FRANKE DISTRICT Recalls Insulian Interval 3250 formation in the Callet formation

## A. R. "Al" Kendrick

P. O. BOX 516 • AZTEC, NEW MEXICO 87410 • (505) 334-2555

August 16, 1984

Oil Conservation Division Box 2088 Santa Fe, New Mexico 87501

Re: Application for Authority to Inject.

James L. Ludwick

Navajo 17 #2

990' FNL 1650' FWL, C-17-T19N-R5W

McKinley County, New Mexico

AUG 2 0 1984 RECEIVED

#### Gentlemen:

Enclosed in duplicate are Forms C-108, Application for Authority to Inject, along with the following support data:

- 1. Map A showing all wells and leases within two miles of the subject well.
- 2. Map B showing detail within one-half mile of the subject well.
- 3. Well Data for all wells shown on Maps A and B.
- 4. List of leasehold owners for all leases shown on Maps A and B.
- 5. Schematic drawings of all wells (3) within one-half mile of the subject well which penetrated the proposed injection zone.
- 6. Data Sheet showing miscellaneous data.
- 7. A copy of the legal advertisement published in The Gallup Independent regarding this application.
- 8. A copy of a water analysis of water to be injected.
- 9. A list of all leasehold owners within one-half mile and the surface owners who signed the lease according to the file in the Bureau of Land Management office in Farmington, New Mexico.

All owners shown in item 9 were mailed a copy of this application by certified mail.

If additional information is needed, please contact me.

Yours very truly,

A. R. Kendrick

Enclosures as stated

## DISTRIBUTION

All parties named in item 9 by certified mail plus:

Oil Conservation Division 1000 Rio Brazos Road Aztec, New Mexico 87410

Bureau of Land Management Caller Service 4104 Farmington, New Mexico 87499 POST OFFICE BOX 20HI)
STATE LAND OFFICE BUILDING
BANTA FE NEW MEXICO HUNGS

| 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; 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 reinjected 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 geological data on the injection zone including appropriate lithologi detail, geological name, thickness, and depth. Sive the geologic name, and depth to bottom of all underground sources of drinking water (aquifors containing waters with total dissolved solids concentrations of 10,000 mg/l or less) overlying the proposed injection zone as well as any such source 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 undergrou           |         | BARTA PE NEW MEXILU B/3011   |
|--|---------|--|
| Application qualifies for administrative approval?   | APPLICA | ATION FOR AUTHORIZATION TO INJECT  |
| II. Operator: James 1. Ludwick  Address: c/o A. R. Kendrick, Box 516, Aztoc, New Mexico 87410  Contact party: A. R. Kendrick  Phone: (505) 334-2555  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? wes lify yes, give the Division order number authorizing the project  V. Attach a map that identifies all wells and leases within two miles of any organized 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 white penetrate the proposed injection rame. 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 onem or closed; 3. Proposed average and maximum injection pressure; 4. Sources and an appropriate analysis of injection fluid and compastibility with the receiving formation if other than reinjected produced water; and 5. If injection is for disposal purposes into a zone not productive of fail or as a tor within one mile of the proposed well, attach a chemical analysis of the disposal jour formation water (may be measured or inferred from existing literature, studies, nearby wells, etc.).  *VIII. Attach appropriate apological dats on the injection zone including appropriate lithologic detail, neological name, thickness, and depth. The vertice of complete injection zone as well as any such source known to be immediately underlying the injection zone as well as any such source of drinking water (aquifers containing waters with total dissolved solids concentrations of 10,000 a0/01            | I.      | Purpose: Secondary Recovery Pressure Maintenance Disposal Storage Application qualifies for administrative approval? yes no  |
| Contact party: A. R. Kendrick Phone: (505) 334-2555  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  on  | II.     | •  |
| 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 ☐ 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 oublic record within the area of review whice proposed injection, ones. 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 reinjected produced water; and 5. If injection is for disposal purposes into a zone not productive of oil or gas the disposal zone formation water (may be metach a chemical analysis at the disposal zone formation water (may be metached a chemical analysis and the disposal zone formation water (may be metached a chemical analysis and depth. Sive the quologic none, and depth to botton of all underground sources of drinking water (aquifers containing waters with total dissolved salids concentrations of 10,000 mg/l or less) overlying the proposed injection zone as well as any such source known to be immediately underlying the injection zone as well as any such source known to be immediately underlying the injection zone as an expensive the proposed simulation program, if any.  * XI. Attach appropriate logging and test data on the well. (If well logs             |         | Address: c/o A. R. Kendrick, Box 516, Aztec, New Mexico 87410  |
| IV. Is this an expansion of an existing project?  yes  |         | Contact party: A. R. Kendrick Phone: (505) 334-2555  |
| 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 whice 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 reinjected 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 geological data on the injection zone including appropriate lithologic detail, quelogical name, thickness, and depth. live the geologic conse, and depth to be a source of drinking water (aquiferes ontains) materaily total dissolved solids concentrations of 10,000 mg/l or less) overlying the proposed injection interval.  1X. 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 achemical analysis of fresh water from two or more fresh water wells (if available and producing) within one mile of any injection or disposal vell showing location of wells and dates samples were taken.  XII. Applicants for disposal wells must make an affirmative state           | III.    |  |
| <ul> <li>injection well with a one-half mile todius circle drawn around each proposed injection well. This circle identifies the well's area of review.</li> <li>VI. Attach a tabulation of data on all wells of public record within the area of review whice 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.</li> <li>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 on appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected 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.).</li> <li>*VIII. Attach appropriate geological data on the injection zone including appropriate lithologi detail, geological name, thickness, and depth. Sive 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 source known to be immediately underlying the injection zone as well as any such source known to be immediately underlying the injection interval.</li> <li>IX. Describe the proposed stimulation program, if any.</li> <li>* X. Attach appropriate logging and test data on the well. (If well logs have been filed with the Division they need not be resubmitted.)</li> <li>* XII. Applicants for disposal wells must make an affirmative statement that they have examined available goologic connection betwee</li></ul> | IV.     |  |
| 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; 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 reinjected 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 geological data on the injection zone including appropriate lithologi detail, geological name, thickness, and depth. Sive the geologic name, and depth to bottom of all underground sources of drinking water (aquifors containing waters with total dissolved solids concentrations of 10,000 mg/l or less) overlying the proposed injection zone as well as any such source 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 undergrou           | ٧.      | injection well with a one-half mile radius circle drawn around each proposed injection   |
| 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 reinjected produced water; and 5. If injection is for disposal purposes into a zone not productive of oi) 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 geological data on the injection zone including appropriate lithologi detail, geological name, thickness, and depth. Sive 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 source 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 vell 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 source 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.  XIII. Apglicants R.A. R. Kendrick  IIII. Agent                     | * VI.   | well's type, construction, date drilled, location, depth, record of completion, and  |
| 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 reinjected 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 geological data on the injection zone including appropriate lithologi detail, geological name, thickness, and depth. Sive 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 ng/l or less) overlying the proposed injection zone as well as any such source 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 source 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: A. R. Kendrick  I ittle Agent  | VII.    | Attach data on the proposed operation, including:  |
| detail, geological name, thickness, and depth. Sive 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 source 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 source 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:  A. R. Kendrick  Title Agent  |         | <ol> <li>Whether the system is open or closed;</li> <li>Proposed average and maximum injection pressure;</li> <li>Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and</li> <li>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</li> </ol> |
| <ul> <li>* X. Attach appropriate logging and test data on the well. (If well logs have been filed with the Division they need not be resubmitted.)</li> <li>* 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.</li> <li>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 source of drinking water.</li> <li>XIII. Applicants must complete the "Proof of Notice" section on the reverse side of this form.</li> <li>XIV. Certification</li> <li>I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.</li> <li>Name: A. R. Kendrick</li> <li>Title Agent</li> </ul>   | *VIII.  | bottom of all underground sources of drinking water (aquifers containing waters with total dissolved solids concentrations of 10,000 ng/l or less) overlying the proposed injection zone as well as any such source known to be immediately underlying the   |
| <ul> <li>with the Division they need not be resubmitted.)</li> <li>* 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.</li> <li>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 source of drinking water.</li> <li>XIII. Applicants must complete the "Proof of Notice" section on the reverse side of this form.</li> <li>XIV. Certification  I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.</li> <li>Name: A. R. Kendrick</li> <li>Title Agent</li> </ul>  | IX.     | Describe the proposed stimulation program, if any.   |
| 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 source 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:  A. R. Kendrick  Title Agent  | * X.    |  |
| 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 source 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:  A. R. Kendrick  Title Agent   | * XI.   | available and producing) within one mile of any injection or disposal well showing   |
| XIV. Certification  I hereby certify that the information submitted with this application is true and correcto the best of my knowledge and belief.  Name:  A. R. Kendrick  Title Agent  | XII.    | 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  |
| I hereby certify that the information submitted with this application is true and correcto the best of my knowledge and belief.  Name:  A. R. Kendrick  Title Agent  | XIII.   | Applicants must complete the "Proof of Notice" section on the reverse side of this form.   |
| to the best of my knowledge and belief.  Name: A. R. Kendrick Title Agent  | XIV.    | Certification  |
| April 16 1984  |         |  |
|  |         | Signature: AR Kendick Date: August 16, 1984  |

\* If the information required under Sections VI, VIII, X, and XI above has been previously submitted, it need not be duplicated and resubmitted. Please show the date and circumstance of the earlier submittal. Electric Log submitted December 31, 1958 by Douglas Corporation.

#### 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 name of the next higher and next lower oil or gas zore in the area of the well, if any.

#### XIV. PROOF OF NOTICE

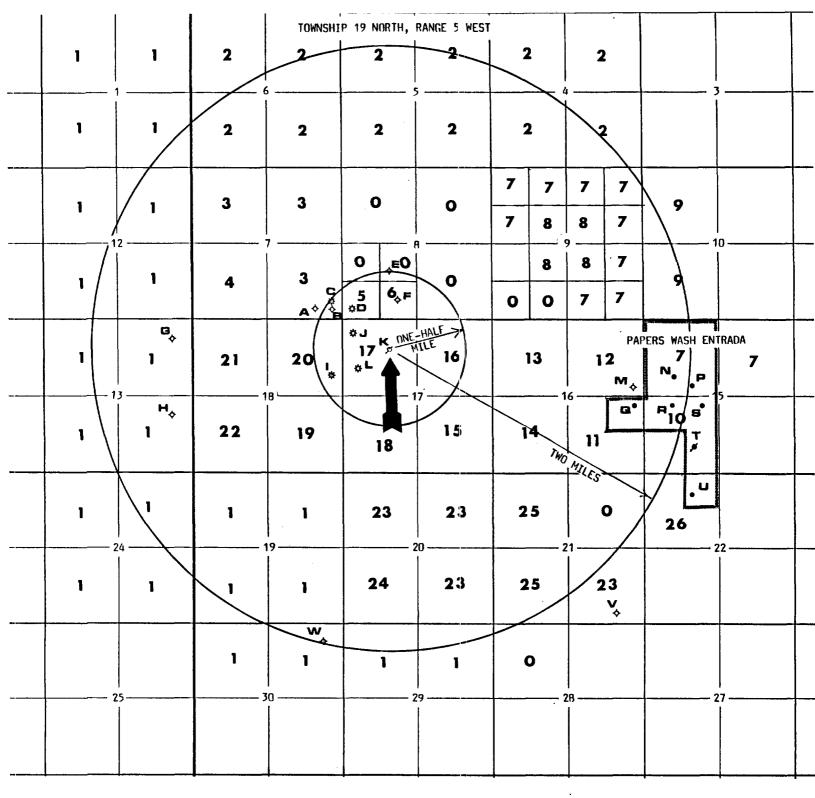
All applicants must furnish proof that a copy of the application has been furnished, by certified or registered mail, to the owner of the surface of the land on which the well is to be located and to each leasehold operator within one-half mile of the well location.

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, P. O. Box 2088, Santa Fe, New Mexico 87501 within 15 days.

NO ACTION WILL BE TAKEN ON THE APPLICATION UNTIL PROPER PROOF OF NOTICE HAS BEEN SUBMITTED.

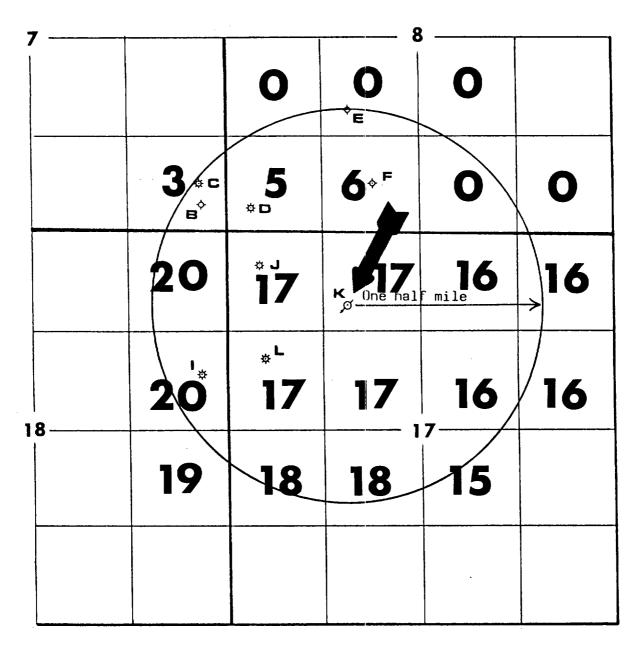
NOTICE: Surface owners or offset operators must file any objections or requests for hearing of administrative applications within 15 days from the date this application was mailed to them.



LEGEND

17 Tract of interest - number relates to leasehold interest

 $\mathbf{K}_{\boldsymbol{\mathcal{P}}}$  Well of interest - letter relates to well identity



TOWNSHIP 19 NORTH RANGE 5 WEST

LEGEND

Tract of interest - number relates to leasehold interest  $\kappa_{\sigma}$  Well of interest - letter relates to well identity

MAP B

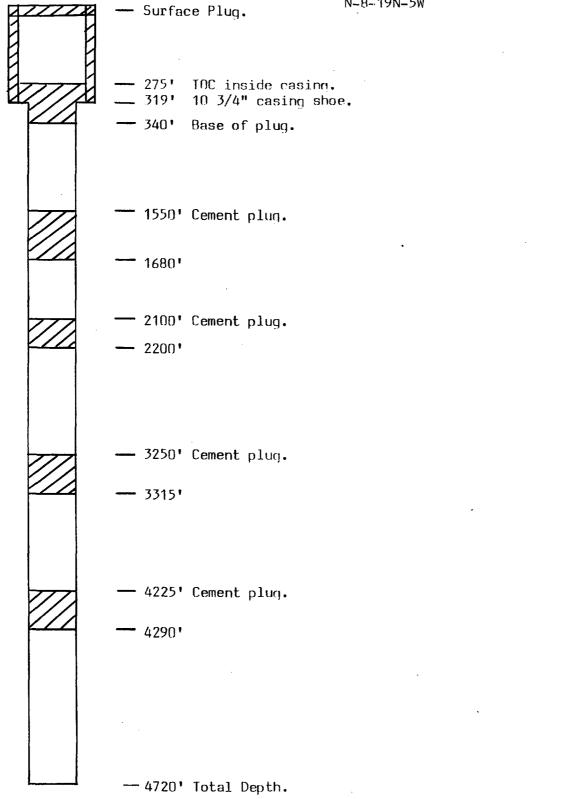
## WELL DATA

| Α | Caswell Silver Federal A #1-7   | P & A 1957                           |
|---|---|--------------------------------------|
|   | 330' FSL 990' FEL Section 7, 19N, R5W   | T.D. 2160'                           |
| В | Gaddis Mining Company Federal A #2-7<br>330' FSL 330' FEL Section 7, 19N, R5W   | P & A 1960<br>T.D. 3450'             |
| С | James L. Ludwick Ludwick #1 660' FSL 360' FEL Section 7, 19N, R5W   | Completed 1984<br>T.D. 2105'         |
| D | James L. Ludwick Federal 8 #4<br>330' FSL 330' FWL Section 8, 19N, R5W<br>Formerly Caswell Silver - P & A 1962        | Re-entry<br>T.D. 2123'               |
| Ε | Caswell Silver and Federal #2-8 Douglas Corporation 1650' FSL 1650' FWL Section 8, 19N, R5W                           | P & A 1957<br>T.D. 2200*             |
| F | Reynolds Mining Corp. Federal #1 660' FSL 1980' FWL Section 8, 19N, R5W   | P & A 1958<br>T.D. 4720'             |
| G | Sinclair Oil & Gas Co. S.F. 181 Star Lake #1 660' FNL 660' FEL Section 13, 19N, R6W                                   | P & A 1961<br>T.D. 4437'             |
| H | Gardner Bros. Drilling Co. Belknap Santa Fe #1<br>Formerly Otto Reynolds<br>1980' FSL 660' FEL Section 13, 19N, R6W   | P & A 1962<br>T.D. 3438'             |
| I | James L. Ludwick Indian 18 #1<br>1865' FNL 330' FEL Section 18, 19N, R5W  | Completed 1983                       |
| J | James L. Ludwick Indian 17 #1 Formerly Caswell Silver 430' FNL 430' FWL Section 17, 19N, R5W                          | Re-entry<br>P & A 1962<br>T.D. 1949' |
| К | James L. Ludwick Navajo #2-17 Formerly Caswell Silver 990' FNL 1650' FWL Section 17, 19N, R5W PROPOSED INJECTION WELL | Re-entry<br>P & A 1959<br>T.D. 4377' |
| L | James L. Ludwick Indian 17 #3<br>1650' FNL 530' FWL Section 17, 19N, R5W  | Completed 1984<br>T.D. 1949'         |
| М | Dome Petroleum Corp. State 2-16-19-5 #2 2310' FNL 330' FEL Section 16, 19N, R5W                                       | P & A 1979<br>T.D. 5383'             |
| N | Texaco, Inc. Federal 15 #2<br>1980' FNL 990' FWL Section 15, 19N, R5W   | Papers Wash Entrada                  |
| Р | Texaco, Inc. Federal 15 #1 2210' FNL 1650' FWL Section 15, 19N, R5W   | Papers Wash Entrada                  |
| Q | Texaco, Inc. Navajo Allotted 16 #1 2310' FSL 330' FEL Section 16, 19N, R5W  | Papers Wash Entrada                  |
| R | Texaco, Inc. Navajo Allotted 15 #4<br>2310' FSL 990' FWL Section 15, 19N, R5W   | Papers Wash Entrada                  |
| S | Texaco, Inc. Navajo Allotted 15 #3 2310' FSL 2000' FWL Section 15, 19N, R5W   | Papers Wash Entrada                  |
| T | Texaco, Inc. Navajo Allotted 15 #6<br>890' FSL 1650' FWL Section 15, 19N, R5W<br>INJECTION WELL                       | Papers Wash Entrada                  |
| U | Texaco, Inc. Navajo Allotted A #1 700' FNL 1650' FWL Section 22, 19N, R5W   | Papers Wash Entrada                  |
| ٧ | Cities Service Company Federal M #1 330' FSL 990' FEL Section 22, 19N, R5W  | P & A 1982<br>T.D. 5492'             |
| W | Davis Oil Company Paperthin #1 660' FNL 660' FEL Section 30, 19N, R5W   | P & A 1971<br>T.D. 4285'             |

### LEASEHOLD INTERESTS

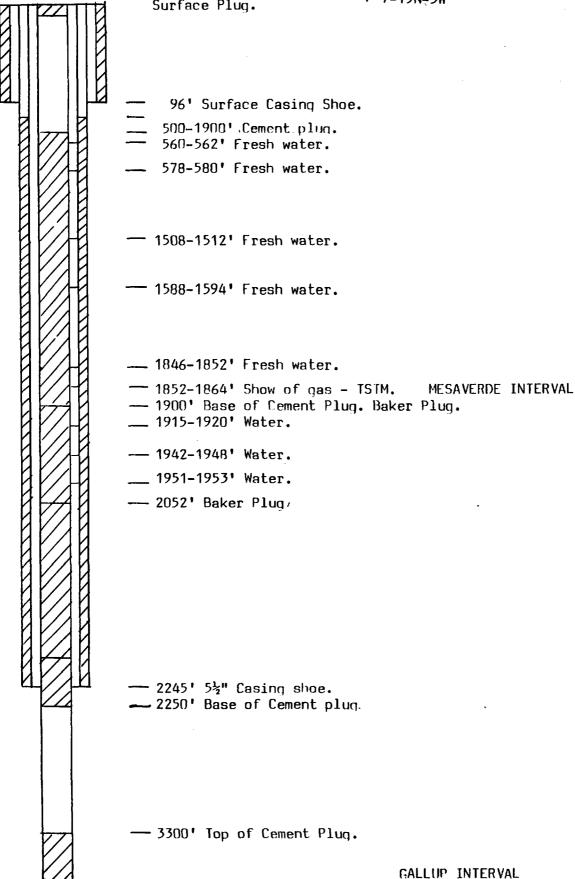
- O Open unleased or lease expired.
- 1 Santa Fe Railroad company owned.
- 2 NM-33908 Champlin Petroleum 50%, Norcen Petroleum, Inc. 25%, Joan Chorney 25%; Box 1257, Englewood, CO.80150
- 3 NM-33382 Chace Oil Co., Inc., 313 Washington Avenue, S.E., Albuquerque, NM 87108
- 4 NOO-C-14-20-5551 Filon Exploration Corporation
- 5 NM-53365 Harry Strain, Box 323, Dora, NM 88115 Now James L. Ludwick
- 6 NM-44459 John A. Yates, 207 So. Forth, Artesia, NM 88210.
- 7 NM 4953 Dome Petroleum Corp. 38.375%, Elf Aquitane, Inc. 28.125%, Natural Gas Pipeline Co. of America 25%, Trend Exploration, Ltd. 7.5%; 1600 Broadway, Suite 1500, Denver, CO 80202
- 8 NOO-C-14-20-5565 Gulf Oil Corporation, Box 1150, Midland, TX 79702
- 9 NM-31905 Santa Fe, Energy Co. One Security Park, 7200 I-40 West, Amarillo, TX 79106
- 10 NOO-C-14-20-5377 Aquitane Oil Corporation
- 11 NOO-C-14-20-5379 Aquitane Oil Corporation
- 12 LG-2871-1 Billie Robinson, Box 1281, Santa Fe, NM 87504
- 13 NOO-C-14-20-5526 Cities Service Company, Box 300, Tulsa, OK 74102
- 14 NOO-C-14-20-5378 Aguitane Oil Corporation
- 15 NOO-C-14-20-5529 Cities Service Company
- 16 N00-C-14-20-5527 Cities Service Company
- 17 N00-C-14-20-5528 Cities Service Company
- 18 NO**0-**C-14-20-5530 Cities Service Company
- 19 NOC-C-14-20-5532 Cities Service Company
- 20 NOO-C-14-20-5531 Cities Service Company
- 21 NOO-C-14-20-5552 Filon Exploration Corporation
- 22 NOO-C-14-20-5533 Cities Service Company
- 23 NM-26658 Cities Service Company
- 24 NM-34187 Champlin Petroleum Co. 50%, Norcen Petroleum, Inc. 25%, Raymond Chorney 25%; 401 Lincoln Tower Bldg., Denver, CO 80202
- 25 NM-29559 Gulf Oil Corporation, Box 1150, Midland, TX 79702
- 26 NOO-C-14-20-3484 Tenneco Oil Company, Box 3119, Englewood, CO 80155

Reynolds Mining Corporation Star Lake (Federal) #1 660' FSL 1980' FWL N-8-19N-5W



Gaddis Mining Company Federal A #2-7 330' FSL 330' FEL P-7-19N-5W

Surface Pluq.



3450 Total Depth.

## INJECTION WELL DATA SHEET

| 011      | MATOR  | LEASE   | *  |                                   |
|----------|--|---|--|-----------------------------------|
| , ,      | James L. Ludwick   | Navajo 17                                       |  |                                   |
| WEL      | L NO. FOOTAGE LOCATION   | SECTION   | TUWNSHIP                                       | RANGE                             |
| 2        | 2 990' FNL 1650' FWL   | 17  | 19N  | · 5W                              |
|          | •  | •   |  |                                   |
|          | Schematic  | 1   | abular Data                                    |                                   |
| <u> </u> |  | Surface Casing                                  |  |                                   |
| 122      | — Surface Plug   |   |  | 5N                                |
| !        |  | Size 8 5/8                                      |  |                                   |
|          | (01 0 5 (011 0 ) 5   |   |  | by Observation .                  |
|          | 1 _ 68' 8 5/8" Casing Shoe.  | Hole size 12 1/4"                               |  |                                   |
| 1 11     |  | Takaan Maka Oo l                                |  |                                   |
| 1 ]      |  | Intermediate Casing                             |  |                                   |
|          |  | Size NONE                                       | " Cemented w                                   | ithsx.                            |
|          | • — 800' TOC outside casing.                                       | TOC   | feet determined                                | by                                |
|          |  | Hole size                                       |  |                                   |
| 1 1      |  | THOSE SIZE                                      |  | •                                 |
|          | •  | Long string                                     |  |                                   |
| !        |  | Size 4 1/2                                      | " Cemented w                                   | with 450                          |
| 1        | 2100' TOC inside casing.   |   |  | Temp. survey.                     |
|          |  |   |  | Бу                                |
|          | - 2300' Perf for cementing.  | Hole size $6.3/4$ "                             | <del></del>                                    | •                                 |
|          | _ 2400' Bridge plug.   | Total depth 4329'                               |  |                                   |
|          |  | Injection interval                              |  |                                   |
| !        |  | 2050 .  | 3250+  | feet (Perforations)               |
|          |  | (perforated or open-h                           | to <del></del>                                 | ch) feet                          |
|          | 72001 TOC 1at atom   | •   |  | ~··,                              |
|          | — 3200' TOC 1st stage.   |   |  | •                                 |
|          |  |   |  |                                   |
|          |  |   | •  | •                                 |
| i T      | — 4286 to 4296' - Tested Da  | kota formation.                                 |  |                                   |
|          |  |   |  |                                   |
|          | — 4320' 4½" casing shoe.   |   |  |                                   |
| 1//      | - 4329' Total Depth.   |   |  | •                                 |
|          | ,  |   | •  | ;                                 |
| 1        |  |   |  | • •                               |
|          |  | •   |  | . •                               |
|          |  |   | `  | ·                                 |
|          |  |   |  |                                   |
| -        |  |   |  |                                   |
|          | ing size 2 3/8" lined  | with plastic                                    |  |                                   |
| lubi     |  | ******  | erial)   | set in a                          |
|          | Baker Model G (Tension set)  | packer  | 2945' +  | feet                              |
|          | (brand and model)  | • •   |  |                                   |
| (or      | describe any other casing-tubing                                   | seal).  | •  |                                   |
| Oth      | er Data  | 0.11  |  |                                   |
| 1.       | Name of the injection formation                                    | Gallup  |  |                                   |
| 2.       | Name of Field or Pool (if applica                                  | able) Un-named                                  |  |                                   |
|          |  |   | / <del></del> 7 ••                             |                                   |
| 3.       | Is this a new well drilled for in                                  | njection? // Yes                                | <u>/X</u> / No                                 |                                   |
| •        | If no, for what purpose was the                                    | vell originally, drälle                         | y?Wildcat oil                                  | well attempt                      |
|          | for production from the Dakota                                     | formation.                                      |  |                                   |
| Δ.       | Has the well ever been perforate                                   | d in any other zone(s)                          | ? List all such                                | perforated intervals              |
| ٦.       | and give plugging detail (sacks                                    |   |  |                                   |
|          | formation from 4286 to 4296'.                                      | Set a bridge plug @ 2                           | 2400', perforated                              | d @ 2375', cemented               |
|          | w/200 sx leaving 275' of cemer                                     | nt in casing. TOC 1st                           | stage = 3200'.                                 | 2nd stage = 800'.                 |
|          |  |   |  | <del></del>                       |
| 5.       | Give the depth to and name of any<br>this area. Un-named Mesaverde | y overlying and/or und<br>gas zone @ 1850 to 19 | erlying oil or ga<br>950' <u>overl</u> ying ti | s zones (pools) in<br>ne proposed |
|          |  |   | •  | les east. Produced 5              |
|          |  | THE COL TIES ONE                                | and one-nail Ml.                               | res east. Produced                |

water is injected in the Gallup formation in the Papers Wash area.

### DATA SHEET

### Water System:

- 1. The average daily rate of injection is planned to be approximately 600 barrels; the maximum is planned to be 1200 barrels per day.
- 2. The system is planned to be a closed system.
- 3. Proposed injection pressures will not exceed 570 psi. It is believed that the initial injections will be at gravity flow.
- 4. The water to be injected will be produced water from the Mesaverde formation in the immediate vicinity of the subject well.
- 5. A water sample from the proposed disposal zone is not available; however, the zone is currently being used for disposal of water produced in the Papers Wash Entrada Pool approximately two miles east of the subject well in the well coded "T" on the enclosed map. A copy of an analysis of the produced water is enclosed.

#### Geology:

The proposed injection zone is the Gallup formation which occurs from 2950 to 3246 feet of depth in the subject well.

A copy of the Electric Log was filed with the Oil Conservation Division's District Office in 1958 when the well was drilled.

The injection zone will be acidized to clean the porosity near the wellbore.

There are no known fresh water wells within two miles of the subject well.

I have studied the geologic and engineering data of the area and find no evidence of any open faults or other hydrologic conditions between the disposal zone and any underground source of drinking water.

## Affidavit of Publication

| COLINI   | TY OF McKINLEY  |  |  |  |
|--|---|--|--|--|
|  |   |  |  |  |
|  | Ruby Walter   | <u> </u>   | being d  | ıly sworn upor   |
| oain, de   | eposes and says:  |  |  |  |
| Indepen<br>McKinle<br>affiant i<br>sworn t<br>lished i | As Legal Condent, a newspaper pubey County, New Mexico makes this affidavit base to. That the publication is said newspaper during was published in the new | olished in and have<br>o, and in the City<br>and upon personal k<br>of a copy of which<br>g the period and t | ing a general<br>of Gallup, the<br>nowledge of th<br>is hereto attac<br>time of public | circulation in<br>rein: that this<br>ne facts herein<br>ched was pub<br>ation and said |
|  | one time  |  |  |  |
|  |   |  |  |  |
|  | 3C day  | of July  | , 19   | the  |
| second   | publication being on the  |  |  | day o  |
|  |   |  |  |  |
|  |   |  |  | •  |
| on the _   |   | day of   | , 1  | 9  |
|  |   |  |  |  |
| and the  | last publication being on   | the  |  | day o  |
| and the  | _   | the, 19  |  | day o  |
| Iished, i  | _   | which such notice<br>all times material h<br>notices and adverti<br>f the State of New                       | e or advertiser<br>ereto, duly qua<br>sements within<br>Mexico, 1941                   | nent was pub<br>alified for sucl<br>on the meaning<br>compilation.                     |
| lished, i<br>purpose<br>of Chap                        | That such newspaper, in<br>is now and has been at a<br>e, and to publish legal r<br>oter 12, of the statutes of   | which such notice all times material hotices and advertif the State of New                                   | e or advertiser<br>ereto, duly qua<br>sements within<br>Mexico, 1941                   | nent was pub<br>alified for such<br>the meaning<br>compilation.<br>Affiant.            |
| lished, i<br>purpose<br>of Chap                        | That such newspaper, in is now and has been at a e, and to publish legal roter 12, of the statutes of sworn and subscribed to be                            | which such notice all times material hotices and advertif the State of New                                   | e or advertiser<br>ereto, duly qua<br>isements within<br>Mexico, 1941<br>Wattur<br>3   | nent was pub<br>alified for such<br>the meaning<br>compilation.<br>Affiant.            |
| lished, i<br>purpose<br>of Chap                        | That such newspaper, in is now and has been at a e, and to publish legal roter 12, of the statutes of   | which such notice all times material hotices and advertif the State of New                                   | e or advertiser<br>ereto, duly qua<br>sements within<br>Mexico, 1941                   | nent was pub<br>alified for such<br>the meaning<br>compilation.<br>Affiant.            |
| lished, i<br>purpose<br>of Chap                        | That such newspaper, in is now and has been at a e, and to publish legal roter 12, of the statutes of sworn and subscribed to be                            | which such notice all times material hotices and advertif the State of New                                   | e or advertiser<br>ereto, duly qua<br>isements within<br>Mexico, 1941<br>Wattur<br>3   | nent was pub<br>alified for such<br>the meaning<br>compilation.<br>Affiant.            |
| lished, i<br>purpose<br>of Chap                        | That such newspaper, in is now and has been at a e, and to publish legal roter 12, of the statutes of sworn and subscribed to be                            | which such notice all times material hotices and advertif the State of New                                   | e or advertiser<br>ereto, duly qua<br>isements within<br>Mexico, 1941<br>Wattur<br>3   | nent was pub<br>alified for such<br>the meaning<br>compilation.                        |
| Tished, i<br>purpose<br>of Chap                        | That such newspaper, in is now and has been at a e, and to publish legal roter 12, of the statutes of sworn and subscribed to be                            | which such notice all times material hotices and advertif the State of New                                   | e or advertiser<br>ereto, duly qua<br>isements within<br>Mexico, 1941<br>Wattur<br>3   | nent was pub<br>alified for such<br>the meaning<br>compilation.                        |
| Tished, i<br>purpose<br>of Chap                        | That such newspaper, in is now and has been at a se, and to publish legal roter 12, of the statutes of sworn and subscribed to be                           | which such notice all times material hotices and advertif the State of New                                   | e or advertiser<br>ereto, duly qua<br>isements within<br>Mexico, 1941<br>Wattur<br>3   | nent was pub<br>alified for such<br>the meaning<br>compilation.<br>Affiant.            |

| LEG | ALTN | MT |  |
|-----|------|----|--|

James L. Ladwick, Co. A.R. Kendrick. Box 516, Aztec, New Metrics, belephone 505 334-355. has filled an expeliention for permission to inject produced water into Gallan featuration of depths from 256 hast to self-test a continues up to 570 pai fast to self-test a continues up to 570 pai fast to self-test a continue up to 570 pai fast to self-test and self-test and self-test from the west line of featuration 17. Township 19 North, Range 5 west, Medichary County, New Menrico, Instrument parties must file objections or west, the fast parties of the feature of

Logal 1007) Problems to the Galling Independent Saturdays and Monday

#### API WATER ANALYSIS REPORT FORM

| Company                 |                  |                | San    | ople No.      | Date | Sampled |
|-------------------------|------------------|----------------|--------|---------------|------|---------|
| JAMES L.                | LUDWICK          |                |        | 1             |      | 6/5/8   |
| Field                   | Legal De         | scription      |        | County or Par | sh   | State   |
| <u>Undes. Mesa Ve</u>   | rde Sec.         | 17, T19N, R5W  | ·      | McKinley      |      | NM      |
| Lease or Unit           | Well             | Dep            | th   ] | Formation     | Wat  | er, B/D |
| Indian                  | 1-18             | 3 1 1 7        | 50     | Menefee       |      | water   |
| Type of Water (Produced | i, Supply, etc.) | Sampling Point |        | × .           | Sam  | pled By |
| Produced                | ,                |                | we111  | nead          | 1    | JL      |

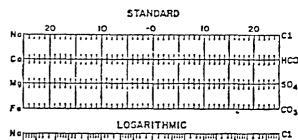
# DISSOLVED SOLIDS CATIONS mg/l me/l ppm Sodium, Na (calc.) 2827 122.9 . Calcium, Ca 0 0 . Magnesium, Mg 27 23 . Barium, Ba 57 1.4

# pH 8.3 Specific Gravity, 60/60 F. 1.005 Resistivity (ohm-meters) 70 F. 0.81

WATER PATTERNS - me/l

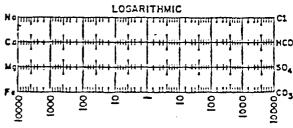
#### ANIONS

| Chloride. Cl      | <u>3214.2</u> | 139.7  |
|-------------------|---------------|--------|
| Sulfata, SO4      | 25.0          | 0.5    |
| Carbonate, COs    | 180_0         | 6.0_   |
| Bicarbonate, HCOs | 1921.5        | - 31-5 |
| hydroxide         | 0             |        |
|                   | • '           | ·      |
|                   | •             |        |



## Total Dissolved Solids (calc.) 8251.7

| Iron. Fe (total) |   | <br>0 | <del>_</del> _ | _ |
|------------------|---|-------|----------------|---|
| Sulfide, 23 H2S  | , | <br>0 |                |   |
|                  |   |       |                |   |



REMARKS & RECOMMENDATIONS:

ANALYST: Clay Terry

THE WESTERN COMPANY OF NORTH AMERICA, FARMINGTON, N.M. (505) 327-6222

Please-refer any questions to: Clay Terry, District Engineer or Tom Burris, Field Engineer.

## OWNERS WITHIN ONE-HALF MILE RADIUS OF PROPOSED INJECTION WELL

#### LEASEHOLD OWNERS:

Chace Oil Company 313 Washington, S.E. Albuguerque, New Mexico 87108

John A. Yates 207 South Fourth Stree Artesia, New Mexico 88210

Bureau of Land Management Box 1449 Santa Fe, New Mexico 87501 James L. Ludwick Box 70 Farmington, New Mexico 87499

Cities Service Company Box 300 Tulsa, Oklahoma 74102

SURFACE OWNERS: NW% Section 17, T19N, R5W, McKinley County, New Mexico

Hose Antonio Toledo aka Hosteen Naltsos C#9337 or his heirs in care of:

\* Bureau of Indian Affairs Box 328 Crownpoint, New Mexico 87313 Attention: Superintendent

Mrs. Juan Sandoval aka Dez Bah C#39340 Box 132 Cuba, New Mexico 87013

Betty T. Whitehorse aka Betty Toledo C#89323 Torreon Trading Post Cuba, New Mexico 87013 Grace Toledo aka Mrs. Kaiser Toledo C#9370 Torreon Trading Post Cuba, New Mexico 87013

Rose Ignacio C#107612 General Delivery Cuba, New Mexico 87013

Leonard Ignacio C#107613 General Delivery Cuba, New Mexico 87013

Irene Pinto Ignacio aka Irene Pinto C#95153 General Delivery Cuba, New Mexico 87013

<sup>\*</sup> As agent for any other surface owner.

# P 399 362 070 RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED-

NOT FOR INTERNATIONAL MILL (See Reverse)

| Sent to<br>Betty T. Whitehors                                 | 3e    |
|---|-------|
| Street and No. Torreon Trading Po                             | st    |
| Cuba, New Mexico  | 37013 |
| Postage   | \$    |
| Certified Fee   |       |
| Special Delivery Fee  |       |
| Restricted Delivery Fee                                       |       |
| Return Receipt Showing to whom and Date Delivered             |       |
| Return Receipt Showing to whom, Date, and Address of Delivery | ,     |
| TOTAL Postage and Fees  | 204   |
| Postmark or Date  |       |

## P 399 362 071

NO INSURANCE COVERAGE PROVIDED— NOT FOR INTERNATIONAL MAIL

(See Reverse)

| Sent to  | 1                  |  |  |  |  |
|--|--------------------|--|--|--|--|
|  | Mrs. Kaiser Toledo |  |  |  |  |
| Street and No.                                       |                    |  |  |  |  |
| Torreon Trading Po                                   | st.                |  |  |  |  |
| P.O., State and ZIP Code<br>Cuba, New Mexico 8       | 7013               |  |  |  |  |
| Postage  | \$                 |  |  |  |  |
| Certified Fee  |                    |  |  |  |  |
| Special Delivery Fee                                 |                    |  |  |  |  |
| Restricted Delivery Fee                              |                    |  |  |  |  |
| Return Receipt Showing<br>to whom and Date Delivered |                    |  |  |  |  |
| Return Receipt Showing to whom,                      |                    |  |  |  |  |
| Date, and Address of Delivery                        |                    |  |  |  |  |
| TOTAL Postage and Fees                               | :206               |  |  |  |  |
| Postmark or Date                                     |                    |  |  |  |  |
| 1 / 100  |                    |  |  |  |  |
| 1 (200   |                    |  |  |  |  |
| No.  |                    |  |  |  |  |
| <u> </u>   |                    |  |  |  |  |

# P 399 362 072 RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED— NOT FOR INTERNATIONAL MAIL

(See Reverse)

|                         | Sent to<br>Rose Igncaio                           |      |
|-------------------------|---|------|
|                         | Street and No.<br>General Delivery                |      |
|                         | Cuba, New Mexico 8                                | 7013 |
|                         | Postage   | \$   |
|                         | Certified Fee                                     |      |
|                         | Special Delivery Fee                              |      |
|                         | Restricted Delivery Fee                           |      |
|                         | Return Receipt Showing to whom and Date Delivered |      |
|                         | Return Receipt Showing to whom,                   |      |
| 64                      | Date, and Address of Delivery                     |      |
| b. 198                  | TOTAL Postage and Fees                            | 206  |
| i e                     | Postmark or Date                                  | •    |
| PS Form 3800, Feb. 1982 | 198 Alla  |      |

# P 399 362 064 RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED— NOT FOR INTERNATIONAL MAIL

(See Reverse)

| Sent to<br>Chace Oil Company                                  |       |
|---|-------|
| Street and No.  | .E.   |
| Albuquerque, NM 8   |       |
| Postage   | \$71  |
| Certified Fee   | 95    |
| Special Delivery Fee  |       |
| Restricted Delivery Fee                                       |       |
| Return Receipt Showing<br>to whom and Date Delivered          | LO    |
| Return Receipt Showing to whom, Date, and Address of Delivery |       |
| TOTAL Postage and Fage  | \$206 |
| Postmark of Data All  |       |

# P 399 362 065 RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVICED— NOT FOR INTERNATIONAL MAIL

(See Reverse)

|                 | Sent to   |         |
|-----------------|---|---------|
|                 | John A. Yates                                     |         |
|                 | Street and No.<br>207 South Fourth S              | troot   |
|                 | P.O., State and ZIP Code<br>Artesia, NM 88210     | creet   |
|                 | Postage   | \$      |
|                 | Certified Fee                                     |         |
|                 | Special Delivery Fee                              |         |
|                 | Restricted Delivery Fee                           |         |
|                 | Return Receipt Showing to whom and Date Delivered |         |
|                 | leturn Receipt Showing to whom                    |         |
| C4<br>X         | Date, and Address of Delivery                     |         |
| 5               | TOTAL Postage and Fees                            | \$ 2196 |
| ÷.              | Postmark or Date                                  | /       |
| Form 380°; Feb. | (6.36)  |         |
| Form            |   | 1       |
|                 |   |         |

# P 399 362 066 RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED— NOT FOR INTERNATIONAL MAIL

(See Reverse)

| Cities Service Com                                   | pany  |  |
|--|-------|--|
| Street and No.<br>Box 300                            |       |  |
| Tulsa, UK 74902                                      |       |  |
| Postage  | \$    |  |
| Certified Fee  |       |  |
| Special Delivery Fee                                 |       |  |
| Restricted Delivery Fee                              |       |  |
| Return Receipt Showing<br>.o whom and Date Delivered |       |  |
| teturn Receipt Showing to whom,                      |       |  |
| Jate, and Address of Delivery                        |       |  |
| TOTAL Postage and Face                               | \$200 |  |
| Postmark or Date                                     |       |  |
| 1  | ,     |  |

