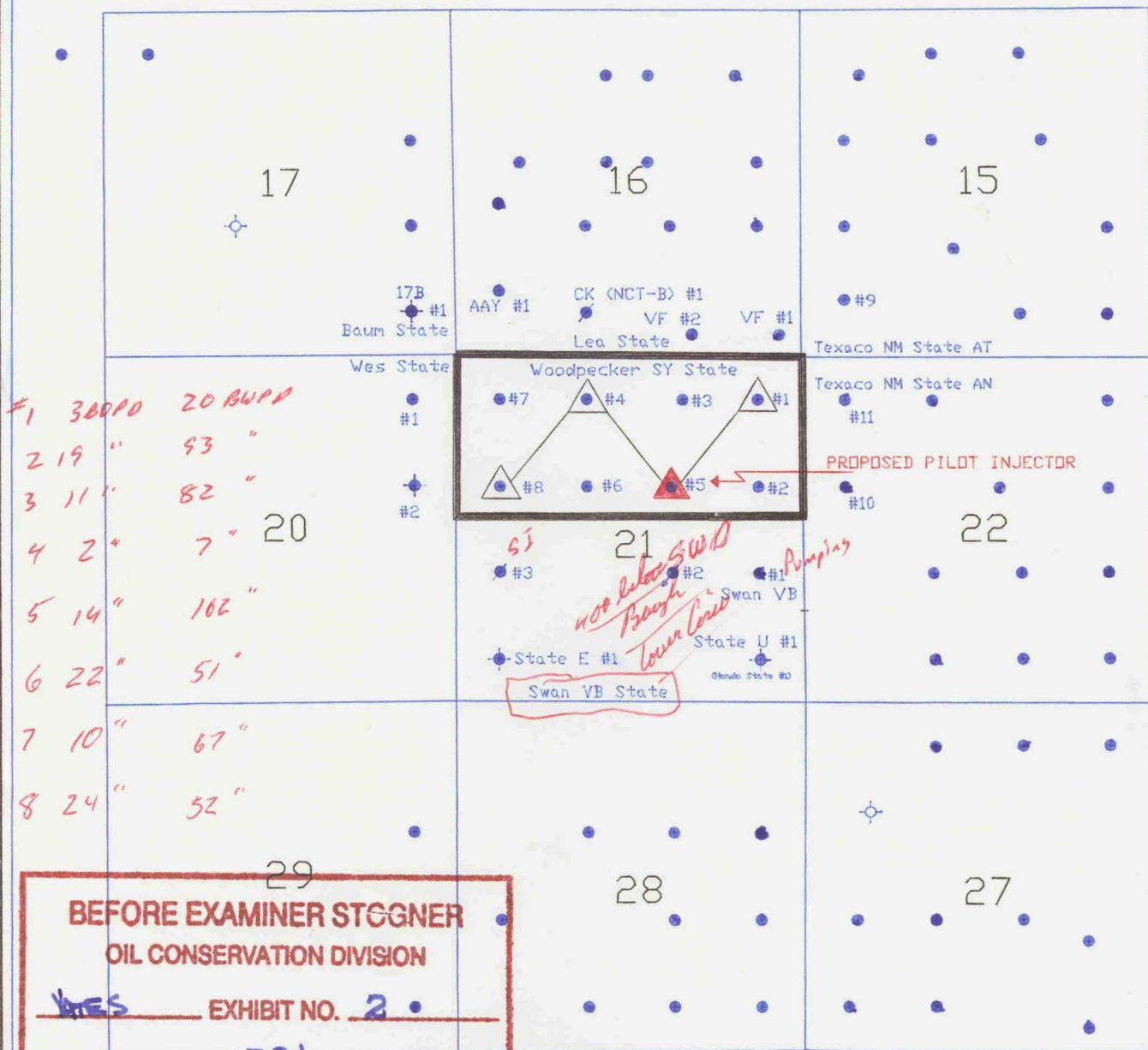




PROPOSED INJECTION PATTERN

Section 21 T14S-R33E
Lea County, New Mexico

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: Theresa Padilla 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 well and any 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 in this application is true and correct to the best of my knowledge and belief.
- Name: Theresa Padilla Title: Petroleum Engineer
Signature: Theresa Padilla Date: 6/28/91
- * 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.

III. WELL DATA

A. The following well data must be submitted for each injection well covered by this application. 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 well.
- (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 2080, 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
Lea County, New Mexico

Woodpecker SY State #1
A 21-14S-33E

Woodpecker SY State #5
G 21-14S-33E

Woodpecker SY State #4
C 21-14S-33E

Woodpecker SY State #8
E 21-14S-33E

- I. The purpose of this application is to request authorization to inject into the Saunders-Permo Upper Pennsylvanian Bough formation in the four above-mentioned wells for the purpose of lease pressure maintenance.

Yates Petroleum plans to convert these four wells to injectors in the Bough formation.

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

- III. Well Data: See Attachment A

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

- V. See attached maps, Attachment B

- VI. See Attachment C

- VII. 1. Proposed average daily injection volume between approximately 1000-1500 BWPD per injection well. Maximum daily injection volume approximately 2000 BWPD per injection well.
2. This will be a closed system.
3. Proposed average injection pressure-unknown. Proposed maximum injection pressure--1965 psi.
4. Sources of injection water will be produced Permo-Upper Pennsylvanian waters from the Saunders, Lazy J, and Tulk Penn fields. These waters are presently being injected into the Swan VB State #2 salt water disposal well in

Application for Authorization to Inject
Woodpecker SY State #1, #4, #5, #8

-2-

J 21-14S-33E. A combination of produced Upper Penn waters and Ogallala aquifer waters will be injected into the Bough formation. Several representative water analyses are attached.
(Attachment D)

5. Not applicable

VIII. 1. The proposed injection interval is the portion of the Bough formation consisting of a fossiliferous limestone with vuggy porosity from 9775' to 10061'.

2. Fresh water zones overlies the Bough formation at depths to approximately 250 feet.

IX. The proposed disposal intervals will be acidized with 15% NEFE HCl acid in the approximate quantities of 8000 gal, 17,000 gal, 18,000 gal and 13,000 gal for the Woodpecker SY State injection wells #1, #4, #5 and #8 respectively.

X. Logs were filed at your office when the Woodpecker SY State wells #1, #4, #5, and #8 were drilled and completed between 1982 and 1984.

XI. Three windmills (A, B, E) were located within the one-mile radii of the injection wells. (Attachment E) Records at the State Engineer's office indicated three other water wells (C, D, F) in the area. On-site inspection failed to locate these wells. The water analyses for A, B, & E are attached.
(Attachment F)

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 G)

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

XIV. Certification is signed.

Yates Petroleum Corporation
Attachment A (Page 1) - C-108
Woodpecker Lease
Well Data

Lease Name/Location	Casing Strings	Tubing	Packer	Injection Formation	Injection Interval (Perfs)	Original Purpose of well	Other Perfs	1-Next higher (shallower) oil or gas zone 2-Next lower (deeper) oil or gas zone
Woodpecker SY State #1 A 21-14S-33E 660' FNL & 660' FEL	20" Conductor @ 40' 13-3/8" 48# J-55 @ 445' w/450 sx, circ 45 sx 8-5/8" 32# K-55 @ 4200' w/2300 sx, circ 35 sx 5-1/2" 17# N-80 & K-55 @ 10170' w/940 sx TOC-6753' CBL 2-7/8" 6.5# J-55 tubing (presently in well)	2-7/8" 6.5# J-55 plastic-coated tbg @ 9724'	Gulberson Uni VI or Baker plastic-coated or nickel plated pkr set @ 9724'	Saunders-Permian Up-Perm Bough Limestone	9824'-9831' 9865'-9872' 9905'-9932'	Wildcat-Bough Oil Well	None	1-None 2-None
Woodpecker SY State #4 C 21-14S-33E 660' FNL & 1980' FNL	20" Conductor @ 40' 13-3/8" 48# K-55 @ 450' w/450 sx, circ 35 sx 8-5/8" 32# J-55 @ 4193' w/2250 sx, circ 30 sx 5-1/2" 17# N-80 & K-55 @ 10425' w/1000 sx TOC-7100' CBL 2-7/8" 6.5# J-55 tubing (presently in well)	2-7/8" 6.5# J-55 plastic-coated tbg @ 9675'	Gulberson Uni VI or Baker plastic-coated or nickel plated pkr set @ 9675'	Saunders-Permian Up-Perm Bough Limestone	9775'-9816' 9891'-9940' 9973'-9979' 9991'-10061'	Development-Bough Oil Well	None	1-None 2-None
Woodpecker SY State #5 G 21-14S-33E 1980' FNL & 1980' FEL	13-3/8" 48# J-55 @ 450' w/450 sx, circ 35 sx 8-5/8" 32# J-55 @ 4185' w/1350 sx, circ 10 sx 5-1/2" 17# N-80 & K-55 @ 10076' w/1300 sx TOC-6234' CBL 2-7/8" 6.5# J-55 tubing (presently in well)	2-7/8" 6.5# J-55 plastic-coated tbg @ 9682'	Gulberson Uni VI or Baker plastic-coated or nickel plated pkr set @ 9682'	Saunders-Permian Up-Perm Bough Limestone	9782'-9867' 9886'-9905' 9941'-9962'	Development-Bough Oil Well	None	1-None 2-None
Woodpecker SY State #8 E 21-14S-33E 1980' FNL & 660' FNL	13-3/8" 48# J-55 @ 460' w/450 sx, circ 50 sx 8-5/8" 32# J-55 @ 4197' w/3600 sx, circ 600 sx 5-1/2" 17# N-80 & J-55 @ 10270' w/1030 sx TOC-6918' CBL 2-7/8" 6.5# J-55 tubing (presently in well)	2-7/8" 6.5# J-55 plastic-coated tbg @ 9717'	Gulberson Uni VI or Baker plastic-coated or nickel plated pkr set @ 9717'	Saunders-Permian Up-Perm Bough Limestone	9817'-9827' 9868'-9877' 9913'-9939'	Development-Bough Oil Well	None	1-None 2-None

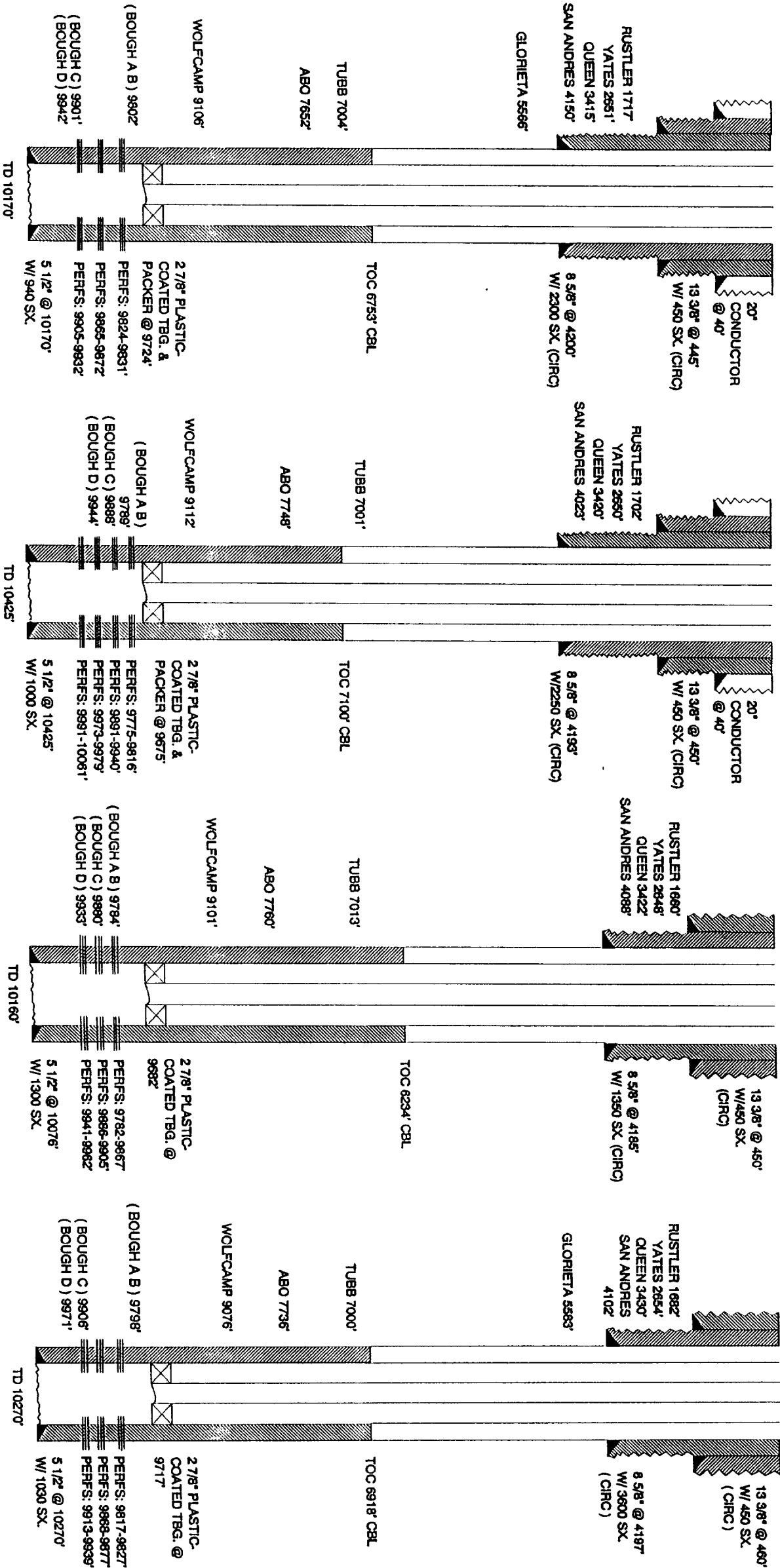
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WOODPECKER SY STATE #1
A SEC. 21-T14S-R33E
LEA CO., NM
PROPOSED INJECTION WELL

