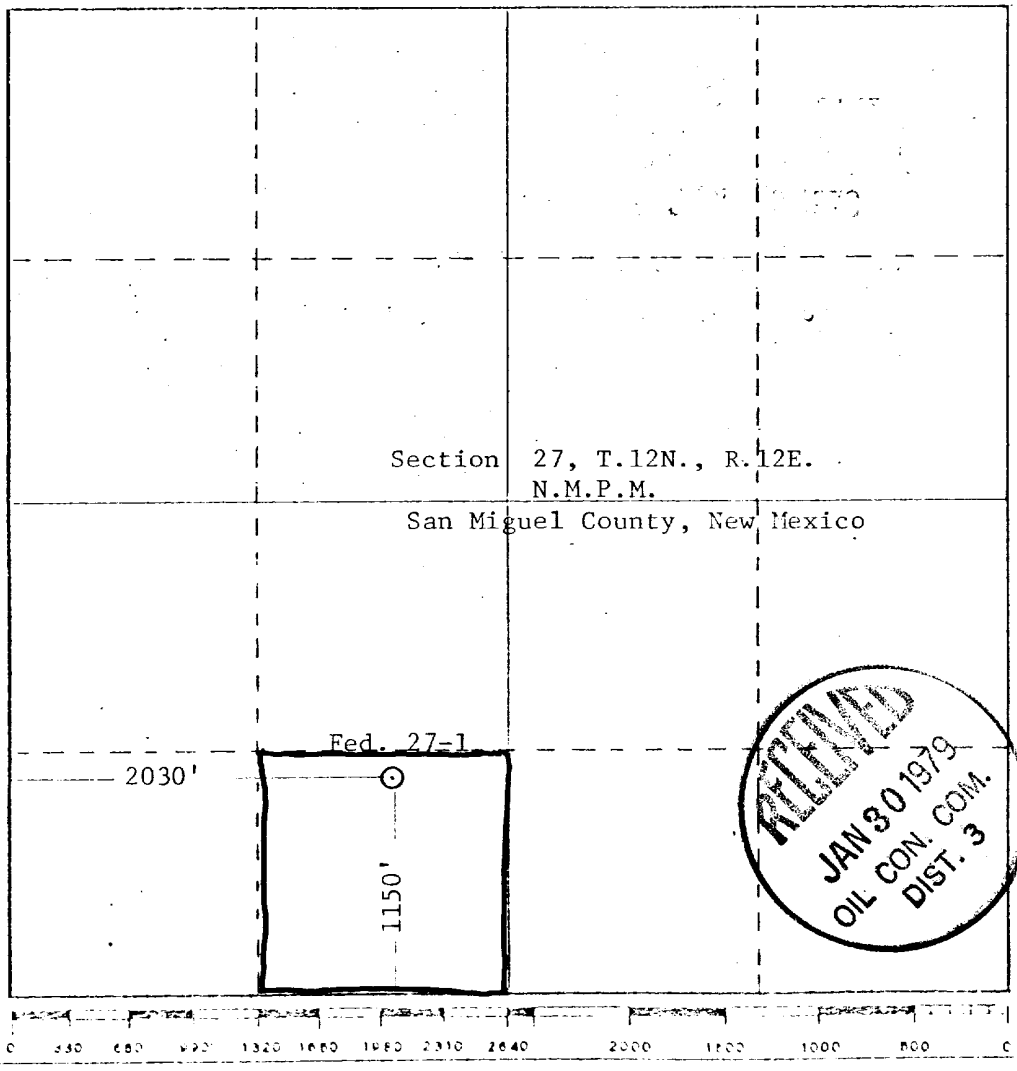
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).

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.) JUSTINIANO LOYOLA SE/4 SW/4 OWNS ACREAGE NOT U.S. Govt OWNS MINERALS

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. Dedicated acreage all in one lease.



CERTIFICATION

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

Ellis Austin

Name Ellis Austin

Position Senior Supervising Engr

Company Core Laboratories, Inc.

