

OIL CONSERVATION COMMISSION

P. O. BOX 2088

SANTA FE, NEW MEXICO 87501

May 25, 1978

Petro-Lewis Corporation
Box 509
Levelland, Texas 79336

Re: Administrative Order No. SWD-207

Gentlemen:

Enclosed herewith please find Administrative
Order No. SWD-207 for the following described well:

Fluid Power Pump Well No. 5
located in Unit C of
Section 22, Township 19
South, Range 3 West,
Sandoval County, N. Mex.

Very truly yours,

JOE D. RAMEY
Division Director

JDR/CU/og

cc: Oil Conservation Division
1000 Rio Brazos Road
Aztec, New Mexico

MEMORANDUM FOR THE DIRECTOR
SUBJECT: [illegible]
DATE: [illegible]

1. [illegible]

2. [illegible]
[illegible]
[illegible]

3. [illegible]

4. [illegible]
[illegible]

5. [illegible]
[illegible]
[illegible]
[illegible]
[illegible]

6. [illegible]

7. [illegible]
[illegible]

8. [illegible]

9. [illegible]
[illegible]
[illegible]

NEW MEXICO OIL CONSERVATION COMMISSION 10 1978

APPLICATION TO DISPOSE OF SALT WATER BY INJECTION INTO A POROUS FORMATION

OPERATOR PETRO - LEWIS CORPORATION		ADDRESS BOX 509 LEVELAND, TEXAS 79336	
LEASE NAME FLUID POWER PUMP COMPANY	WELL NO. 5-22	FIELD ENTRADA	COUNTY SANDOVAL
LOCATION UNIT LETTER _____; WELL IS LOCATED <u>400</u> FEET FROM THE <u>NORTH</u> LINE AND <u>1980</u> FEET FROM THE <u>WEST</u> LINE, SECTION <u>22</u> TOWNSHIP <u>19</u> RANGE <u>3</u> NMPM.			

CASING AND TUBING DATA					
NAME OF STRING	SIZE	SETTING DEPTH	SACKS CEMENT	TOP OF CEMENT	TOP DETERMINED BY
SURFACE CASING	10 3/4	241'	150sxs	circulated	surface
INTERMEDIATE					
LONG STRING	7	5436	450sxs	3020'	CBL LOG 12-8-73
TUBING	2 7/8	2800'	NAME, MODEL AND DEPTH OF TUBING PACKER GIBBERSON, UNI-PACKER-I @2800'		
NAME OF PROPOSED INJECTION FORMATION GALLUP			TOP OF FORMATION 2894'		BOTTOM OF FORMATION 3550'
IS INJECTION THROUGH TUBING, CASING, OR ANNULUS?		PERFORATIONS OR OPEN HOLE?		PROPOSED INTERVAL(S) OF INJECTION	
THROUGH TUBING		PERFORATIONS		2900'-3400'	
IS THIS A NEW WELL DRILLED FOR DISPOSAL?		IF ANSWER IS NO, FOR WHAT PURPOSE WAS WELL ORIGINALLY DRILLED?		HAS WELL EVER BEEN PERFORATED IN ANY ZONE OTHER THAN THE PROPOSED INJECTION ZONE?	
NO		OIL PRODUCER (ENTRADA)		YES	
LIST ALL SUCH PERFORATED INTERVALS AND SACKS OF CEMENT USED TO SEAL OFF OR SQUEEZE EACH 5346'-76', Set CICR & SQUEEZE W/100sx C1 "C" @5300', & SPOT 100" CMT on top of retainer					
DEPTH OF BOTTOM OF DEEPEST FRESH WATER ZONE IN THIS AREA		DEPTH OF BOTTOM OF NEXT HIGHER OIL OR GAS ZONE IN THIS AREA		DEPTH OF TOP OF NEXT LOWER OIL OR GAS ZONE IN THIS AREA	
2894', MANCOS		3550', LOWER MANCOS			
ANTICIPATED DAILY INJECTION VOLUME (BBLs.)	MINIMUM	MAXIMUM	OPEN OR CLOSED TYPE SYSTEM	IS INJECTION TO BE BY GRAVITY OR PRESSURE?	APPROX. PRESSURE (PSI)
5000	2000	5000	CLOSED	PRESSURE	200#
ANSWER YES OR NO WHETHER THE FOLLOWING WATERS ARE MINERALIZED TO SUCH A DEGREE AS TO BE UNFIT FOR DOMESTIC, STOCK, IRRIGATION, OR OTHER GENERAL USE -			WATER TO BE DISPOSED OF	NATURAL WATER IN DISPOSAL ZONE	ARE WATER ANALYSES ATTACHED?
YES			ENTRADA	GALLUP	YES
NAME AND ADDRESS OF SURFACE OWNER (OR LESSEE, IF STATE OR FEDERAL LAND)					
STATE					
LIST NAMES AND ADDRESSES OF ALL OPERATORS WITHIN ONE-HALF (1/2) MILE OF THIS INJECTION WELL					
YATES PETROLEUM, 207 WEST 4th STREET ARTESIA, NEW MEXICO, 88210					
HAVE COPIES OF THIS APPLICATION BEEN SENT TO EACH OF THE FOLLOWING?		SURFACE OWNER		EACH OPERATOR WITHIN ONE-HALF MILE OF THIS WELL	
YES		YES		YES	
ARE THE FOLLOWING ITEMS ATTACHED TO THIS APPLICATION (SEE RULE 701-B)		PLAT OF AREA		ELECTRICAL LOG	
ON FILE USGS, NMOCC		ON FILE USGS, NMOCC		ATTACHED	

