

TELE.: 682-2431

J. J. TRAVIS & COMPANY

Oil Producers

BOX 873
MIDLAND, TEXAS 79702

April 18, 1978

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

WFX- 461
J. J. Travis

Dear Sir:

RE: North Shugart Queen Waterflood
Eddy County, New Mexico
Request for Approval to convert
J. J. Travis # 7 Koehane unit to
water injection well.

The J. J. Travis # 7 Koehane unit well was originally drilled as the # 1 Koehane and was completed from the Queen sand as an oil well on May 5, 1961.

At the present time the # 1, 9, and 11 unit wells are Water Injection wells. Water into our current injection wells has not been as effective as hoped for and we feel that the conversion of our # 7 well to a water injection well would increase oil production from the flood unit.

We are enclosing in connection with this Approval Request the following:

1. Schematic diagram showing proposed procedure for conversion to injection well.
2. Plat of the North Shugart Queen Unit showing original well numbers.
3. Plat of the North Shugart Queen Unit showing unit well numbers.
4. Portion of Electric Log showing Queen sand interval of the # 7 unit well.
5. Copy of Temperature Survey showing approximate top of cement for long string casing.
6. Copy of approval from U.S.G.S. for the conversion of this well to water injection well.
7. Copy of J. J. Travis # 7 unit well correagraph showing Queen sand development.

The # 7 well is in the approximate center of the North Shugart Queen Unit and is not within offset distance of any well drilled by other operators.

The New Mexico Oil Conservation Commission Order Number originally authorized for this flood is R 3870.

The U. S. G. S. Contract Number is 14-08-0001-11582.

We will appreciate your approval of this request.

Yours very truly,

J. J. TRAVIS & COMPANY



J. J. Travis

JJT:lk

Enclosures

1

J. J. Travis
No. 7 North Shugart Queen Unit Well
2310 Feet from S.L. & 330 Feet from W. L. of
Section 21, T. 18South, Range 31 East
Eddy County, New Mexico

Proposed Conversion to Water Injection
Well.

8 5/8 Surface Casing
Set at 755 Feet
With 150' Sx Cement
(Cemented Circulated)

2 3/8 Tubing

Approximate Top Cement
From temperature Survey
2706 Feet.

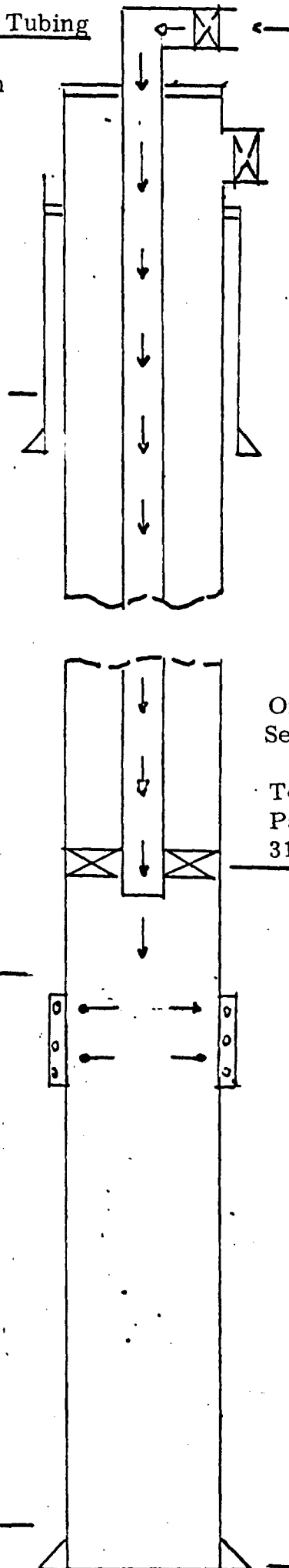
Original Tubing
Setting-3261 Feet

To Set
Packer at Approximate
3160 feet for conversion to
injection well.

