

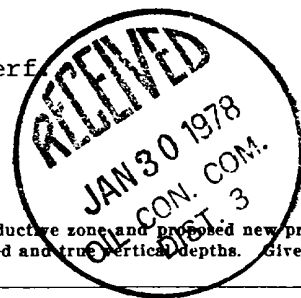
UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

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. 30-039-21634 NM-080566	
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 Petro-Lewis Corporation		7. UNIT AGREEMENT NAME	
3. ADDRESS OF OPERATOR Box 509, Levelland, Texas, 79336		8. FARM OR LEASE NAME RUDDOCK	
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.) At surface 900'FNL, & 1750'FWL At proposed prod. zone 4100'		9. WELL NO. #9	
14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE* 18 miles NW, of lindrith, NM.		10. FIELD AND POOL, OR WILDCAT Japacito Pictured Cliff est	
15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any) 990'		11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA Sec. 2, T25N, R3W	
16. NO. OF ACRES IN LEASE 981.39 acres		12. COUNTY OR PARISH Rio Arriba	
17. NO. OF ACRES ASSIGNED TO THIS WELL 160 196.75		13. STATE NM	
18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT. 2650'		14. PROPOSED DEPTH 4100'	
19. ROTARY OR CABLE TOOLS Rotary		20. APPROX. DATE WORK WILL START* 2-5-78	
21. ELEVATIONS (Show whether DF, RT, GR, etc.) 7374'GL		22. APPROX. DATE WORK WILL START*	

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#	500'	325SK
7 7/8"	5 1/2"	14#	4100'	300SK

- Set 40', 20", conductor pipe and cement to surface.
- Drill 12 1/4", hole to 500', and set 8 5/8", casing, 24#, K-55, ST&C, and cmt. to surface, 100% excess. WOC-18hrs. pressure test and drill out.
- Drill 7 7/8", hole to 4100', run GR-CNL-FDC-DIL, log, run 5 1/2" casing, 14#, K-55, ST&C, and cmt. 50% excess.
 - SURFACE CEMENT- Class "A", 4%gel, 2%CaCl₂, 325SK, to surface, 100% excess
 - Production CEMENT- Class "A", 3%CaCl₂, 300SK, TOC-2500', 1/4#/SK Flocele to all cement.
- Run temperature survey, locate TOC-2500', est.
- Run CBL-VDL-2000' to TD. CMT. bonding log w/GR-Collar for perf
- Prep to complete.



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 Ron Japley TITLE Snr. Drilling Foreman DATE 1-23-78
(This space for Federal or State office use)PERMIT NO. _____ APPROVAL DATE _____
APPROVED BY _____ TITLE _____ DATE _____
CONDITIONS OF APPROVAL, IF ANY: _____

*See Instructions On Reverse Side

JAN 25 1978
U. S. GEOLOGICAL SURVEY
DURANGO, COLO.

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.