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

(Signature)

SENIOR DRILLING FOREMAN
(Title)5-8-78
(Date)

NOTE: Should waivers from the surface owner and all operators within one-half mile of the proposed injection well not accompany this application, the New Mexico Oil Conservation Commission will hold the application for a period of 15 days from the date of receipt by the Commission's Santa Fe office. If at the end of the 15-day waiting period no protest has been received by the Santa Fe office, the application will be processed. If a protest is received, the application will be set for hearing, if the applicant so requests. SEE RULE 701.

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEYSUBMIT IN TRIPLICATE*
(Other Instructions on
reverse side)Form approved,
Budget Bureau No. 42-R1425

LEASE DESIGNATION AND SERIAL NO.

EVAPORATION COM. NM-1696

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME

Fluid Power Pump Co.

9. WELL NO.

#5-22

10. FIELD AND POOL, OR WILDCAT

Entrada

11. SEC., T., R., M., OR BLK.
AND SURVEY OR AREA

Sec. 22-T19N-R3W

12. COUNTY OR PARISH 13. STATE

Sandoval

N.M.

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

Petro-Lewis Corporation

3. ADDRESS OF OPERATOR

P.O. Box 509, Levelland, Texas 79336

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)*

At surface

400' FNL & 1980' FWL

At proposed prod. zone 5346'-76'

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

13 miles SW of Cuba, N.M.

15. DISTANCE FROM PROPOSED*

LOCATION TO NEAREST

PROPERTY OR LEASE LINE, FT.

(Also to nearest drlg. unit line, if any)

16. NO. OF ACRES IN LEASE

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.

19. PROPOSED DEPTH

5450'

20. ROTARY OR CABLE TOOLS

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

6896' GR, 6910' KB, 6897 csg. head

22. APPROX. DATE WORK WILL START*

2-25-78

23.

PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
13-3/4"	10-3/4"	32.74#	241'	150 sx. Cl "A" w/3% cc, to sur
8-3/4"	7"	20# & 23#	5436'	350 sx. 50/50 Posmix and
				100 sx. Cl "C" w/8% gel

1-23-78 - On 12-23-77, Petro-Lewis Corp. received approval from Jerry Long, USGS, Durango, Colo., to plug and abandon the above Entrada Producer, and to plug and abandon the Federal Media #3 Gallup, Salt Water Disposal. Due to the necessity to provide adequate water disposal for the Southwest Media Unit, Petro-Lewis Corp. proposes to plug back the above exhausted, watered out, Entrada Producer and submit a request to recomplete the Gallup as a replacement salt water disposal well.

Plug Back Procedure:

1st Plug - Set 7", E-Z drill retainer @ 5300' and squeeze perfs - 5346'-76', spot 100' cmt. on top of retainer. Cmt. w/100 sxs. Class "C" Neat.

2nd Plug - Pump plug from 4300' to 3800'-500', with 100 sx. Class "C" Neat cmt.

This Plug Back Application will be followed by a request to recomplete as a Gallup Salt Water Disposal.

