

DATE IN 9/15/03	SUSPENSE 10/5/03	ENGINEER DRC	LOGGED IN LR	TYPE SWD	APP NO. R20325856133
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ABOVE THIS LINE FOR DIVISION USE ONLY

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



DC  
orig  
894

**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]**

**RECEIVED**

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

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

SEP 15 2003

OIL CONSERVATION  
DIVISION

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.**

Sam Brandon

*Sam Brandon*  
Signature

Operations Engineer

9/8/03

Print or Type Name

Title

Date

sbrandon@ypcnm.com

e-mail Address

30-025-27620

**APPLICATION FOR AUTHORIZATION TO INJECT**

**Bilbrey AZW Federal #1**

- I. PURPOSE: Secondary Recovery Pressure Maintenance X Disposal Storage  
Application qualifies for administrative approval? X Yes No
- II. OPERATOR:  
ADDRESS: 105 South 4<sup>th</sup> Street, Artesia, New Mexico 88210  
CONTACT PARTY: James W. Pringle Sam Brandon 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: Sam Brandon TITLE: Operations Engineer  
SIGNATURE: Sam Brandon DATE: September 8, 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.

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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

September 8, 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 Bilbrey AZW Federal No. 1 located in Unit B, Section 5-T22S-R32E of Lea 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 'Sam Brandon'.

Sam Brandon  
Operations Engineer

SB/cm

Enclosure

MARTIN YATES, III  
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1936 - 1986



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TREASURER

September 8, 2003

Chris Williams  
New Mexico Energy & Minerals Department  
OIL CONSERVATION DIVISION  
1625 N. French Drive  
Hobbs, New Mexico 88240

Dear Mr. Williams,

Enclosed please find a copy of form C-108 (Application for Authority to Inject) on Yates Petroleum Corporation Bilbrey AZW Federal No. 1 located in Unit BA, Section 5-T22S-R32E of Lea County New Mexico.

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Operations Engineer

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September 8, 2003

Matador Operating Company  
P.O. Box 891690  
Dallas, TX 75389-1690

Gentlemen;

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TREASURER

September 8, 2003

Exco Resources, Inc.  
P.O. Box 972704  
Dallas, Texas 75397-2704

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DENNIS G. KINSEY  
TREASURER

September 8, 2003

Mazel Oil & Gas  
300 Medina Street  
Austin, Tx 78702-3841

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SECRETARY  
DENNIS G. KINSEY  
TREASURER

September 8, 2003

J. C. Mills  
P.O. Box 190  
Abernathy, Texas 79311

Dear Mr. Mills;

Enclosed please find a copy of form C-108 (Application for Authority to Inject) on Yates Petroleum Corporation Bilbrey AZW Federal No. 1 located in Unit B, Section 5-T22S-R32E of Lea County New Mexico.

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

Sincerely,

Sam Brandon  
Operations Engineer

SB/cm

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DENNIS G. KINSEY  
TREASURER

September 8, 2003

Bureau of Land Management  
Mr. Armando Lopez  
2909 West 2<sup>nd</sup> Street  
Roswell, NM 88201

Dear Mr. Lopez;

Enclosed please find a copy of form C-108 (Application for Authority to Inject) on Yates Petroleum Corporation Bilbrey AZW Federal No. 1 located in Unit B, Section 5-T22S-R32E of Lea County New Mexico.

