

CASE 3572: Application of JONES
EX. CO. for a dual completion &
for salt water disposal.

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CASE No.
3572

Application,
TRANSCRIPTS,
SMALL Exhibits
ETC.



STATE OF NEW MEXICO
STATE ENGINEER OFFICE
SANTA FE

MAIN OFFICE 0-10

APR 21 PM 1 18

S. E. REYNOLDS
STATE ENGINEER

April 20, 1967

ADDRESS CORRESPONDENCE TO:
STATE CAPITOL
SANTA FE, NEW MEXICO 87501

Case 3572

Mr. A. L. Porter, Jr.
Secretary-Director
Oil Conservation Commission
Santa Fe, New Mexico

Dear Mr. Porter:

Please refer to the application of Jones Exploration Company which seeks authority to dispose of salt water through their No. 1 State well located in Unit H, Sec. 35, T. 17 S., R. 35 E., into the Paddock formation by using perforations proposed at depth 6955' to 6995'.

Although the well is to be used for both production and for injection purposes, it appears that good construction standards were used.

The application states that the water in the disposal zone and the water to be disposed of are unfit for use. One analysis by Haliburton Company is attached. The analysis indicates that the water was from the Abo formation but there is no identification as to the well from which it was taken. No analysis of the water in the disposal zone was attached to the application.

These remarks, which may not be necessary, are made merely to bring these points to your attention.

FEI/ma

Yours truly,

S. E. Reynolds
State Engineer

By:

Frank E. Irby
Frank E. Irby, Chief
Water Rights Division

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. 3572
Order No. R-3239

APPLICATION OF JONES EXPLORATION
COMPANY FOR A DUAL COMPLETION AND
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 May 24, 1967,
at Santa Fe, New Mexico, before Examiner Elvis A. Utz.

NOW, on this 1st day of June, 1967, 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, Jones Exploration Company, seeks
authority to complete its State Well No. 1, located in Unit H of
Section 35, Township 17 South, Range 35 East, NMPM, Vacuum Field,
Lea County, New Mexico, as a dual completion to produce oil from
the Vacuum-Abo Reef Pool through 2-inch tubing and to dispose of
produced salt water down the casing-tubing annulus into the
Paddock formation in the perforated interval from 6955 feet to
6995 feet.

(3) That the produced salt water should be continuously
treated prior to injection to prevent casing corrosion.

(4) That approval of the dual completion and salt water dis-
posal as set out above will prevent the drilling of unnecessary

-2-

CASE No. 3572
Order No. R-3239

wells, and will otherwise prevent waste and protect correlative rights.

IT IS THEREFORE ORDERED:

(1) That the applicant, Jones Exploration Company, is hereby authorized to complete its State Well No. 1, located in Unit H of Section 35, Township 17 South, Range 35 East, NMPM, Vacuum Field, Lea County, New Mexico, as a dual completion to produce oil from the Vacuum-Abo Reef Pool through 2-inch tubing and to dispose of produced salt water down the casing-tubing annulus into the Paddock formation in the perforated interval from 6955 feet to 6995 feet;

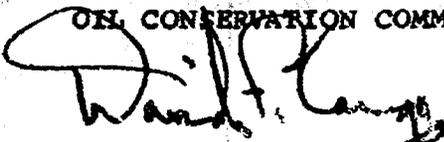
PROVIDED HOWEVER, that the produced salt water shall be continuously treated prior to injection to prevent casing corrosion, and provided further, that coupon corrosion tests shall be conducted on said well and the results thereof filed with the Commission until further notice from the Secretary-Director of the Commission.

PROVIDED FURTHER, that the applicant shall complete, operate, and produce said well in accordance with the provisions of Rule 112-A of the Commission Rules and Regulations insofar as said rule is not inconsistent with this order.

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

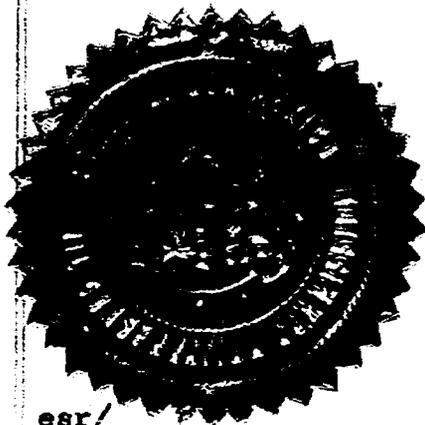
DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION


DAVID F. CARGO, Chairman


GUYTON B. HAYS, Member


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



esr/

GOVERNOR
DAVID F. CARGO
CHAIRMAN

State of New Mexico
Oil Conservation Commission



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

LAND COMMISSIONER
GUYTON B. HAYS
MEMBER

P. O. BOX 2088
SANTA FE

June 1, 1967

Mr. Jason Kellahin
Kellahin & Fox
Attorneys at Law
Post Office Box 1769
Santa Fe, New Mexico

Re: Case No. 3572
Order No. R-3239
Applicant:
Jones Exploration Co.

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

Carbon copy of order also sent to:

Hobbs OCC x

Artesia OCC

Aztec OCC

Other State Engineer

Case 3572

Heard 5-24-67

Rec. 5-25-67

1. Grant Jones Exploration Co. permission to finally complete their State #1 H-35-175-355, In Vacuum Abo Pool.
2. The Abo shall be produced thru 2" tubing set at 9100' and a packer set at 8925.
3. Produced salt water from this pool is to be injected into the Paddock zone at 6955-55 thru the 2" x 5 1/2" tubing casing annulus.
4. The outside of the tubing and the inside of the casing will not be coated therefore the water should be treated to prevent corrosion and checked with coupons in accordance with acceptable practice.

Shula J. J.

Case 3572
Form C-108
Revised 1-1-65

NEW MEXICO OIL CONSERVATION COMMISSION

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

OPERATOR Jones Exploration Company		ADDRESS Box 1516, Midland, Texas	
LEASE NAME State E-7651	WELL NO. 1 27	FIELD Vacum Abo (Reef)	COUNTY Lea
LOCATION UNIT LETTER H WELL IS LOCATED 2310 FEET FROM THE North LINE AND 990 FEET FROM THE East LINE, SECTION 35 TOWNSHIP 17S RANGE 35E NMPM.			