Original Perforation
3210-34 Feet
Queen Sand

Set 3736 Feet
4 1/2 Casing Cemented
with 200 sx cement

T. D. 3736 Feet



Propose to convert J. J. Travis # 7 Keohane unit well to water injection well.
(Originally drilled as J. J. Travis # 1 Keohane, completed from Queer sand May 1, 1960)

Will set the following or equivalent:

Baker Model A. D. Packer at approximately 3160'

Wellhead: Balon Valve, Alum-Bronze, Full Port 2 3/8" Euc. W/Comb ends 2" Euc.
8rd-W. P. 1500-2000 PSI.

Wellhead: Two 2" x 2 3/8" Euc. Comb. Nipples (2000# W. P.)

Wellhead: One 2" x 1 1/2" thd., 2000# W. P. Pumping Tee

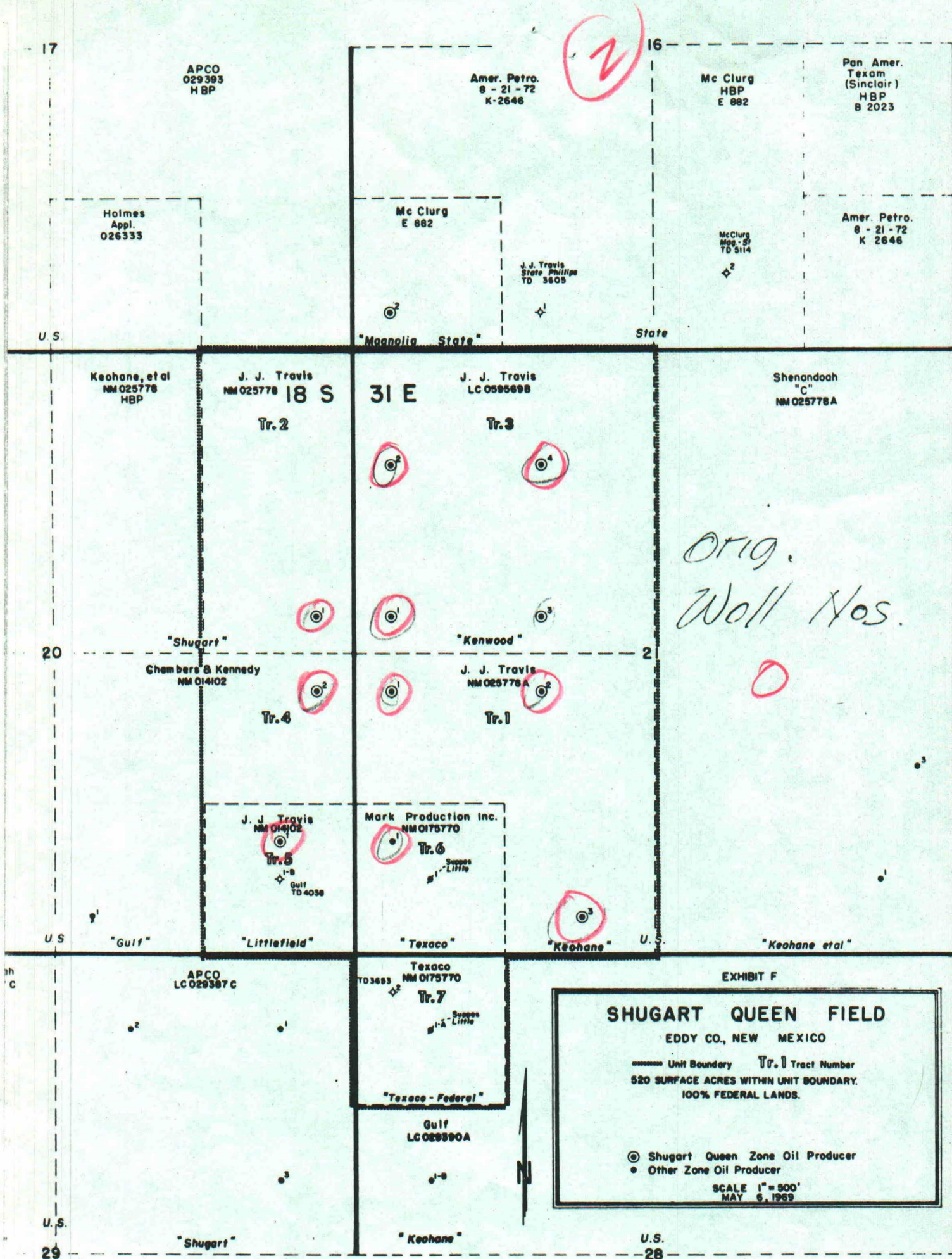
Wellhead: Two 2" x 1" 1 1/2 thd. 2000# W. P. Swaged Nipples.

