# New Mexico Oil Conservation Division, District I 1625 N. Fre 'h Drive

| Form 3160-         |  | ITED STATES Hobbs, NM 8824  |   |  |  |  |  |  |
|--------------------|--|---|---|--|--|--|--|--|
| (June 1990)        | DEFARTME   | Budget Bureau No. 1004-0135<br>Expires: March 31, 1993                                |   |  |  |  |  |  |
|                    | BUREAU OF  | LAND MANAGEMENT   | 5. Lease Designation and Serial No.   |  |  |  |  |  |
|                    | SUNDRY NOTICES   | AND REPORTS ON WELLS  | NMNM96782   |  |  |  |  |  |
| Do not             | use this form for proposals to d                                       | rill or to deepen or reentry to a different reservoir.  R PERMIT—" for such proposals | 6. If Indian, Allottee or Tribe Name  |  |  |  |  |  |
|                    | SUBMI  | 7. If Unit or CA, Agreement Designation   |   |  |  |  |  |  |
| 1. Type of Oil Wel |  |   | 8. Well Name and No.  |  |  |  |  |  |
| 2. Name of         |  | Federal M #1  |   |  |  |  |  |  |
| Lynz               | k Petroleum Consultar  | 9. API Well No.   |   |  |  |  |  |  |
| 3. Address         | and Telephone No.  |   | 30-025-21893  |  |  |  |  |  |
| P.O.               | Box 1708, Hobbs, NM  | 88241 505-392-6950  | 10. Field and Pool, or Exploratory Area   |  |  |  |  |  |
| 4. Location        | of Well (Footage, Sec., T., R., M., or Survey E                        | South Corbin Bone   |   |  |  |  |  |  |
|                    | )' FSL & 990' FWL  |   | 11. County or Parish, State Spring  |  |  |  |  |  |
| Sect               | cion 27, T-18S, R-33E  | Lea County, NM  |   |  |  |  |  |  |
| 12.                | CHECK APPROPRIATE BOX  | s) TO INDICATE NATURE OF NOTICE, REPOR  | RT, OR OTHER DATA   |  |  |  |  |  |
|                    | TYPE OF SUBMISSION   | TYPE OF ACTION  |   |  |  |  |  |  |
|                    | XX Notice of Intent  | Abandonment   | Change of Plans   |  |  |  |  |  |
|                    |  | Recompletion  | New Construction  |  |  |  |  |  |
|                    | Subsequent Report  | Plugging Back   | Non-Routine Fracturing  |  |  |  |  |  |
|                    | Final Abandonment Notice   | Casing Repair   | Water Shut-Off  |  |  |  |  |  |
|                    | That Abandonnent Notice  | Altering Casing Other   | Conversion to Injection  Dispose Water  |  |  |  |  |  |
|                    |  |   | (Note: Report results of multiple completion on Well  |  |  |  |  |  |
| 13. Describe       | Proposed or Completed Operations (Clearly state a                      | l pertinent details, and give pertinent dates, including estimated date of starting   | Completion or Recompletion Report and Log form.) g any proposed work. If well is directionally drilled, |  |  |  |  |  |
|                    |  | cal depths for all markers and zones pertinent to this work.)*                        |   |  |  |  |  |  |
|                    | EST NTL-2B APPROVAL:   | ngs SEE ATTAGH  | ED FOR  |  |  |  |  |  |
| F                  | Formation: Bone Spri   |   |   |  |  |  |  |  |
| V                  | Nater Produced: 40 B   | wpd <b>CONNITIONS</b> OF  | ATTIONAL  |  |  |  |  |  |
| V                  | Water Analysis: See  | Attached  |   |  |  |  |  |  |
| M                  | Nater Storage: 300 B   | bl. Fiberglass Tank located U.L   | . "L",  |  |  |  |  |  |
|                    | Secti  | on 27, T-18S, R-33E, Lea County   | , New Mexico  |  |  |  |  |  |
| M                  | Method of Movement:  | Truck (Primary Hauler - Key Ser   | vices)  |  |  |  |  |  |
| D                  | Disposal System: Pri   | mary - Key RA State (K-Sec. 31,   | T-18S, R-36E)Permit #188  |  |  |  |  |  |
|                    | Alt  | ernate - Basin Alliance State A   | J   |  |  |  |  |  |
|                    | 7  | (G-Sec. 33, T-18S, R-3  | 6E) Permit #119   |  |  |  |  |  |
| 1                  |  | •   |   |  |  |  |  |  |
| 14. I hereby       | certify that the foregoing is true and correct                         |   |   |  |  |  |  |  |
| Signed _           | Mac Whin   | Tide President  | Date 8/11/99  |  |  |  |  |  |
| <i>'1/U</i> '      | ce for Federal or State office use)<br>  by _(ORIG. SGD.) ALEXIS C. SM | PETROLEUM ENGINEER  | AUG 1 2 1999  |  |  |  |  |  |
| Approved Condition | is of approval, if any:  | TUBUUA Tide   | Date  |  |  |  |  |  |

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.



