

CASE 2487: Application of GULF
for a TRIPLE COMPLETION of its
W. A. RAMSAY (NCT-C) WELL NO. 3.

-asa // o.

2487

plication, Transcript,
all Exhibits, Etc.

GOVERNOR
EDWIN L. MECHEM
CHAIRMAN

State of New Mexico
Oil Conservation Commission

LAND COMMISSIONER
E. S. JOHNNY WALKER
MEMBER



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

P. O. BOX 871
SANTA FE

February 15, 1962

**Mr. Bill Kastler
Gulf Oil Corporation
Box 669
Roswell, New Mexico**

Re: CASE NO. 2487

ORDER NO. R-2184

APPLICANT:

Gulf Oil Corporation

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

ir/

Carbon copy of order also sent to:

Hobbs OCC x
Artesia OCC
Aztec OCC

OTHER Mr. M. I. Taylor - Gulf Oil Corp. Roswell, N.M.

**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. 2487
Order No. R-2184**

**APPLICATION OF GULF OIL CORPORATION
FOR A TRIPLE COMPLETION, LEA COUNTY,
NEW MEXICO.**

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a.m. on February 7, 1962, at Santa Fe, New Mexico, before Daniel S. Hutter, Examiner duly appointed by the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission," in accordance with Rule 1214 of the Commission Rules and Regulations.

NOW, on this 14th day of February, 1962, the Commission, a quorum being present, having considered the application, the evidence adduced, and the recommendations of the Examiner, Daniel S. Hutter, 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, Gulf Oil Corporation, is the owner and operator of the W. A. Ramsay (NCT-C) Well No. 3, located 1650 feet from the South line and 330 feet from the West line of Section 36, Township 24 South, Range 37 East, ~~SWPM~~, Lea County, New Mexico.
- (3) That the applicant proposes to complete said W. A. Ramsay (NCT-C) Well No. 3 as a triple completion (conventional) in such a manner as to permit the production of oil from the North Justis-Fusselman, North Justis-McKee and North Justis-Ellenburger Pools through parallel strings of 2 3/8-inch tubing, separation of the zones to be by packers.
- (4) That the mechanics of the proposed triple completion are feasible and in accord with good conservation practices.

(5) That approval of the subject application will neither cause waste nor impair correlative rights.

IT IS THEREFORE ORDERED:

(1) That the applicant, Gulf Oil Corporation, is hereby authorized to complete its W. A. Ramsay (NUT-C) Well No. 3, located 1650 feet from the South line and 330 feet from the West line of Section 36, Township 24 South, Range 37 East, NMPM, Lea County, New Mexico, as a triple completion (conventional) in such a manner as to permit the production of oil from the North Justis-Fusselman, North Justis-McKee and North Justis-Elisenburger Pools through parallel strings of 2 3/8-inch tubing, separation of the zones to be by packers.

PROVIDED HOWEVER, That the applicant shall complete, operate and produce said well in accordance with the provisions of Rule 113-A of the Commission Rules and Regulations.

PROVIDED FURTHER, That the operator shall conduct packer-leakage tests upon completion, annually during the Annual Gas-Oil Ratio Test Period for the Elisenburger zone and at such other times as the Secretary-Director of the Commission may prescribe.

(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

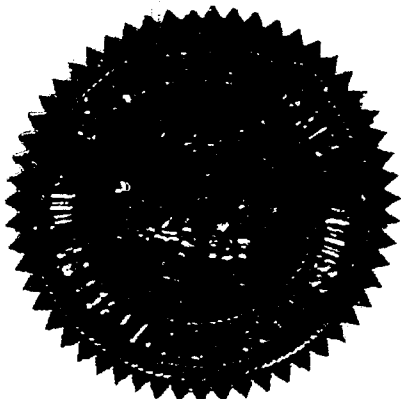
E. L. Mechem

EDWIN L. MECHEM, Chairman

E. S. Walker
E. S. WALKER, Member

A. L. Porter, Jr.

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



487
Gulf Oil Corporation

ROSWELL PRODUCTION DISTRICT

MAIN OFFICE OCC

1962 JAN 12 AM 8:23

P. O. Drawer 1938
Roswell, New Mexico

W. A. Shellshear
DISTRICT MANAGER
F. O. Mortlock
DISTRICT EXPLORATION
MANAGER
M. I. Taylor
DISTRICT PRODUCTION
MANAGER
H. C. Vivian
DISTRICT SERVICES MANAGER

January 10, 1962

Oil Conservation Commission
State of New Mexico
Post Office Box 871
Santa Fe, New Mexico

Re: Application of Gulf Oil Corporation for Approval
of a Triple Completion in the North Justis Ellen-
burger, North Justis Fusselman and Undesignated
McKee Oil Pools, Lea County, New Mexico.