CASING AND TUBING DATA					
NAME OF STRING	SIZE	SETTING DEPTH	SACKS CEMENT	TOP OF CEMENT	TOP DETERMINED BY
SURFACE CASING	13 3/8	321	325	sur.	circulated
INTERMEDIATE	8 5/8	3502	600	sur.	circulated
LONG STRING	5 1/2	9189	775	3400	volumetric calculations of caliper log & temp. survey
TUBING	2"	9100	NAME, MODEL AND DEPTH OF TUBING PACKER Halliburton R-3		
NAME OF PROPOSED INJECTION FORMATION Paddock			TOP OF FORMATION 6610	BOTTOM OF FORMATION 7635	
IS INJECTION THROUGH TUBING, CASING, OR ANNULUS? annulus		PERFORATIONS OR OPEN HOLES? perfs.	PROPOSED INTERVAL(S) OF INJECTION 6955-95		
IS THIS A NEW WELL DRILLED FOR DISPOSAL? no	IF ANSWER IS NO, FOR WHAT PURPOSE WAS WELL ORIGINALLY DRILLED? producing from Abo Reef		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 6757-59, 6663-64, 6673-74, sqz w/425 sx; 8780-8825, 9044-56, prod. below packer					
DEPTH OF BOTTOM OF DEEPEST FRESH WATER ZONE IN THIS AREA Base Tr. 1595		DEPTH OF BOTTOM OF NEXT HIGHER OIL OR GAS ZONE IN THIS AREA Base Glorieta 6610		DEPTH OF TOP OF NEXT LOWER OIL OR GAS ZONE IN THIS AREA Abo Reef 8775	
ANTICIPATED DAILY INJECTION VOLUME (BBLs.) 250	MINIMUM 200	MAXIMUM 300	OPEN OR CLOSED TYPE SYSTEM open	IS INJECTION TO BE BY GRAVITY OR PRESSURE? gravity	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 yes (silty sul wtr)	NATURAL WATER IN DISPOSAL ZONE yes	ARE WATER ANALYSES ATTACHED? yes-Abo
NAME AND ADDRESS OF SURFACE OWNER (OR LESSEE, IF STATE OR FEDERAL LAND) Bob Lee, Lovington, New Mexico					
LIST NAMES AND ADDRESSES OF ALL OPERATORS WITHIN ONE-HALF (1/2) MILE OF THIS INJECTION WELL					
Cities Svc. Oil Co., Box 69, Hobbs, New Mex.					
Phillips Pet. Co., Box 791, Midland, Texas					
Texas Pac. Oil Co., Box 4067, Midland, Texas					
Amerada Pet. Co., Box 312, Midland, Texas					
Sinclair Oil & Gas Co., Box 1470, Midland, Texas					
Pan-American Pet. Co., P. O. Box 68, Hobbs, New Mex.					
Great Western Drilling Co., Box 1659, Midland, Texas					
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		THE NEW MEXICO STATE ENGINEER 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.

Philip M. Jones (Signature) Owner (Title) 5-1-67 (Date)

NOTE: Should waivers from the State Engineer, 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.

<p>Phillips H.B.P. 8-1104</p> <p>Belt Petr. 10-20-74 W-4500 10 U</p> <p>22</p>	<p>Sinclair H.B.P. 8-1104</p> <p>Cit Serv. 11-20-72 K-2871 89-29</p> <p>23</p>	<p>Island Oil</p> <p>McCauley & Stevens et al H.B.P. B-2531</p> <p>24</p>	<p>Sun H.B.P. B-2287</p> <p>19</p>	<p>Gulf E-2586</p> <p>10000</p> <p>20</p>	<p>Texaco K-5386</p> <p>21</p>
<p>Std. of Tex. Cities Service</p> <p>25</p>	<p>Phillips H.B.P. E-1744</p> <p>26</p>	<p>Std. of Tex. B-3840</p> <p>25</p>	<p>EIK Oil 6-12-67 09350</p> <p>27</p>	<p>Cities Service R Lowe Nunes 10-14-72</p> <p>29</p>	<p>Cities Service 06-4465 10-21</p> <p>28</p>
<p>Phillips H.B.P. B-1608</p> <p>34</p>	<p>Phillips H.B.P. E-7651</p> <p>35</p>	<p>Phillips H.B.P. E-7651</p> <p>36</p>	<p>Phillips H.B.P. B-960</p> <p>30</p>	<p>Aztec K-3343</p> <p>32</p>	<p>Mobil H.B.P. B-2735</p> <p>33</p>
<p>Std. of Texas</p> <p>35</p>	<p>Cities Service F372</p> <p>38</p>	<p>Amerado E-5143</p> <p>36</p>	<p>Aztec E-5224</p> <p>31</p>	<p>Union H.B.P. B-2735</p> <p>32</p>	<p>Mobil H.B.P. B-2735</p> <p>33</p>
<p>Phillips H.B.P. B-1608</p> <p>3</p>	<p>Phillips H.B.P. B-2519</p> <p>1A</p>	<p>Superior H.B.P. E-9202</p> <p>11</p>	<p>Allied Chemical K-4923</p> <p>15-94</p>	<p>Mobil H.B.P. B-2287</p> <p>6</p>	<p>J.N. Eddy K-3552</p> <p>14-44</p>
<p>Aztec H.B.P. E-2806</p> <p>3</p>	<p>Superior H.B.P. E-9202</p> <p>11</p>	<p>U.S. Smelt. K-2047</p> <p>41-29</p>	<p>Allied Chem. K-4923</p> <p>15-94</p>	<p>Mobil H.B.P. B-2287</p> <p>6</p>	<p>J.N. Eddy K-3552</p> <p>14-44</p>
<p>Std. of Tex. Va.</p> <p>10</p>	<p>Superior H.B.P. E-9202</p> <p>11</p>	<p>Cities Serv. K-2230</p> <p>10-12</p>	<p>U.S. Smelt. K-2047</p> <p>41-29</p>	<p>Mobil H.B.P. B-2735</p> <p>7</p>	<p>J.N. Eddy K-3552</p> <p>14-44</p>
<p>Gulf K-3529</p> <p>10</p>	<p>Superior H.B.P. E-9202</p> <p>11</p>	<p>Cities Serv. K-2230</p> <p>10-12</p>	<p>U.S. Smelt. K-2047</p> <p>41-29</p>	<p>Mobil H.B.P. B-2735</p> <p>7</p>	<p>J.N. Eddy K-3552</p> <p>14-44</p>
<p>Sinclair H.B.P. E-1582</p> <p>15</p>	<p>Cities Service H.B.P. E-1634</p> <p>15</p>	<p>Cities Service H.B.P. E-1634</p> <p>15</p>	<p>U.S. Smelt. K-2047</p> <p>41-29</p>	<p>Mobil H.B.P. B-2735</p> <p>7</p>	<p>J.N. Eddy K-3552</p> <p>14-44</p>
<p>35</p>	<p>CITIES SERV. (OPER.)</p> <p>13</p>	<p>Cities Serv. H.B.P. E-1634</p> <p>15</p>	<p>U.S. Smelt. K-2047</p> <p>41-29</p>	<p>Mobil H.B.P. B-2735</p> <p>7</p>	<p>J.N. Eddy K-3552</p> <p>14-44</p>
<p>Std. of Tex.</p> <p>15</p>	<p>Cities Service H.B.P. E-1634</p> <p>15</p>	<p>Cities Serv. H.B.P. E-1634</p> <p>15</p>	<p>U.S. Smelt. K-2047</p> <p>41-29</p>	<p>Mobil H.B.P. B-2735</p> <p>7</p>	<p>J.N. Eddy K-3552</p> <p>14-44</p>
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WILEY, SO

