

8/28/03 DATE IN	9/12/03 SUSPENSE	Duc ENGINEER	8/30/03 LOGGED IN	SWD TYPE	APPROVED P.D.C. 0324129082
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RECEIVED

ABOVE THIS LINE FOR DIVISION USE ONLY

NEW MEXICO OIL CONSERVATION DIVISION
- Engineering Bureau -
1220 South St. Francis Drive, Santa Fe, NM 87505



AUG 28 2003

OIL CONSERVATION
DIVISION

ADMINISTRATIVE APPLICATION CHECKLIST

THIS CHECKLIST IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS WHICH REQUIRE PROCESSING AT THE DIVISION LEVEL IN SANTA FE

Application Acronyms:

[NSL-Non-Standard Location] [NSP-Non-Standard Proration Unit] [SD-Simultaneous Dedication]
[DHC-Downhole Commingling] [CTB-Lease Commingling] [PLC-Pool/Lease Commingling]
[PC-Pool Commingling] [OLS - Off-Lease Storage] [OLM-Off-Lease Measurement]
[WFX-Waterflood Expansion] [PMX-Pressure Maintenance Expansion]
[SWD-Salt Water Disposal] [IPI-Injection Pressure Increase]
[EOR-Qualified Enhanced Oil Recovery Certification] [PPR-Positive Production Response]

[1] TYPE OF APPLICATION - Check Those Which Apply for [A]

[A] Location - Spacing Unit - Simultaneous Dedication
☐ NSL ☐ NSP ☐ SD

Check One Only for [B] or [C]

[B] Commingling - Storage - Measurement
☐ DHC ☐ CTB ☐ PLC ☐ PC ☐ OLS ☐ OLM

[C] Injection - Disposal - Pressure Increase - Enhanced Oil Recovery
☐ WFX ☐ PMX ☒ SWD ☐ IPI ☐ EOR ☐ PPR

[D] Other: Specify _____

[2] NOTIFICATION REQUIRED TO: - Check Those Which Apply, or Does Not Apply

[A] ☐ Working, Royalty or Overriding Royalty Interest Owners

[B] ☒ Offset Operators, Leaseholders or Surface Owner

[C] ☐ Application is One Which Requires Published Legal Notice

[D] ☐ Notification and/or Concurrent Approval by BLM or SLO
U.S. Bureau of Land Management - Commissioner of Public Lands, State Land Office

[E] ☒ For all of the above, Proof of Notification or Publication is Attached, and/or,

[F] ☐ Waivers are Attached

[3] SUBMIT ACCURATE AND COMPLETE INFORMATION REQUIRED TO PROCESS THE TYPE OF APPLICATION INDICATED ABOVE.

[4] **CERTIFICATION:** I hereby certify that the information submitted with this application for administrative approval is **accurate and complete** to the best of my knowledge. I also understand that **no action** will be taken on this application until the required information and notifications are submitted to the Division.

Note: Statement must be completed by an individual with managerial and/or supervisory capacity.

Print or Type Name: James W. Pringle Signature: James W. Pringle Title: Operations Engineer Date: 8-24-03

e-mail Address

APPLICATION FOR AUTHORIZATION TO INJECT

Loveless LQ State #5

- I. PURPOSE: Secondary Recovery Pressure Maintenance X Disposal Storage
Application qualifies for administrative approval? X Yes No
- II. OPERATOR:
ADDRESS: 105 South 4th Street, Artesia, New Mexico 88210
CONTACT PARTY: James W. Pringle PHONE: (505) 748-4281
- 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 X 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 re-injected 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 geologic data on the injection zone including appropriate lithologic detail, geologic 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 sources 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 sources 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: James W. Pringle TITLE: Operations Engineer
SIGNATURE: James W. Pringle DATE: August 18, 2003
- * If the information required under Sections VI, VIII, X, and XI above has been previously submitted, it need not be resubmitted. Please show the date and circumstances of the earlier submittal: _____

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

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 the 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, 1220 South St. Francis Dr., Santa Fe, New Mexico 87505, 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.

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



105 SOUTH FOURTH STREET
ARTESIA, NEW MEXICO 88210-2118
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

August 21, 2003

New Mexico Energy & Minerals Department
Oil Conservation Division
P.O. Box 2088
Santa Fe, NM 87504

Dear Mr. Catanach;

Enclosed please find a copy of form C-108 (Application for Authority to Inject) on Yates Petroleum Corporation Loveless "LQ" State #5, located in Unit D, Section 36, T7S-R31E, Chaves County, New Mexico.

Should you have any questions, please feel free to contact me at (505) 748-4281.

Sincerely,

James W. Pringle
Operations Engineer

JWP/cm

Enclosure

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DENNIS G. KINSEY
TREASURER

August 21, 2003

Pete Martinez
State of New Mexico
Commissioner of Public Lands
P. O. Box 1148
Santa Fe, NM 87504-1148

Dear Mr. Martinez,

Enclosed please find a copy of form C-108 (Application for Authority to Inject) on Yates Petroleum Corporation Loveless "LQ" State #5, located in Unit D, Section 36, T7S-R31E, Chaves County, New Mexico.

Should you have any questions, please feel free to contact me at (505) 748-4281.

Sincerely,

A handwritten signature in cursive script that reads 'James W. Pringle'.

James W. Pringle
Operations Engineer

JWP/cm

Enclosure

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1912 - 1985
FRANK W. YATES
1936 - 1986



105 SOUTH FOURTH STREET
ARTESIA, NEW MEXICO 88210-2118
TELEPHONE (505) 748-1471

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

August 21, 2003

Petroleum Development
4113 Eubank, NE Ste. 400
Albuquerque, New Mexico 87111

Gentlemen::

Enclosed please find a copy of form C-108 (Application for Authority to Inject) on Yates Petroleum Corporation Loveless "LQ" State #5, located in Unit D, Sec. 36, T7S, R31E, Chaves County, New Mexico.

Should you have any questions, please feel free to contact me at (505) 748-4182.

Sincerely,

A handwritten signature in cursive script that reads 'James W. Pringle'.

James W. Pringle
Operations Engineer

JWP/cm

Enclosure

**C-108 Application for Authorization to Inject
Yates Petroleum Corporation
Loveless LQ State #5
Unit D Sec. 36, T7S, R31E
Chaves County, New Mexico**

- I. The purpose of completing this well is to make a disposal well for produced San Andres water into the San Andres formation.**

Yates Petroleum Corporation plans to convert this well to a water disposal well into the San Andres.

- II. Operator: Yates Petroleum Corporation
105 South Fourth Street
Artesia, NM 88210
James W. Pringle (505) 748-4281**

- III. Well Data: See Attachment A**

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

- V. See attached map, Attachment B.**

- VI. Nine wells within the area of review penetrate the proposed injection zone. (See Attachment C)**

- VII. 1. Proposed average daily injection volume approximately 400 BWPD. Maximum daily injection volume approximately 500 BWPD.**

- 2. This will be a closed system.**

- 3. Proposed average injection pressure –1600 psi.
Proposed maximum injection pressure –2000 psi.**

- 4. Sources of injected water would be produced water from the San Andres. (Attachment D)**

- VIII. 1. The proposed injection interval is the San Andres 4046-4170'**

Underground water sources of drinking water are in the Alluvial fill from surface to 300'.

**Application for Authorization to Inject
Loveless "LQ" State #5**

-2-

- IX. The proposed disposal interval may be acidized with 15-20% HCL acid.**
- X. Logs were filed at your office when the well was drilled.**
- XI. Two windmills exists 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. (Attachment G)**
- XIII. Proof of notice.**
 - A. Certified letters sent to the surface owner and offset operators attached (Attachment E)**
 - B. Copy of legal advertisement attached. (Attachment F)**
- XIV. Certification is signed.**

**Yates Petroleum Corporation
Loveless LQ State #5
Eddy County, New Mexico**

Attachment A

III. Well Data

- A.**
1. Lease Name/Location
Loveless LQ State #5
D-Sec 36, T7S-R31E
990' FNL & 990' FWL
 2. Casing Strings:
 - a. Present well condition
8 5/8", 24#, J55 ST&C set @ 1725 w/650 sx (circ)
4 1/2", 9.5#, K55 ST&C @ 4230' w/250 sx (TOC 3210' by Cbl).
 - b. Present Status:
San Andres-4046-4091-.18 - .45" holes, shot on 10/29/81
4115-4170- 20 - .50" holes, shot on 10/28/81
 3. Proposed well condition:
Casing same as above.
2-3/8" 4.7# J55 IPC, EUE tubing @ 3990'
 4. Propose to use Guiberson or Baker plastic-coated or nickel-plated packer set at 3990'.
- B.**
1. Injection Formation: San Andres
 2. Injection Interval will be through perforations from approximately 4046-4170' gross interval.
 3. Well was originally drilled as a San Andres oil well. Well will be a San Andres water disposal well (4046-4170') when work is completed.
 4. Next higher (shallower) oil or gas zone within 2 miles-None.
Next lower (deeper) oil or gas zone within 2 miles-None.