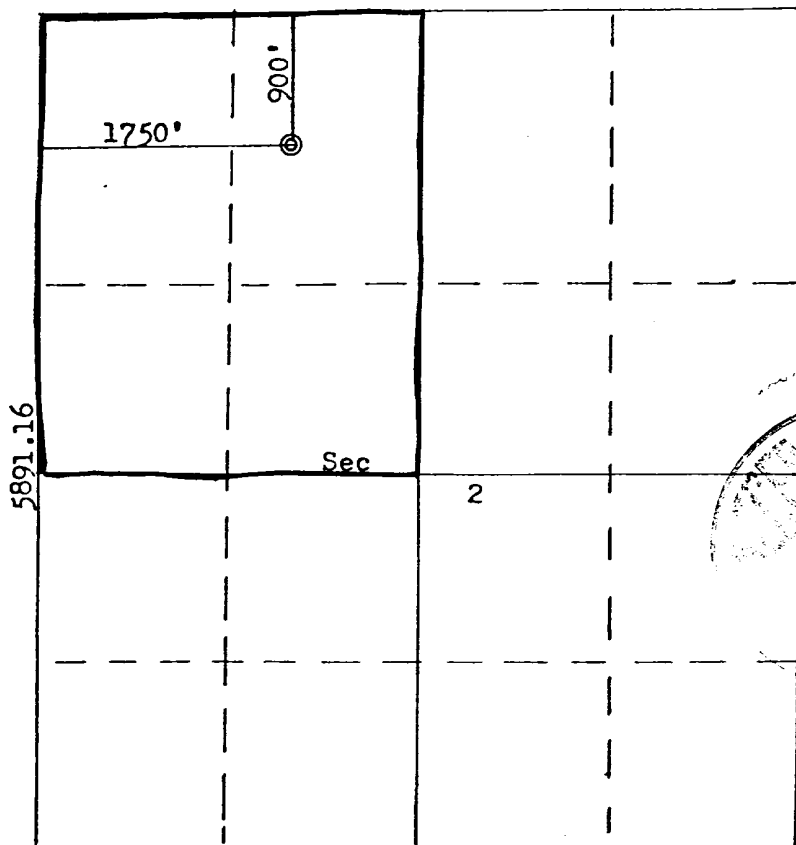
Operator Petro-Lewis Corporation			Lease Ruddock		Well No. 9
Unit Letter C	Section 2	Township 25N	Range 3W	County Rio Arriba	
Actual Footage Location of Well: 900 feet from the North line and 1750 feet from the West line					
Ground Level Elev: 7374	Producing Formation Pictured Cliff	Pool Japacito		Dedicated Acreage: 196.75 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.

J. M. Taylor
Name
Dr. William Auman
Position
Petro-Lewis Corporation
Company
12-14-77
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
October 13, 1977

Registered Professional Engineer
and Land Surveyor
Fred B. Kerr Jr.
Fred B. Kerr Jr.

Certificate No.
3950

Scale: 1"=1 Mile

Petro-Lewis Corporation
Surface Use And Operations Plan
San Juan Basin, Tapacito Field
Southern Rocky Mountain Area
Ruddock #9
Rio Arriba, New Mexico

Present Operation

Petro-Lewis Corporation, a Colorado Corporation, is presently operating four Pictured Cliff gas wells in the Tapacito Field, Florance Lease, and two Pictured Cliff gas wells in the Tapacito Field, Ruddock Lease. These wells are located north and in a line, across Sections 5, 4, 3 of Township 25 north, Range 3 west, of the Gallup and Dakota prospects. The Ruddock #9 Well, 1750' FWL and 900' FNL of Section 2, Township 25 north, Range 3 west is located 3070' east of the Ruddock #1, a Pictured Cliff producer, which is located in Section 3, Township 25 north, Range 3 west.

Proposed Operation

We propose to drill, evaluate, and complete three Dakota gas producers (Florance #6, Florance #8, and Ruddock #7A) and three Gallup gas producers (Florance #8A, Florance #6A, and Ruddock #7), and one Pictured Cliff producer (Ruddock #9). A Central Battery for the three Ruddock wells (3) will be located at the Ruddock #7A location. All flowlines will be installed parallel along the lease roads to the designated Central Battery. A complete description of the Central Battery is attached to the Ruddock #7A. The gas sales line will run west, southwest 3070' est. and tie-in with the existing loop line located at the Ruddock #1.

Existing Roads

Attachment #3 is a scaled map showing the existing wells, roads, and location of the above. The approved stake being 900' FNL and 1750' FWL of Section 2, T25N, R3W. South of the location 1800' an existing county road runs northeast, southwest. 1500' of old ranch road extends north from the county road and has been agreed to be utilized and maintained by Petro-Lewis Corporation, and extended 300' to the location. At conclusion of drilling, lease road will be repaired of any damage, due to excessive use.

