

**Robert L. Bayless**

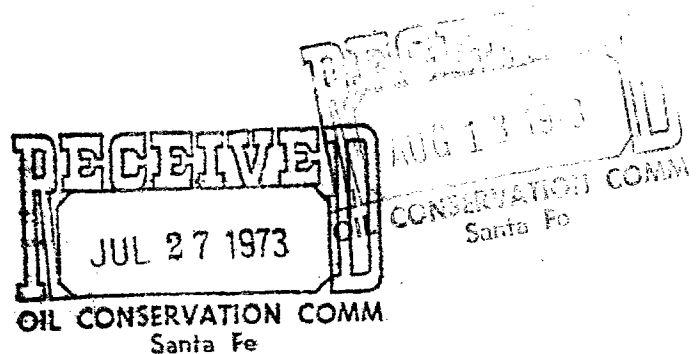
PETROLEUM CLUB PLAZA BUILDING

P. O. BOX 1541

FARMINGTON, NEW MEXICO 87401

W1 1 -

July 19, 1973



New Mexico Oil & Gas Conservation Commission  
P. O. Box 2088  
Santa Fe, New Mexico 87501

Re: Navajo Tract 20-2

Gentlemen:

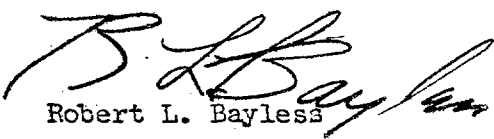
Pursuant to Rule 701 enclosed please find three copies each of:

- (1) Plat showing proposed injection well and producing well. There are no other active wells within a two mile radius.
- (2) Electrilog of well 20-2
- (3) Sketch of casing, tubing, and perforations
- (4) Salt water produced from the Navajo 20-1 well at rates of 150-200 barrels per day will be injected into the Hermosa formation at 6295-6390.
- (5) C-108



The only other oil and gas lease holder within a two mile radius of injection well is Raymond T. Duncan of Denver and copy of this application is being sent him. The United States Geological Survey will also receive a copy. Please consider our request for administrative approval of this water disposal program.

Yours truly,  
MERRION & BAYLESS

  
Robert L. Bayless

RLB:cbr

Enclosures: Well plat, Electrilog, sketch of casing, tubing, and perforations, C-108.

CC: Raymond T. Duncan  
1800 Security Life Building  
Denver, Colorado.

United States Geological Survey  
Petroleum Club Plaza  
Farmington, New Mexico 87401

OIL CONSERVATION COMMISSION

P. O. BOX 2088

SANTA FE, NEW MEXICO 87501

August 6, 1973

Mr. Robert L. Bayless  
P. O. Box 1541  
Farmington, New Mexico 87401

Dear Mr. Bayless:

Enclosed herewith please find Administrative Order SWD-145 for your Navajo Tract 20 Well No. 2 located in Unit L of Section 30, Township 29 North, Range 17 West, NMPM, San Juan County, New Mexico, to permit the injection of salt water for disposal purposes into the Hermosa formation at approximately 6295 feet to approximately 6390 feet through 2-inch tubing with a packer set at approximately 6000 feet.

Very truly yours,

A. L. PORTER, Jr.  
Secretary-Director

ALP/JEK/og

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

5011A-11 NEW MEXICO 84801  
2 OF 204 5488

1707, 2. 4. 1907

1. The first step is to identify the problem or question that needs to be addressed. This involves understanding the context and the specific requirements of the task.

100-44389-737

[illegible]

1. *Phragmites australis* (Cav.) Trin. ex Steud.

