

CASE 4119: Application of UNION
OF CALIFORNIA TO DIRECTIONALLY
DRILL, LEA COUNTY, NEW MEXICO.

Case Number.

4 / 1 / 9

Application
Transcripts.

Small Exhibits

E T C

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

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

May 7, 1969

EXAMINER HEARING

IN THE MATTER OF:)
)
)

Application of Union Oil
Company of California to
directionally drill, Lea
County, New Mexico.)
)

Case No. 4119

BEFORE: Daniel S. Nutter, Examiner

TRANSCRIPT OF HEARING

NEW MEXICO OIL CONSERVATION COMMISSION

EXAMINER HEARING

SANTA FE, NEW MEXICOHearing Date MAY 7, 1969 TIME: 9 A.M.

NAME	REPRESENTING	LOCATION
J.B. Jovela	Union Oil Co. of Calif.	Roswell
Daniel E. Wilkins	Union Oil Co. of Calif.	Roswell
Leon H. Purdue	Union Oil Co. of Calif.	Midland
John D. Russell	"	Roswell
Lawrence Meyer	AMERICAN PETROL. CORP.	Tulsa, Okla.
Nina Duthaimie	P.W. Bryant & Co.	Santa Fe
Larry E. Kopychuk	Continental Oil Co.	Hobbs
P. J. Mc... ..	U.S.G.S.	Farmington
Joe J. Ames	NMOC	Albuquerque
Dallen Kincheloe	McElvany Kincheloe	Roswell
William A. Kincheloe	"	"
Eugene McElvany	"	"
Ralph H. Vinney	Sam Barza &	Midland
Jason Kellah	McElvany Kincheloe & Assoc.	Santa Fe
William J. ...	Kellah & Assoc.	"
Victor T. Lykes	Continental Oil Co.	Hobbs
Charles J. ...	"	"
Roger ...	"	Midland

NEW MEXICO OIL CONSERVATION COMMISSION

EXAMINER HEARINGSANTA FE, NEW MEXICOHearing Date MAY 7, 1969 TIME: 9 A.M.

NAME	REPRESENTING	LOCATION
J. Noel Sikes	Arthur Hankamer	midland, Tex
Tom Dugan	Redfern Development	Farmington, N.M.
R.E. Lanth	Eastern Pet Co	Farmington, N.M.

MR. NUTTER: The hearing will come to order, please.

MR. HATCH: Case 4119, application of Union Oil Company of California to directionally drill, Lea County, New Mexico.

MR. RUSSELL: John F. Russell, appearing on behalf of the applicant. I have two witnesses.

(Applicant's Exhibits 1 through 5 marked for identification.)

LON PARDUE

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

DIRECT EXAMINATION

BY MR. RUSSELL:

Q Please state your name, and the name of your employer, and the capacity in which you are employed?

A My name is Lon Pardue. I reside at 712 Mugford Street in Midland. I work for Union Oil Company as a Petroleum Engineer.

Q Have you previously qualified to give expert testimony before this Commission?

A No, sir.

Q Will you give a brief resume of your education

and professional background?

A I graduated from Texas A and M College with a B.S Degree in Mechanical Engineering. In the year of 1963, I went to work for Union Oil Company, worked for a year there as an Engineer Trainee, and two years as Production Engineer in Lovington, and two and half years as a Drilling Engineer out of Midland, and approximately six months at my present assignment.

Q Are the witness' qualifications acceptable?

MR. NUTTER: Yes, they are.

Q Are you familiar with the application of the Union Oil Company of California in Case 4119?

A Yes, I am.

Q What does Union seek by this application?

A Union Oil Company of California originally drilled our Owens No. 1 at a location 1,980 feet from the North and East lines of Section 34, Township 14 South, Range 35 East, Lea County, New Mexico, as a wildcat well to a total depth of 11,199 feet. During the drilling of this well, we drillstem tested the lower wolfcap from 10,587 to 10,612, and recovered oil and water on a drillstem test, and we felt we could complete this well in that zone as a producing well, but it would make excessive water. And in light of the

difficulties in shutting off water, and the high cost involved in lifting this water, and disposing of it, we elected to directionally drill and try to hit a point higher in the formation and get water free flowing well.

We seek approval of setting a whipstock at 3,984, and to directionally drill the well to bottom in the Hueco formation.

Q I refer you to what has been marked as Applicant's Exhibit No. 1, and ask you to portray or explain what it portrays.

