Form 3160-5 (June 1990)

UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

SUNDRY NOTICES AND REPORTS ON WELLS

FORM APPROVED
Budget Bureau No. 1004-0135
Expires: March 31, 1993

5. Lease Designation and Serial No.

6. If Indian, Allottee or Tribe Name

NM-25865

| Do not use this form for proposals to drill or to deepen or reentry to a different reservoir. Use "APPLICATION FOR PERMIT-" for such proposals | _ |
|---|----------------------------|
| SUBMIT IN TRIPLICATE | 7. If Unit or CA, Agreemen |
| 1 T FW-11 | 1 |

| SUBM | 7. If Unit of CA, Agreement Designation | |
|---|---|---|
| 1. Type of Well Oil Gas Well Well X Other | FEC2NED | 8. Well Name and No. |
| Name of Operator YATES PETROLEUM CORPORA Address and Telephone No. | TION J. C. D. | Eng TX Federal #2 9. API Well No. 30-015-26189 |
| 105 S. 4th Street, Artesia, NM 8 4. Location of Well (Footage, Sec., T., R., M., or St | 8210 (505) 748-1471 | 10. Field and Pool, or Exploratory Area North Dagger Draw Upper Penn |
| 660' FSL & 1980' FWL | 26-195-248 ut N | 11. County or Parish, State Eddy, New Mexico |
| 12. CHECK APPROPRIATE B | OX(s) TO INDICATE NATURE OF NOTICE, RE | PORT, OR OTHER DATA |
| TYPE OF SUBMISSION | TYPE OF ACTION | |

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|---|---|---|--|--|--|
| TYPE OF SUBMISSION | TYPE OF ACTION | | | | |
| Notice of Intent Subsequent Report Final Abandonment Notice | Abandonment Recompletion Plugging Back Casing Repair Altering Casing Other | Change of Plans New Construction Non-Routine Fracturing Water Shut-Off Conversion to Injection Dispose Water | | | |
| | | (Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form) | | | |

Yates Petroleum Corporation is hereby submitting application for produced water from the above well persuant to NTL-2B, Section II, and requests your approval. The well produces approximately 160 BWPD from the Canyon formation. The water is stored in a fibergalss tank and transported through a 6" and/or 8" PVC water line to Yates' State CO SWD Gathering System which consists of 9 disposal wells (see attachment 1).

A water analysis is attached.

| . I hereby certify that the foregoing is true and correct Signed | Title Production Clerk | Date 11-19-92 |
|--|------------------------|---------------|
| (This space for Federal or State office use) | | |
| Approved by Herpad by Advances and the | Title | Date 11/24/92 |
| Conditions of approval, if any: | | |
| - SEE ATTACHED- | | |

^{13.} Describe Proposed or Completed Operatons (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

BUREAU OF LAND MANAGEMENT CARLSBAD RESOURCE AREA

Disposal of Produced Water From Federal Wells

Conditions of Approval

Approval of the produced water disposal methodology is subject to the following conditions of approval:

- 1. This agency be notified of any change in your method or location of disposal.
- 2. Compliance with all provisions of NTL-2B.
- 3. This agency shall be notified of any spill or discharge as required by NTL-3A.
- 4. This agency reserves the right to modify or rescind approval whenever it determines continued use of the approved method may adversely affect the surface or subsurface environments.
- 5. All aboveground structures on the lease shall be painted sandstone brown, Federal Std. 595-20318, or 30318, within 90 days if you have not already done so.
- 6. Any on lease open top storage tanks shall be covered with a wire screen to prevent entry by birds and other wildlife.
- 7. This approval should not constitute the granting of any right-of-way or construction rights not granted by the lease instrument.
- 8. If water is transported via a pipeline that extends beyond the lease boundary, then you need to submit within 30 days an application for right-of-way approval to the Realty Section in this office if you have not already done so.

ATTACHMENT #1

YATES PETROLEUM CORPORATION - STATE "CO" SWD DISPOSAL SYSTEM

The Yates State "CO" SWD water gathering system consists of nine (9) salt water injection wells approved for disposal of produced water. The nine (9) wells are listed below:

STATE "CO" #1, NE 1/4 SW 1/4, Section 36-T19S-R24E, Eddy County, NM INJECTION INTERVAL: 10038 -11311' Devonian APPROVED BY NMOCD ORDER NO. SWD-285

COTTON "MX" FEDERAL #1, NE 1/4 NW 1/4 Section 14-T19S-R25E, Eddy County, NM INJECTION INTERVAL: 7686-7710' Canyon APPROVED BY NMOCD ORDER NO. SWD-370

DONAHUE FEDERAL #1, SW 1/4 NW 1/4, Section 10-T20S-R24E, Eddy County, NM INJECTION INTERVAL: 4296-4596' Abo APPROVED BY NMOCD ORDER NO. SWD-377

STATE "D" #1, SE 1/4 SW 1/4, Section 16-T20S-R24E, Eddy County, NM INJECTION INTERVAL: 9723-11052' Devonian - Bliss APPROVED BY NMOCD ORDER NO. SWD-395

ROY AET #3, SE 1/4 SE 1/4, Section 7-T19S-R25E, Eddy County, NM INJECTION INTERVAL: 9766-11110' Devonian and Ellenburger APPROVED BY NMOCD ORDER NO. SWD-437