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Sam Brandon  
Operations Engineer

SB/cm  
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SECRETARY  
DENNIS G. KINSEY  
TREASURER

September 8, 2003

Chevron Texaco  
15 Smith Road  
Midland, Texas 79702

Gentlemen;

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Sincerely,

Sam Brandon  
Operations Engineer

SB/cm  
Enclosure

**C-108 Application for Authorization to Inject  
Yates Petroleum Corporation  
Bilbrey AZW Federal No. 1  
Unit B Sec. 5, T22S, R32E  
Lea County, New Mexico**

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

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

- II. Operator: Yates Petroleum Corporation  
105 South Fourth Street  
Artesia, NM 88210  
Sam Brandon (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. 1 well within the area of review penetrate the proposed injection zone. (See Attachment C)**
- VII. 1. Proposed average daily injection volume approximately 2000 BWPD. Maximum daily injection volume approximately 5000 BWPD.**
- 2. This will be a closed system.**
- 3. Proposed average injection pressure –unknown.  
Proposed maximum injection pressure –1030 psi.**
- 4. Sources of injected water would be produced water from the Delaware Sand. (Attachment D)**
- VIII. 1. The proposed injection interval is the portion of the Delaware Sand formation consisting of porous Sandstone from estimated depths of 5150'-8602'.**

**Application for Authorization to Inject  
Bilbrey AZW Federal No. 1**

**-2-**

- 2. Possible Fresh water zones overlies the proposed injection formations at depths to approximately 850'. There are no fresh water zones underlying the formation.**
- IX. The proposed disposal interval may be acidized with 7-1/2% HCL acid, 12-3 HF acid, or proppant fractured.**
- X. Logs were filed at your office when the well was drilled.**
- XI. There are no windmills 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  
Bilbrey AZW Federal No. 1  
B-5-T22S-R32E  
Lea County, New Mexico**

**Attachment A**

30-025-27620

**III. Well Data**

- A.**
1. Lease Name/Location  
Bilbrey AZW Federal No. 1  
B-5-T22S-R32E  
660' FNL & 1980' FEL
  2. Casing Strings:
    - a. Present well condition  
13 3/8", 48# @ 520 w/500 sx (circ)  
9 5/8", 40# S80 @ 4815' w/3500 sx.  
7", 23#, 26# @ 12695' w/1875 sx (Cement to surf).
    - b. Present Status:  
Non-commercial completion in Delaware at 8560-8602'.
  3. Proposed well condition:  
Casing same as above.  
3 1/2" 9.3 J55 or 2-7/8" 6.5 J55 plastic-coated injection tubing @ 5100'
  4. Propose to use Guiberson or Baker plastic-coated or nickel-plated packer set at 5100'.
- B.**
1. Injection Formation: Delaware Sand
  2. Injection Interval will be through perforations from approximately 5150-8602' gross interval.
  3. Well was originally drilled as a Morrow Sand gas well. Well will be Delaware Sand water disposal well (5150-8602') when work is completed.
  4. Perforations: High porosity sands to be selected between 5150- 8602', including current zones 8560-8602'.
  5. Next higher (shallower) oil or gas zone within 2 miles-None.  
Next lower (deeper) oil or gas zone within 2 miles-Bone Spring.

## Attachment "C"

Bilbrey AZW Federal No. 1  
Form C-108

Tabulation of data on wells within area of review

Well Name	Operator	Type	Spud	Total Depth	Producing Zone	Perforations	Completion Information
Bilbrey '32' State Com #2 660' FNL & 1980' FEL Sec 36-21S-31E	Matador Operating Co.	Gas	7/15/02	14900'	Morrow	14370'-14375'	13 3/8" @ 765'. Cmdt w/ 615 sx. 9 5/8" @ 4664' Cmdt w/ 1250 sx. 7" @ 12609' Cmdt w/ 590 sx. 4 1/2" liner @ 12272'-14898'. Cmdt w/ 275 sx.