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 Impley

TITLE Sr. 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:

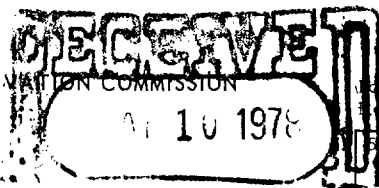
JAN 26 1978

*See Instructions On Reverse Side

U. S. GEOLOGICAL SURVEY
LEWIS, COLO.

NO. OF COPIES RECEIVED	
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FILE	
U.S.G.S.	
LAND OFFICE	
OPERATOR	

NEW MEXICO OIL CONSERVATION COMMISSION



Form C-101
Revised 1-1-65

CONSERVATION COMMISSION
Santa Fe

4. Indicate Type of Lease	
STATE <input checked="" type="checkbox"/>	FEE <input type="checkbox"/>
5. State Oil & Gas Lease No.	
NM-1696	

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. Type of Work		7. Unit Agreement Name	
b. Type of Well OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> X OTHER CONVERT TO SWD SINGLE ZONE <input checked="" type="checkbox"/> MULTIPLE ZONE <input type="checkbox"/>		8. Farm or Lease Name FLUID POWER PUMP CO.	
2. Name of Operator PETRO-LEWIS CORPORATION		9. Well No. 5-22	
3. Address of Operator BOX 509 LEVELLAND TEXAS, 79336		10. Field and Pool, or Wildcat ENTRADA	
4. Location of Well UNIT LETTER _____ LOCATED 400 FEET FROM THE NORTH LINE AND 1980 FEET FROM THE WEST LINE OF SEC. 22 TWP. 19 RGE. 3 NMPM		12. County SANDOVAL	
19. Proposed Depth PBTD @3800'		19A. Formation GALLUP	
20. Rotary or C.T. ROTARY		21. Elevations (Show whether DF, RT, etc.) 6896' GR, 6910' FB	
21A. Kind & Status Plug. Bond		21B. Drilling Contractor N/A	
22. Approx. Date Work will start 5-78			

PROPOSED CASING AND CEMENT PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	SACKS OF CEMENT	EST. TOP
13 3/4"	10 3/4"	32.74#	241'	150sx.	surface
8 3/4"	7"	20 & 23#	5436'	450sx.	3020'

5-8-78 PETRO-LEWIS CORPORATION, PROPOSES TO RECOMPLETE THE GALLUP FORMATION AS A SALT WATER DISPOSAL, PURSUANT TO THE ENTRADA PLUG BACK APPROVED ON 2-2-78. THIS CONVERSION TO SWD WILL BE PERFORMED IN THE FOLLOWING MANNER;

1. 3020' existing TOC, perf. & squeeze above TOC & bring cement top to est. 2000'.
2. GIH & clean out, pressure test squeeze perfs, & run CBL from TD to New TOC +100'.
3. 2894'-3375', perforate Gallup & break down formation W/1500gal, 15%HCL, acid if required.
4. 2800', run 2 7/8" injection tubing, W/ UNI-PACKER-I, & set. Place well on injection.

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. GIVE BLOWOUT PREVENTER PROGRAM, IF ANY.

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

Signed [Signature] Title SENIOR DRILLING FOREMAN Date 5-8-78

(This space for State Use)

APPROVED BY _____ TITLE _____ DATE _____

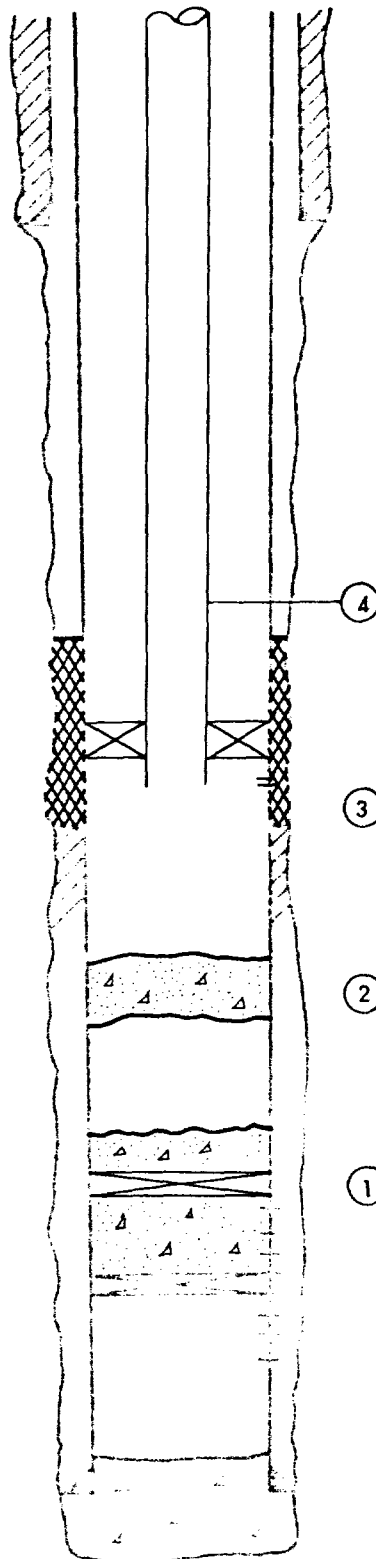
CONDITIONS OF APPROVAL, IF ANY:

