

CASE 4112: Application of P-M
DRILLING COMPANY FOR SALT WATER
DISPOSAL, LEA COUNTY, NEW MEXICO.

Case Number.

4/1/2

Application

Transcripts.

Small Exhibits

ETC.



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SPECIALIZING IN: DEPOSITIONS, HEARINGS, STATEMENTS, EXPERT TESTIMONY, DAILY COPY, CONVENTIONS

1120 SIMMS BLDG. • P. O. BOX 1092 • PHONE 243-6691 • ALBUQUERQUE, NEW MEXICO

BEFORE THE
NEW MEXICO OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
April 23, 1969
EXAMINER HEARING

IN THE MATTER OF:

Application of P-M Drilling
Company for salt water disposal,
Lea County New Mexico.

Case No. 4112

BEFORE: Elvis A. Utz, Examiner.

TRANSCRIPT OF HEARING

MR. UTZ: Case No. 4112.

MR. HATCH: Application of P-M Drilling
Company for salt water disposal, Lea County, New Mexico.
(Witness sworn)

A. G. McCARVER

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

DIRECT EXAMINATION

BY MR. UTZ:

Q Will you please identify yourself for the
record?

A My name is A. G. McCarver, I live in Midland,
Texas, and I am the owner of the P-M Drilling Company.

MR. HATCH: Now, how many exhibits do you have?

THE WITNESS: This map here and this; what
we have done to the well.

(Whereupon, Applicant's Exhibits 1 through
4 were offered and admitted in evidence)

MR. UTZ: Mr. McCarver, you may proceed to
tell us what you want to do with this well.

THE WITNESS: Well, of course, I want to,
primarily, meet the requirements of the Commission, and,
at this time, to dispose of the saltwater on two leases:

one, being the Paynes and James leases, as adjoining each other on the plat. At the present time, I have a Guiberson-Packer, set at -- 4257. We had originally applied for an open hole, and the only one we met any resistance from was Continental. So, we decided to run a packer down in the cement -- below the top of the cement, on the four and-a-half. The two-inch tubing was tested to a 1000 pounds. The four and-a-half casing, and the packer was tested at 200 pounds, and they all worked in excellent shape. We have connected a lineage closed system and we have only twelve to fifteen barrels of water a day, is all we're talking about, and it should take it on a gravity.

Q Now, you will be injecting through the Delaware formation through perforations of four and-a-half inch casings; is that right?

A That's affirmative; yes, sir.

Q And the perforations are from 5602 to 5100, approximately?

A The perforations -- at the present, I would like to have that possibility, but the perforations at the time are from 5062 to 5066 feet.

Q Now, what other perforations would you be

requesting at this time?

A From 5066 to 5100 feet, which would be the area --

Q And that's all of the Delaware?

A Yes, sir. That's the upper Delaware sand section; that includes most of it.

Q Is this plastic coated tubing?

A No, sir; it is not. That tubing has been in there every since 2-11-61 -- eight years, and I just -- supervised -- re-run it with a packer, and it looks just about like new. It has no deterioration that I can see, visually.

Q How about the annulus? How do you want to take care of it?

A Have a packer set on the -- It's just there -- that's all.

Q Well, would you load it with inert fluid?

A It's loaded behind the tubing, and, the eight and-five-eighths is loaded, too. They're already both loaded; yes, sir.

Q They are loaded?

A Yes, sir, they are both loaded.

Q With inert water?

A Yes, sir. Well, we had it hauled out --

Q Are you going to leave the surface of the annulus open?

A No, sir -- closed.

Q You are going to close it with a pressure gauge?

A I don't have a gauge on it, but we left a hundred pounds on it, and it will be checked from time to time.

MR. UTZ: Any other questions? The witness may be excused.

(Witness excused.)

MR. UTZ: The case will be taken under advisement.

THE WITNESS: Thank you, sir.

MR. UTZ: Statements? The case will be taken under advisement.