Wellhead: One 1" 3000# W. P. Steel Hammer Union

Wellhead: One 1" x 48" 2500-3000# Test Hydraulic Hose W/male and adapters

Wellhead: One 2" 1 1/2 thd., Hipress 2000# W. P., L. P. Colar

Injection Line: 2 3/8" Euc, coated



17

APCO
029393
HBPAmer. Petro.
8-21-72
K-2646

16

Mc Clurg
HBP
E 882Pan Amer.
Texaco
(Sinclair)
HBP
B 2023Holmes
Appl
026333Mc Clurg
E 882J. J. Travis
State Phillips
TD 3605McClurg
Mag. St
TD 5114Amer. Petro.
8-21-72
K-2646

U.S.

"Maanplig State"

State

Keohane, et al
NM025778
HBPJ. J. Travis
NM025778 18 S
Tr. 4

31 E

J. J. Travis
LC059569b
Tr. 1Shenandoah
"C"
NM025778A

②

①

Unit Well
Producers

20

"Shugart"

Chambers & Kennedy
NM014102

③

④

⑤

"Kenwood"

⑧

⑦

⑥

J. J. Travis
NM025778A

Tr. 2

Tr. 5

U.S.

"Gulf"

J. J. Travis
NM014102
Tr. 3
Gulf
TD 4038Mark Production Inc.
NM0175770Tr. 6
Supers
Little

⑩

⑪

"Texaco"

"Keohane"

"Keohane et al"

APCO
LC029387CTexaco
NM0175770
Tr. 7
Supers
Little

"Texaco - Federal"

Gulf
LC029390A

EXHIBIT A

SHUGART NORTH
QUEEN UNIT

EDDY CO., NEW MEXICO

Unit Boundary Tr. 1 Tract Number
820 SURFACE ACRES WITHIN UNIT BOUNDARY.
100% FEDERAL LANDS.⑩ Shugart Queen Zone Oil Producer
• Other Zone Oil ProducerSCALE 1" = 500'
MAY 6, 1969

U.S.

"Shugart"

"Keohane"

U.S.

