YATES PETROLEUM CORPORATION

105 SOUTH FOURTH STREET
ARTESIA, NEW MEXICO 88210
TELEPHONE (505) 748-1471

May 22, 1991

CERTIFIED RETURN RECEIPT

State of New Mexico
OIL CONSERVATION DIVISION
P. O. Box 2088
Santa Fe, NM 87501

Dear Sir,

Enclosed please find our application for authorization to inject for the Flamenco Fed #1 located in Section 7-22S-32E of Lea County.

If you have any questions, you may contact me at (505) 748-1471 Ext. 180. Thank you.

Sincerely,

Brian Collins
Petroleum Engineer

BC/th

Enclosures

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

OIL CONSERVATION DIVISION
POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87501

FORM C-108
Revised 7-1-81

APPLICATION FOR AUTHORIZATION TO INJECT

I. Purpose: ☐ Secondary Recovery ☐ Pressure Maintenance ☒ Disposal ☐ Storage
Application qualifies for administrative approval? ☐ yes ☐ no

II. Operator: Yates Petroleum Corporation

Address: 105 S. 4th Street, Artesia, NM 88210

Contact party: Brian Collins Phone: (505) 748-1471

III. Well data: Complete the data required on the reverse side of this form for each well proposed for injection. Additional sheets may be attached if necessary.

IV. Is this an expansion of an existing project? ☐ yes ☒ no
If yes, give the Division order number authorizing the project _____.

V. Attach a map that identifies all wells and leases within two miles of any proposed injection well with a one-half mile radius circle drawn around each proposed injection well. This circle identifies the well's area of review.

* VI. Attach a tabulation of data on all wells of public record within the area of review which penetrate the proposed injection zone. Such data shall include a description of each well's type, construction, date drilled, location, depth, record of completion, and a schematic of any plugged well illustrating all plugging detail.

VII. Attach data on the proposed operation, including:

1. Proposed average and maximum daily rate and volume of fluids to be injected;
2. Whether the system is open or closed;
3. Proposed average and maximum injection pressure;
4. Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and
5. If injection is for disposal purposes into a zone not productive of oil or gas at or within one mile of the proposed well, attach a chemical analysis of the disposal zone formation water (may be measured or inferred from existing literature, studies, nearby wells, etc.).

*VIII. Attach appropriate geological data on the injection zone including appropriate lithologic detail, geological name, thickness, and depth. Give the geologic name, and depth to bottom of all underground sources of drinking water (aquifers containing waters with total dissolved solids concentrations of 10,000 mg/l or less) overlying the proposed injection zone as well as any such source known to be immediately underlying the injection interval.

IX. Describe the proposed stimulation program, if any.

* X. Attach appropriate logging and test data on the well. (If well logs have been filed with the Division they need not be resubmitted.)

* XI. Attach a chemical analysis of fresh water from two or more fresh water wells (if available and producing) within one mile of any injection or disposal well showing location of wells and dates samples were taken.

XII. Applicants for disposal wells must make an affirmative statement that they have examined available geologic and engineering data and find no evidence of open faults or any other hydrologic connection between the disposal zone and any underground source of drinking water.

XIII. Applicants must complete the "Proof of Notice" section on the reverse side of this form.

XIV. Certification

I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.

Name: Brian Collins Title Petroleum Engineer

Signature: Brian Collins Date: May 22, 1991

* If the information required under Sections VI, VIII, X, and XI above has been previously submitted, it need not be duplicated and resubmitted. Please show the date and circumstance of the earlier submittal. _____

DISTRIBUTION: Original and one copy to Santa Fe with one copy to the appropriate Division

III. WELL DATA

A. The following well data must be submitted for each injection well covered by this applicati The data must be both in tabular and schematic form and shall include:

(1) Lease name; Well No.; location by Section, Township, and Range; and footage location within the section.

(2) Each casing string used with its size, setting depth, sacks of cement used, hole size, top of cement, and how such top was determined.

(3) A description of the tubing to be used including its size, lining material, and setting depth.

(4) The name, model, and setting depth of the packer used or a description of any other seal system or assembly used.

Division District offices have supplies of Well Data Sheets which may be used or which may be used as models for this purpose. Applicants for several identical wells may submit a "typical data sheet" rather than submitting the data for each well.

B. The following must be submitted for each injection well covered by this application. All items must be addressed for the initial well. Responses for additional wells need be shown only when different. Information shown on schematics need not be repeated.