8 3/4" Hole

7" 26 12609

220 + 370

# Cement Top Calculation

Kelly Height, Feet = 12

	Surface	Production
Calced Cement Top, KB =	0	8,506

Efficiency, pct	80	80
-----------------	----	----

Hole Size, in	14	8 3/4
Total Depth, ft (kb)	765	12609
Casing Size, in	13 3/8	7
Setting Depth, ft (kb)	765	12609

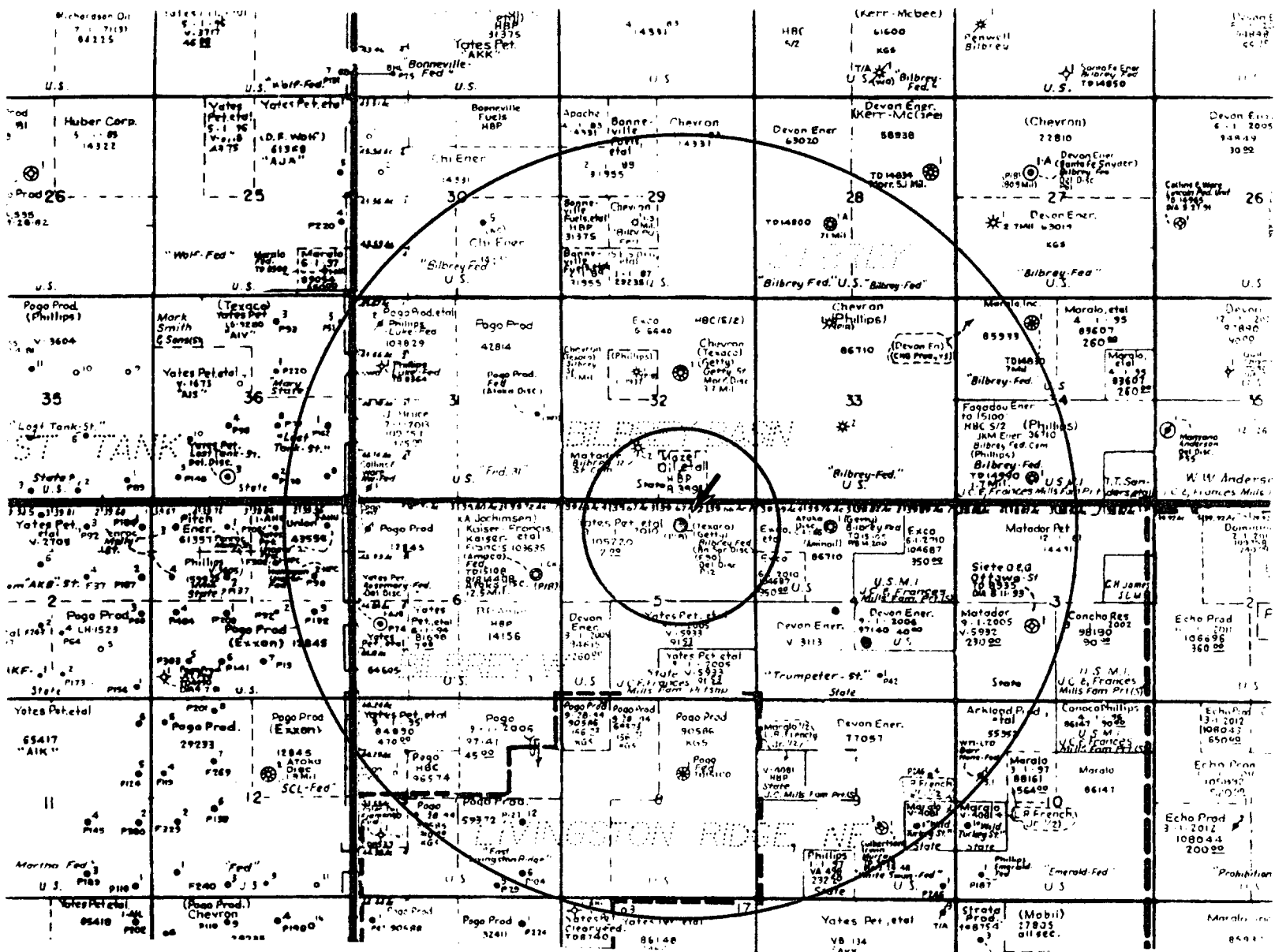
## Lead Cement

Sacks	615	590
Yield, cf/sk	1.32	1.35

## Tail Cement

Sacks		1
Yield, cf/sk		1.18
Hole dia., in.	14.0000	8.7500
Casing OD, in.	13.3750	7.0000
Annulus Volume, ft3	70	1,894
Lead ready?	1	1
Bottom ready?	0	1
Proceed?	1	1
Lead Cement, ft3	812	797
Tail Cement, ft3	Missing Data	1
Annulus Cement, ft3	785	771