Gentlemen:

Gulf Oil Corporation herewith submits application for approval of a triple completion for the W. A. Ramsay (NCT-C) Well No. 3, located 1650 feet from south line and 330 feet from west line Section 36, Township 24 South, Range 37 East, Lea County, New Mexico. It is proposed to complete this well in the North Justis Ellenburger, North Justis Fusselman and Undesignated McKee Oil Pools, and to produce each zone through parallel strings of 2-3/8 inch O.D. tubing installed in 7 inch O.D. casing.

Attached is completed form, Application for Multiple Completion, lease plat and diagrammatic sketch of the proposed multiple completion.

It is requested that this matter be set for examiner hearing at an early date.

Respectfully submitted,

W. A. Shellshear

W. A. Shellshear

Attachments
JHH:bc

cc: New Mexico Oil Conservation Commission
Post Office Box 2045
Hobbs, New Mexico

Offset Operators
(Listed on Application for Multiple Completion)



Letter mailed 1-26-62

NO. 4-62

DOCKET: EXAMINER HEARING - WEDNESDAY, FEBRUARY 7, 1962

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. Nutter, Examiner, or
Elvis A. Utz, as alternate examiner:

- CASE 2487: Application of Gulf Oil Corporation for a triple completion, Lea County, New Mexico. Applicant, in the above-styled cause, seeks permission to complete its W. A. Ramsay (NCT-C) Well No. 3, located 1650 feet from the South line and 330 feet from the West line of Section 36, Township 24 South, Range 37 East, Lea County, New Mexico, as a triple completion (conventional), in the North Justis-Ellenburger, North Justis-Fusselman and North Justis-McKee Pools with the production of oil from all zones to be through parallel strings of 2 3/8-inch tubing.
- CASE 2488: Application of Texaco Inc., for a dual completion, Lea County, New Mexico. Applicant, in the above-styled cause, seeks permission to complete its State "R" NCT-4 Well No. 1, located in Unit C of Section 7, Township 18 South, Range 35 East, Lea County, New Mexico, as a dual completion (tubingless) in an undesignated Drinkard pool and an undesignated Abo Pool with the production of oil from both zones to be through parallel strings of 2 7/8-inch casing cemented in a common well bore.
- CASE 2489: Application of Caulkins Oil Company for an amendment of Rule 5, Order No. R-1191, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks an amendment of Rule 5 of the Special Rules and Regulations for the South Blanco-Tocito Oil Pool, Order No. R-1191, to permit bottom hole pressure tests on all wells to be taken annually during the month of October of each year instead of semi-annually as Rule 5 presently prescribes.
- CASE 2490: Application of O. H. Randel for a 50-acre non-standard oil proration unit, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks permission to establish a 50-acre non-standard oil proration unit in the Abo formation, comprising Lot 3 and the North 702 feet of Lot 4, all in Section 19, Township 17 South, Range 31 East, Eddy County, New Mexico, said unit to be dedicated to a well to be drilled at a location 1629 feet from the South line and 537 feet from the West line of said Section 19.
- CASE 2491: Application of D. W. Falls, Inc., for the promulgation of special rules governing oil wells in the Basin-Dakota Pool, San Juan and Rio Arriba Counties, New Mexico, and for four non-standard oil proration units. Applicant, in the above-styled cause, seeks the promulgation of special rules governing

oil wells in the Basin-Dakota Pool, San Juan and Rio Arriba Counties, New Mexico, including a provision defining an oil well in said pool as a well having a gas-oil ratio of 30,000 to 1, or less, and producing liquid hydrocarbons with a gravity of 49° API, or less; applicant seeks rules establishing 160-acre oil proration units and fixing well location requirements for said wells. Applicant further seeks the establishment of the four following non-standard oil proration units, all in Township 28 North, Range 13 West, San Juan County:

E/2 of Section 10, comprising 137.58 acres;
W/2 of Section 10, comprising 137.78 acres;
E/2 of Section 11, comprising 137.78 acres;
W/2 of Section 11, comprising 137.58 acres;

CASE 2492: Application of Western Development Company and Yates Petroleum Corporation for a waterflood in the Artesia Pool, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks permission to institute a waterflood project in the Artesia Pool on the State 648 Lease located in Section 10, Township 19 South, Range 28 East, Eddy County, New Mexico; the injection of water into the Grayburg formation initially will be through six wells located on said lease, said project to be governed by the provisions of Rule 701.

CASE 2493: Application of Waterflood Associates, Inc., Western Development Company and Yates Petroleum Corporation for a waterflood project, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks permission to institute a waterflood project in the Artesia Pool on the State 14 and State 647 Leases located in Section 14, Township 18 South, Range 28 East, Eddy County, New Mexico; the injection of water into the Grayburg formation initially will be through six wells located on said leases, said project to be governed by the provisions of Rule 701.