(1) The name of the injection formation and, if applicable, the field or pool name.

(2) The injection interval and whether it is perforated or open-hole.

(3) State if the well was drilled for injection or, if not, the original purpose of the wel

(4) Give the depths of any other perforated intervals and detail on the sacks of cement or bridge plugs used to seal off such perforations.

(5) Give the depth to and name of the next higher and next lower oil or gas zone in the area of the well, if any.

XIV. PROOF OF NOTICE

All applicants must furnish proof that a copy of the application has been furnished, by certified or registered mail, to the owner of the surface of the land on which the well is to be located and to each leasehold operator within one-half mile of the well location.

Where an application is subject to administrative approval, a proof of publication must be submitted. Such proof shall consist of a copy of the legal advertisement which was published in the county in which the well is located. The contents of such advertisement must include:

(1) The name, address, phone number, and contact party for the applicant;

(2) the intended purpose of the injection well; with the exact location of single wells or the section, township, and range location of multiple wells;

(3) the formation name and depth with expected maximum injection rates and pressures; and

(4) a notation that interested parties must file objections or requests for hearing with the Oil Conservation Division, P. O. Box 2088, Santa Fe, New Mexico 87501 within 15 days.

NO ACTION WILL BE TAKEN ON THE APPLICATION UNTIL PROPER PROOF OF NOTICE HAS BEEN SUBMITTED.

NOTICE: Surface owners or offset operators must file any objections or requests for hearing of administrative applications within 15 days from the date this application was mailed to them.

C-108
Application For Authorization To Inject
Yates Petroleum Corporation
Flamenco Fed #1
L 7-22S-32E
Lea County, New Mexico

I. The purpose of completing this well is to make a disposal well for produced Delaware Sand water into the Delaware Sand formation.

Yates Petroleum plans to convert this well to a water disposal well into the Delaware Sand.

II. Operator: Yates Petroleum Corporation
105 South Fourth Street
Artesia, NM 88210
Brian Collins (505) 748-1471

III. Well Data: See Attachment A

IV. This is not an expansion of an existing project.

V. See attached map, Attachment B

VI. No wells within the area of review penetrate the proposed injection zone.

VII. 1. Proposed average daily injection volume approximately 5000 BWPD.
Maximum daily injection volume approximately 15000 BWPD.

2. This will be a closed system.

3. Proposed average injection pressure-unknown
Proposed maximum injection pressure--935 psi.

4. Sources of injected water would be produced water from the Delaware Sand. (Attachment C)

5. See Attachment C.

VIII. 1. The proposed injection interval is the portion of the Delaware Sand formation consisting of porous Sandstone from estimated depths: 4676'-4735'
4745'-4792'
4960'-4976'
5028'-5046'
5083'-5098'
5114'-5142'
5280'-5306'

5574'-5612'
5648'-5670'
5738'-5754'
5776'-5814'

2. Possible Fresh water zones overlie the proposed injection formations at depths to approximately 850' feet. There are no fresh water zones underlying the formation.

IX. The proposed disposal interval may be acidized with 7-1/2% HCL acid, or 12-3 HF acid.

X. Logs were filed at your office when the well was drilled.

XI. No windmills exist within a one mile radius of the subject location.

XII. Yates Petroleum Corporation has examined geologic and engineering data and has found that there is no evidence of faulting in the proposed interval.

XIII. Proof of Notice

A. Certified letters sent to the surface owner and offset operators-attached. (Attachment D)

B. Copy of legal advertisement attached. (Attachment E)

XIV. Certification is signed.

Yates Petroleum Corporation
Flamenco Fed #1
L 7-22S-32E

Attachment A
Page 1

III. Well Data

A. 1. Lease Name/Location:
Flamenco Fed. #1
L 7-22S-32E
1650' FSL & 660' FWL

2. Casing Strings:
a. Present Well Condition
8-5/8" 36#, J55 @ 850' w/250 sx (circ)
5-1/2" 15.5#, 17#, J55, N80 @ 8537' w/2850 sx (TOC 800')
Present Status:
SI. Unsuccessful completion attempt in Delaware 7085'-8455'.

3. Proposed well condition:
Casing same as above
3 1/2" 9.3 J55 or 2-7/8" 6.5 J55 plastic-coated injection tubing @ 4600'

4. Propose to use Guiberson or Baker plastic-coated or nickel-plated packer set at 4600'.

B. 1. Injection Formation: Delaware Sand

2. Injection Interval will be through perforations from approximately 4676-5814'.

3. Well was originally drilled as an exploratory Delaware Sand oil well. Well will be Delaware Sand water disposal well (4676'-5814') when work is completed.