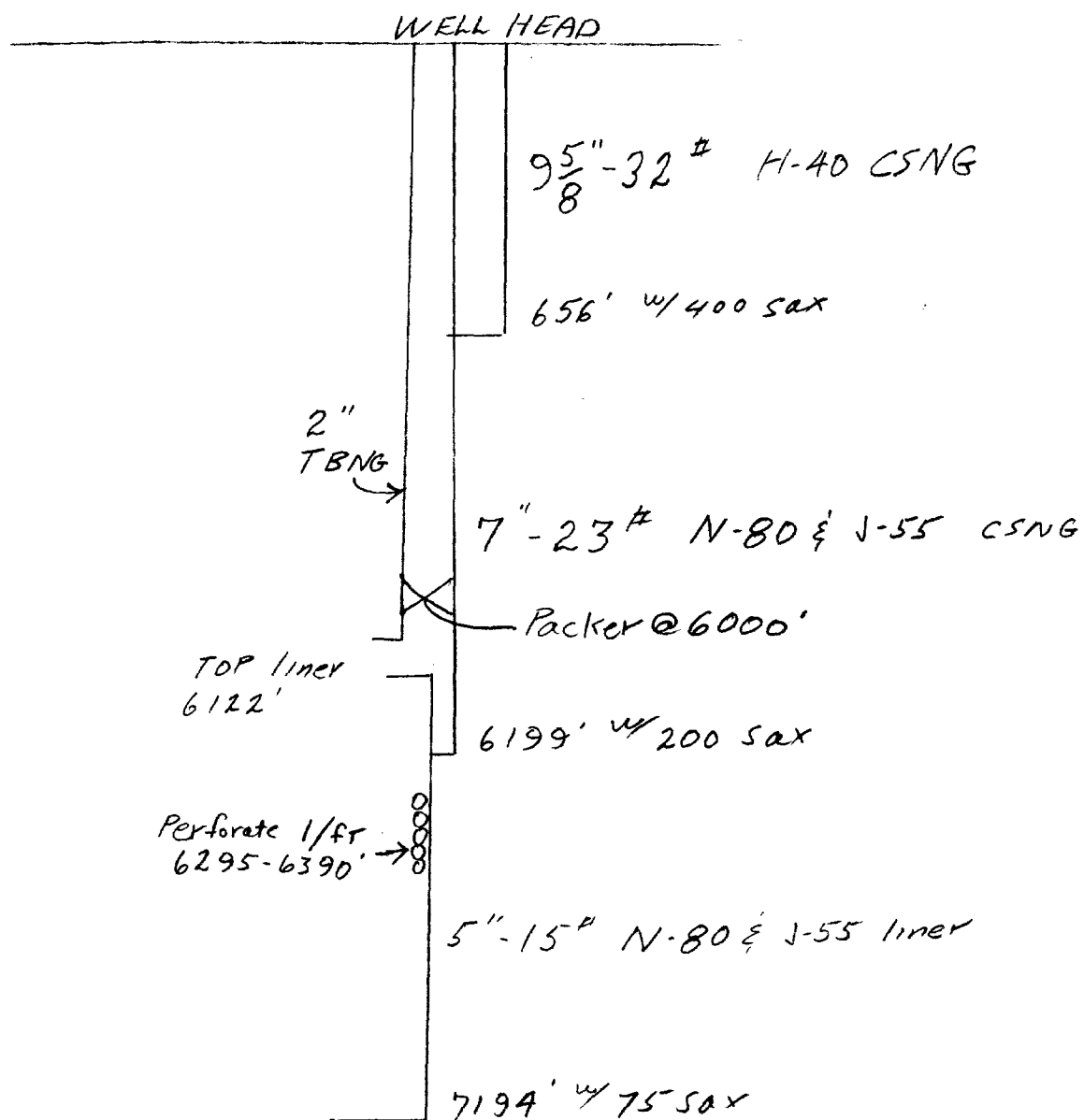
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MERRION & BAYLESS