NEW MEXICO OIL CONSERVATION COMMISSION

SANTA FE, NEW MEXICO

APPLICATION FOR MULTIPLE COMPLETION

2487
MAIN OFFICE OCC
1962 JAN 12 AM 8:24

Operator Gulf Oil Corporation		County Lea	Date January 10, 1962
Address Post Office Drawer 1938 Roswell, New Mexico		Lease W. A. Ramsay (NCT-C)	Well No. 3
Location of Well	Unit L	Section 36	Township 24 S
			Range 37 E

1. Has the New Mexico Oil Conservation Commission heretofore authorized the multiple completion of a well in these same pools or in the same zones within one mile of the subject well? YES _____ NO ☒ X
2. If answer is yes, identify one such instance: Order No. _____ ; Operator, Lease, and Well No.:

3. The following facts are submitted:	Upper Zone	Intermediate Zone	Lower Zone
a. Name of Pool and Formation	North Justis-Fusselman	Undesignated McKee	North Justis-Ellenburger
b. Top and Bottom of Pay Section (Perforations)	7001' - 7021'	8030' - 8087'	8445' - 8492'
c. Type of production (Oil or Gas)	Oil	Oil	Oil
d. Method of Production (Flowing or Artificial Lift)	Flow	Flow	Flow

4. The following are attached. (Please mark YES or NO)

- ☒ Yes a. Diagrammatic Sketch of the Multiple Completion, showing all casing strings, including diameters and setting depths, centralizers and/or turbolizers and location thereof, quantities used and top of cement, perforated intervals, tubing strings, including diameters and setting depth, location and type of packers and side door chokes, and such other information as may be pertinent.
- ☒ Yes b. Plat showing the location of all wells on applicant's lease, all offset wells on offset leases, and the names and addresses of operators of all leases offsetting applicant's lease.
- ☐ No c. Waivers consenting to such multiple completion from each offset operator, or in lieu thereof, evidence that said offset operators have been furnished copies of the application.*
- ☐ No d. Electrical log of the well or other acceptable log with tops and bottoms of producing zones and intervals of perforation indicated thereon. (If such log is not available at the time application is filed, it shall be submitted as provided by Rule 112-A.)

5. List all offset operators to the lease on which this well is located together with their correct mailing address.

Texaco Inc., Post Office Box 3109, Midland, Texas

Fred Turner, Jr., Post Office Box 910, Midland, Texas

Sinclair Oil and Gas Company, Post Office Box 1470, Midland, Texas

Elliott, Inc., Post Office Box 5669, Roswell, New Mexico

Skelly Oil Company, Post Office Box 1650, Tulsa, Oklahoma

Hamilton Dome Oil Company Ltd., 609 South Grand Avenue, Los Angeles, California

Amerada Petroleum Corporation, Post Office Box 2040, Tulsa, Oklahoma

6. Were all operators listed in Item 5 above notified and furnished a copy of this application? YES ☒ X NO _____. If answer is yes, give date of such notification January 10, 1962

CERTIFICATE: I, the undersigned, state that I am the District Manager of the Gulf Oil Corporation (company), and that I am authorized by said company to make this report; and that this report was prepared under my supervision and direction and that the facts stated therein are true, correct and complete to the best of my knowledge.

W. A. Shellshear Signature

- * Should waivers from all offset operators not accompany an application for administrative approval, the New Mexico Oil Conservation Commission will hold the application for a period of twenty (20) days from date of receipt by the Commission's Santa Fe office. If, after said twenty-day period, no protest nor request for hearing is received by the Santa Fe office, the application will then be processed.
- NOTE: If the proposed multiple completion will result in an unorthodox well location and/or a non-standard perforation unit in either or both of the producing zones, then separate application for approval of the same should be filed simultaneously with this application.

BEFORE THE
OIL CONSERVATION COMMISSION
Santa Fe, New Mexico

February 7, 1962

EXAMINER HEARING

IN THE MATTER OF:

Application of Gulf Oil Corporation for a triple completion, Lea County, New Mexico. Applicant, in the above-styled cause, seeks permission to complete its W. A. Ramsay (NCT-C) Well No. 3, located 1650 feet from the South line and 330 feet from the West line of Section 36, Township 24 South, Range 37 East, Lea County, New Mexico, as a triple completion (conventional), in the North Justis-Ellenburger, North Justis-Fusselman and North Justis-McKee Pools with the production of oil from all zones to be through parallel strings of 2 3/8-inch tubing.

CASE NO.
2487

BEFORE: DANIEL S. NUTTER, Examiner

TRANSCRIPT OF HEARING

MR. NUTTER: Now coming before the New Mexico Oil Conservation Commission, Case No. 2487.

MR. WHITFIELD: Case No. 2487. The Application of Gulf Oil Corporation for a triple completion in Lea County, New Mexico.