4. Perforations: 8449'-8455' Delaware
8312'-8332' Delaware
CIBP + 30' cement 8290'
7184'-7194' Delaware
CIBP + 20' cement 7170'
7085'-7104' Delaware

5. Next higher (shallower) oil or gas zone within 2 miles--None

Next lower (deeper) oil or gas zone within 2 miles--Atoka

WELL NAME: Flamenco Fed. #1 FIELD AREA: Livingston Ridge

LOCATION: 1650' FSL, 660' FWL Sec. 7 - 22S - 32E Lea Co., New Mexico

GL: 3642.8' ZERO: 13 ' AGL: _____ '

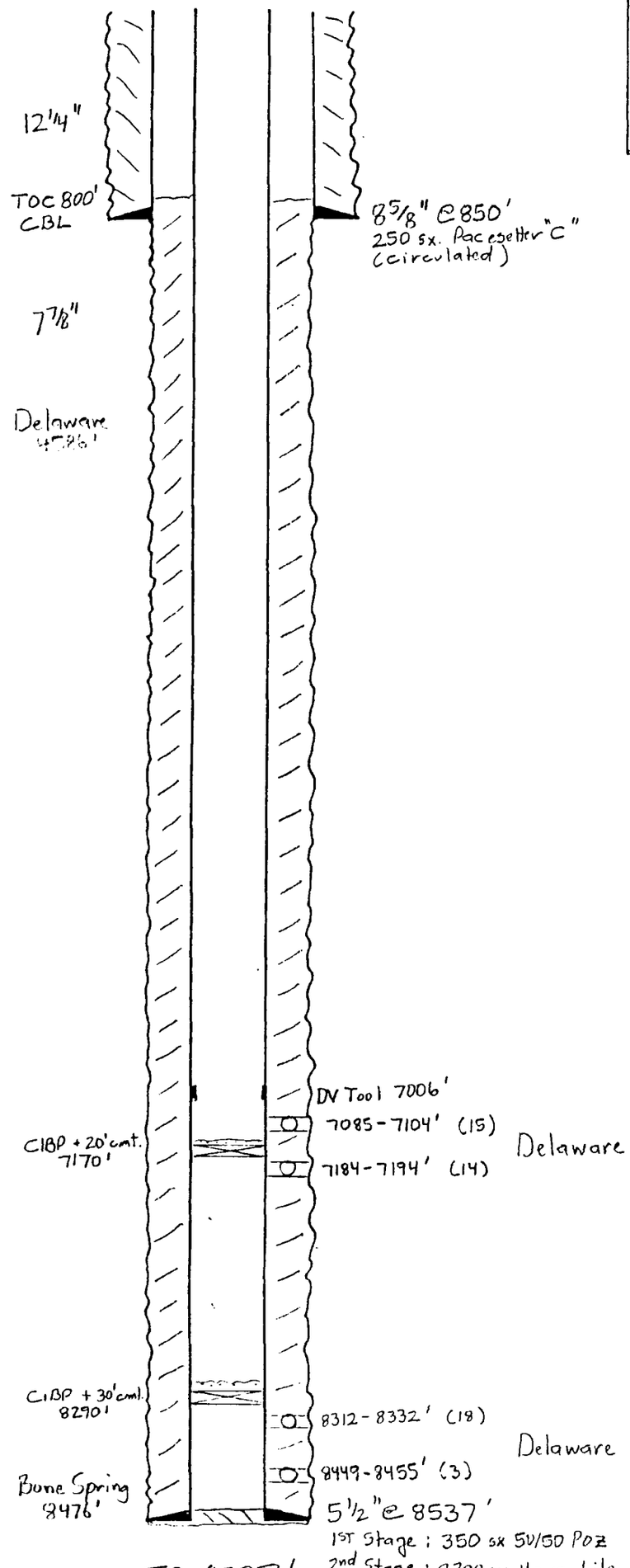
KB: 3655.8' ORIG. DRLG./COMPL. DATE: _____

COMMENTS: _____

CASING PROGRAM:

SIZE/WT./GR./CONN.	DEPTH SET
8 5/8" 36 ppf J55	850'
5 1/2" 17 & 15.5 ppf J55 & N80	8537'