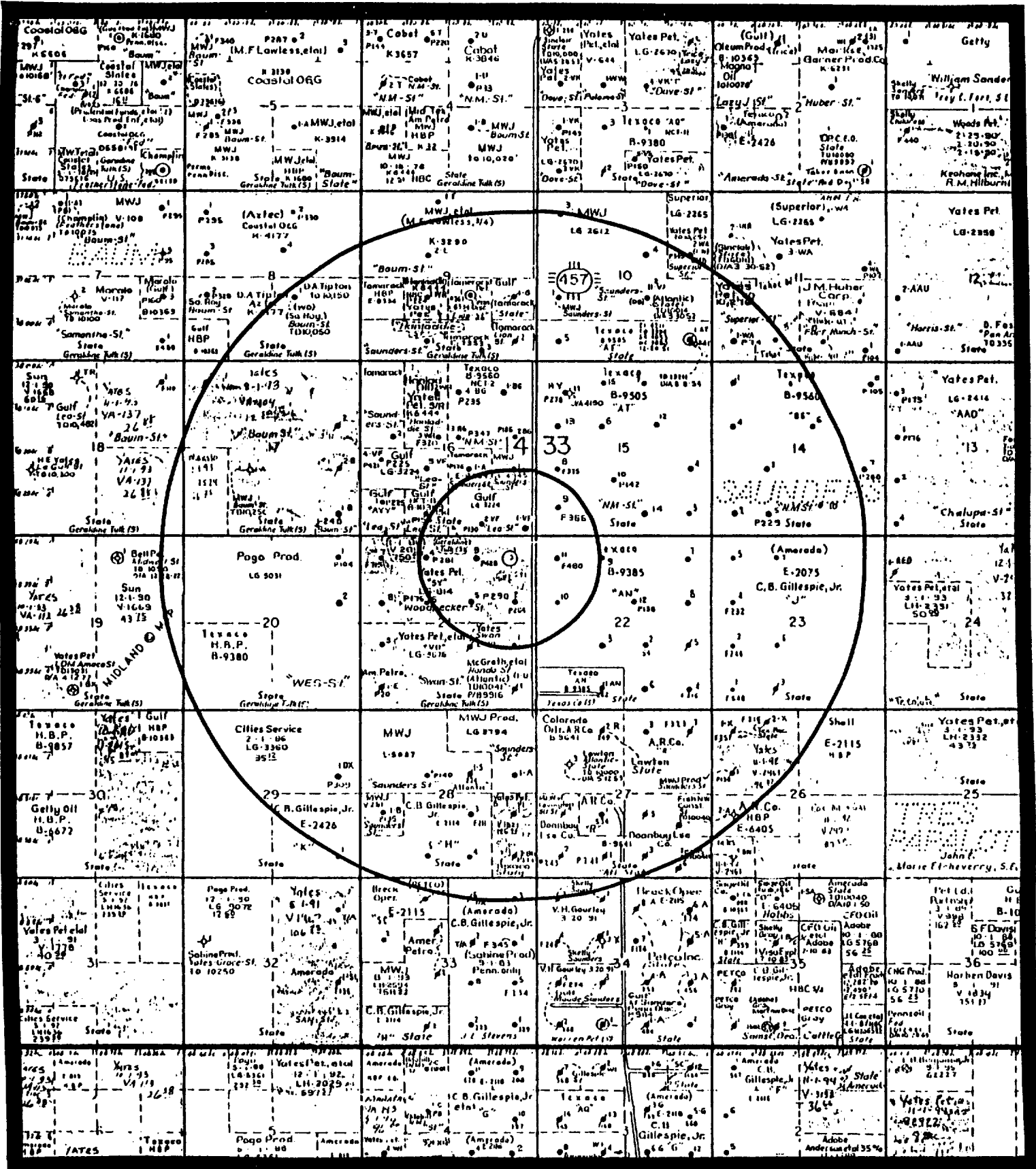
WOODPECKER SY STATE #4
C SEC. 21-T14S-R33E
LEA CO., NM
PROPOSED INJECTION WELL

WOOD PECKER SY STATE #5
G SEC. 21-T14S-R33E
LEA CO., NM
PROPOSED INJECTION WELL

WOODPECKER SY STATE #8
E SEC. 21-T14S-R33E
LEA CO., NM
PROPOSED INJECTION WELL



PLAN TO CONVERT PRODUCING WELLS TO INJECTION WELLS WITH 2 7/8" 6.5 # J-55 PLASTIC-COATED TUBING AND GUILFERTSON UNI V OR BAKER PLASTIC-COATED OR NICKEL-PLATED PACKER SET @ THE DESIGNATED DEPTHS WITH AN INERT FLUID WITH INHIBITORS IN THE ANNULUS. PROPOSE TO INJECT PERMO UPPER PENNSYLVANIAN PRODUCED WATERS AND OGALLALA AQUIFER WATERS THROUGH THE PRESENT PERFORATIONS SHOWN IN THE SCHEMATIC.



YATES PETROLEUM CORPORATION

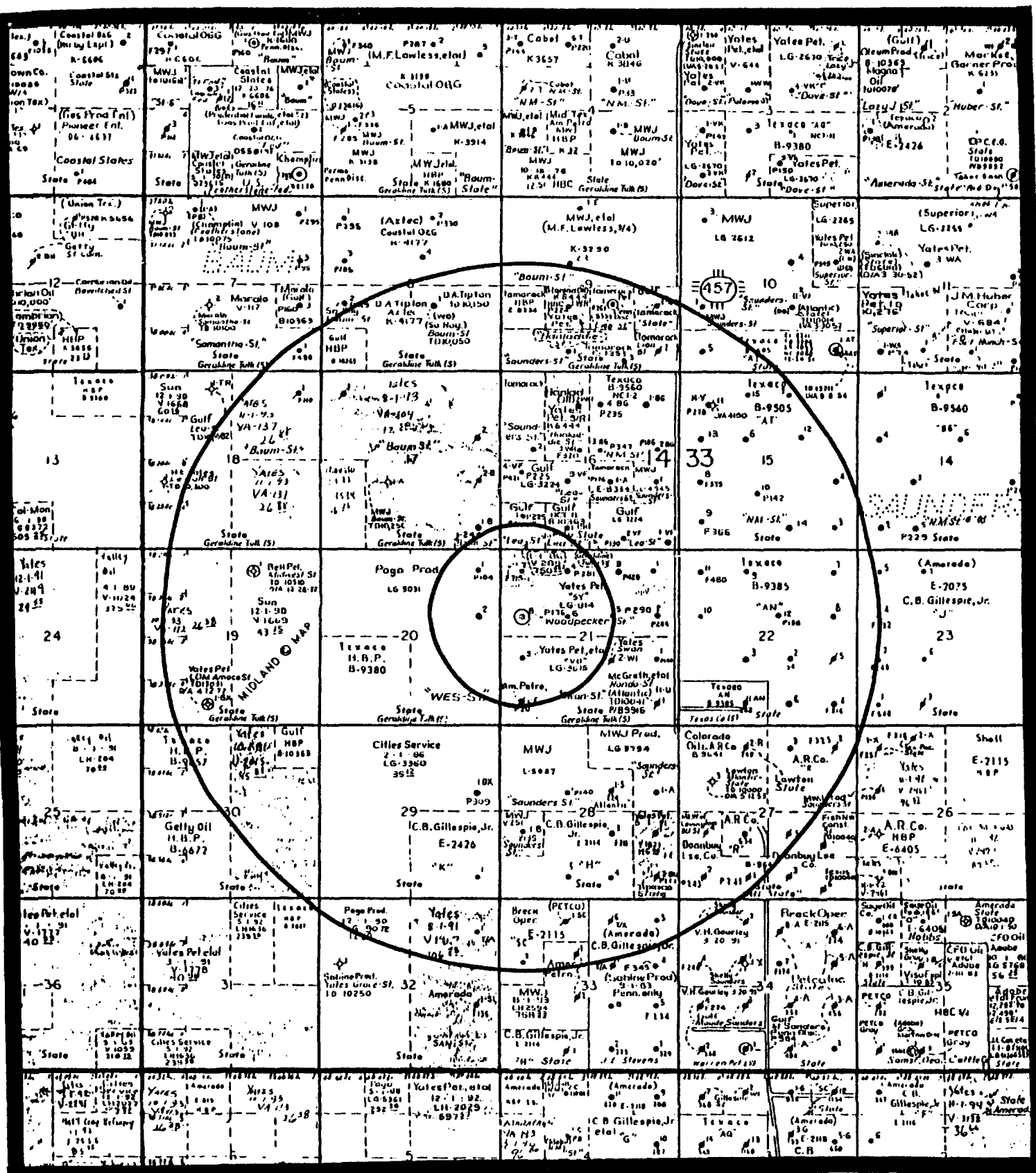
WOODPECKER SY STATE #1

PROPOSED INJECTION WELL

A SEC 21-T14S-R33E

LEA COUNTY, NEW MEXICO

ATTACHMENT B
PG. 1



YATES PETROLEUM CORPORATION

WOODPECKER SY STATE #8

PROPOSED INJECTION WELL

E SEC 21-T14S-R33E

LEA COUNTY, NEW MEXICO

ATTACHMENT B
PG. 4

Tabulation of Data on Wells Within Area of Review

Well Name	Operator	Type	Spud	Completed	Total Depth	Producing Zone	Perforations	Completion Information	Comments
New Mexico AT St. #9	Texaco	OIL	12/82	1/83	10,100'	AB C D E	9806'-9861' 9898'-9927' 9958'-9971' 10013'-10015'	13-3/8" 48# H-40 @ 470' v/700 sx (clrc) 8-5/8" 24# J-55 @ 4185' v/1600 sx (clrc) 5-1/2" 17# 15.5# S-95, J-55, N-80 @ 10,100' v/2000 sx (clrc) 2-7/8" tubing @ 10,034'	
Saunders "16" State #1	MWJ Prod.	OIL	9/80	11/80 8/83	10,055'	C * AB *	9920'-9962' 9829'-9887'	13-3/8" 48# @ 415' v/400 sx 8-5/8" 24# @ 4120' v/1800 sx 5-1/2" 17# @ 10,055' v/300 sx 2-3/8" tubing 5-1/2" 17# @ 10,140' v/500 sx (TOC-8000' TS) 2-3/8" tubing	(11/87) collapsed csg. Plug Back & directional drill same zone
Lea AAY State #1	Manzano	OIL	2/84	4/84	10,025'	AB C D E	9814'-9816' 9848'-9867' 9920'-9922' 9940'-9961'	13-3/8" 48# H-40 @ 434' v/500 sx (clrc 200 sx) 8-5/8" 24# @ 28# K-55 & S-80 @ 4200' v/1650 sx (clrc 259 sx) 5-1/2" 17# @ 20# @ 10,024' v/1775 sx (TOC-3680' TS) 2-7/8" tubing @ 9988'	1 11 11
Lea CK St. (MCT-8) #1	Manzano	OIL	5/83	7/83	10,110'	AB C D	9833'-9882' 9911'-9942' 9968'-9970'	13-3/8" 48# H-40 @ 414' v/550 sx (clrc) 9-5/8" 36# K-55 @ 4223' v/1500 sx (clrc) 5-1/2" 20# @ 17# S-95 & N-80 @ 10,100' v/1150 sx (TOC-4810' TS) 2-3/8" tubing @ 10,021'	SI
Lea VF State #1	Manzano	OIL	3/81	5/81	10,100'	AB C D	9847'-9887' 9935'-9965' 9976'-9984'	11-3/4" 48# H-40 @ 412' v/400 sx (clrc) 8-5/8" 28# S-80, 32# K-55 @ 4157' (clrc) 5-1/2" 17# 15.5# K-55, N-80 @ 10,100' v/400 sx (TOC-8670' TS) 2-7/8" tubing @ 10,016'	