A Exhibit No. 1 is a land plat, which shows the drilling block outlined in orange, jointly owned by Union Oil Company and Superior Oil Company.

It also shows all the wells within a 2 mile radius, producing or dryholes, and it shows the ownership of the various tracts of land.

Q There are no producing wells within a two mile radius?

A No, sir.

Q Are there any producing wells on this exhibit?

A Yes, sir. There is one on the west side. It is Featherstone Mobil State No. 1 in the North Morton Field.

Q That is in Section 32, is it not?

A Yes, sir.

Q And what formation is that producing from?

A It produces from the Lower Wolfcamp.

Q Now, I refer you to what has been marked as Appicant's Exhibit No. 2, and ask you what that exhibit is?

A Exhibit No. 2 is a copy of the Sperry Sun Directional survey report for Union of California, a copy of which has been forwarded to the Commission by Sperry Sun.

It shows the data points starting from zero or from bottom, 10,649, and 100 feet increments to surface. It also shows a schematic of the surface location, the bottom of the hole where the sidetrack was started, and the new location of the bottom of the hole which is 497 feet south, seven degrees three minutes east.

There is a vertical schematic showing measured depth along that plane which is projected back to the true vertical depth.

Q Now, the next witness is going into detail on the drillstem test of the two wells, is that correct?

A Yes, that is correct.

MR. RUSSELL: I have no further question of this witness.

CROSS EXAMINATION

BY MR. NUTTER:

Q Mr. Purdue, it has been established by the directional

survey that the bottom of the well is 497 feet east-southeast of the surface location?

A Yes, sir.

Q And the surface location is 1,980 from the north and east lines of that section?

A Yes, sir.

Q Therefore, this would bottom the well in the same 40 acre tract as the surface location?

A Yes, sir.

MR. NUTTER: Are there any other question of this witness? You may be excused.

DARRELL WILSON

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

DIRECT EXAMINATION

BY MR. RUSSELL:

Q Will you please state your name, your address, your employer and capacity?

A My name is Darrell Wilson. I lived at 1901 South Main, Roswell. I am employed by Union Oil Company of California.

Q In what capacity are you employed?

A As an Exploration Geologist.

Q Have you previously qualified to give expert testimony before this Commission?

A I have not.

Q Will you please give a brief resume of your education and professional background.

A I graduated from the Oklahoma State with a Bachelor of Science degree in geology, shortly thereafter going to work for Union Oil Company of California as an Exploration Geologist, and I have worked in that capacity for five years.

Q And you are familiar with the area in which this application refers?

A Yes, I am.

Q I will refer you to what has been marked as Applicant's Exhibit III and ask you what that exhibit reflects?

A Exhibit III is a stick diagram in which we show the structural relation of our sidetrack total to the original hole marked on the left hand portion of the sheet, that is the original hole. We have two tops, the top of what we call the Three Fingers zone of the Lower Wolfcamp, and the top of our Lower Wolfcamp pay zone.

In the first hole we tested it as Mr. Purdue

said, from 10,857 to 10,612, and recovered 300 feet of oil, 100 feet of oil and gas cut mud, and 859 feet of salt water - sulphur water.

We decided, as Mr. Parque stated, that because of the expense, and so on, of trying to complete this well here, we decided to whipstock, and this is what you see on the right hand side is the sidetrack total in relation to the original. I might add that the dip that is indicated on this top of the Lower Wolfcamp pay zone is exaggerated, due to the scale distortion, vertical as to the horizontal, and this only equals approximately one degree true dip from that of the original hole to that of the sidetrack hole.

We did encounter the formation as anticipated, and tested it from 10,362 to 10,649 in the new hole, and flowed oil water free.

Q That also shows the top of the Three Fingers formation in both holes?

A Yes, sir, and those tops are marked on the logs.

Q On the logs?

A On the next Exhibit, yes.

MR. RUSSELL: Mr. Examiner, did I ask whether the

witness' qualifications are acceptable?

MR. NUTTER: He is qualified.

Q Is there anything further on that Exhibit?

A Nothing more.

Q I will refer you to what has been marked as Applicant's Exhibit IV and ask you what that reflects?

A I have Exhibits IV and V together. Exhibit IV is the electric log on our initial hole, which is marked with our tops, and I would just like to call your attention to the fact that approximately 10,584 is the top of our **Lower Wolfcamp** pay zone.