ATTACHMENT A
CURRENT STATUS



- SKETCH NOT TO SCALE -

REVISED: _____

WELL NAME: Flamingo Fed. #1 FIELD AREA: Livingston Ridge

LOCATION: 1650' FSL, 660' FWL Sec. 7 - 22S - 32E Lea Co., New Mexico

GL: 3642.8' ZERO: 13 ' AGL: _____ '

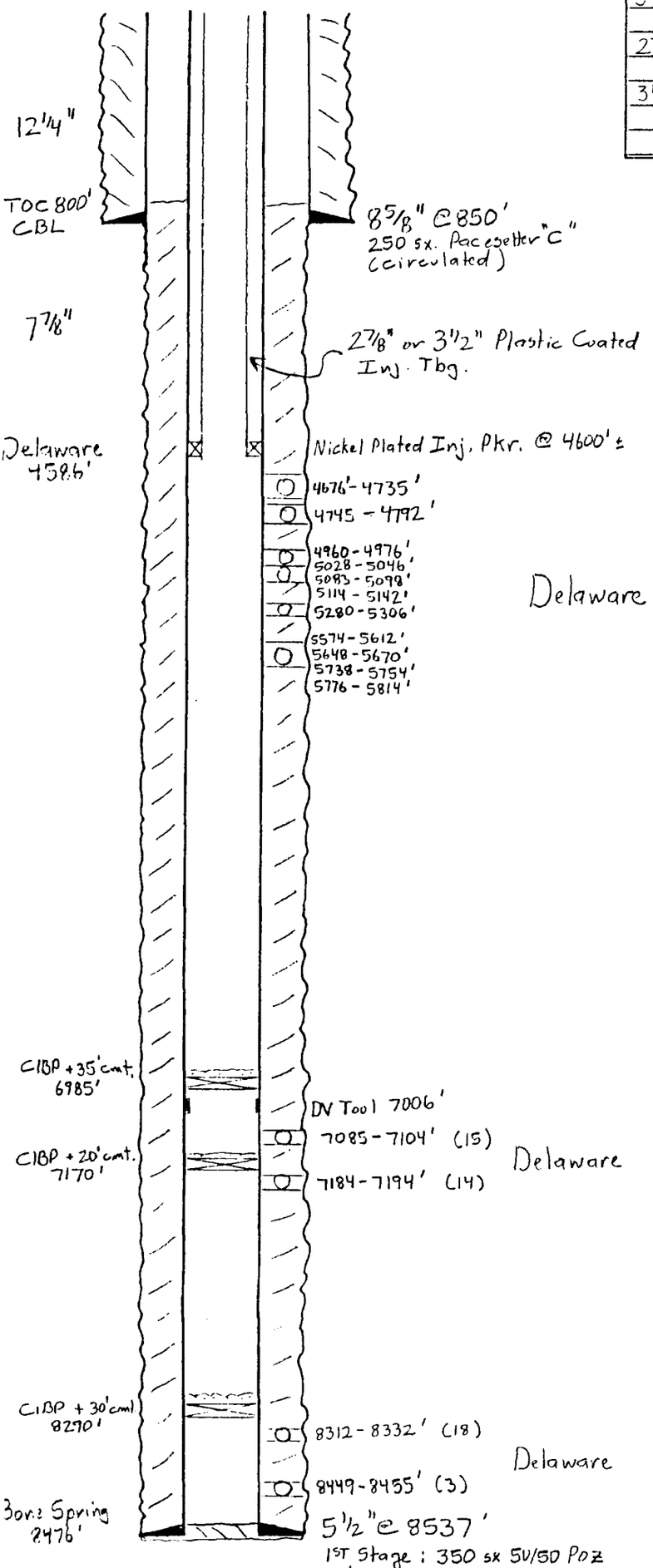
KB: 3655.8' ORIG. DRLG./COMPL. DATE: _____

COMMENTS: _____

CASING PROGRAM:

SIZE/WT./GR./CONN.	DEPTH SET
8 5/8" 36 ppf J55	850'
5 1/2" 17 & 15.5 ppf J55 & N80	8537'
2 7/8" 6.5 J55 EUE Plastic Coated	4600'
- or -	
3 1/2 9.3 J55 EUE Plastic Coated	4600'

