

CASE 5665: HOWARD BOATWRIGHT COMPANY
INC. FOR SALT WATER DISPOSAL, EDDY
COUNTY, NEW MEXICO

CASE NO.

5665

APPLICATION,
TRANSCRIPTS,
SMALL EXHIBITS,

ETC.

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE HEARING
CALLED BY THE OIL CONSERVATION
COMMISSION OF NEW MEXICO FOR
THE PURPOSE OF CONSIDERING:

CASE NO. 5665
Order No. R-5208

APPLICATION OF HOWARD BOATWRIGHT
COMPANY, INC. FOR SALT WATER
DISPOSAL, EDDY COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on April 14, 1976, at Santa Fe, New Mexico, before Examiner, Daniel S. Nutter.

NOW, on this 27th day of April, 1976, the Commission, a quorum being present, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS:

(1) That due public notice having been given as required by law, the Commission has jurisdiction of this cause and the subject matter thereof.

(2) That the applicant, Howard Boatwright Company, Inc., is the owner and operator of the State CS Well No. 1, located in Unit L of Section 17, Township 21 South, Range 27 East, NMPM, Burton Flats Field, Eddy County, New Mexico.

(3) That the applicant proposes to utilize said well to dispose of produced salt water into the Delaware formation, with injection into the open-hole interval from approximately 2979 feet to 3180 feet.

(4) That the injection should be accomplished through 2 7/8-inch plastic lined tubing installed in a packer set at approximately 2975 feet; that the casing-tubing annulus should be filled with an inert fluid, and that a pressure gauge or approved leak detection device should be attached to the annulus in order to determine leakage in the casing, tubing, or packer.

(5) That the injection well or system should be equipped with a pop-off valve or acceptable substitute which will limit the wellhead pressure on the injection well to no more than 400 psi.

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Case No. 5665
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(6) That the operator should notify the supervisor of the Artesia district office of the Commission of the date and time of the installation of disposal equipment so that the same may be inspected.

(7) That the operator should take all steps necessary to ensure that the injected water enters only the proposed injection interval and is not permitted to escape to other formations or onto the surface.

(8) That approval of the subject application will prevent the drilling of unnecessary wells and otherwise prevent waste and protect correlative rights.

IT IS THEREFORE ORDERED:

(1) That the applicant, Howard Boatwright Company, Inc., is hereby authorized to utilize its State CS Well No. 1, located in Unit L of Section 17, Township 21 South, Range 27 East, NMMP, Burton Flats Field, Eddy County, New Mexico, to dispose of produced salt water into the Delaware formation, injection to be accomplished through 2 7/8-inch tubing installed in a packer set at approximately 2975 feet, with injection into the open-hole interval from approximately 2979 feet to 3180 feet;

PROVIDED HOWEVER, that the tubing shall be plastic-lined; that the casing-tubing annulus shall be filled with an inert fluid; and that a pressure gauge shall be attached to the annulus or the annulus shall be equipped with an approved leak detection device in order to determine leakage in the casing, tubing, or packer.

(2) That the injection well or system shall be equipped with a pop-off valve or acceptable substitute which will limit the wellhead pressure on the injection well to no more than 400 psi.

(3) That the operator shall notify the supervisor of the Artesia district office of the Commission of the date and time of the installation of disposal equipment so that the same may be inspected.

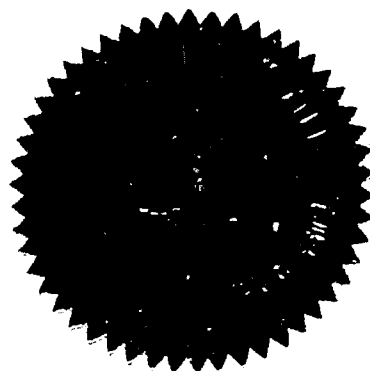
(4) That the operator shall immediately notify the supervisor of the Commission's Artesia district office of the failure of the tubing, casing, or packer, in said well or the leakage of water from or around said well and shall take such steps as may be timely and necessary to correct such failure or leakage.

(5) That the applicant shall submit monthly reports of its disposal operations in accordance with Rules 704 and 1120 of the Commission Rules and Regulations.

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Case No. 5665
Order No. R-5208

(6) That jurisdiction of this cause is retained for the entry of such further orders as the Commission may deem necessary.

DONE at Santa Fe, New Mexico, on the day and year herein-
above designated.



S E A L

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

Phil R. Lucero
PHIL R. LUCERO, Chairman

EMERY C. ARNOLD, Member

Joe D. Ramey
JOE D. RAMEY, Member & Secretary

jr/

NEW MEXICO OIL CONSERVATION COMMISSION
APPLICATION TO DISPOSE OF SALT WATER BY INJECTION INTO A POROUS FORMATION

OPERATOR Hesselt Bontrecht, Co. Inc. ✓		ADDRESS 771 Plaza Nat'l. Bank Bldg.	
LEASER NAME State CS	WELL NO. 1	FIELD Ead. Barton Flats Morrow	COUNTY Hddy
LOCATION UNIT LETTER <u>L</u> ; WELL IS LOCATED <u>1980</u> FEET FROM THE <u>S</u> LINE AND <u>560</u> FEET FROM THE LINE, SECTION <u>R</u> TOWNSHIP <u>37</u> RANGE <u>21S</u> NMPM. <u>27E</u>			

CASING AND TUBING DATA					
NAME OF STRING	SIZE	SETTING DEPTH	SACKS CEMENT	TOP OF CEMENT	TOP DETERMINED BY
SURFACE CASING	12 3/8	374		circulated	
INTERMEDIATE	9 5/8	2989		circulated	
LONG STRING					
TUBING	2 7/8	2975	NAME, MODEL AND DEPTH OF TUBING PACKER Baker Model D 2975		
NAME OF PROPOSED INJECTION FORMATION Delaware Sand			TOP OF FORMATION 2610	BOTTOM OF FORMATION 4650	
IS INJECTION THROUGH TUBING, CASING, OR ANNULUS? tubing		PERFORATIONS OR OPEN HOLES? open holes	PROPOSED INTERVAL(S) OF INJECTION 2975-3180		
IS THIS A NEW WELL DRILLED FOR DISPOSAL? NO	IF ANSWER IS NO, FOR WHAT PURPOSE WAS WELL ORIGINALLY DRILLED? MORROW GAS HOIL		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 11,163 ~ 11,287 CIP 35 AN CEMENT ON 505					
DEPTH OF BOTTOM OF DEEPEST FRESH WATER ZONE IN THIS AREA 2000 374		DEPTH OF BOTTOM OF NEXT HIGHER OIL OR GAS ZONE IN THIS AREA 2610		DEPTH OF TOP OF NEXT LOWER OIL OR GAS ZONE IN THIS AREA 4650	
ANTICIPATED DAILY INJECTION VOLUME (BBL/D) 1000	MINIMUM 1000	MAXIMUM 1500	OPEN OR CLOSED TYPE SYSTEM open	IS INJECTION TO BE BY GRAVITY OR PRESSURE? PRESSURE	APPROX. PRESSURE (PSI) 5005
ANSWER YES OR NO WHETHER THE FOLLOWING WATERS ARE MINERALIZED TO SUCH A DEGREE AS TO BE UNSUIT FOR DOMESTIC, STOCK, IRRIGATION, OR OTHER GENERAL USE - YES			WATER TO BE DISPOSED OF 100	NATURAL WATER IN DISPOSAL ZONE YES	ARE WATER ANALYSES ATTACHED? NO
NAME AND ADDRESS OF SURFACE OWNER (OR LESSEE, IF STATE OR FEDERAL LAND) State land					
LIST NAMES AND ADDRESSES OF ALL OPERATORS WITHIN ONE-HALF (1/2) MILE OF THIS INJECTION WELL					
Vetco Drilling Co. Artesia, New Mexico					
Cities Service Oil Co., Box 1919 Midland, Texas 79701					
Flint Northern Electric Prod. P.O. Box 23, Midland, Texas 79701					
Mobil Oil Co. P.O. Box 2072, Midland, Texas 79701					
HAVE COPIES OF THIS APPLICATION BEEN SENT TO EACH OF THE FOLLOWING?					
SURFACE OWNER YES		EACH OPERATOR WITHIN ONE-HALF MILE OF THIS WELL YES			
ARE THE FOLLOWING ITEMS ATTACHED TO THIS APPLICATION (SEE RULE 701-B)?		PLAT OF AREA YES	ELECTRICAL LOG YES	DIAGRAMMATIC SKETCH OF WELL YES	

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

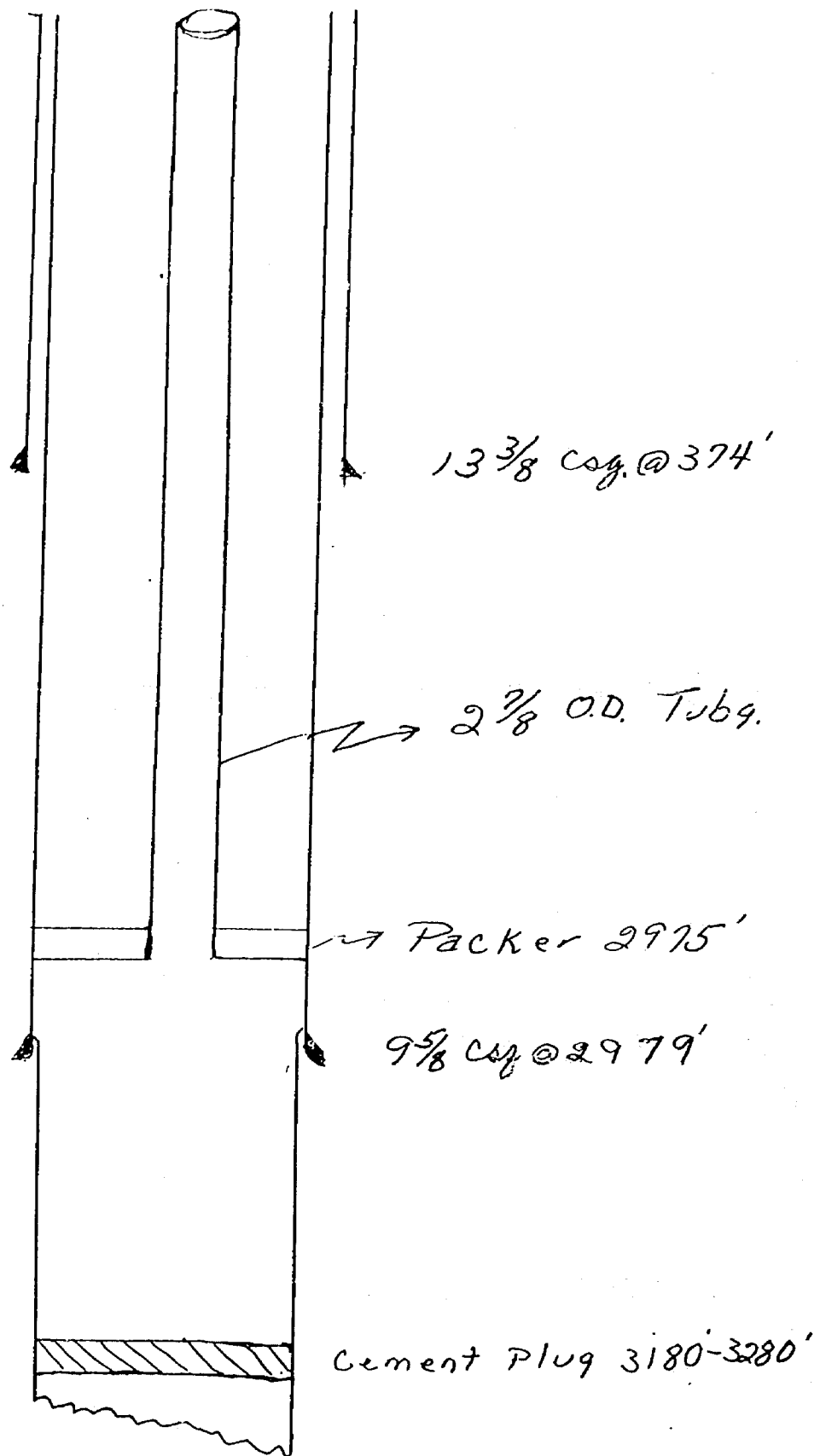
Lillian Jones
(Signature)

Agent
(Title)

3-2-76
(Date)

NOTE: Should waivers from the surface owner and all operators within one-half mile of the proposed injection well not accompany this application, the New Mexico Oil Conservation Commission will hold the application for a period of 15 days from the date of receipt by the Commission's Santa Fe office. If at the end of the 15-day waiting period no protest has been received by the Santa Fe office, the application will be processed. If a protest is received, the application will be set for hearing, if the applicant so requests. SEE RULE 701.