VACUUM-FAST

DUCK

ARKAN

REEVES

CITIES
SERV.
(OPER.)

18

HALLIBURTON DIVISION LABORATORY

HALLIBURTON COMPANY
LOVINGTON, NEW MEXICO

LABORATORY REPORT

No. WL-250-63

Date April 25, 1953

This report is the property of Halliburton Company and neither it nor any part thereof nor a copy thereof is to be published or disclosed without first securing the express written approval of laboratory management; it may however, be used in the course of regular business operations by any person or concern and employees thereof receiving such report from Halliburton Company

TO Mao Jones
Box 1516
Midland, Texas

Date Received

Well & Lease Depth Formation Abd

Location Field Source

Specific gravity _{60/60} °F 1.145

Color, filtrate

pH 5.9

Resistivity °F

Chlorides, Cl ppm (mpl) 131,700

Sulfates, SO₄ Und (1800)

Alkalinity, HCO₃ 195

Calcium, Ca 16,600

Magnesium, Mg 3,300

Iron, Fe Negl.

Sodium, Na* 60,800

Sulfides, H₂S Negl.

Remarks

ppm equals Parts per million uncorrected or milligrams per liter.
* includes Potassium as Na.

Respectfully submitted,

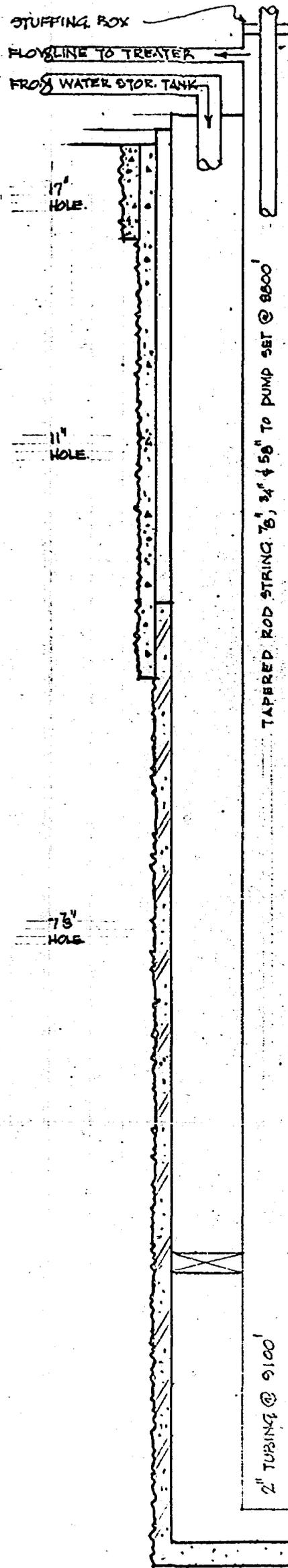
HALLIBURTON COMPANY

Laboratory Analyst
Brewer

By Dave Sutton, Division Chemist

NOTICE: This report is limited to the described sample tested. Any user of this report agrees that Halliburton shall not be liable for any loss or damage, whether due to act or omission, resulting from such report or its use.

DIAGRAMMATIC SKETCH
 JONES EXPLORATION CO., NO 1, STATE
 PROPOSED WATER DISPOSAL.



TUBING HEAD.
 CASING HEAD.
 SURFACE

12 3/8" TO 321', CIRC. 325 SX. CEMENT.

TOP CEMENT BETWEEN 5 1/2" & 8 3/8" @ 3400'

8 5/8" TO 3502', CIRC. W/600 SX. CEMENT.

PADDOCK PERFORATIONS, TESTED SALTY SULPHUR WATER,
 SQZ. W/425 SX. 6663-64.
 6673-74
 6727-59

PROPOSED INJECTION ZONE 6955-95'

HOWCO R-3 PACKER @ 8925'

PRODUCTION PERFORATIONS @ 8760-8825
 9044-9056

5 1/2" TO 9100, 775 SX (2 STAGE)

T. D. 9200'

April 20, 1967

Mr. A. L. Porter, Jr.
Secretary-Director
Oil Conservation Commission
Santa Fe, New Mexico

Dear Mr. Porter:

Please refer to the application of Jones Exploration Company which seeks authority to dispose of salt water through their No. 1 State well located in Unit H, Sec. 35, T. 17 S., R. 35 E., into the Paddock formation by using perforations proposed at depth 6955' to 6995'.