MR. KASTLER: I am Bill Kastler, appearing on behalf of Gulf Oil Corporation. We would like to call Mr. Hoover to the stand.

(Witness sworn.)

DEARNLEY-MEIER REPORTING SERVICE, Inc.

SAN ANTONIO, N. M.
PHONE 388-1182

ALBUQUERQUE, N. M.
PHONE 243-6691



JOHN H. HOOVER,

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

DIRECT EXAMINATION

BY MR. KASTLER:

Q Will you state your name and where you are employed, by whom, and in what position?

A John H. Hoover, employed by Gulf Oil Corporation, Roswell, New Mexico, as petroleum engineer.

Q Will you please outline what Gulf is seeking in Case 2487?

A We are seeking a triple completion (conventional) for W. A. Ramsay, NCT-C Well No. 3, which is located 1650 feet from the south line and 330 feet from the west line of Section 36, Township 24 South, Range 37 East, Lea County, New Mexico, this completion to be in the North Justis-Ellenburger, Fusselman and McKee oil pools.

(Applicant's Exhibits 1 through 4 marked for identification.)

Q I would like to call your attention to the plat marked Exhibit 1 and will you state where the lease is located and the well in question.

A Yes, sir. On our Exhibit 1 we have outlined the W. A. Ramsay NCT-C lease in red and it covers all of Section 36. I would like to point out a few things on that. It might be noticed



in the Southwest quarter of Section 36 and the Southwest quarter of the Northwest quarter of this section, there are other wells, and it might be noted that Jack Frost is the operator of other wells on there and there is a dotted line to each of those wells, one, two, three, four, and five, which represents those. We have one other well up in the Northwest quarter as Gulf Well No. 1. Our Well No 2 is in the Southwest quarter of the Southwest quarter. It is a dual completion in the Ellenburger and McKee. Our Well No. 3 on this plat is circuled in red and has not been completed. as of this time.

Q It is completed drilling, is it not?

A The drilling is completed, but the completion is not done. Also, on this plat down in Lot 1 of Section 2 is the Amrodus, NJA, Well No. 1. It's to the southwest diagonally offsetting our Ramsay C. lease. It shows the Ellenburger, McKee and Fusselman. That is a triple completion in the same zones that we are asking for in our Well No. 3, but that was a three-string cemented in a common well bore where ours is not. Therefore, the reason for this hearing is because ours is a conventional triple completion. I believe that pretty well covers Exhibit 1.

Q Is that completed in the Fusselman, that diagonal off-set?

A Ellenburger, McKee, Fusselman, and Sularm.

Q May I call your attention to the electric log marked Exhibit 2? Will you please testify as to what is shown on that



pertinent to this case?

A This is the electric log for the Ramsay Well No. 3 and what we have shown on this log is the top and bottom of the formation in which we propose to triple complete, and we have shown the perforations in the various zones. I believe that is all.

Q Now, I wish to call your attention to the schematic diagram on the mechanical installations labelled Exhibit No. 3. Will you please outline what is shown on there that is pertinent to this case?

A Yes, sir. This well was spudded on November 7, 1961, and was drilled to a total depth of 8,520 feet and was plugged back to 8,510 feet. We show that 13 3/8-inch casing was set at the time at 979 feet and cement was circulated to the surface. We have 9 5/8-inch casing set at 3,661 feet and cement was also circulated to the surface. We have 7-inch casing set at 8,520 feet, cemented with 700 sacks of cement and temperature survey indicated the top of the cement at 4,380 feet.

The proposed mechanical installation is a Baker Model J packer set at approximately 8,430 feet, a Baker Model J dual snap packer set at approximately 8,015 feet. We show the Fusselman perforations at 7,001 feet to 7,021 feet; McKee perforations at 8,030 feet to 8,087 feet; Ellenburger perforations at 8,445 feet to 8,463 feet. We propose to utilize the three strings of 2 3/8-inch tubing. The long string will set into the Baker Model D packer. The intermediate string will lash into the Baker Model



J packer by the use of the parallel snap latch seal. The short string will be hanging free.

Q What are the bottomhole pressures and gravity in the three zones which you propose to complete?

A We have on the drillstem test in the Fusselman, the initial shut-in pressure was 2679 pounds. The gravity of the fluid was 35.7 degrees. We have bottomhole pressures that were actually taken in our Well No. 2, in the Ellenburger-McKee -- I will give those at this time. For the McKee, the bottomhole pressure was 2,929 pounds at a minus 4250 feet. The gravity of the fluid was 45.1 degrees.

In the Ellenburger, the bottomhole pressure was 2687 pounds at a minus 5050. The gravity was 45.4 degrees.

Q For Exhibit No. 4, you have included copies of specifications of the Baker Model J dual snap set packer. Will you please testify, referring to Exhibit No. 4, the features and specifications of this?