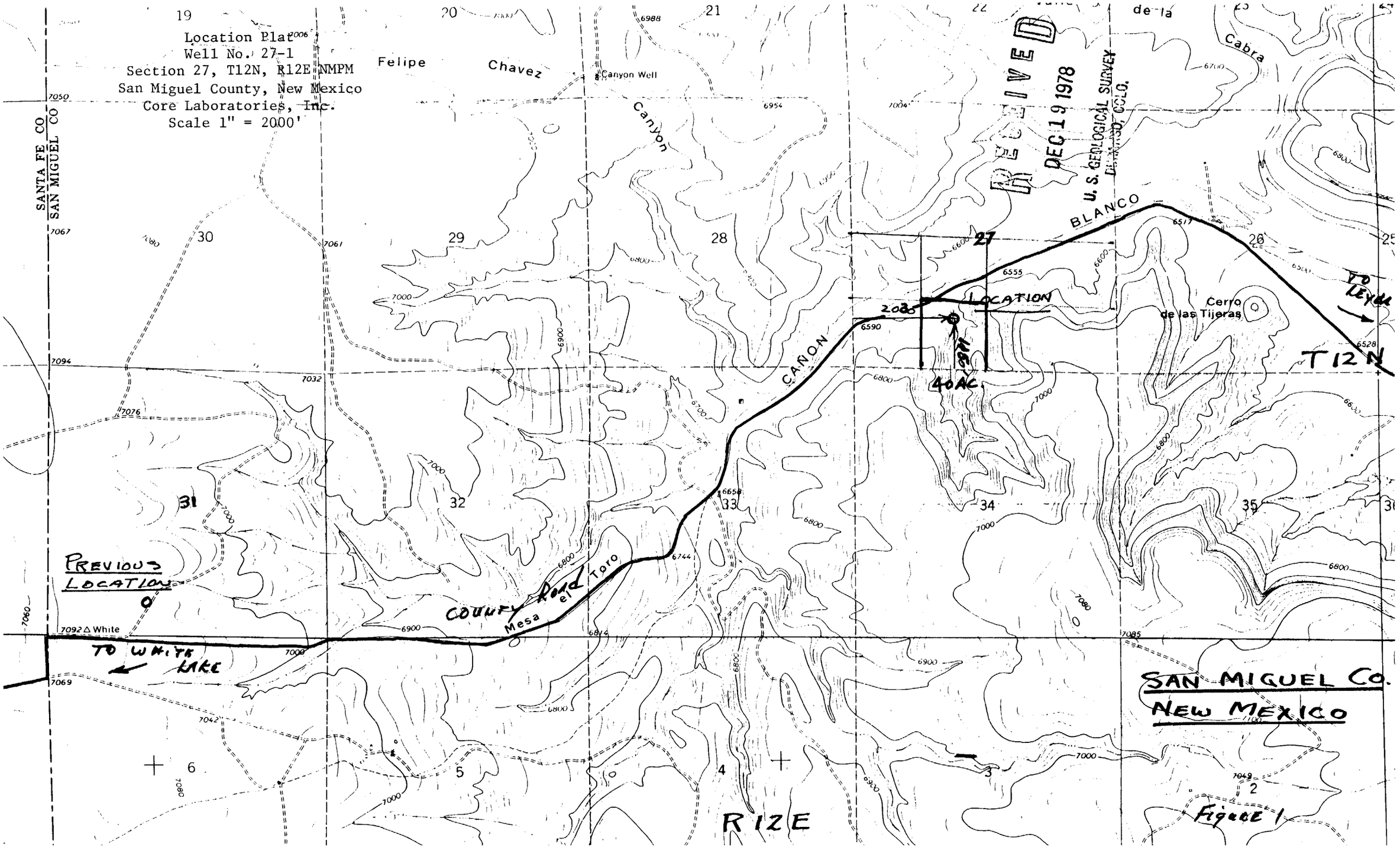
Date 1/22/79

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
January 14, 1979

Registered Professional Engineer and/or Land Surveyor

Certificate No. 6256


Location Plat
Well No. 27-1
Section 27, T12N, R12E, NMPM
San Miguel County, New Mexico
Core Laboratories, Inc.
Scale 1" = 2000'
RECEIVED
DEC 19 1978
U.S. GEOLOGICAL SURVEY
DENVER, COLO.
SANTA FE CO
SAN MIGUEL CO
Felipe Chavez Canyon Well
Canyon
BLANCO CANON
Cabra
de la
Cerro de las Tijeras
LOCATION
2035' FNL
40 AC.
TO LEYBA
T12N
PREVIOUS LOCATION
COUNTY Road
Mesa Toro
TO WHITE LAKE
7092 △ White
SAN MIGUEL CO.
NEW MEXICO
RIZE
Figure 1

Form 3104-2
(January 1971)
(formerly 3106-2)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

Bond Number 511E7291
Land Office and Serial Number
Operating agreement approved *(date)*

BOND OF OIL AND GAS LEASE OPERATOR

KNOW ALL MEN BY THESE PRESENTS, That we,

Core Laboratories, Inc. , as principal,

and The Travelers Indemnity Company , as surety, are held and firmly bound unto the United States of America, in the sum of Five Thousand and no/100---------- dollars ($ 5,000.00) lawful money of the United States, for the use and benefit of (1) the United States; (2) any owner of a portion of the land in the lease bearing the above serial number who holds his land subject to a reservation of the oil and gas deposits to the United States; and (3) any lessee or permittee under a lease or permit issued, or to be issued, by the United States covering the use of the surface or the prospecting for, development of, other mineral deposits in any portion of such land, to be paid to the United States. For such payment, well and truly to be made, we bind ourselves, and each of us, and each of our heirs, executors, administrators, successors, and assigns, jointly and severally, by these presents.

The condition of the foregoing obligation is such that

WHEREAS, by lease bearing the above serial number, the lessee was granted the exclusive right to drill for, mine, extract, remove, and dispose of all the oil and gas deposits in or under the leased lands, under and pursuant to the provisions of the Mineral Leasing Act of February 25, 1920 (40 Stat. 437), as amended; or Act of August 7, 1947 (61 Stat. 913), as amended; and

WHEREAS said lessee has, by virtue of the lease above referred to, entered into certain covenants and agreements set forth in such lease, under which operations are to be conducted; and

WHEREAS by operating agreement approved by the Bureau of Land Management on the above date the principal herein has been designated as "operator" with respect to all or part of the leased lands; and

WHEREAS, the said principal in consideration of being permitted, in lieu of the lessee, to furnish this bond agrees and by these presents does hereby bind himself to fulfill on behalf of the lessee all of the obligations of the said lease in the same manner and to the same extent as though he were the lessee;

NOW, THEREFORE, If said principal shall in all respects faithfully comply with all of the provisions of the above-described lease, then this obligation shall be void, otherwise to remain in full force and effect.

It is understood and agreed that this bond is being furnished in contemplation of drilling operations to be performed by the said principal on the lands in the above-described lease. It is also understood and agreed that the neglect or forbearance of said lessor in enforcing, as against the above-named lessee, the payment of rentals or royalties or the performance of any other covenant, condition, or agreement of the above-described lease, shall not, in any way, release the principal and surety, or either of them, from any liability under this bond; and, it is further understood and agreed that, in the event of any default under the above-described lease, the lessor may commence and prosecute any claim, suit, action, or other proceeding against the principal and surety, or either of them, without the necessity of joining the above-named lessee.