State CS #1



Dockets Nos. 13-76 and 14-76 are tentatively set for hearing on April 28 and May 12, 1976. Applications for hearing must be filed at least 22 days in advance of hearing date.

DOCKET: EXAMINER HEARING - WEDNESDAY - APRIL 14, 1976

9 A.M. - OIL CONSERVATION COMMISSION CONFERENCE ROOM,
STATE LAND OFFICE BUILDING, SANTA FE, NEW MEXICO

The following cases will be heard before Daniel S. Kutter, Examiner, or Richard L. Stamets, Alternate Examiner:

ALLOWABLE: (1) Consideration of the allowable production of gas for May, 1976, from seventeen prorated pools in Lea, Eddy, Chaves, and Roosevelt Counties, New Mexico.

(2) Consideration of the allowable production of gas for May, 1976, from five prorated pools in San Juan, Rio Arriba, and Sandoval Counties, New Mexico.

CASE 5663: Application of Anne Burnett Tandy dba Windfohr Oil Company for 12 unorthodox oil well locations and an administrative procedure, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of 12 oil wells to be drilled to the San Andres formation at the following locations in the Grayburg-Jackson Unit, Township 17 South, Range 30 East, Eddy County, New Mexico:

in Section 13: extreme SE/corner of Units E and O, the extreme SW/corner of Unit N, the extreme NE/corner of Units J and K, and the extreme NW/corner of Units M, N, O, and P;

in Section 14: the extreme SE of Unit H;

in Section 24: the extreme SW/corner of Unit C and extreme NW/corner of Unit D.

Applicant further seeks the establishment of an administrative procedure whereby the above wells could be relocated and other similar unorthodox locations approved without notice and hearing.

CASE 5664: Application of Mesa Petroleum Company for a dual completion, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval for the dual completion (conventional) of its Nash Unit Well No. 2, located in Unit F of Section 18, Township 23 South, Range 30 East, Eddy County, New Mexico, to produce gas from the Atoka and Morrow formations through parallel strings of tubing.

CASE 5665: Application of Howard Boatwright Company, Inc. for salt water disposal, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Delaware formation through the open-hole interval from 2979 to 3180 feet in its State CS Well No. 1 located in Unit L of Section 17, Township 21 South, Range 27 East, Burton Flats Field, Eddy County, New Mexico.

CASE 5666: Application of Belco Petroleum Corporation for compulsory pooling and an unorthodox gas well location, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in and below the Pennsylvanian formation underlying the E/2 of Section 7, Township 22 South, Range 27 East, Eddy County, New Mexico, to be dedicated to a well to be drilled 2410 feet from the North line and 560 feet from the East line of said Section 7. Also to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof, as well as actual operating costs and charges for supervision. Also to be considered will be the designation of applicant as operator of the well and a charge for risk involved in drilling said well.

CASE 5667: Application of Belco Petroleum Corporation for approval of an unorthodox gas well location, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of a Morrow test well to be drilled 660 feet from the North line and 1480 feet from the West line of Section 19, Township 21 South, Range 35 East, Osado-Morrow Gas Pool, Lea County, New Mexico, the N/2 of said Section 19 to be dedicated to the well.

CASE 5443: (Reopened)

In the matter of Case 5443 being reopened pursuant to the provisions of Order No. R-4994, which order established special rules and regulations for the East Lusk-Bone Spring Oil Pool, Lea County, New Mexico, including a provision for 160-acre spacing and proration units. All interested parties may appear and show cause why said pool should not be developed on less than 160-acre spacing units.

CASE 5446: (Reopened)

In the matter of Case 5446 being reopened pursuant to the provisions of Order No. R-4992, which order established special rules and regulations for the Cussey Strain Pool, Lea County, New Mexico, including a provision for 80-acre spacing. All interested parties may appear and show cause why said pool should not be developed on 40-acre spacing units.

NEW MEXICO OIL CONSERVATION COMMISSION
APPLICATION TO DISPOSE OF SALT WATER BY INJECTION INTO A POROUS FORMATION

OPERATOR Howard Bouknight, Co. Inc. ✓		ADDRESS 711 Pomeroy Bldg. N. W. 1st St. & 1st Ave. N. W.	
LEASE NAME State CS	WELL NO. 1	FIELD Eld. Carbon Flats Horizon	COUNTY Sandoval
LOCATION UNIT LETTER <u>1</u> WELL IS LOCATED <u>1950</u> FEET FROM THE <u>S</u> LINE AND <u>560</u> FEET FROM THE LINE, SECTION <u>17</u> TOWNSHIP <u>21S</u> RANGE <u>27N</u> NMPM.			

NAME OF STRING	SIZE	SETTING DEPTH	SACKS CEMENT	TOP OF CEMENT	TOP DETERMINED BY
FACE CASING	12 3/8	374		circulated	
IMMEDIATE	9 5/8	2959		circulated	
STRING					
TUBING	2 7/8	2975	NAME, MODEL AND DEPTH OF TUBING PACKER Baker Model D 2975		
NAME OF PROPOSED INJECTION FORMATION Delaware Sand			TOP OF FORMATION 2610		BOTTOM OF FORMATION 4550
IS INJECTION THROUGH TUBING, CASING, OR ANNULUS? Tubing		PERFORATIONS OR OPEN HOLES? open hole	PROPOSED INTERVAL(S) OF INJECTION 2979-3100		
IS THIS A NEW WELL DRILLED FOR DISPOSAL? NO		IF ANSWER IS NO, FOR WHAT PURPOSE WAS WELL ORIGINALLY DRILLED? MORROW GAS WELL		HAS WELL EVER BEEN PERFORATED IN ANY ZONE OTHER THAN THE PROPOSED INJECTION ZONE? NO	
LIST ALL SUCH PERFORATED INTERVALS AND SACKS OF CEMENT USED TO SEAL OFF OR SQUEEZE EACH 11,363 - 11,387 CIP 35 AM CEMENT ON TOP					
DEPTH OF BOTTOM OF DEEPEST FRESH WATER ZONE IN THIS AREA 2000 3/4		DEPTH OF BOTTOM OF NEXT HIGHER OIL OR GAS ZONE IN THIS AREA 2000		DEPTH OF TOP OF NEXT LOWER OIL OR GAS ZONE IN THIS AREA 2000	
ANTICIPATED DAILY INJECTION VOLUME (BBL.)	MINIMUM 2000	MAXIMUM 1500	OPEN OR CLOSED TYPE SYSTEM open	IS INJECTION TO BE BY GRAVITY OR PRESSURE? PRESSURE	APPROX. PRESSURE (PSI) 4000
ANSWER YES OR NO WHETHER THE FOLLOWING WATERS ARE MINERALIZED TO SUCH A DEGREE AS TO BE UNFIT FOR DOMESTIC, STOCK, IRRIGATION, OR OTHER GENERAL USE -			WATER TO BE DISPOSED OF YES	NATURAL WATER IN DISPOSAL ZONE YES	ARE WATER ANALYSES ATTACHED? NO
NAME AND ADDRESS OF SURFACE OWNER (OR LESSEE, IF STATE OR FEDERAL LAND) State Land					
LIST NAMES AND ADDRESSES OF ALL OPERATORS WITHIN ONE-HALF (1/2) MILE OF THIS INJECTION WELL					
Yates Ind. Co. Artesia, New Mexico					
Cities Service Oil Co., Box 1515 Midland, Texas 79701					
Ray McGowan Pioneer Prod. P.O. Box 28, Midland, Texas 79701					
Mobil Oil Co. P.O. Box 1072, Midland, Texas 79701					
HAVE COPIES OF THIS APPLICATION BEEN SENT TO EACH OF THE FOLLOWING?		SURFACE OWNER YES		EACH OPERATOR WITHIN ONE-HALF MILE OF THIS WELL YES	
ARE THE FOLLOWING ITEMS ATTACHED TO THIS APPLICATION (SEE RULE 701-B)		PLAY OF AREA YES		ELECTRICAL LOG YES	
				DIAGRAMMATIC SKETCH OF WELL YES	

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

Lillian Jones
(Signature)

Agent
(Title)

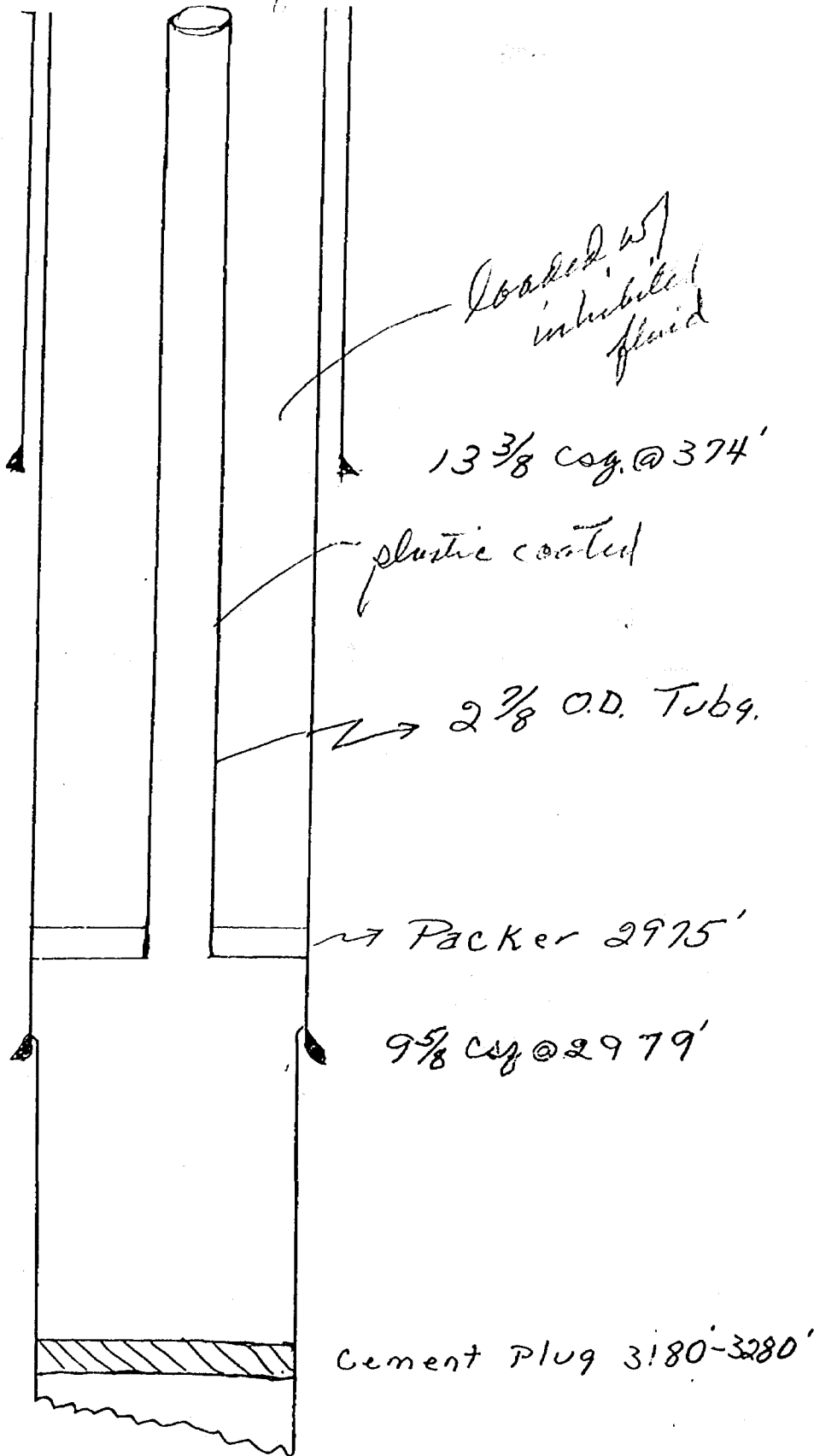
3-2-76
(Date)