If you will look at Exhibit V, which is the log of the sidetrack total, that same point is approximately 10,624. Now, this is measured depth, and must be converted to true vertical depth. In this case, the log shows that we do have the same horizon that we encountered and tested in the first hole, and that we are approximately 1,600 feet higher, or we have gained 16 feet of structural advantage over the initial hole.

Q Both those show the tops of the various formations encountered in each of the wells, do they not?

A Yes, they do.

Q In your opinion, was the initial well productive

of oil in this original bottom hole location?

A I think so, as evidenced by our drillstem test, and we calculated that we did have oil pay there. But, as we said before, the fact that we drill into water would make it difficult to complete.

Q Now, in your opinion, will the granting of this application prevent economic waste and still protect correlative rights?

A It will.

Q Were Exhibits I, III, IV, and V prepared by you or under your supervision and direction?

A They were.

Q And Exhibit II is a copy of the Sperry ~~Sen~~ report, which was furnished to you?

A Yes.

MR. RUSSELL: I would like to offer Applicant's Exhibits I through V.

MR. NUTTER: Applicant's Exhibits I through V will will be admitted in evidence.

(Whereupon Applicant's Exhibits I through V were admitted into evidence.)

MR. RUSSELL: I have no further question of this witness.

CROSS EXAMINATION

BY MR. NUTTER:

Q Do you have any further test other than the drillstem test indicated on Exhibit III?

A We have other tests on the initial hole. No other test on the whipstock total.

Q Has casing been run in the wells yet?

A Yes, sir, it has.

Q But you haven't perforated or tested?

A Yes, we have. We have perforated it, and have sent in the forms for the initial potential.

Q What was the initial potential?

A 400 -- this is off the top of my head -- 452 barrels of oil, and 461 Mcf of gas.

Q Water free?

A Water free.

Q So, in other words, this whipstock program on this well has been successful? You have eliminated the water?

A Most successful.

MR. NUTTER: Any further questions of the witness?

You may be excused. Do you have anything further, Mr. Russell?

MR. RUSSELL: Nothing further in this case, but I would

like to submit to you the report which were forwarded to the Commission in connection with the allowable.

MR. NUTTER: ~~Let~~ the record show that we have received the directional survey from Sperry ~~Sun~~.

Does anyone have anything to offer in Case 4119?
We will take the case under advisement and call Case 4120.

I N D E XWITNESSESPAGELON PURDUE

Direct Examination by Mr. Russell

2

Cross Examination by Mr. Nutter

5

DARRELL WILSON

Direct Examination by Mr. Russell

6

Cross Examination by Mr. Nutter

11

EXHIBITSMARKEDADMITTED INTO
EVIDENCEApplicant's Exhibits
I through V

2

10

STATE OF NEW MEXICO)
) ss.
 COUNTY OF BERNALILLO)'

I, SAMUEL MORTELETTE, 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.

Samuel M. Mortelette

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 4119, heard by me on 5/7, 1967.

William, Examiner
 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

May 20, 1969

Mr. John Russell
P. O. Drawer 640
Roswell, New Mexico
88201

Re: Case No. 4119
Order No. R-3760
Applicant:
Union Oil Co. of Calif.

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 _____

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. 4119
Order No. R-3760

APPLICATION OF UNION OIL COMPANY
OF CALIFORNIA TO DIRECTIONALLY
DRILL, LEA COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on May 7, 1969,
at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this 20th day of May, 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, Union Oil Company of California, is
the owner and operator of the Owens Well No. 1 which has a surface
location in Unit G at a point 1980 feet from the North line and
1980 feet from the East line of Section 34, Township 14 South,
Range 35 East, NMPM, Lea County, New Mexico.

(3) That the subject well was originally drilled to a
total depth of 11,199 feet into the Pennsylvanian formation
where it was unproductive.

(4) That the applicant seeks approval for the setting of
a whipstock in the subject well at approximately 8900 feet, and
the directional drilling in a southeasterly direction to bottom
said well in the Lower Wolfcamp formation at a true vertical
depth of approximately 10,591 feet at a point in said Unit G
approximately 497 feet south 73 degrees 3 minutes east from

-2-

CASE No. 4119
Order No. R-3760

the aforesaid surface location in order to avoid the water encountered in the original attempt to complete.

(5) That approval of the subject application will prevent the drilling of unnecessary wells, avoid the augmentation of risk arising from the drilling of an excessive number of wells, and otherwise prevent waste and protect correlative rights.