Signed on this 28th day of December , 19 78 , in the presence of:

NAMES AND ADDRESSES OF WITNESSES

(Signature)

P.O. Box 47547, Dallas, Tx. 75247
(Address)

(Signature)

2900 Turtle Creek Plaza, Dallas, Tx. 75219
(Address)

(Signature)

(Address)

(Signature)

(Address)

Woodson M. Schmitter [L. S.]
(Signature of Principal)
Core Laboratories, Inc.
P.O. Box 47547, Dallas, Texas 75247
(Business Address)

Attorney-in-fact [L. S.]
(Signature of Surety)
The Travelers Indemnity Company
Two North Park East, Dallas, Tx. 75231
(Business Address)

By _____

2900 Turtle Creek Plaza, Dallas, Texas 75219
(Address of Surety's Agent)

GPO 832-836

The Travelers Indemnity Company
Hartford, Connecticut

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS:
That THE TRAVELERS INDEMNITY COMPANY, a corporation of the State of Connecticut, does hereby make, constitute and appoint

David B. Noel, Donald W. Greaves, William E. Strother, Ann Bennett, John W. Fougeron, all of Dallas, Texas, EACH

its true and lawful Attorney(s)-in-Fact, with full power and authority, for and on behalf of the Company as surety, to execute and deliver and affix the seal of the Company thereto, if a seal is required, bonds, undertakings, recognizances, consents of surety or other written obligations in the nature thereof, as follows:

Any and all bonds, undertakings, recognizances, consents of surety or other written obligations in the nature thereof not exceeding in amount One Hundred Thousand Dollars ($100,000) in any single instance

and to bind THE TRAVELERS INDEMNITY COMPANY thereby, and all of the acts of said Attorney(s)-in-Fact, pursuant to these presents, are hereby ratified and confirmed.
This appointment is made under and by authority of the following by-laws of the Company which by-laws are now in full force and effect:

ARTICLE IV, SECTION 13. The Chairman of the Board, the President, the Chairman of the Finance Committee, any Executive Vice President, any Senior Vice President, any Vice President, any Second Vice President, any Secretary or any Department Secretary may appoint attorneys-in-fact or agents with power and authority, as defined or limited in their respective powers of attorney, for and on behalf of the Company to execute and deliver, and affix the seal of the Company thereto, bonds, undertakings, recognizances, consents of surety or other written obligations in the nature thereof and any of said officers may remove any such attorney-in-fact or agent and revoke the power and authority given to him.

ARTICLE IV, SECTION 15. Any bond, undertaking, recognizance, consent of surety or written obligation in the nature thereof shall be valid and binding upon the Company when signed by the Chairman of the Board, the President, the Chairman of the Finance Committee, any Executive Vice President, any Senior Vice President, any Vice President or any Second Vice President and duly attested and sealed, if a seal is required, by any Secretary or any Department Secretary or any Assistant Secretary or when signed by the Chairman of the Board, the President, the Chairman of the Finance Committee, any Executive Vice President, any Senior Vice President, any Vice President or any Second Vice President and countersigned and sealed, if a seal is required, by a duly authorized attorney-in-fact or agent; and any such bond, undertaking, recognizance, consent of surety or written obligation in the nature thereof shall be valid and binding upon the Company when duly executed and sealed, if a seal is required, by one or more attorneys-in-fact or agents pursuant to and within the limits of the authority granted by his or their power or powers of attorney.

This power of attorney is signed and sealed by facsimile under and by the authority of the following Resolution adopted by the Directors of THE TRAVELERS INDEMNITY COMPANY at a meeting duly called and held on the 30th day of November, 1959:

VOTED: That the signature of any officer authorized by the By-Laws and the Company seal may be affixed by facsimile to any power of attorney or special power of attorney or certification of either given for the execution of any bond, undertaking, recognizance or other written obligation in the nature thereof; such signature and seal, when so used being hereby adopted by the Company as the original signature of such officer and the original seal of the Company, to be valid and binding upon the Company with the same force and effect as though manually affixed.

This power of attorney revokes that dated October 1, 1970 on behalf of David B. Noel, Donald W. Greaves, William E. Strother

IN WITNESS WHEREOF, THE TRAVELERS INDEMNITY COMPANY has caused these presents to be signed by its proper officer and its corporate seal to be hereunto affixed this 16th day of April 1975.

THE TRAVELERS INDEMNITY COMPANY

By _____
Secretary, Surety

THE TRAVELERS INDEMNITY COMPANY SEAL

State of Connecticut, County of Hartford—ss:

On this 16th day of April in the year 1975 before me personally came D. J. Nash to me known, who, being by me duly sworn, did depose and say: that he resides in the State of Connecticut; that he is Secretary (Surety) of THE TRAVELERS INDEMNITY COMPANY, the corporation described in and which executed the above instrument; that he knows the seal of said corporation; that the seal affixed to said instrument is such corporate seal; that it was so affixed by authority of his office under the by-laws of said corporation, and that he signed his name thereto by like authority.

RUTH H. SOMERVILLE NOTARY PUBLIC CONNECTICUT

Ruth H. Somerville
Notary Public

My commission expires April 1, 1979

(Over)

S-1869 REV. 7-73 PRINTED IN U.S.A.

CERTIFICATION

I, John H. Hanks, Assistant Secretary (Surety) of THE TRAVELERS INDEMNITY COMPANY certify that the foregoing power of attorney, the above quoted Sections 13. and 15. of Article IV of the By-Laws and the Resolution of the Board of Directors of November 30, 1959 have not been abridged or revoked and are now in full force and effect.

Signed and Sealed at Hartford, Connecticut, this **28th** day of **December** 19 **78** .

John H. Hanks

Assistant Secretary, Surety

S-1869 (BACK)

APPLICATION FOR APPROVAL OF OPERATION

(NTL-6)

Core Laboratories, Inc.

Federal #27-1

SE/4, SW/4, Section 27, T12N, R12E

San Miguel County, New Mexico

I. General Statement of Environmental Impact

We propose to drill the subject well to a depth of 3500 ± ft to test the Pennsylvanian Formation. In doing so, it will be necessary to move in a rotary drilling rig to drill the well and if commercial production is discovered we will move in a completion unit to complete this well.

If this well is a commercial producer, casing, cementing and completion will follow good oilfield practices. As a final act, it will be necessary to build production handling facilities.