NOTE: Should waivers from the surface owner and all operators within one-half mile of the proposed injection well not accompany this application, the New Mexico Oil Conservation Commission will hold the application for a period of 15 days from the date of receipt by the Commission's Santa Fe office. If at the end of the 15-day waiting period no protest has been received by the Santa Fe office, the application will be processed. If a protest is received, the application will be set for hearing, if the applicant so requests. SEE RULE 701.

State CS #1

2979
12
5958

orig est:
1000-1500
bbl/day
new estimate:
500-1000
bbl/day and
anticipate no
more than
400 lbs
surf press



Case 5665
Jan 1 21

Form O-108
Revised 2-1-68
MAR 10 1976

NEW MEXICO OIL CONSERVATION COMMISSION

APPLICATION TO DISPOSE OF SALT WATER BY INJECTION INTO A POROUS FORMATION

OPERATOR Howard Boatright, Co. Inc.		ADDRESS 711 First Nat'l. Bank Bldg. <i>Midland</i>	
LEASE NAME State CS	WELL NO. 1	FIELD Und. Burton Flats Morrow	COUNTY Eddy
LOCATION UNIT LETTER L ; WELL IS LOCATED 1980 FEET FROM THE S LINE AND 660 FEET FROM THE LINE, SECTION W TOWNSHIP 17 RANGE 21s NMPM. 27E			

CASING AND TUBING DATA					
NAME OF STRING	SIZE	SETTING DEPTH	SACKS CEMENT	TOP OF CEMENT	TOP DETERMINED BY
SURFACE CASING	13 3/8	374		circulated	
INTERMEDIATE	9 5/8	2989		circulated	
LONG STRING					
TUBING	2 7/8	2975	NAME, MODEL AND DEPTH OF TUBING PACKER Baker Model D 2975		
NAME OF PROPOSED INJECTION FORMATION Delaware Sand			TOP OF FORMATION 2610		BOTTOM OF FORMATION 4650
IS INJECTION THROUGH TUBING, CASING, OR ANNULUS? Tubing		PERFORATIONS OR OPEN HOLES open Hole	PROPOSED INTERVAL(S) OF INJECTION 2979-3180		
IS THIS A NEW WELL DRILLED FOR DISPOSAL? NO	IF ANSWER IS NO, FOR WHAT PURPOSE WAS WELL ORIGINALLY DRILLED? Morrow Gas Well			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 11,163 - 11,287 CIBP 35 sx cement on top					
DEPTH OF BOTTOM OF DEEPEST FRESH WATER ZONE IN THIS AREA above 374'		DEPTH OF BOTTOM OF NEXT HIGHER OIL OR GAS ZONE IN THIS AREA none		DEPTH OF TOP OF NEXT LOWER OIL OR GAS ZONE IN THIS AREA none	
ANTICIPATED DAILY INJECTION VOLUME (BBLs.) 1000	MINIMUM 1500	MAXIMUM open	OPEN OR CLOSED TYPE SYSTEM open	IS INJECTION TO BE BY GRAVITY OR PRESSURE? pressure	APPROX. PRESSURE (PSI) 400#
ANSWER YES OR NO WHETHER THE FOLLOWING WATERS ARE MINERALIZED TO SUCH A DEGREE AS TO BE UNFIT FOR DOMESTIC, STOCK, IRRIGATION, OR OTHER GENERAL USE - yes			WATER TO BE DISPOSED OF yes	NATURAL WATER IN DISPOSAL ZONE yes	ARE WATER ANALYSES ATTACHED? no
NAME AND ADDRESS OF SURFACE OWNER (OR LESSEE, IF STATE OR FEDERAL LAND) State Land					
LIST NAMES AND ADDRESSES OF ALL OPERATORS WITHIN ONE-HALF (1/2) MILE OF THIS INJECTION WELL					
Yates Drlg. Co. Artesia, New Mexico					
Cities Service Oil Co., Box 1919 Midland, Texas 79701					
Flag Redfern & Pioneer Prod. P.O. Box 23, Midland, Texas 79701					
Mobil Oil Co. P.O. Box 1073, Midland, Texas 79701					
HAVE COPIES OF THIS APPLICATION BEEN SENT TO EACH OF THE FOLLOWING?		SURFACE OWNER yes		EACH OPERATOR WITHIN ONE-HALF MILE OF THIS WELL yes	
ARE THE FOLLOWING ITEMS ATTACHED TO THIS APPLICATION (SEE RULE 701-B)		FLAT OF AREA yes		ELECTRICAL LOG yes	DIAGRAMMATIC SKETCH OF WELL yes

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

Lillian Jones
(Signature)

Agent

(Title)

3-8-76

(Date)

NOTE: Should waivers from the surface owner and all operators within one-half mile of the proposed injection well not accompany this application, the New Mexico Oil Conservation Commission will hold the application for a period of 15 days from the date of receipt by the Commission's Santa Fe office. If at the end of the 15-day waiting period no protest has been received by the Santa Fe office, the application will be processed. If a protest is received, the application will be set for hearing, if the applicant so requests. SEE RULE 701.

Case 5665

Form C-108
Revised 3-1-68

NEW MEXICO OIL CONSERVATION COMMISSION

APPLICATION TO DISPOSE OF SALT WATER BY INJECTION INTO A POROUS FORMATION

OPERATOR Howard Dontright, Co. Inc.		ADDRESS 711 First Nat'l. Bank Bldg. <i>Midland</i>	
LEASE NAME State CS	WELL NO. 1	FIELD Und. Burton Flats Morrow	COUNTY Eddy
LOCATION			
UNIT LETTER L	WELL IS LOCATED 1980	FEET FROM THE S	LINE AND 660
LINE, SECTION W	TOWNSHIP 17	RANGE 21S	NMPM. 27E

CASING AND TUBING DATA

NAME OF STRING	SIZE	SETTING DEPTH	SACKS CEMENT	TOP OF CEMENT	TOP DETERMINED BY
SURFACE CASING	10 3/8	374		circulated	
INTERMEDIATE	8 5/8	2989		circulated	
LONG STRING					
TUBING	2 7/8	2975	NAME, MODEL AND DEPTH OF TUBING PACKER Baker Model D 2975		
NAME OF PROPOSED INJECTION FORMATION Delaware Sand			TOP OF FORMATION 2610		BOTTOM OF FORMATION 4650
IS INJECTION THROUGH TUBING, CASING, OR ANNULUS? Tubing		PERFORATIONS OR OPEN HOLES? open Hole	PROPOSED INTERVAL(S) OF INJECTION 2975-3180		
IS THIS A NEW WELL DRILLED FOR DISPOSAL? No	IF ANSWER IS NO, FOR WHAT PURPOSE WAS WELL ORIGINALLY DRILLED? Morrow Gas Well			HAS WELL EVER BEEN PERFORMED 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 11,163 - 11,207 CIB? 35 ex cement on top					
DEPTH OF BOTTOM OF DEEPEST FRESH WATER ZONE IN THIS AREA above 374		DEPTH OF BOTTOM OF NEXT HIGHER OIL OR GAS ZONE IN THIS AREA none		DEPTH OF TOP OF NEXT LOWER OIL OR GAS ZONE IN THIS AREA none	
ANTICIPATED DAILY INJECTION VOLUME (BBLs.)	MINIMUM 1000	MAXIMUM 1500	OPEN OR CLOSED TYPE SYSTEM open	IS INJECTION TO BE BY GRAVITY OR PRESSURE? pressure	APPROX. PRESSURE (PSI) 400#
ANSWER YES OR NO WHETHER THE FOLLOWING WATERS ARE MINERALIZED TO SUCH A DEGREE AS TO BE UNFIT FOR DOMESTIC, STOCK, IRRIGATION, OR OTHER GENERAL USE -			WATER TO BE DISPOSED OF yes	NATURAL WATER IN DISPOSAL yes	ARE WATER ANALYSES ATTACHED? no
NAME AND ADDRESS OF SURFACE OWNER (OR LESSEE, IF STATE OR FEDERAL LAND) State Land					
LIST NAMES AND ADDRESSES OF ALL OPERATORS WITHIN ONE-HALF (1/2) MILE OF THIS INJECTION WELL					
Yates Drig. Co. Artesia, New Mexico					
Cities Service Oil Co., Box 1919 Midland, Texas 79701					
Flag Redfayne Pioneer Prod. P.O. Box 23, Midland, Texas 79701					
Mobil Oil Co. P.O. Box 1073, Midland, Texas 79701					
HAVE COPIES OF THIS APPLICATION BEEN SENT TO EACH OF THE FOLLOWING?		SURFACE OWNER yes		EACH OPERATOR WITHIN ONE-HALF MILE OF THIS WELL yes	
ARE THE FOLLOWING ITEMS ATTACHED TO THIS APPLICATION (SEE RULE 701-B)		PLAT OF AREA yes		ELECTRICAL LOG yes	
				DIAGRAMMATIC SKETCH OF WELL yes	

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

Lillian Jones
(Signature)

