

OIL CONSERVATION COMMISSION  
Albuquerque DISTRICT

OIL CONSERVATION COMMISSION  
BOX 2088  
SANTA FE, NEW MEXICO

DATE 11-29-77

RE: Proposed MC \_\_\_\_\_  
Proposed DHC \_\_\_\_\_  
Proposed NSL \_\_\_\_\_  
Proposed SWD ✓ \_\_\_\_\_  
Proposed WFX \_\_\_\_\_  
Proposed PMX \_\_\_\_\_

Gentlemen:

I have examined the application dated 11-23-77  
for the Dome Petroleum Corp. Federal #3 M-21-20N-5W  
Operator Lease and Well No. Unit, S-T-R

and my recommendations are as follows:

Approve  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Yours very truly,

AR Kendrick

NEW MEXICO OIL CONSERVATION COMMISSION

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

OPERATOR <b>Dome Petroleum Corp.</b>		ADDRESS <b>1600 Broadway, Denver, CO 80202</b>	
LEASE NAME <b>Federal</b>	WELL NO. <b>3</b>	FIELD <b>Ojo Encino</b>	COUNTY <b>McKinley</b>
LOCATION UNIT LETTER <b>M</b> ; WELL IS LOCATED <b>930</b> FEET FROM THE <b>South</b> LINE AND <b>520</b> FEET FROM THE <b>West</b> LINE, SECTION <b>21</b> TOWNSHIP <b>20N</b> RANGE <b>5W</b> NMPM.			

CASING AND TUBING DATA					
NAME OF STRING	SIZE	SETTING DEPTH	SACKS CEMENT	TOP OF CEMENT	TOP DETERMINED BY
SURFACE CASING	<b>9 5/8"</b>	<b>204</b>	<b>200</b>	<b>Surface</b>	<b>Circulation</b>
INTERMEDIATE					
LONG STRING	<b>5 1/2"</b>	<b>4421</b>	<b>1070</b>	<b>Surface</b>	<b>Circulation</b>
TUBING	<b>3 1/2"</b>	<b>3700</b>	NAME, MODEL AND DEPTH OF TUBING PACKER <b>Baker Model "FA"</b>		
NAME OF PROPOSED INJECTION FORMATION <b>Gallup</b>			TOP OF FORMATION <b>3526</b>		BOTTOM OF FORMATION <b>3970</b>
IS INJECTION THROUGH TUBING, CASING, OR ANNULUS? <b>Tubing</b>		PERFORATIONS OR OPEN HOLE? <b>Perforations</b>	PROPOSED INTERVAL(S) OF INJECTION <b>3750-3970</b>		
IS THIS A NEW WELL DRILLED FOR DISPOSAL? <b>No</b>	IF ANSWER IS NO, FOR WHAT PURPOSE WAS WELL ORIGINALLY DRILLED? <b>As an Entrada Test (subsequently dry)</b>			HAS WELL EVER BEEN PERFORATED IN ANY ZONE OTHER THAN THE PROPOSED INJECTION ZONE? <b>No</b>	
LIST ALL SUCH PERFORATED INTERVALS AND SACKS OF CEMENT USED TO SEAL OFF OR SQUEEZE EACH					
DEPTH OF BOTTOM OF DEEPEST FRESH WATER ZONE IN THIS AREA <b>1830</b>		DEPTH OF BOTTOM OF NEXT HIGHER OIL OR GAS ZONE IN THIS AREA <b>None</b>		DEPTH OF TOP OF NEXT LOWER OIL OR GAS ZONE IN THIS AREA <b>5970'</b>	
ANTICIPATED DAILY INJECTION VOLUME (BBLs.) <b>3000</b>	MINIMUM <b>5000</b>	MAXIMUM <b>5000</b>	OPEN OR CLOSED TYPE SYSTEM <b>Closed</b>	IS INJECTION TO BE BY GRAVITY OR PRESSURE? <b>Pressure</b>	APPROX. PRESSURE (PSI) <b>300</b>
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 <b>Yes</b>		NATURAL WATER IN DISPOSAL ZONE <b>Yes</b>	ARE WATER ANALYSES ATTACHED? <b>on disposed water</b>
NAME AND ADDRESS OF SURFACE OWNER (OR LESSEE, IF STATE OR FEDERAL LAND) <b>Bureau of Land Management, Santa Fe, New Mexico</b>					
LIST NAMES AND ADDRESSES OF ALL OPERATORS WITHIN ONE-HALF (1/2) MILE OF THIS INJECTION WELL					
<b>Mrs. Billie Robinson, P. O. Box 1281</b>			<b>Santa Fe, New Mexico 87501</b>		
<b>Gulf Energy and Minerals Co. (U.S.)</b>			<b>P. O. Drawer 1150, Midland, TX 79701</b>		
HAVE COPIES OF THIS APPLICATION BEEN SENT TO EACH OF THE FOLLOWING?		SURFACE OWNER <b>Yes</b>		EACH OPERATOR WITHIN ONE-HALF MILE OF THIS WELL <b>Yes</b>	
THE NEW MEXICO STATE ENGINEER <b>Yes</b>		ARE THE FOLLOWING ITEMS ATTACHED TO THIS APPLICATION (SEE RULE 701-B) <b>Yes</b>		PLAT OF AREA <b>Yes</b>	
ELECTRICAL LOG <b>Yes</b>		DIAGRAMMATIC SKETCH OF WELL <b>Yes</b>			