Roads will be built only as necessary to assure access to facilities. The attached map shows the location of these facilities and required road. All roads and excavations made for the facilities will be restored to their original condition when no longer required.

The drainage pattern of the land will not be changed. The topography or terrain will not be changed except for leveling for the drillsite and production facilities site. No permanent facilities other than production facilities are contemplated for construction.

II. Drilling Operations

A. Preliminary Environmental Review

Core Laboratories, Inc. letter, dated December 8, 1978, was sent to the District Engineer in Durango, Colorado. Permission to stake location was granted December 20, 1978.

B. Application for Permit to Drill

1. See surveyors plat, attached.
2. See surveyors plat, attached.
3. Surface Formation, San Andres Limestone.
4. See rig inventory, attached.
5. 3500 ft ±
6. See geological prognosis, attached.
7. See geological prognosis, attached.
8. See Form 9-331C, attached.
9. See Form 9-331C, attached.
10. See rig diagram of blowout preventor equipment, attached. Daily check of blowout preventor equipment will be made and reports of same to USGS by drilling contractor.

11. (a) See rig inventory and diagram for circulating system specifications.

(b) See geological prognosis, attached.

12. See geological prognosis, attached. Operator, however, reserves the right to drillstem test any and all hydrocarbon shows encountered.

13. No abnormal conditions, pressure or temperatures are anticipated. Hazards of a gaseous nature can be handled by equipment shown in (10) above.

14. This project can start approximately Jan. 22, 1979 and should require approximately 40 days.

15. No additional comments.

III. Multi-Point Surface Use and Operations Plan

As a general statement of policy, it is the intention of the operator and his representatives to utilize as little surface land as possible and to re-grade, restore and/or replace all damages to any land used that has served its purpose. In no way will water right-of-ways, or drainage areas be affected, and in no way will fresh water be disturbed or polluted.

A-1 Existing Roads

Access to these will be accomplished by proceeding 8.5 miles ± east of White Lakes, New Mexico on the county road that goes from White Lakes, to Leyba, New Mexico, thence 400 feet to south to location (see Fig. I, attached). The route is marked in red.

Existing roads are to be improved as required for the movement of our equipment. We will maintain existing roads as required and as dictated by any deterioration we may cause. We will need to resurface by grading only the 400 feet to our location.

A-2 Planned Access Roads

No new access roads are planned.

A-3 Location of Existing Wells

No wells exist in this area.

A-4 Location of Tank Batteries, Production Facilities, Production Gathering and Service Lines

No production facilities exist in this area.

B. See Figure 1 and plat for loaction of proposed tank battery if well is commercial producer. See Figure 2, attached, for layout and

dimensions of tank battery. Materials are standard oil field (API and ASTM rated). Proper fencing with a turn-style gate will be installed to protect wild life from entering production facilities. Wire will be layed across pits to prevent any wild life entry. No fill or load lines will extend beyond fences so that wild life cannot tamper with same. Also, as an added protection, such lines will be equipped with snap or plugs, so they cannot be rubbed loose. Only native materials should be required for ground bed preparations.

C. Any disturbed areas no longer needed will be returned to their original contours and reseeded.

A-5 Location and Type of Water Supply

Negotiations are currently being made to obtain water.

A-6 Source of Construction Materials

It is not anticipated that materials will be required to build this location, thus only ground leveling and reserve pit digging is contemplated.

A-7 Methods for Handling Waste Disposal

Adequate steel pits will be used to handle the recycling of drilling mud. A reserve pit will be dug to handle mud that is no longer serviceable and also to handle cuttings, salts, and chemicals, etc. A pit will be dug and fenced to burn the garbage. Human waste (sewage) will be handled by a portable privy.

Mud pits will be allowed to dry after drilling is completed and then filled, tamped and leveled. All garbage and/or sewage pits will be filled as soon as the rig leaves the location. The location will be leveled and graded prior to moving in completion equipment and after completion equipment is removed.

Any fluids recovered during testing will be contained in temporary frac-tanks. Any oil will eventually be sold. Water will be physically removed from the premises.

A-8 Ancillary Facilities

None anticipated at this time.

A-9 Well Site Layout

See plat of rig, attached. No cuts or fills are anticipated. At this time there appears to be no reason to contemplate lining earthern pits.

A-10 Plans for Restoration of the Surface

The surface of land will be restored by stockpiling soil and then replacing the soil and reseeding, when drilling equipment has been removed.

No change in topography should occur as a result of this work. No rerouting of existing roads is expected.

It is anticipated that pits will be fenced prior to rig release and remain so until clean-up and restoration. Should any oil become evident on pits, it will be removed.

Any damage done to access roads will be repaired.

Final clean-up scheduling (other than above) will be dependent upon weather and moisture content of the soil. In no case should such clean-up exceed six months.

A-11 Other Information

The topography of the location areas is basically flat and the soil is sandy. Vegetation is sparse and primarily weed-grasses. No pronounced geological (surface or subsurface) features exist. No significant water exists in the proximity to location. No archeological, historical or cultural sites are in the area. No cuts or fills are anticipated. Surface ownership is recorded at the San Miguel County Court House as belonging to the following.

Justiniano Leyba
Route 2 Box 20
Pecos, New Mexico 85772

As per letter attached, arrangements are being made to settle damages.

A-12 Operator's Representative

For the purpose of this venture the designated Operator's Representative is:

Core Laboratories, Inc.
7600 Carpenter Freeway
P. O. Box 47547
Dallas, Texas 75247
214/631-8270, ext. 367/374

A-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 the 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 Core Laboratories, Inc. and its contractors and

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

1/24/79
Date

Core Laboratories, Inc.

By G. W. Winter Jr. by
Manager Drilling and
Production Services

IV Environmental Analysis Requirement

As required.

V Approval of Subsequent Operations

Not requested at this time.

VI Agreement for Rehabilitation of Privately Owned Surface

See letter attached.

VII Well Abandonment

Not required at this time.