WELL NAME: Loveless "LQ" State #5 **Field:** Tomahawk San Andres
LOCATION: Unit D, Sec 36, 7S-31E 990 FNL & 990 FWL Chaves County
GL: 4230 GR **ZERO:** **KB:** **SPUD DATE:** 10/12/81 **COMPLETION DATE:** 10/29/81
COMMENTS: 30-005-20828

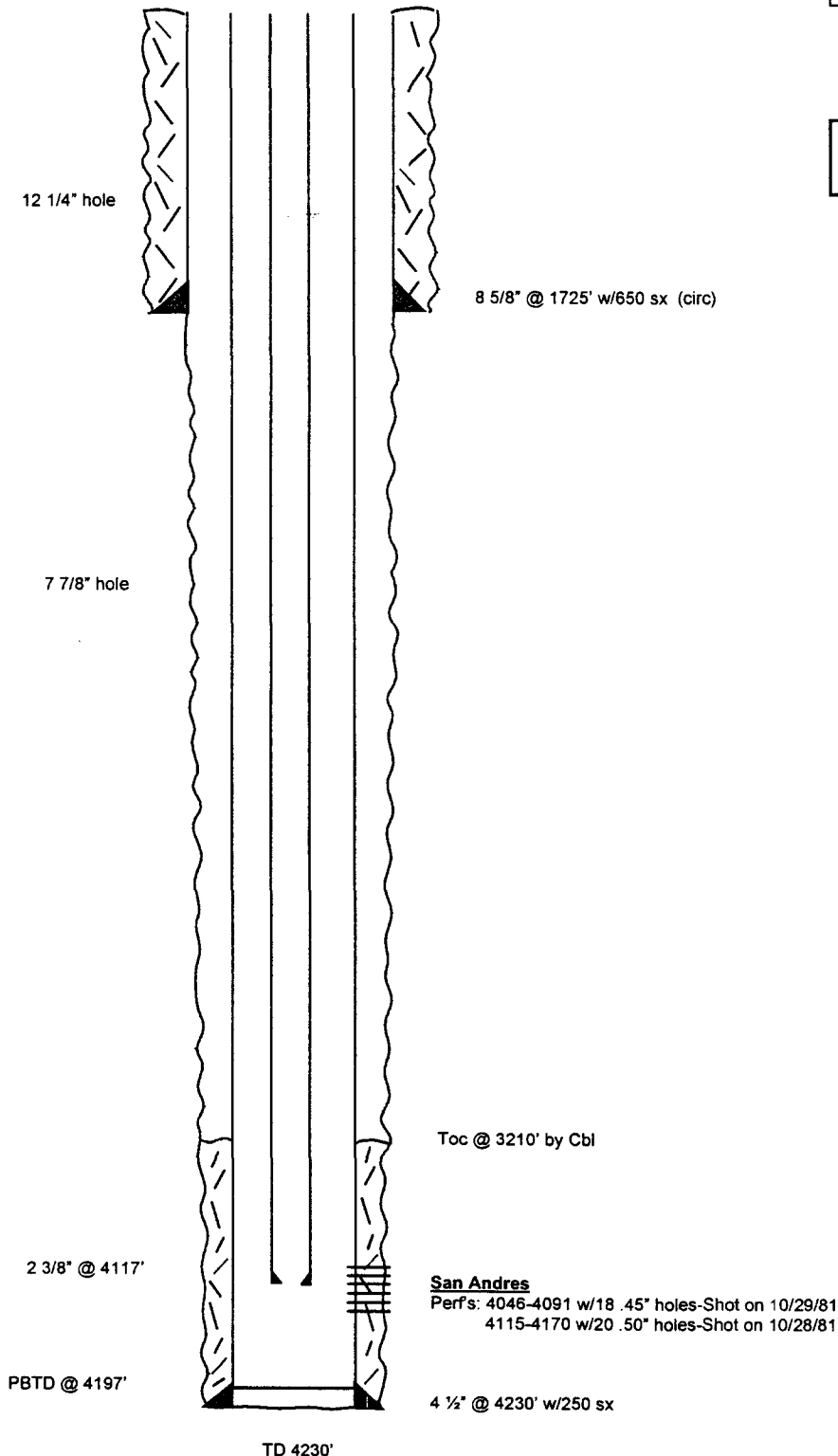
CASING PROGRAM

8 5/8" 23#	1725'
4 1/2" 9.5# k-55 ST&C	4230'

Current

TOPS

Queen	2614
Grayburg	2938
San Andres	3250
P1	3950
P2	4030
P3	4144



Not to Scale
 8/14/03
 Cam

WELL NAME: Loveless "LQ" State #5 **Field:** Tomahawk San Andres
LOCATION: Unit D, Sec 36, 7S-31E 990 FNL & 990 FWL Chaves County
GL: 4230 GR **ZERO:** **KB:** **SPUD DATE:** 10/12/81 **COMPLETION DATE:** 10/29/81
COMMENTS: 30-005-20828

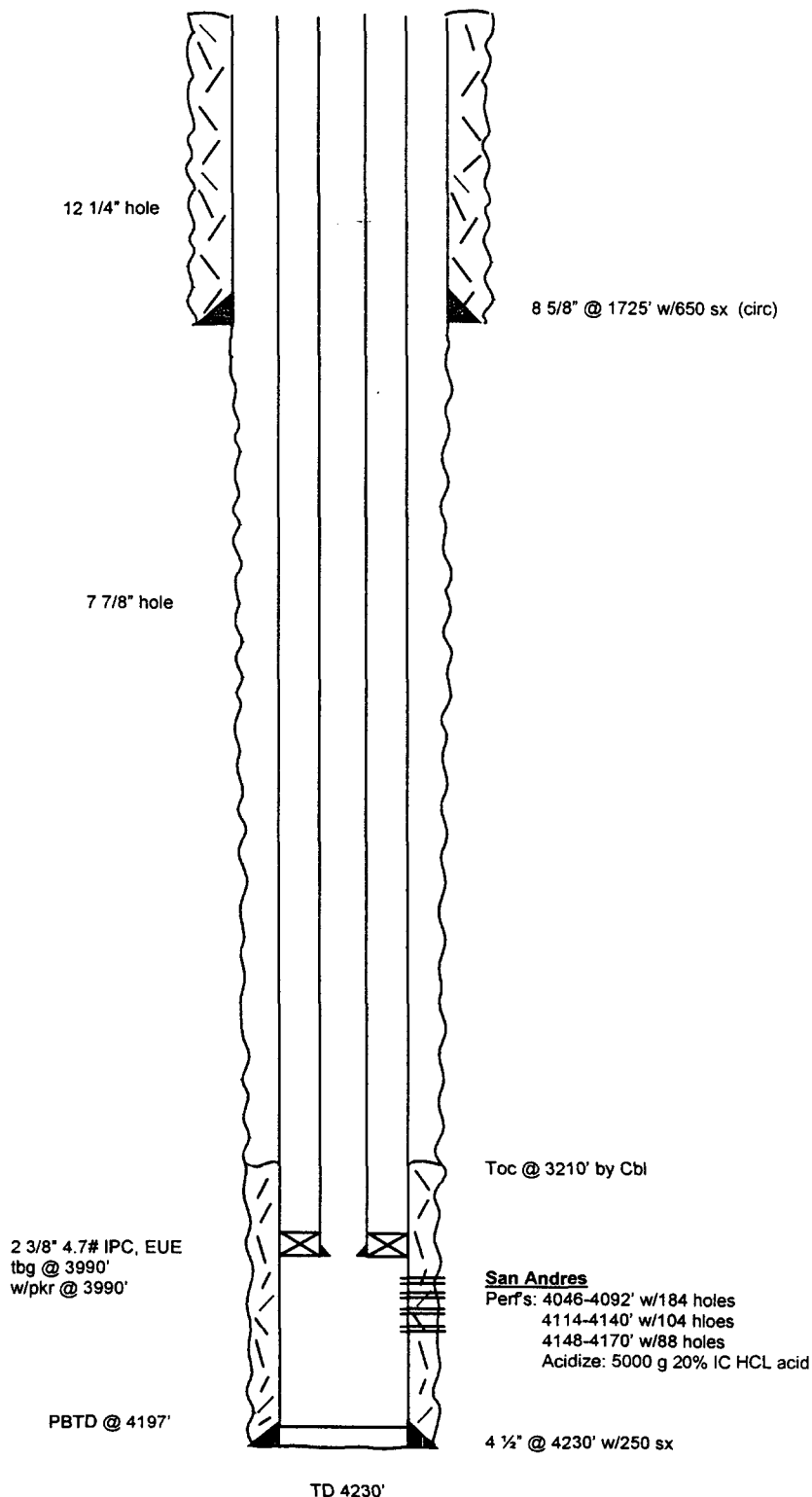
CASING PROGRAM

8 5/8" 23#	1725'
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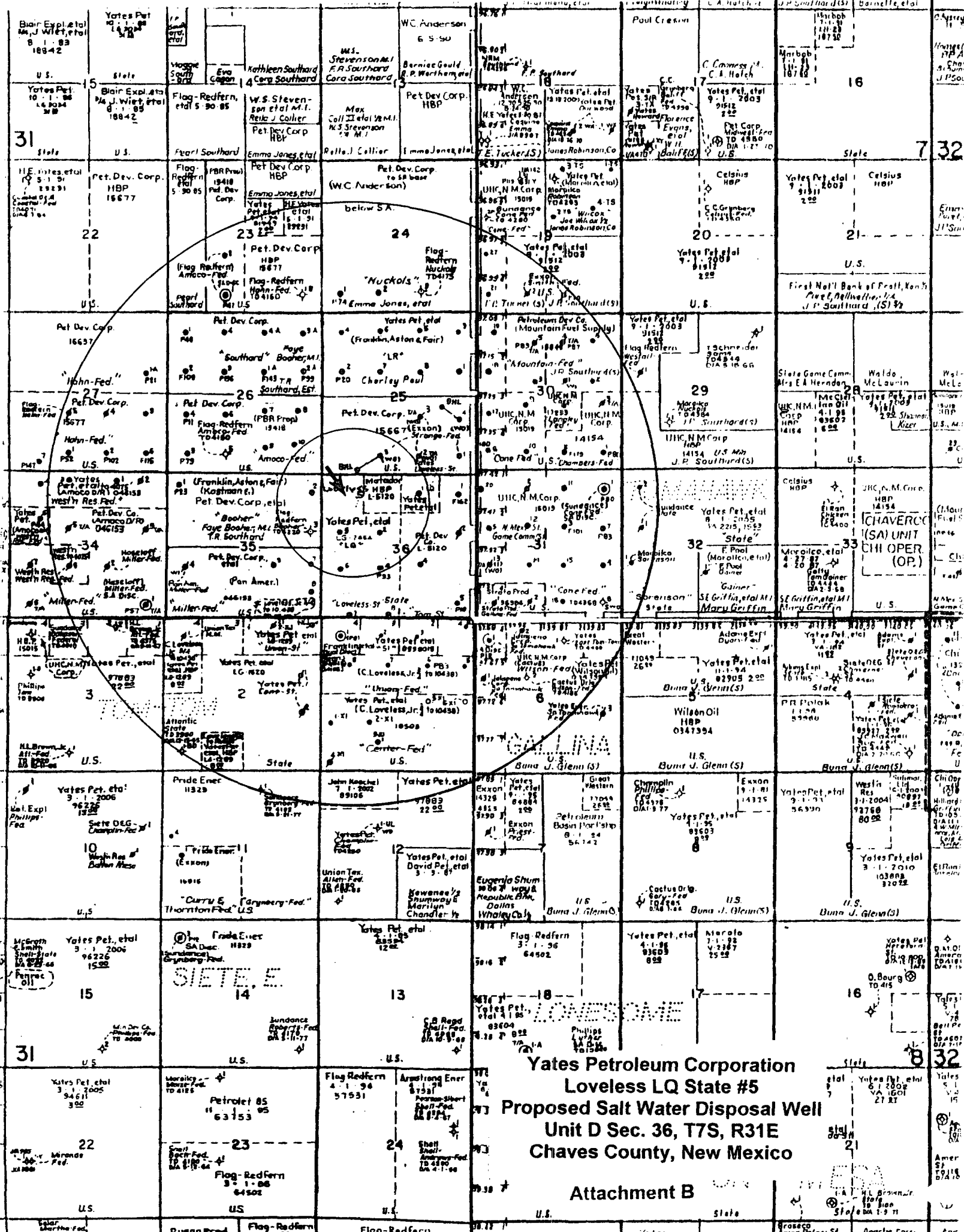
Proposed