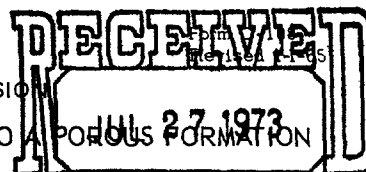
Navajo #20-2

Injection Well Subsurface Equipment



ILLEGIBLE

NEW MEXICO OIL CONSERVATION COMMISSION  
APPLICATION TO DISPOSE OF SALT WATER BY INJECTION INTO A POROUS FORMATION



OPERATOR <b>J. Gregory Merrion &amp; Robert L. Bayless</b>		ADDRESS <b>P.O. Box 1541 Farmington, Santa Fe, New Mexico 87401</b>	
LEASE NAME <b>Navajo Tract 20</b>	WELL NO. <b>2</b>	FIELD <b>Parajito</b>	COUNTY <b>San Juan</b>
LOCATION UNIT LETTER <b>L</b> ; WELL IS LOCATED <b>1980</b> FEET FROM THE <b>South</b> LINE AND <b>660</b> FEET FROM THE <b>West</b> LINE, SECTION <b>30</b> TOWNSHIP <b>29N</b> RANGE <b>17W</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>656</b>	<b>400</b>	<b>surface</b>	<b>circulated</b>
INTERMEDIATE	<b>7 "</b>	<b>6199</b>	<b>200</b>	<b>4275</b>	<b>temp survey</b>
LONG STRING	<b>5 "</b>	<b>6122</b>	<b>75</b>	<b>6122</b>	<b>squeezed</b>
TUBING	<b>2</b>	<b>6000</b>	NAME, MODEL AND DEPTH OF TUBING PACKER <b>Halliburton Tension Packer @ 6000'</b>		
NAME OF PROPOSED INJECTION FORMATION <b>Hermosa</b>		TOP OF FORMATION <b>6295</b>		BOTTOM OF FORMATION <b>6390</b>	
IS INJECTION THROUGH TUBING, CASING, OR ANNULUS? <b>tubing</b>		PERFORATIONS OR OPEN HOLES <b>6295-6390</b>	PROPOSED INTERVAL(S) OF INJECTION <b>same</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 oil producer</b>			HAS WELL EVER BEEN PERFORATED IN ANY ZONE OTHER THAN THE PROPOSED INJECTION ZONE? <b>Yes</b>	
LIST ALL SUCH PERFORATED INTERVALS AND SACKS OF CEMENT USED TO SEAL OFF OR SQUEEZE EACH <b>7194-7236 squeezed with 50 sax, 6850-6860 squeezed with 15 sax</b>					
DEPTH OF BOTTOM OF DEEPEST FRESH WATER ZONE IN THIS AREA <b>2100</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>7198-7222</b>	
ANTICIPATED DAILY INJECTION VOLUME (BBLS.) <b>150</b>	MINIMUM <b>200</b>	MAXIMUM <b>closed</b>	OPEN OR CLOSED TYPE SYSTEM <b>pressure</b>	IS INJECTION TO BE BY GRAVITY OR PRESSURE? <b>pressure</b>	APPROX. PRESSURE (PSI) <b>500</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 - <b>Unfit</b>		WATER TO BE DISPOSED OF <b>Unfit</b>		NATURAL WATER IN DISPOSAL ZONE <b>Unfit</b>	ARE WATER ANALYSES ATTACHED? <b>No</b>
NAME AND ADDRESS OF SURFACE OWNER (OR LESSEE, IF STATE OR FEDERAL LAND) <b>Navajo Tribe c/o United States Geological Survey</b>					
LIST NAMES AND ADDRESSES OF ALL OPERATORS WITHIN ONE-HALF (1/2) MILE OF THIS INJECTION WELL <b>NONE</b>					
HAVE COPIES OF THIS APPLICATION BEEN SENT TO EACH OF THE FOLLOWING? <b>Yes</b>		SURFACE OWNER <b>Yes</b>		EACH OPERATOR WITHIN ONE-HALF MILE OF THIS WELL <b>No Operators</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>	
				THE NEW MEXICO STATE ENGINEER <b>Yes</b>	
				DIAGRAMMATIC SKETCH OF WELL <b>Yes</b>	

