

P. O. Box 3312  
Durango, Colorado  
September 28, 1962

New Mexico Oil Conservation Commission  
P. O. Box 871  
Santa Fe, New Mexico

Attn: A. L. Porter, Jr., Secretary and Director

Gentlemen:

New Mexico Oil Conservation Commission Order No. R-2312 granted Continental Oil Company permission to dually complete Rattlesnake Well No. 140, located in Unit H of Section 11, T29N, R19W, San Juan County, New Mexico, to produce oil and gas from the Pennsylvanian-Paradox formation and to dispose of salt water into the Organ Rock formation. Administrative approval is requested to abandon the proposal to dispose of salt water into the Organ Rock in Well No. 140 and to dispose of the salt water into the Organ Rock in Well No. 145, located in Unit N, T29N, R19W, San Juan County, New Mexico.

At the time of the hearing on August 29, 1962, for salt water disposal into Well No. 140, we were conducting tests on Well No. 145 which have recently been completed. At that time, it appeared that Well No. 145 would produce commercial quantities of oil and gas from the Pennsylvanian-Paradox reservoir. Our latest test information of September, 1962, shows the well will produce 2 BOPD, 86 BWPD and 55 MCFGD. Therefore, we are requesting authority to dispose of produced salt water into the Organ Rock formation in Well No. 145 instead of Well No. 140. This will eliminate the need for a dual completion well for the purpose of salt water disposal. Well No. 140 will continue to be used as a pressure observation well in the Pennsylvanian-Paradox reservoir.

We plan to set a Baker Model "N" bridge plug in the 9 5/8" casing at approximately 4400 feet. Approximately 50 feet of cement will be placed on top of the bridge plug. The 9 5/8" casing opposite the Organ Rock will be perforated from 4190' to 4205' and 4310' to 4330'. A Baker Model "D" retainer production packer will be set at 4100 feet and salt water will be injected through 2 7/8" tubing.

With the present casing and cementing program, there will be no chance of contaminating fresh water sands above the Organ Rock with the proposed salt water disposal. The proposed salt water disposal into the Organ Rock in Well No. 145 is basically the same proposal approved by the New Mexico Oil Conservation Commission in Order No. R-2312 for disposal into

Well No. 140. Therefore, it is requested that administrative approval be granted for salt water disposal into the same formation in Well No. 145. A map showing the location of the two wells and a complete log of Well No. 145 are attached to the accompanying application.

Very truly yours,



H. D. Haley  
District Superintendent  
Durango District  
Production Department

GAB/cb

cc: U. S. Geological Survey  
New Mexico State Engineer  
R. E. White  
E. A. Austin  
William M. Griffith

STATE OF NEW MEXICO  
OIL CONSERVATION COMMISSION

APPLICATION  
TO DISPOSE OF SALT WATER BY INJECTION INTO A POROUS FORMATION  
NOT PRODUCTIVE OF OIL OR GAS

Operator Continental Oil Company Address Box 3312, Durango, Colorado

Lease Rattlesnake Well No. 145 County San Juan

Unit N Section 12 Township 29N Range 19W

This is an application to dispose of salt water produced from the following pool(s):

Rattlesnake Pennsylvanian

Name of Injection Formation(s) Organ Rock

Top of injection zone 4124 Bottom of injection zone 4325

Give operator, lease, well no., and location of any other well in this area using this same zone for disposal purposes None

CASING PROGRAM

|              | Diameter                 | Setting Depth                  | Sacks Cement                            | Top of Cement |
|--------------|--------------------------|--------------------------------|---|---------------|
| Surface      | 13 3/8"                  | 298'                           | 325                                     | Surface       |
| Intermediate | 9 5/8"                   | 4535'                          | 130 - Stage Collar<br>475 - Casing Shoe | 600'<br>2900' |
| Long String  | 7" Liner<br>4 1/2" Liner | 4284' - 6598'<br>6519' - 6780' | 400<br>None                             | 4284'         |

Will injection be through tubing, casing, or annulus? Tubing

Size tubing 2 7/8" O.D. Setting depth: 4100' Packer set at 4100'

Name and Model No. of packer Lower Bridge Plug: 9 5/8" Baker Model "N"  
Upper Production Packer: 9 5/8" Model "D" retainer Production Packer.

Will injection be through perforations or open hole? Perforations

Proposed interval(s) of injection 4190' - 4205'; 4310' - 4330'

Well was originally drilled for what purpose? Pennsylvanian-Paradox oil and gas production

Has well ever been perforated in any zone other than the proposed injection zone? Yes

List all such perforated intervals and sacks of cement used to seal off or squeeze each:  
4 1/2" liner slotted from 6640' to 6778'; perforations at 6450'-6466', 6412'-6420', 6398'-6408'.  
Perforations will be isolated below the proposed injection zone with a 9 5/8" Model "N" bridge plug with 50' of cement placed on top of bridge plug.