Although the well is to be used for both production and for injection purposes, it appears that good construction standards were used.

The application states that the water in the disposal zone and the water to be disposed of are unfit for use. One analysis by Haliburton Company is attached. The analysis indicates that the water was from the Abo formation but there is no identification as to the well from which it was taken. No analysis of the water in the disposal zone was attached to the application.

These remarks, which may not be necessary, are made merely to bring these points to your attention.

FBI/ma

Yours truly,

S. E. Reynolds
State Engineer

By:
Frank E. Irby, Chief
Water Rights Division

JONES EXPLORATION COMPANY

J X

1010 W. WALL • MIDLAND, TEXAS
P. O. BOX 1516 79701 • MU 2-7346

March 16, 1967

Mr. Bob Lee
Lovington, New Mexico

Gentlemen:

Jones Exploration Company proposes to dispose of approximately 250 barrels of water per day now being produced from the Abo Reef from 9044-56 and 8780-8825 in the No. 1 State located 2310 from the north line and 990 from the east line (Unit H) of Section 35, Township 17 South, Range 35 East, Lea County, New Mexico, by injecting it into the interval from 6955-95 in the same well.

A packer will be set between the disposal zone and the producing zones and the water will be allowed to gravity down the annulus. (see attached diagram.)

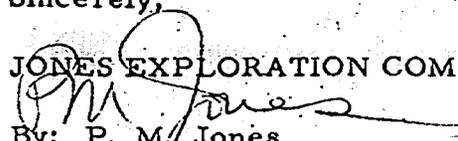
The proposed injection zone was tested in April, 1963, swabbing 100% salty sulphur water with no show of oil.

In order to expedite NMOCC approval of this proposed work, we would appreciate your indicating if your company has no objection in the space below and returning one copy of this letter to us.

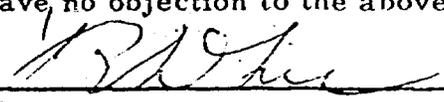
If there is an objection, please communicate its nature to us.

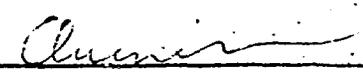
Sincerely,

JONES EXPLORATION COMPANY


By: P. M. Jones

We have no objection to the above proposed work.


Name


Title

JONES EXPLORATION COMPANY

J X

1010 W. WALL • MIDLAND, TEXAS
P. O. BOX 1516 79701 • MU 2-7346

March 16, 1967

Phillips Petroleum Company
P. O. Box 791
Midland, Texas

Gentlemen:

Jones Exploration Company proposes to dispose of approximately 250 barrels of water per day now being produced from the Abo Reef from 9044-56 and 8780-8825 in the No. 1 State located 2310 from the north line and 990 from the east line (Unit H) of Section 35, Township 17 South, Range 35 East, Lea County, New Mexico, by injecting it into the interval from 6955-95 in the same well.

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If there is an objection, please communicate its nature to us.

Sincerely,

JONES EXPLORATION COMPANY

P. M. Jones
By: P. M. Jones

We have no objection to the above proposed work.

Phillips Petroleum Company

Name

O. P. Nicola, Jr.
Title O. P. Nicola, Jr., Director of Proration

JONES EXPLORATION COMPANY

J X

1010 W. WALL • MIDLAND, TEXAS
P.O. BOX 1516 79701 • MU 2-7346

March 16, 1967

Sinclair Oil & Gas Company
Attention: Mr. N. F. Gullede
Box 1470
Midland, Texas
Gentlemen:

Jones Exploration Company proposes to dispose of approximately 250 barrels of water per day now being produced from the Abo Reef from 9044-56 and 8780-8825 in the No. 1 State located 2310 from the north line and 990 from the east line (Unit H) of Section 35, Township 17 South, Range 35 East, Lea County, New Mexico, by injecting it into the interval from 6955-95 in the same well.

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In order to expedite NMOCC approval of this proposed work, we would appreciate your indicating if your company has no objection in the space below and returning one copy of this letter to us.

If there is an objection, please communicate its nature to us.

Sincerely,

JONES EXPLORATION COMPANY

P. M. Jones
By: P. M. Jones

We have no objection to the above proposed work.

R. E. [Signature]
Name

Engineering Supervisor
Title

JONES EXPLORATION COMPANY



1010 W. WALL • MIDLAND, TEXAS
P. O. BOX 1516 79701 • MU 2-7346

March 16, 1967

Amerada Petroleum Corporation
Attention: Mr. L. E. Thomas
Box 312
Midland, Texas
Gentlemen:

Jones Exploration Company proposes to dispose of approximately 250 barrels of water per day now being produced from the Abo Reef from 9044-56 and 8780-8825 in the No. 1 State located 2310 from the north line and 990 from the east line (Unit H) of Section 35, Township 17 South, Range 35 East, Lea County, New Mexico, by injecting it into the interval from 6955-95 in the same well.

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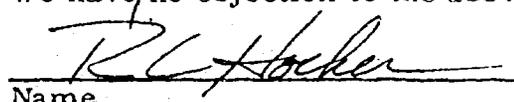
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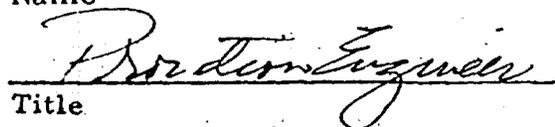
Sincerely,

JONES EXPLORATION COMPANY


By: P. M. Jones

We have no objection to the above proposed work.


Name


Title

JONES EXPLORATION COMPANY



1010 W. WALL • MIDLAND, TEXAS
P. O. BOX 1516 79701 • MU 2-7346

March 16, 1967

Texas Pacific Oil Company
P. O. Box 4067
Midland, Texas

Gentlemen:

Jones Exploration Company proposes to dispose of approximately 250 barrels of water per day now being produced from the Abo Reef from 9044-56 and 8780-8825 in the No. 1 State located 2310' from the north line and 990' from the east line (Unit H) of Section 35, Township 17 South, Range 35 East, Lea County, New Mexico, by injecting it into the interval from 6955-95 in the same well.