VIII Water Well Conversion

Not applicable at this request.

ILLEGIBLE

REHABILITATION AGREEMENT

Lease No. NM 22137 Well Name and No. [illegible] 22-1

Location SE/4 SW/4 Sec. 22 T. 12 N R. 12 E

Core Laboratories, Inc. intends to drill a well on surface owned by JUSTINIANO LEYBA. The Lessee/Operator agrees to complete the following rehabilitation work if the well is a producer:

✓ Yes ___ No Maintain access road and provide adequate drainage to road.

✓ Yes ___ No Reshape and reseed any area in excess of the pump and support facilities.

Other requirements _____

The following work will be completed when the well is abandoned:

___ Yes ✓ No Site will require reshaping to conform to existing topography.

___ Yes ✓ No Pit will be fenced until dry, then filled to conform to topography.

___ Yes ✓ No Entire disturbed area will be reseeded. If yes, the following seed mixture will be used.

_____ _____

_____ _____

___ Yes ✓ No Access road will be rehabilitated and reseeded using the same seed mixture as above.

✓ Yes ___ No Access road will remain for landowner's use.

Other requirements LANDOWNER REQUESTS PIT BE LEFT FOR HIS USE.

This agreement covers rehabilitation requirements only and does not affect any other agreements between the Lessee/Operator and Surface Owner.

	Land Owner		Operator/Lessee
Name	[illegible]	Name	[illegible]
Signature		Signature	
Address	Route 2 Box 20	Address	Box 47547
City	PECOS	City	DALLAS
State	New Mexico 88252	State	TEXAS 75247
Telephone	505/ 757-8584	Telephone	214/ 630-8220
Date		Date	11-28-79

✓ Yes ___ No I certify rehabilitation has been discussed with the surface owner.

REHABILITATION AGREEMENT

Lease No. NM 22137 Well Name and No. Federal 27-1

Location SE/4, SW/4 Sec. 27 T. 12N R. 12E

Core Laboratories, Inc. intends to drill a well on surface owned by Justiniano Leyba. The Lessee/Operator agrees to complete the following rehabilitation work if the well is a producer:

X Yes	___ No	Maintain access road and provide adequate drainage to road.
X Yes	___ No	Reshape and reseed any area in excess of the pump and support facilities.

Other requirements _____

The following work will be completed when the well is abandoned:

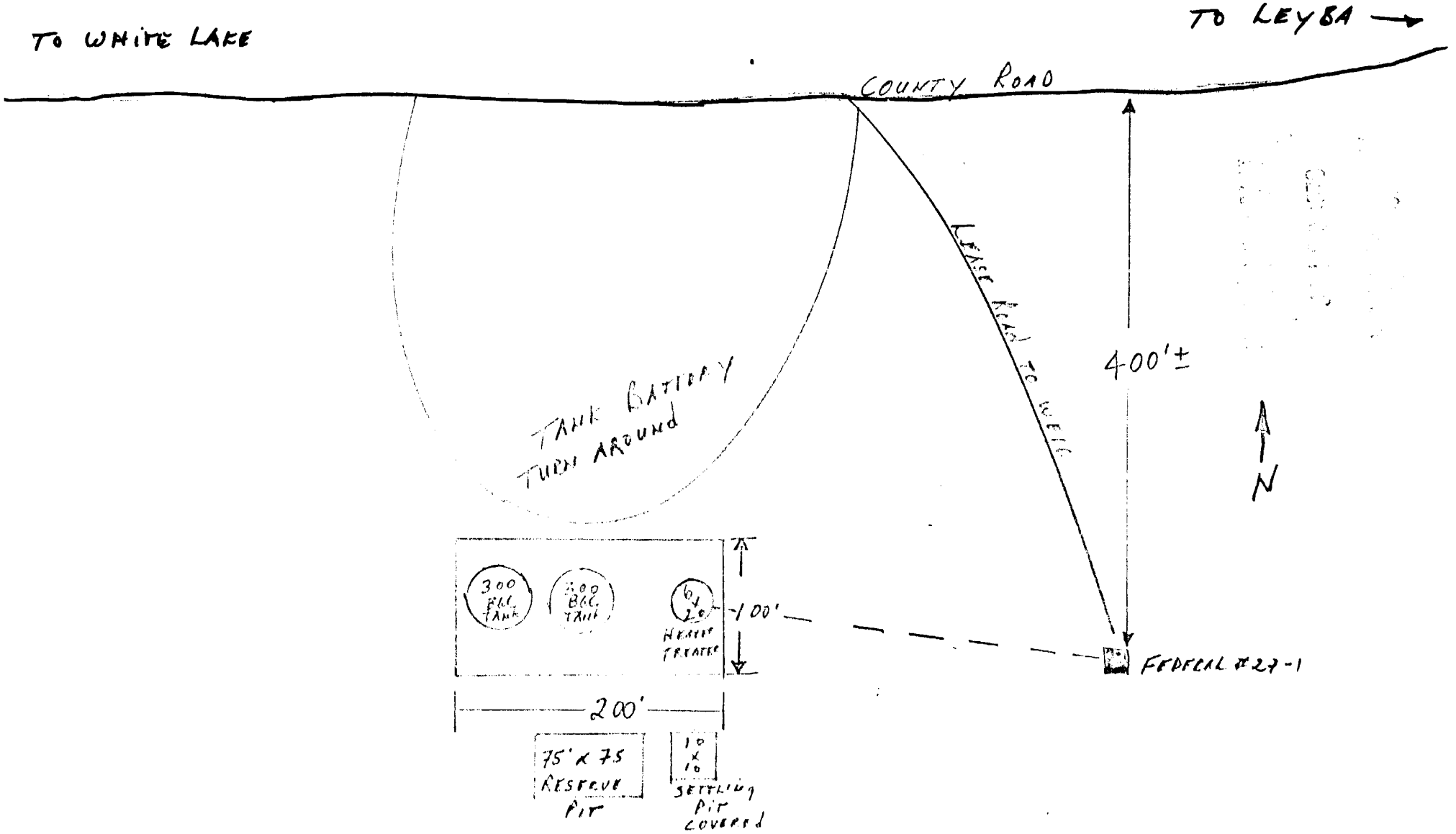
___ Yes	X No	Site will require reshaping to conform to existing topography.
___ Yes	X No	Pit will be fenced until dry, then filled to conform to topography.
___ Yes	X No	Entire disturbed area will be reseeded. If yes, the following seed mixture will be used.
___ Yes	X No	Access road will be rehabilitated and reseeded using the same seed mixture as above.
X Yes	___ No	Access road will remain for landowner's use.