Planned Access Road

As indicated on Attachment #3, 1800' of road 10' wide will run south, southwest, as previously staked, to the county road. 1500' of said road exists and will be repaired for lease access. 300' will be cleared of approximately 10 to 15 small pinon and cedar trees. One turn-out will be located at a clearing near the end of the old existing road. Attachment #10 - surface owners release of damages.

Location Of Existing Wells

Attachment #4 is a scaled map showing all existing wells, to include the proposed Gallup and Dakota prospects.

Location Of Existing And/Or Proposed Facilities

The gas sales line runs south from the Ruddock #1, parallel to the lease road and ties-in to the main trunk line. We propose to run a flow line west, southwest 3070' est. and tie-in to the main trunk line. This flow line will be buried as per regulations and the surface restored to its natural condition - Attachment #3.

Location And Type Of Water Supply

A reliable contractor will transport water from the township of Lindrith, N.M. or from two ponds on the property of Mr. Tony Schmitz. Lease roads will be utilized. A five-hundred barrel water storage tank will be on location.

Methods For Hauling Waste Disposal

The reserve pit will be fenced until exposed fluid is dried out, at such time the pit will be covered, leveled, and restrapped to its natural condition. A trash pit (as indicated on Attachment #5) will be dug out next to the reserve pit approximately 48" deep and completely fenced in with small mesh wire. Top soil will be stored on the south side, next to the reserve pit, for re-spreading.

Ancillary Facilities

Not applicable, with exception of rig trailer on Attachment #5.

Well Site Layout

Attachment #5 is a scaled map showing the rig layout. The reserve pit will be double lined by a reliable contractor. Eight feet of cut will be anticipated on the north side of the location with the pit on the south side. Fill will be moved to the south side. A contour ditch will run east and west approximately thirty feet from the north cut, the length of the location. The contour ditch will be approximately two feet deep. Approximately 15 to 20 small pinon and cedar trees will be removed to clear the location. These trees lie on the northwest side of the location.

Plans For Restoration Of Surface

The reserve pit will be fenced until dried out to level and cover. The area will be reshaped, leveled and top soil respread. Reseeding will be dependent on land owner and trees will be replaced as to owner specifications. Commencement of rehabilitation estimated March 27, 1978 and completion of rehabilitation estimated June 27, 1978.