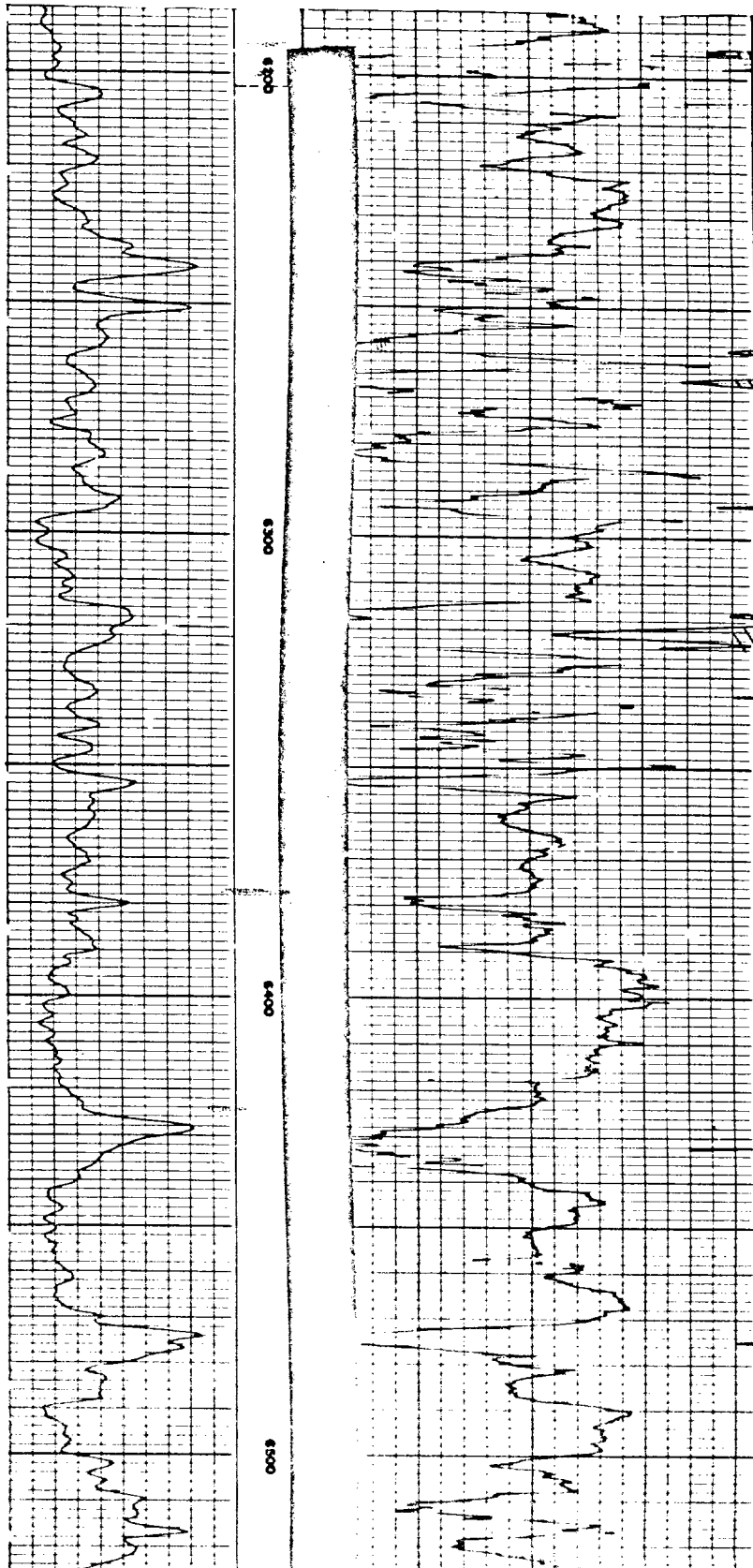
I hereby certify that the information above is true and complete to the best of my knowledge and belief.

*J. L. Bayless* Co-Operator July 19, 1973  
(Signature) (Title) (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.