ATTACHMENT A
PROPOSED WELLBORE SCHEMATIC

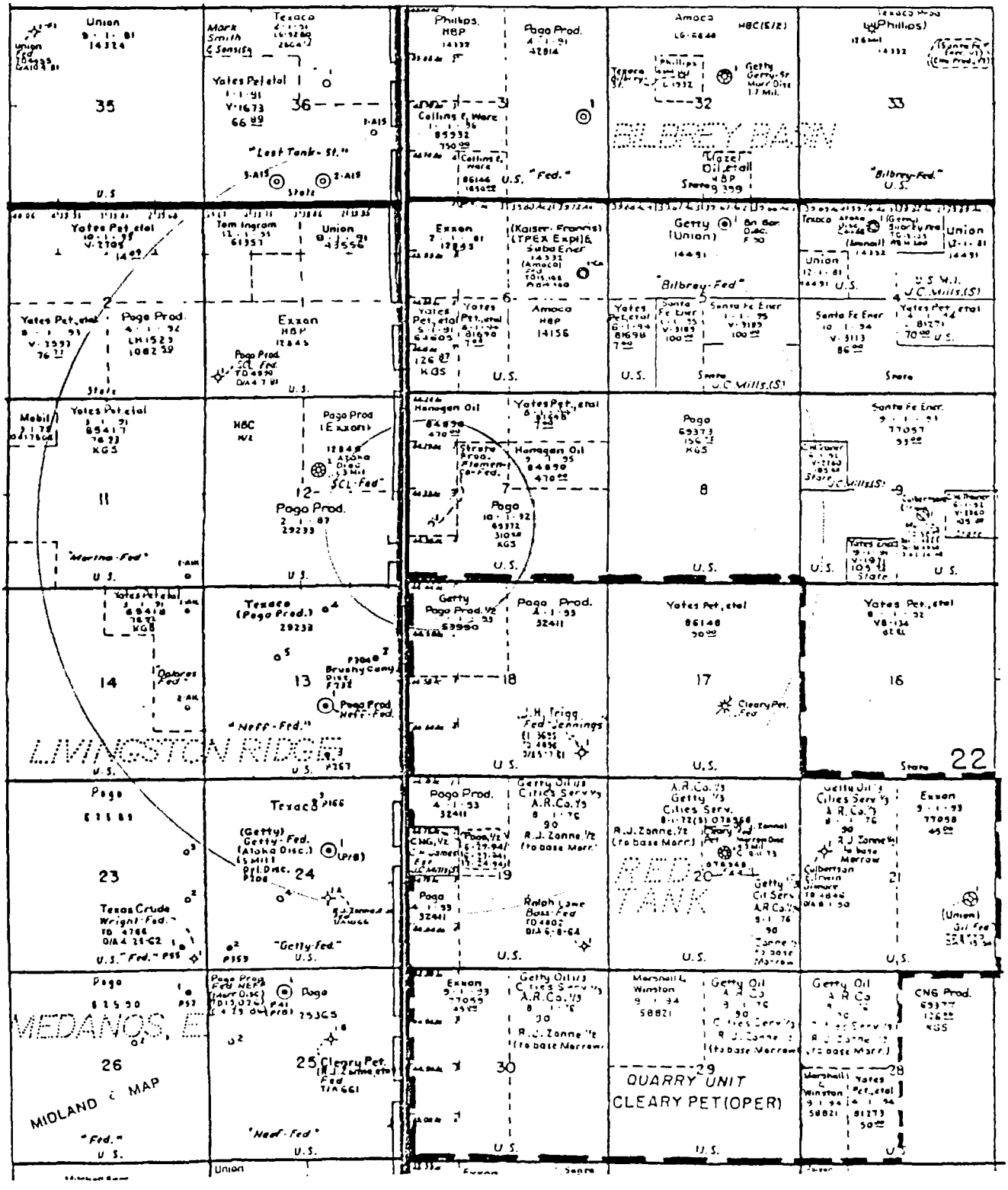


- SKETCH NOT TO SCALE -

REVISED: _____

ATTACHMENT B

Lease Map Exhibit



ATTACHMENT C

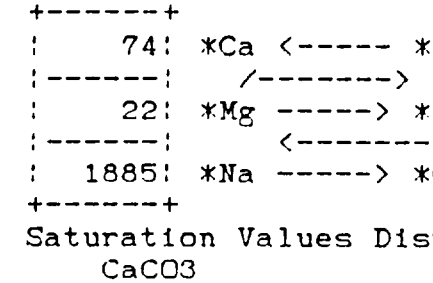
WATER ANALYSIS REPORT

ɔmpany	: YATES PET.	Date	: 10-22-90
.ddress	: ARTESIA	Date Sampled	: 10-19-90
Lease	: MEDANO ~~BA~~ VA	Analysis No.	: 1
Well	: 1		
Sample Pt.	: WELLHEAD		