Other requirements Landowner requests pit be left for his use.

This agreement covers rehabilitation requirements only and does not affect any other agreements between the Lessee/Operator and Surface Owner.

Land Owner		Operator/Lessee	
Name	Justiniano Leyba	Name	Core Laboratories, Inc.
Signature		Signature	Bert Austin
Address	Route 2 Box 20	Address	Box 47547
City	Pecos	City	Dallas
State	New Mexico 85772	State	Texas 75247
Telephone	(505) 757-8584	Telephone	(214) 631-8270, Ext. 374/367
Date		Date	January 23, 1979

X Yes ___ No I certify rehabilitation has been discussed with the surface owner.



SE/4, SW/4 SECTION 27, T12N, R12E
SAN MIGUEL COUNTY, NEW MEXICO

SCALE: NONE

FIGURE 2

Drilling Prognosis
Well Federal #27-1

Authorization No. 79-001

Date: 1/20/79
Approved_____

Location: 2030' FWL and 1150' FSL Sec. 27 T12N, R12E
San Miguel County, New Mexico

Elevation: 6584 ft Ground Level _____K.B.

Project: To drill and complete producing well.

To test: Pennsylvanian

Contractor: Four Corners Drlg. Co.

Depth Approved: 3500 ft

Daywork Depth: 3500 ft±

Casing Program:

Conductor Casing 13 3/8" set @ 300 ft ±
Production Casing 7" set @ T.D. 3500 ft ±

Casing Head: 2000 # W.P.

Estimated Formation Depths

	Subsea Depth	Drill Depth (G.L)
Glorieta Sand	10'	
Yeso Silt & Sandy Shale	160'	
Abo Red Shale	550'	
Upper Pennsylvanian	900'	
Mid Pennsylvanian	1700'	
Lower Pennsylvanian	2000'	

Mud Program:

	Mud Wt.	Viscosity	Water Loss	System
0-375 ft	8.4 - 9.2	50	N.C.	Water
375-3500 ± ft	9.5 -10.2	45	20	Barite

Note:

(a) Loss circulation may be encountered, thus an adequate supply of LCM will be maintained on rig at all times.

(b) For logging raise viscosity to 60.

(c) Geolograph should be operating from spud to T.D.

Evaluation Surveys: Open hole surface casing to T.D.

Dual Laterolog, Spherically Focus, Formation Density (Caliper and Gamma Ray), Compensated Neutron

Cased hole: As requested.

Coring: As requested.

Drillstem Test: As requested.

Samples: 20 ft samples surface to 300 ft ±
10 ft samples 300 ± - T.D.

Fluid Samples: As requested.

Mud logging: 300 ft to T.D. (gas detector)

Type Completion: To be determined from electric logs and tests. Circulate cement to surface on all pipe strings.

Estimated Time: 30 days from starting date.

Drilling Program

1. Move rig in. Rig up and spud 17 1/2-in. hole.

2. Drill to 300 ± ft (below water table), circulate hole clean. Run deviation survey. P.O.H.

3. Run 300 ± ft, 13 3/8-in., 48 #, H-40, ST&C casing with two centralizers, one @ 10 ft above Texas Pattern Shoe and one @ 80 ft above shoe on collar. Run insert Baffle in collar of bottom joint.

4. Cement with 300 sacks of Class "C" cement. Volume calculated on 100% excess over 17 1/2-in. gaged hole.

5. Circulate cement, plug down, test casing to 800 psi and W.O.C. 12 hours.

6. Bleed down 13 3/8-in. casing and install casing head and B.O.P.'s. Test B.O.P.'s to 1000 psig.

7. Drill float collar and test shoe joint to 300 psig.

8. Drill 9 7/8-in. hole to 3500 ± ft T.D. maintaining hole deviation of less than 2°. Survey each trip and as requested by company representative.

9. At T.D. circulate hole clean, measure out for log. Run logs: open hole logs, Dual Laterolog, Formation Density (Gamma Ray and Caliper), Compensated Neutron.

10. After logging RIH and condition mud. P.O.H. Lay down drill pipe.

11. Run 3500 ± ft of 7-in., 20 #, K-55, ST&C casing.

12. Run ten centralizers, one 10 ft above shoe joint and one on every other coupling for ten joints. The remaining four are to be spaced in the hole according to the results of caliper log.

13. Cement with light weight cement and tail in 200 sacks Class "C" with 6 # salt and 1/4 lb Flocele per sack. Light weight volume to be determined from caliper log. Use 30% excess.

14. Circulate cement and plug down. Bump plug and test casing to 1500 psig.

15. Hang casing with full weight on slips.

16. Install tubing head and B.O.P.'s.

17. Test B.O.P. to 1000 psig.

18. W.O.C. 24 hours. R.I.H. with 2 3/8-in. tubing, 6 1/4-in. bit and 7-in. Roto Vert casing scraper to float collar and circulate well clean and measure out of hole.

19. Rig up perforators. Run Gamma Ray and Collar Locator logs. Correlate logs with previously run logs.

20. Acidize, test, complete as required. Formal completion program will be issued after review of core samples and wire line logs on this well.