TOPS

Queen	2614
Grayburg	2938
San Andres	3250
P1	3950
P2	4030
P3	4144



Not to Scale
 8/14/03
 Cam



Yates Petroleum Corporation
Loveless LQ State #5
Proposed Salt Water Disposal Well
Unit D Sec. 36, T7S, R31E
Chaves County, New Mexico

Attachment B

**Loveless LQ State #5
Unit D Sec. 36, T7S, R31E
Chaves County, New Mexico**

Attachment C

Tabulation of data on wells within area of review

API	Well Name	Well #	Operator Name	Type	Spud Date	Comp Date	Total Depth	Producing Zone	Perforations	Completion Information
30005206920000	LOVELESS 'LQ' STATE 36 7S 31E 660 FNL 1980 FEL	1	YATES PETROLEUM CORP	Oil	2/14/80	5/3/80	4290	SAN ANDRES D	4090-4162	8 5/8" @ 1710 w/700 sx cmt 4 1/2" @ 4290 w/300 sx cmt
30005207170000	STRANGE FEDERAL 25 7S 31E 660 FSL 660 FEL	1	PETROLEUM DEVELOPMENT	Oil	3/8/80	4/19/80	4288	SAN ANDRES D	3894-4172	8 5/8" @ 1699 w/850 sx cmt 5 1/2" @ 4274 w/1820 sx cmt
30005207870000	LOVELESS 'LQ' STATE 36 7S 31E 1980 FNL 1980 FWL	2	YATES PETROLEUM CORP	Oil	7/16/81	8/21/81	4298	SAN ANDRES D	4058-4179	8 5/8" @ 1679 w/650 sx cmt 4 1/2" @ 4298 w/300 sx cmt
30005208260000	LOVELESS 'LQ' STATE 36 7S 31E 1980 FNL 660 FWL	3	YATES PETROLEUM CORP	Oil	9/18/81	10/7/81	4200	SAN ANDRES D	3974-4143	8 5/8" @ 1698 w/650 sx cmt 4 1/2" @ 4195 w/300 sx cmt
30005208270000	LOVELESS 'LQ' STATE 36 7S 31E 1980 FSL 1980 FWL	4	YATES PETROLEUM CORP	Oil	9/28/81	10/17/81	4200	SAN ANDRES D	3983-4113	8 5/8" @ 1700 w/650 sx cmt 4 1/2" @ 4200 w/250 sx cmt
30005208290000	LOVELESS 'LQ' STATE 36 7S 31E 1980 FSL 660 FWL	6	YATES PETROLEUM CORP	Oil	10/28/81	12/11/81	4207	SAN ANDRES D	4015-4138	7" @ 1718 w/775 sx cmt 4 1/2" @ 4189 w/220 sx cmt
30005208420000	BOOHER '35' 35 7S 31E 660 FNL 330 FEL	2	PETROLEUM DEVELOPMENT	Oil	1/28/82	3/31/82	4225	SAN ANDRES D	4012-4054	8 5/8" @ 1708 w/800 sx cmt 4 1/2" @ 4224 w/250 sx cmt
* 30005208430000	BOOHER '35' 35 7S 31E 1980 FNL 330 FEL	3	FLAG-REDFERN OIL	Dryhole	2/6/82	4/13/82	4220		4127-4065	8 5/8" @ 1663 w/800 sx cmt 4 1/2" @ 4219 w/250 sx cmt
30005210120000	MILLER FEDERAL 35 7S 31E 1980 FSL 330 FEL	7	PETROLEUM DEVELOPMENT	Oil	1/16/85	2/2/85	4182	SAN ANDRES D	3972-4145	8 5/8" @ 1227 w/600 sx cmt 4 1/2" @ 4182 w/250 sx cmt

* Wellbore diagram attached to PI Dwrights summary report

PI/Dwights PLUS on CD Well Summary Report

Date: 8/12/2003

Time: 1:39 PM

General Information					
State	:	NEW MEXICO	Final Status	:	OIL
County	:	CHAVES	Drill Total Depth	:	4290
Field	:	TOMAHAWK	Log Total Depth	:	
Operator Name	:	YATES PETROLEUM CORP			
Lease Name	:	LOVELESS /LQ/ STATE			
Well Number	:	1	Spud Date	:	FEB 14, 1980
API Number	:	30005206920000	Comp Date	:	MAY 03, 1980
Regulatory API	:				
Init Lahee Class	:	D	Hole Direction	:	VERTICAL
Final Lahee Class	:	DO	Reference Elevation	:	4432 KB
Permit Number	:		Ground Elevation	:	4422
Geologic Province	:	PERMIAN BASIN	KB Elevation	:	4432
Formation at TD	:	453SADR			
Oldest Age Pen	:	453			
Producing Formation	:	453SADR			
Township	:	7 S	Section	:	36 SEC
Range	:	31 E	Spot	:	
Base Meridian	:	NEW MEXICO			

Additional Location Information					
Footage Location	:	660 FNL 1980 FEL	CONGRESS SECTION		
Latitude	:	33.6687600	Latitude (Bot)	:	
Longitude	:	-103.7243700	Longitude (Bot)	:	
Lat./Long. Source	:	TS			
Location Narrative	:	Type	Remark		
		LOCATION	19 MI E/ELKINS		

Initial Potential Tests									
Test	Top Form	Base Form	Top Depth	Base Depth	Choke	GOR	Oil Grav	Prod Method	Test Method
001	453SADR	453SADR	4090	4162		536	24	PERF	PUMPING

IP Volume												
Test	Amount	Oil Unit	Desc	Amount	Cond Unit	Desc	Amount	Gas Unit	Desc	Amount	Wtr Unit	Desc
001	40	BPD									65	BBL

IP Pressure				
Test	FTP	SITP	FCP	SICP
001				

IP Treatment												
Test	Top	Base	Volume	Meas	Amount	T/P	PSI	Inj	Type	Nbr	Agent	Add
001	4090	4162	3000	GAL					ACID			

IP Perforation												
Test	Top	Base	Type	Method	Top Form	Base Form	Status	Count	Density	Per		
001	4090	4090		PERF	453SADR	453SADR	A					
001	4095	4095		PERF	453SADR	453SADR	A					
001	4100	4100		PERF	453SADR	453SADR	A					
001	4106	4117		PERF	453SADR	453SADR	A					
001	4121	4123		PERF	453SADR	453SADR	A					
001	4127	4127		PERF	453SADR	453SADR	A					
001	4134	4134		PERF	453SADR	453SADR	A					
001	4139	4139		PERF	453SADR	453SADR	A					
001	4154	4162		PERF	453SADR	453SADR	A					

Formations		Top Depth	Top TVD	Base Depth	Base TVD	Source	Lithology
Form Code	Form Name						
454RSLR	RUSTLER	1712				LOG	

PI/Dwights PLUS on CD Well Summary Report

Date: 8/12/2003

Time: 1:39 PM

454SALT SALT 1748 2148
453SADRD SAN ANDRES D 3290

LOG

LOG

Log Data

Run No	Log Type	Top	Base	Log MD	Max Temp
1	NEES	0	4283	4283	100
2	ILDL	3000	4278	4278	105
2	MFSF	3000	4278		

Casing Data

Size	Base Depth	Cement	Unit
8 5/8 IN	1710	700	SACK
4 1/2 IN	4290	300	SACK

Tubing Data

Size	Base Depth	Mixed String
2 3/8 IN	4232	

PI/Dwights PLUS on CD Well Summary Report

Date: 8/12/2003

Time: 1:39 PM

General Information

State	:	NEW MEXICO	Final Status	:	OIL
County	:	CHAVES	Drill Total Depth	:	4288
Field	:	TOMAHAWK	Log Total Depth	:	
Operator Name	:	EXXON CORPORATION			
Lease Name	:	STRANGE FEDERAL			
Well Number	:	1	Spud Date	:	MAR 08, 1980
API Number	:	30005207170000	Comp Date	:	APR 19, 1980
Regulatory API	:				
Init Lahee Class	:	D	Hole Direction	:	VERTICAL
Final Lahee Class	:	DO	Reference Elevation	:	
Permit Number	:		Ground Elevation	:	4418
Geologic Province	:	PERMIAN BASIN	KB Elevation	:	
Formation at TD	:	453SADR			
Oldest Age Pen	:	453			
Producing Formation	:	453SADR			
Township	:	7 S	Section	:	25 SEC
Range	:	31 E	Spot	:	
Base Meridian	:	NEW MEXICO			

Additional Location Information

Footage Location	:	660 FSL 660 FEL CONGRESS SECTION
Latitude	:	33.6723600
Longitude	:	-103.7200400
Lat./Long. Source	:	TS
Location Narrative	:	Type LOCATION
		Remark 15 MI SE/BOAZ

Initial Potential Tests

Test	Top Form	Base Form	Top Depth	Base Depth	Choke	GOR	Oil Grav	Prod Method	Test Method
001	453SADR	453SADR	3894	4172		654	23.5	PERF	PUMPING

IP Volume

Test	Amount	Oil Unit	Desc	Amount	Cond Unit	Desc	Amount	Gas Unit	Desc	Amount	Wtr Unit	Desc
001	84	BPD										