Give depth of bottom of next higher zone which produces oil or gas 940'

Give depth of top of next lower zone which produces oil or gas 6400'

Give depth of bottom of deepest fresh water zone in area: Morrison - 1960'

Expected volume of salt water to be injected daily (barrels) 1000

Will injection be by gravity or pump pressure? Pump Estimated pressure: 0 - 900 psi

Is system open or close type? Close Is filtration or chemical treatment necessary? Yes

Is the water to be disposed of mineralized to such a degree as to be unfit for domestic, stock, irrigation, and/or other general use? Yes

Is any water occurring naturally within the proposed disposal formation mineralized to such a degree as to be unfit for domestic, stock, irrigation, and/or other general use? Yes

List all offset operators to the lease on which this well is located and their mailing address

Humble Oil and Refining Company, Box 3082, Durango, Colorado

Kern County Land Company, Box 1784, Albuquerque, New Mexico

Name and address of surface owner Navajo Tribe, Window Rock, Arizona

Have copies of this application been sent by registered mail or given to all offset operators, surface owners, and to the New Mexico State Engineer? Yes

Is a complete electrical log of this well attached? Yes

Operator: Continental Oil Company

By:

Title: District Superintendent

STATE OF Colorado )  
 ) ss.  
County of La Plata )

BEFORE ME, The undersigned authority, on this day personally appeared H. D. Haley known to me to be the person whose name is subscribed to the above instrument, who being by me duly sworn on oath states that he is duly authorized to make the above report and that he has knowledge of the facts stated therein and that said report is true and correct.

SUBSCRIBED AND SWORN TO before me this the 27th day of September, 19 62

Notary Public in and for the County of La Plata

March 5, 1963  
My Commission Expires

NOTE: Should waiters from all offset operators, the surface owner, and the State Engineer not accompany an application, the New Mexico Oil Conservation Commission will hold the application for a period of fifteen (15) days from date of receipt by the Commission's Santa Fe office. If at the end of said fifteen-day period, no protest nor request for hearing is received by the Santa Fe office, the application will then be processed.

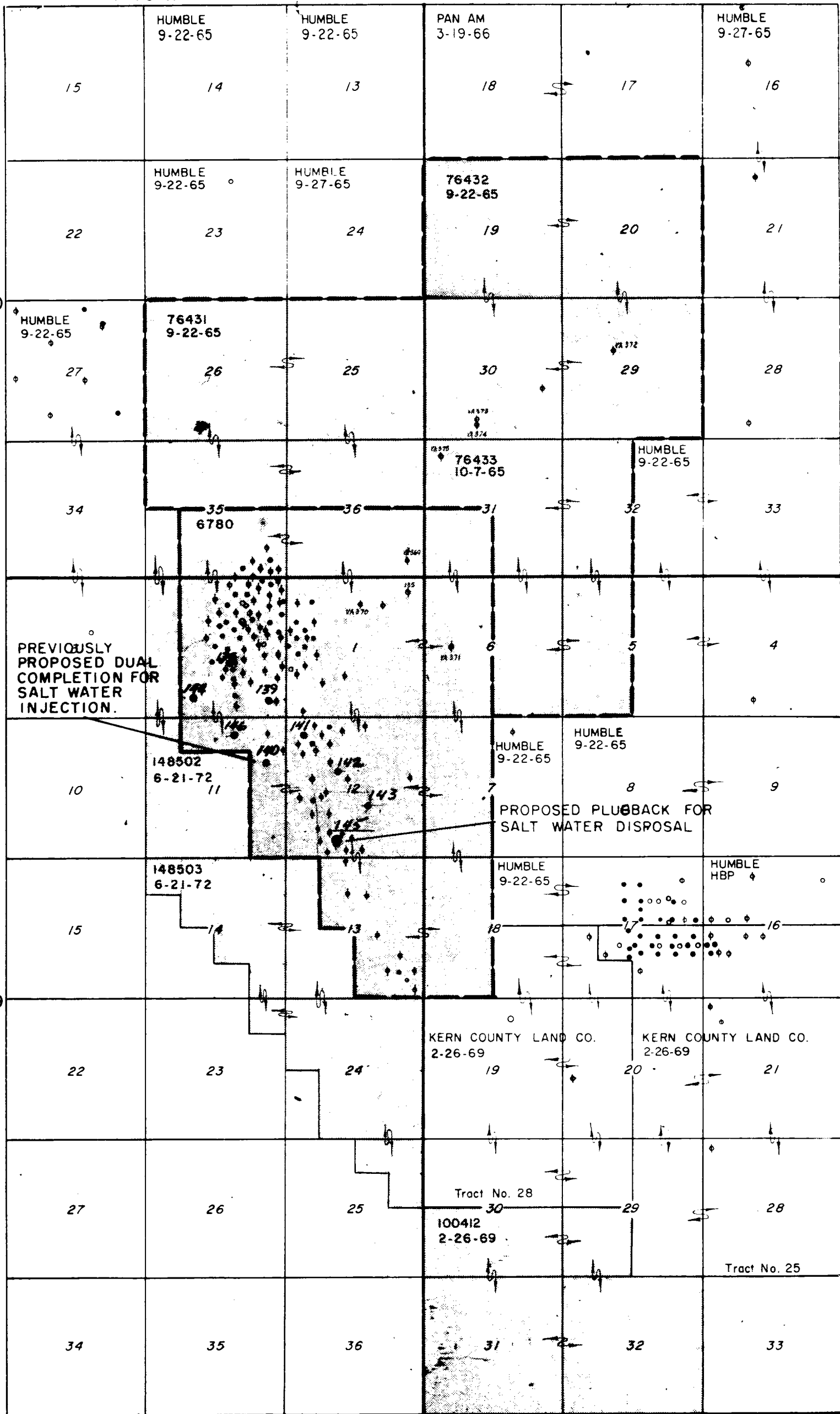
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Frank D. [unclear]  
received application  
to [unclear] app for  
SWD in [unclear]  
Re: [unclear]  
Kathleen [unclear]

call to [unclear] [unclear] & [unclear]  
application in SW [unclear]

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RATTLESNAKE FIELD &amp; NORTH RATTLESNAKE BLOCK