A Yes. This exhibit was presented just for a picture of the packer. There is nothing unusual about the packer, more or less standard equipment, but there are some features of this particular packer that I would like to mention. On this double grip feature, it has slips at the bottom which are activated by setting down the weight with a long string which activates those slips out to catch to the casing wall there by holding the packer in place from going down. Then, by applying additional set-down weight



DEARNLEY-MEIER REPORTING SERVICE, Inc.

FARMINGTON, N. M.
PHONE 325-1182

ALBUQUERQUE, N. M.
PHONE 243-6691

on the long string, up to about 6,000 pounds, sets the packer. The other grip feature is built-on-type hooks at the top of the packer which are activated by any differential ⁱⁿ pressure from below. The packer forces these pistons out, which grip against the wall and prevent the packer from moving up the hole or unseating in the event there was a differential pressure from below. The other features of the packer are more or less conventional with existing dual completion equipment.

Q Is this a retrievable packer?

A Yes, it is retrievable.

Q And the Baker Model D packer, is it retrievable?

A It is not retrievable.

Q What was the saving involved in making the proposed triple completion?

A Our estimated cost to dual this well in the Ellenburger and McKee is \$180,000. If we provided a single-zone Fusselman well, it would cost an additional \$79,000, making a total for two wells of \$259,000. Our estimated cost to triple this well is \$198,500, which represents a saving of some \$60,500.

Q Have all of the offset operators been notified of the pendency of this application?

A Yes, sir, they were.

Q Have any complaints been received?

A None to my knowledge.

Q Is this application, in your opinion, in the interest



of the prevention of waste?

A Yes, it is.

Q Does it impair correlative rights in any way?

A No, sir.

Q Were Exhibits 1, 2, 3, and 4 prepared by you or under your direction and supervision?

A Yes, they were.

MR. KASTLER: That concludes my questions, Mr. Nutter. I would like to move that Exhibits 1, 2, 3, and 4 be admitted into evidence.

MR. NUTTER: Gulf's Exhibits 1 through 4 will be admitted.

Are there any questions of Mr. Hoover?

CROSS EXAMINATION

BY MR. NUTTER:

Q There was recently held a meeting in Hobbs, New Mexico, of the industry's interpretations of the top and bottom of the McKee zones in the North Justis Pool. Does the perforated intervals of this well conform with the findings of that meeting?

A Yes, it is my understanding it does. Our geologist picked these tops and bottoms and they were in on that meeting and it is my understanding that they do.

Q These are McKee perforations?

A Yes, sir.

Q One other thing, Mr. Hoover. What was the bottomhole



pressure taken in the No. 2 McKee well?

A 2,929.

MR. NUTTER: Any further questions of Mr. Hoover?

You may be excused.

(Witness excused.)

MR. NUTTER: Do you have anything further, Mr. Kastler?

MR. KASTLER: No.

MR. NUTTER: Does anyone have anything they wish to offer in Case 2487?

We will take the case under advisement and call the next case.

* * * * *

DEARNLEY-MEIER REPORTING SERVICE, Inc.

FARMINGTON, N. M.
PHONE 325-1182

ALBUQUERQUE, N. M.
PHONE 243-6631



DEARNLEY-MEIER REPORTING SERVICE, Inc.

FARMINGTON, N. M.
PHONE 325-1182

ALBUQUERQUE, N. M.
PHONE 243-6691

STATE OF NEW MEXICO)
COUNTY OF BERNALILLO) ss.

I, CECIL LANGFORD, NOTARY PUBLIC in and for the County of Bernalillo, State of New Mexico, do hereby certify that the foregoing and attached transcript of hearing was reported by me in stenotype and that the same was reduced to typewritten transcript under my personal supervision and contains a true and correct record of said proceedings, to the best of my knowledge, skill and ability.

Cecil Langford
NOTARY PUBLIC

My Commission Expires:

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 2487 heard by me on 2/7, 1962.