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Sincerely,

JONES EXPLORATION COMPANY

By: P. M. Jones

We have no objection to the above proposed work.

Name

Title

JONES EXPLORATION COMPANY

J X

1010 W. WALL • MIDLAND, TEXAS
P. O. BOX 1516 79701 • MU 2-7346

March 16, 1967

Great Western Drilling Company
Box 1659
Midland, Texas

Gentlemen:

Jones Exploration Company proposes to dispose of approximately 250 barrels of water per day now being produced from the Abo Reef from 9044-56 and 8780-8825 in the No. 1 State located 2310 from the north line and 990 from the east line (Unit H) of Section 35, Township 17 South, Range 35 East, Lea County, New Mexico, by injecting it into the interval from 6955-95 in the same well.

A packer will be set between the disposal zone and the producing zones and the water will be allowed to gravity down the annulus. (see attached diagram.)

The proposed injection zone was tested in April, 1963, swabbing 100% salty sulphur water with no show of oil.

In order to expedite NMOCC approval of this proposed work, we would appreciate your indicating if your company has no objection in the space below and returning one copy of this letter to us.

If there is an objection, please communicate its nature to us.

Sincerely,

JONES EXPLORATION COMPANY

P. M. Jones
By: P. M. Jones

We have no objection to the above proposed work.

John J. Langford
Name

GENERAL MANAGER

Title

JONES EXPLORATION COMPANY

J X

1010 W. WALL • MIDLAND, TEXAS
P. O. BOX 1516 79701 • MU 2-7346

March 16, 1967

Cities Service Oil Co.
P. O. Box 69
Hobbs, New Mexico

Gentlemen:

Jones Exploration Company proposes to dispose of approximately 250 barrels of water per day now being produced from the Abo Reef from 9044-56 and 8780-8825 in the No. 1 State located 2310' from the north line and 990' from the east line (Unit H) of Section 35, Township 17 South, Range 35 East, Lea County, New Mexico, by injecting it into the interval from 6955-95 in the same well.

A packer will be set between the disposal zone and the producing zones and the water will be allowed to gravity down the annulus. (see attached diagram.)

The proposed injection zone was tested in April, 1963, swabbing 100% salty sulphur water with no show of oil.

In order to expedite NMOCC approval of this proposed work, we would appreciate your indicating if your company has no objection in the space below and returning one copy of this letter to us.

If there is an objection, please communicate its nature to us.

Sincerely,

JONES EXPLORATION COMPANY

P. M. Jones
By: P. M. Jones

We have no objection to the above proposed work.

Cities Service Oil Co.
Name

J. Q. Anna Dept.
Title

PAN AMERICAN PETROLEUM CORPORATION

OIL AND GAS BUILDING P. O. BOX 1410

FORT WORTH, TEXAS—76101

March 23, 1967

File: GHF-129-986-510.1

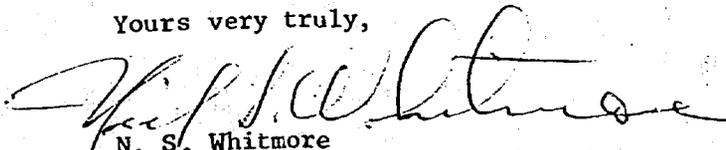
Subject: Waiver For Salt Water Disposal
Jones Exploration Company State No. 1
Lea County, New Mexico

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

Gentlemen:

Pan American Petroleum Corporation has been duly informed of Jones Exploration Company's plans for salt water disposal into their State No. 1 which is located 2310 feet from the North line and 990 feet from the East line (Unit H) of Section 35, Township 17 South, Range 35 East, Lea County, New Mexico. It is our understanding that the salt water disposal interval will be from 6955 to 6995 in State No. 1. Furthermore, we understand that a packer will be set between the disposal zone and the producing zones and the water will be allowed to gravity down the annulus. Pan American has no objections to the Commission's granting this request and hereby waives notice of hearing.

Yours very truly,


N. S. Whitmore
District Production Superintendent

BHB:wc

Mr. Frank Irby
State Engineer Office
Santa Fe, New Mexico

OIL CONSERVATION COMMISSION
P. O. BOX 2088
SANTA FE, NEW MEXICO

Case 3572

May 4, 1967

Mr. Philip M. Jones
P. O. Box 1516
Midland, Texas 79701

DOCKET MAILED

Date 5-12-67

Dear Mr. Jones:

We are sorry to inform you that your application for salt water disposal in your State Well No. 1 is not eligible for administrative approval inasmuch as an installation of this type is considered a dual completion which can be considered only after notice and hearing.

Your application has been set for hearing on the first available docket, being at 9:00 a.m. May 24, 1967.

A copy of the docket will be sent to you as soon as it is printed.

Very truly yours,

DANIEL S. NUTTER
Chief Engineer

DSN/esr

cc: Mr. Joe Ramey
Oil Conservation Commission
Hobbs, New Mexico

Mr. Frank Irby
State Engineer Office
Santa Fe, New Mexico

C
O
P
Y

JONES EXPLORATION COMPANY

J X

1010 W. WALL • MIDLAND, TEXAS
P. O. BOX 1516 79701 • MU 2-7346

May 1, 1967

MAY 3 11 29 AM '67
MAY 3 11 29 AM '67

Case 3572

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

Gentlemen:

I am submitting herewith in triplicate Form C-108, "Application to Dispose of Salt Water by Injection into a Porous Formation" for Commission approval, under Rule 701-C. You will note that waivers of objection have been obtained from all operators within one-half mile of this well, the surface lessee and the State Engineer; we therefore request that the fifteen-day waiting period be dispensed with.

Concerning the points mentioned by Mr. Irby, we advise that the water analysis attached is from the zones presently producing from the Abo Reef in this well. No analysis was obtained on the Paddock water which was produced during testing in 1963, but I was present when these zones were tested and recall that the zone produced salty sulphur water, and was quite unsuitable for consumption or agricultural use.

Thank you for your attention to this application.