I N D E X

<u>WITNESS</u>	<u>Page</u>
A. G. McCARVER	
Direct Examination by Mr. Utz	2

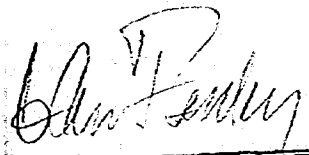
EXHIBITMARKEDOFFERED AND
ADMITTED

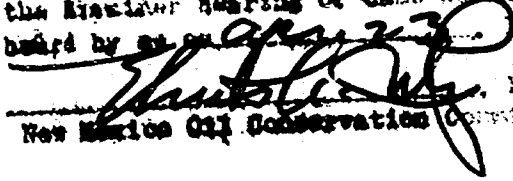
Applicant's 1
through 4

2

STATE OF NEW MEXICO }
COUNTY OF BERNALILLO } ss

I, CA FENLEY, Court Reporter in and for the
County of Bernalillo, State of New Mexico, do hereby
certify that the foregoing and attached Transcript
of Hearing before the New Mexico Oil Conservation
Commission was reported by me; and that the same is
a true and correct record of the said proceedings, to
the best of my knowledge, skill and ability.


CA FENLEY - COURT REPORTER

I do hereby certify that the foregoing is
a complete record of the proceedings in
the hearing before the Commission on Case No. 4112
heard by me on 9/23/69.

New Mexico Oil Conservation Commission



OIL CONSERVATION COMMISSION

STATE OF NEW MEXICO
P. O. BOX 2088 - SANTA FE
87501

GOVERNOR
DAVID F. CARGO
CHAIRMAN

LAND COMMISSIONER
ALEX J. ARMIJO
MEMBER

STATE GEOLOGIST
A. L. PORTER, JR.
SECRETARY - DIRECTOR

April 29, 1969

Mr. A. G. McCarver
2900 North Big Spring
Midland, Texas
79701

Re: Case No. 4112
Order No. R-3745
Applicant:
P-M Drilling Company

Dear Sir:

Enclosed herewith are two copies of the above-referenced Commission order recently entered in the subject case.

Very truly yours,

A. L. PORTER, Jr.
Secretary-Director

ALP/ir

Copy of order also sent to:

Hobbs OCC X

Artesia OCC

Aztec OCC

Other Bureau of Land Management and
State Engineer Office

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. 4112
Order No. R-3745

APPLICATION OF P-M DRILLING COMPANY
FOR SALT WATER DISPOSAL, LEA COUNTY,
NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on April 23, 1969,
at Santa Fe, New Mexico, before Examiner Elvis A. Utz.

NOW, on this 28th day of April, 1969, 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, P-M Drilling Company, is the owner
and operator of the James Federal Well No. 1, located in Unit A
of Section 35, Township 23 South, Range 32 East, NMPM, Triste
Draw-Delaware Pool, Lea County, New Mexico.

(3) That the applicant proposes to utilize said well to
inject produced salt water into the Delaware formation, with
injection into the perforated interval from approximately 5062
feet to 5100 feet.

(4) That the subject well should be classified as a pilot
waterflood project injection well.

(5) That the injection should be accomplished through
2-inch tubing installed in a packer set at approximately 4257

-2-

CASE No. 4112
Order No. R-3745

feet; that the casing-tubing annulus should be filled with an inert fluid; and that a pressure gauge should be attached to the annulus at the surface in order to determine leakage in the casing, tubing, or packer.

(6) 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, P-M Drilling Company, is hereby authorized to institute a pilot waterflood project by utilizing its James Federal Well No. 1, located in Unit A of Section 35, Township 23 South, Range 32 East, NMPM, Triste Draw-Delaware Pool, Lea County, New Mexico, to inject produced salt water into the Delaware formation, injection to be accomplished through 2-inch tubing installed in a spacker set at approximately 4257 feet, with injection into the perforated interval from approximately 5062 feet to 5100 feet;

PROVIDED HOWEVER, that the casing-tubing annulus shall be filled with an inert fluid and that a pressure gauge shall be attached to the annulus at the surface in order to determine leakage in the casing, tubing, or packer.

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

(3) 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.



STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

DAVID B. CARGO, Chairman

ALEX J. ADAMS, Member

A. L. PORTER, Jr., Member & Secretary

Case 4662

Heard 4-23-69

Rec. 4-25-69

Grant P. M. Dr. Co. permission
to convert their James Del
#1, Trist Drav - Delaware,
A 35-335-32E to a SWD
well. Injection shall be into
the Delaware Sand 5062-5100
thru 2" tubing under a packer
set at approx 4257 when
perfs 5062-66 + open hole
from 5159 to 5100.
Annulus shall be filled w/
inert fluid w/ pressure gauge
at surface.

Shull, J. H.