* Perforations not Producing

Tabulation of Data on Wells Within Area of Review

Well Name	Operator	Type	Spud	Completed	Total Depth	Producing Zone	Perforations	Completion Information	Comments
Lea VF State #2 O 16-145-33E	Hanzano	Oil	10/82	2/83	10,150'	AB C	9860'-9903' 9967'-9983'	11-3/4" 42# H-40 @ 421' v/400 sx (c/lrc) 8-5/8" 32# & 24# K-55 @ 4184' v/1500 sx (c/lrc) 5-1/2" 77# H-80, 20# S-95 @ 10,148' v/875 sx (TDC-5450' TS) 2-3/8" tubing @ 9766'	
Lea VF State #3 K 16-145-33E	Hanzano	Oil	10/83	12/83	10,075'	AB C D *	9828'-9832' 9910'-9948' 10021'-10031'	13-3/8" @ 440' v/500 sx (c/lrc) 8-5/8" @ 4214' v/1525 sx (c/lrc) 5-1/2" @ 10,074' v/1471 sx (c/lrc) 2-7/8" tubing	
Wes State #1 A 20-145-33E	Pogo Prod. Co.	Oil	6/83	10/83	10,245'	AB C * E *	9855'-9930' 9960'-9978' 10128'-10178'	13-3/8" 54.5# K-55 @ 421' v/425 sx (c/lrc 100 sx) 8-5/8" 24# K-55 @ 4120' v/1850 sx 5-1/2" 17# H-80 & K-55 @ 10245' v/2950 sx (TDC-2700' TS) 2-7/8" tubing	
Wes State #2 H 20-145-33E	Pogo Prod. Co.	Oil	12/83	2/84	10,200'	C	9934'-9976'	13-3/8" 61# 54.5# 48# K-55 & H-40 @ 425' v/400 sx (c/lrc 100 sx) 8-5/8" 32# 24# K-55 @ 4173' v/2475 sx (c/lrc 200 sx) 5-1/2" 17# 15.5# H-80 & K-55 @ 10059' v/608 sx (TDC-7907' TS) 2-7/8" tubing	P & A (12/90)
Woodpecker SY State #1 A 21-145-33E	YPC	Oil	2/82	4/82	10,170'	AB AB C	9824'-9831' 9865'-9872' 9905'-9932'	20" Conductor pipe @ 40' 13-3/8" 48# J-55 @ 445' v/450 sx (c/lrc 45 sx) 8-5/8" 32# K-55 @ 4200' v/2300 sx (c/lrc 35 sx) 5-1/2" 17# H-80 & K-55 @ 10,170' v/940 sx (TDC-6753' CBL) 2-7/8" tubing	

Tabulation of Data on Wells Within Area of Review

Well Name	Operator	Type	Spud	Completed	Total Depth	Producing Zone	Perforations	Completion Information	Comments
Woodpecker SY State #2	YPC	OIL	5/82	6/82	10,100'	AB C D	9792'-9863-1/2' 9890-1/2'-9911' 9944'-9963-1/2'	20" Conductor pipe @ 40' 13-3/8" 48# J-55 @ 450' v/550 sx (c/lrc 10 sx) 8-5/8" 32# J-55 @ 4200' v/1500 sx (c/lrc 75 sx) 5-1/2" 17# N-80 & K-55 @ 10100' v/950 sx (TOC-6205' CBL) 2-7/8" tubing	
Woodpecker SY State #3	YPC	OIL	7/82	8/82	10,150'	AB C	9816'-9872' 9910'-9942'	13-3/8" 54.5# J-55 @ 452' v/450 sx (c/lrc 50 sx) 8-5/8" 32# J-55 @ 4200' v/1815 sx (c/lrc 190 sx) 5-1/2" 17# & 20# N-80 & K-55 @ 10,150' v/900 sx (TOC-6245' CBL) 2-7/8" tubing	
Woodpecker SY State #4	YPC	OIL	9/82	1/83	10,425'	AB C D E	9775'-9816' 9891'-9940' 9973'-9979' 9991'-10061'	13-3/8" 48# K-55 @ 450' v/450 sx (c/lrc 35 sx) 8-5/8" 32# J-55 @ 4193' v/2250 sx (c/lrc 30 sx) 5-1/2" 17# N-80 & K-55 @ 10,425' v/1000 sx (TOC-7100' CBL) 2-7/8" tubing	
Woodpecker SY State #5	YPC	OIL	10/82	1/83	10,160'	C D AB	9886'-9905' 9941'-9962' 9782'-9867'	13-3/8" 48# J-55 @ 450' v/450 sx (c/lrc 35 sx) 8-5/8" 32# J-55 @ 4185' v/1350 sx (c/lrc 10 sx) 5-1/2" 17# N-80 & K-55 @ 10076' v/1300 sx (TOC-6234' CBL) 2-7/8" tubing	
Woodpecker SY State #6	YPC	OIL	3/83	5/83	10,131'	AB C D D *	9801'-9812' 9883'-9911' 9936'-9944' 9953'-9955'	13-3/8" 54.5# J-55 @ 472' v/450 sx (c/lrc 40 sx) 8-5/8" 32# J-55 @ 4185' v/2425 sx (c/lrc 50 sx) 5-1/2" 17# N-80 & J-55 @ 10015' v/900 sx (TOC-6900' TS) 2-7/8" tubing	

* Perforations not Producing

Tabulation of Data on Wells Within Area of Review

Well Name	Operator	Type	Spud	Completed	Total Depth	Producing Zone	Perforations	Completion Information	Comments
Woodpecker SY State #7 D 21-14S-33E	YPC	OIL	9/83	10/83	10,240'	AB C	9785'-9845' 9913'-9949'	13-3/8" 54.5# J-55 @ 458' v/450 sx (clrc 50 sx) 8-5/8" 32# J-55 @ 4197' v/1780 sx (clrc 15 sx) 5-1/2" 17# N-80 & J-55 @ 10178' v/1025 sx (TOC-7234' CBL) 2-7/8" tubing	
Woodpecker SY State #8 E 21-14S-33E	YPC	OIL	12/83	2/84	10,270'	C AB AB	9913'-9939' 9817'-9827' 9868'-9877'	13-3/8" 48# J-55 @ 460' v/450 sx (clrc 50 sx) 8-5/8" 32# J-55 @ 4197' v/3600 sx (clrc 600 sx) 5-1/2" 17# N-80 & J-55 @ 10270' v/1030 sx (TOC-6918' CBL) 2-7/8" tubing	
Suan VB State #1 I 21-14S-33E	YPC	OIL	8/82	11/82	10,324'	AB C * D * D * E *	9789'-9824' 9872'-9892' 9923'-9948' 9924' 9992' 10107'-10137'	13-3/8" 54# J-55 @ 450' v/450 sx (clrc 45 sx) 8-5/8" 32# J-55 @ 4200' v/2250 sx (clrc 45 sx) 5-1/2" 17# & 20# N-80 & K-55 @ 10324 v/1100 sx (TOC-7350' TS) 2-7/8" tubing	
Suan VB State #2 J 21-14S-33E	YPC	OIL	2/83	3/83	10,155'	AB * C * D *	9793'-9854' 9887'-9909' 9933'-9952' 10071'-10077' 10104'-10136' 10155'-10345'	13-3/8" K-55 @ 449' v/400 sx (clrc 10 sx) 8-5/8" 32# J-55 @ 4192' v/2598 sx (clrc 50 sx) 5-1/2" 17# N-80 & K-55 @ 10155' v/925 sx (TOC-7800' TS) 2-7/8" tubing	SUD - L. Cisco LS & Canyon DOL
Suan VB State #3 L 21-14S-33E	YPC	OIL	3/84	6/84	10,150'	AB C D E	9841'-1/2'-9866' 9944'-9964' 9994'-10012' 10056'-10060'	13-3/8" 61# J-55 @ 445' v/450 sx (clrc 50 sx) 8-5/8" 32# J-55 @ 4198' v/2350 sx (clrc 50 sx) 5-1/2" 17# N-80 & J-55 @ 10150' v/925 sx 2-7/8" tubing	SI

* Perforations not Producing

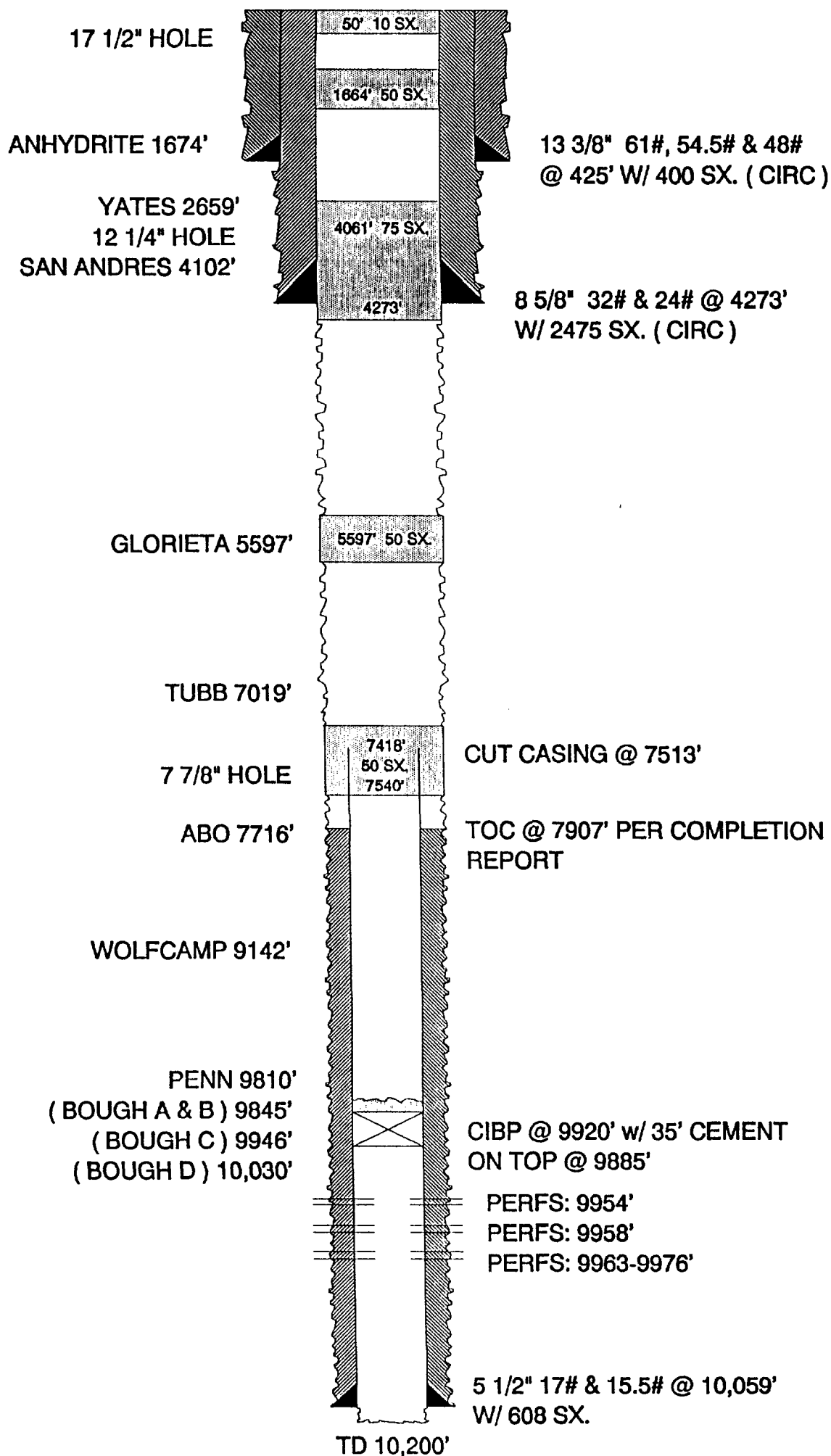
Tabulation of Data on Wells Within Area of Review

Well Name	Operator	Type	Spud	Completed	Total Depth	Producing Zone	Perforations	Completion Information	Comments
State E #1	YPC	Oil	1/62	3/62	10,200'	AB	9836'-9895'	13-3/8" 48# H-40 @ 310'	P & A (9/64)
M 21-145-33E						AB	9925'-9952'	U/325 sx (c/lrc)	
						C	9972'-9980'	8-5/8" 24# & 32# J-55 @ 4179'	
						C	9994'-10000'	U/1800-sx (c/lrc)	
								5-1/2" 17# J-55 & N-80 @ 10030'	
								U/300 sx	
New Mexico AN St. #9	Texaco	Oil	6/64	8/64	10,000'	AB *	9776'-9797'	10-3/4" 21.63# @ 388' U/400 sx	SI
C 22-145-33E						C *	9882'-9888'	7-5/8" 26.40# @ 4120' U/850 sx	
						C *	9880'-9885'	4-1/2" 11.60# @ 9999' U/725 sx	
						AB *	9776'-9792'	2-3/8" tubing	
						C	9862'-9885'		
						AB	9808'-9832'		
						AB	9765'-9792'		
New Mexico AN St. #10	Texaco	Oil	9/66	10/66	10,060'	AB	9790'-9871'	11-3/4" 42# H-40 @ 355'	
E 22-145-33E						C	9898'-9936'	U/300 sx (c/lrc)	
						D	9948'-9967'	8-5/8" 24# J-55 @ 4120'	
								U/500 sx	
								4-1/2" 11.6# N-80 @ 10060'	
								U/1100 sx	
								2-3/8" tubing	
New Mexico AN St. #11	Texaco	Oil	7/83	8/83	10,100'	AB	9792'-9860'	13-3/8" 48# H-40 @ 500'	
D 22-145-33E						C	9894'-9922'	U/600 sx (c/lrc)	
						E	9963'-9971'	8-5/8" 24# & 32# K-55 @ 4190'	
								U/2800 sx c/lrc	
								5-1/2" 20# L-80, 17# J-55 @ 10,100'	
								U/2220 sx c/lrc	
								2-7/8" tubing @ 9742'	