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

*William E. Babzakh*  
(Signature)

District Engineer  
(Title)

November 11, 1977  
(Date)

NOTE: Should waivers from the State Engineer, 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.



E. C. GENT  
VICE PRESIDENT

# DOME PETROLEUM CORP.

SUITE 1500, COLORADO STATE BANK BLDG.

1600 BROADWAY

DENVER, COLORADO 80202

TELEPHONE  
(303) 861-1230

November 23, 1977

Mr. Joe D. Ramey  
Secretary - Director  
New Mexico Oil Conservation Commission  
P. O. Box 2088  
Santa Fe, New Mexico 87501

Re: Application for Salt Water Disposal  
Ojo Encino Entrada Pool  
McKinley County, New Mexico

Gentlemen:

Dome Petroleum Corp., the operator of two producing wells in the Ojo Encino Entrada Pool, respectfully submits this Application to Dispose of Saltwater by Injection into a Porous Formation for administrative approval. In support of this application are the following required data:

1. A plat of Township 20 North, Range 5 West, McKinley County, New Mexico depicting all wells in the area, their status, and lease ownership.
2. A Dual Induction Laterolog run on the open hole portion of the Federal #3 showing various geologic formation tops.
3. A diagrammatic sketch of the proposed injection well showing casing strings set, type tubing, packer fluid, perforations and top of cement.
4. Three copies of Commission Form C-108, Application to Dispose of Saltwater by Injection into a Porous Formation.
5. An analysis of produced Entrada water which is to be disposed.



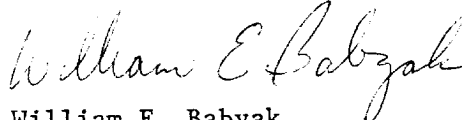
Mr. Joe D. Ramey  
November 23, 1977  
Page 2

Per instructions, a copy of this complete application is being sent to the offset lease owners, the surface owner, the New Mexico State Engineer, and the NMOCC Aztec Office.

We trust the aforementioned application is in order, however, if questions arise, please contact the undersigned collect at (303)-861-1230.

Yours very truly,

DOME PETROLEUM CORP.



William E. Babyak  
District Engineer

WEB:jag

Attachments

cc: Mrs. Billie Robinson  
Gulf Energy & Minerals  
Bureau of Land Management  
New Mexico State Engineer  
NMOCC - Aztec Office