Operations Representative

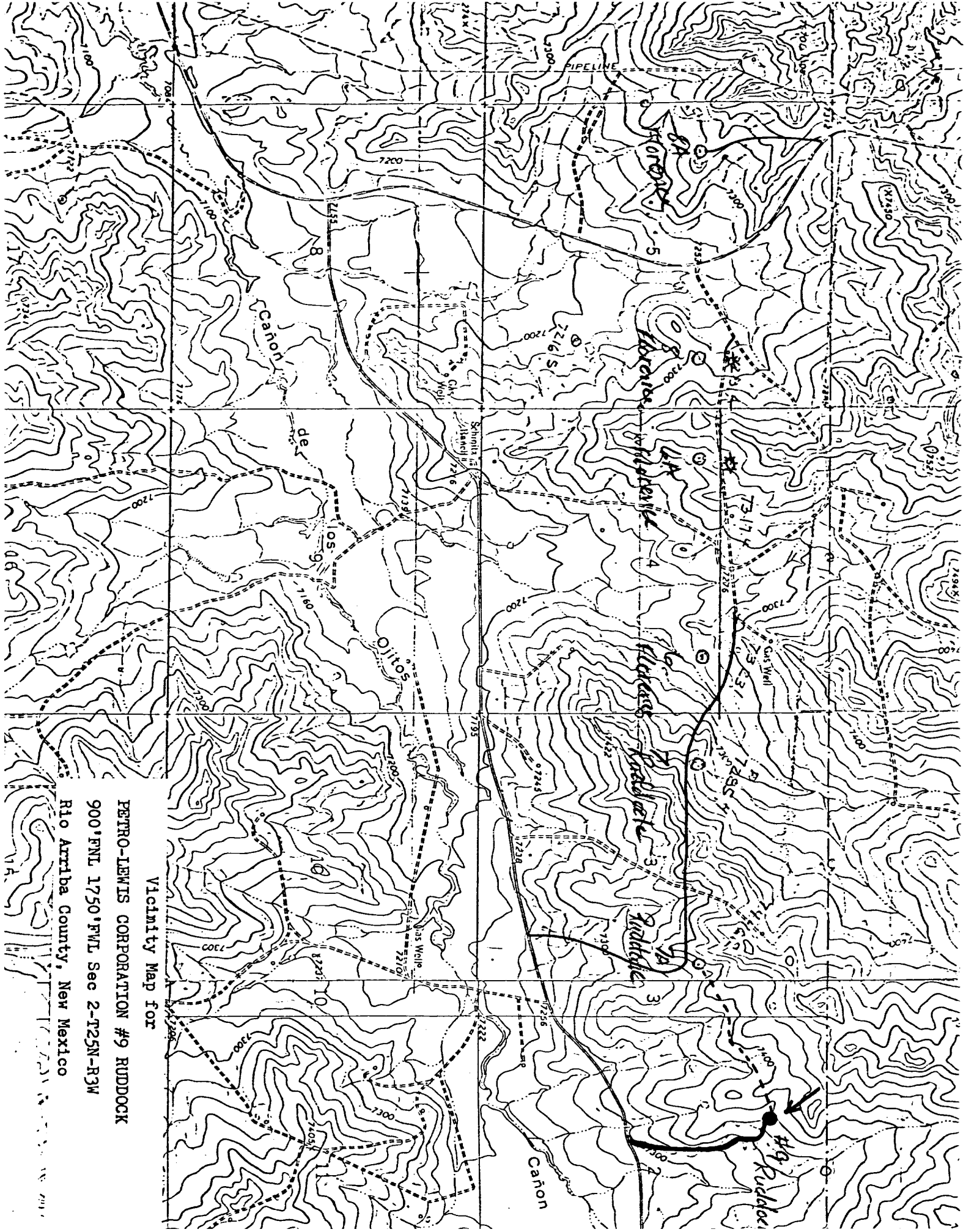
The Petro-Lewis Corporation Representative, his address, and phone numbers are as follows:

Ron Tarpley
Sr. Drilling Foreman
304 Birch
Levelland, Texas 79336
806-894-7376 - Office
806-894-4149 - Home

His certification statement is Attachment #6. Please contact Mr. Tarpley so that he can arrange to be present when an on-site inspection is to be made.

List Of Attachments

Attachment #1 - Permit to Drill - Form 9-331C
Attachment #2 - Survey Plat - Form C-102
Attachment #3 - Vicinity Map
Attachment #4 - Existing Well Map
Attachment #5 - Well Site Layout
Attachment #6 - Certification Statement
Attachment #7 - Safety Equipment Layout
Attachment #8 - Rig Inventory
Attachment #9 - Well Plan Outline
Attachment #10 - Surface Owners Release



Vicinity Map for

PETRO-LEWIS CORPORATION #9 RUDDOCK

900' FNL 1750' FNL Sec 2-T25N-R3W

Rio Arriba County, New Mexico

R 3 W

new map



LEGEND

- LOCATION
- OIL WELL
- ☆ GAS WELL
- ◇ DRY HOLE

PETRO-LEWIS CORPORATION
Ruddock #9

TAPACITO FIELD
 RIO ARRIBA COUNTY, NEW MEXICO

SCALE 2" = 1 MILE

MAP 7

FOUR CORNERS DRILLING CO.