* Perforations not Producing

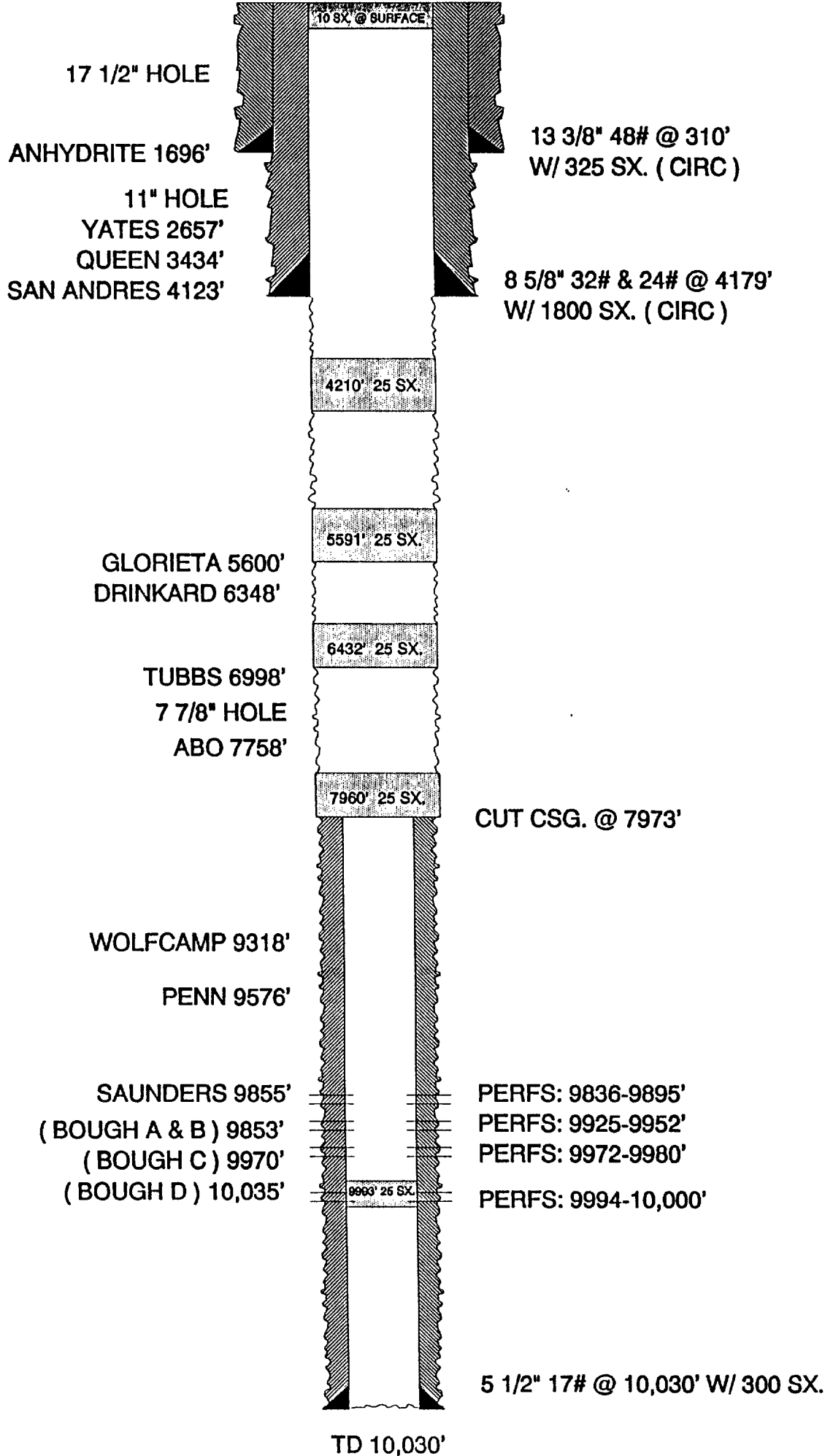
WES STATE #2 POGO PRODUCING COMPANY

1980' FNL & 660' FEL
SEC. 20-T14S-R33E
LEA COUNTY, NM
SPUD: 12-23-83
COMP: 2-16-84
P & A: 12-23-90



STATE "E" #1
AMERICAN PETROFINA
COMPANY OF TEXAS

660' FSL & 660' FWL
SEC. 21-T14S-R33E
LEA COUNTY, NM
SPUD: 1-26-62
COMP: 5-14-62
P & A: 9-24-64



PETROLITE**Petrolite Oil Field Chemicals Group**16010 Barker's Point Lane • Houston, Texas 77079
(713) 558-5200 • Telex 4620346 • Fax (713) 589-4737Reply to: P.O. Box 5250
Hobbs, New Mexico 88241

Phone: (505) 392-6711

Fax: (505) 392-3759

WATER ANALYSIS REPORT

Company : YATES PETROLEUM
 Address : LOCO HILLS, NM
 Lease : WOODPECKER SY STATE
 Well : # 2
 Sample Pt. : WELLHEAD

Date : 4-11-91
 Date Sampled : 4-9-91
 Analysis No. : 433

ANALYSIS	mg/L	* meq/L
1. pH	6.7	
2. H ₂ S	15 PPM	
3. Specific Gravity	1.030	
4. Total Dissolved Solids	59715.4	
5. Suspended Solids		
6. Dissolved Oxygen		
7. Dissolved CO ₂	40 PPM	
8. Oil In Water		
9. Phenolphthalein Alkalinity (CaCO ₃)		
10. Methyl Orange Alkalinity (CaCO ₃)	700.0	
11. Bicarbonate	HCO ₃ 854.0	HCO ₃ 14.0
12. Chloride	Cl 33578.2	Cl 947.2
13. Sulfate	SO ₄ 2475.0	SO ₄ 51.5
14. Calcium	Ca 2220.4	Ca 110.8
15. Magnesium	Mg 172.6	Mg 14.2
16. Sodium (calculated)	Na 20409.1	Na 887.7
17. Iron	Fe 5.0	
18. Barium	Ba 1.0	
19. Strontium	Sr 0.0	
20. Total Hardness (CaCO ₃)	6255.6	

PROBABLE MINERAL COMPOSITION

*milli equivalents per Liter	Compound	Equiv wt X meq/L	= mg/L
111 *Ca <----- *HCO ₃	Ca(HCO ₃) ₂	81.0 14.0	1135
----- /----->	CaSO ₄	68.1 51.5	3508
14 *Mg -----> *SO ₄	CaCl ₂	55.5 45.3	2512
----- <----- /	Mg(HCO ₃) ₂	73.2	
888 *Na -----> *Cl	MgSO ₄	60.2	
----- +-----+	MgCl ₂	47.6 14.2	676
Saturation Values Dist. Water 20 C	NaHCO ₃	84.0	
CaCO ₃ 13 mg/L	Na ₂ SO ₄	71.0	
CaSO ₄ * 2H ₂ O 2090 mg/L	NaCl	58.4 887.7	51879
BaSO ₄ 2.4 mg/L			

REMARKS:

L. MALLETT / S. BENNETT / MLAB / FILE

Petrolite Oilfield Chemicals Group

Respectfully submitted,
ROZANNE JOHNSON

SCALE TENDENCY REPORT

Company	: YATES PETROLEUM	Date	: 4-11-91
Address	: LOCO HILLS, NM	Date Sampled	: 4-9-91
Lease	: WOODPECKER SY STATE	Analysis No.	: 433
Well	: # 2	Analyst	: ROZANNE JOHNSON
Sample Pt.	: WELLHEAD		

STABILITY INDEX CALCULATIONS
(Stiff-Davis Method)
CaCO3 Scaling Tendency

S.I. =	0.6	at	60 deg. F	or	16 deg. C
S.I. =	0.7	at	80 deg. F	or	27 deg. C
S.I. =	0.8	at	100 deg. F	or	38 deg. C
S.I. =	0.9	at	120 deg. F	or	49 deg. C
S.I. =	0.9	at	140 deg. F	or	60 deg. C

CALCIUM SULFATE SCALING TENDENCY CALCULATIONS
(Skillman-McDonald-Stiff Method)
Calcium Sulfate

S =	4127	at	60 deg. F	or	16 deg C
S =	4387	at	80 deg. F	or	27 deg C
S =	4534	at	100 deg. F	or	38 deg C
S =	4581	at	120 deg. F	or	49 deg C
S =	4603	at	140 deg. F	or	60 deg C

Petrolite Oilfield Chemicals Group

Respectfully submitted,
ROZANNE JOHNSON

PETROLITE**WATER ANALYSIS REPORT**

Company : YATES PETROLEUM
 Address : ARTESIA, N.M.
 Lease : DOVE
 Well : # 1
 Sample Pt. : WELLHEAD

Date : 6-26-91
 Date Sampled : 6-24-91
 Analysis No. : # 1

ANALYSIS		mg/L	* meq/L
-----		----	-----
1.	pH	7.2	
2.	H ₂ S	POSITIVE	
3.	Specific Gravity	1.055	
4.	Total Dissolved Solids	90109.3	
5.	Suspended Solids	N/A	
6.	Dissolved Oxygen	N/A	
7.	Dissolved CO ₂	N/A	
8.	Oil In Water	N/A	
9.	Phenolphthalein Alkalinity (CaCO ₃)		
10.	Methyl Orange Alkalinity (CaCO ₃)		
11.	Bicarbonate	HC03 61.0	HC03 1.0
12.	Chloride	Cl 54315.0	Cl 1532.2
13.	Sulfate	SO4 2125.0	SO4 44.3
14.	Calcium	Ca 6840.0	Ca 341.3
15.	Magnesium	Mg 1850.5	Mg 152.2
16.	Sodium (calculated)	Na 24917.8	Na 1083.9
17.	Iron	Fe 0.0	
18.	Barium	Ba 0.0	
19.	Strontium	Sr 0.0	
20.	Total Hardness (CaCO ₃)	24700.0	

PROBABLE MINERAL COMPOSITION

*milli equivalents per Liter	Compound	Equiv wt X meq/L	= mg/L
+-----+	-----	-----	-----
341 *Ca <----- *HC03	Ca(HC03)2	81.0 1.0	81
/----->	CaSO4	68.1 44.3	3012
152 *Mg -----> *SO4	CaCl2	55.5 296.1	16429
<-----/	Mg(HC03)2	73.2	
1084 *Na -----> *Cl	MgSO4	60.2	
+-----+	MgCl2	47.6 152.2	7247
Saturation Values Dist. Water 20 C	NaHC03	84.0	
CaCO3 13 mg/L	Na2SO4	71.0	
CaSO4 * 2H2O 2090 mg/L	NaCl	58.4 1083.9	63340
BaSO4 2.4 mg/L			

REMARKS:

Petrolite Oilfield Chemicals Group

Respectfully submitted,
LEE MALLET

SCALE TENDENCY REPORT

Company	: YATES PETROLEUM	Date	: 6-26-91
Address	: ARTESIA, N.M.	Date Sampled	: 6-24-91
Lease	: DOVE	Analysis No.	: # 1
Well	: # 1	Analyst	: LEE MALLET
Sample Pt.	: WELLHEAD		

STABILITY INDEX CALCULATIONS
(Stiff-Davis Method)
CaCO₃ Scaling Tendency

S.I. =	0.5	at	60 deg. F	or	16 deg. C
S.I. =	0.5	at	80 deg. F	or	27 deg. C
S.I. =	0.6	at	100 deg. F	or	38 deg. C
S.I. =	0.7	at	110 deg. F	or	43 deg. C
S.I. =	0.7	at	120 deg. F	or	49 deg. C

CALCIUM SULFATE SCALING TENDENCY CALCULATIONS
(Skillman-McDonald-Stiff Method)
Calcium Sulfate

S =	2045	at	60 deg. F	or	16 deg C
S =	2247	at	80 deg. F	or	27 deg C
S =	2374	at	100 deg. F	or	38 deg C
S =	2412	at	110 deg. F	or	43 deg C
S =	2433	at	120 deg. F	or	49 deg C

Petrolite Oilfield Chemicals Group

Respectfully submitted,
LEE MALLET

PETROLITE**Petrolite Oil Field Chemicals Group**16010 Barker's Point Lane • Houston, Texas 77079
(713) 558-5200 • Telex 4620346 • Fax (713) 589-4737Reply to: P.O. Box 5250
Hobbs, New Mexico 88241Phone: (505) 392-6711
Fax: (505) 392-3759**WATER ANALYSIS REPORT**Company : YATES PETROLEUM
Address : LOCO HILLS, NM
Lease : TULK VV STATE
Well : # 1
Sample Pt. : WELLHEADDate : 4-11-91
Date Sampled : 4-9-91
Analysis No. : 431

ANALYSIS	mg/L	* meq/L
1. pH	6.1	
2. H2S	3 PPM	
3. Specific Gravity	1.075	
4. Total Dissolved Solids	227424.9	
5. Suspended Solids		
6. Dissolved Oxygen		
7. Dissolved CO2	40 PPM	
8. Oil In Water		
9. Phenolphthalein Alkalinity (CaCO3)		
10. Methyl Orange Alkalinity (CaCO3)	100.0	
11. Bicarbonate	HCO3 122.0	HCO3 2.0
12. Chloride	Cl 137659.4	Cl 3883.2
13. Sulfate	SO4 1050.0	SO4 21.9
14. Calcium	Ca 4665.3	Ca 232.8
15. Magnesium	Mg 629.6	Mg 51.8
16. Sodium (calculated)	Na 83280.5	Na 3622.5
17. Iron	Fe 16.0	
18. Barium	Ba 2.0	
19. Strontium	Sr 0.0	
20. Total Hardness (CaCO3)	14242.8	