Yates Petroleum Corporation  
 Bilbrey AZW Federal No. 1  
 PROPOSED SALT WATER DISPOSAL WELL  
 SEC. 5-22S-32E  
 660' FNL & 1980' FEL  
 LEA COUNTY, NEW MEXICO

ATTACHMENT B

## PETROLITE

WATER ANALYSIS REPORT  
-----

Company : YATES PETROLEUM  
 Address : ARTESIA, N.M.  
 Lease : KIWI 'AKX' STATE  
 Well : 1  
 Sample Pt. : WELLHEAD

Date : 5-28-92  
 Date Sampled : 5-27-92  
 Analysis No. : 467

ANALYSIS		mg/L	* meq/L	
-----		----	-----	
1.	pH	5.8		
2.	H <sub>2</sub> S	0		
3.	Specific Gravity	1.120		
4.	Total Dissolved Solids	191043.8		
5.	Suspended Solids	NR		
6.	Dissolved Oxygen	NR		
7.	Dissolved CO <sub>2</sub>	NR		
8.	Oil In Water	NR		
9.	Phenolphthalein Alkalinity (CaCO <sub>3</sub> )			
10.	Methyl Orange Alkalinity (CaCO <sub>3</sub> )	450.0		
11.	Bicarbonate	HCO <sub>3</sub> 549.0	HCO <sub>3</sub>	9.0
12.	Chloride	Cl 118396.1	Cl	3339.8
13.	Sulfate	SO <sub>4</sub> 900.0	SO <sub>4</sub>	18.7
14.	Calcium	Ca 8865.7	Ca	442.4
15.	Magnesium	Mg 5780.9	Mg	475.6
16.	Sodium (calculated)	Na 56315.1	Na	2449.5
17.	Iron	Fe 237.0		
18.	Barium	Ba 0.0		
19.	Strontium	Sr 0.0		
20.	Total Hardness (CaCO <sub>3</sub> )	45941.3		

PROBABLE MINERAL COMPOSITION  
-----

*milli equivalents per Liter	Compound	Equiv wt X meq/L	= mg/L
+-----+	-----	-----	-----
442 *Ca <----- *HCO <sub>3</sub>	Ca(HCO <sub>3</sub> ) <sub>2</sub>	81.0 9.0	729
----- /----->	CaSO <sub>4</sub>	68.1 18.7	1276
476 *Mg -----> *SO <sub>4</sub>	CaCl <sub>2</sub>	55.5 414.7	23009
----- <----- /	Mg(HCO <sub>3</sub> ) <sub>2</sub>	73.2	
2450 *Na -----> *Cl	MgSO <sub>4</sub>	60.2	
+-----+	MgCl <sub>2</sub>	47.6 475.6	22641
Saturation Values Dist. Water 20 C	NaHCO <sub>3</sub>	84.0	
CaCO <sub>3</sub> 13 mg/L	Na <sub>2</sub> SO <sub>4</sub>	71.0	
CaSO <sub>4</sub> * 2H <sub>2</sub> O 2090 mg/L	NaCl	58.4 2449.5	143151
BaSO <sub>4</sub> 2.4 mg/L			