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3-8-76

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5665Form C-108
Revised 3-1-68NEW MEXICO OIL CONSERVATION COMMISSION
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OPERATOR Howard Boatright, Co. Inc.		ADDRESS 711 First Nat'l. Bank Bldg. <i>Midland</i>			
LEASE NAME State CS	WELL NO. 1	FIELD Und. Burton Flats Morrow	COUNTY Eddy		
LOCATION UNIT LETTER J ; WELL IS LOCATED 1980 FEET FROM THE S LINE AND 660 FEET FROM THE LINE, SECTION W TOWNSHIP 17 RANGE 21S NMPM. 27E					
CASING AND TUBING DATA					
NAME OF STRING	SIZE	SETTING DEPTH	SACKS CEMENT	TOP OF CEMENT	TOP DETERMINED BY
SURFACE CASING	13 3/8	374		circulated	
INTERMEDIATE	9 5/8	2989		circulated	
LONG STRING					
TUBING	2 7/8	2975	NAME, MODEL AND DEPTH OF TUBING PACKER Baker Model D 2975		
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IS INJECTION THROUGH TUBING, CASING, OR ANNULUS? Tubing		PERFORATIONS OR OPEN HOLES? open hole		PROPOSED INTERVAL(S) OF INJECTION 2979-3180	
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ANTICIPATED DAILY INJECTION VOLUME (BBL/S.)	MINIMUM 1000	MAXIMUM 1500	OPEN OR CLOSED TYPE SYSTEM open	IS INJECTION TO BE BY GRAVITY OR PRESSURE? pressure	APPROX. PRESSURE (PSI) 4000
ANSWER YES OR NO WHETHER THE FOLLOWING WATERS ARE MINERALIZED TO SUCH A DEGREE AS TO BE UNFIT FOR DOMESTIC, STOCK, IRRIGATION, OR OTHER GENERAL USE --			WATER TO BE DISPOSED OF yes	NATURAL WATER IN DISPOSAL ZONE yes	ARE WATER ANALYSES ATTACHED? no
NAME AND ADDRESS OF SURFACE OWNER (OR LESSEE, IF STATE OR FEDERAL LAND) State Land					
LIST NAMES AND ADDRESSES OF ALL OPERATORS WITHIN ONE-HALF (1/2) MILE OF THIS INJECTION WELL					
Yates Drlg. Co. Artesia, New Mexico					
Cities Service Oil Co., Box 1919 Midland, Texas 79701					
Flag Redfern & Pioneer Prod. P.O. Box 23, Midland, Texas 79701					
Mobil Oil Co. P.O. Box 1073, Midland, Texas 79701					
HAVE COPIES OF THIS APPLICATION BEEN SENT TO EACH OF THE FOLLOWING?		SURFACE OWNER yes		EACH OPERATOR WITHIN ONE-HALF MILE OF THIS WELL yes	
ARE THE FOLLOWING ITEMS ATTACHED TO THIS APPLICATION (SEE RULE 701-B)		PLAT OF AREA yes		ELECTRICAL LOG yes	
				DIAGRAMMATIC SKETCH OF WELL yes	

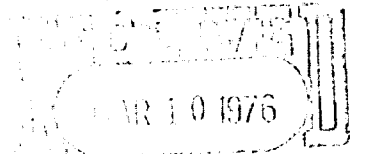
I hereby certify that the information above is true and complete to the best of my knowledge and belief.

Lillian Jones
(Signature)Agent
(Title)3-8-76
(Date)

NOTE: Should waivers from the surface owner and all operators within one-half mile of the proposed injection well not accompany this application, the New Mexico Oil Conservation Commission will hold the application for a period of 15 days from the date of receipt by the Commission's Santa Fe office. If at the end of the 15-day waiting period no protest has been received by the Santa Fe office, the application will be processed. If a protest is received, the application will be set for hearing, if the applicant so requests. SEE RULE 701.

Howard Dorrwright Co, Inc.

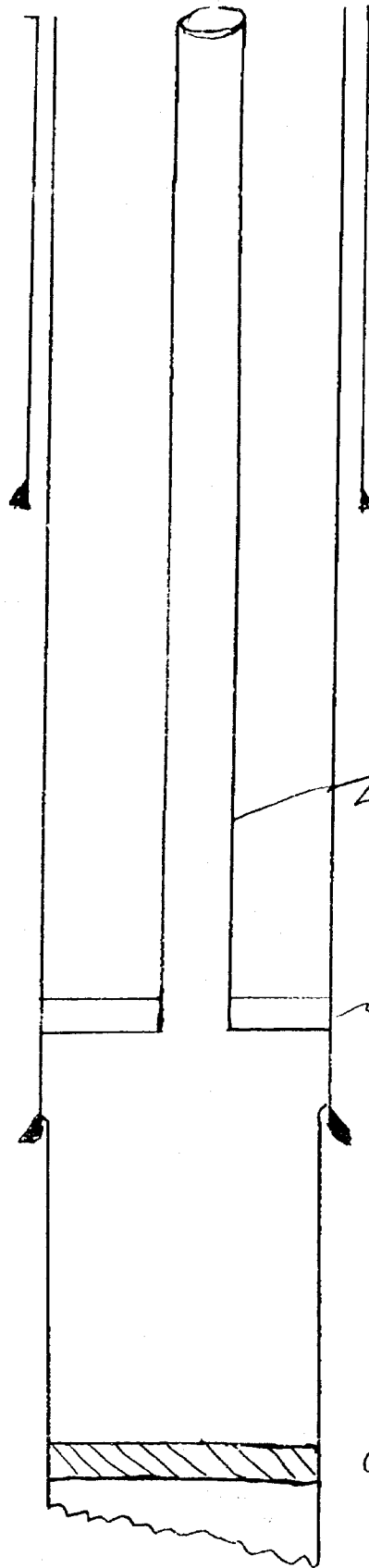
State CS #1



OIL CONSERVATION COMM.

Santa Fe

Case 5665



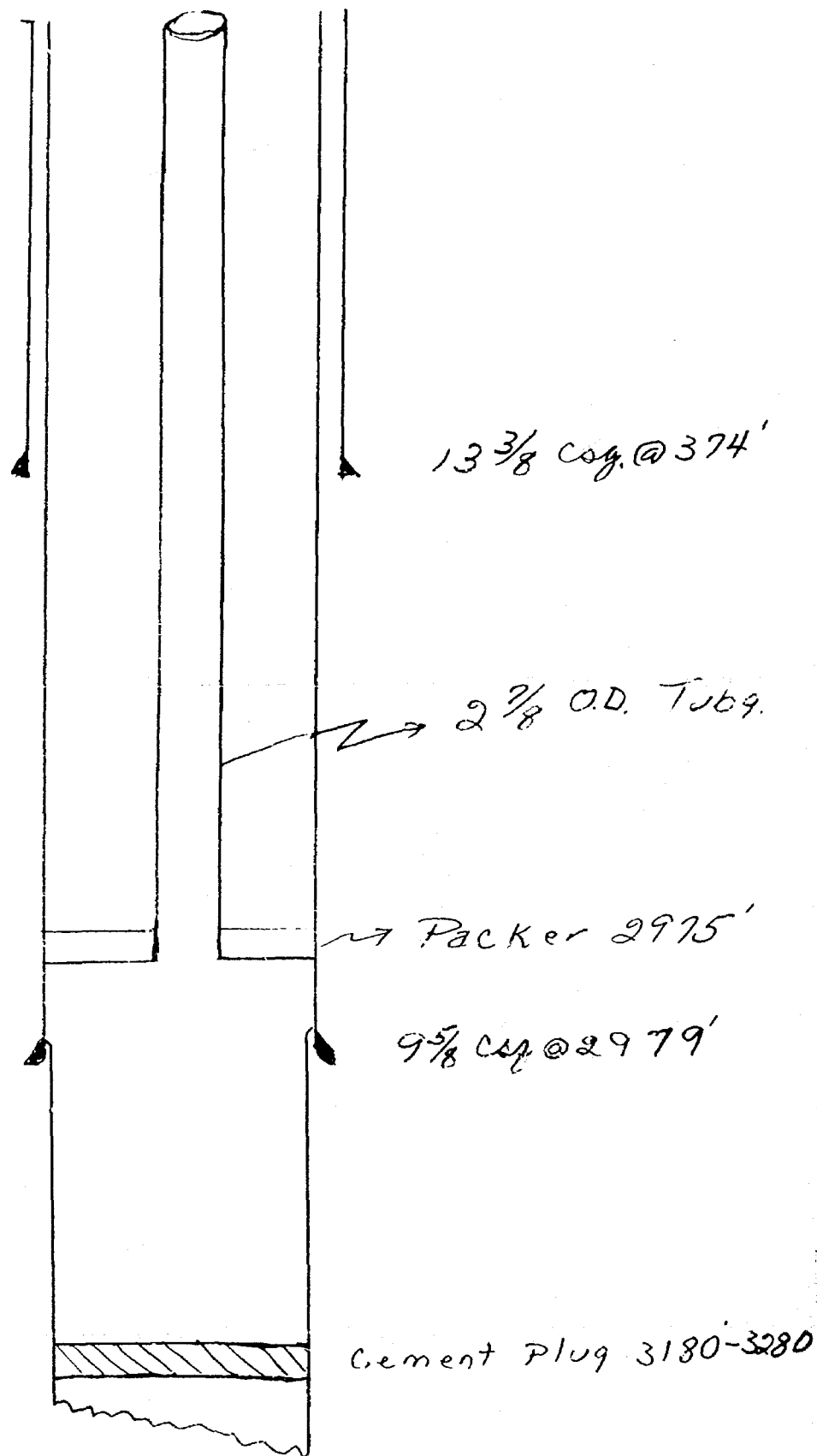
13 3/8 csg. @ 374'

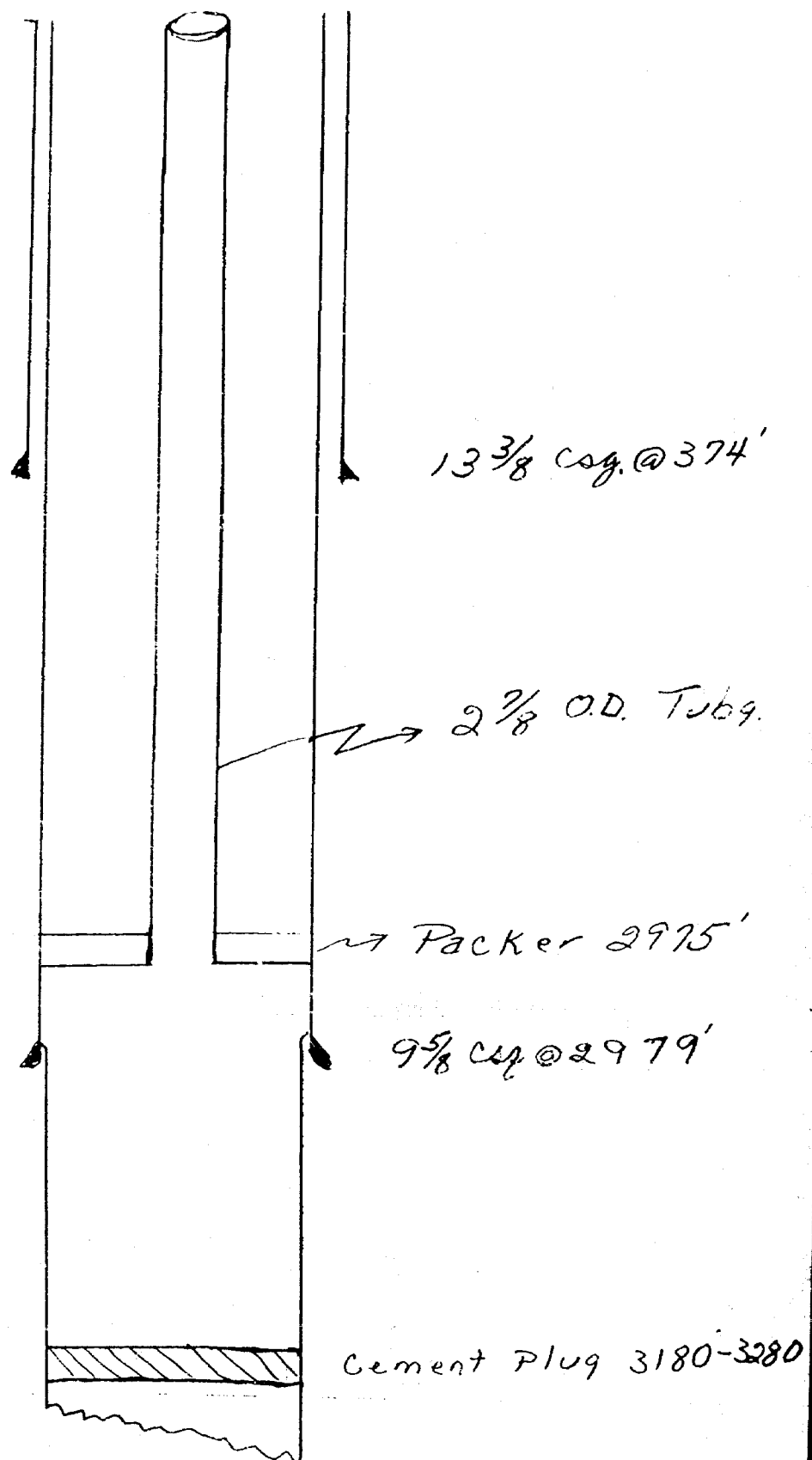
2 7/8 O.D. Tubg.