28

29

4

TOP OF QUEEN SAND

3200

DEPTH INTERVAL
OF UNITIZATION

3300

3400

EXHIBIT "M"
TYPICAL FIELD LOG
NORTH SHUGART FIELD
EDDY COUNTY, NEW MEXICO

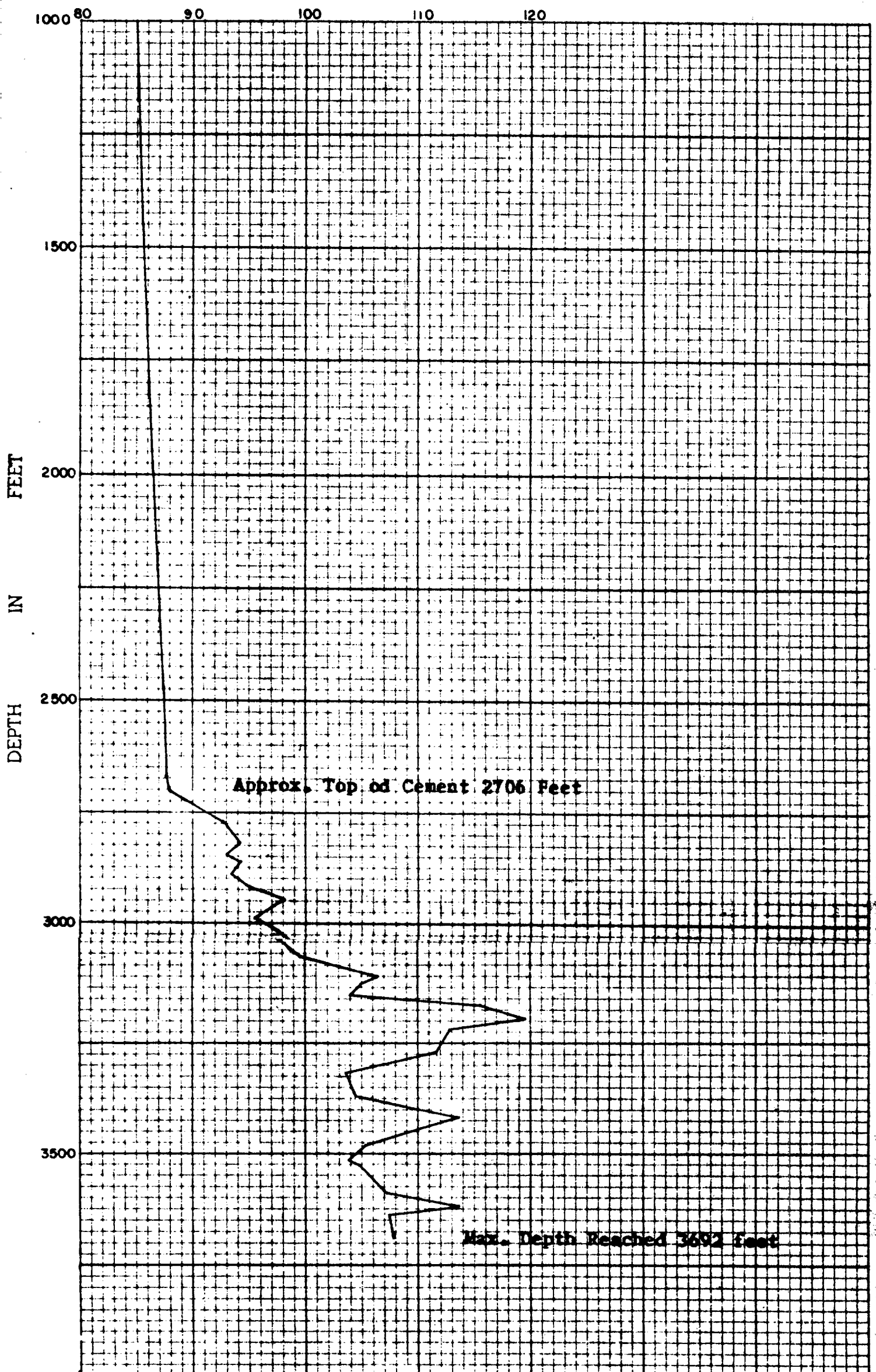
J. J. TRAVIS
KEOHANE FEDERAL #1

3600

TEMPERATURE SURVEY

OPERATOR J.J. TRAVIS
LEASE Keohane Fed.
WELL NO. 1
FIELD _____
DATE & TIME CEMENT JOB COMPLETED 7:45 A. M. 4-27-61
DATE & TIME SURVEY MADE 2:20 P.M. 4-27-61
SURVEY RUN BY BT
DATUM Ground
WELL DATA 50 sacks with 6% Gel and $\frac{1}{2}$ cu. ft. Strato cret per sack and 150 sacks regular with 4% Gel behind 3736 feet of $4\frac{1}{2}$ inch casing in a $7\frac{7}{8}$ inch hole.

TEMPERATURE IN °F



OPERATOR'S COPY UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEYSUBMIT IN TRIPLICATE*
(Other instructions on re-
verse side)Form approved.
Budget Bureau No. 42-R1424.

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir.
Use "APPLICATION FOR PERMIT-" for such proposals.)