## CHEMICAL &amp; GEOLOGICAL LABORATORIES

P. O. Box 2794  
Casper, Wyoming

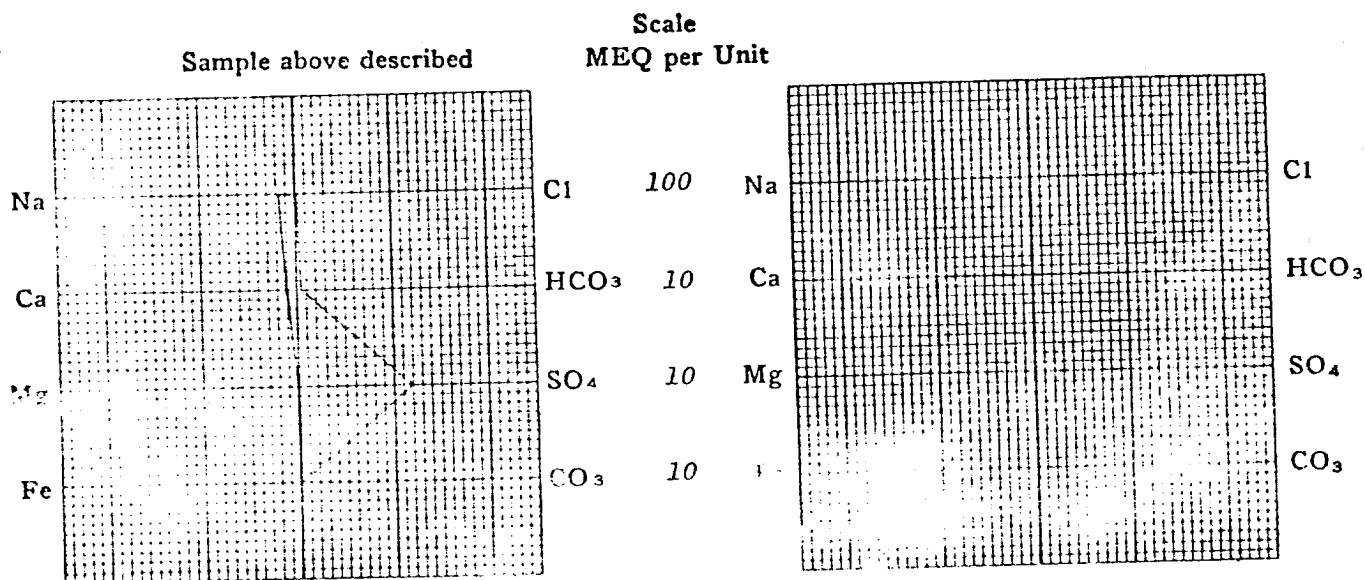
## WATER ANALYSIS REPORT

OPERATOR Dome Petroleum Corp. DATE October 28, 1976 LAB NO. 21604-1  
 WELL NO. Federal 21 No. 1 LOCATION Sec. 21-20N-5W  
 FIELD Wildcat FORMATION Entrada  
 COUNTY McKinley INTERVAL \_\_\_\_\_  
 STATE New Mexico SAMPLE FROM (10-20-76)

## REMARKS &amp; CONCLUSIONS:

Cations	mg/l	meq/l	Anions	mg/l	meq/l
Sodium - - - - -	3301	143.61	Sulfate - - - - -	5900	122.72
Potassium - - - - -	67	1.72	Chloride - - - - -	1070	30.17
Lithium - - - - -			Carbonate - - - - -	-	
Calcium - - - - -	238	11.88	Bicarbonate - - - - -	293	4.81
Magnesium - - - - -	6	0.49	Hydroxide - - - - -		
Iron - - - - -	-		Hydrogen sulfide - - - - -	-	
Total Cations - - - - -		157.70	Total Anions - - - - -		157.70
Total dissolved solids, mg/l - - - - -	10726		Specific resistance @ 68°F.: - - - - -		
NaCl equivalent, mg/l - - - - -	7705		Observed - - - - -	0.90	ohm-meters
Observed pH - - - - -	7.6		Calculated - - - - -	0.86	ohm-meters

## WATER ANALYSIS PATTERN



(Na value in above graphs includes Na, K, and Li)  
 NOTE: Mg/l Milligrams per liter Meq/l Milligram equivalents per liter  
 Sodium chloride equivalent = by Dunlap & Hawthorne calculation from components