Sincerely,


PHILIP M. JONES

PMJ:lc
enclosures

NEW MEXICO OIL CONSERVATION COMMISSION

EXAMINER HEARING

SANTA FE, NEW MEXICO

REGISTER

HEARING DATE MAY 24, 1967 TIME: 9 A.M.

NAME:	REPRESENTING:	LOCATION:
John Hartung	Sunray DX	Roswell, N.M.
R.C. Spaulbeck	" "	Tulsa, Okla
John H. FAIR	N.M. DEPT. OF PUBLIC HEALTH	SANTA FE.
Leah P.	W & K & K	✓
Michael S. Morris	Montgomery, Federal & Anderson	Santa Fe
Jack Willock	Tenreco Oil	Durango
C. C. Kennedy	Self	Farmington, N.M.
Kenneth A. Swanson	Aztec Oil & Gas Co.	Dallas
James W. Kellah	Kellah & Fox	Santa Fe
Pat Jones	Jones Exploration	Molland, Tex
Prentice White	Aztec Oil & Gas	Dallas
RAMeyer	El Paso Nat Gas	El Paso
E. T. Hollenbeck	" " " "	El Paso
W. H. Linn	David Linn	Hobbs
Fred C. Baker	City of Hobbs	Hobbs
James O. Allen	City of Hobbs	Hobbs
GUY T. BUELL	PAN Am	Fort Worth
GEORGE Ford	✓	✓

NEW MEXICO OIL CONSERVATION COMMISSION

EXAMINER HEARING

SANTA FE, NEW MEXICO

REGISTER

HEARING DATE MAY 24, 1967 TIME: 9 A.M.

NAME:	REPRESENTING:	LOCATION:
R. L. Stumb	Artesia Oil	
Jim Moore Jr	Rhodes M ^c Callister & Barrett	Albuquerque, N. M.
John W. Eick Jr	Jonas Sandoval	Dallas, Texas
J. J. Losee	Losee & Stewart	Artesia, N. M.
Joseph D. Walter	Windmill Oil Co.	Hobbs, N. M.
John Yerronba	Stoltz & Co	Midland, Texas
Mr. Manes	Harvey Yates Drilling Co	Artesia, N. M.
Bruce Kelly	Yates Pet Corp	Santa Fe
M. L. Arnold		Artesia
Marshall Morris	Harvey E. Yates	Artesia
J. T. Roark	Oris Engineering Corp	ODESSA
E. D. McCarter	Texas Inc	Hobbs
C. W. Stumhoffer	Anadarko Production Co.	Fort Worth, Texas
T. J. Guinan	✓ ✓ ✓	✓ ✓ ✓
R. M. Williams	Morris R. Antevort	Hobbs, N. M.
Burton Veeto	✓	✓

MR. UTZ: Case 3572.

MR. HATCH: Application of Jones Exploration Company for a dual completion and for salt water disposal, Lea County, New Mexico.

MR. KELLAHIN: If the Examiner please, Jason Kellahin, Kellahin and Fox, appearing for the applicant. We have one witness I would like to have sworn, please.

(Witness sworn.)

MR. UTZ: Are there other appearances in Case 3572? You may proceed.

(Whereupon, Applicant's Exhibits 1, 2 & 3 were marked for identification.)

PHILLIP M. JONES

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

DIRECT EXAMINATION

BY MR. KELLAHIN:

Q Will you state your name, please?

A Phillip M. Jones.

Q What business are you engaged in?

A Oil production.

Q Are you connected with the firm of Jones Exploration Company?

A Yes, sir, I am the owner.

dearnley-meier

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

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1400 FIRST NATIONAL BANK EAST • PHONE 256-1294 • ALBUQUERQUE, NEW MEXICO 87108

Q You are the owner. It is not a corporation, is that correct?

A No, it's a sole proprietorship.

Q Mr. Jones, have you ever testified before the Oil Conservation Commission of New Mexico?

A No, I have not.

Q For the benefit of the Examiner, would you please review briefly your education and experience as an engineer?

A No. I am a geologist.

Q Geologist, pardon me.

A I graduated from the University of Oklahoma in 1955 and worked in West Texas as an independent ever since I got out of school.

Q How long has that been, 1955 you say?

A 1955 - 1967.

Q Were you engaged in your business in your own behalf in that period?

A Yes.

Q Have you engaged in any other business during this time, have you devoted your full time to the oil business?

A Yes.

Q Have you had any experience in the State of New Mexico?

A A few dry holes and one well.

Q And that one well is the subject well of this hearing?

A Yes.

MR. KELLAHIN: Are the witness's qualifications acceptable?

MR. UTZ: Yes, they are.

Q (By Mr. Kellahin) Briefly, what is proposed by Jones Exploration Company in Case 3572?

A We have one Abo Reef well that is producing about 35 barrels of oil a day and an average of 250 barrels of water. We would like to dual complete the well, perforate the Paddock formation and inject the water by gravity down the annulus into the Paddock.

Q Now, referring to what has been marked as Exhibit No. 1, would you identify that exhibit, please?

A That's the plat of the general area showing our well in a circle with an arrow pointing toward it.

Q Does it show the other wells in the area?

A Yes, it does.

Q Are those wells, any of them Paddock wells?

A Not that I know of. I don't believe there's any Paddock production in that area.

Q Did you test the Paddock as you completed your well?

A Yes, we did.

dearnley-meier

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MR. KELLAHIN: Are the witness's qualifications acceptable?

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A We have one Abo Reef well that is producing about 35 barrels of oil a day and an average of 250 barrels of water. We would like to dual complete the well, perforate the Paddock formation and inject the water by gravity down the annulus into the Paddock.

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Q Does it show the other wells in the area?

A Yes, it does.

Q Are those wells, any of them Paddock wells?

A Not that I know of. I don't believe there's any Paddock production in that area.

Q Did you test the Paddock as you completed your well?

A Yes, we did.

Q Did you find it to be productive of oil or gas?

A No. We found it to be productive of sulphur salty water.

Q Did you file a log with your application on that well?

A Yes.

Q With their formation on it?

A Yes, the formation in question, the Paddock, the Glorieta, the Abo.