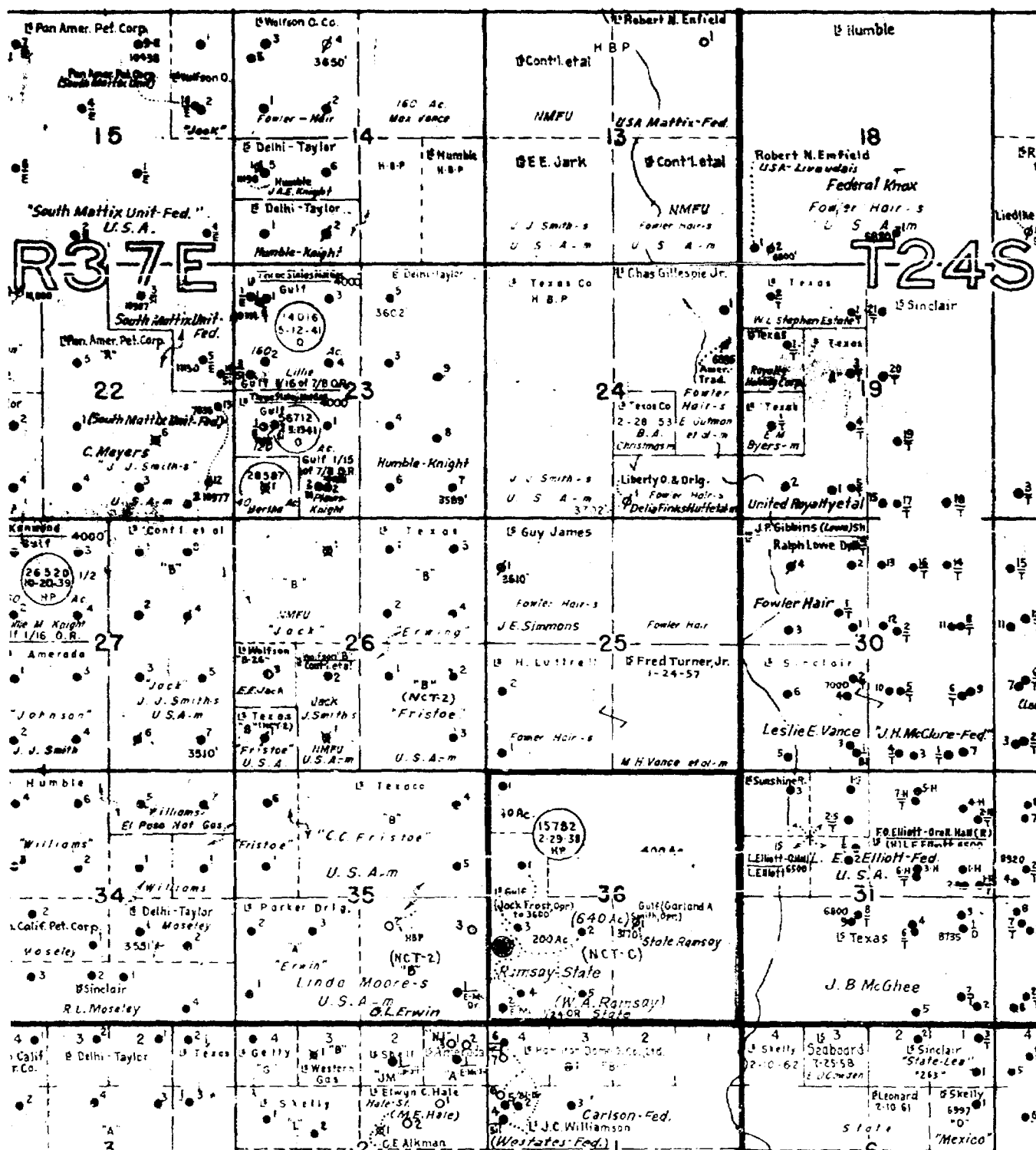
[Signature] Examiner
New Mexico Oil Conservation Commission



NEW MEXICO OIL CONSERVATION COMMISSION

EXAMINER HEARING - DANIEL S. NUTTERSANTA FE, NEW MEXICOREGISTERHEARING DATE FEBRUARY 7, 1962 TIME: 9 A.M.

NAME:	REPRESENTING:	LOCATION:
Bocher Kelly	Gibbs, Rubin & Hall	S.F.
C.R. Black	Texaco Inc.	Midland
John H. Hooyer	Gulf Oil Corp	Roswell
Wm. V. Hasler	"	"
Jason Killham	Killham & Co.	Santa Fe
Frank Gray	Coulter Oil Co.	Farmington
R.J. Davenport	Western Development Co.	Artesia
D. Foster	Foster & Stewart	Artesia
M.E. Spittler	Western Development Co.	Box 427 Artesia
Lee Kates	Waterford Petroleum Co.	Box 326 "
R.R. Austin	Franklin, Austin & Bain	Roswell
W.H. Pater	CCC	Santa Fe