21. Casing Sizes

O.D.	O.D. Couplings	Wt/Ft	Drift	Max Bit Size	Clearance
13 3/8 in.	14.375	48	12.559	12 1/4	.309
7 in.	7.656	20	6.337	6 1/4	.081

22.

Bit Size	O.D.	Csg. Cplg	Clearance
17 1/2 in.	17.500	14.375	3.125
9 7/8 in.	9.875	7.656	2.219

23. Series 1 Bit

Manufacturer	Mfgr. Designation
Hughes	OSC3A
Smith	DSJ
Reed	S11
Security	S35

Series 1 Type 3

Hughes	OSC1G
Smith	S13G
Reed	F3
Security	S4

Series 6 Type 2

Hughes	J-33/J-44
Smith	F-57
Reed	FP-62/FP-63
Security	M-88-F/M-89-F

24. Torque Make-up of Casing Ft-Lbs. 8rd Thd.

Size	Wt/Ft	Grade	Optimum	Minimum	Maximum
13 3/8 in.	48	H-40 ST&C	3220	2420	4030
7 in.	20	K-55 ST&C	2540	1910	3180

25. Volume and Height

Casing Size	Hole Size	Gal/Ft	Cu Ft/Lin Ft	Bbl/Lin Ft
13 3/8 in.	17 1/2 in.	5.1963	.6473	.1237
7 in.	9 7/8 in.	1.9794	.2643	.0471

26. Capacity of Hole

Dia. of Hole	Gal/Lin Ft	Lin Ft/Gal	Bbl/Lin Ft
17 1/2 in.	12.4950	.0800	.2975
9 7/8 in.	3.9786	.2513	.0947

27. Cement Slurry

	Water Gal/Sack	Slurry Wt Lbs/Gal	Slurry Vol. Cu Ft/Sack
Light	10.9	12.4	1.97
Class "C"/W. Salt	6.33	14.99	1.35

FOUR CORNERS DRILLING CO.
P.O. BOX 1067
657 WILD HORSE DRIVE
FARMINGTON, NEW MEXICO 87401
•
TELEPHONE: (505) 327-1122

DRILLING RIG INVENTORY

Rig #3

DERRICK: Cardwell 108', 270,000 Hook Load Capacity

SUBSTRUCTURE: Cardwell 9'6" X 12'6" Telescoping 440,000 Gross

DRAWWORKS: Cardwell KB-500 Self Propelled Back In 600 HP

AUXILIARY BRAKE: Parkersburg 22" Single

ENGINES: 2 General Motors 8V71N Diesel 318 HP each

MUD PUMPS: Omega 750 Powered by 16V71N

AUZILIARY MUD PUMP: Emsco D-500 16 Powered by 2 GM 8V71T, 350 HP each

DESILTER: Pioneer 8 Cone w/Thompson 5" X 6" Pump with Electric Motor

MUD TANK: One 5' X 10' X 50', 450 Bbls. with 4 Compartments

WATER STORAGE: One 10' x 10' X 30', 520 Bbls Tank

GENERATORS: One each 100 KW AC

ROTARY TABLE: Oil Well 20½"