P. O. BOX 1067
702 E. BROADWAY
FARMINGTON, NEW MEXICO 87401

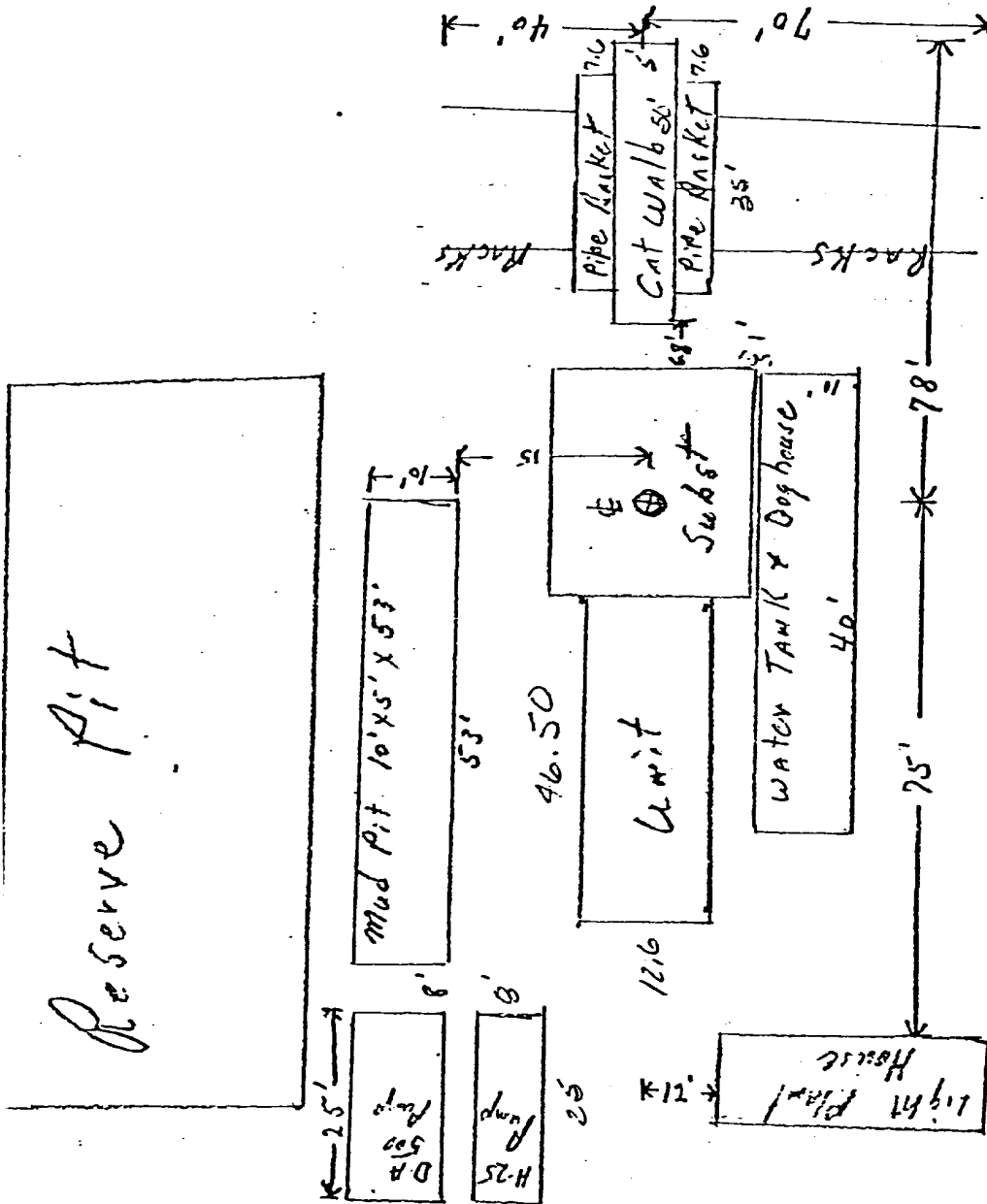
TELEPHONE: (505) 327-1122

PETRO-LEWIS CORPORATION

RUDDOCK#9

RIO ARRIBA, NEW MEXICO

ATTACHMENT #5



Petro-Lewis Corporation
Surface Use And Operations Plan
San Juan Basin, Tapacito Field
Southern Rocky Mountain Area
Ruddock #9
Rio Arriba, New Mexico

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 the operations proposed here-in, will be performed by Petro-Lewis Corporation and its contractors, and sub-contractors, in conformity with this plan and the terms and conditions under which it is approved.