REMARKS: L.MALLETT  
 -----

Petrolite Oilfield Chemicals Group

Respectfully submitted,  
 ROZANNE JOHNSON

Well Name: Bilbrey AZW Federal No. 1 Field: \_\_\_\_\_

Location: 660' FNL & 1980' FEL Sec. 5-22S-32E Lea Co, NM

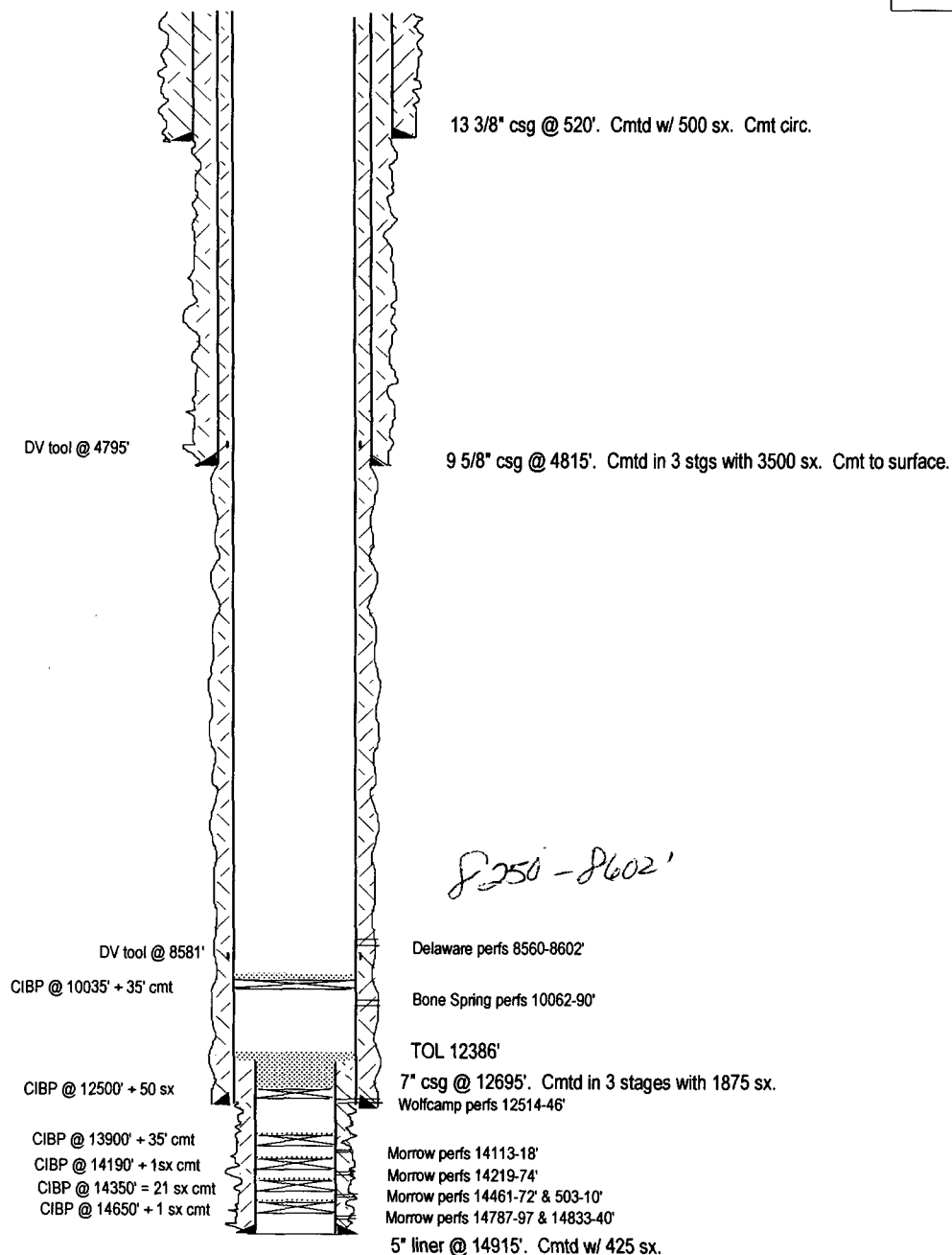
GL: 3706' Zero: \_\_\_\_\_ AGL: \_\_\_\_\_ KB: 3730'