PROBABLE MINERAL COMPOSITION

*milli equivalents per Liter	Compound	Equiv wt X meq/L	= mg/L
233 *Ca <----- *HCO3	Ca(HCO3)2	81.0 2.0	162
52 *Mg -----> *SO4	CaSO4	68.1 21.9	1488
3622 *Na -----> *Cl	CaCl2	55.5 208.9	11594
	Mg(HCO3)2	73.2	
	MgSO4	60.2	
	MgCl2	47.6 51.8	2466
	NaHCO3	84.0	
	Na2SO4	71.0	
	NaCl	58.4 3622.5	211697

Saturation Values Dist. Water 20 C
 CaCO3 13 mg/L
 CaSO4 * 2H2O 2090 mg/L
 BaSO4 2.4 mg/L

REMARKS:

----- L. MALLETT / S. BENNETT / MLAB / FILE

Petrolite Oilfield Chemicals Group

Respectfully submitted,
ROZANNE JOHNSON

SCALE TENDENCY REPORT

Company	: YATES PETROLEUM	Date	: 4-11-91
Address	: LOCO HILLS, NM	Date Sampled	: 4-9-91
Lease	: TULK VV STATE	Analysis No.	: 431
Well	: # 1	Analyst	: ROZANNE JOHNSON
Sample Pt.	: WELLHEAD		

STABILITY INDEX CALCULATIONS
(Stiff-Davis Method)
CaCO3 Scaling Tendency

S.I. =	-0.3	at	60 deg. F	or	16 deg. C
S.I. =	-0.3	at	80 deg. F	or	27 deg. C
S.I. =	-0.2	at	100 deg. F	or	38 deg. C
S.I. =	-0.2	at	120 deg. F	or	49 deg. C
S.I. =	-0.2	at	140 deg. F	or	60 deg. C

CALCIUM SULFATE SCALING TENDENCY CALCULATIONS
(Skillman-McDonald-Stiff Method)
Calcium Sulfate

S =	2996	at	60 deg. F	or	16 deg C
S =	3280	at	80 deg. F	or	27 deg C
S =	3459	at	100 deg. F	or	38 deg C
S =	3538	at	120 deg. F	or	49 deg C
S =	3593	at	140 deg. F	or	60 deg C

Petrolite Oilfield Chemicals Group

Respectfully submitted,
ROZANNE JOHNSON

Attachment D
Page 4
WATER ANALYSIS REPORT

Company : YATES PET
Address : ARTESIA
Lease : MALJAMAR FRESH WT.
Well : MAIN STORAGE
Sample Pt. : TAP

Date : 11-7-90
Date Sampled : 11-5-90
Analysis No. : 3

ANALYSIS		mg/L	* meq/L	
-----		----	-----	
1.	pH	7.9		
2.	H2S	NO		
3.	Specific Gravity	1.000		
4.	Total Dissolved Solids	840.4		
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	195.0	HCO3	3.2
12.	Chloride Cl	320.0	Cl	9.0
13.	Sulfate SO4	75.0	SO4	1.6
14.	Calcium Ca	84.0	Ca	4.2
15.	Magnesium Mg	60.8	Mg	5.0
16.	Sodium (calculated) Na	105.6	Na	4.6
17.	Iron Fe	0.0		
18.	Barium Ba	0.0		
19.	Strontium Sr	0.0		
20.	Total Hardness (CaCO3)	460.0		

PROBABLE MINERAL COMPOSITION

*milli equivalents per Liter	Compound	Equiv wt	X meq/L	= mg/L
+-----+	-----	-----	-----	-----
4: *Ca <----- *HCO3	Ca (HCO3)2	81.0	3.2	259
----- /----->	CaSO4	68.1	1.0	68
5: *Mg -----> *SO4	CaCl2	55.5		
----- <----- /	Mg (HCO3)2	73.2		
5: *Na -----> *Cl	MgSO4	60.2	0.6	34
+-----+	MgCl2	47.6	4.4	211
Saturation Values Dist. Water 20 C	NaHCO3	84.0		
CaCO3 13 mg/L	Na2SO4	71.0		
CaSO4 * 2H2O 2090 mg/L	NaCl	58.4	4.6	268
BaSO4 2.4 mg/L				

REMARKS:

Petrolite Oilfield Chemicals Group

Respectfully submitted,
LEE MALLETT

SCALE TENDENCY REPORT

Company : YATES PET Date : 11-7-90
Address : ARTESIA Date Sampled : 11-5-90
Lease : MALJAMAR FRESH WT. Analysis No. : 3
Well : MAIN STORAGE Analyst : LEE MALLETT
Sample Pt. : TAP

STABILITY INDEX CALCULATIONS (Stiff-Davis Method) CaCO₃ Scaling Tendency

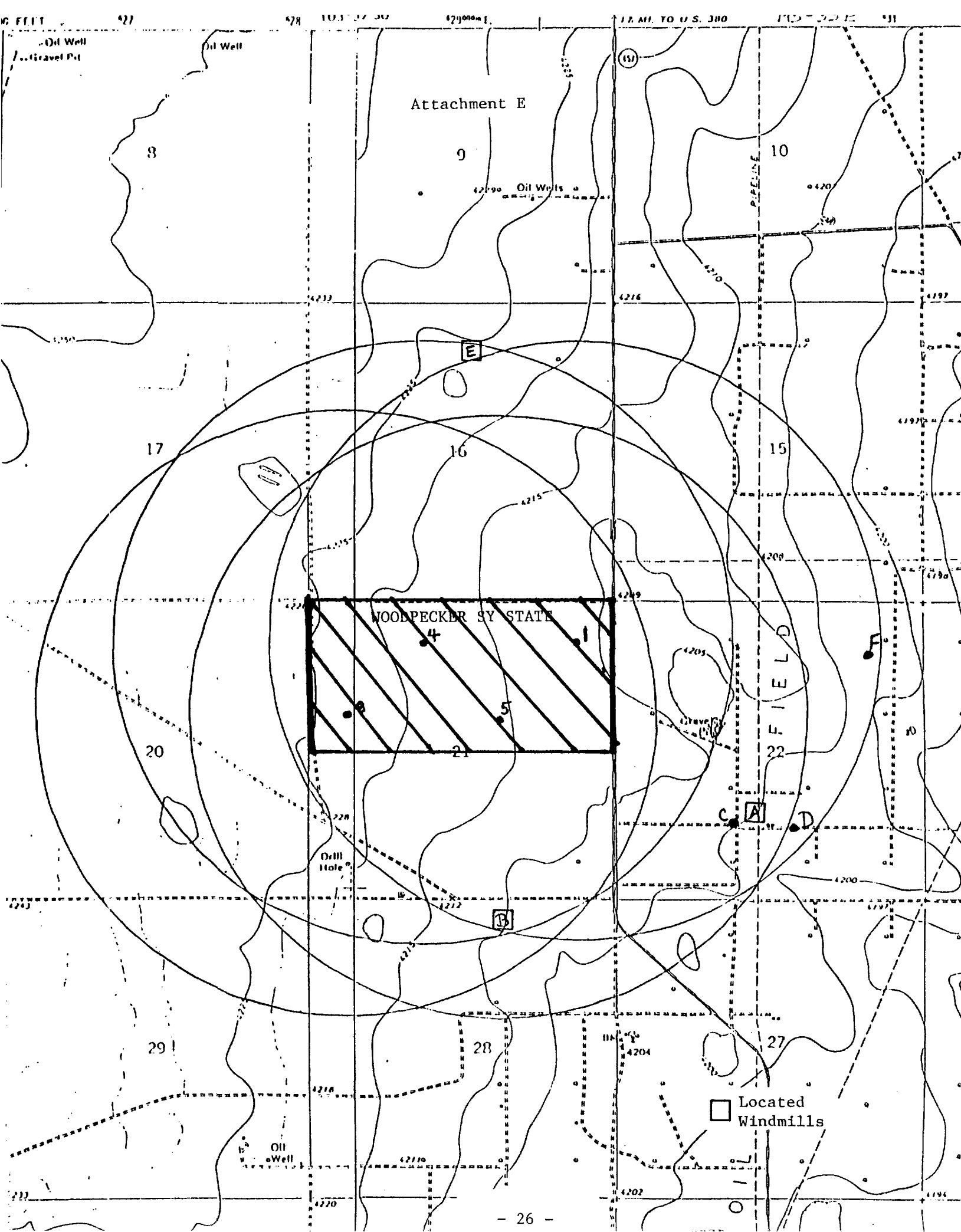
S.I. = 0.5 at 60 deg. F or 16 deg. C
S.I. = 0.6 at 80 deg. F or 27 deg. C
S.I. = 0.6 at 100 deg. F or 38 deg. C
S.I. = 0.7 at 120 deg. F or 49 deg. C
S.I. = 0.8 at 140 deg. F or 60 deg. C

CALCIUM SULFATE SCALING TENDENCY CALCULATIONS (Skillman-McDonald-Stiff Method) Calcium Sulfate

S = 1070 at 60 deg. F or 16 deg C
S = 1076 at 80 deg. F or 27 deg C
S = 1060 at 100 deg. F or 38 deg C
S = 1051 at 120 deg. F or 49 deg C
S = 1045 at 140 deg. F or 60 deg C

Petrolite Oilfield Chemicals Group

Respectfully submitted,
LEE MALLETT



PETROLITE

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16010 Barker's Point Lane • Houston, Texas 77079
(713) 558-5200 • Telex 4620346 • Fax (713) 589-4737

Reply to: P.O. Box 5250
Hobbs, New Mexico 88241

Phone: (505) 392-6711
Fax: (505) 392-3759

WATER ANALYSIS REPORT

Company : YATES PETROLEUM
Address : ARTESIA, NM
Lease : WINDMILL
Well : A
Sample Pt. : WELLHEAD

Date : 07/11/91
Date Sampled : 07/11/91
Analysis No. : 679

ANALYSIS		mg/L		* meq/L
-----		----		-----
1. pH	8.9			
2. H2S	NEGATIVE			
3. Specific Gravity	1.000			
4. Total Dissolved Solids		1817.6		
5. Suspended Solids				
6. Dissolved Oxygen				
7. Dissolved CO2				
8. Oil In Water				
9. Phenolphthalein Alkalinity (CaCO3)				
10. Methyl Orange Alkalinity (CaCO3)		850.0		
11. Bicarbonate	HCO3	1037.0	HCO3	17.0
12. Chloride	Cl	191.4	Cl	5.4
13. Sulfate	SO4	90.0	SO4	1.9
14. Calcium	Ca	192.4	Ca	9.6
15. Magnesium	Mg	36.5	Mg	3.0
16. Sodium (calculated)	Na	268.3	Na	11.7
17. Iron	Fe	0.0		
18. Barium	Ba	2.0		
19. Strontium	Sr	0.0		
20. Total Hardness (CaCO3)		630.6		

PROBABLE MINERAL COMPOSITION

*milli equivalents per Liter		Compound	Equiv wt X meq/L	=	mg/L
+-----+	+-----+	-----	-----		-----
10 *Ca <----- *HCO3	17	Ca(HCO3)2	81.0	9.6	778
----- /----->	-----	CaSO4	68.1		
3 *Mg -----> *SO4	2	CaCl2	55.5		
----- <----- /	-----	Mg(HCO3)2	73.2	3.0	219
12 *Na -----> *Cl	5	MgSO4	60.2		
+-----+	+-----+	MgCl2	47.6		
Saturation Values Dist. Water 20 C		NaHCO3	84.0	4.4	369
CaCO3 13 mg/L		Na2SO4	71.0	1.9	133
CaSO4 * 2H2O 2090 mg/L		NaCl	58.4	5.4	316
BaSO4 2.4 mg/L					

REMARKS:

----- L. MALLET / R. ALLISON / MLAB / FILE

Petrolite Oilfield Chemicals Group

Respectfully submitted,
ROZANNE JOHNSON

SCALE TENDENCY REPORT

Company	: YATES PETROLEUM	Date	: 07/11/91
Address	: ARTESIA, NM	Date Sampled	: 07/11/91
Lease	: WINDMILL	Analysis No.	: 679
Well	: A	Analyst	: ROZANNE JOHNSON
Sample Pt.	: WELLHEAD		

STABILITY INDEX CALCULATIONS (Stiff-Davis Method) CaCO3 Scaling Tendency

S.I. =	2.5	at	60 deg.	F or	16 deg.	C
S.I. =	2.6	at	80 deg.	F or	27 deg.	C
S.I. =	2.6	at	100 deg.	F or	38 deg.	C
S.I. =	2.7	at	120 deg.	F or	49 deg.	C
S.I. =	2.8	at	140 deg.	F or	60 deg.	C

CALCIUM SULFATE SCALING TENDENCY CALCULATIONS (Skillman-McDonald-Stiff Method) Calcium Sulfate