ROUTH NU #2, NW 1/4 NE 1/4, Section 14-T19S-R24E, Eddy County, NM INJECTION INTERVAL: 8810-8878' Morrow APPROVED BY NMOCD ORDER NO. SWD-399

MIMOSA AHS FEDERAL #1, NE 1/4 SE 1/4, Section 4-T20S-R24E, Eddy County, NM INJECTION INTERVAL: 9515-11011' Mississippian, Devonian, Ellenburger APPROVED BY NMOCD ORDER NO. SWD-408

MIMOSA AHS FEDERAL #4, SE 1/4 SW 1/4, Section 4-T20S-R24E, Eddy County, NM INJECTION INTERVAL: 9860-11159' Devonian, Ellenburger and Bliss Sand APPROVED BY NMOCD ORDER NO. SWD-476

HUMBLE SWD #1, SE 1/4 SE 1/4, Section 24-T20S-R24E, Eddy County, NM INJECTION INTERVAL: 9600-11580' Ellenburger and Devonian (Open Hole) APPROVED BY NMOCD ORDER NO. SWD-434



Chemicals and Services



16010 Barker's Point Lane • Houston, Texas 77079 713 558-5200 • Telex: 4620346 • FAX: 713 589-4737

Reply to: P.O. Box FF Artesia, New Mexico 88210 (505) 746-3588 Phone (505) 746-3580 Fax

WATER ANALYSIS REPORT

Date Data Company : YATES PETROLEUM
Address : ARTESIA, NEW MEXICO
Lease : ENG
Well : #2
Sample Pt. : WELLHEAD : 11/09/92 Date Sampled: 11/05/92 Analysis No.: 224

| | ANALYSIS | | | mg/L | | * meq/L |
|----------|------------------------------------|--------------|------|--------|------|---------|
| 1. 2. | ± | .0 50 PPM | | | | |
| 3. | | .005 | | | | |
| 4. | Total Dissolved Solids | | | 9802.4 | | |
| 5. | Suspended Solids | | | NR | | |
| 6. | Dissolved Oxygen | | | NR | | |
| 7. | Dissolved CO2 | | | NR | | |
| 8. | | | | | | |
| 9. | Phenolphthalein Alkalinity (CaCO3) | | | | | |
| 10. | Methyl Orange Alkalinit | | | | | |
| 11. | Bicarbonate | | HCO3 | 1000.0 | HCO3 | 16.4 |
| 12. | Chloride | | Cl | 2662.0 | Cl | 75.1 |
| 13. | Sulfate | | SO4 | 2875.0 | SO4 | 59.9 |
| | Calcium | | Ca | 600.0 | Ca | 29.9 |
| 15. | Magnesium | | Mg | 141.3 | Mg | 11.6 |
| 16. | Sodium (calculated) | | Na | 2524.1 | Na | 109.8 |
| 17. | Iron | | Fe | 0.0 | | |
| 18. | Barium | | Ba | 0.0 | | |
| 19. | Strontium | | Sr | 0.0 | | |
| | Total Hardness (CaCO3) | | | 2080.0 | | |

PROBABLE MINERAL COMPOSITION

| *milli equivalents per Liter | | Compound | Equiv wt | X meq/L | = mg/L |
|---|------------|--------------------------|----------------------|--------------|--------------|
| 30 *Ca < *HCO3 | 16 | Ca (HCO3) 2 CaSO4 | 81.0 68.1 | 16.4 13.5 | 1328 922 |
| 12 *Mg> *SO4 | 60 | CaCl2 Mg(HCO3)2 | 55.5 73.2 | 13.3 | 722 |
| 110 *Na> *Cl | 75 | MgSO4 MgCl2 | 60.2 47.6 | 11.6 | 699 |
| Saturation Values Dist. Water CaCO3 13 mg CaSO4 * 2H2O 2090 mg BaSO4 2.4 mg | l/L l/L | NaHCO3 Na2SO4 NaCl | 84.0 71.0 58.4 | 34.7 75.1 | 2464 4388 |

REMARKS:

----- L. MALLETT / FILE

Petrolite Oilfield Chemicals Group

Respectfully submitted, STEVE TIGERT



SCALE TENDENCY REPORT

Company : YATES PETROLEUM Date : 11/09/92
Address : ARTESIA, NEW MEXICO Date Sampled : 11/05/92
Lease : ENG Analysis No. : 224
Well : #2 Analyst : STEVE TIC

Analyst : STEVE TIGERT

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

S.I. = 1.8 at 80 deg. F or 27 deg. C S.I. = 1.8 at 100 deg. F or 38 deg. C S.I. = 1.9 at 120 deg. F or 49 deg. C S.I. = 1.9 at 140 deg. F or 60 deg. C S.I. = 2.0 at 160 deg. F or 71 deg. C

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

S = 2027 at 80 deg. F or 27 deg C S = 2068 at 100 deg. F or 38 deg C S = 2068 at 120 deg. F or 49 deg C S = 2057 at 140 deg. F or 60 deg C S = 2019 at 160 deg. F or 71 deg C

Petrolite Oilfield Chemicals Group

Respectfully submitted, STEVE TIGERT