LEASE PLAT
W. A. RAMSAY (NCT-C)
Lea County, New Mexico

- Legend -

- Pertinent Lease
- Pertinent Well

Gulf Oil Corp.
Feb. 7, 1962

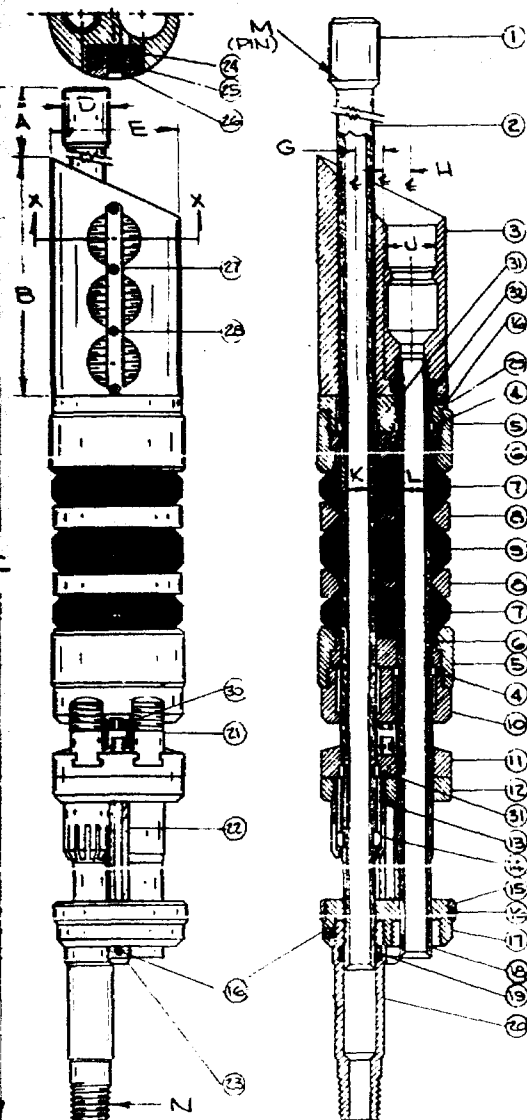
Case No. 2437
Exhibit No. 1

Subject: Baker Model "J" Single-Grip and Double-Grip Snap-Set Dual Packers, Prod. Nos. 756-J and 757-J

INDEX: 255.06
Unit : 1495 (CDERX)
Page : 10 of 16
Date : April 1, 1961

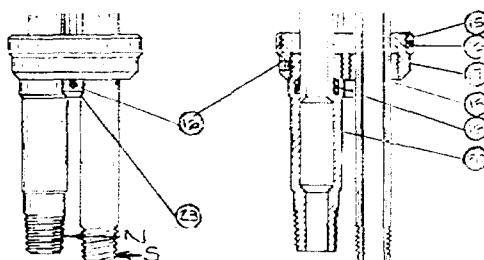
BAKER MODEL "J" DOUBLE-GRIP SNAP-SET DUAL PACKER PRODUCT NO. 757-J

SIZES 45 - 51



DIMS.	SIZE 45			SIZE 46	SIZE 47		SIZE 51		
	1.900 x 2.06	2-1/16 x 1.53	2-3/8 x 1.53	2-3/8 x 2.28	2-3/8 x 2.28	2-3/8 x 2.68	2-7/8 x 2.28	3-1/2 x 3.25	3-1/2 x 3.75
A	16-1/2	18-1/4	18-11/16	17	18-1/16	21-1/2	30	23-1/8	23-1/8
B	21-1/8	22-3/4	24-7/16	17-7/8	20-7/8	17-7/16	22-1/4	20-13/16	20-13/16
C	80-1/4	85-3/4	85-7/8	82-3/4	86-1/2		103	94-1/4	94-1/4
D*	2-3/8	2-1/2	2-15/16	2.910	2.910		3-1/2	4-5/16	4-5/16
E	45AB-4.500 45C-5.062	4.500	4.500	5.437	47C-5.938 47D-6.437		47C-5.938 47D-6.437	8.312	8.312
G	1.062	.906	.812	1.140	1.375		1.152	1.968	1.968
H	1.062	1.218	1.343	1.375	1.375		1.640	1.968	1.968
J	2.062	1.531	1.511	2.281	2.281	2.687	2.281	3.250	3.750
K	1-9/16	1-11/16	1-15/16	1-15/16	1-15/16		2-3/8	3	3
L	1-9/16	1	15/16 †	1-9/16	1-15/16		1-9/16	3	3
M**	1.900 OD NU 10 RD. (PIN)	2-1/16 OD NU 10 RD. (PIN)	2-3/8 OD NU 10 RD. (PIN)	2-3/8 OD NU 10 RD. (PIN)	2-3/8 OD NU 10 RD. (PIN)		2-7/8 OD NU 10 RD. (PIN)	3-1/2 OD NU 10 RD. (PIN)	3-1/2 OD NU 10 RD. (PIN)
N	1.900 OD 5 EU 10 RD.	1.500 OD 1 EU 10 RD.	2-3/8 OD EU 8 RD.	2-3/8 OD EU 8 RD.	2-3/8 OD EU 8 RD.		2-7/8 OD EU 8 RD.	3-1/2 OD EU 8 RD.	3-1/2 OD EU 8 RD.
S	1.900 OD NU 10 RD.	--	1.315 OD NU 10 RD.	--	--		--	--	--

* Maximum Coupling Diameter.
** Crossover Coupling, Product No. 469-C Box Up as ordered.
† Special I.D. clearance on Size 45 (2-1/16 x 1.53) - use 1.700 I.D. Crossover Coupling, Product No. 469-C.
‡ Short String Mandrel on Size 45 (2-3/8 x 1.53) does not have full drift I.D.
§ Crossover Sub furnished provides EU Pin thread.