TRAVELING BLOCK: Ideco UTB 160-430 Shorty 160 Ton

SWIVEL: Gardner Denver SW 200 Ton

BLOWOUT PREVENTOR: Shaffer Hydraulic Double Gate 10" X 3000

SPECIAL TOOLS: Tong Torque Indicator

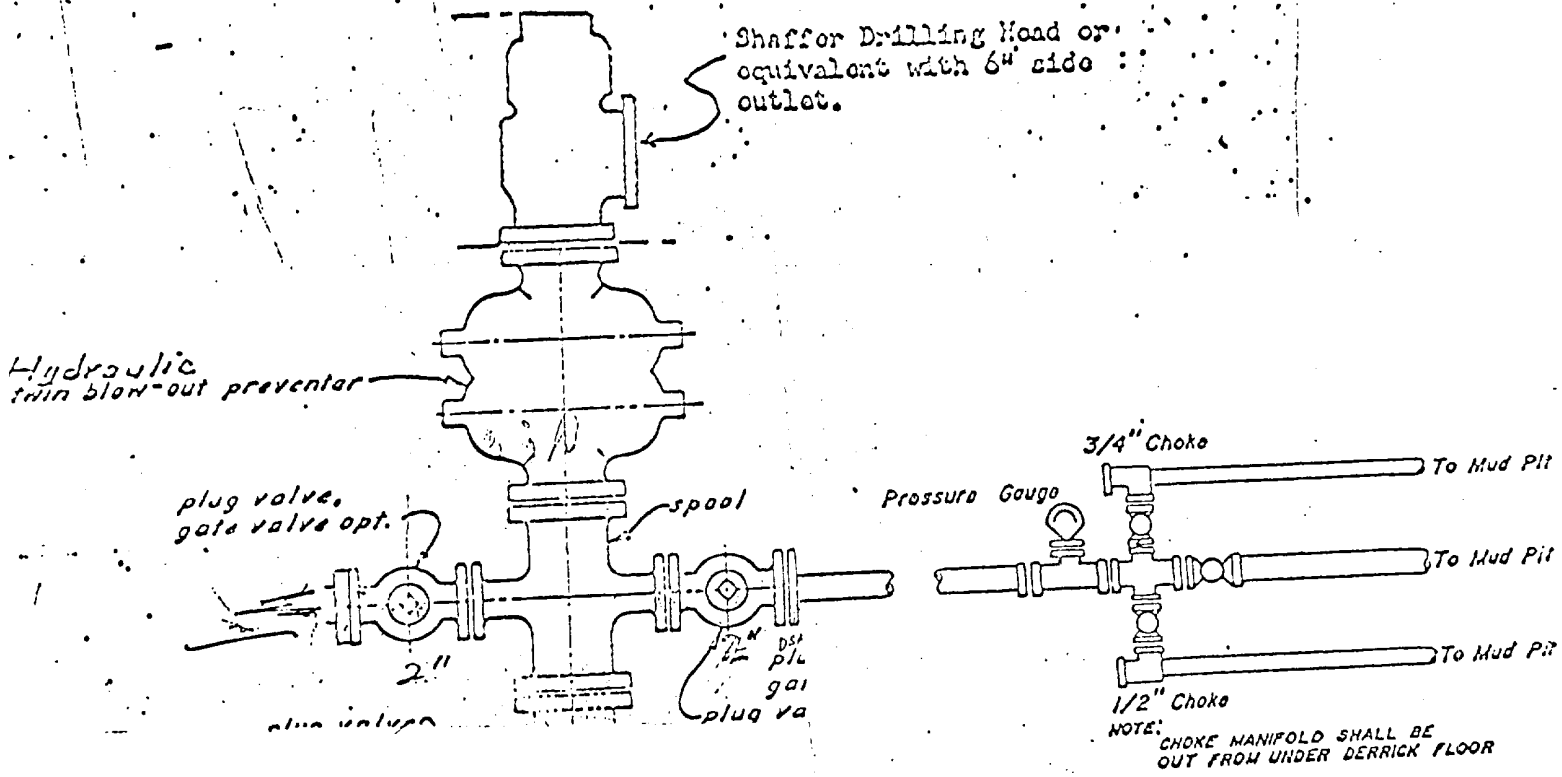
Rate of Penetration Recorder

Shale Shaker

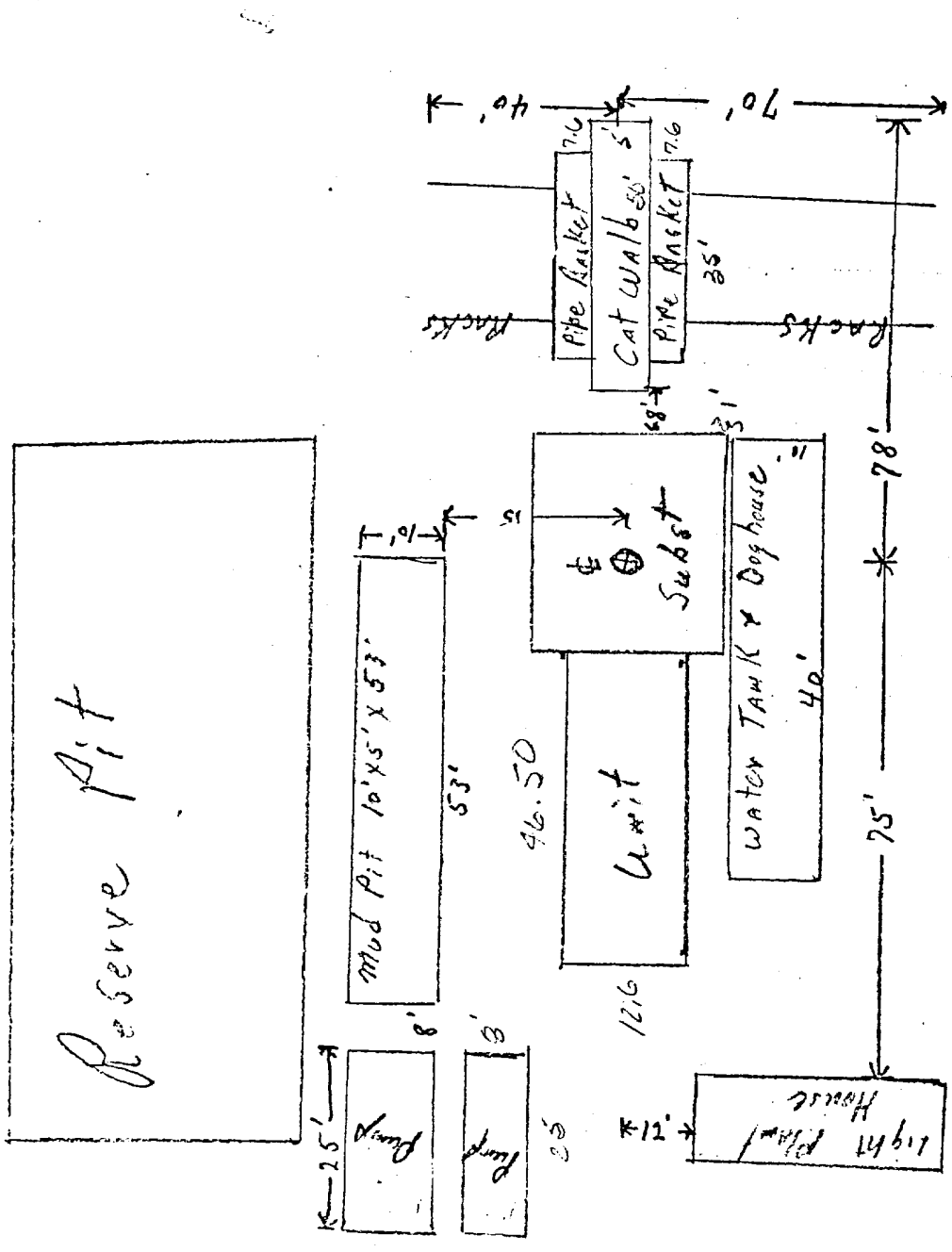
Trailer House

Two-Way Radio

Nessary Drill Pipe and Drill Collars to meet bid specifications


Shaffer Drilling Head or equivalent with 6" side outlet.
Hydraulic thin blow-out preventer
plug valve, gate valve opt.
spool
2"
plug valve
3/4" Choke
Pressure Gauge
To Mud Pit
To Mud Pit
To Mud Pit
1/2" Choke
NOTE: CHOKE MANIFOLD SHALL BE OUT FROM UNDER DERRICK FLOOR

FOUR CORNERS DRILLING CO.
P. O. BOX 1067
702 E. BROADWAY
FARMINGTON, NEW MEXICO 87401
•
TELEPHONE: (505) 327-1122



140'
RESERVE PIT
95'
30'
45'
120'
N
VEE DOOR