IP Pressure

Test	FTP	SITP	FCP	SICP
001				

IP Treatment

Test	Top	Base	Volume	Meas	Amount	T/P	PSI	Inj	Type	Nbr	Agent	Add
001	3894	4172	13170	GAL					ACID			

IP Perforation

Test	Top	Base	Type	Method	Top Form	Base Form	Status	Count	Density	Per
001	3894	4172		PERF	453SADR	453SADR	A	84		

Production Tests

Test	Top Form	Base Form	Top Depth	Base Depth	Choke	GOR	Oil Grav	Prod Method	Test Method
001	453SADR	453SADR	4086	4158				PERF	SWABBING
002	453SADR	453SADR	3894	4172				PERF	PUMPING
003	453SADR	453SADR	3894	4172				PERF	PUMPING

Production Volume

Test	Amount	Oil Unit	Desc	Amount	Cond Unit	Desc	Amount	Gas Unit	Desc	Amount	Wtr Unit	Desc
001	8	BBL							UG			
002	8	BBL										
003	84	BBL										

43 BBL

PI/Dwights PLUS on CD Well Summary Report

Date: 8/12/2003

Time: 1:39 PM

Test	FTP	SITP	FCP	SICP
001				
002				
003				

Test	Top	Base	Volume	Meas	Amount	T/P	PSI	Inj	Type	Nbr	Agent	Add
001	4086	4158	7000	GAL					ACID			

Test	Top	Base	Type	Method	Top Form	Base Form	Status	Count	Density	Per
001	4086	4158		PERF	453SADR	453SADR	A	40		
002	3894	4172		PERF	453SADR	453SADR		84		
003	3894	4172		PERF	453SADR	453SADR		84		

Formations

Form Code	Form Name	Top Depth	Top TVD	Base Depth	Base TVD	Source	Lithology
454RSLR	RUSTLER	1688				LOG	
453YTES	YATES	2144				LOG	
453SVRV	SEVEN RIVERS	2266				LOG	
453QUEN	QUEEN	2659				LOG	
453SADR	SAN ANDRES D	3291				LOG	

Core Data

Formation	Top Depth	Base Depth	Recovered	Type	Show
	4065	4065			
	4278	4278			

Casing Data

Size	Base Depth	Cement	Unit
8 5/8 IN	1699	850	SACK
5 1/2 IN	4274	1820	SACK

Tubing Data

Size	Base Depth	Mixed String
2 7/8 IN	4100	

PI/Dwights PLUS on CD Well Summary Report

Date: 8/12/2003

Time: 1:39 PM

General Information

State	:	NEW MEXICO	
County	:	CHAVES	
Field	:	TOMAHAWK	
Operator Name	:	YATES PETROLEUM CORP	
Lease Name	:	LOVELESS 'LQ' STATE	
Well Number	:	2	
API Number	:	30005207870000	
Regulatory API	:		
Init Lahee Class	:	D	
Final Lahee Class	:	DO	
Permit Number	:		
Geologic Province	:	PERMIAN BASIN	
Formation at TD	:	453SADRD	SAN AN
Oldest Age Pen	:	453	PERMIA
Producing Formation	:	453SADRD	SAN AN
Township	:	7 S	
Range	:	31 E	
Base Meridian	:	NEW MEXICO	

Final Status	:	OIL
Drill Total Depth	:	4298
Log Total Depth	:	
Spud Date	:	JUL 16, 1981
Comp Date	:	AUG 21, 1981
Hole Direction	:	VERTICAL
Reference Elevation	:	
Ground Elevation	:	4417
KB Elevation	:	
DALUPIAN		
Section	:	36 SEC
Spot	:	

Additional Location Information

Footage Location	:	1980 FNL 1980 FWL CONGRESS SECTION	
Latitude	:	33.6651700	Latitude (Bot)
Longitude	:	-103.7287200	Longitude (Bot)
Lat./Long. Source	:	TS	
Location Narrative	:	Type	Remark
		LOCATION	15 MI SE/BOAZ

Initial Potential Tests

Test	Top Form	Base Form	Top Depth	Base Depth	Choke	GOR	Oil Grav	Prod Method	Test Method
001	453SADRD	453SADRD	4058	4179		1000	32	PERF	PUMPING

IP Volume

		Oil			Cond			Gas			Wtr	
Test	Amount	Unit	Desc	Amount	Unit	Desc	Amount	Unit	Desc	Amount	Unit	Desc
001	35	BPD								38	BBL	

IP Pressure

Test	FTP	SITP	FCP	SICP
001				

IP Treatment

Test	Top	Base	Volume	Meas	Amount	T/P	PSI	Inj	Type	Nbr	Agent	Add
001	4058	4179	3000	GAL					ACID			

IP Perforation

Test	Top	Base	Type	Method	Top Form	Base Form	Status	Count	Density	Per
001	4058	4179		PERF	453\$ADRD	453\$ADRD	A			

Formations

Form Code	Form Name	Top Depth	Top TVD	Base Depth	Base TVD	Source	Lithology
454RSLR	RUSTLER	1693				LOG	
454SLDO	SALADO	1716				LOG	
453YTES	YATES	2117				LOG	
453QUEN	QUEEN	2780				LOG	
453SADRD	SAN ANDRES D	3261				LOG	

Casing Data

Size	Base Depth	Cement	Unit
8 5/8 IN	1679	650	SACK
4 1/2 IN	4298	300	SACK

PI/Dwights PLUS on CD Well Summary Report

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-----		Tubing Data	-----
Size	Base Depth	Mixed String	
2 3/8 IN	4108		

PI/Dwights PLUS on CD Well Summary Report

Date: 8/12/2003

Time: 1:39 PM

General Information					
State	:	NEW MEXICO	Final Status	:	OIL
County	:	CHAVES	Drill Total Depth	:	4200
Field	:	TOMAHAWK	Log Total Depth	:	
Operator Name	:	YATES PETROLEUM CORP			
Lease Name	:	LOVELESS /LQ/STATE			
Well Number	:	3	Spud Date	:	SEP 18, 1981
API Number	:	30005208260000	Comp Date	:	OCT 07, 1981
Regulatory API	:				
Init Lahee Class	:	D	Hole Direction	:	VERTICAL
Final Lahee Class	:	DO	Reference Elevation	:	4391 KB
Permit Number	:		Ground Elevation	:	4383
Geologic Province	:	PERMIAN BASIN	KB Elevation	:	4391
Formation at TD	:	453SADR			
Oldest Age Pen	:	453			
Producing Formation	:	453SADR			
Township	:	7 S	Section	:	36 SEC
Range	:	31 E	Spot	:	
Base Meridian	:	NEW MEXICO			

Additional Location Information				
Footage Location	:	1980 FNL 660 FWL CONGRESS SECTION		
Latitude	:	33.6651900	Latitude (Bot)	:
Longitude	:	-103.7330600	Longitude (Bot)	:
Lat./Long. Source	:	TS		
Location Narrative	:	Type	Remark	
		LOCATION	15 MI SE/BOAZ	

Initital Potential Tests												
Test	Top Form	Base Form	Top Depth	Base Depth	Choke	GOR	Oil Grav	Prod Method	Test Method			
001	453SADR	453SADR	3974	4143		308	29	PERF	PUMPING			
IP Volume												
Test	Amount	Oil Unit	Desc	Amount	Cond Unit	Desc	Amount	Gas Unit	Desc	Amount	Wtr Unit	Desc
001	91	BPD								9	BBL	
IP Pressure												
Test	FTP	SITP	FCP	SICP								
001												
IP Treatment												
Test	Top	Base	Volume	Meas	Amount	T/P	PSI	Inj	Type	Nbr	Agent	Add
001	3974	4143	5500	GAL					ACID			
IP Perforation												
Test	Top	Base	Type	Method	Top Form	Base Form	Status	Count	Density	Per		
001	3974	4143		PERF	453SADR	453SADR	A					

Formations							
Form Code	Form Name	Top Depth	Top TVD	Base Depth	Base TVD	Source	Lithology
454RSLR	RUSTLER	1624				LOG	
454SLDO	SALADO	1687				LOG	
453YTES	YATES	2090				LOG	
453QUEN	QUEEN	2590				LOG	
453GRBG	GRAYBURG	2910				LOG	
453SADR	SAN ANDRES D	3226				LOG	

Log Data					
Run No	Log Type	Top	Base	Log MD	Max Temp

PI/Dwights PLUS on CD Well Summary Report

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1 NEES 0 4191 4191 102

Casing Data

Size	Base Depth	Cement	Unit
8 5/8 IN	1698	650	SACK
4 1/2 IN	4195	300	SACK

Tubing Data

Size	Base Depth	Mixed String
2 3/8 IN	4144	

PI/Dwights PLUS on CD Well Summary Report

Date: 8/12/2003

Time: 1:39 PM

General Information			
State	: NEW MEXICO	Final Status	: OIL
County	: CHAVES	Drill Total Depth	: 4200
Field	: TOMAHAWK	Log Total Depth	:
Operator Name	: YATES PETROLEUM CORP		
Lease Name	: LOVELESS 'LQ' STATE		
Well Number	: 4	Spud Date	: SEP 28, 1981
API Number	: 30005208270000	Comp Date	: OCT 17, 1981
Regulatory API	:		
Init Lahee Class	: D	Hole Direction	: VERTICAL
Final Lahee Class	: DO	Reference Elevation	:
Permit Number	:	Ground Elevation	: 4389
Geologic Province	: PERMIAN BASIN	KB Elevation	:
Formation at TD	: 453SADR	SAN ANDRES D	
Oldest Age Pen	: 453	PERMIAN GUADALUPIAN	
Producing Formation	: 453SADR	SAN ANDRES D	
Township	: 7 S	Section	: 36 SEC
Range	: 31 E	Spot	:
Base Meridian	: NEW MEXICO		

Additional Location Information			
Footage Location	: 1980 FSL 1980 FWL CONGRESS SECTION		
Latitude	: 33.6615500	Latitude (Bot)	:
Longitude	: -103.7287500	Longitude (Bot)	:
Lat./Long. Source	: TS		
Location Narrative	: Type	Remark	
	: LOCATION	: 15 MI SE/BOAZ	