FIELD: OJO ENCINO

WELL & NO.: FEDERAL # 3

DATE SPUDDED: 10 / 16 / 77

KB: 6797' GL: 6785

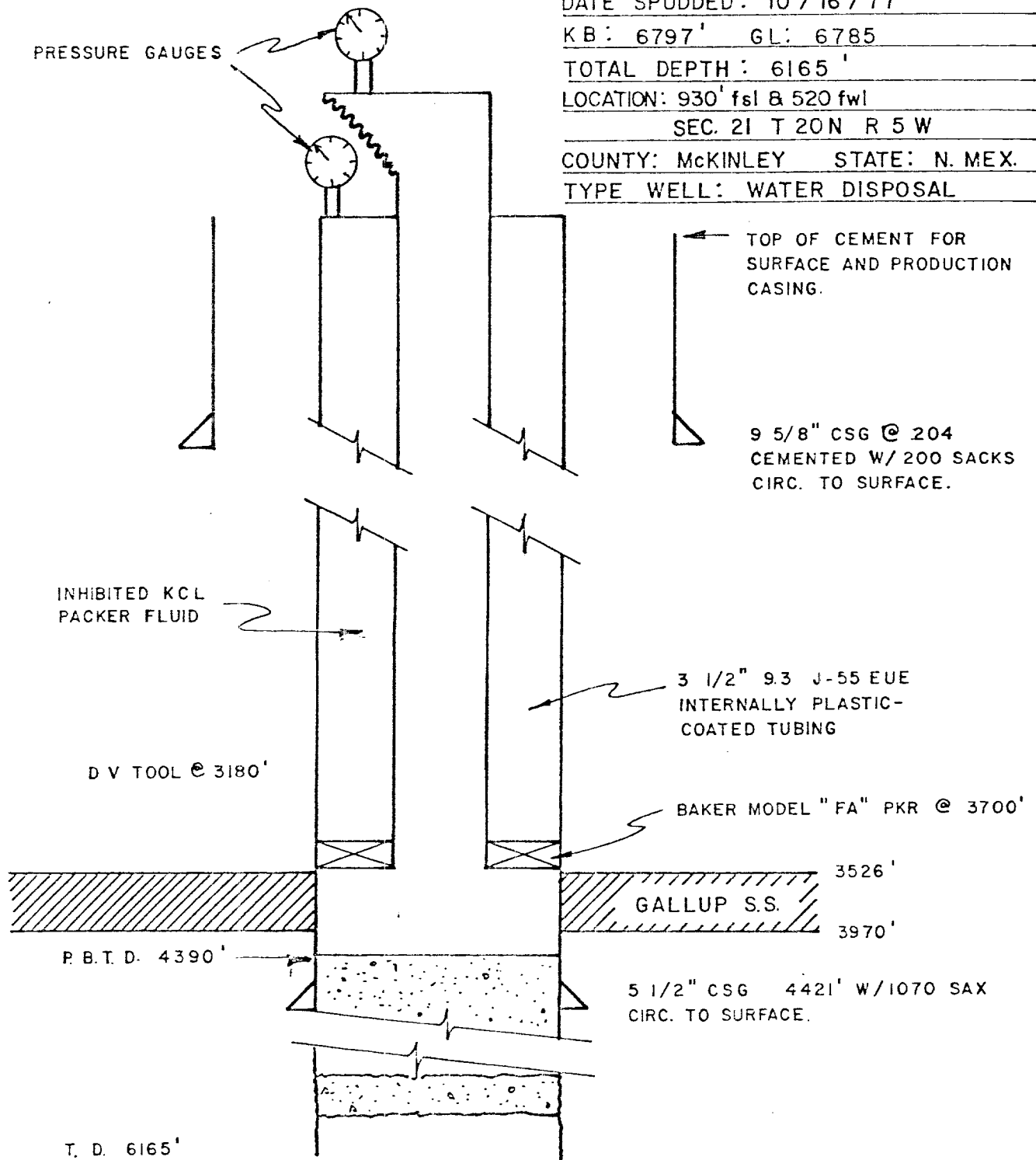
TOTAL DEPTH: 6165'

LOCATION: 930' fsl & 520' fwl

SEC. 21 T 20N R 5 W

COUNTY: MCKINLEY STATE: N. MEX.

TYPE WELL: WATER DISPOSAL



**DOMES PETROLEUM CORP.**  
DENVER COLORADO U.S.A.

WELL BORE SCHEMATIC  
DOME FEDERAL # 3 (SWD)  
OJO ENCINO FIELD

SCALE: NONE

DRAWN BY: WEB

CHECKED BY: