



David L. Wacker  
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Conoco Inc.  
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Hobbs, NM 88240  
(505) 397-5800

September 6, 1989

Mr. Dave Catanach  
New Mexico Oil Conservation Division  
P.O. Box 2088  
Santa Fe, NM 87504

Dear Mr. Catanach:

On May 25, 1972 the New Mexico Oil Conservation Commission (NMOCC) approved Conoco's application to complete the Jicarilla 30 No. 1 as a salt water disposal well. Permission was granted to inject water into the Mesaverde formation from approximately 5171 feet to approximately 5432 feet through 2-3/8" tubing with a packer set at about 5100 feet (see Attachment 1).

On August 17, 1989 a radioactive tracer survey and temperature survey was conducted on the subject well. The results of the tests indicated that a portion of the water is exiting the 5-1/2" production casing below the approved injection interval through old perforations in the casing at 5499 feet and appears to be moving down (see Attachment 2). Conoco immediately discontinued all injection operations when the test results were obtained and notified both the EPA and the NMOCC.

A review of the well records indicates that the old perforations are located in the Point Lookout Sandstone within the Mesaverde interval (see Attachment 3). Since we cannot get tools any deeper into the well, it is impossible to tell exactly where the water is going. Nevertheless, The following information suggests that the water is staying within the Mesaverde interval.

1. The Mancos shale is located directly below the Point Lookout Sandstone. This formation is very impermeable and is approximately 872 feet thick in the Jicarilla 30 No. 1 well.
2. The Gallup formation is immediately below the Mancos formation. The production casing was perforated near the top of the Gallup formation and squeeze cemented with 750 sacks of cement in March, 1954. This work was conducted to isolate the Gallup formation from the overlying formations before attempting to complete the Gallup formation.
3. The Jicarilla 30 No. 12 and the Jicarilla 20 No. 2 are located near the Jicarilla 30 No. 1 and are completed in the Gallup formation. The combined water production from these two wells is only 2 BWPD.

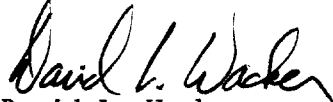
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Conoco has been trucking the produced water to an outside operated disposal site since the injectivity tests were conducted. However, it is economically unfeasible to continue such operations for an extended time period due to the additional costs to truck and dispose of the water.

We would like, therefore, for the NMOCC to amend Order No. SWD-140 to include the entire Mesaverde interval from 4846 feet to 5586 feet so that we can return the Jicarilla 30 No. 1 to injection. If more information is required or the order cannot be amended immediately we would appreciate written authorization to temporarily inject water into the well until the Order can be revised. Conoco has already received approval from the EPA to continue injection since we are not violating any of their rules and regulations (see Attachment 4).

Your expeditious approval of this application would be appreciated because the economics of our operations are significantly affected by the loss of this disposal well.

Sincerely,

A handwritten signature in black ink, appearing to read "David L. Wacker". The signature is fluid and cursive, with the first name "David" being the most prominent part.

David L. Wacker  
Division Manager

rlt  
Attachments

JICARILLA SALT WATER DISPOSAL WELL

MAY 1972 0-140

THE APPLICATION OF CONTINENTAL  
OIL COMPANY FOR A SALT WATER  
DISPOSAL WELL.

# ILLEGIBLE

## ADMINISTRATIVE ORDER OF THE OIL CONSERVATION COMMISSION

Under the provisions of Rule 701 (C) Continental Oil Company, made application to the New Mexico Oil Conservation on May 10, 1972 for permission to complete for salt water disposal its Jicarilla Well No. 1 located in Unit A of Section 30, Township 25 North, Range 4 West, NMPM, Rio Arriba County, New Mexico.

The Secretary-Director finds:

1. That application has been duly filed under the provisions of Rule 701 (C) of the Commission Rules and Regulations;
2. That satisfactory information has been provided that all offset operators, surface owners, and the New Mexico State Engineer Office have been duly notified; and
3. That the applicant has presented satisfactory evidence that all requirements prescribed in Rule 701 (C) will be met.
4. That no objections have been received within the waiting period prescribed by said rule.

### IT IS THEREFORE ORDERED:

That the applicant herein, Continental Oil Company, is hereby authorized to complete its Jicarilla Well No. 1 located in Unit A of Section 30, Township 25 North, Range 4 West, NMPM, Rio Arriba County, New Mexico, in such a manner as to permit the injection of salt water for disposal purposes into the Mesaverde Formation at approximately 5171 feet to approximately 5432 feet through 2 3/8-inch tubing with a packer set at approximately 5100 feet.

### IT IS FURTHER ORDERED:

That jurisdiction of this cause is hereby retained by the Commission for such further order or orders as may seem necessary or convenient for the prevention of waste and/or protection of correlative rights; upon failure of applicant to comply with any requirement of this order after notice and hearing, the Commission may terminate the authority hereby granted in the interest of conservation. That applicant shall submit monthly reports of the disposal operation in accordance with Rules 704 and 1120 of the Commission Rules and Regulations.

APPROVED at Santa Fe, New Mexico, on this 25th day of May, 1972.

STATE OF NEW MEXICO  
OIL CONSERVATION COMMISSION

*A. L. Porter, Jr.*  
A. L. PORTER, Jr.  
Secretary-Director

**W  
A  
C  
O****WELL ANALYSIS CO.****TRACER SURVEY****TEMPERATURE**

FARMINGTON, N. M. 87401 • Telephone: (505) 328-0904

FILING NO

COMPANY CONOCOWELL JICARILLA # 30 - 1FIELD WEST LINDRETHCOUNTY RIO ARRIBA STATE NEW MEXICO

LOCATION

N/A

OTHER SERVICES

SEC \_\_\_\_\_ TWP \_\_\_\_\_ RGE \_\_\_\_\_

PERMANENT DATUM GROUND LEVEL

ELEV \_\_\_\_\_

ELEV K B \_\_\_\_\_

LOG MEASURED FROM K. B. 10 FT ABOVE PERM DATUM

D F \_\_\_\_\_

DRILLING MEASURED FROM K. B.

G L \_\_\_\_\_

Date 8-17-89Run No. ONEType Log TRACER, TEMPERATUREDepth-Driller 5566 PBTBDepth-Logger 5500Bottom logged interval 5499Top logged interval 5050Type fluid in hole WATERMax rec temp, deg F 110°Operating rig time WACO MASTRecorded by BEENE

Witnessed by \_\_\_\_\_

## Bore-Hole Record

## Tubing Record

| Run No | Bit | From | To | Size  | Wgt | From  | To   |
|--------|-----|------|----|-------|-----|-------|------|
|        |     |      |    | 2 3/8 |     | SURF. | 5112 |
|        |     |      |    |       |     |       |      |
|        |     |      |    |       |     |       |      |

## Casing Record

## Liner

| Size  | Wgt | From  | To   | Size | Wgt | From | To |
|-------|-----|-------|------|------|-----|------|----|
| 5 1/2 |     | SURF. | T.D. |      |     |      |    |
|       |     |       |      |      |     |      |    |
|       |     |       |      |      |     |      |    |

LARGE FORMAT  
EXHIBIT HAS  
BEEN REMOVED  
AND IS LOCATED  
IN THE NEXT FILE