DOCKET: EXAMINER HEARING - WEDNESDAY - APRIL 23, 1969

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

The following cases will be heard before Elvis A. Utz, Examiner, or Daniel S. Nutter, Alternate Examiner:

- CASE 4079: (Continued from the March 26, 1969, Examiner Hearing)
Application of Robert B. Holt for the creation of a new pool, assignment of a discovery allowable, and the promulgation of special pool rules, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the creation of a new Middle Pennsylvanian oil pool for his Aztec State Well No. 2 located in Unit A of Section 26, Township 13 South, Range 32 East, Lea County, New Mexico, and for the assignment of an oil discovery allowable in the amount of approximately 48,715 barrels to said well. Applicant further seeks the promulgation of special pool rules for said pool, including a provision for 160-acre proration units and the assignment of 80-acre allowables.
- CASE 4106: Application of Southland Royalty Company for salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Permo-Pennsylvanian formation in the perforated interval from approximately 9485 feet to 9713 feet in its Guye Well No. 4 located in Unit F of Section 12, Township 11 South, Range 33 East, Inbe Permo-Pennsylvanian Pool, Lea County, New Mexico.
- CASE 4107: Application of Coastal States Gas Producing Company for special pool rules, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the promulgation of special pool rules for the West Sawyer-San Andres Pool, Lea County, New Mexico, including a provision for 80-acre spacing and proration units.
- CASE 4108: Application of Humble Oil & Refining Company for the rededication of acreage, Lea County, New Mexico. Applicant, in the above-styled cause, seeks to recomplete its New Mexico "V" State Well No. 5, a non-commercial Wantz-Abo oil producer, to a Tubb gas producer and to consolidate the 40 acres presently dedicated to said well with the 120 acres presently dedicated to its New Mexico "V" State Well No. 11, a Tubb gas producer, to form a standard 160-acre proration unit comprising the SW/4 of Section 10, Township 21 South, Range 37 East, Tubb Gas Pool, Lea County, New Mexico. Applicant further seeks authority to produce the allowable assigned to said unit from either of said wells in any proportion.
- CASE 4109: Application of Humble Oil & Refining Company for a unit agreement, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of the South Lea Unit Area comprising 8,324.16 acres, more or less, of State, Federal, and Fee lands in Township 26 South, Range 36 East, Lea County, New Mexico.

CASE 4110: Application of Atlantic-Richfield Company for a waterflood project and unorthodox injection well location, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a pilot waterflood project by the injection of water into the Queen formation through one well to be drilled at an unorthodox location 100 feet from the North and West lines of Section 23, Township 18 South, Range 31 East, Shugart Pool, Eddy County, New Mexico.

CASE 4111: Application of Tenneco Oil Company for a dual completion and salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dually complete its Morton Federal Well No. 1, located in Unit A of Section 12, Township 9 South, Range 35 East, Lea County, New Mexico, in such a manner as to permit the production of oil from the Vaca-Pennsylvanian Pool and the disposal of produced salt water through the intermediate casing-production casing annulus into the San Andres, Abo and possibly other formations in the open-hole interval from approximately 4050 feet to 8120 feet.

CASE 4112: Application of B-M Drilling Company for salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Delaware formation in the perforated interval from approximately 5062 feet to 5100 feet in its James Federal Well No. 1 located in Unit A of Section 35, Township 23 South, Range 32 East, Triste Draw-Delaware Pool, Lea County, New Mexico.

CASE 4113: Application of Texas Pacific Oil Company for an unorthodox oil well location, Lea County, New Mexico. Applicant, in the above-styled cause, seeks to substitute its State "D" A/c-1 Well No. 1 located in Unit A of Section 2, Township 12 South, Range 33 East, in lieu of its State "C" A/c-1 Well No. 1 located in Unit B of said Section 2 as the producing well for the proration unit comprising the N/2 NE/4 of said Section 2, Bagley-Siluro-Devonian Pool, Lea County, New Mexico.

CASE 4114: Application of Gulf Oil Corporation for two unorthodox oil well locations and amendment to Order No. R-2729, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to drill two producing oil wells at unorthodox locations in Township 19 South, Range 35 East, as infill wells in the West Pearl Queen Unit Waterflood Project, Pearl Queen Pool, Lea County, New Mexico, said wells to be located as follows:

West Pearl Queen Unit Well No. 164 to be located 1325 feet from the North line and 2635 feet from the West line of Section 32;

West Pearl Queen Unit Waterflood Well No. 165 to be located 1420 feet from the South line and 1325 feet from the West line of Section 29;

(Case 4114 continued)

Applicant also seeks the amendment of Order No. R-2729, which order authorized the aforesaid waterflood project, to establish a procedure whereby additional injection wells and producing wells at unorthodox infill locations, as may be necessary to complete an efficient injection and producing pattern, may be approved administratively.