Initial Potential Tests												
Test	Top Form	Base Form	Top Depth	Base Depth	Choke	GOR	Oil Grav	Prod Method	Test Method			
001	453SADR	453SADR	3983	4113		333	23	PERF	PUMPING			
IP Volume												
Test	Amount	Oil Unit	Desc	Amount	Cond Unit	Desc	Amount	Gas Unit	Desc	Amount	Wtr Unit	Desc
001	93	BPD								18	BBL	
IP Pressure												
Test	FTP	SITP	FCP	SICP								
001												
IP Treatment												
Test	Top	Base	Volume	Meas	Amount	T/P	PSI	Inj	Type	Nbr	Agent	Add
001	3983	4113	7000	GAL					ACID			
IP Perforation												
Test	Top	Base	Type	Method	Top Form	Base Form	Status	Count	Density	Per		
001	3983	4113		PERF	453SADR	453SADR	A					

Formations							
Form Code	Form Name	Top Depth	Top TVD	Base Depth	Base TVD	Source	Lithology
453QUEN	QUEEN	2597				LOG	
453GRBG	GRAYBURG	2917				LOG	
453SADR	SAN ANDRES D	3236				LOG	
454SALT	SALT			1695		LOG	

Log Data			
Run No	Log Type	Top	Base
01	CB	2840	4133
01	NE	2850	4139

PI/Dwights PLUS on CD Well Summary Report

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Casing Data

Size	Base Depth	Cement	Unit
8 5/8 IN	1700	650	SACK
4 1/2 IN	4200	250	SACK

Tubing Data

Size	Base Depth	Mixed String
2 3/8 IN	4100	

PI/Dwights PLUS on CD Well Summary Report

Date: 8/12/2003

Time: 1:39 PM

General Information	
State	: NEW MEXICO
County	: CHAVES
Field	: TOMAHAWK
Operator Name	: YATES PETROLEUM CORP
Lease Name	: LOVELESS 'LQ' STATE
Well Number	: 6
API Number	: 30005208290000
Regulatory API	:
Init Lahee Class	: D
Final Lahee Class	: DO
Permit Number	:
Geologic Province	: PERMIAN BASIN
Formation at TD	: 453SADR
Oldest Age Pen	: 453
Producing Formation	: 453SADR
Township	: 7 S
Range	: 31 E
Base Meridian	: NEW MEXICO
Final Status	: OIL
Drill Total Depth	: 4207
Log Total Depth	:
Spud Date	: OCT 28, 1981
Comp Date	: DEC 11, 1981
Hole Direction	: VERTICAL
Reference Elevation	:
Ground Elevation	: 4440
KB Elevation	:
SAN ANDRES D	
PERMIAN GUADALUPIAN	
SAN ANDRES D	
Section	: 36 SEC
Spot	:

Additional Location Information	
Footage Location	: 1980 FSL 660 FWL CONGRESS SECTION
Latitude	: 33.6615600
Longitude	: -103.7330800
Lat./Long. Source	: TS
Location Narrative	: Type
	: LOCATION
Remark	: 15 MI SE/BOAZ

Initial Potential Tests												
Test	Top Form	Base Form	Top Depth	Base Depth	Choke	GOR	Oil Grav	Prod Method	Test Method			
001	453SADR	453SADR	4015	4138		309	23	PERF	PUMPING			
IP Volume												
Test	Amount	Oil Unit	Desc	Amount	Cond Unit	Desc	Gas Unit	Desc	Wtr Amount	Unit	Desc	
001	55	BPD							9	BBL		
IP Pressure												
Test	FTP	SITP	FCP	SICP								
001												
IP Treatment												
Test	Top	Base	Volume	Meas	Amount	T/P	PSI	Inj	Type	Nbr	Agent	Add
001	4015	4138	3000	GAL					ACID			
IP Perforation												
Test	Top	Base	Type	Method	Top Form	Base Form	Status	Count	Density	Per		
001	4015	4138		PERF	453SADR	453SADR	A					

Formations	
Form Code	Form Name
454SALT	SALT
453QUEN	QUEEN
453GRBG	GRAYBURG
453SADR	SAN ANDRES D
Top Depth	Top TVD
1711	
2580	
2900	
3220	
Base Depth	Base TVD
	Source
	LOG
	LOG
	LOG
	LOG
	Lithology

Casing Data	
Size	Base Depth
7 IN	1718
4 1/2 IN	4189
Cement	Unit
775	SACK
220	SACK

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-----		Tubing Data	-----
Size	Base Depth	Mixed String	
2 3/8 IN	4121		

PI/Dwights PLUS on CD Well Summary Report

Date: 8/12/2003

Time: 1:39 PM

General Information

State	:	NEW MEXICO	Final Status	:	OIL
County	:	CHAVES	Drill Total Depth	:	4225
Field	:	TOM TOM	Log Total Depth	:	
Operator Name	:	FLAG-REDFERN OIL			
Lease Name	:	BOOHER '35'			
Well Number	:	2	Spud Date	:	JAN 28, 1982
API Number	:	30005208420000	Comp Date	:	MAR 31, 1982
Regulatory API	:				
Init Lahee Class	:	D	Hole Direction	:	VERTICAL
Final Lahee Class	:	DG	Reference Elevation	:	
Permit Number	:		Ground Elevation	:	4383
Geologic Province	:	PERMIAN BASIN	KB Elevation	:	
Formation at TD	:	453SADR			
Oldest Age Pen	:	453			
Producing Formation	:	453SADR			
Township	:	7 S	Section	:	35 SEC
Range	:	31 E	Spot	:	
Base Meridian	:	NEW MEXICO			

Additional Location Information

Footage Location	:	660 FNL 330 FEL CONGRESS SECTION		
Latitude	:	33.6688400	Latitude (Bot)	:
Longitude	:	-103.7362800	Longitude (Bot)	:
Lat./Long. Source	:	TS		
Location Narrative	:	Type	Remark	
		LOCATION	14 MI SE/BOAZ	

Initial Potential Tests

Test	Top Form	Base Form	Top Depth	Base Depth	Choke	GOR	Oil Grav	Prod Method	Test Method			
001	453SADR	453SADR	4012	4054		850	24.2	PERF	PUMPING			
IP Volume												
Test	Amount	Oil Unit	Desc	Amount	Cond Unit	Desc	Amount	Gas Unit	Desc	Amount	Wtr Unit	Desc
001	20	BPD								34	BBL	
IP Pressure												
Test	FTP	SITP	FCP	SICP								
001												
IP Perforation												
Test	Top	Base	Type	Method	Top Form	Base Form	Status	Count	Density	Per		
001	4012	4054		PERF	453SADR	453SADR	A	20				

Production Tests

Test	Top Form	Base Form	Top Depth	Base Depth	Choke	GOR	Oil Grav	Prod Method	Test Method			
001	453SADR	453SADR	4078	4100				PERF	SWABBING			
002	453SADR	453SADR	4012	4054				PERF	SWABBING			
003	453SADR	453SADR	4012	4054				PERF	SWABBING			
004	453SADR	453SADR	4012	4054				PERF	SWABBING			
005	453SADR	453SADR	4012	4054				PERF	PUMPING			
Production Shutoff												
Test	Shutoff Type	Top Depth	Base Depth	Plugback Depth								
001	PLUG	4078	4100	4064								
001	SQZD	4078	4100									
Production Volume												
Oil			Cond			Gas			Wtr			

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Test	Amount	Unit	Desc	Amount	Unit	Desc	Amount	Unit	Desc	Amount	Unit	Desc
001			UO							70	B3L	
002			UO							99	B3L	
003	22	BBL										
004	25	BBL										
005	25	BBL								50	B3L	
Production Pressure												
Test	FTP	SITP	FCP	SICP								
002												
003												
004												
005												
Production Treatment												
Test	Top	Base	Volume	Meas	Amount	T/P	PSI	Inj	Type	Nbr	Agent	Add
001	4078	4100	3000	GAL					ACID			
002	4012	4054	3000	GAL					ACID			
Production Perforation												
Test	Top	Base	Type	Method	Top Form	Base Form	Status			Court	Density	Per
001	4078	4100		PERF	453SADR	453SADR	C				1	FT
002	4012	4054		PERF	453SADR	453SADR				30		
003	4012	4054		PERF	453SADR	453SADR				30		
004	4012	4054		PERF	453SADR	453SADR				30		
005	4012	4054		PERF	453SADR	453SADR				30		
Formations												
Form Code	Form Name					Top	Top	Base	Base			
						Depth	TVD	Depth	TVD	Source	Lithology	
454RSLR	RUSTLER					1610				LOG		
454SALT	SALT					1680		2080		LOG		
453QUEN	QUEEN					2545				LOG		
453SADR	SAN ANDRES D					3225				LOG		
Mud Data												
Depth	Weight	Unit										
1585	10.1	PPG										
Log Data												
Run No	Log Type	Top	Base	Log	Max							
				MD	Temp							
01	GR											
01	NEES											
01	CCL											
Casing Data												
	Size	Base Depth	Cement	Unit								
	8 5/8 IN	1708	800	SACK								
	4 1/2 IN	4224	250	SACK								
Tubing Data												
	Size	Base Depth	Mixed String									
	2 3/8 IN	3950										

PI/Dwights PLUS on CD Well Summary Report

Date: 8/12/2003

Time: 1:39 PM

General Information					
State	:	NEW MEXICO	Final Status	:	D&A-OG
County	:	CHAVES	Drill Total Depth	:	4220
Field	:	TOM TOM	Log Total Depth	:	
Operator Name	:	FLAG-REDFERN OIL			
Lease Name	:	BOOHER '35'			
Well Number	:	3	Spud Date	:	FEB 06, 1982
API Number	:	30005208430000	Comp Date	:	APR 13, 1982
Regulatory API	:				
Init Lahee Class	:	D	Hole Direction	:	VERTICAL
Final Lahee Class	:	D	Reference Elevation	:	
Permit Number	:		Ground Elevation	:	4394
Geologic Province	:	PERMIAN BASIN	KB Elevation	:	
Formation at TD	:	453SADR			
Oldest Age Pen	:	453			
Township	:	7 S	Section	:	35 SEC
Range	:	31 E	Spot	:	
Base Meridian	:	NEW MEXICO			