1-17-78

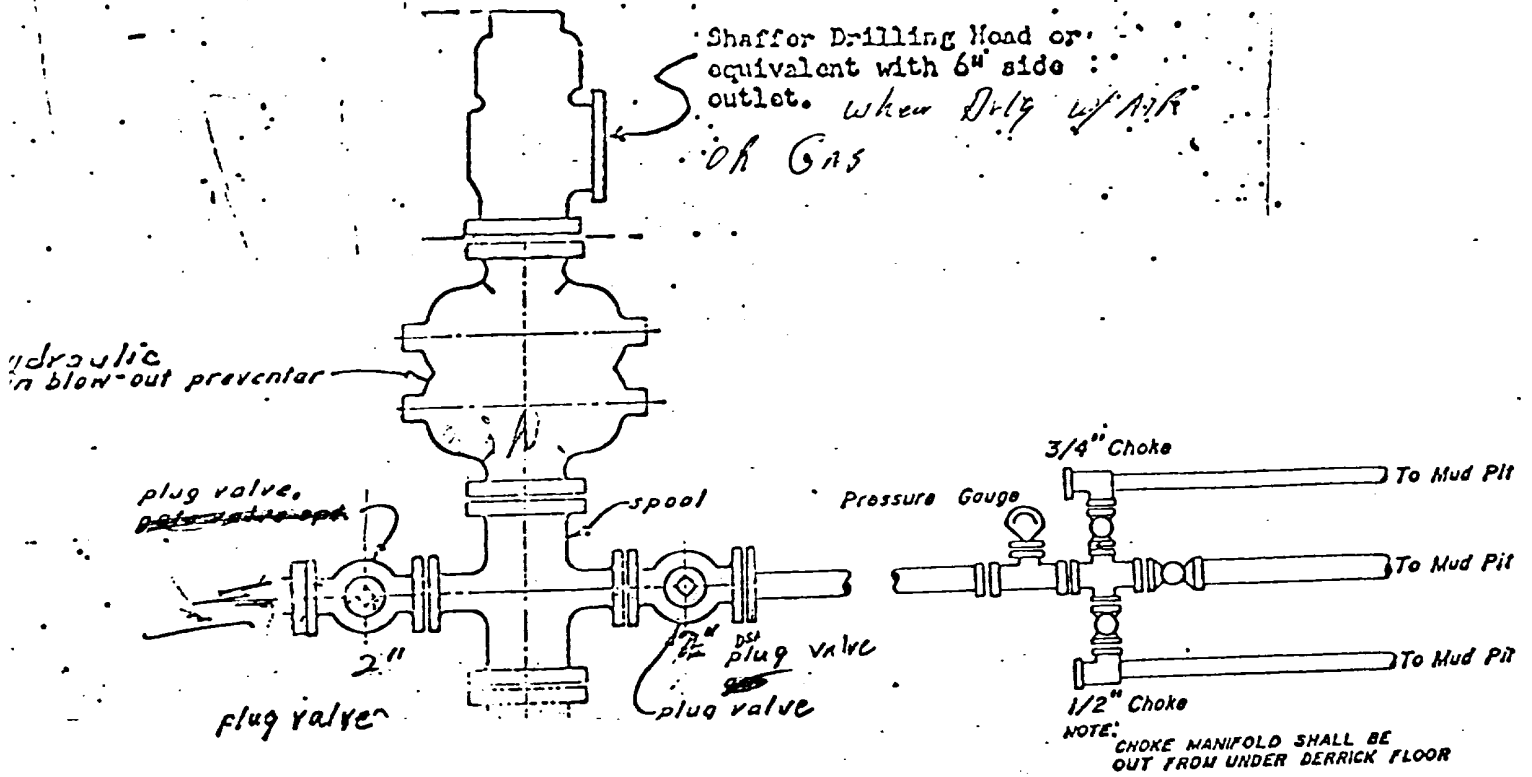
DATE



RON TAPLEY

SR. DRLG. FOREMAN

ATTACHMENT #7



PETRO-LEWIS CORPORATION
 RUDDOCK#9
 RIO ARRIBA, NEW MEXICO

FOUR CORNERS DRILLING CO.

P.O. BOX 1067
657 WILD HORSE DRIVE
FARMINGTON, NEW MEXICO 87401

TELEPHONE: (505) 327-1122

DRILLING RIG INVENTORY

RIG NO. #3
ATTACHMENT #8

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: EMSCO D-500 16 POWERED BY 2 GM 8V71NT ENGINES 350 HP EACH
AUXILIARY MUD PUMP: NATIONAL C-250 POWERED BY 2 GM 671 ENGINES 160 HP EACH
DESILTER: PIONEER 8 CONE W/THOMPSON 5" X 6" PUMP WITH ELECTRIC MOTOR
MUD TANK: 1 5' X 10' X 50' 450 BBL. WITH 4 COMPARTMENTS
WATER STORAGE: 1 10' X 10' X 30' 520 BARREL TANK
GENERATORS: 1 EACH 100 KW AC
ROTARY TABLE: OIL WELL 20½"
TRAVELING BLOCK: IDECO UTB 160-430 SHORTY 160 TON
SWIVEL: NATIONAL TYPE F 150 TON
BLOWOUT PREVENTOR: 10" 3000 HYDRAULIC
SPECIAL TOOLS:
TONG TORQUE INDICATOR
RATE OF PENETRATION RECORDER
SHALE SHAKER
TRAILOR HOUSE
TWO WAY RADIO
NESSARY DRILL PIPE AND DRILL COLLARS TO MEET BID SPECIFICATIONS