Form 3800, Feb. 1382

## P 399 362 067

#### RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED— NOT FOR INTERNATIONAL MAIL

(See Reverse)

|                         | Sent to<br>Bureau of Land Mar                        | nagemen  |   |
|-------------------------|--|----------|---|
|                         | Street and No.<br>Box 1449                           | _        |   |
|                         | P.O., State and ZIP Code<br>Santa Fe, New Mexi       | .co 8750 | 1 |
| :                       | Postage  | \$       |   |
|                         | Certified Fee  |          |   |
|                         | Special Delivery Fee                                 |          |   |
|                         | Restricted Delivery Fee                              |          |   |
|                         | Return Receipt Showing<br>to whom and Date Delivered |          |   |
|                         | Return Receipt Showing to whom.                      |          | 1 |
| ~                       | Date, and Address of Delivery                        |          |   |
| b. 198                  | TOTAL Postage and Fees 17                            | \$200    |   |
| PS Form 3800, Feb. 1982 | Postmark or Date                                     |          |   |

## P 399 362 075

#### BESEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED— NOT FOR INTERNATIONAL MAI

(See Reverse)

|                               | Farmington, NM 8749  Postage  Certified Fee           | \$ jh |    |
|-------------------------------|---|-------|----|
|                               | Special Delivery Fee                                  |       | 2  |
|                               | Restricted Delivery Fee                               |       |    |
|                               | Return Receipt Showing<br>o whom and Date Delivered   | Ĺ     | 20 |
| Return Receipt Showing to who |   |       | j  |
| 32                            | Date, and Address of Delivery                         |       |    |
| PS Form 380°, Feb. 1982       | Oate, and Address of Delivery  TOTAL Postage and Fees | \$    |    |

## P 399 362 068

## RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED— NOT FOR INTERNATIONAL MAIL

(See Reverse)

|  | Bureau of Indian Affairs   |       |  |
|--|--|-------|--|
| ì  |  |       |  |
| P.O., State and ZIP Code<br>Crownpoint, NM 87313 |  |       |  |
|  | Postage .  | \$105 |  |
|  | Certified Fee  | 75    |  |
|  | Special Delivery Fee   |       |  |
|  | Restricted Delivery Fee  |       |  |
| į  | Return Receipt Showing to whom and Date Delivered                | 100   |  |
| 7  | Return Receipt Showing to whom,<br>Date, and Address of Delivery |       |  |
| 3.198  | TOTAL Postage and Fees   | 240   |  |
| PS Form 3800, Feb. 1982                          | Postmark or Date   | 2     |  |

## P 399 362 073 RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED— NOT FOR INTERNATIONAL MAIL

(See Reverse)

| Sent to<br>Leonard Ignacio                                     |    |  |
|--|----|--|
| Street and No.<br>General Delivery                             |    |  |
| Pours; New Mexico 87013  |    |  |
| Postage  | \$ |  |
| Certified Fee  |    |  |
| Special Delivery Fee   |    |  |
| Restricted Delivery Fee  |    |  |
| Return Receipt Showing o whom and Date Delivered               |    |  |
| Return Receipt Showing to whom,  Date, and Address of Delivery |    |  |
| TOTAL Postage and Foes . 200                                   |    |  |
| Postmerk or Date   |    |  |

## P 399 362 074 BEGEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVICED— NOT FOR INTERNATIONAL MAIL

(See Reverse)

| Sent to<br>Irene Pinto Ignaci                                    | 0                         |  |  |
|--|---------------------------|--|--|
| Street and No. Delivery  |                           |  |  |
| PCUBE, MEW MEXTCO 8  | PCubart New Mext co 87013 |  |  |
| Postage  | s                         |  |  |
| Certified Fee  |                           |  |  |
| Special Delivery Fee   | Special Delivery Fee      |  |  |
| Restricted Delivery Fee  |                           |  |  |
| Return Receipt Showing<br>o whom and Date Delivered              |                           |  |  |
| Return Reneipt Showing to whom,<br>Date, and Address of Delivery |                           |  |  |
| TOTAL Postage and Fees   | #20p                      |  |  |
| Postmark or Days   |                           |  |  |
|  |                           |  |  |
|  | $j \sim 1$                |  |  |
|  |                           |  |  |

## P 399 362 069 RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED— NOT FOR INTERNATIONAL MAIL

(See Reverse)

| Sent to<br>Mrs. Juan Sandova]                        |    |  |  |  |
|--|----|--|--|--|
| Street and No.<br>Box 132                            |    |  |  |  |
| P.O. State and ZIP Code<br>Cuba, New Mexico 87013    |    |  |  |  |
| Postage .  | \$ |  |  |  |
| Certified Fee  |    |  |  |  |
| Special Delivery Fee                                 |    |  |  |  |
| Restricted Delivery Fee                              |    |  |  |  |
| Return Receipt Showing<br>to whom and Date Delivered |    |  |  |  |
| iteturn Receipt Showing to whom,                     |    |  |  |  |
| Date, and Address of Delivery                        |    |  |  |  |
| TOTAL Postage and Fees 200                           |    |  |  |  |
| Postmark or Date                                     |    |  |  |  |
|  |    |  |  |  |



## STATE OF NEW MEXICO

## ENERGY AND MINERALS DEPARTMENT

OIL CONSERVATION DIVISION AZTEC DISTRICT OFFICE

1000 RIO BRAZOS ROAD AZTEC, NEW MEXICO 87410 (505) 334-6178

| OIL CONSERVATION DIVISION BOX 2088           |                             |
|--|-----------------------------|
| SANTA FE, NEW MEXICO 87501                   |                             |
| DATE 9-6-84                                  |                             |
| RE: Proposed MC                              |                             |
| Gentlemen:                                   |                             |
| I have examined the application dated        | 8-17-84                     |
| for the James L. Ludwick Na<br>Operator Leas | ie and Well No. Unit, S-T-R |
| and my recommendations are as follows:       |                             |
|  | / *4 / /                    |
| Docket for hearing flending                  | Justin Study of the         |
| grea-  |                             |
|  |                             |
|  |                             |
| Yours truly,                                 |                             |
| En Busel                                     | GIL COMSERVATION DEMSION    |
|  | -11 € 1 <b>98</b> %         |