CASE 4115: Application of Southern Union Production Company for compulsory pooling, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Dakota formation underlying the W/2 of Section 16, Township 29 North, Range 9 West, Basin-Dakota Pool, San Juan County, New Mexico. Said acreage to be dedicated to a well to be drilled at a standard location in the W/2 of said Section 16. Also to be considered will be the costs of drilling said well, a charge for the risk involved, a provision for the allocation of actual operating costs, and the establishment of charges for supervision of said well.

CASE 4116: Application of Tesoro Petroleum Corporation for the amendment of Order No. R-2797 and for the extension of the South Hospah-Upper Sand Pool, McKinley County, New Mexico. Applicant, in the above-styled cause, seeks the amendment of Order No. R-2797, which order approved the Hospah Unit Agreement, to delete from said unit agreement 233.87 acres in the Southeast portion of Section 1, Township 17 North, Range 9 West, McKinley County, New Mexico. Applicant also seeks the extension of the South Hospah-Upper Sand Pool to include a portion of the Southeast quarter of said Section 1.

CASE 4117: Application of Eastern Petroleum Company for special pool rules, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks the promulgation of special rules for the Rattlesnake-Dakota Pool, San Juan County, New Mexico, permitting the drilling of wells on 2½-acre spacing provided that no well be located nearer than 50 feet to the outer boundary of the quarter-quarter section and no nearer than 165 feet to another well producing from the same pool, and provided further, that a 40-acre proration unit would be subject to a 40-acre allowable regardless of the number of wells on the unit.

CASE 4118: Application of Dugan Production Corporation for downhole commingling, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks authority to commingle gas production from undesignated Fruitland and Pictured Cliffs gas pools in the well-bore of its Federal "I" Well No. 4, located in the NE/4 NW/4 of Section 1, Township 29 North, Range 14 West, San Juan County, New Mexico.

CASE 4096: (Continued from the April 2, 1969, Examiner Hearing)

Application of Kersey & Company for a waterflood project, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority

-4- Examiner Hearing - April 23, 1969

Docket No. 12-69 "

to institute a waterflood project by the injection of water into the Seven Rivers formation through four wells located in Units C, D, and F of Section 25, Township 17 South, Range 28 East, Aid (Yates-Seven Rivers) Pool, Eddy County, New Mexico.

CASE 4078: (Continued from the April 9, 1969, Examiner Hearing)

Application of J. Gregory Merrion for downhole commingling, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks authority to commingle production from the Devils Fork-Gallup Pool and an undesignated Mesaverde oil pool in the well-bore of his NCRA State Well No. 3 located in Unit L of Section 16, Township 24 North, Range 6 West, Rio Arriba County, New Mexico.