PETRO-LEWIS CORPORATION
RUDDOCK#9
RIO ARRIBA, NEW MEXICO

PETRO-LEWIS - WELL PLAN OUTLINE

Well: Ruddock #9

County & State: Rio Arriba, New Mexico

990 FNL, 1750 FWL,

Location: Sec. 2, 25N-3W

Elevation: 7374G1

Depth	Formation Tops & Type	Drilling Problems	Type of Formation Evaluation	Hole Size (in.)	Casing		Frac. Gradient (PPG)	Formation Press. Gradient (PPG)	Mud	
					Size (in.)	Depth (ft.)			Wgt (PPG)	Typ
1			500 - TD GR-CNL-FDC DIL	12 1/4	8 5/8	500			8.5- 9.0	Fr Wt
2										
3										
4	Fruitland-3785' Pic. Cliffs-3935' TD - 4100'	Poss. Lost Circ. Gas		7 7/8	5 1/2	4100		< 8.5	8.8- 9.2	Fr Wt Lc Sc ic

WELL NAME: Ruddock #9 FIELD: Tapacito DATE: 1/18/78AFE NO: _____ ELEV.: _____ GRD: _____ KB: _____ PROPOSED TD: 4100'LOCATION (SURF.): 900 FNL & 1750 FWL OF SEC.: 2 T 25N R 3WCOUNTY: Rio Arriba STATE: New Mexico SPACING: _____

LOCATION (BOTTOM HOLE): _____

GEOLOGICAL ESTIMATES

<u>ZONE</u>	<u>TOP</u>	<u>THICKNESS</u>	<u>CONTENT</u>	<u>ZONE</u>	<u>TOP</u>	<u>THICKNESS</u>	<u>CONTENT</u>
Fruitland	3785						
Pict. Cliffs	3935		Gas				