### CAPITAN CHEMICAL WATER ANALYSIS REPORT

Company

LYNX PETROLEUM

Date Sampled: 8/10/99

Lease Name :

FEDERAL "M"

Capitan Rep. :

Well Number : Location

# 1

Company Rep.: WES

| Julio | •                                  |                |   |                                    |   |             |           |  |
|-------|------------------------------------|----------------|---|------------------------------------|---|-------------|-----------|--|
|       | ANALYSIS                           |                |   |                                    |   |             |           |  |
| 1.    | pH                                 | 5.25           |   |                                    |   |             |           |  |
| 2.    | Specific Gravity @ 60/60 F.        | 1.181          |   |                                    |   |             |           |  |
| 3.    | CaCO3 Saturation Index @ 80 F.     | -0.732         |   |                                    |   |             |           |  |
|       | @ 140 F.                           | +0.418         |   | 'Calcium Carbonate Scale Possible' |   |             |           |  |
|       | Dissolved Gasses                   |                |   |                                    |   | 0.14.0      | . 0001516 |  |
| 4.    | Hydrogen Sulfide                   | 0              |   | PPM                                |   |             |           |  |
| 5.    | Carbon Dioxide                     | 400            |   | PPM                                |   |             |           |  |
| 6.    | Dissolved Oxygen                   | Not Determined |   |                                    |   |             |           |  |
|       | Cations                            | mg/L           | 1 | Eq. Wt.                            | = | MEQ/L       |           |  |
|       | Calcium (Ca++)                     | 9,600          | 7 | 20.1                               | = | 477.61      |           |  |
|       | Magnesium (Mg++)                   | 1,823          | 1 | 12.2                               | = | 149.39      |           |  |
|       | Sodium (Na+) Calculated            | 65,468         | 1 | 23.0                               | = | 2,846.42    |           |  |
| 10.   | Barium (Ba++)                      | Not Determined | 1 | 68.7                               | = | 0.00        |           |  |
|       | Anions                             |                |   |                                    |   |             |           |  |
|       | Hydroxyl (OH-)                     | 0              | 1 | 17.0                               | = | 0.00        |           |  |
|       | Carbonate (CO3=)                   | 0              | 1 | 30.0                               | = | 0.00        |           |  |
|       | Bicarbonate (HCO3-)                | 139            | 1 | 61.1                               | = | 2.28        |           |  |
|       | Sulfate (SO4=)                     | 310            | 1 | 48.8                               | = | 6.35        |           |  |
| 15.   | Chloride (CI-)                     | 123,000        | 1 | 35.5                               | = | 3,464.79    |           |  |
|       | Other                              |                |   |                                    |   |             |           |  |
|       | Soluble Iron (Fe)                  | 20             | 1 | 18.2                               | = | 1.10        |           |  |
|       | Total Dissolved Solids             | 200,339        |   |                                    |   |             |           |  |
|       | Total Hardness As CaCO3            | 31,500         |   |                                    |   |             |           |  |
|       | Calcium Sulfate Solubility @ 90 F. | 1,624          |   |                                    |   |             |           |  |
| 20.   | Resistivity (Measured)             | 0.060          | ( | Ohm/Meters @ 88 Degrees (F)        |   | Degrees (F) |           |  |

#### Logarithmic Water Pattern

## 03 10,000 = 1,000 100 10 10 100 1,000 10,000 æ

#### PROBABLE MINERAL COMPOSITION

| PROBABLE WINNERAL COMPOSITION |   |   |   |   |  |  |  |  |  |  |
|-------------------------------|---|---|---|---|--|--|--|--|--|--|
| Eq. Wt.                       | X   | MEQ/L   | =   | mg/L  |  |  |  |  |  |  |
| 81.04                         | X   | 2.28  | =   | 184   |  |  |  |  |  |  |
| 68.07                         | Χ   | 6.35  | =   | 432   |  |  |  |  |  |  |
| 55.50                         | X   | 468.98  | =   | 26,029  |  |  |  |  |  |  |
| 73.17                         | X   | 0.00  | =   | 0   |  |  |  |  |  |  |
| 60.19                         | X   | 0.00  | =   | 0   |  |  |  |  |  |  |
| 47.62                         | X   | 149.39  | =   | 7,114   |  |  |  |  |  |  |
| 84.00                         | X   | 0.00  | =   | 0   |  |  |  |  |  |  |
| 71.03                         | X   | 0.00  | =   | 0   |  |  |  |  |  |  |
| 58.46                         | X   | 2,846.42  | =   | 166,402   |  |  |  |  |  |  |
|                               | Eq. Wt.<br>81.04<br>68.07<br>55.50<br>73.17<br>60.19<br>47.62<br>84.00<br>71.03 | Eq. Wt. X<br>81.04 X<br>68.07 X<br>55.50 X<br>73.17 X<br>60.19 X<br>47.62 X<br>84.00 X<br>71.03 X | Eq. Wt.         X         MEQ/L           81.04         X         2.28           68.07         X         6.35           55.50         X         468.98           73.17         X         0.00           60.19         X         0.00           47.62         X         149.39           84.00         X         0.00           71.03         X         0.00 | Eq. Wt.       X       MEQ/L       =         81.04       X       2.28       =         68.07       X       6.35       =         55.50       X       468.98       =         73.17       X       0.00       =         60.19       X       0.00       =         47.62       X       149.39       =         84.00       X       0.00       =         71.03       X       0.00       = |  |  |  |  |  |  |