1. OIL WELL ☐ GAS WELL ☒ OTHER ☐ Water Injection Well		5. LEASE DESIGNATION AND SERIAL NO. N. M. 025778A
2. NAME OF OPERATOR J. J. Travis		6. IF INDIAN, ALLOTTEE OR TRIBE NAME
3. ADDRESS OF OPERATOR P. O. 873 Midland, Texas 79702		7. UNIT AGREEMENT NAME J. J. Travis No. Shugart Queen Unit
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface 2310' from south line and 330 feet from west line, Sec. 21 (NW 1/4-SW 1/4, Sec. 21) T-18. Range 31E.		8. FARM OR LEASE NAME Keohane
14. PERMIT NO.		9. WELL NO. Original #1 Keohane Unit well # 7
15. ELEVATIONS (Show whether DF, RT, GR, etc.) 3643 D. F.		10. FIELD AND POOL, OR WILDCAT No. Shugart Queen Unit
		11. SEC., T., R., M., OR S.E. AND SURVEY OR AREA Sec. 21, T-18S, R 31 E.
		12. COUNTY OR PARISH Eddy County 13. STATE N. M.

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:

TEST WATER SHUT-OFF

FRACTURE TREAT

SHOOT OR ACIDIZE

REPAIR WELL

(Other)

PULL OR ALTER CASING

MULTIPLE COMPLETE

ABANDON*

CHANGE PLANS

Water Injection well

SUBSEQUENT REPORT OF:

WATER SHUT-OFF

FRACTURE TREATMENT

SHOOTING OR ACIDIZING

(Other)

REPAIRING WELL

ALTERING CASING

ABANDONMENT*

(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

Propose to convert J. J. Travis # 7 Keohane unit well to water injection well.
(Originally drilled as J. J. Travis # 1 Keohane, completed from Queen sand May 1, 1961)

Will set the following or equivalent:

Baker Model A. D. Packer at approximately 3160'

Wellhead: Balon Valve, Alum-Bronze, Full Port 2 3/8" Eue. W/Comb ends 2" Eue.
8rd-W. P. 1500-2000 PSI.

Wellhead: Two 2" x 2 3/8" Eue. Comb. Nipples (2000# W. P.)

Wellhead: One 2" x 1 1/2" thd., 2000# W. P. Pumping Tee

Wellhead: Two 2" x 1" 1 1/2 thd. 2000# W. P. Swaged Nipples.

Wellhead: One 1" 3000# W. P. Steel Hammer Union

Wellhead: One 1" x 48" 2500-3000# Test Hydraulic Hose W/male and adapters

Wellhead: One 2" 1 1/2 thd. Hipress 2000# W. P., L. P. Color

Injection Line: 2 3/8" Eue, coated

18. I hereby certify that the foregoing is true and correct

SIGNED

TITLE **Operator**DATE **3-1-78**

(This space for Federal or State office use)

APPROVED BY

CONDITIONS OF APPROVAL, IF ANY:

TITLE **ACTING DISTRICT ENGINEER**DATE **MAR 6 - 1978**

RECEIVED

MAR 3 - 1978

U.S. GEOLOGICAL SURVEY
ARTESIA, NEW MEXICO

COMPANY J. J. TRAVIS FILE NO. WP-3-1652
 WELL KROHANE FEDERAL NO. 1 DATE 4-22-61 ENGRS. NEFF
 FIELD SHUGART FORMATION AS NOTED ELEV. _____
 COUNTY DOH STATE NEW MEXICO DRLG FLD. WATER BASE MUD CORES DIAMOND 1 1/4"
 LOCATION 2310 FS & 330 FWL SEC. 21-T18S-R31E REMARKS SAMPLED AS DIRECTED BY CLIENT

COMPLETION COREGRAPH

These analyses, opinions or interpretations are based on observations and data supplied by the client to whom, and for whose exclusive and confidential use this report is made. The interpretations or opinions expressed represent the best judgment of Core Laboratories, Inc. all errors and omissions accepted; but Core Laboratories, Inc. and its officers and employees assume no responsibility and make no warranty or representations as to the productivity, proper operation or gas-abilities of any oil, gas or other mineral well or sand in connection with which such report is used or relied upon.