Q Referring to what has been marked as Exhibit 2, would you discuss the proposed completion of the well as you propose it in this application?

A This is a diagrammatic sketch of the proposed installation. We intend to set packer, Haliburton R-3 packer at 8,925 above the Abo Reef perforations which are 8,780 to 8,825 and 9,044 to 9,056. We intend to perforate the Paddock from 6,955 to 95 and intend to produce all the fluid to the treater, separate the oil from the water, put the water in a storage tank, treat it if necessary and let it flow back down the annulus into the Paddock perforations.

Q Do you anticipate that the gravity feed will take care of the water?

A I anticipate it will, yes.

Q Will you have any excessive pressures on the casing?

A Just the hydrostatic head of the water standing in

there.

Q At the present time what is the pressure in the Paddock, or do you know?

A I don't really know.

Q At the time you tested it did the water stand in the drill stem?

A We were able to swab the fluid level down to, oh, about five or six hundred feet.

Q As far as you know there are no high pressures in the Paddock zone, is this correct?

A That is correct.

Q What is the quality of the water in the Paddock, do you know?

A We didn't have it analyzed but it was salty and had considerable sulphur in it. It smelled bad.

Q How much water are you producing from the Abo?

A Between two and three hundred barrels a day.

Q Do you feel that the well, as you propose to complete it, will take this water on disposal in the Paddock?

A I feel it will, yes.

Q Do you propose to handle any other water than your own?

A No, I have plenty of my own.

Q Have you had an analysis of that water made?

A Yes. The Abo?

Q Yes.

A Yes.

Q Referring to Exhibit 3, is that the analysis of the water?

A Yes.

Q It is a rather high content of salt, is that correct?

A Yes.

Q Is it corrosive?

A Not terribly, not that I know of.

Q Will you use an inhibitor?

A Yes, we will.

Q You plan to use coupons or anything else to indicate that corrosion is occurring?

A Hadn't planned on it. We can.

Q Now, on the completion of your well, referring back to Exhibit 2, is there any portion of the casing that is exposed to the formation without cement behind it?

A No.

Q It is cemented from top to bottom?

A Correct.

Q When you tested the Paddock, then what was done in the completion of the well?

A We squeezed the perforations. Drilled out and

completed in the Abo.

Q What pressure did you use on that, do you know?

A I don't recall what pressure we used to squeeze it. We tested it for thirty minutes at 1,750 and had no pressure loss after we drilled out.

Q What is the condition of the casing, is it new casing?

A It was new at the time it was run.

Q When was that?

A 1963.

Q You haven't completed the well as yet as a dual, have you?

A No.

Q You, of course, will make the necessary packer leakage test at the time you make that completion, will you not?

A Well, packer leakage and segregation test.

Q Were Exhibits 1 and 2 prepared by you or under your supervision?

A Yes.

Q And Exhibit No. 3 is a copy of the water analysis furnished to you, is that correct?

A Right.

MR. KELLAHIN: I would like to offer Exhibits 1,

dearnley-meier

2 and 3.

MR. UTZ: Without objection, Exhibits 1, 2 and 3 will be admitted into evidence in this case.

(Whereupon, Applicant's Exhibits 1, 2 & 3 were offered and admitted in evidence.)

MR. KELLAHIN: If the Examiner please, I believe that the file will reflect that a copy of the application was submitted to the State Engineer and no objection has been voiced by the State Engineer. Copies were also furnished to offset operators and letters have been received from them waiving any objection.

MR. UTZ: I believe we have a communication from the State Engineer which we will read later.

MR. KELLAHIN: That's all I have on direct examination.

CROSS EXAMINATION

BY MR. UTZ:

Q Is this to be a closed system?

A What is a closed system?

Q Well, a closed system will prevent excessive oxygen from getting into your stream, your injection stream.

A No. It will be open. That is, it will go into a tank and the water will come back out to the tank. It is not going to be in a pit or anything. We are not going to

make any effort to keep it airtight.

Q I believe you made some statement regarding plastic-coated tubing or corrosive resistant of some kind in your testimony.

MR. KELLAHIN: I think the testimony was that an inhibitor will be used in the water.

A A chemical inhibitor.

Q You will check this corrosion with coupons, I presume?

A We can.

Q To determine whether it is corroding your pipe or your tubing?

A Yes.

Q The tubing will actually have no protection other than corrosion inhibitor on the exterior of the tubing?

A That is correct.

Q You feel sure that the Paddock will take your two or three hundred barrels a day?

A Yes, sir.

Q You also feel sure that you got plenty of water?

A I am positive of that. That, I can testify to.

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

(Witness excused.)

dearnley-meier

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MR. UTZ: Statements?

MR. KELLAHIN: That's all I have.

MR. HATCH: I do have a letter from the State Engineer's office dated April 20, 1967. I will not read the entire letter.

"Although the well is to be used for both production and for injection purposes, it appears that good construction standards were used."

Mr. Irby then questions: "The application states that the water in the disposal zone and the water to be disposed of are unfit for use. One analysis by Haliburton Company is attached. The analysis indicates that the water was from the Abo formation but there is no identification as to the well from which it was taken. No analysis of the water in the disposal zone was attached to the application."

I think the questions that Mr. Irby raised here have been answered in the testimony.