S =	1087	at	60 deg.	F or	16 deg	C
S =	1108	at	80 deg.	F or	27 deg	C
S =	1100	at	100 deg.	F or	38 deg	C
S =	1091	at	120 deg.	F or	49 deg	C
S =	1081	at	140 deg.	F or	60 deg	C

Petrolite Oilfield Chemicals Group

Respectfully submitted,
ROZANNE JOHNSON

PETROLITE

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16010 Barker's Point Lane • Houston, Texas 77079
(713) 558-5200 • Telex 4620346 • Fax (713) 589-4737

Reply to: P.O. Box 5250
Hobbs, New Mexico 88241

Phone: (505) 392-6711
Fax: (505) 392-3759

WATER ANALYSIS REPORT

Company : YATES PETROLEUM
Address : ARTESIA, NM
Lease : WINDMILL
Well : B
Sample Pt. : WELLHEAD

Date : 07/11/91
Date Sampled : 07/11/91
Analysis No. : 681

ANALYSIS		mg/L		* meq/L
1. pH	8.6			
2. H ₂ S	NEGATIVE			
3. Specific Gravity	1.000			
4. Total Dissolved Solids		2742.9		
5. Suspended Solids				
6. Dissolved Oxygen				
7. Dissolved CO ₂				
8. Oil In Water				
9. Phenolphthalein Alkalinity (CaCO ₃)				
10. Methyl Orange Alkalinity (CaCO ₃)		1340.0		
11. Bicarbonate	HCO ₃	1634.8	HCO ₃	26.8
12. Chloride	Cl	234.0	Cl	6.6
13. Sulfate	SO ₄	96.0	SO ₄	2.0
14. Calcium	Ca	116.2	Ca	5.8
15. Magnesium	Mg	21.9	Mg	1.8
16. Sodium (calculated)	Na	639.0	Na	27.8
17. Iron	Fe	0.0		
18. Barium	Ba	1.0		
19. Strontium	Sr	0.0		
20. Total Hardness (CaCO ₃)		380.3		

PROBABLE MINERAL COMPOSITION

*milli equivalents per Liter	Compound	Equiv wt X meq/L	= mg/L
6 *Ca <----- *HCO ₃	Ca (HCO ₃) ₂	81.0	470
2 *Mg -----> *SO ₄	CaSO ₄	68.1	
28 *Na -----> *Cl	CaCl ₂	55.5	
	Mg (HCO ₃) ₂	73.2	132
	MgSO ₄	60.2	
	MgCl ₂	47.6	
Saturation Values Dist. Water 20 C	NaHCO ₃	84.0	1612
CaCO ₃ 13 mg/L	Na ₂ SO ₄	71.0	142
CaSO ₄ * 2H ₂ O 2090 mg/L	NaCl	58.4	386
BaSO ₄ 2.4 mg/L			

REMARKS:

L. MALLET / R. ALLISON / MLAB / FILE

Petrolite Oilfield Chemicals Group

Respectfully submitted,
ROZANNE JOHNSON

SCALE TENDENCY REPORT

Company	: YATES PETROLEUM	Date	: 07/11/91
Address	: ARTESIA, NM	Date Sampled	: 07/11/91
Lease	: WINDMILL	Analysis No.	: 681
Well	: B	Analyst	: ROZANNE JOHNSON
Sample Pt.	: WELLHEAD		

STABILITY INDEX CALCULATIONS
(Stiff-Davis Method)
CaCO3 Scaling Tendency

S.I. =	2.2	at	60 deg. F	or	16 deg. C
S.I. =	2.2	at	80 deg. F	or	27 deg. C
S.I. =	2.3	at	100 deg. F	or	38 deg. C
S.I. =	2.3	at	120 deg. F	or	49 deg. C
S.I. =	2.4	at	140 deg. F	or	60 deg. C

CALCIUM SULFATE SCALING TENDENCY CALCULATIONS
(Skillman-McDonald-Stiff Method)
Calcium Sulfate

S =	1307	at	60 deg. F	or	16 deg C
S =	1336	at	80 deg. F	or	27 deg C
S =	1334	at	100 deg. F	or	38 deg C
S =	1324	at	120 deg. F	or	49 deg C
S =	1313	at	140 deg. F	or	60 deg C

Petrolite Oilfield Chemicals Group

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Fax: (505) 392-3759

WATER ANALYSIS REPORT

Company : YATES PETROLEUM
Address : ARTESIA, NM
Lease : WINDMILL
Well : E
Sample Pt. : WELLHEAD

Date : 07/11/91
Date Sampled : 07/11/91
Analysis No. : 680

ANALYSIS		mg/L		* meq/L
-----		----		-----
1. pH	8.3			
2. H2S	NEGATIVE			
3. Specific Gravity	1.000			
4. Total Dissolved Solids		2883.0		
5. Suspended Solids				
6. Dissolved Oxygen				
7. Dissolved CO2				
8. Oil In Water				
9. Phenolphthalein Alkalinity (CaCO3)				
10. Methyl Orange Alkalinity (CaCO3)		1460.0		
11. Bicarbonate	HCO3	1781.2	HCO3	29.2
12. Chloride	Cl	212.7	Cl	6.0
13. Sulfate	SO4	74.0	SO4	1.5
14. Calcium	Ca	148.3	Ca	7.4
15. Magnesium	Mg	9.7	Mg	0.8
16. Sodium (calculated)	Na	656.0	Na	28.5
17. Iron	Fe	0.0		
18. Barium	Ba	1.0		
19. Strontium	Sr	0.0		
20. Total Hardness (CaCO3)		410.4		

PROBABLE MINERAL COMPOSITION

*milli equivalents per Liter		Compound	Equiv wt	X meq/L	= mg/L
-----	-----	-----	-----	-----	-----
7 *Ca <-----	*HCO3 29	Ca(HCO3)2	81.0	7.4	600
----- / ----->	-----	CaSO4	68.1		
1 *Mg ----->	*SO4 2	CaCl2	55.5		
----- <----- /	-----	Mg(HCO3)2	73.2	0.8	59
29 *Na ----->	*Cl 6	MgSO4	60.2		
-----	-----	MgCl2	47.6		
Saturation Values Dist. Water 20 C		NaHCO3	84.0	21.0	1764
CaCO3 13 mg/L		Na2SO4	71.0	1.5	109
CaSO4 * 2H2O 2090 mg/L		NaCl	58.4	6.0	351
BaSO4 2.4 mg/L					

REMARKS:

----- L. MALLETT / R. ALLISON / MLAB / FILE

Petrolite Oilfield Chemicals Group

Respectfully submitted,
ROZANNE JOHNSON

SCALE TENDENCY REPORT

Company	: YATES PETROLEUM	Date	: 07/11/91
Address	: ARTESIA, NM	Date Sampled	: 07/11/91
Lease	: WINDMILL	Analysis No.	: 680
Well	: E	Analyst	: ROZANNE JOHNSON
Sample Pt.	: WELLHEAD		

STABILITY INDEX CALCULATIONS (Stiff-Davis Method) CaCO3 Scaling Tendency

S.I. =	2.0	at	60 deg. F	or	16 deg. C
S.I. =	2.1	at	80 deg. F	or	27 deg. C
S.I. =	2.1	at	100 deg. F	or	38 deg. C
S.I. =	2.2	at	120 deg. F	or	49 deg. C
S.I. =	2.2	at	140 deg. F	or	60 deg. C

CALCIUM SULFATE SCALING TENDENCY CALCULATIONS (Skillman-McDonald-Stiff Method) Calcium Sulfate

S =	1262	at	60 deg. F	or	16 deg C
S =	1292	at	80 deg. F	or	27 deg C
S =	1290	at	100 deg. F	or	38 deg C
S =	1281	at	120 deg. F	or	49 deg C
S =	1269	at	140 deg. F	or	60 deg C

Petrolite Oilfield Chemicals Group

Respectfully submitted,
ROZANNE JOHNSON

Attachment G

MARTIN YATES, III
1912 - 1985
FRANK W. YATES
1936 - 1986



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

S. P. YATES
CHAIRMAN OF THE BOARD
JOHN A. YATES
PRESIDENT
PEYTON YATES
EXECUTIVE VICE PRESIDENT
RANDY G. PATTERSON
SECRETARY
DENNIS G. KINSEY
TREASURER

July 1, 1991

CERTIFIED RETURN RECEIPT

Manzano Oil Corporation
P. O. Box 571
Roswell, NM 88201

Gentlemen:

Enclosed please find a copy of form C-108 (Application for Authority to Inject) on Yates' Woodpecker SY State #1, #4, #5, & #8 located in Section 21-14S-33E, Lea County, New Mexico for the purpose of Lease Pressure Maintenance.

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

Sincerely,

Theresa Padilla
Petroleum Engineer

TP/th

Enclosure

MARTIN YATES, III
1912 - 1985
FRANK W. YATES
1936 - 1986



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

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PRESIDENT
PEYTON YATES
EXECUTIVE VICE PRESIDENT
RANDY G. PATTERSON
SECRETARY
DENNIS G. KINSEY
TREASURER

July 1, 1991

CERTIFIED RETURN RECEIPT

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

Gentlemen:

Enclosed please find a copy of form C-108 (Application for Authority to Inject) on Yates' Woodpecker SY State #1, #4, #5, & #8 located in Section 21-14S-33E, Lea County, New Mexico for the purpose of Lease Pressure Maintenance.

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Petroleum Engineer

TP/th

Enclosure

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1912 - 1985
FRANK W. YATES
1936 - 1986



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ARTESIA, NEW MEXICO 88210
TELEPHONE (505) 748-1471

S. P. YATES
CHAIRMAN OF THE BOARD
JOHN A. YATES
PRESIDENT
PEYTON YATES
EXECUTIVE VICE PRESIDENT
RANDY G. PATTERSON
SECRETARY
DENNIS G. KINSEY
TREASURER

July 1, 1991

CERTIFIED RETURN RECEIPT

Texaco, Inc.
P. O. Box 3109
Midland, TX 79702

Gentlemen:

Enclosed please find a copy of form C-108 (Application for Authority to Inject) on Yates' Woodpecker SY State #1, #4, #5, & #8 located in Section 21-14S-33E, Lea County, New Mexico for the purpose of Lease Pressure Maintenance.

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Theresa Padilla

Theresa Padilla
Petroleum Engineer

TP/th

Enclosure

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ARTESIA, NEW MEXICO 88210
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EXECUTIVE VICE PRESIDENT
RANDY G. PATTERSON
SECRETARY
DENNIS G. KINSEY
TREASURER

July 1, 1991

CERTIFIED RETURN RECEIPT

MWJ Producing Company
400 W. Illinois
Suite 1100
Midland, TX 79701

Gentlemen:

Enclosed please find a copy of form C-108 (Application for Authority to Inject) on Yates' Woodpecker SY State #1, #4, #5, & #8 located in Section 21-14S-33E, Lea County, New Mexico for the purpose of Lease Pressure Maintenance.

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

Sincerely,

Theresa Padilla
Petroleum Engineer

TP/th

Enclosure

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1912 - 1985
FRANK W. YATES
1936 - 1986



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

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CHAIRMAN OF THE BOARD
JOHN A. YATES
PRESIDENT
PEYTON YATES
EXECUTIVE VICE PRESIDENT
RANDY G. PATTERSON
SECRETARY
DENNIS G. KINSEY
TREASURER

July 1, 1991

CERTIFIED RETURN RECEIPT

Estate of Geraldine Tulk
Heidel and Samberson
P. O. Drawer 1599
Lovington, NM 88260

surface owner

Dear Mr. Samberson,

Enclosed please find a copy of form C-108 (Application for Authority to Inject) on Yates' Woodpecker SY State #1, #4, #5, & #8 located in Section 21-14S-33E, Lea County, New Mexico for the purpose of Lease Pressure Maintenance.

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

Sincerely,

Theresa Padilla

Theresa Padilla
Petroleum Engineer

TP/th

Enclosure

MARTIN YATES, III
1912 - 1985
FRANK W. YATES
1936 - 1986



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

S. P. YATES
CHAIRMAN OF THE BOARD
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PRESIDENT
PEYTON YATES
EXECUTIVE VICE PRESIDENT
RANDY G. PATTERSON
SECRETARY
DENNIS G. KINSEY
TREASURER

July 1, 1991

CERTIFIED RETURN RECEIPT

Tamarack Petroleum Company, Inc.
500 West Texas
Suite 1485
Midland, TX 79701-4234

Gentlemen:

Enclosed please find a copy of form C-108 (Application for Authority to Inject) on Yates' Woodpecker SY State #1, #4, #5, & #8 located in Section 21-14S-33E, Lea County, New Mexico for the purpose of Lease Pressure Maintenance.

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

Sincerely,

Theresa Padilla

Theresa Padilla
Petroleum Engineer

TP/th

Enclosure

Attachment H

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 four injection wells. The proposed wells, the "Woodpecker SY State #1" located 660' FNL & 660' FEL, the "Woodpecker SY State #4" located 660' FNL & 1980' FWL, the "Woodpecker SY State #5" located 1980' FNL & 1980' FEL, and the "Woodpecker SY State #8" located 1980' FNL & 660' FWL, all in Section 21, Township 14 South, Range 33 East of Lea County, New Mexico, will be used for pressure maintenance. Produced waters from the Saunders, Lazy J and Tulk Pennsylvanian fields will be injected into the Saunders-Upper Pennsylvanian Bough formation at a depth of 9775-10061 feet with a maximum pressure of 1965 psi and a maximum rate of 2000 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 Theresa Padilla at (505) 748-1471.