Spud Date: \_\_\_\_\_ Completion Date: \_\_\_\_\_

Comments: \_\_\_\_\_

Casing Program	
Size/Wt/Grade/Conn	Depth Set
13 3/8" 48# K55	520'
9 5/8" 36 & 40# S80	4815'
7" 23 & 26#	12695'
5" 17.93# N80 FJ	14915'

### CURRENT CONFIGURATION



SKETCH NOT TO SCALE

DATE: \_\_\_\_\_

Well Name: Bilbrey AZW Federal No. 1 Field: \_\_\_\_\_

Location: 660' FNL & 1980' FEL Sec. 5-22S-32E Lea Co, NM

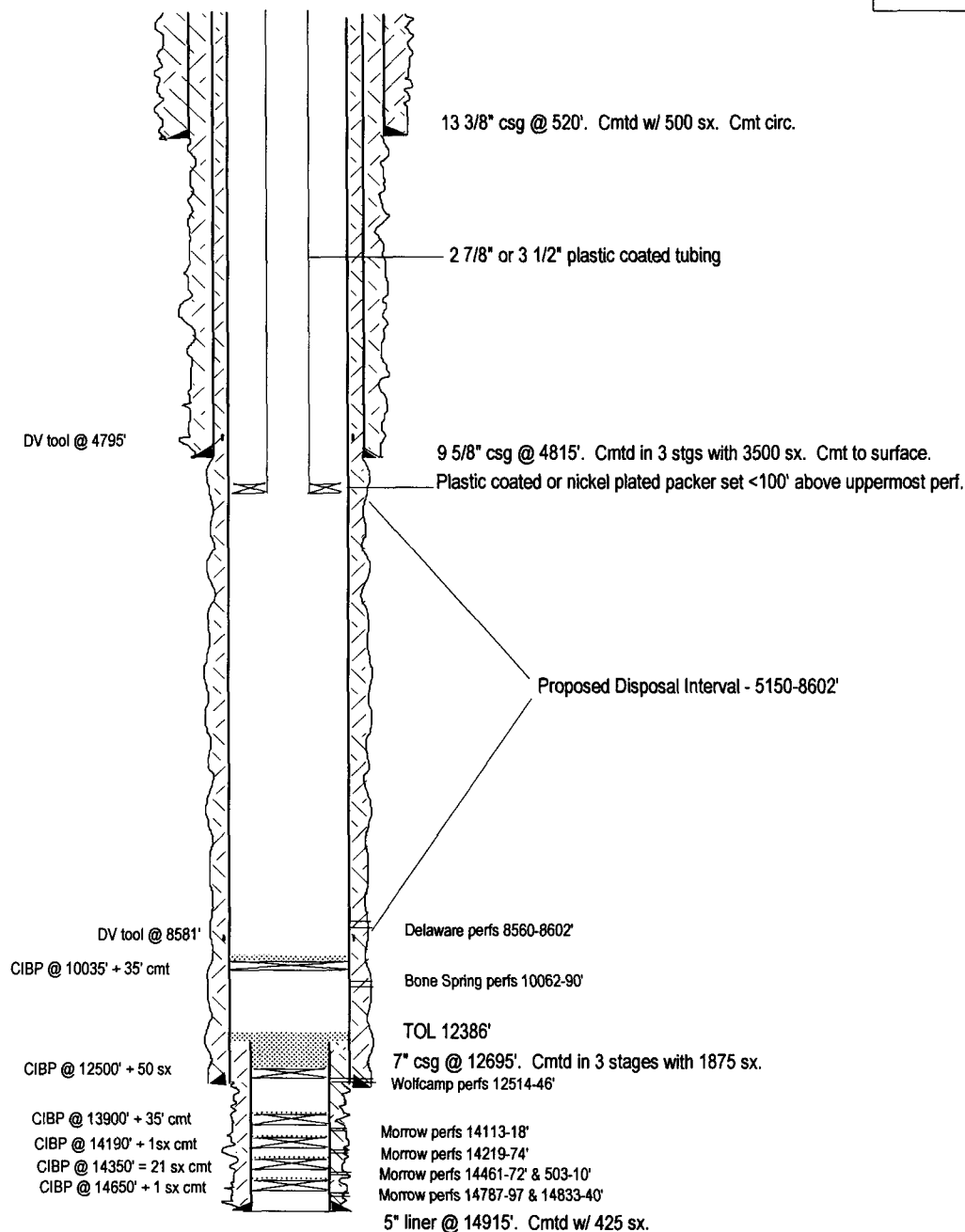
GL: 3706' Zero: \_\_\_\_\_ AGL: \_\_\_\_\_ KB: 3730'