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

I N D E X

WITNESS

PAGE

PHILLIP M. JONES

Direct Examination by Mr. Kellahin

2

Cross Examination by Mr. Utz

9

EXHIBIT

MARKED

OFFERED AND
ADMITTED

Applicant's 1, 2, 3

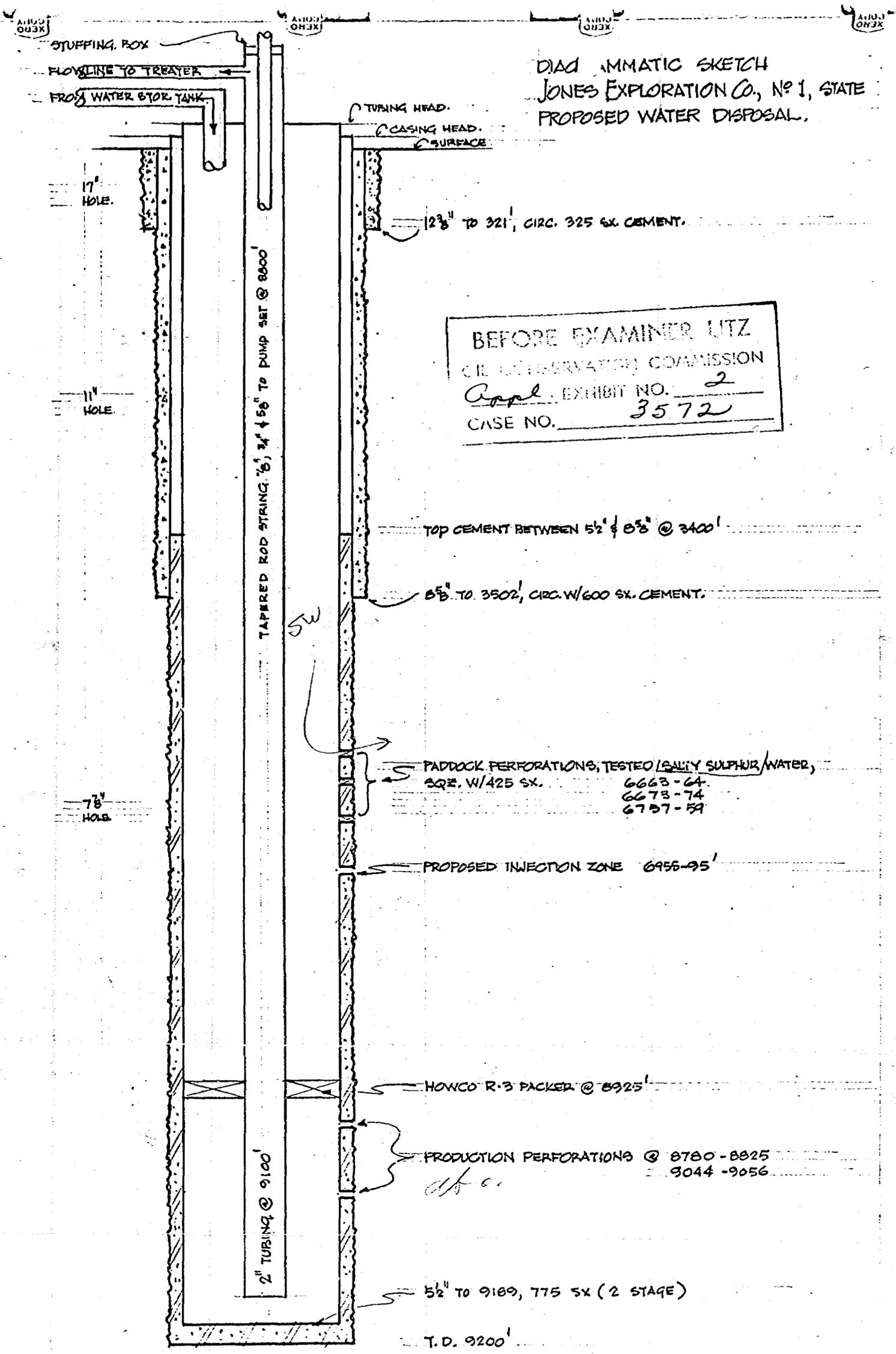
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DIAD IMMATIC SKETCH
 JONES EXPLORATION CO., NO 1, STATE
 PROPOSED WATER DISPOSAL.

BEFORE EXAMINER UTZ
 OIL CONSERVATION COMMISSION
 Appl. EXHIBIT NO. 2
 CASE NO. 3572

12 3/8" TO 321', CIRC. 325 SX. CEMENT.

TOP CEMENT BETWEEN 5 1/2" & 8 3/8" @ 3400'

8 5/8" TO 3502', CIRC. W/600 SX. CEMENT.

PADDOCK PERFORATIONS, TESTED / SALTY SULPHUR / WATER,
 SQZ. W/425 SX. 6663-64
 6673-74
 6757-59

PROPOSED INJECTION ZONE 6955-95'

HONCO R-3 PACKER @ 8925'

PRODUCTION PERFORATIONS @ 8780-8825
 9044-9056

5 1/2" TO 9189, 775 SX (2 STAGE)

T.D. 9200'

TAPERED ROD STRING. 3/8", 3/4" & 5/8" TO PUMP SET @ 8000'

2" TUBING @ 9100'

17" HOLE.

11" HOLE.

7 1/8" HOLE.

HALLIBURTON DIVISION LABORATORY

HALLIBURTON COMPANY
LOVINGTON, NEW MEXICO

LABORATORY REPORT

No. WL-250-63

Date April 25, 1963

TO Mao Jones
Box 1516
Midland, Texas

This report is the property of Halliburton Company and neither it nor any part thereof nor a copy thereof is to be published or disclosed without first securing the express written approval of laboratory management; it may however, be used in the course of regular business operations by any person or concern and employees thereof receiving such report from Halliburton Company

Date Received

Well & Lease STATE #1 Depth Formation Aka

Location H-35-175-35E Field Vacuum (Aka) Source

Specific gravity 60/60 °F 1.145

Color, filtrate

pH 5.9

Resistivity °F

Chlorides, Cl ppm (mpl) 131,700

Sulfates, SO4 Mad (1800)

Alkalinity, HCO3 195

Calcium, Ca 16,600

Magnesium, Mg 3,300

Iron, Fe Negl.

Sodium, Na+ 50,300

Sulfides, H2S Negl.

Remarks

BEFORE EXAMINER UTZ
PRESERVATION COMMISSION
Exhibit NO. 3
3572

ppm equals Parts per million uncorrected or milligrams per liter.
* includes Potassium as Na.

Respectfully submitted,

HALLIBURTON COMPANY

Laboratory Analyst
Brewer

By Dave Sutton, Division Chemist

NOTICE: This report is limited to the described sample tested. Any user of this report agrees that Halliburton shall not be liable for any loss or damage, whether due to act or omission, resulting from such report or its use.