Packer 2975'

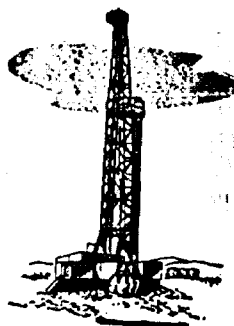
9 5/8 csg. @ 2979'

Cement Plug 3180-3280





Case 5665



YATES DRILLING COMPANY

YATES BUILDING - 207 SOUTH 4TH ST. - (505) 746-3558

ARTESIA, NEW MEXICO 88210

S. P. YATES,
PRESIDENT

S. W. HARPER,
SEC. TREAS.

JACK W. MCCAUL,
ASST. SEC. TREAS.

March 12, 1976

New Mexico Oil Conservation Commission
P.O. Box 2088
Santa Fe, New Mexico 87501

Re: Water Disposal Application
Howard Boatwright, Co. Inc.
State CS #1
W/2 Section 17-T21S-R27E
Eddy County, New Mexico

Gentlemen:

On March 9, 1976, we received notification of the referenced application to inject disposal water into the Delaware formation at the referenced well.

Yates Drilling Company, As Operator of the Avalon Federal No. 2, located 1980 FSL and 1980 FEL of Section 18-T21S-R27E, wishes to protest the proposed disposal program. The Avalon Federal No. 2 is a Morrow gas well with 9-5/8" casing cemented at 2708' and 5 1/2" N-80 casing set at 11628'. Top of cement by temperature log is at 8660'. Such a completion is normal in that area of Morrow gas production. The 5 1/2" production string is thus exposed to the injection pressures and fluids of the proposed Delaware injection well. Until we know more of the details of the proposed injection program, we cannot decide what our position on this proposal will be. We therefore protest under NMOCC Rule 701.

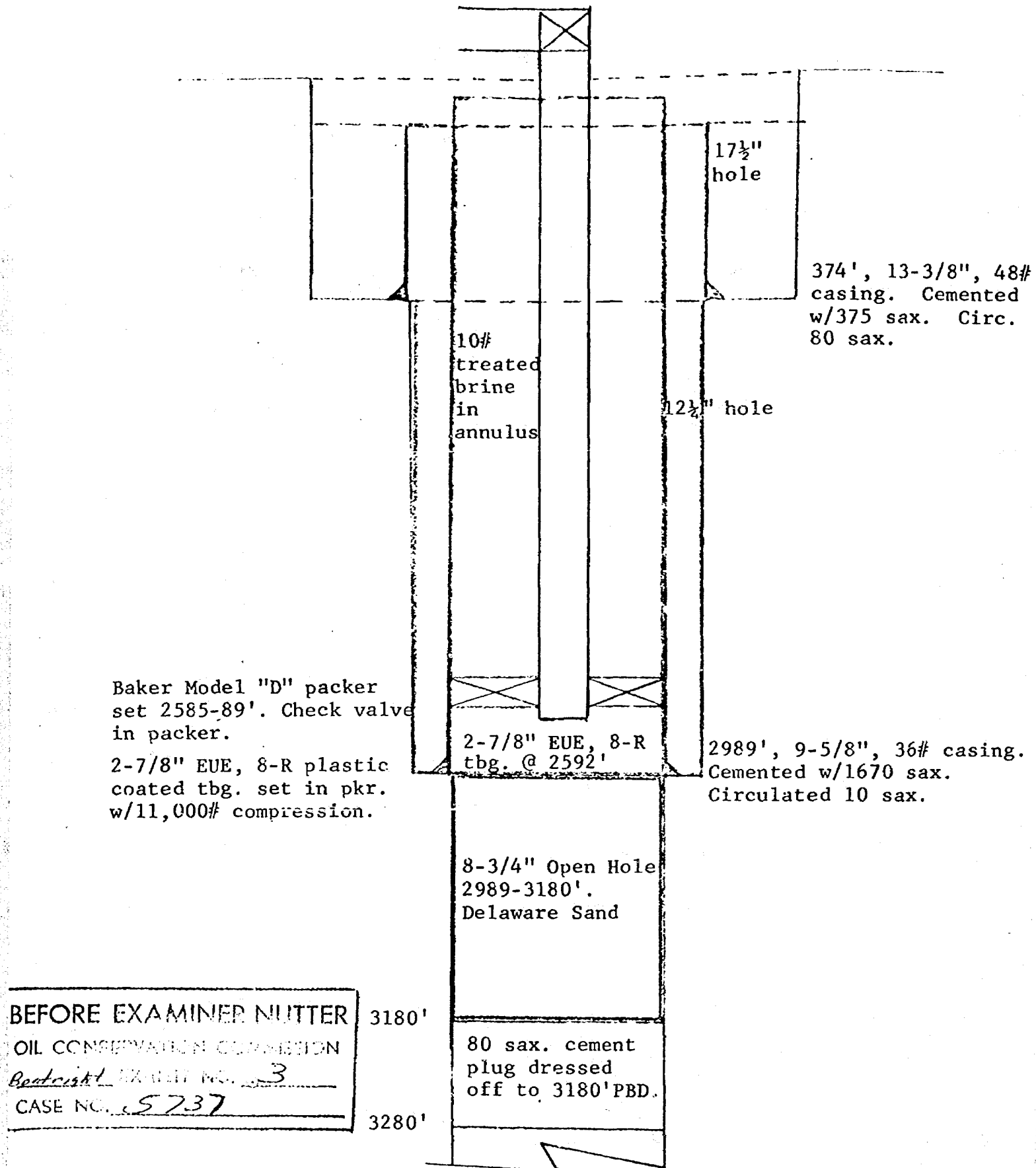
Yours truly,

YATES DRILLING COMPANY

By Peyton Yates
Peyton Yates
Engineer

PY:jg

STATE "CS" #1
CASING, TUBING & PACKER INSTALLATION FOR SWD.



Zone #1. 3018-52. 34' Net. Ave. porosity 15.5%.
#2. 3081-3104. 23' Net. Ave. porosity 17%.

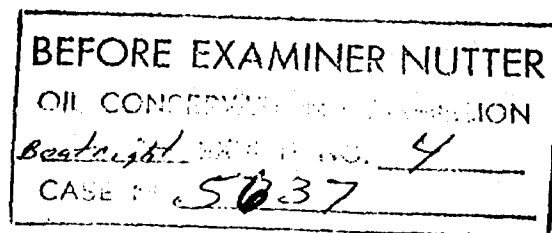
43,560 cu. ft. per ac. ft.
7.481 gals. per cu. ft.
5.614 cu. ft. per 42 gal. bbl.
7758 bbls. per ac. ft.

FVF = 1.05.

Zone #1. 7758 (15.5)/1.05 = 1145 bbls./ac. ft. x 34 = 38,930 bbls./ac.
Zone #2. 7758 (17.0)/1.05 = 1256 bbls./ac. ft. x 23 = 28,888 bbls./ac.

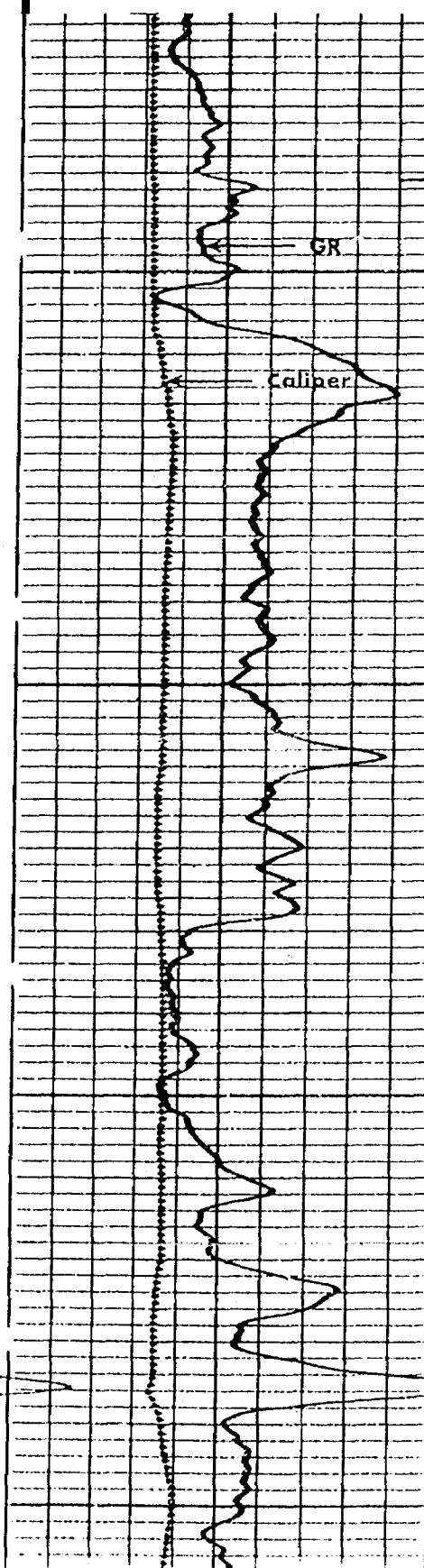
Each surface acre contains 67,818 bbls. of water in the Delaware zone from 2989-3180' plus gas in the estimated ratio of 20 cu. ft. per bbl., or 135,636 cu. ft.

Discounting the compressibility of the gas volume, and assuming that our average monthly injection rate will be 40,000 bbls. of water, it would take us 67.8 months -- 5½ years, to displace the water from a 40 acre unit around the injection well -- a distance of 660'.