6	5	4	3	2	1
U.S.	U.S.	U.S.	U.S.	State	U.S.
J.H. Trigg HBP 04463 WAG 266	Superior 8-1-73 0419347	Gulf 9-1-73 0433162	H.F. Holbeck 8-1-73 0432435	Gulf 11-73 0433162	Texaco 8-1-73 0371173
7	8	9	10	11	12
U.S.	U.S.	U.S.	U.S.	U.S.	U.S.
Superior 8-1-73 0419347	Pauline Trigg HBP 04463	McGowan Conf-Fed 04463 WAG 266	Texaco 8-1-73 0371173	Texaco 8-1-73 0371173	Texaco 8-1-73 0371173
18	17	16	15	14	13
U.S.	U.S.	U.S.	U.S.	U.S.	U.S.
Midwest 8-1-76 0559539	Midwest 8-1-76 0559539	Midwest 8-1-76 0559539	Midwest 8-1-76 0559539	Midwest 8-1-76 0559539	Midwest 8-1-76 0559539
19	20	21	22	23	24
U.S.	U.S.	U.S.	U.S.	U.S.	U.S.
Superior 8-1-73 0371173	Midwest 8-1-76 0559539	Midwest 8-1-76 0559539	Midwest 8-1-76 0559539	Midwest 8-1-76 0559539	Midwest 8-1-76 0559539
30	29	28	27	26	25
U.S.	U.S.	U.S.	U.S.	U.S.	U.S.
Superior 8-1-73 0371173	Midwest 8-1-76 0559539	Midwest 8-1-76 0559539	Midwest 8-1-76 0559539	Midwest 8-1-76 0559539	Midwest 8-1-76 0559539
31	32	33	34	35	36
U.S.	U.S.	U.S.	U.S.	U.S.	U.S.
Superior 8-1-73 0371173	Midwest 8-1-76 0559539	Midwest 8-1-76 0559539	Midwest 8-1-76 0559539	Midwest 8-1-76 0559539	Midwest 8-1-76 0559539
37	38	39	40	41	42
U.S.	U.S.	U.S.	U.S.	U.S.	U.S.
Superior 8-1-73 0371173	Midwest 8-1-76 0559539	Midwest 8-1-76 0559539	Midwest 8-1-76 0559539	Midwest 8-1-76 0559539	Midwest 8-1-76 0559539
43	44	45	46	47	48
U.S.	U.S.	U.S.	U.S.	U.S.	U.S.
Superior 8-1-73 0371173	Midwest 8-1-76 0559539	Midwest 8-1-76 0559539	Midwest 8-1-76 0559539	Midwest 8-1-76 0559539	Midwest 8-1-76 0559539
49	50	51	52	53	54
U.S.	U.S.	U.S.	U.S.	U.S.	U.S.
Superior 8-1-73 0371173	Midwest 8-1-76 0559539	Midwest 8-1-76 0559539	Midwest 8-1-76 0559539	Midwest 8-1-76 0559539	Midwest 8-1-76 0559539
55	56	57	58	59	60
U.S.	U.S.	U.S.	U.S.	U.S.	U.S.
Superior 8-1-73 0371173	Midwest 8-1-76 0559539	Midwest 8-1-76 0559539	Midwest 8-1-76 0559539	Midwest 8-1-76 0559539	Midwest 8-1-76 0559539
61	62	63	64	65	66
U.S.	U.S.	U.S.	U.S.	U.S.	U.S.
Superior 8-1-73 0371173	Midwest 8-1-76 0559539	Midwest 8-1-76 0559539	Midwest 8-1-76 0559539	Midwest 8-1-76 0559539	Midwest 8-1-76 0559539
67	68	69	70	71	72
U.S.	U.S.	U.S.	U.S.	U.S.	U.S.
Superior 8-1-73 0371173	Midwest 8-1-76 0559539	Midwest 8-1-76 0559539	Midwest 8-1-76 0559539	Midwest 8-1-76 0559539	Midwest 8-1-76 0559539
73	74	75	76	77	78
U.S.	U.S.	U.S.	U.S.	U.S.	U.S.
Superior 8-1-73 0371173	Midwest 8-1-76 0559539	Midwest 8-1-76 0559539	Midwest 8-1-76 0559539	Midwest 8-1-76 0559539	Midwest 8-1-76 0559539
79	80	81	82	83	84
U.S.	U.S.	U.S.	U.S.	U.S.	U.S.
Superior 8-1-73 0371173	Midwest 8-1-76 0559539	Midwest 8-1-76 0559539	Midwest 8-1-76 0559539	Midwest 8-1-76 0559539	Midwest 8-1-76 0559539
85	86	87	88	89	90
U.S.	U.S.	U.S.	U.S.	U.S.	U.S.
Superior 8-1-73 0371173	Midwest 8-1-76 0559539	Midwest 8-1-76 0559539	Midwest 8-1-76 0559539	Midwest 8-1-76 0559539	Midwest 8-1-76 0559539
91	92	93	94	95	96
U.S.	U.S.	U.S.	U.S.	U.S.	U.S.
Superior 8-1-73 0371173	Midwest 8-1-76 0559539	Midwest 8-1-76 0559539	Midwest 8-1-76 0559539	Midwest 8-1-76 0559539	Midwest 8-1-76 0559539
97	98	99	100	101	102
U.S.	U.S.	U.S.	U.S.	U.S.	U.S.
Superior 8-1-73 0371173	Midwest 8-1-76 0559539	Midwest 8-1-76 0559539	Midwest 8-1-76 0559539	Midwest 8-1-76 0559539	Midwest 8-1-76 0559539