AFFIDAVIT OF PUBLICATION

State of New Mexico,
County of Lea.

I, Kathi Bearden

of the Hobbs Daily News-Sun, a daily newspaper published at Hobbs, New Mexico, do solemnly swear that the clipping attached hereto was published once a week in the regular and entire issue of said paper, and not a supplement thereof for a period

of _____

One weeks.
Beginning with the issue dated

July 17, 1991
and ending with the issue dated

July 17, 1991

Kathi Bearden

General Manager

Sworn and subscribed to before

me this 23rd day of

July, 1991

Kristi B. Parker

Notary Public.

My Commission expires _____

July 21, 1994

This newspaper is duly qualified to publish legal notices or advertisements within the meaning of Section 3, Chapter 167, Laws of 1937, and payment of fees for said publication has been made.

LEGAL NOTICE

July 17, 1991

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 four injection wells. The proposed wells, the "Woodpecker SY State #1" located 660' FNL & 660' FEL, the "Woodpecker SY State #4" located 660' FNL & 1980' FWL, the "Woodpecker SY State #5" located 1980' FNL & 1980' FEL, and the "Woodpecker SY State #8" located 1980' FNL & 660' FWL, all in Section 21, Township 14 South, Range 33 East of Lea County, New Mexico, will be used for pressure maintenance. Produced waters from the Saunders, Lazy J and Tule Pennsylvanian fields will be injected into the Saunders-Upper Pennsylvanian

Bough formation at a depth of 9775-10061 feet with a maximum pressure of 1965 psi and a maximum rate of 2000 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 Theresa Padilla at (505) 748-1471.

**Woodpecker Lease Pressure Maintenance Project
Primary and Secondary Recovery Predictions**

Primary Bough Production 1/31/91

988,305 STBO

Remaining Primary

83,718 STBO

Ultimate Primary

1,072,023 STBO

Primary Recovery Factor of OOIP

31%

OOIP

3,412,278 STBO

Secondary/Primary Recovery (20%)

214,446 STBO

Primary Plus Secondary Recovery Factor of OOIP

38%

Handwritten calculations:
214,446
83,718
130,728

**BEFORE EXAMINER STOGNER
OIL CONSERVATION DIVISION**

YES EXHIBIT NO. 4

CASE NO. 10381

**WOODPECKER LEASE PRESSURE MAINTENANCE PROJECT
ECONOMIC SUMMARY**

SECONDARY/PRIMARY RECOVERY	20%	214,446 STBO
INVESTMENT		\$608,400
DEVELOPMENT COST (\$20/BO, DISC @ 15%)		\$2.84/BO
PAYOUT		3.1 YRS
RATE OF RETURN		67%
NET INCOME/INVESTMENT RATIO		2.3
LEASE PRODUCTION WILL <u>INCREASE</u>		160 BOPD
TOTAL PRIMARY & SECONDARY RECOVERY FACTOR		38% OF OOIP

BEFORE EXAMINER STOGNER	
OIL CONSERVATION DIVISION	
<u>Yates</u>	EXHIBIT NO. <u>5</u>
CASE NO. <u>10381</u>	

BEFORE EXAMINER STOGNER
OIL CONSERVATION DIVISION
YATES
EXHIBIT NO.
CASE NO. 1038

MIDWEST NONOMBRE
PRESSURE MAINTENANCE PROJECT

NONOMBRE

YATES PETROLEUM PROPOSED
SAUNDERS WOODPECKER
PRESSURE MAINTENANCE PROJECT

WEST TRES PAPALOTES PENN (UNIT)
WATERFLOOD PROJECT

AMERADA SAUNDERS SB
PERMO-PENN WATERFLOOD

AMERADA SAUNDERS STATE SM UNIT
PILOT WATERFLOOD

 **PRODUCER**
 **INJECTOR**

WOODPECKER LEASE PRESSURE MAINTENANCE PROJECT
OFFSET BOUGH FLOODS

PROJECT	LOCATION	PROJECT PERIOD	ULTIMATE PRIMARY (BO)	ULTIMATE SECONDARY (BO)	SECONDARY/ PRIMARY RATIO
1. Midwest Nonamhre Pressure Maintenance Project	32-13S-34E	7/66 - 12/80	418,654	178,736	0.430
2. Sage Energy - West Tres Papalotes Penn Waterflood Project	29,31-14S-34E	11/87 - Present	478,615	98,397	0.210
3. Amerada Saunders State SM Unit Pilot Waterflood	3,10-15S-33E	8/62 - 12/64	1,525,214	0	0.000
4. Amerada Saunders SB Permo-Penn Waterflood	3,4-15S-33E	6/66 - 12/68	4,594,844	12,148	0.003

BEFORE EXAMINER STOGNER
OIL CONSERVATION DIVISION

DATE 10/25 EXHIBIT NO. 7

CASE NO. 10381

BEFORE THE
OIL CONSERVATION DIVISION

NEW MEXICO DEPARTMENT OF ENERGY, MINERALS AND NATURAL RESOURCES

IN THE MATTER OF THE APPLICATION
OF YATES PETROLEUM CORPORATION FOR
A PRESSURE MAINTENANCE PROJECT,
LEA COUNTY, NEW MEXICO.

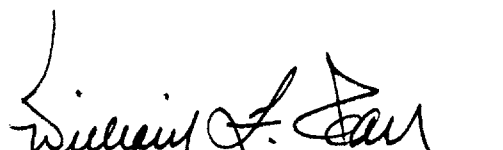
CASE NO. 10381

AFFIDAVIT

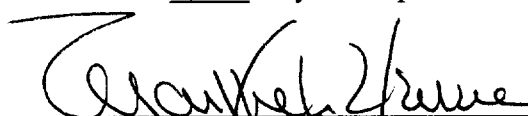
STATE OF NEW MEXICO)
)ss.
COUNTY OF SANTA FE)

BEFORE EXAMINER STOGNER	
OIL CONSERVATION DIVISION	
<u>YATES</u>	EXHIBIT NO. <u>8</u>
CASE NO. <u>10381</u>	

WILLIAM F. CARR, attorney in fact and authorized representative of Yates Petroleum Corporation, the Applicant herein, being first duly sworn, upon oath, states that the notice provisions of Rule 1207 of the New Mexico Oil Conservation Division have been complied with, that Applicant has caused to be conducted a good faith diligent effort to find the correct addresses of all interested persons entitled to receive notice as shown by Exhibit "A" attached hereto, and that pursuant to Rule 1207, notice has been given at the correct addresses provided by such rule.


WILLIAM F. CARR

SUBSCRIBED AND SWORN to before me this 4th day of September, 1991.


Notary Public

My Commission Expires:
August 19, 1995

EXHIBIT A

Manzano Oil Corporation
Post Office Box 571
Roswell, New Mexico 88201

Pogo Producing Company
Post Office Box 10340
Midland, Texas 79701

Texaco, Inc.
Post Office Box 3109
Midland, Texas 79702

MWJ Producing Company
400 W. Illinois, Suite 1100
Midland, Texas 79701

Estate of Geraldine Tulk
Hiedel and Samberson
Post Office Drawer 1599
Lovington, New Mexico 88260

Tamarack Petroleum Company, Inc.
500 West Texas, Suite 1485
Midland, Texas 79701

CAMPBELL & BLACK, P.A.

LAWYERS

JACK M. CAMPBELL
BRUCE D. BLACK
MICHAEL B. CAMPBELL
WILLIAM F. CARR
BRADFORD C. BERGE
MARK F. SHERIDAN
WILLIAM P. SLATTERY
ANNIE-LAURIE COOGAN

JEFFERSON PLACE
SUITE 1 - 110 NORTH GUADALUPE
POST OFFICE BOX 2208
SANTA FE, NEW MEXICO 87504-2208
TELEPHONE: (505) 988-4421
TELECOPIER: (505) 983-6043

August 15, 1991

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Manzano Oil Corporation
Post Office Box 571
Roswell, New Mexico 88201

Re: New Mexico Oil Conservation Division Case No. 10381:
Application of Yates Petroleum Corporation for Approval of a
Pressure Maintenance Project, Lea County, New Mexico

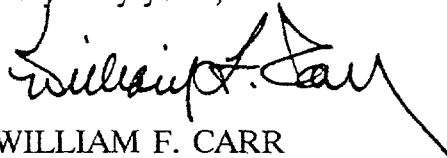
Gentlemen:

By letter dated July 1, 1991, you were provided a copy of Oil Conservation Division Form C-108 (Application for Authority to Inject) on the Yates' Woodpecker SY State 1, 4, 5 and 8 Wells located in Section 21, Township 14 South, Range 33 East, Lea County, New Mexico for the purpose of lease pressure maintenance. This matter has been set for hearing before the Oil Conservation Division on September 5, 1991.

You are not required to attend this hearing, but as an owner of an interest that may be affected by this application, you may appear and present testimony. Failure to appear at that time and become a party of record will preclude you from challenging this matter at a later date.

Parties appearing in cases have been requested by the Division (Memorandum 2-90) to file a Prehearing Statement by 4:00 o'clock p.m. on the Friday before a scheduled hearing.

Very truly yours,



WILLIAM F. CARR
Attorney for Yates Petroleum Corporation

WFC:mtb

P-106 676 214

PT FOR CERTIFIED MAIL
INSURANCE COVERAGE PROVIDED
NOT FOR INTERNATIONAL MAIL
(See Reverse)

Sent to Manzano Oil Corp.	
Street and No. PO Box 571	
P.O. State and ZIP Code Roswell, NM 88201	
Postage	\$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt showing to whom and Date Delivered	
Return Receipt showing to whom, Date, and Address of Delivery	
TOTAL Postage and Fees	\$
Postmark or Date 8.15.91	

5801 SUNT '0000 00 01 01

SENDER: Complete items 1 and 2 when additional services are desired, and complete items 3 and 4.
Put your address in the "RETURN TO" Space on the reverse side. Failure to do this will prevent the card from being returned to you. The return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for rates and check boxes for additional services requested.
1. ☒ Show to whom delivered, date, and addressee's address. 2. ☐ Restricted Delivery (Extra charge)

3. Article Addressed to:
**Manzano Oil Corporation
PO Box 571
Roswell, NM 88201**

4. Article Number
P 106 676 214

5. Signature - Address
X

6. Signature - Agent
X *[Signature]*

7. Date of Delivery
1991

8. Addressee's Address (ONLY if requested and fee paid)
Always obtain signature of addressee or agent and DATE DELIVERED.

Type of Service:
☐ Registered
☒ Certified
☐ Express Mail
☐ Insured
☐ COD
☐ Return Receipt for Merchandise

Postmark: **AUG 15 1991**

PS Form 3811, Mar. 1988 * U.S.G.P.O. 1988-212-865 DOMESTIC RETURN RECEIPT

CAMPBELL & BLACK, P.A.
LAWYERS

JACK M. CAMPBELL
BRUCE D. BLACK
MICHAEL B. CAMPBELL
WILLIAM F. CARR
BRADFORD C. BERGE
MARK F. SHERIDAN
WILLIAM P. SLATTERY
ANNIE-LAURIE COOGAN

JEFFERSON PLACE
SUITE 1 - 110 NORTH GUADALUPE
POST OFFICE BOX 2208
SANTA FE, NEW MEXICO 87504-2208
TELEPHONE: (505) 988-4421
TELECOPIER: (505) 983-6043

August 15, 1991

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Pogo Producing Company
Post Office Box 10340
Midland, Texas 79701

Re: New Mexico Oil Conservation Division Case No. 10381:
Application of Yates Petroleum Corporation for Approval of a
Pressure Maintenance Project, Lea County, New Mexico

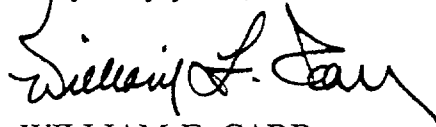
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Very truly yours,



WILLIAM F. CARR
Attorney for Yates Petroleum Corporation

WFC:mtb

P-106 678 949

RECEIPT FOR CERTIFIED MAIL

NO. N-GRAND. 10-11-1980 PROVIDED
NET FOR INTERNATIONAL MAIL

(See Reverse)

Sent to	
Pogo Producing Co.	
Street and No.	
PO Box 10340	
P.O. State and ZIP Code	
Midland, TX	
Postage	\$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt showing to whom and Date Delivered	
Return Receipt showing to whom Date, and Address of Delivery	
TOTAL Postage and Fees	\$
Postmark or Date	
8.15.91	

PS Form 3800, June 1985

PS Form 3811, Mar. 1988 * U.S.G.P.O. 1988-212-865 DOMESTIC RETURN RECEIPT

SENDER: Complete items 1 and 2 when additional services are desired, and complete items 3 and 4.

Put your address in the "RETURN TO" space on the reverse side. Failure to do this will prevent the card from being returned to you. The return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for fees and check boxes for additional service(s) requested.