GAMMA RAY
API UNITS

0 100
100 200



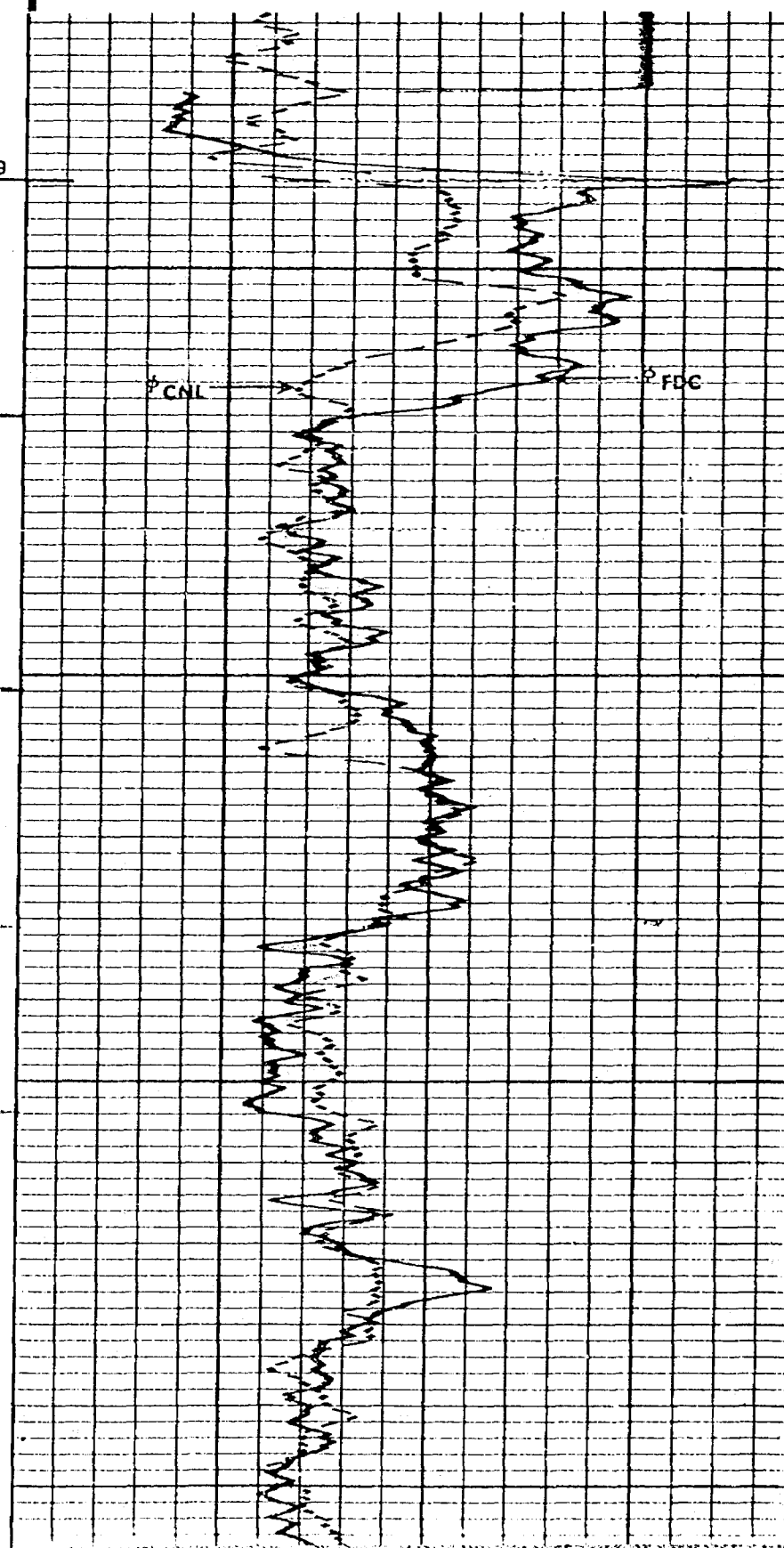
Casing

3000

3100

NEUTRON POROSITY INDEX %
LIME MATRIX

30 20 10 0



BEFORE THE
NEW MEXICO OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
April 14, 1976

EXAMINER HEARING

IN THE MATTER OF:

Application of Howard Boatwright
Company, Inc. for salt water disposal
Eddy County, New Mexico.

CASE
5665

BEFORE: Daniel S. Nutter, Examiner

TRANSCRIPT OF HEARING

A P P E A R A N C E S

For the New Mexico Oil Conservation Commission: William F. Carr, Esq.
Legal Counsel for the Commission
State Land Office Building
Santa Fe, New Mexico

For the Applicant: J. E. Gallegos, Esq.
JONES, GALLEGOS, SNEAD &
WERTHEIM, P.A.
Attorneys at Law
215 Lincoln Avenue
Santa Fe, New Mexico

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General Court Reporting Service
825 Calle Mejia, No. 122, Santa Fe, New Mexico 87501
Phone (505) 982-9212

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1 MR. NUTTER: We will call Case Number 5665.

2 MR. CARR: Case 5665, application of Howard
3 Boatwright Company, Inc. for salt water disposal, Eddy County,
4 New Mexico.

5 MR. GALLEGOS: Mr. Examiner, I'm J. E. Gallegos,
6 attorney, Santa Fe, appearing for the applicant. The witness
7 for the applicant is Mr. George Eng, Midland, Texas of Permian
8 Corporation.

9 MR. CARR: Will you stand and be sworn, please?

10 (THEREUPON, the witness was duly sworn.)

11
12 GEORGE E. ENG

13 called as a witness, having been first duly sworn, was
14 examined and testified as follows:

15
16 DIRECT EXAMINATION

17 BY MR. GALLEGOS:

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19 A My name is George E. Eng.

20 Q Are you employed by Permian Corporation?

21 A Yes, I am.

22 Q In what capacity?

23 A I'm in the Crude Oil Department as the sales manager
24 for the Southwest region.

25 Q What is the business of Permian Corporation?

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5 industrial engineering degree and a Master in business from
6 Harvard.

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Phone (305) 982-9212

1 an accessible and approved disposal facility is not in the
2 immediate vicinity. We feel like the location of this particu-
3 lar well and the zone of interest make it an excellent
4 possibility as a salt water disposal facility.

5 Q Is there a salt water disposition being carried on
6 in this vicinity in some instances that are not matters of
7 good practice and conservation and it is the desire of Permian
8 Corporation to provide proper disposal of such water?

9 A We understand that some violations of ecology,
10 environmental and Commission practices are being violated,
11 so we feel like a disposal well in this vicinity would be a
12 good advantage for everyone and would, of course, be a great
13 savings to the various producers in the area.

14 Q I direct your attention to Exhibit Number One, Mr.
15 Eng, a plat, and ask you to point out the pertinent portion
16 of that exhibit to the Examiner.

17 A When the petition was made to the Commission
18 initially and, of course, offset operators were Yates Drilling
19 Company, Cities Service, Flag Redfern and Mobile and it was
20 felt like at first that there was no production within several
21 miles in the Delaware, so that looked like a viable formation
22 in which to inject water. The only producing well that we
23 knew of was about four thousand feet to the west, which was
24 the Yates Petroleum Company Avalon Federal but it was a gas
25 well and not producing from the Delaware. So, we felt like

1 the way the Cities Service Oil Company had abandoned this
2 facility it was a good candidate for a reentry.

3 Q Is this location portrayed on Exhibit Number One and
4 if so, would you point out where that is?

5 A Yes. On the various exhibits it is located in
6 Section 17, 21, 27, it is located in the southwest quarter of
7 the section.

8 Q All right, I direct your attention to Exhibit Two,
9 Mr. Eng, the log of this well and ask you if you will point
10 out the relevant portion of that exhibit?

11 A All right, the application called for the water
12 to be injected from a zone of twenty-nine, seventy-nine to
13 thirty-one, eighty and that is right below the casing, the
14 nine and five, and it is contained by a cement plug down at
15 thirty-one, eighty, so it would be confined to that particular
16 zone of about two hundred feet.

17 Q Now, I direct your attention to Exhibit Three and
18 particularly the second page, a diagrammatic sketch and will
19 you explain that to the Examiner?

20 A Yes, the disposal water will be injected just below
21 the shoe of the nine-and-five-eighths at twenty-nine, seventy-
22 nine. It would be contained from the bottom by the cement
23 plug at approximately thirty-one, eighty. It would be injected
24 through plastic-coated tubing and beneath the packer. Both
25 strings of casing have been circulated and should be in good

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1 shape to withstand any fluids or pressures that we might
2 encounter.

3 Q Sir, could you give the Commission some information
4 about the fluid being injected, this particular salt water?

5 A When the application was submitted we anticipated
6 that we would have probably between a thousand and possibly
7 fifteen hundred barrels a day of disposal water. We feel like
8 this is probably considerably more than we would have in the
9 particular area. We would anticipate probably between five
10 hundred and at the maximum a thousand barrels of water a day
11 would be disposed of in this facility. And in checking with
12 Cities Service on the porosity and the ability of this zone
13 to take water at minimum pressure, they anticipated -- well,
14 when they drilled the well they lost circulation in this
15 particular zone and they felt like we could probably inject
16 this quantity of water at somewhere in the neighborhood of
17 four hundred pounds of surface pressure.

18 Q From what general area will be the source of this
19 water?

20 A Most of the disposal water would come within a
21 twelve-mile radius of the well site. Probably the vast
22 majority of this water would be Morrow-type disposal water
23 and would probably be considerably less corrosive than your
24 real sour and H, Two, S content waters like Grayburg, Queen and
25 San Andres, so we feel like the corrosive qualities of the

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1 water would not be as bad as it has been in some areas.

2 MR. GALLEGOS: That represents the applicant's case,
3 Mr. Examiner, and we move the admission of Exhibits One, Two
4 and Three.

5 MR. NUTTER: Boatwright's Exhibits One through Three
6 will be admitted into evidence.

7 (THEREUPON, Boatwright's Exhibits One through
8 Three were admitted into evidence.)

9
10 CROSS EXAMINATION

11 BY MR. NUTTER:

12 Q Mr. Eng, there is some Delaware production somewhere
13 in the neighborhood, where is that Delaware well, could you
14 tell me?

15 A There are some Amoco Production Company Delaware
16 producing wells and they are almost five miles to the south-
17 east.

18 Q That would be the nearest Delaware production?

19 A Yes, sir.

20 Q And what would the location of that be?

21 A I'm sorry, but it is probably off of our map. I'm
22 sorry, but it is just off the south edge of our map.

23 Q Okay, so, as far as you know there is no Delaware
24 production within the distance that is depicted on Exhibit
25 Number One?

1 A. That's right, sir.

2 Q. No Delaware production in here?

3 A. That's right.

4 Q. Okay, now, the nearest well then would be this well
5 to the west which is a gas well, is a a Morrow gas well?

6 A. That is what I understand, it produces from the
7 Morrow.

8 Q. Do you know whether that well or the other well in
9 Section 18 to the west have intermediate pipe set through
10 the Delaware formation or not, have you looked at those wells?

11 A. I have not looked at their logs. I understand that
12 they did not circulate cement across the Delaware zone. That
13 is what I understand from the Yates people. If they followed
14 a casing program similar to Cities Service I would assume
15 they had intermediate casing through the Delaware.

16 Q. Now, this well has casing set to twenty-nine,
17 seventy-five or seventy-nine? That would be the nine-and-
18 five-eighths inch casing for this well when it was originally
19 drilled, is that right?

20 A. That is right.

21 Q. And you will be disposing below that casing shoe
22 at the intermediate casing?

23 A. Right, sir, and above the plug at thirty-one, eighty-

24 Q. So if the Yates well to the west were completed in
25 the same manner that Cities Service completed this one insofar

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1 as the intermediate casing program was concerned, it would
2 not have intermediate casing?

3 A It probably wouldn't.

4 Q Opposite your disposal zone?

5 A That's right, if I run the long string from there
6 to the pay.

7 Q And if there wouldn't be any cement on that long
8 string then just the bare production casing string would be
9 exposed to your injection water from this well?

10 A That's right, sir.

11 Q If it migrated over that far?

12 A Right.

13 Q Now, the estimate is that your disposal would not
14 exceed one thousand barrels per day, is that correct?

15 A That is correct.

16 Q And you are anticipating that it would not take
17 more than four hundred pounds of surface pressure to put that
18 much water away in the well?