BOLING FEDERAL #5 SCHEMATIC DIAGRAM

10 3/4" 30.75"
24" (180 Sx" A)
C. to Surf

T.C. = 2950'

7" 20 & 20"
5436' (350 Sx PCB +)
1005x "G"



PROPOSED WORK

- ① Set CICR ±5300' Squeeze perfs 5346'-5360'. Spot 100' cmt. on CICR.
- ② Spot cement plug 3800'-4300'.
- ③ Shoot holes and squeeze above top of existing cement. Clean out, test & log. Perforate Gallup approximately 2894' to 3375'. Stimulate w/acid if required.
- ④ Run 2 7/8" tubing, set packer approximately 2800' and place on injection.

Perfs 5346'-5360'

CICR 5350'

PSTD 5394'

TD 5450'

TRETOLITE DIVISION

369 Marshall Avenue / Saint Louis, Missouri 63119
(314) WO 1-3500/TWX 910-760-1660/Telex 44-2417

WATER ANALYSIS REPORT

COMPANY _____ ADDRESS _____ DATE: 5/22/77

SOURCE Red 15 tie DATE SAMPLED 2/12/77 ANALYSIS NO.

Analysis

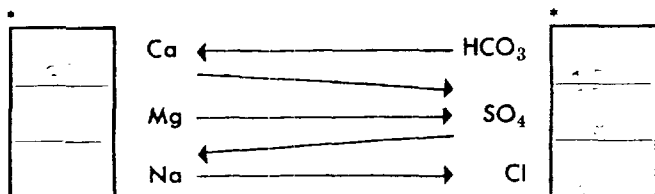
Mg/L

* Meq/L

- | | |
|--|-------|
| 1. pH | 7.5 |
| 2. H_2S (Qualitative) | 0 |
| 3. Specific Gravity | 1.000 |
| 4. Dissolved Solids | |
| 5. Suspended Solids | |
| 6. Phenolphthalein Alkalinity ($CaCO_3$) | |
| 7. Methyl Orange Alkalinity ($CaCO_3$) | |
| 8. Bicarbonate (HCO_3) | |
| 9. Chlorides (Cl) | |
| 10. Sulfates (SO_4) | |
| 11. Calcium (Ca) | |
| 12. Magnesium (Mg) | |
| 13. Total Hardness ($CaCO_3$) | |
| 14. Total Iron (Fe) | |
| 15. Barium (Qualitative) | |
| 16. Strontium | |
- *Milli equivalents per liter

HCO ₃	<u>750</u>	÷ 61	<u>12.3</u>	HCO ₃
Cl	<u>750</u>	÷ 35.5	<u>21.1</u>	Cl
SO ₄	<u>750</u>	÷ 48	<u>15.6</u>	SO ₄
Ca	<u>750</u>	÷ 20	<u>37.5</u>	Ca
Mg	<u>750</u>	÷ 12.2	<u>61.5</u>	Mg
	<u>750</u>			

PROBABLE MINERAL COMPOSITION



Saturation Values	Distilled Water 20°C
Ca CO ₃	13 Mg/L
Ca SO ₄ • 2H ₂ O	2,090 Mg/L
Mg CO ₃	103 Mg/L

Compound	Equiv. Wt.	X	Meq/L	=	Mg/L
Ca (HCO ₃) ₂	81.04				
Ca SO ₄	68.07				
Ca Cl ₂	55.50				
Mg (HCO ₃) ₂	73.17				
Mg SO ₄	60.19				
Mg Cl ₂	47.62				
Na HCO ₃	84.00				
Na ₂ SO ₄	71.03				
Na Cl	58.46				

REMARKS: 1. 100% of the sample was found to be 100% of the sample.

Respectfully submitted
TRETOLITE COMPANY

LARGE FORMAT
EXHIBIT HAS
BEEN REMOVED
AND IS LOCATED
IN THE NEXT FILE

OIL CONSERVATION COMMISSION

Alto DISTRICT

OIL CONSERVATION COMMISSION
BOX 2088
SANTA FE, NEW MEXICO

DATE 5-18-78

RE: Proposed MC _____
Proposed DHC 1 _____
Proposed NSL _____
Proposed SWD ✓ _____
Proposed WFX _____
Proposed PMX _____

Gentlemen:

I have examined the application dated 5-8-78
for the Leton Lewis Corp. Boling Inc. #5 C-22-19N-36
Operator Lease and Well No. Unit, S-T-R

and my recommendations are as follows:

Approve
correct well name
corrected copy

Yours very truly,

AR Kendrick

5-18-78