Additional Location Information			
Footage Location	:	1980 FNL 330 FEL CONGRESS SECTION	
Latitude	:	33.6652100	Latitude (Bot)
Longitude	:	-103.7363100	Longitude (Bot)
Lat./Long. Source	:	TS	
Location Narrative	:	Type	Remark
		LOCATION	14 MI SE/BOAZ

Production Tests								
Test	Top Form	Base Form	Top Depth	Base Depth	Choke	Oil GOR Grav	Prod Method	Test Method
001	453SADR	453SADR	4127	4145			PERF	SWABBING
002	453SADR	453SADR	4094	4104			PERF	SWABBING
003	453SADR	453SADR	4027	4065			PERF	SWABBING

Production Shutoff				
Test	Shutoff Type	Top Depth	Base Depth	Plugback Depth
002	BRPG	4094	4104	4083
002	BRPG	4127	4145	4083

Production Volume												
Test	Amount	Oil Unit	Desc	Amount	Cond Unit	Desc	Amount	Gas Unit	Desc	Amount	Wtr Unit	Desc
001										18	BBL	
002			UO									UW
003			UO									

Production Pressure				
Test	FTP	SITP	FCP	SICP
001				
003				

Production Treatment												
Test	Top	Base	Volume	Meas	Amount	T/P	PSI	Inj	Type	Nbr	Agent	Add
001	4127	4145	4000	GAL					ACID			
002	4094	4104	2000	GAL					ACID			
003	4027	4065	6000	GAL					ACID			

Production Perforation												
Test	Top	Base	Type	Method	Top Form	Base Form	Status	Count	Density	Per		
001	4127	4145		PERF	453SADR	453SADR	C		1	FT		
002	4094	4104		PERF	453SADR	453SADR	C		2	FT		
003	4027	4027		PERF	453SADR	453SADR	C					

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003	4028	4028	PERF	453SADR	453SADR	C
003	4033	4033	PERF	453SADR	453SADR	C
003	4037	4037	PERF	453SADR	453SADR	C
003	4051	4051	PERF	453SADR	453SADR	C
003	4052	4052	PERF	453SADR	453SADR	C
003	4053	4053	PERF	453SADR	453SADR	C
003	4062	4062	PERF	453SADR	453SADR	C
003	4063	4063	PERF	453SADR	453SADR	C
003	4064	4064	PERF	453SADR	453SADR	C
003	4065	4065	PERF	453SADR	453SADR	C

Formations

Form Code	Form Name	Top Depth	Top TVD	Base Depth	Base TVD	Source	Lithology
454SALT	SALT	1656				LOG	
453YTES	YATES	2101				LOG	
453SADR	SAN ANDRES D	3231				LOG	

Formation Tests

Test	Type	Top Depth	Base Depth	Top Form	Top Choke	Bottom Choke	Show
001	DST	3984	4220	453SADR			S

Pressure and Time

Test	Hydro		Init Flow		Final Flow		Shut-in		Open Time		Shut-in Time	
	Init	Final	Init	Final	Init	Final	Init	Final	Init	Final	Init	Final
001											315	

Pipe Recovery

Test	Amount	Unit	Desc	Rec Type	Rec Method
001	310	FT	M		PIPE
001	744	FT	PW		PIPE
001	1	CF	G		SMPL CHAMBER
001	2400	CC	W&SO&G		SMPL CHAMBER

Mud Data

Depth	Weight	Unit
1634	10.3	PPG
3814	10	PPG

Log Data

Run No	Log Type	Top	Base	Log MD	Max Temp
01	NEES				
01	ILDL				
01	GR				
01	CCL				

Casing Data

Size	Base Depth	Cement	Unit
8 5/8 IN	1663	800	SACK
4 1/2 IN	4219	250	SACK

PI/Dwights PLUS on CD Well Summary Report

Date: 8/12/2003

Time: 1:39 PM

General Information					
State	:	NEW MEXICO	Final Status	:	OIL
County	:	CHAVES	Drill Total Depth	:	4182
Field	:	TOM TOM	Log Total Depth	:	
Operator Name	:	HASELOFF CORP			
Lease Name	:	MILLER FEDERAL			
Well Number	:	7	Spud Date	:	JAN 16, 1985
API Number	:	30005210120000	Comp Date	:	FEB 02, 1985
Regulatory API	:				
Init Lahee Class	:	D	Hole Direction	:	VERTICAL
Final Lahee Class	:	DO	Reference Elevation	:	
Permit Number	:		Ground Elevation	:	4379
Geologic Province	:	PERMIAN BASIN	KB Elevation	:	
Formation at TD	:	453SADRD			
Oldest Age Pen	:	453			
Producing Formation	:	453SADRD			
Township	:	7 S	Section	:	35 SEC
Range	:	31 E	Spot	:	
Base Meridian	:	NEW MEXICO			

Additional Location Information					
Footage Location	:	1980 FSL 330 FEL CONGRESS SECTION			
Latitude	:	33.6615600	Latitude (Bot)	:	
Longitude	:	-103.7363400	Longitude (Bot)	:	
Lat./Long. Source	:	TS			
Location Narrative	:	Type	Remark		
		LOCATION	14 MI SE BOAZA, NM		

Initial Potential Tests													
Test	Top Form	Base Form	Top Depth	Base Depth	Choke	GOR	Oil Grav	Prod Method	Test Method				
001	453SADRD	453SADRD	3972	4145			25	PERF	PUMPING				
IP Volume													
Test	Amount	Oil Unit	Desc	Amount	Cond Unit	Desc	Amount	Gas Unit	Desc	Amount	Wtr Unit	Desc	
001	88	BPD								40	BHL		
IP Pressure													
Test	FTP	SITP	FCP	SICP									
001													
IP Treatment													
Test	Top	Base	Volume	Meas	Amount	T/P	PSI	Inj	Type	Nbr	Agent	Add	
001	3972	4145	6000	GAL					ACID				
IP Perforation													
Test	Top	Base	Type	Method	Top Form	Base Form	Status	Count	Density	Per			
001	3972	4145		PERF	453SADRD	453SADRD	A	28					

Formations							
Form Code	Form Name	Top Depth	Top TVD	Base Depth	Base TVD	Source	Lithology
453YTES	YATES	2086				LOG	
453SADRD	SAN ANDRES D	3226				LOG	
453PI	PI SHALE /MARKER/	3782				LOG	
453SADP1	SAN ANDRES PORO 1	3932				LOG	
453SADP2	SAN ANDRES PORO 2	4018				LOG	
453SADP3	SAN ANDRES PORO 3	4122				LOG	

Log Data					
Run No	Log Type	Top	Base	Log MD	Max Temp

PI/Dwights PLUS on CD Well Summary Report

Date: 8/12/2003

Time: 1:39 PM

01 NEC
01 DNCP
01 GR
01 LLD
01 MFSF

Casing Data

Size	Base Depth	Cement	Unit
8 5/8 IN	1227	600	SACK
4 1/2 IN	4182	250	SACK

Tubing Data

Size	Base Depth	Mixed String
2 3/8 IN	3866	

Drilling Narrative

Date	Remarks
JAN 28, 1985	4182 TD, WOCT
MAR 15, 1985	4182 TD, TSTG

OPERATOR: Flag Redfern Oil Company API# 30-005-20843

WELL NAME: Booher "35" #3 Field: Tom Tom San Andres

LOCATION: Sec 35, 7S-31E 1980' FNL & 330' FEL Chaves County

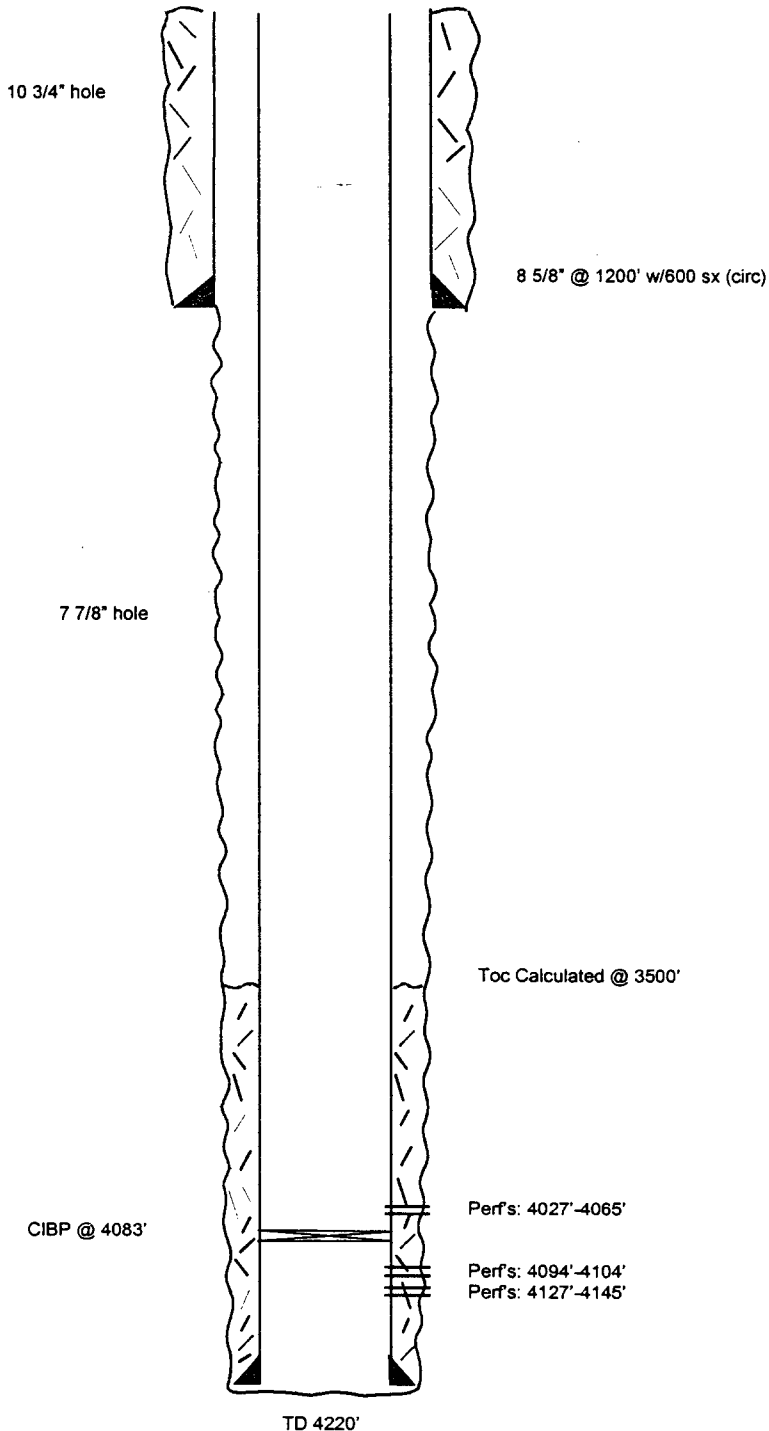
GL: 4394 ZERO: _____ KB: _____

SPUD DATE: 2/6/82 COMPLETION DATE: 4/13/82

DRY & ABANDONED

CASING PROGRAM

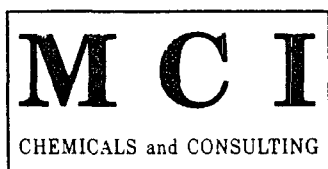
8 5/8" 24# K-55 ST&C	1663'
4 1/2" 9.5#	4219'



COMMENTS

It appears that the San Andres perforations in this well are open; information for this sketch was obtained online from the Oil Conservation Web page

Not to Scale
Cam
8/21/03



MILLER CHEMICALS, INC.