P-M DRILLING COMPANY

WATER INJECTION WELL

#1 JAMES FEDERAL

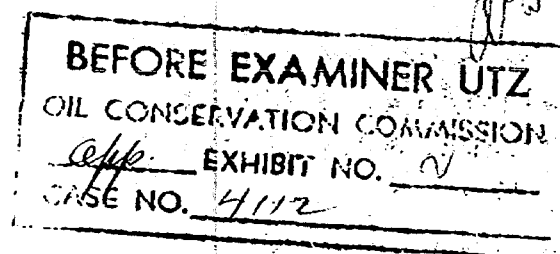
LEA COUNTY, NEW MEXICO

LOCATION : 660' FNL & 660' FEL of Section 35, 23S, 32E,
NMP, Lea County, New Mexico

DATE : April 19, 1969

NOTES : A Giberson, plastic coated, 4½" Shorty Tension
Packer was set at 4257'.
Top cement was at 4159'.
The 2" Upset tubing was tested to 1000#.
The 4½" casing and packer was tested to 200#.
Bottom of hole was found at 5067'.
Shorty Tension Packer 3'.
Seating Nipple 1.10'.

8 5/8 Set @ 303' w/150sx
4 1/2 Set @ 5159 w/200sx



P-M DRILLING COMPANY

WATER INJECTION WELL

#1 JAMES FEDERAL

2" EVE UPSET TUBING TALLY

3.00 Shorty Tension Packer
1.10 Seating Nipple

63.08

61.34

63.43

63.27

62.44

62.88

61.27

62.11

63.02

62.53

63.50

62.70

61.55

63.04

63.84

63.16

62.11

63.43

63.00

62.60

63.15

61.60

62.08

62.56

60.62

60.85

62.05

62.71

61.48

62.05

63.83

61.65

62.09

62.58

60.62

63.90

62.11

60.00

61.78

61.43

62.93

63.68

63.14

63.10

61.91

61.64

62.33

62.06

62.32

64.00

63.15

63.26

63.08

61.82

62.85

63.72

61.37

63.65

62.53

63.53

61.69

63.34

63.65

61.46

63.10

62.88

63.75

63.50

4257.00

BEFORE EXAMINER UTZ

OIL CONSERVATION COMMISSION

App. EXHIBIT NO. 2

CASE NO. 4112



A. G. McCARVER

OIL PRODUCER
2900 N. BIG SPRING
MIDLAND, TEXAS 79701

BUS. PH.
915-682-9072
RES. PH.
915-682-8771

March 25, 1969

Re: Water Injection Well

Mr. John Trigg
P. O. Box 520
Roswell, New Mexico 88201

Dear Mr. Trigg:

I would like to obtain a waiver from you to use as a water injection well our James Federal #1, located 660' FNL & 660' FEL of Section 35, T-23S, R-32E, Lea County, New Mexico.

The water would be injected from our James one well lease, #04465 and our Payne three well lease, #03226. At present we would be injecting approximately 325 barrels per month, with 195 barrels coming from our three well Payne lease and 130 barrels coming from our James lease. This water would be injected through perforations in the Delaware Sands at 5062-66.

The casing program on the James Federal #1 is as follows:

Surface Casing	:	303' of 8-5/8" 24# set with 150 sax cement
Production String	:	5159' 4 1/2" 9 1/2# casing set with 200 sax cement, 4% Jel
Perforations	:	4 jet shots per foot 5062-66

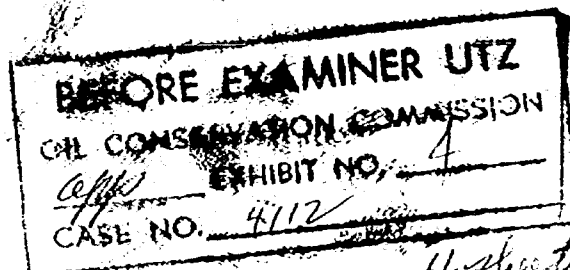
If you have no objection of this method of disposing of salt water from the above mentioned lease, please sign the enclosed copies, showing date of signature, and return to us, keeping the original for your files.

Very truly yours,

P-M DRILLING COMPANY

A. G. McCarver
A. G. McCarver

AGM/ml



Off-set Operator:

John W. Trigg
John Trigg

Date: April 8, 1969

Union Oil Company of California
500 N. Marlenfeld, Midland, Texas 79701
Telephone (915) MU 2-9731



Midland District

April 10, 1969

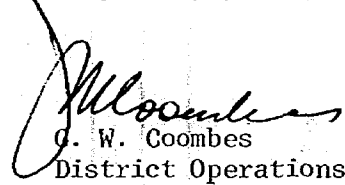
Mr. A. G. McCarver
2900 N. Big Spring
Midland, Texas 79701

Dear Mr. McCarver:

Water Injection Well
James Federal No. 1,
Lea County, New Mexico

Attached is signed copy of waiver to dispose of salt water in the above captioned well as requested.