19 A Right.

20 Q Now, you mentioned that the tubing would be plastic-
21 coated, what about the annulus, will that be loaded with some
22 kind of a corrosion inhibitor?

23 A We would put corrosion inhibitor above the packer
24 in the annulus, that is correct.

25 Q And equip the annulus with a gauge or some other

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1 means of detection?

2 A To detect the pressure.

3 Q To find out if there is a leak in the tubing or the
4 casing or the packer?

5 A That is correct, yes, sir.

6 Q And take periodic tests at the well to determine
7 that --

8 A That the packer is holding and that there is no
9 leakage.

10 Q And that the injection is going into the zone that
11 would be authorized?

12 A That's right.

13 MR. NUTTER: Are there any further questions of
14 Mr. Eng? He may be excused?

15 (THEREUPON, the witness was excused.)

16 MR. NUTTER: Do you have anything further, Mr.
17 Gallegos?

18 MR. GALLEGOS: No, I don't. Thank you.

19 MR. NUTTER: Does anyone have anything they wish
20 to offer in Case 5665?

21 MR. KELLAHIN: If the Examiner please, Tom Kellahin
22 of Kellahin and Fox, Santa Fe, New Mexico. Jerry Losee,
23 attorney for Yates Production called me about two-and-a-half
24 minutes ago and asked me to read the following statement on
25 his behalf for Yates.

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1 Mr. Losee says: (Reading.) Yates Drilling Company,
2 the operator of Avalon Federal Well No. 2, located nineteen
3 hundred and eighty feet from the south and east lines of
4 Section 18, at 21 South, 27 East, I believe, and some two
5 thousand, six hundred and forty feet west of the proposed
6 disposal well, that Yates is concerned that the disposal of
7 extensive and possibly corrosive water into the Delaware sands
8 creates a risk of external corrosion of the production casing
9 at the Avalon Federal No. 2 Well. This is a Morrow well.

10 Yates proposes that if the application is approved
11 by the Oil Conservation Commission that Yates would request
12 that the maximum injection pressure for the disposal well,
13 exclusive of friction, be four hundred psi at the surface and
14 in addition that some reliable means be required to restrict
15 the downward water flow into the lower sands of the Delaware.
16 The Avalon Federal No. 2 Well tested free of oil in the
17 Delaware on a drill stem test.

18 Yates does not believe that open hole injection
19 completion would provide reliable means of protecting potential
20 oil zones in the Lower Delaware.

21 Mr. Losee tells me that the Avalon Federal No. 2
22 Well does not have the intermediate casing in the disposal
23 zone, so there is some potential risk of corrosion to the
24 Avalon Federal No. 2 well. (End of reading.) And that
25 concludes his statement.

1 MR. NUTTER: Thank you. Does anyone else have
2 anything to offer in Case 5665? We will take the case under
3 advisement.

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REPORTER'S CERTIFICATE

I, SIDNEY F. MORRISH, a Certified Shorthand Reporter,
do hereby certify that the foregoing and attached Transcript
of Hearing before the New Mexico Oil Conservation Commission
was reported by me, and the same is a true and correct record
of the said proceedings to the best of my knowledge, skill and
ability.

Sidney F. Morrish
Sidney F. Morrish, C.S.R.

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General Court Reporting Service
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I do hereby certify that the foregoing is
a complete record of the proceedings in
the Examiner hearing of Case No. 5665
heard by me, on 4/14, 1976.
Chas. J. ..., Examiner
New Mexico Oil Conservation Commission

BEFORE THE
NEW MEXICO OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
April 14, 1976

EXAMINER HEARING

IN THE MATTER OF:

Application of Howard Boatwright) CASE
Company, Inc. for salt water disposal) 5665
Eddy County, New Mexico.)

BEFORE: Daniel S. Nutter, Examiner

TRANSCRIPT OF HEARING

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For the New Mexico Oil William F. Carr, Esq.
Conservation Commission: Legal Counsel for the Commission
State Land Office Building
Santa Fe, New Mexico

For the Applicant: J. E. Gallegos, Esq.
JONES, GALLEGOS, SNEAD &
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Attorneys at Law
215 Lincoln Avenue
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3 Q Is this location portrayed on Exhibit Number One and
4 if so, would you point out where that is?

5 A Yes. On the various exhibits it is located in
6 Section 17, 21, 27, it is located in the southwest quarter of
7 the section.

8 Q All right, I direct your attention to Exhibit Two,
9 Mr. Eng, the log of this well and ask you if you will point
10 out the relevant portion of that exhibit?

11 A All right, the application called for the water
12 to be injected from a zone of twenty-nine, seventy-nine to
13 thirty-one, eighty and that is right below the casing, the
14 nine and five, and it is contained by a cement plug down at
15 thirty-one, eighty, so it would be confined to that particular
16 zone of about two hundred feet.

17 Q Now, I direct your attention to Exhibit Three and
18 particularly the second page, a diagrammatic sketch and will
19 you explain that to the Examiner?

20 A Yes, the disposal water will be injected just below
21 the shoe of the nine-and-five-eighths at twenty-nine, seventy-
22 nine. It would be contained from the bottom by the cement
23 plug at approximately thirty-one, eighty. It would be injected
24 through plastic-coated tubing and beneath the packer. Both
25 strings of casing have been circulated and should be in good

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1 shape to withstand any fluids or pressures that we might
2 encounter.

3 Q Sir, could you give the Commission some information
4 about the fluid being injected, this particular salt water?

5 A When the application was submitted we anticipated
6 that we would have probably between a thousand and possibly
7 fifteen hundred barrels a day of disposal water. We feel like
8 this is probably considerably more than we would have in the
9 particular area. We would anticipate probably between five
10 hundred and at the maximum a thousand barrels of water a day
11 would be disposed of in this facility. And in checking with
12 Cities Service on the porosity and the ability of this zone
13 to take water at minimum pressure, they anticipated -- well,
14 when they drilled the well they lost circulation in this
15 particular zone and they felt like we could probably inject
16 this quantity of water at somewhere in the neighborhood of
17 four hundred pounds of surface pressure.

18 Q From what general area will be the source of this
19 water?

20 A Most of the disposal water would come within a
21 twelve-mile radius of the well site. Probably the vast
22 majority of this water would be Morrow-type disposal water
23 and would probably be considerably less corrosive than your
24 real sour and H, Two, S content waters like Grayburg, Queen and
25 San Andres, so we feel like the corrosive qualities of the

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1 water would not be as bad as it has been in some areas.

2 MR. GALLEGOS: That represents the applicant's case,
3 Mr. Examiner, and we move the admission of Exhibits One, Two
4 and Three.

5 MR. NUTTER: Boatwright's Exhibits One through Three
6 will be admitted into evidence.

7 (THEREUPON, Boatwright's Exhibits One through
8 Three were admitted into evidence.)

9

10 CROSS EXAMINATION

11 BY MR. NUTTER:

12 Q Mr. Eng, there is some Delaware production somewhere
13 in the neighborhood, where is that Delaware well, could you
14 tell me?

15 A. There are some Amoco Production Company Delaware
16 producing wells and they are almost five miles to the south-
17 east.

18 Q That would be the nearest Delaware production?

19 A. Yes, sir.

20 Q And what would the location of that be?

21 A. I'm sorry, but it is probably off of our map. I'm
22 sorry, but it is just off the south edge of our map.

23 Q Okay, so, as far as you know there is no Delaware
24 production within the distance that is depicted on Exhibit
25 Number One?

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1 A. That's right, sir.

2 Q. No Delaware production in here?

3 A. That's right.

4 Q. Okay, now, the nearest well then would be this well
5 to the west which is a gas well, is a a Morrow gas well?

6 A. That is what I understand, it produces from the
7 Morrow.

8 Q. Do you know whether that well or the other well in
9 Section 18 to the west have intermediate pipe set through
10 the Delaware formation or not, have you looked at those wells?

11 A. I have not looked at their logs. I understand that
12 they did not circulate cement across the Delaware zone. That
13 is what I understand from the Yates people. If they followed
14 a casing program similar to Cities Service I would assume
15 they had intermediate casing through the Delaware.

16 Q. Now, this well has casing set to twenty-nine,
17 seventy-five or seventy-nine? That would be the nine-and-
18 five-eighths inch casing for this well when it was originally
19 drilled, is that right?

20 A. That is right.

21 Q. And you will be disposing below that casing shoe
22 at the intermediate casing?

23 A. Right, sir, and above the plug at thirty-one, eighty

24 Q. So if the Yates well to the west were completed in
25 the same manner that Cities Service completed this one insofar

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1 as the intermediate casing program was concerned, it would
2 not have intermediate casing?

3 A. It probably wouldn't.

4 Q. Opposite your disposal zone?

5 A. That's right, if I run the long string from there
6 to the pay.

7 Q. And if there wouldn't be any cement on that long
8 string then just the bare production casing string would be
9 exposed to your injection water from this well?

10 A. That's right, sir.

11 Q. If it migrated over that far?

12 A. Right.

13 Q. Now, the estimate is that your disposal would not
14 exceed one thousand barrels per day, is that correct?

15 A. That is correct.

16 Q. And you are anticipating that it would not take
17 more than four hundred pounds of surface pressure to put that
18 much water away in the well?

19 A. Right.

20 Q. Now, you mentioned that the tubing would be plastic-
21 coated, what about the annulus, will that be loaded with some
22 kind of a corrosion inhibitor?

23 A. We would put corrosion inhibitor above the packer
24 in the annulus, that is correct.

25 Q. And equip the annulus with a gauge or some other

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1 means of detection?

2 A. To detect the pressure.

3 Q To find out if there is a leak in the tubing or the
4 casing or the packer?

5 A. That is correct, yes, sir.

6 Q And take periodic tests at the well to determine
7 that --

8 A. That the packer is holding and that there is no
9 leakage.

10 Q And that the injection is going into the zone that
11 would be authorized?

12 A. That's right.

13 MR. NUTTER: Are there any further questions of
14 Mr. Eng? He may be excused?

15 (THEREUPON, the witness was excused.)

16 MR. NUTTER: Do you have anything further, Mr.
17 Gallegos?

18 MR. GALLEGOS: No, I don't. Thank you.

19 MR. NUTTER: Does anyone have anything they wish
20 to offer in Case 5665?

21 MR. KELLAHIN: If the Examiner please, Tom Kellahin
22 of Kellahin and Fox, Santa Fe, New Mexico. Jerry Losee,
23 attorney for Yates Production called me about two-and-a-half
24 minutes ago and asked me to read the following statement on
25 his behalf for Yates.

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1 Mr. Losee says: (Reading.) Yates Drilling Company,
2 the operator of Avalon Federal Well No. 2, located nineteen
3 hundred and eighty feet from the south and east lines of
4 Section 18, at 21 South, 27 East, I believe, and some two
5 thousand, six hundred and forty feet west of the proposed
6 disposal well, that Yates is concerned that the disposal of
7 extensive and possibly corrosive water into the Delaware sands
8 creates a risk of external corrosion of the production casing
9 at the Avalon Federal No. 2 Well. This is a Morrow well.

10 Yates proposes that if the application is approved
11 by the Oil Conservation Commission that Yates would request
12 that the maximum injection pressure for the disposal well,
13 exclusive of friction, be four hundred psi at the surface and
14 in addition that some reliable means be required to restrict
15 the downward water flow into the lower sands of the Delaware.
16 The Avalon Federal No. 2 Well tested free of oil in the
17 Delaware on a drill stem test.

