Martin Water Laboratories. Inc

| HONE 943-3234 OR 563-1040        |   | LABORATORY NO           | 777266                                | PHONE 683-45 |
|----------------------------------|---|-------------------------|---------------------------------------|--------------|
| o: Mr. Erd. Johnson              |   | SAMPLE RECEIVED         | 7-27-77                               |              |
| 312 HBF Building, Midland, Texas |   | RESH TO DEDORTE         | 1-1-77                                |              |
| ·                                | *************************************** | NESOE IS NEPONTED       |                                       |              |
| COMPANY Reserve Oil, Inc.        | LEAS                                    | E Cooper Jal I          | nit                                   |              |
| TELD OR POOL                     |   |                         |                                       |              |
| ECTION BLOCK SURVEY :            | COUNTY_                                 | Lea st                  | ATE New Mex                           | kico         |
| OURCE OF SAMPLE AND DATE TAKEN:  |   |                         |                                       |              |
| NO. 1 Produced water - taken fro |   |                         |                                       |              |
| No. 2 Produced water - taken fro | m Cooper Jal                            | Unit #121               |                                       |              |
| NO. 3 Produced water - taken fro | m Cooper Jal                            | Unit #128.              |                                       |              |
| NO. 4                            |   |                         |                                       |              |
| REMARKS:                         | Manglie -                               | Mattix (Lower)          |                                       |              |
|                                  | AND PHYSICA                             |                         |                                       |              |
|                                  | NO. 1                                   | NO. 2                   | NO. 3                                 | NO. 4        |
| Specific Gravity at 60° F.       | 1.0328                                  | 1.0318                  | 1.0199                                | 110.4        |
| pH When Sampled                  |   |                         |                                       |              |
| pH When Received                 | 8.                                      | 8.2                     | 7.85                                  | <del></del>  |
| Bicarbonate as HCO3              | 1,232                                   | 1,165                   | 1.104                                 |              |
| Supersaturation as CaCO3         | 180                                     | 185                     | <b>1</b> 50                           |              |
| Undersaturation as CaCO3         |   | 94 144                  | to ba                                 |              |
| Total Hardness as CaCO3          | 10,400                                  | 10,000                  | 6.000                                 |              |
| Calcium as Ca                    | 900                                     | 580                     | 448                                   |              |
| Magnesium as Mg                  | 1,980                                   | 2,078                   | 1,186                                 |              |
| Sodium and/or Potassium          | 13,257                                  | 12,147                  | 8,310                                 | ·            |
| Sulfate as SO4                   | 3,518                                   | 1,591                   | 1,374                                 |              |
| Chloride as Cl.                  | 24,502                                  | 23,969                  | 15,411                                | <del></del>  |
| Barium as Ba                     |   | 2.1                     | 0.36                                  |              |
| Turbidity, Electric              |   |                         | <u>-</u>                              |              |
| Color as Pt                      |   |                         |                                       | <del></del>  |
| Total Solids, Calculated         | 45,389                                  | 41,530                  | 27,833                                |              |
| Temperature °F.                  | 72,352                                  | 71,000                  | 27,033                                |              |
| Carbon Dioxide, Calculated       |   |                         |                                       | <del></del>  |
| Dissolved Oxygen, Winkler        |   |                         |                                       |              |
| Hydrogen Sulfide                 | 350                                     | 275                     | 350                                   | <del></del>  |
| Resistivity, ohms/m at 77° F.    | 0,1                                     | .74 0.193               | 0.270                                 |              |
| Suspended Oil                    |   |                         |                                       |              |
| Filtrable Solids as mg/1         |   |                         |                                       |              |
| Volume Filtered, ml              |   |                         | ·                                     |              |
| Calcium Sulfate Scaling Tendency |   | None                    | None                                  |              |
| Calcium Carbonate Scaling Tender | ncy Marginal                            | . Marginal              | Marginal                              |              |
|                                  |   |                         |                                       | <del></del>  |
|                                  | S Reported As Millig                    |                         |                                       | <del></del>  |
| #125                             | l No. Oi                                | 1 Gravity, OAPI<br>37.6 | · · · · · · · · · · · · · · · · · · · | <del></del>  |
| #132                             |   | 37.8                    |                                       | ·            |
| #13Z                             |   | J10U                    |                                       |              |
|                                  | <del></del>                             |                         | <del></del>                           |              |

Form No. 3

Waylan C. Martin, M. A.