Very truly yours,


G. W. Coombes
District Operations Manager

GWC/bMc

Attachment



A. G. McCARVER

OIL PRODUCER
2900 N. BIG SPRING
MIDLAND, TEXAS 79701
March 27, 1969

BUS. PH.
915-682-9072
RES. PH.
915-682-8771

Re: Water Injection Well

Union Oil of California
619 West Texas
Midland, Texas 79701

Gentlemen:

I would like to obtain a waiver from you to use as a water injection well our James Federal #1, located 660' FNL & 660' FEL of Section 35, T-23S, R-32E, Lea County, New Mexico.

The water would be injected from our James one well lease, #04465, and our Payne three well lease, #03226. At present we would be injecting approximately 325 barrels per month, with 195 barrels coming from our three well Payne lease and 130 barrels coming from our James lease. This water would be injected through perforations in the Delaware Sands at 5062-66.

The casing program on the James Federal #1 is as follows:

Surface String	: 303' of 8-5/8" 24# set with 150 sack cement
Production String	: 5159' 4 1/2" 9 1/2# casing set with 200 sack cement, 4% Jel
Perforations	: 4 jet shots per foot 5062-66

If you have no objection of this method of disposing of salt water from the above mentioned lease, please sign the enclosed copies, showing date of signature, and return to me, keeping the original for your files.

Very truly yours,

P-M DRILLING COMPANY

A. G. McCarver

A. G. McCarver
UNION OIL COMPANY OF CALIFORNIA

Off-set Operator: *G. W. Coombes*
By: G. W. Coombes, District Operations Manager

Date: April 10, 1969

AGM/ml
Encl.

A. G. McCARVER

OIL PRODUCER
2900 N. BIG SPRING
MIDLAND, TEXAS 79701

March 27, 1969

Re: Water Injection Well

Continental Oil Company
P. O. Box 460
Hobbs, New Mexico 88240

Gentlemen :

I would like to obtain a waiver from you to use as a water injection well our James Federal #1, located 660' FNL & 660' FEL of Section 35, T-23S, R-32E, Lea County, New Mexico.

The water would be injected from our James one well lease, #04465, and our Payne three well lease, #03226. At present we would be injecting approximately 325 barrels per month, with 195 barrels coming from our three well Payne lease and 130 barrels coming from our James lease. This water would be injected through perforations in the Delaware Sands at 5062-66.

The casing program on the James Federal #1 is as follows:

Surface Casing : 303' of 8-5/8" 24# set with 150 sax cement
Production String : 5159' 4 1/2" 9 1/2# casing set with 200 sax
cement, 4% Jel
Perforations : 4 jet shots per foot 5062-66

If you have no objection of this method of disposing of salt water from the above mentioned lease, please sign the enclosed copies, showing date of signature, and return to me, keeping the original for your files.

Very truly yours,

P-M DRILLING COMPANY

A. S. McLean

A. C. McCarver

AGM/111
Enc 1.

Off-set Operator:

Date:

Continental Oil Company does not endorse the completion of salt water disposal wells without tubing and packer or annulus fluid unless under unusual conditions.

[illegible]

NEW MEXICO OIL CONSERVATION COMMISSION

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

OPERATOR P-M Drilling Company		ADDRESS 2900 North Big Spring, Midland, Texas 79701	
LEASE NAME #1 James Federal	WELL NO. 1	FIELD Triste Draw Delaware	COUNTY Lea
LOCATION UNIT LETTER A ; WELL IS LOCATED 660 FEET FROM THE N LINE AND 660 FEET FROM THE E LINE, SECTION 35 TOWNSHIP 23S RANGE 32E NMMP.			