Post Office Box 298
Artesia, N.M. 88211-0298
(505) 746-1919 Artesia Office
(505) 393-2893 Hobbs Office
(505) 746-1918 Fax

WATER ANALYSIS REPORT

Company : YATES PETROLEUM
Address : ARTESIA, NM
Lease : MR. JENKINS
Well : WATER WELL
Sample Pt. : N. OF LOVESS #5

Date : 8/18/03
Date Sampled : UNKNOWN
Analysis No. : 00641

ANALYSIS		mg/L	* meq/L
1. pH	7.2		
2. H2S	0		
3. Specific Gravity	1.000		
4. Total Dissolved Solids		3623.8	
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	354.0	HCO3 5.8
12. Chloride	Cl	2130.0	Cl 60.1
13. Sulfate	SO4	50.0	SO4 1.0
14. Calcium	Ca	400.0	Ca 20.0
15. Magnesium	Mg	437.5	Mg 36.0
16. Sodium (calculated)	Na	252.4	Na 11.0
17. Iron	Fe	0.0	
18. Barium	Ba	NR	
19. Strontium	Sr	NR	
20. Total Hardness (CaCO3)		2800.0	

PROBABLE MINERAL COMPOSITION

*milli equivalents per Liter	Compound	Equiv wt X meq/L	= mg/L
+-----+			
20 *Ca <----- *HCO3 6	Ca(HCO3)2	81.0	5.8 470
----- /-----> -----	CaSO4	68.1	1.0 71
36 *Mg -----> *SO4 1	CaCl2	55.5	13.1 728
----- <-----/ -----	Mg(HCO3)2	73.2	
11 *Na -----> *Cl 60	MgSO4	60.2	
+-----+	MgCl2	47.6	36.0 1713
Saturation Values Dist. Water 20 C	NaHCO3	84.0	
CaCO3 13 mg/L	Na2SO4	71.0	
CaSO4 * 2H2O 2090 mg/L	NaCl	58.4	11.0 642
BaSO4 2.4 mg/L			

REMARKS:

SCALE TENDENCY REPORT

Company : YATES PETROLEUM Date : 8/18/03
Address : ARTESIA, NM Date Sampled : UNKNOWN
Lease : MR. JENKINS Analysis No. : 00641
Well : WATER WELL Analyst : A. MILLER
Sample Pt. : N. OF LOVESS #5

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

S.I. = 0.5 at 70 deg. F or 21 deg. C
S.I. = 0.5 at 90 deg. F or 32 deg. C
S.I. = 0.6 at 110 deg. F or 43 deg. C
S.I. = 0.6 at 130 deg. F or 54 deg. C
S.I. = 0.7 at 150 deg. F or 66 deg. C

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

S = 1482 at 70 deg. F or 21 deg C
S = 1513 at 90 deg. F or 32 deg C
S = 1522 at 110 deg. F or 43 deg C
S = 1507 at 130 deg. F or 54 deg C
S = 1482 at 150 deg. F or 66 deg C

Respectfully submitted,
A. MILLER



MILLER CHEMICALS, INC.

Post Office Box 298
Artesia, N.M. 88211-0298
(505) 746-1919 Artesia Office
(505) 393-2893 Hobbs Office
(505) 746-1918 Fax

WATER ANALYSIS REPORT

Company	: YATES PETROLEUM	Date	: 8/18/03
Address	: ARTESIA, NM	Date Sampled	: UNKNOWN
Lease	: JIM SOUTHARD	Analysis No.	: 00642
Well	: WATER WELL		
Sample Pt.	: NE OF LOVESS #5		

ANALYSIS		mg/L	* meq/L	
-----		----	-----	
1.	pH	7.2		
2.	H2S	0		
3.	Specific Gravity	1000		
4.	Total Dissolved Solids	4679.5		
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 281.0	HCO3	4.6
12.	Chloride	Cl 2556.0	Cl	72.1
13.	Sulfate	SO4 325.0	SO4	6.8
14.	Calcium	Ca 520.0	Ca	25.9
15.	Magnesium	Mg 364.7	Mg	30.0
16.	Sodium (calculated)	Na 632.8	Na	27.5
17.	Iron	Fe 0.0		
18.	Barium	Ba NR		
19.	Strontium	Sr NR		
20.	Total Hardness (CaCO3)	2800.0		

PROBABLE MINERAL COMPOSITION

*milli equivalents per Liter	Compound	Equiv wt X meq/L = mg/L		
-----+	-----+	-----+		
26 *Ca <----- *HCO3 5	Ca (HCO3)2	81.0	4.6	373
----- /-----> -----	CaSO4	68.1	6.8	461
30 *Mg -----> *SO4 7	CaCl2	55.5	14.6	809
----- <-----/ -----	Mg (HCO3)2	73.2		
28 *Na -----> *Cl 72	MgSO4	60.2		
-----+	MgCl2	47.6	30.0	1428
Saturation Values Dist. Water 20 C	NaHCO3	84.0		
CaCO3 13 mg/L	Na2SO4	71.0		
CaSO4 * 2H2O 2090 mg/L	NaCl	58.4	27.5	1609
BaSO4 2.4 mg/L				

REMARKS: BY PAUL "LR" LEASE

SCALE TENDENCY REPORT

Company	: YATES PETROLEUM	Date	: 8/18/03
Address	: ARTESIA, NM	Date Sampled	: UNKNOWN
Lease	: JIM SOUTHARD	Analysis No.	: 00642
Well	: WATER WELL	Analyst	: A. MILLER
Sample Pt.	: NE OF LOVESS #5		

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

S.I. =	0.5	at	70 deg.	F or	21 deg.	C
S.I. =	0.5	at	90 deg.	F or	32 deg.	C
S.I. =	0.5	at	110 deg.	F or	43 deg.	C
S.I. =	0.6	at	130 deg.	F or	54 deg.	C
S.I. =	0.6	at	150 deg.	F or	66 deg.	C

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

S =	1636	at	70 deg.	F or	21 deg	C
S =	1674	at	90 deg.	F or	32 deg	C
S =	1686	at	110 deg.	F or	43 deg	C
S =	1671	at	130 deg.	F or	54 deg	C
S =	1647	at	150 deg.	F or	66 deg	C

Respectfully submitted,
A. MILLER

7002 2030 0001 8269 6048

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CERTIFIED MAIL [®] RECEIPT	
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PS Form 3800, June 2002 See Reverse for Instructions	

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Circular postmark: USPS 0115
Signature: Cheryl Matthews
Location: Pouchard, OK Sta

ATTACHMENT E

WELL NAME: Loveless "LQ" State #5 **Field:** Tomahawk San Andres
LOCATION: Unit D, Sec 36, 7S-31E 990 FNL & 990 FWL Chaves County
GL: 4230 GR **ZERO:** **KB:** **SPUD DATE:** 10/12/81 **COMPLETION DATE:** 10/29/81
COMMENTS: 30-005-20828