# SCHLUMBERGER

COUNTY <u>SAN JUAN</u> FIELD <u>UNDESIGNATED</u> LOCATION <u>NAVJO TRACT 20</u> WELL <u>#2</u> COMPANY <u>AMERADA PETROLEUM</u>	COMPANY <u>AMERADA PETROLEUM CORPORATION</u>	
	WELL <u>NAVJO TRACT 20 #2</u>	
	FIELD <u>UNDESIGNATED</u>	
	COUNTY <u>SAN JUAN</u>	STATE <u>NEW MEXICO</u>
LOCATION <u>1980' FSL &amp; 660' FWL</u>		Other Services:
Sec. <u>30</u> Twp. <u>29N</u> Rge. <u>17W</u>		<u>NW 5N</u>
Permanent Datum: <u>G.L.</u> Elev. <u>5230'</u>		Elev.: <u>K.B. 5241'</u>
Log Measured From <u>K.B.</u> <u>11</u> Ft. Above Perm. Datum		<u>D.F. 5240'</u>
Drilling Measured From <u>K.B.</u>		<u>G.L. 5230'</u>
Date	<u>9-10-63</u>	<u>9-22-63</u>
Run No.	<u>ONE</u>	<u>TWO</u>
Depth-Driller	<u>6200</u>	<u>7188</u>
Depth-Logger	<u>6199</u>	<u>7190</u>
Btm. Log Interval	<u>6193</u>	<u>7187</u>
Top Log Interval	<u>30</u>	<u>6000</u>
Casing-Driller	<u>5/8" 656</u>	<u>7" 66199</u>
Casing-Logger	<u>657</u>	<u>6203</u>
Bit Size	<u>8 3/4"</u>	<u>6 1/2"</u>
Type Fluid in Hole	<u>CHEM-GEL</u>	<u>CHEM-GEL</u>
Dens. / Visc.	<u>10.2 50</u>	<u>8.5 42</u>
pH / Fluid Loss	<u>12.5 8.8ml</u>	<u>12.5 122.4ml</u>
Source of Sample	<u>FLOW LINE</u>	<u>FLOW LINE</u>
R <sub>st</sub> @ Meas. Temp.	<u>1.00 @ 86 °F</u>	<u>1.5 @ 86 °F</u>
R <sub>st</sub> @ Meas. Temp.	<u>0.89 @ 86 °F</u>	<u>1.0 @ 98 °F</u>
R <sub>st</sub> @ Meas. Temp.	<u>0.86 @ 86 °F</u>	<u>0.86 @ 98 °F</u>
Source R <sub>st</sub> R <sub>st</sub>	<u>0.67 @ 128 °F</u>	<u>0.85 @ 150 °F</u>
R <sub>st</sub> @ BHT	<u>0.67 @ 128 °F</u>	<u>0.85 @ 150 °F</u>
Time Since Circ.	<u>128 °F</u>	<u>2 HOURS</u>
Max. Rec. Temp.	<u>128 °F</u>	<u>150 °F</u>
Equip. Location	<u>3520 FARM</u>	<u>3520 FARM</u>
Recorded By	<u>FEATHER</u>	<u>SORENSEN</u>
Witnessed By	<u>MR. KERSHNER</u>	<u>MR. SWENHAM &amp; MR. POWELL</u>



MERRION & BAYLESS

NAVAJO TRACT 20-2

Water Disposal

Acreage Ownership & Well Locations

Navajo

Pan-Am 2/3  
Sinclair 1/3  
3-4-69

Pan-Am 2/3  
Sinclair 1/3  
3-4-69

Tidewater  
1-13-69

Tidewater  
1-13-69

Amerada  
2-22-71

14

13

18

17

16

Navajo

Pan-Am 2/3  
Sinclair 1/3  
3-4-69

Pan-Am 2/3  
Sinclair 1/3  
3-4-69

Tidewater  
1-13-69

Tidewater  
1-13-69

LINE

23

24

19

20

21

Navajo

Amerada  
1-13-69

Amerada  
1-13-69

Amerada  
1-13-69

Amerada  
1-13-69

Amerada  
1-13-69

26

25

30

29

28

So. Union  
3-17-62

So. Union  
3-17-62

INJECTION WELL



Schultz  
Navajo  
TD 1620

Amerada  
1-13-69

So. Union  
3-17-62

So. Union

Amerada  
1-13-69

Amerada  
1-13-69

Amerada  
1-13-69

35

36

31

32

33

Red Cactus  
Navajo  
TD 1680

Amerada  
TD 7574

PRODUCING  
31 WELL

MERRION & BAYLESS

CREEK

12

7

8

9

RAYMOND T. DUNCAN, JR.  
13  
10

Amerada  
6-28-72

18

17

16

Shel  
1-13-69

13

18

17

16

Shel  
1-13-69

So. Union  
3-17-62  
+ 548

24

19

20

21

28

17

2

Amerada  
6-28-72

Continental  
6-28-72

Sunray  
10-18-69