	ANALYSIS		mg/L		* meq/L
1.	pH	7.1			
2.	H2S	POS			
3.	Specific Gravity	1.085			
4.	Total Dissolved Solids		115832.4		
5.	Suspended Solids		NR		
6.	Dissolved Oxygen		NR		
7.	Dissolved CO2		NR		
8.	Oil In Water		NR		
9.	Phenolphthalein Alkalinity (CaCO3)				
10.	Methyl Orange Alkalinity (CaCO3)				
11.	Bicarbonate	HCO3	207.0	HCO3	3.4
12.	Chloride	Cl	68799.0	Cl	1940.7
13.	Sulfate	SO4	1750.0	SO4	36.4
14.	Calcium	Ca	1480.0	Ca	73.9
15.	Magnesium	Mg	268.2	Mg	22.1
16.	Sodium (calculated)	Na	43328.2	Na	1884.7
17.	Iron	Fe	0.0		
18.	Barium	Ba	0.0		
19.	Strontium	Sr	0.0		
20.	Total Hardness (CaCO3)		4800.0		

PROBABLE MINERAL COMPOSITION

*milli equivalents per Liter



Saturation Values Dist. Water 20 C

CaCO3	13 mg/L
CaSO4 * 2H2O	2090 mg/L
BaSO4	2.4 mg/L

Compound	Equiv wt	X meq/L	= mg/L
Ca(HCO3)2	81.0	3.4	275
CaSO4	68.1	36.4	2480
CaCl2	55.5	34.0	1888
Mg(HCO3)2	73.2		
MgSO4	60.2		
MgCl2	47.6	22.1	1050
NaHCO3	84.0		
Na2SO4	71.0		
NaCl	58.4	1884.7	110139

REMARKS:

Petrolite Oilfield Chemicals Group

Respectfully submitted,
L MALLETT

ATTACHMENT C

LOCATION

YOUR EXT. NO.

THE WESTERN COMPANY

WATER ANALYSIS

ANALYSIS NO.

GENERAL INFORMATION

OPERATOR Yates	DATE SAMPLED 2-1-91
WELL ~~Martha AK~~ #1	DATE RECEIVED 2-1-91
FIELD	SUBMITTED BY Crew
FORMATION Delaware	WORKED BY Shephard
COUNTY Lea Co.	SAMPLE DESCRIPTION:
STATE NM.	
DEPTH 7900	

PHYSICAL AND CHEMICAL DETERMINATIONS

SPECIFIC GRAVITY 1.155 AT 71 °F			TOTAL DISSOLVED SOLIDS		PPM
pH 5.7			RESISTIVITY .047 @ 68		PPM
IRON 250 ppm Fe^{2+}			SULFATE 350)	303	PPM
HYDROGEN SULFIDE			BICARBONATE	3063	PPM
HARDNESS			CHLORIDE	121212	PPM
CALCIUM	20432		SODIUM CHLORIDE		PPM
MAGNESIUM	3366	PPM	SODIUM		PPM
SODIUM & POTASSIUM	50096	PPM	POTASSIUM		PPM
PHOSPHATE					

Margin notes (left): 7.5 / .1; 5.9 / .1; 16 / .1. Margin notes (right): 2.9 / 50; 14 / 2

REMARKS: 20 % oil in sample water is cloudy

for Stiff type plot (in meq./1.)

	-50	40	30	20	10	0	10	20	30	40	50-	
Na & K 100												Cl 100
Ca 10												HCO_3 10
Mg 10												SO_4 10

 RATORY REPORT No.