Spud Date: \_\_\_\_\_ Completion Date: \_\_\_\_\_

Comments: \_\_\_\_\_

Casing Program	
Size/Wt/Grade/Conn	Depth Set
13 3/8" 48# K55	520'
9 5/8" 36 & 40# S80	4815'
7" 23 & 26#	12695'
5" 17.93# N80 FJ	14915'

### PROPOSED CONFIGURATION



SKETCH NOT TO SCALE

DATE: \_\_\_\_\_

## **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 Bilbrey AZW Federal No. 1 located 660' FNL & 1980' FEL, Unit B, Section 5, Township 22 South, Range 32 East of Lea County, New Mexico, will be used for saltwater disposal. Disposal waters from the Delaware Sand will be re-injected into the Delaware Sand at a depth of 5150'-8602' with a maximum pressure of 1030 psi and a maximum rate of 5,000 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. Additional information can be obtained by contacting Sam Brandon at (505) 748-4281.

AFFIDAVIT OF PUBLICATION

State of New Mexico,  
County of Lea.

I, KATHI BEARDEN

Publisher

of the Hobbs News-Sun, a  
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 1  
\_\_\_\_\_ weeks.

Beginning with the issue dated

August 31 2003

and ending with the issue dated

August 31 2003

Kathi Bearden

Publisher

Sworn and subscribed to before

me this 2nd day of

September 2003

Janie H. Hodge  
Notary Public.

My Commission expires

4-16-04  
(Seal)

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

LEGAL NOTICE  
August 31, 2003

Legal Notice

Yates Petroleum Corporation, 105 south Fourth Street, Ar-  
tesia, NM 88210, has filed form C-180 (Application for Au-  
thorization to Inject) with the New Mexico Oil Conservation  
Division seeking administrative approval for an injection  
well. The proposed well the Bilbrey AZW Federal No. 1 lo-  
cated 660' FNL & 1980' FEL, Unit B, Section 5, Township  
22 South, Range 32 East of Lea County, New Mexico, will  
be used for saltwater disposal. Disposal waters from the  
Delaware Sand will be re-injected into the Delaware Sand  
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servation Division, 1220 South Saint Francis Drive, Santa  
Fe, New Mexico 87505-5472, within 15 days. Additional in-  
formation can be obtained by contacting Sam Brandon at  
(505) 748-4281.  
#20087

01101029000 02566287

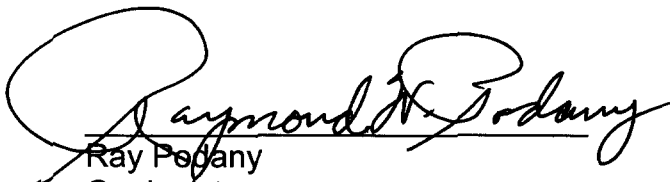
Yates Petroleum Corporation  
PO Box 97  
105 S. 4th Street  
Artesia, NM 88210

Attachment F

**Attachment G**

C-108 Application for Authorization to Inject  
Yates Petroleum Corporation  
Bilbrey AZW Federal No. 1  
Unit B, Section 5 T22S-R32E  
Lea 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.