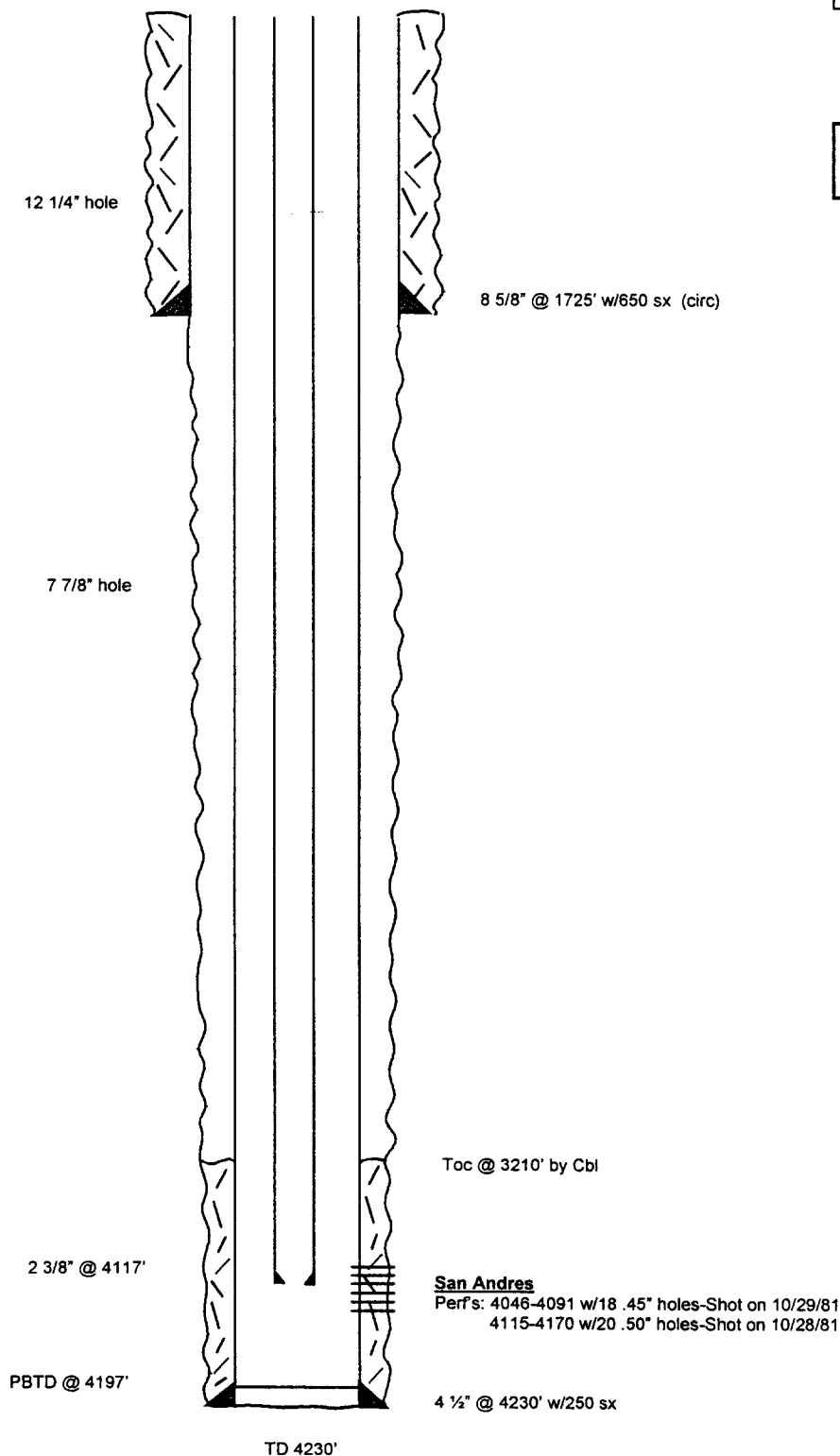
CASING PROGRAM

8 5/8" 23#	1725'
4 1/2" 9.5# k-55 ST&C	4230'

Current

TOPS

Queen	2614
Grayburg	2938
San Andres	3250
P1	3950
P2	4030
P3	4144



Not to Scale
 8/14/03
 Cam

WELL NAME: Loveless "LQ" State #5 **Field:** Tomahawk San Andres
LOCATION: Unit D, Sec 36, 7S-31E 990 FNL & 990 FWL Chaves County
GL: 4230 GR **ZERO:** **KB:** **SPUD DATE:** 10/12/81 **COMPLETION DATE:** 10/29/81
COMMENTS: 30-005-20828

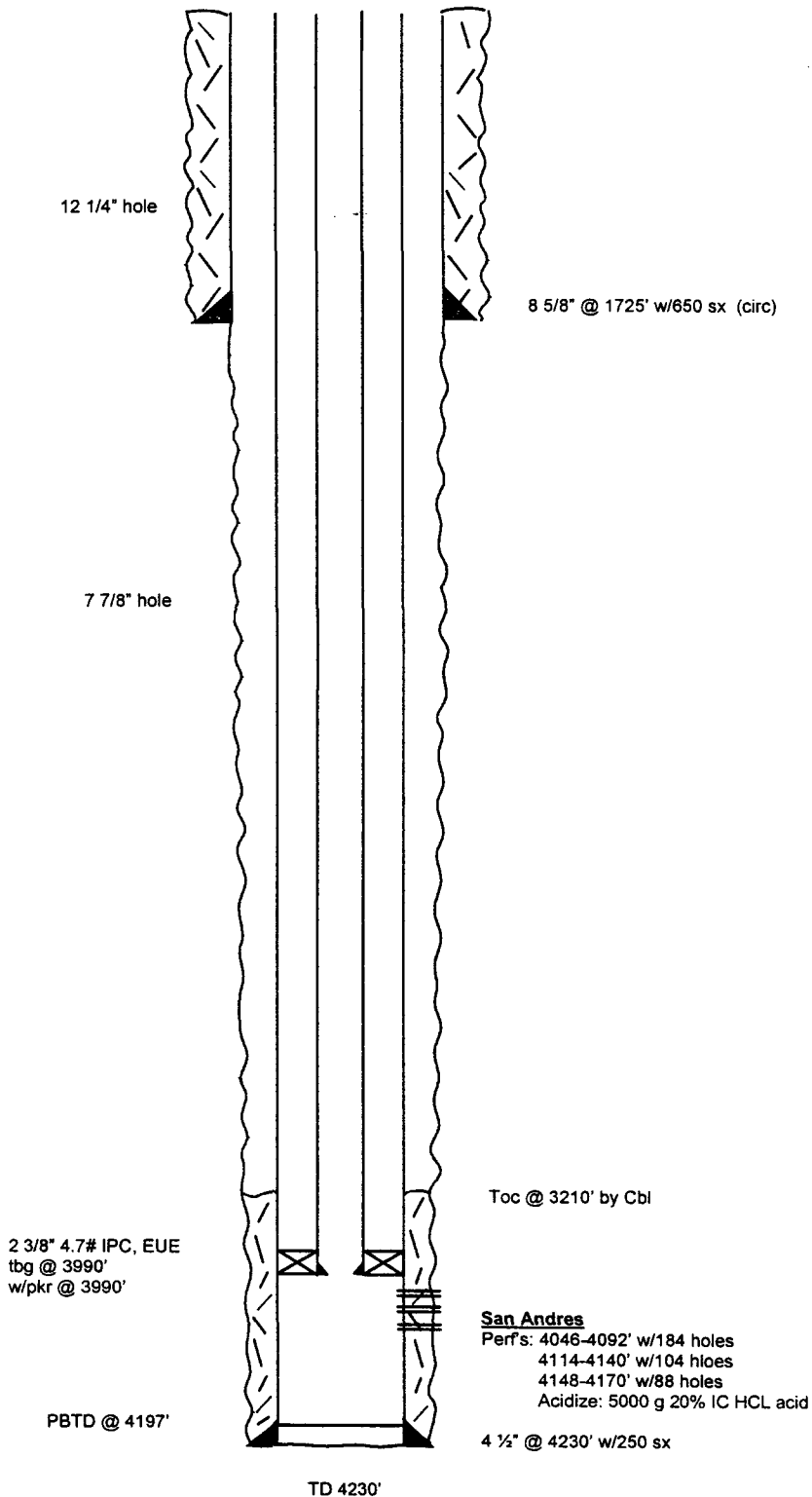
CASING PROGRAM

8 5/8" 23#	1725'
4 1/2" 9.5# k-55 ST&C	4230'

Proposed

TOPS

Queen	2614
Grayburg	2938
San Andres	3250
P1	3950
P2	4030
P3	4144



Not to Scale
 8/14/03
 Cam

August 12, 2003

Artesia Daily Press
503 W, Main
Artesia, New Mexico 88210

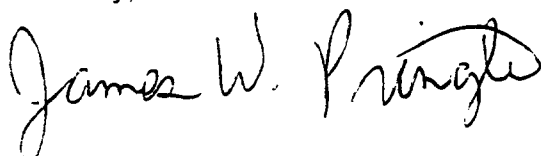
Gentlemen:

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 on Sunday, August 17, 2003 and forward a copy of it with your billing as soon as possible to:

Yates Petroleum Corporation
105 S 4th Street
Artesia, NM 88210
Attn: Jim Pringle

If you have any questions, please contact me at 748-4281. Thank you for your cooperation in this matter.

Sincerely,

A handwritten signature in black ink that reads "James W. Pringle". The signature is written in a cursive style with a large, looping "P" and "r".

James W. Pringle
Operations Engineer

JWP/cm

Enclosure

Attachment F

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 Loveless "LQ" State #5, located in Unit D, Section 36, T7S-R31E, Chaves County, New Mexico, will be used for salt water disposal. Disposal waters from the San Andres will be re-injected into the San Andres at a depth of 4046-4170' with a maximum pressure of 2000 psi and a maximum rate of 500 BWPD.

All interested parties opposing the aforementioned must file objections or requests for a hearing with the Oil Conservation Division, 1220 South Saint Francis Drive, Santa Fe, New Mexico 87505-5472 within 15 days. Contacting James W. Pringle at (505) 748-4182 can obtain additional information.

Attachment G

C-108 Application for Authorization to Inject
Yates Petroleum Corporation
Loveless LQ State #5
Unit D Sec. 36, T7S, R31E
Chaves County, New Mexico

Available engineering and geological data have been examined and no evidence of open faults of hydrologic connection between the disposal zone and any underground sources of drinking water has been found.

H. Tim Miller
Tim Miller
Geologist
Yates Petroleum Corporation

8-22-03
Date

Affidavit of Publication

NO. 18182

STATE OF NEW MEXICO

County of Eddy:

Gary D. Scott being duly

sworn, says: That he is the Publisher of The
Artesia Daily Press, a daily newspaper of general
circulation, published in English at Artesia, said county
and county and state, and that the here to attached

Legal Notice

was published in a regular and entire issue of the said
Artesia Daily Press, a daily newspaper duly qualified
for that purpose within the meaning of Chapter 167 of
the 1937 Session Laws of the state of New Mexico for
1 consecutive weeks/days on the same

day as follows:

First Publication August 19 2003

Second Publication _____

Third Publication _____

Fourth Publication _____

Fifth Publication _____

Subscribed and sworn to before me this

19th day of August 2003

Barbara Ann Boon
Notary Public, Eddy County, New Mexico

My Commission expires September : 23, 2003

Copy of Publication:

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 Loveless "LO" State

LEGAL NOTICE

#5, located in Unit D, Section 36, T7S-R31E, Chaves County, New Mexico, will be used for saltwater disposal. Disposal waters from the San Andres will be re-injected into the San Andres at a depth of 4046-4170' with a maximum pressure of 2000 psi and a maximum rate of 500 BWPD. All interested parties opposing the formation must file

LEGAL NOTICE

objections or requests for a hearing with the Oil Conservation Division, 1220 South Saint Francis Drive, Santa Fe, New Mexico 87505-5472, within 15 days. Additional information can be obtained by contacting James W. Pringle at (505) 748-4182. Published in the Artesia Daily Press, Artesia, N.M. August 19, 2003. Legal 18182