ATTACHMENT C

TO Yates Pet

Date 1-27-91

Submitted by ______ Date Rec. 1-25-91

Well No. ______ Depth ______ Formation ______

Field ______ County ______ Source ______

	Martha AIK #1		Medano VA St #1
Resistivity	0.050 @ 70		0.051 @ 70
Specific Gravity	1.2064 @ 70		1.1970 @ 70
pH	6.5		6.5
Calcium	21680		10721
Magnesium	6063		6063
Chlorides	190000		181000
Sulfates	200		400
Bicarbonates	152		275
Soluble Iron	100		75

Remarks:

Eric Jacobson

Respectfully submitted

Analyst: Eric Jacobson

HALLIBURTON SERVICES

Martha "AIK" Federal #1

****

2-1-91 SITP 400#. Bled well down. Initial fluid level 3600'. Swabbed back 23 bbls fluid - dry to seating nipple. Made hourly runs thereafter:

TIME	TOTAL BBLS	OIL	WATER
10:30	2	1	1
11:30	2	1	1
12:30	1-1/2	3/4	3/4
1:30	2	1	1
2:30	1-1/2	3/4	3/4
3:30	2	1	1
4:30	2	1	1
5:30	2	1	1

Total fluid recovery for day 18 bbls oil + 20 bbls water. Shut in overnight. Prep to frac. This AM (2-1-91) - SITP 375#. DC $1850; CC $15,819

WATER ANALYSIS: 1-31-91

Water Analysis

	AM	PM
Spec Gravity	1.179 @ 76	1.185 @ 72
Resistivity	.045 @ 76	.040 @ 70
pH	6.2	6.5
Iron	75	100
Sulfates	250	422
Calcium	23748	23,291
Bicarbonate	113	278
Magnesium	3297	4101
Chlorides	139949	145148
Sod & Pot	57433	--
REMARKS:	No KCL, 37% oil in sample	

2-2-91 Frac'd perfs 7960-8015' with 5000 gals gelled crosslinked 2% KCL water + 9000# 20/40 sand. Treating Pressures: Max 2000#, Min 1300#, Avg 1800# at 5 BPM. ISDP 1100#, 15 mins 900#. Shut in overnight. Prep to swab. DC $6289; CC $22,108

2-3-91 SITP 0#. Initial fluid level 200'. Swabbed back 195 bbls fluid total (182 bbls water + 13 bbls oil). At end of day oil cut = 15% with good show of gas on swab. Fluid level 3000'. Recovered 14 bbls water over load. Shut in overnight. Prep to run pump and rods. DC $1850; CC $23,958

2-4-91 Released packer. TOH with tubing and packer. TIH with bull plugged mud joint, perf sub, seating nipple at 7828', 5 joints 2-7/8" tubing and 237 joints 2-7/8" tubing. Nipplled up wellhead. TIH with pump and rods. Hung well on pump. Turned to production. DC $2300; CC $26,258

Pumped 56 bbls oil and 193 bbls water in 13 hours. Fluid level 1543'.

2-5-91 Pumped 95 bbls oil and 266 bbls water. Fluid level 1165'.

2-6-91 Pumped 92 bbls oil and 216 bbls water. Fluid level at surface.

2-7-91 Pumped 78 bbls oil, 138 bbls water and 34 MCF in 17 hours. Fluid level 2299'.

2-8-91 Pumped 100 bbls oil, 147 bbls water and 103 MCF. Fluid level 3276'.

2-9-91 Pumped 98 bbls oil, 180 bbls water and 147 MCF. Fluid level 6300'.

2-10-91 Pumped 67 bbls oil, 171 bbls water and 116 MCF. Fluid

ATTACHMENT D

YATES PETROLEUM CORPORATION

105 SOUTH FOURTH STREET
ARTESIA, NEW MEXICO 88210
TELEPHONE (505) 748-1471

May 22, 1991

CERTIFIED RETURN RECEIPT

Exxon Company, USA
P. O. Box 1600
Midland, TX 79702-1600

Dear Sir,

Enclosed please find a copy of form C-108 (Application for Authority to Inject) on Yates' Flamenco Fed #1 located in Unit L of Section 7-22S-32E , Lea County, New Mexico.

Should you have any questions, please feel free to contact me at (505) 748-1471.

Sincerely,

Brian Collins
Petroleum Engineer

BC/th

Enclosure

YATES PETROLEUM CORPORATION

105 SOUTH FOURTH STREET
ARTESIA, NEW MEXICO 88210
TELEPHONE (505) 748-1471

May 22, 1991

CERTIFIED RETURN RECEIPT

Texaco, Inc.
Box 2100
Denver, CO 80201

Dear Sir,

Enclosed please find a copy of form C-108 (Application for Authority to Inject) on Yates' Flamenco Fed #1 located in Unit L of Section 7-22S-32E , Lea County, New Mexico.

Should you have any questions, please feel free to contact me at (505) 748-1471.