18 Yates does not believe that open hole injection
19 completion would provide reliable means of protecting potential
20 oil zones in the Lower Delaware.

21 Mr. Losee tells me that the Avalon Federal No. 2
22 Well does not have the intermediate casing in the disposal
23 zone, so there is some potential risk of corrosion to the
24 Avalon Federal No. 2 well. (End of reading.) And that
25 concludes his statement.


1 MR. NUTTER: Thank you. Does anyone else have
2 anything to offer in Case 5665? We will take the case under
3 advisement.

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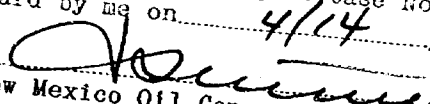
REPORTER'S CERTIFICATE

I, SIDNEY F. MORRISH, a Certified Shorthand Reporter,
do hereby certify that the foregoing and attached Transcript
of Hearing before the New Mexico Oil Conservation Commission
was reported by me, and the same is a true and correct record
of the said proceedings to the best of my knowledge, skill and
ability.


Sidney F. Morrish, C.S.R.

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I do hereby certify that the foregoing is
a complete record of the proceedings in
the Examiner hearing of Case No. 5665
heard by me on 4/14, 1976.

Examiner
New Mexico Oil Conservation Commission

Other **Tom Kellahin**

176
HOWARD BOATRIGHT CO., INC.

711 FIRST NATIONAL BANK BLDG.
MIDLAND, TEXAS 79701

PH 915-362-7235 - ODESSA

Case 5665

March 4, 1976

Secretary - Director
New Mexico Oil Conservation Commission
Hobbs, New Mexico 88240

Re: State CS
Disposal #1
Eddy County, N. M.

Dear Sir:

Enclosed please find an application for a disposal well in Delaware Sand formation in Eddy County, New Mexico.

Since there is no Delaware production present within the two mile radius, we respectfully ask the Secretary - Director of the New Mexico Oil Conservation Commission grant an exception to Rule 701-A giving us approval for the disposal well without notice of hearing.

If a hearing is deemed necessary, we respectfully ask that it be put on the docket as soon as possible.

Yours truly,

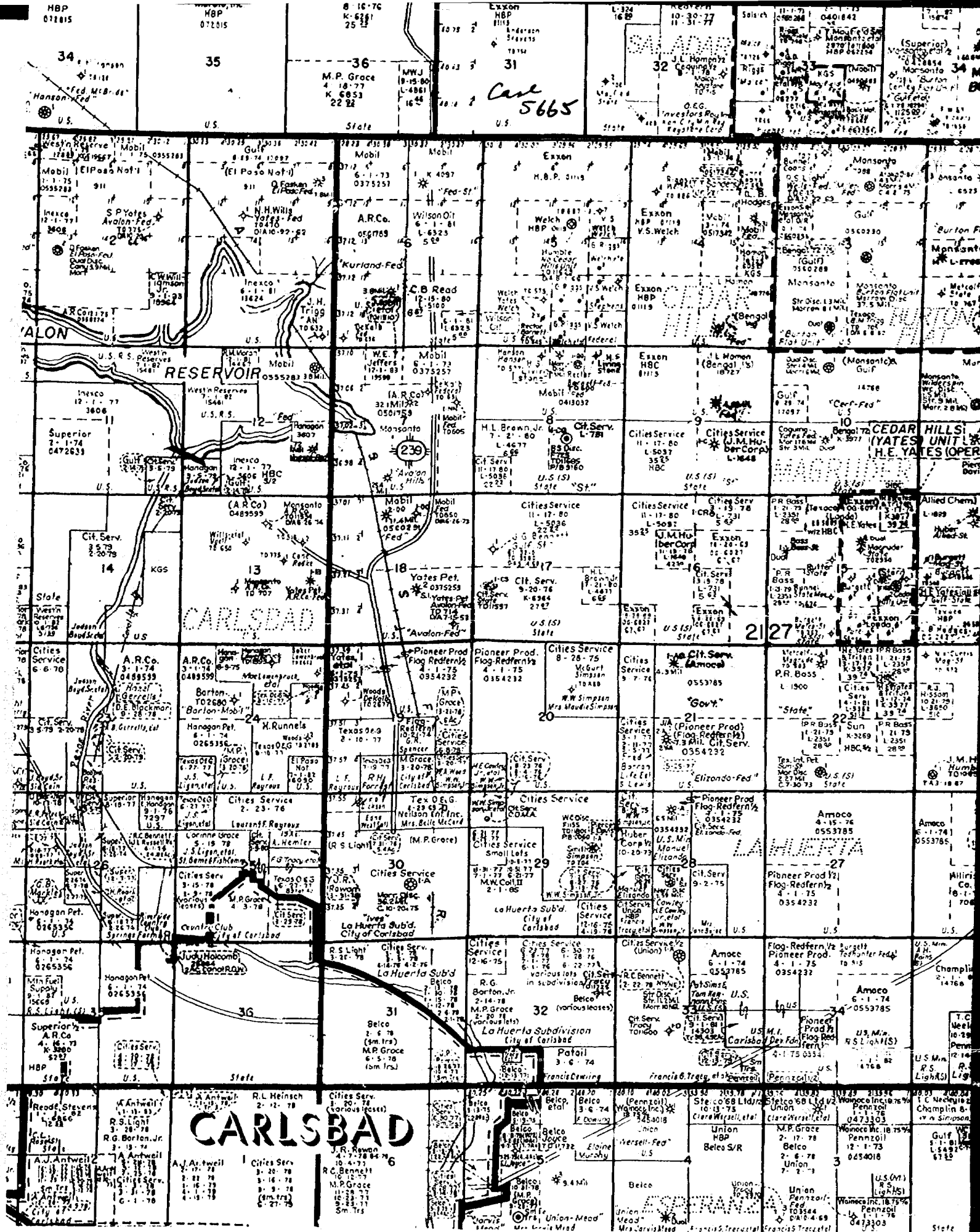
HC Boatright
Howard Boatright

*Objection
by Yates -
set for hrg.*

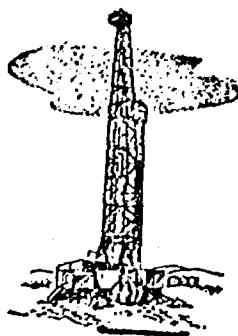
Copies C-108 & Diagrammatic sent to Artesia - CU

*Apr 14th - hearing
with 23 - notification deadline*

3/18: Boatright notified of hearing date



Case 5665



YATES DRILLING COMPANY

YATES BUILDING - 207 SOUTH 4TH ST. - (505) 746-3558

ARTESIA, NEW MEXICO 88210

S. P. YATES,
PRESIDENT

G. W. HARPER,
SEC. TREAS.

JACK W. MCCAUL,
ASST. SEC. TREAS.

March 12, 1976

New Mexico Oil Conservation Commission
P.O. Box 2088
Santa Fe, New Mexico 87501

Re: Water Disposal Application
Howard Boatwright, Co. Inc.
State CS #1
W/2 Section 17-T21S-R27E
Eddy County, New Mexico

Gentlemen:

On March 9, 1976, we received notification of the referenced application to inject disposal water into the Delaware formation at the referenced well.

Yates Drilling Company, As Operator of the Avalon Federal No. 2, located 1980 FSL and 1980 FEL of Section 18-T21S-R27E, wishes to protest the proposed disposal program. The Avalon Federal No. 2 is a Morrow gas well with 9-5/8" casing cemented at 2708' and 5 1/4" N-80 casing set at 11628'. Top of cement by temperature log is at 8660'. Such a completion is normal in that area of Morrow gas production. The 5 1/4" production string is thus exposed to the injection pressures and fluids of the proposed Delaware injection well. Until we know more of the details of the proposed injection program, we cannot decide what our position on this proposal will be. We therefore protest under NMOCC Rule 701.

Yours truly,

YATES DRILLING COMPANY

By Peyton Yates
Peyton Yates
Engineer

PY:jg

DRAFT

dr/

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE HEARING
CALLED BY THE OIL CONSERVATION
COMMISSION OF NEW MEXICO FOR
THE PURPOSE OF CONSIDERING:

CASE NO. 5665

Order No. R- 5208

APPLICATION OF HOWARD BOATWRIGHT
COMPANY, INC. FOR SALT WATER
DISPOSAL, EDDY COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on April 14, 1976
at Santa Fe, New Mexico, before Examiner, Daniel S. Nutter.

NOW, on this day of April, 1976, the Commission,
a quorum being present, having considered the testimony, the
record, and the recommendations of the Examiner, and being fully
advised in the premises,

FINDS:

(1) That due public notice having been given as required by
law, the Commission has jurisdiction of this cause and the subject
matter thereof.

(2) That the applicant, Howard Boatwright Company, Inc.,
is the owner and operator of the State CS Well No. 1,
located in Unit 1 of Section 17, Township 21 South,
Range 27 East, NMPM, Burton Flats Field,
Eddy County, New Mexico.

(3) That the applicant proposes to utilize said well to
dispose of produced salt water into the Delaware
formation, with injection into the open-hole interval
from approximately 2979 feet to 3180 feet.

(4) That the injection should be accomplished through 2 7/8-inch plastic lined tubing installed in a packer
set at approximately 2975 feet; that the casing-tubing annulus
should be filled with an inert fluid; and that a pressure gauge
or approved leak detection device should be attached to the

annulus in order to determine leakage in the casing, tubing, or packer.

(4) That the injection well or system should be equipped with a pop-off valve or acceptable substitute which will limit the wellhead pressure on the injection well to no more than ⁴⁰⁰~~700~~ psi.

(5) That the operator should notify the supervisor of the Artesia district office of the Commission of the date and time of the installation of disposal equipment so that the same may be inspected.

(6) That the operator should take all steps necessary to ensure that the injected water enters only the proposed injection interval and is not permitted to escape to other formations or onto the surface.

(7) That approval of the subject application will prevent the drilling of unnecessary wells and otherwise prevent waste and protect correlative rights.

IT IS THEREFORE ORDERED:

(1) That the applicant, Howard Boatwright Company, Inc., is hereby authorized to utilize its State CS Well No. 1, located in Unit L of Section 17, Township 21 South, Range 27 East, NMPM, Burton Flats Field, Eddy County, New Mexico, to dispose of produced salt water into the Delaware formation, injection to be accomplished through 2 7/8-inch tubing installed in a packer set at approximately 2975 feet, with injection into the open-hole interval from approximately 2979 feet to 3180 feet;

PROVIDED HOWEVER, that the tubing shall be plastic-lined; that the casing-tubing annulus shall be filled with an inert fluid; and that a pressure gauge shall be attached to the annulus or the annulus shall be equipped with an approved leak detection device in order to determine leakage in the casing, tubing, or packer.

-3-
CASE NO. _____

(2) That the injection well or system shall be equipped with a pop-off valve or acceptable substitute which will limit the wellhead pressure on the injection well to no more than ⁴⁰⁰~~500~~ psi.

(3) That the operator shall notify the supervisor of the Artesia district office of the Commission of the date and time of the installation of disposal equipment so that the same may be inspected.

(4) That the operator shall immediately notify the supervisor of the Commission's Artesia district office of the failure of the tubing, casing, or packer, in said well or the leakage of water from or around said well and shall take such steps as may be timely and necessary to correct such failure or leakage.

(5) That the applicant shall submit monthly reports of its disposal operations in accordance with Rules 704 and 1120 of the Commission Rules and Regulations.

(6) That jurisdiction of this cause is retained for the entry of such further orders as the Commission may deem necessary.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.