<u>CORING NO.</u>	<u>TYPE</u>	<u>HORIZON</u>	<u>INTERVAL FROM-TO</u>	<u>FOOTAGE</u>	<u>REMARKS</u>
NONE					

DRILL STEM TESTSWATER SHUT OFF TESTS

<u>NUMBER</u>	<u>HORIZON</u>	<u>NUMBER</u>	<u>HORIZON</u>	<u>NUMBER</u>	<u>HORIZON</u>	<u>NUMBER</u>	<u>HORIZON</u>
NONE				NONE			

WELL SURVEYS (list types by code numbers as follows: directional and/or deviation (1), deflection (2), caliper (3), temperature (4), electrical (5), radioactive (6), geolograph (7), photoclinometer (8), mudlogging (9), and other (10) and name of that type).

<u>DEPTH POINTS</u>	<u>TYPE</u>	<u>HOLE SIZE</u>	<u>REMARKS</u>
0 - TD	(2) Deflection	12 $\frac{1}{2}$ & 7 7/8	One every 500'
0 - TD	(7) Geolograph	12 $\frac{1}{2}$ & 7 7/8	
500 - TD	(6) GR-CNL-FDC	7 7/8	
500 - TD	(5) DIL	7 7/8	
0 - 3000	(4) Temperature	Inside casing	Locate TOC
2000 - TD	(10) CBL-VDL	Inside casing	Cmt.bond log w/GR-Cellar

CASING, CENTRALIZERS & SCRATCHERS

List type of string by code letters, i.e., Conductor (C), Surface (S), Intermediate (I), Production (P), Liner (L), Perforations (PP)

TYPE OF STRINGS & INTERVAL (FT.) FROM-TO	OD	DRIFFT ID	WT. PER FT.	GRADE	THREAD	AMT	WT IN AIR 1000 lbs.	WT IN MUD 1000 lbs.	REMARKS
(S) 0-500	8 5/8	7.972	24	K-55	STC	500			
(P) 0-4100	5 1/4	4.887	14	K-55	STC	4100			

TYPE OF STRING	CENTRALIZERS INTERVAL FROM-TO	SCRATCHER NO. INTERVAL NO. FROM-TO	OTHER ACCESSORY EQUIPMENT (Such as degassers, mud centrifuge float collars, etc. - specify)	REMARKS
(S) Surface	(5) 0-500	NONE	Guide Shoe	
(P) Production	(6) 3800-4100	NONE	Float Shoe & Collar	

CEMENT

TYPE OF STRING & INTERVAL (FT.) FROM-TO TYPE MIX	GEL. %	IBS/SK SALT %	CaCl ₂	SLURRY WEIGHT PPG	SLURRY YIELD CF/SKX	TOTAL AMT. REQUIRED SKX/CF	FILL UP	BHT	SIZE	REMARKS
(S) 0-500 Class "A" Class "A"	4		2%	14.1 15.6	1.55 1.18	(150) 232 (175) 206	Circ.		12 $\frac{1}{4}$	100% Ex.
(P) 0-4100 Light Class "A"			3%	13.1 15.6	1.69 1.18	(150) 253 (150) 177	TOC-2500		7 7/8	50% Ex. Add $\frac{1}{4}$ #/sk. Flocele to all cement

DRILLING PROCEDURE

Ruddock #9

1. 0-500' - Drill 12 $\frac{1}{4}$ " hole using fresh water-gel lime spud mud. Run and cement 8 5/8" OD surface casing. Pressure test and drill out after 18 hours.
2. 500-4100' - Drill 7 7/8" hole. Pressure test to 300 psi after drilling out shoe. Use fresh water-gel low solids mud. Pre-treat with lost circulation material before drilling Fruitland and lower water to +10 cc before drilling Pictured Cliffs. (See attached mud program). Circulate and condition hole. Run OH logs. Run and cement production casing.