Sincerely,

Brian Collins
Petroleum Engineer

BC/th

Enclosure

YATES PETROLEUM CORPORATION

105 SOUTH FOURTH STREET
ARTESIA, NEW MEXICO 88210
TELEPHONE (505) 748-1471

May 22, 1991

CERTIFIED RETURN RECEIPT

Pogo Producing Company
P. O. Box 10340
Midland, TX 79701

Dear Sir,

Enclosed please find a copy of form C-108 (Application for Authority to Inject) on Yates' Flamenco Fed #1 located in Unit L of Section 7-22S-32E , Lea County, New Mexico.

Should you have any questions, please feel free to contact me at (505) 748-1471.

Sincerely,

Brian Collins
Petroleum Engineer

BC/th

Enclosure

YATES PETROLEUM CORPORATION

105 SOUTH FOURTH STREET
ARTESIA, NEW MEXICO 88210
TELEPHONE (505) 748-1471

May 22, 1991

CERTIFIED RETURN RECEIPT

Hanagan Oil Properties, Inc.
P. O. Box 2520
Casper, WY 82602

Dear Sir,

Enclosed please find a copy of form C-108 (Application for Authority to Inject) on Yates' Flamenco Fed #1 located in Unit L of Section 7-22S-32E , Lea County, New Mexico.

Should you have any questions, please feel free to contact me at (505) 748-1471.

Sincerely,

Brian Collins

Brian Collins
Petroleum Engineer

BC/th

Enclosure

YATES PETROLEUM CORPORATION

105 SOUTH FOURTH STREET
ARTESIA, NEW MEXICO 88210
TELEPHONE (505) 748-1471

May 22, 1991

CERTIFIED RETURN RECEIPT

Bureau of Land Management
1717 W. 2nd
Roswell, NM 88201

Dear Sir,

Enclosed please find our application for authorization to inject for the Flamenco Fed #1 located in Section 7-22S-32E of Lea County.

If you have any questions, you may contact me at (505) 748-1471 Ext. 180. Thank you.

Sincerely,

Brian Collins

Brian Collins
Petroleum Engineer

BC/th

Enclosures

YATES PETROLEUM CORPORATION

105 SOUTH FOURTH STREET
ARTESIA, NEW MEXICO 88210
TELEPHONE (505) 748-1471

May 22, 1991

Hobbs News Sun
503 W. Main
Hobbs, NM 88240

Gentlemen,

Yates Petroleum Corporation desires to place a public notice in your newspaper for one day. The notice is enclosed.

Please place this notice in your paper Friday, May 24, 1991 and forward a copy of it along with your billing as soon as possible to:

Yates Petroleum Corporation
105 S. 4th Street
Artesia, NM 88210
Attn: Brian Collins

If you have any questions, please contact me at 748-1471, Ext. 180. Thank you for your cooperation in this matter.

Sincerely,

Brian Collins
Petroleum Engineer

BC/th

Enclosure

Attachment E

Legal Notice

Yates Petroleum Corporation, 105 South Fourth Street, Artesia, NM 88210, has filed form C-108 (Application for Authorization to Inject) with the New Mexico Oil Conservation Division seeking administrative approval for an injection well. The proposed well, the "Flamenco Fed #1" located 1650' FSL & 660' FWL of Section 7, Township 22 South, Range 32 East of Lea County, New Mexico, will be used for saltwater disposal. Disposal waters from the Delaware Sand will be re-injected into the Delaware Sand at a depth of 4676-5814 feet with a maximum pressure of 935 psi and a maximum rate of 15,000 BWPD.

All interested parties opposing the aforementioned must file objections or requests for a hearing with the Oil Conservation Division, P. O. Box 2088, Santa Fe, NM 87501, within 15 days. Additional information can be obtained by contacting Brian Collins at (505) 748-1471.

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION
HOBBS DISTRICT OFFICE

91 MAY 3 AM 9 22

5-24-91

BRUCE KING
GOVERNOR

POST OFFICE BOX 1980
HOBBS, NEW MEXICO 88241-1980
(505) 393-6161

OIL CONSERVATION DIVISION
P. O. BOX 2088
SANTA FE, NEW MEXICO 87501

RE: Proposed:
MC_____
DHC_____
NSL_____
NSP_____
SWD X
WFX_____
PMX_____

Gentlemen:

I have examined the application for the:

Yates Petroleum Corp. Florence-Federal #1-Z 7-22-32
Operator Lease & Well No. Unit S-T-R

and my recommendations are as follows:

OK

Yours very truly,

Jerry Sexton
Supervisor, District 1

/ed