CASING AND TUBING DATA					
NAME OF STRING	SIZE	SETTING DEPTH	SACKS CEMENT	TOP OF CEMENT	TOP DETERMINED BY
SURFACE CASING	8-5/8"	303'	150	Circ.	Sight
INTERMEDIATE					
LONG STRING	4 1/2	5159'	200	4159	Calc.
TUBING			NAME, MODEL AND DEPTH OF TUBING PACKER None		
NAME OF PROPOSED INJECTION FORMATION Delaware Sand			TOP OF FORMATION 5060 (-1358)		BOTTOM OF FORMATION 5148
IS INJECTION THROUGH TUBING, CASING, OR ANNULUS? Casing		PERFORATIONS OR OPEN HOLES Perforations		PROPOSED INTERVAL(S) OF INJECTION 5062-5100	
IS THIS A NEW WELL DRILLED FOR DISPOSAL? No		IF ANSWER IS NO, FOR WHAT PURPOSE WAS WELL ORIGINALLY DRILLED? Oil 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					
DEPTH OF BOTTOM OF DEEPEST FRESH WATER ZONE IN THIS AREA 460?		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 ?	
ANTICIPATED DAILY INJECTION VOLUME (BBLs.) 12	MINIMUM 100	MAXIMUM Approx.	OPEN OR CLOSED TYPE SYSTEM Closed	IS INJECTION TO BE BY GRAVITY OR PRESSURE? Gravity (Anticipated)	APPROX. PRESSURE (PSI)
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 Delaware formation		NATURAL WATER IN DISPOSAL ZONE Same
ARE WATER ANALYSES ATTACHED? No					
NAME AND ADDRESS OF SURFACE OWNER (OR LESSEE, IF STATE OR FEDERAL LAND) Federal					
LIST NAMES AND ADDRESSES OF ALL OPERATORS WITHIN ONE-HALF (1/2) MILE OF THIS INJECTION WELL					
John Trigg		Roswell		New Mexico (U.S.)	
Continental		Hobbs		New Mexico (U.S.)	
Union California		Midland		Texas (State)	
DOCKET MARKED 4-10-69					
HAVE COPIES OF THIS APPLICATION BEEN SENT TO EACH OF THE FOLLOWING? Yes		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) Yes		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.

A. G. Mc Lane Operator **3-26-69**
(Signature) (Title) (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 4112

P-M DRILLING COMPANY
#1 James Federal

63 MAR 31 AM 8 29

Located 660' FSL & 660' FEL Section 35, T-23S, R-31E
Lea County, New Mexico

Surface El.
3692

8-5/8" casing set @ 303'
with 150 sax cement
circulated

303'

Salt water to be injected
in to Delaware Sand through
perforations 5062-6100.
We anticipate the volume to
be injected at present at
12 to 15 bbls. per day.
This fluid will be coming
from other Delaware Sand wells
in the area.

4 1/2" casing set @ 5159'
with 200 sax cement
Top cement @ 4159

Top Cement @ 4159

Perf. 5062-66 at present

5159'

5/100

The proposed Injection Well is circled in red, and all producing or previously producing wells, in the 2 mile area, produced from the Delaware Sand.

[illegible]

DRAFT

GMH/esr

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. 4112

Order No. R- 3745

YMO
ASL
OF
APPLICATION P-M DRILLING COMPANY
FOR SALT WATER DISPOSAL, LEA COUNTY,
NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on April 23, 1969,
at Santa Fe, New Mexico, before Examiner Elvis A. Utz.

NOW, on this day of April, 1969, 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, P-M Drilling Company,
is the owner and operator of the James Federal Well No. 1,
located in Unit A of Section 35, Township 23 South, Range
32 East, NMPM, Triste Draw-Delaware Pool, Lea
County, New Mexico.

(3) That the applicant proposes to utilize said well to
~~dispose of~~ ^{inject} produced salt water into the Delaware
formation, with injection into the perforated interval
from approximately 5062 feet to 5100 feet.

(4) That the injection should be accomplished through
2-inch ~~plastic lined~~ tubing installed in a packer set at

*(4) That the subject well should be classified
as a pilot water flood project injection
well.*

approximately 4257 feet; that the casing-tubing annulus should be filled with an inert fluid; and that a pressure gauge should be attached to the annulus ~~or the annulus left open~~ at the surface in order to determine leakage in the casing, tubing, or packer.

(6) 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, P-M Drilling Company is hereby authorized to ~~utilize its~~ institute a pilot waterflood project by utilizing its James Federal Well No. 1, located in Unit A of Section 35, Township 23 South, Range 32 East, NMPM, Triste Draw-Delaware Pool, Lea County, New Mexico, to ~~dispose of~~ inject produced salt water into the Delaware formation, injection to be accomplished through 2-inch tubing installed in a packer set at approximately 4257 feet, with injection into the perforated ~~and open hole~~ interval from approximately 5062 feet to 5100 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 left open~~ at the surface in order to determine leakage in the casing, tubing, or packer.

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

(3) 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.