A handwritten signature in black ink, appearing to read "Raymond H. Podany". The signature is written over a horizontal line.

Ray Podany  
Geologist

Yates Petroleum Corporation

9/9/2003  
Date

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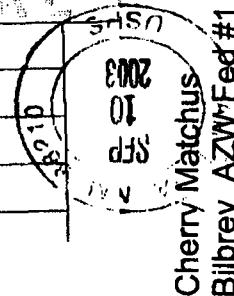
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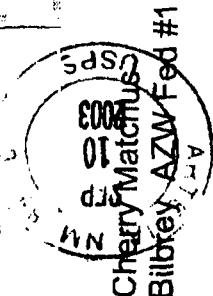
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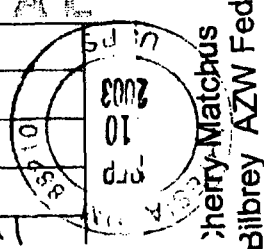
BUREAU OF LAND MANAGEMENT  
Armando Lopez  
2909 West 2nd Street  
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ChevronTexaco  
Attn: Operations Engineering  
15 Smith Road  
Midland, Texas 79702

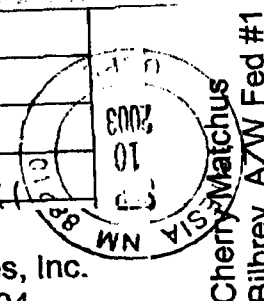
PS Form 3800, June 2002

See Reverse for Instructions

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P.O. Box 972704  
Dallas, Texas 75397-2704

PS Form 3800, June 2002

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10/15/2003

Note to File:

I spoke with Sam Brandon this morning and advised him that his proposed injection interval was too large. One of the problems is that they are in an area of Delaware production, and it is not appropriate to give blanket authorization for such a large interval, especially if there may be some production. He requested that the interval be contracted to 8,250 feet to 8,602 feet. I agreed. If this interval needs to be expanded, we can do so in the future.

DRC

**Catanach, David**

---

**From:** Catanach, David  
**Sent:** Thursday, October 16, 2003 8:54 AM  
**To:** 'Sam Brandon'  
**Subject:** RE: Bilbrey SWD application

Thanks Sam,

That's the kind of information I need to get this thing moving. I'll issue a permit for 8,250-8,602. If you guys want to go any higher, we may have to have a CBL or something else to verify the cement top in the well.

David

-----Original Message-----

**From:** Sam Brandon [mailto:sbrandon@ypcnm.com]  
**Sent:** Wednesday, October 15, 2003 3:12 PM  
**To:** dcatanach@state.nm.us  
**Cc:** rstall@ypcnm.com  
**Subject:** Bilbrey SWD application

I have researched the Bilbrey 32 State Com No. 2 well a bit further. The 7" casing set at 12609' in 8.75" hole was cemented with 220 sacks of Interfill C and 370 sacks of Super H cement.

Interfill C yield = 2.41 cu ft/sack x 220 sacks = 530.2 cu ft.

Super H yield = 1.63 cu ft/sack x 370 sacks = 603.1 cu ft.

Total cement volume = 1133 cu ft.

Volume between 7" casing and 8.75" hole is 0.1503 cu ft. With an excess of 35% for washout, a factor of 4.928 feet per cubic foot will result.

1133 cu ft x 4.928 ft per cu ft = 5584' of fill behind pipe. 12609' - 5584' of fill gives a calculated cement top of 7025'.

Would this cement top be acceptable to show that the pipe in this well is protected? We would be willing modify our permit to limit the top of the proposed injection interval to 7300' and would initially only inject below 8250', as we discussed this morning.

Thank you for your consideration and help in this matter.

Sam Brandon  
Operations Engineer  
Yates Petroleum Corporation  
(505) 748-4281