Based on T/M Dwgs.
144-339 & 148-044
BAKER OIL TOOLS, INC.,

Case No. 2487
Exhibit No. 4

SIZE 45 (1.900 x 2.06) & (2-3/8 x 1.53) ONLY

Subject: Baker Model "J" Single-Grip and Double-Grip Snap-Set Dual Packers, Prod. Nos. 756-J and 757-J

INDEX: 255.06
Unit : 1495 (C DERX)
Page : 9 of 16
Date : April 1, 1961

BAKER MODEL "J" SINGLE-GRIP SNAP-SET DUAL PACKER
PRODUCT NO. 756-J

ITEM NO.	PART NAME	NO. REQUIRED	REMARKS	SIZE 44 (1.750 x 1.50)	SIZE 45 (2.125 x 1.50)	SIZE 46 (2.500 x 2.25)	SIZE 47 (2.875 x 2.25)	SIZE 51 (3.125 x 3.75)
1	Crossover Coupling (Box Up as ordered)	1	--	45109	44175	44350	44865	43725
2	Fixed String Mandrel	1	--	45206	44166	44774	44869	43712
3	Top Guide	1	--	45109	44175	44350	44865	43725
4	Recessed Guide	1	--	45109	44175	44350	44865	43725
5	Top Connector	1	--	45206	44166	44774	44869	43712
6	Split Ring	2	--	45109	44175	44350	44865	43725
7	Guide Ring	2	--	45109	44175	44350	44865	43725
8	Guide Ring Element	2	--	45109	44175	44350	44865	43725
9	Guide Ring Element (Alternate Packing Element System)	1	1	45109	44175	44350	44865	43725
10	Packing Element Spacer	2	--	45109	44175	44350	44865	43725
11	Center Packing Element	1	1	45109	44175	44350	44865	43725
12	Center Packing Element (Alternate Packing Element System)	1	1	45109	44175	44350	44865	43725
13	Strip Ring	1	--	45109	44175	44350	44865	43725
14	Strip Ring Retainer	1	--	45109	44175	44350	44865	43725
15	Strip Ring	1	--	45109	44175	44350	44865	43725
16	Strip Ring	1	--	45109	44175	44350	44865	43725
17	Strip Ring	1	--	45109	44175	44350	44865	43725
18	Strip Ring	1	--	45109	44175	44350	44865	43725
19	Strip Ring	1	--	45109	44175	44350	44865	43725
20	Strip Ring	1	--	45109	44175	44350	44865	43725
21	Strip Ring	1	--	45109	44175	44350	44865	43725
22	Strip Ring	1	--	45109	44175	44350	44865	43725
23	Strip Ring	1	--	45109	44175	44350	44865	43725
24	Strip Ring	1	--	45109	44175	44350	44865	43725
25	Strip Ring	1	--	45109	44175	44350	44865	43725
26	Strip Ring	1	--	45109	44175	44350	44865	43725
27	Strip Ring	1	--	45109	44175	44350	44865	43725
28	Strip Ring	1	--	45109	44175	44350	44865	43725
29	Strip Ring	1	--	45109	44175	44350	44865	43725
30	Strip Ring	1	--	45109	44175	44350	44865	43725
31	Strip Ring	1	--	45109	44175	44350	44865	43725
32	Strip Ring	1	--	45109	44175	44350	44865	43725
33	Strip Ring	1	--	45109	44175	44350	44865	43725
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36	Strip Ring	1	--	45109	44175	44350	44865	43725
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41	Strip Ring	1	--	45109	44175	44350	44865	43725
42	Strip Ring	1	--	45109	44175	44350	44865	43725
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50	Strip Ring	1	--	45109	44175	44350	44865	43725
51	Strip Ring	1	--	45109	44175	44350	44865	43725
52	Strip Ring	1	--	45109	44175	44350	44865	43725
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74	Strip Ring	1	--	45109	44175	44350	44865	43725
75	Strip Ring	1	--	45109	44175	44350	44865	43725
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81	Strip Ring	1	--	45109	44175	44350	44865	43725
82	Strip Ring	1	--	45109	44175	44350	44865	43725
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93	Strip Ring	1	--	45109	44175	44350	44865	43725
94	Strip Ring	1	--	45109	44175	44350	44865	43725
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96	Strip Ring	1	--	45109	44175	44350	44865	43725
97	Strip Ring	1	--	45109	44175	44350	44865	43725
98	Strip Ring	1	--	45109	44175	44350	44865	43725
99	Strip Ring	1	--	45109	44175	44350	44865	43725
100	Strip Ring	1	--	45109	44175	44350	44865	43725