1. ☒ Show to whom delivered, date, and addressee's address. 2. ☐ Restricted Delivery (Extra charge)

3. Article Addressed to: Pogo Producing Company
P.O. Box 10340
Midland, Texas 79701

4. Article Number: P106 678 949

Type of Service: ☒ Registered ☐ Insured
☒ Certified ☐ COD
☐ Express Mail ☐ Return Receipt for Merchandise

5. Signature - Address: [Signature]

6. Signature Agent: [Signature]

7. Date of Delivery: [Blank]

Postmark: MIDLAND TX 02 16 1991

Address: [Blank]

Signature of addressee or agent and DATE DELIVERED. (ONLY if requested and fee paid)

CAMPBELL & BLACK, P.A.
LAWYERS

JACK M. CAMPBELL
BRUCE D. BLACK
MICHAEL B. CAMPBELL
WILLIAM F. CARR
BRADFORD C. BERGE
MARK F. SHERIDAN
WILLIAM P. SLATTERY
ANNIE-LAURIE COOGAN

JEFFERSON PLACE
SUITE 1 - 110 NORTH GUADALUPE
POST OFFICE BOX 2208
SANTA FE, NEW MEXICO 87504-2208
TELEPHONE: (505) 988-4421
TELECOPIER: (505) 983-6043

August 15, 1991

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Texaco, Inc.
Post Office Box 3109
Midland, Texas 79702

Re: New Mexico Oil Conservation Division Case No. 10381:
Application of Yates Petroleum Corporation for Approval of a
Pressure Maintenance Project, Lea County, New Mexico

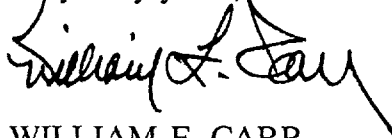
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Very truly yours,



WILLIAM F. CARR
Attorney for Yates Petroleum Corporation

WFC:mtb

P-106 678 950

RECEIPT FOR CERTIFIED MAIL
NO INSURANCE COVERAGE PROVIDED
NOT FOR INTERNATIONAL MAIL
(See Reverse)

Sent to <u>Texaco, Inc.</u>	
Street and No. <u>P.O. Box 3109</u>	
P.O., State and ZIP Code <u>Midland, TX 79702</u>	
Postage	\$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt showing to whom and Date Delivered	
Return Receipt showing to whom, Date, and Address of Delivery	
TOTAL Postage and Fees	\$
Postmark or Date <u>8.15.91</u>	

PS Form 3800, June 1985

SENDER: Complete items 1 and 2 when additional services are desired, and complete items 3 and 4.
Put your address in the "RETURN TO" Space on the reverse side. Failure to do this will prevent this card from being returned to you. The return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for fees and check box(es) for additional service(s) requested.

1. ☒ Show to whom delivered, date, and addressee's address. 2. ☐ Restricted Delivery (Extra charge)

3. Article Addressed to: <u>Texaco, Inc.</u> <u>P.O. Box 3109</u> <u>Midland, TX 79702</u>	4. Article Number <u>P 106 678 950</u>
5. Signature - Address ☒	Type of Service: ☐ Registered ☒ Certified ☐ Insured ☐ COD ☐ Return Receipt for Merchandise ☐ Express Mail Always obtain signature of addressee or agent and DATE DELIVERED.
6. Signature - Agent ☒	
7. Date of Delivery <u>AUG 19 1991</u>	
8. Addressee's Address (ONLY if requested and fee paid)	

PS Form 3811, Mar. 1988 * U.S.G.P.O. 1988-212-865 DOMESTIC RETURN RECEIPT

CAMPBELL & BLACK, P.A.

LAWYERS

JACK M. CAMPBELL
BRUCE D. BLACK
MICHAEL B. CAMPBELL
WILLIAM F. CARR
BRADFORD C. BERGE
MARK F. SHERIDAN
WILLIAM P. SLATTERY
ANNIE-LAURIE COOGAN

JEFFERSON PLACE
SUITE 1 - 110 NORTH GUADALUPE
POST OFFICE BOX 2208
SANTA FE, NEW MEXICO 87504-2208
TELEPHONE: (505) 988-4421
TELECOPIER: (505) 983-6043

August 15, 1991

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

MWJ Producing Company
400 W. Illinois, Suite 1100
Midland, Texas 79701

Re: New Mexico Oil Conservation Division Case No. 10381:
Application of Yates Petroleum Corporation for Approval of a
Pressure Maintenance Project, Lea County, New Mexico

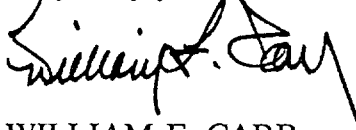
Gentlemen:

By letter dated July 1, 1991, you were provided a copy of Oil Conservation Division Form C-108 (Application for Authority to Inject) on the Yates' Woodpecker SY State 1, 4, 5 and 8 Wells located in Section 21, Township 14 South, Range 33 East, Lea County, New Mexico for the purpose of lease pressure maintenance. This matter has been set for hearing before the Oil Conservation Division on September 5, 1991.

You are not required to attend this hearing, but as an owner of an interest that may be affected by this application, you may appear and present testimony. Failure to appear at that time and become a party of record will preclude you from challenging this matter at a later date.

Parties appearing in cases have been requested by the Division (Memorandum 2-90) to file a Prehearing Statement by 4:00 o'clock p.m. on the Friday before a scheduled hearing.

Very truly yours,



WILLIAM F. CARR
Attorney for Yates Petroleum Corporation

WFC:mtb

● **SENDER:** Complete items 1 and 2 when additional services are desired, and complete items 3 and 4.
 Put your address in the "RETURN TO" space on the reverse side. Failure to do this will prevent the card from being returned to you. The return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for 1985 and check box(es) for additional service(s) requested.
 1. ☒ Show to whom delivered, date, and addressee's address. 2. ☐ Restricted Delivery (Extra charge)

3. Article Addressed to: HWY Producing Co. 400 W. Illinois, # 1100 Midland, TX 79701		4. Article Number P 100 678 951	
5. Signature - Addressee ☒		Type of Service: ☐ Registered ☒ Certified ☐ Insured ☐ Express Mail ☐ COD ☐ Return Receipt for Merchandise	
6. Signature - Agent ☒		Always obtain signature of addressee or agent and DATE DELIVERED .	
7. Date of Delivery 5-19-91		8. Addressee's Address (ONLY if requested and fee paid) Same	

PS Form 3811, Mar. 1988 * U.S.G.P.O. 1988-212-865 DOMESTIC RETURN RECEIPT

P-106 678 951

RECEIPT FOR CERTIFIED MAIL
RETURN INSURANCE COVERAGE PROVIDED
 NOT FOR INTERNATIONAL MAIL
 (See Reverse)

Sent to		HWY Producing Co.	
Street and No.		400 W. Illinois, # 1100	
City, State and ZIP Code		Midland, TX 79701	
Postage	\$		
Certified Fee			
Special Delivery Fee			
Restricted Delivery Fee			
Return Receipt showing to whom and Date Delivered			
Return Receipt showing to whom, Date, and Address of Delivery			
TOTAL Postage and Fees	\$		
Postmark or Date 8-15-91			

CAMPBELL & BLACK, P.A.

LAWYERS

JACK M. CAMPBELL
BRUCE D. BLACK
MICHAEL B. CAMPBELL
WILLIAM F. CARR
BRADFORD C. BERGE
MARK F. SHERIDAN
WILLIAM P. SLATTERY
ANNIE-LAURIE COOGAN

JEFFERSON PLACE
SUITE 1 - 110 NORTH GUADALUPE
POST OFFICE BOX 2208
SANTA FE, NEW MEXICO 87504-2208
TELEPHONE: (505) 988-4421
TELECOPIER: (505) 983-6043

August 15, 1991

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Estate of Geraldine Tulk
Hiedel and Samberson
Post Office Drawer 1599
Lovington, New Mexico 88260

Re: New Mexico Oil Conservation Division Case No. 10381:
Application of Yates Petroleum Corporation for Approval of a
Pressure Maintenance Project, Lea County, New Mexico

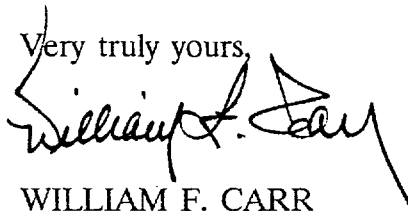
Gentlemen:

By letter dated July 1, 1991, you were provided a copy of Oil Conservation Division Form C-108 (Application for Authority to Inject) on the Yates' Woodpecker SY State 1, 4, 5 and 8 Wells located in Section 21, Township 14 South, Range 33 East, Lea County, New Mexico for the purpose of lease pressure maintenance. This matter has been set for hearing before the Oil Conservation Division on September 5, 1991.

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Parties appearing in cases have been requested by the Division (Memorandum 2-90) to file a Prehearing Statement by 4:00 o'clock p.m. on the Friday before a scheduled hearing.

Very truly yours,



WILLIAM F. CARR
Attorney for Yates Petroleum Corporation

SENDER: Complete items 1 and 2 when additional services are desired, and complete items 3 and 4.

Put your address in the "RETURN TO" space on the reverse side. Failure to do this will prevent the card from being returned to you. The return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for rates and check boxes for additional service(s) requested.

1. ☒ Show to whom delivered, date, and addressee's address. 2. ☐ Restricted Delivery (Extra charge)

3. Article Addressed to: **Estate of Geraldine Tulk Thiedel & Sembelsson P.O. Drawer 1599 Lovington, NM 88260**

4. Article Number: **P 106 678 952**

Type of Service: ☐ Registered ☐ Insured ☒ Certified ☐ COD ☐ Return Receipt for Merchandise ☐ Express Mail

Always obtain signature of addressee or agent, **NEVER** RECORDED.

8. Addressee's Address **ONLY** if registered (see post)

5. Signature - Address **X**

6. Signature - Agent **X** *Geraldine Thiedel*

7. Date of Delivery

LOVINGTON NM 1991 USPS

PS Form 3811, Mar. 1988 * U.S.G.P.O. 1988-212-865 DOMESTIC RETURN RECEIPT

P-106 678 952

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED
NOT FOR INTERNATIONAL MAIL
(See Reverse)

Sent to Estate of Tulk	
Street and No. PO Drawer 1599	
P.O., State and ZIP Code Lovington, NM 88260	
Postage	\$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt showing to whom and Date Delivered	
Return Receipt showing to whom, Date, and Address of Delivery	
TOTAL Postage and Fees	\$
Postmark or Date 8.15.91	

962

CAMPBELL & BLACK, P.A.
LAWYERS

JACK M. CAMPBELL
BRUCE D. BLACK
MICHAEL B. CAMPBELL
WILLIAM F. CARR
BRADFORD C. BERGE
MARK F. SHERIDAN
WILLIAM P. SLATTERY
ANNIE-LAURIE COOGAN

JEFFERSON PLACE
SUITE 1 - 110 NORTH GUADALUPE
POST OFFICE BOX 2208
SANTA FE, NEW MEXICO 87504-2208
TELEPHONE: (505) 988-4421
TELECOPIER: (505) 983-6043

August 15, 1991

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Tamarack Petroleum Company, Inc.
500 West Texas, Suite 1485
Midland, Texas 79701-4234

Re: New Mexico Oil Conservation Division Case No. 10381:
Application of Yates Petroleum Corporation for Approval of a
Pressure Maintenance Project, Lea County, New Mexico

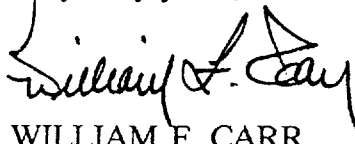
Gentlemen:

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Very truly yours,



WILLIAM F. CARR
Attorney for Yates Petroleum Corporation

WFC:mtb

SENDER: Complete items 1 and 2 when additional services are desired, and complete items 3 and 4.

Put your address in the "RETURN TO" Space on the reverse side. Failure to do this will prevent the card from being returned to you. The return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for fees and check box(es) for additional service(s) requested.

1. ☒ Show to whom delivered, date, and addressee's address. 2. ☐ Restricted Delivery (Extra charge)

3. Article Addressed to:

Emmett Petroleum
Company, Inc.
500 W. Texas, Suite 1485
Midland, TX 79701-4234

4. Article Number
P 106 678 953

Type of Service:
☐ Registered
☒ Certified
☐ Express Mail
☐ Insured
☐ COD
☐ Return Receipt for Merchandise

Always obtain signature of addressee or agent and DATE DELIVERED.

5. Signature - Addressee
☒ Harry Parkley

6. Signature - Agent
☒ Harry Parkley

7. Date of Delivery
8-19

8. Addressee's Address (ONLY if requested and fee paid)
500 West Texas
Midland, TX 79701-4234

PS Form 3811, Mar. 1988 * U.S.G.P.O. 1988-212-865 DOMESTIC RETURN RECEIPT

P-106 678 953

RECEIPT FOR CERTIFIED MAIL
NO INSURANCE COVERAGE PROVIDED
NOT FOR INTERNATIONAL MAIL
(See Reverse)

Sent to	<u>Emmett Petro. Co., Inc.</u>
Street and No.	<u>500 West Texas, Suite 1485</u>
P.O., State and ZIP Code	<u>Midland, TX 79701-4234</u>
Postage	\$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt showing to whom and Date Delivered	
Return Receipt showing to whom, Date, and Address of Delivery	
TOTAL Postage and Fees	\$
Postmark or Date	<u>8.15.91</u>