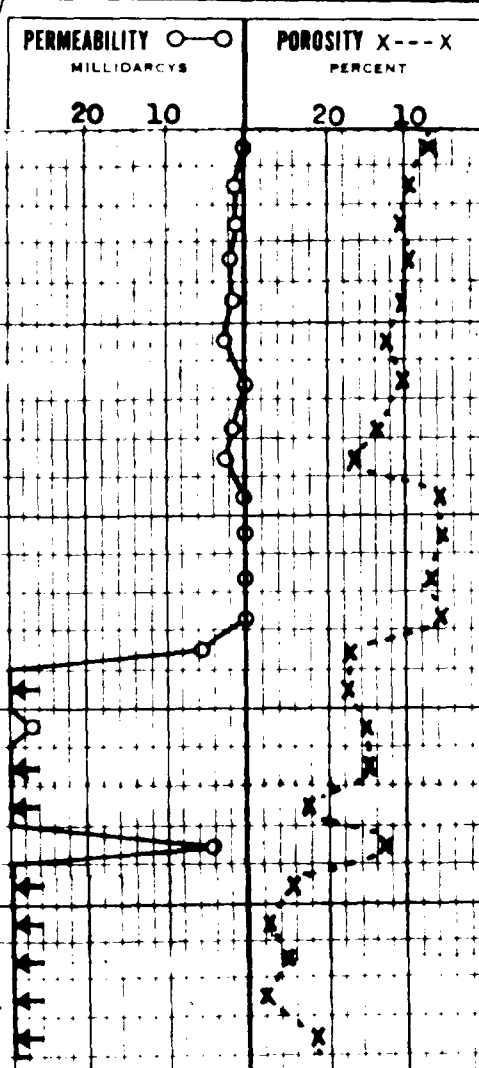
SAMPLE CHARACTERISTICS
 F: Fractured L: Laminated FG: MG: CG: Type Grain Size S: Stylolitic V: Vuggy

PROBABLE PRODUCTION
 O: Oil W: Water G: Gas T: Transitional

SAMPLE NUMBER	DEPTH FEET	PERMEABILITY, MD		POROSITY %	RESIDUAL SATURATION % PORE SPACE		FG
		* = Horizontal Perm Plug			OIL	TOTAL WATER	
		HORIZONTAL					
		*					
1	3205.0-06.0	<0.1		6.9	0.0	50.8	FG
2	06.0-07.0	1.0		9.2	5.4	40.2	FG
3	07.0-08.0	0.7		10.6	11.3	41.5	FG
4	08.0-09.0	1.8		9.7	12.4	30.0	FG
5	09.0-10.0	1.6		10.2	8.8	39.2	FG
6	10.0-11.0	2.5		12.5	9.6	34.4	FG
7	11.0-12.5	<0.1		10.2	0.0	72.5	FG
8	12.5-13.0	1.2		13.9	8.6	48.2	FG
9	13.0-14.0	2.5		16.8	11.9	37.0	FG
10	14.0-15.0	<0.1		5.8	0.0	50.0	FG
11	15.0-16.0	<0.1		5.6	0.0	51.8	FG
12	16.0-17.5	<0.1		6.6	0.0	47.0	FG
13	17.5-18.0	<0.1		5.8	0.0	57.0	FG
14	18.0-19.0	5.6	✓	17.4	21.2	33.9	FG
15	19.0-20.0	121	✓	17.7	14.1	40.7	FG
16	20.0-21.0	27	✓	15.6	12.7	37.0	FG
17	21.0-22.0	39	✓	15.2	15.8	38.9	FG
18	22.0-23.0	307	✓	22.5	17.3	42.6	FG
19	23.0-24.0	4.3	✓	12.9	11.6	41.9	FG
20	24.0-25.0	169	✓	24.3	14.8	38.3	FG
21	25.0-26.0	230	✓	27.7	11.9	41.6	FG
22	26.0-27.0	183	✓	25.1	12.8	39.8	FG
23	27.0-28.0	264	✓	28.0	15.7	42.2	FG
24	28.0-29.0	113	✓	21.5	15.3	39.1	FG

NO SHOW

25	3233.0-34.0	14		13.7	5.1	42.3	FG
26	34.0-35.0	0.6		8.4	2.4	58.3	FG
27	35.0-36.0	0.2		6.7	3.0	52.3	FG
28	3236.0-37.0	0.1		7.5	0.0	58.7	FG



TOTAL WATER ○—○
 PERCENT PORE SPACE
 75 50 25

OIL SATURATION X---X
 PERCENT PORE SPACE
 25 50 75

Feet of Net Pay: 11.0

Average Porosity: 20.7