IT IS THEREFORE ORDERED:

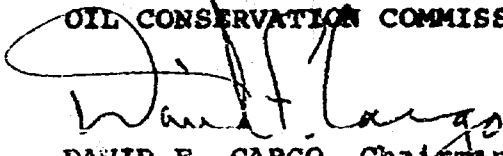
(1) That approval is hereby granted the applicant, Union Oil Company of California, for the setting of a whipstock at approximately 8900 feet in its Owens Well No. 1, having a surface location in Unit G 1980 feet from the North line and 1980 feet from the East line of Section 34, Township 14 South, Range 35 East, NMPM, Lea County, New Mexico, and the directional drilling in a southeasterly direction to bottom said well in the Lower Wolfcamp formation at a true vertical depth of approximately 10,591 feet at a point in said Unit G approximately 497 feet south 73 degrees 3 minutes east from the aforesaid surface location.

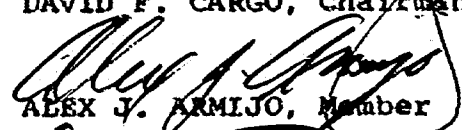
(2) That Form C-105 shall be filed in accordance with Rule 1105 and the operator shall indicate thereon the true vertical depths in addition to measured depths.

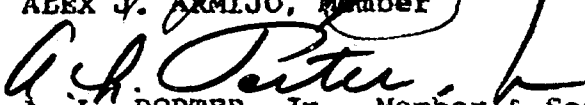
(3) That jurisdiction of this cause is retained for the entry of such further orders as the Commission may deem necessary.

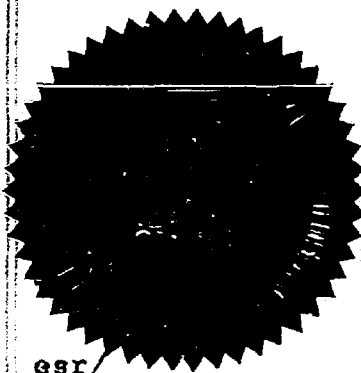
DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION


DAVID F. CARGO, Chairman


ALEX J. ARMIJO, Member


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



CSR

DOCKET: EXAMINER HEARING - WEDNESDAY - MAY 7, 1969

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, Alternate Examiner:

CASE 4119: Application of Union Oil Company of California to directionally drill, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to directionally drill its Owens Well No. 1 located 1980 feet from the North and East lines of Section 34, Township 14 South, Range 35 East, Lea County, New Mexico. Said well was drilled to a total depth of 11,199 feet and plugged back to approximately 9,000 feet. Applicant proposes to set a whipstock at approximately 9,000 feet and to directionally drill to a depth sufficient to bottom said well in the Lower Hueco formation at a point approximately 2298 feet from the North line and 1662 feet from the East line of said Section 34 (approximately 450 feet Southeast of the surface location.)

CASE 4120: Application of Sam Boren for the creation of a new gas pool, promulgation of special rules for the pool, a dual completion, and commingling, Lea County, New Mexico. Applicant in the above-styled cause, seeks the creation of a new Wolfcamp gas pool for his Crowley State "A" Well No. 11 located in Unit L of Section 5, Township 12 South, Range 33 East, Lea County, New Mexico, and for the promulgation of special rules therefor, including a provision for 320-acre proration units. Applicant also seeks approval of the dual completion of said well to produce gas through the casing-tubing annulus from the aforesaid Wolfcamp pool and oil through tubing from the North Bagley-Lower Pennsylvanian Pool, commingling the liquid hydrocarbons from said pools on the lease. Applicant further seeks authority to commingle in the well-bore sufficient Wolfcamp gas to gas lift the Pennsylvanian oil.

CASE 4121: Application of Roger C. Hanks for special pool rules, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the promulgation of special pool rules for the Bar U-Pennsylvanian Pool, Lea County, New Mexico, including a provision for 160-acre spacing and proration units and the assignment of 80-acre allowables.

CASE 4122: Application of Roger C. Hanks for salt water disposal, Roosevelt County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Devonian

Docket No. 13-69
Examiner Hearing - May 7, 1969
-2-

(Case 4122 continued)

formation in the interval from approximately 12,878 feet to 13,011 feet in his Atlantic Tebworth Well No. 1 located in the SW/4 SW/4 of Section 25, Township 8 South, Range 36 East, Allison Field, Roosevelt County, New Mexico.

CASE 4123: Application of Kersey and Company for a waterflood project, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a waterflood project by the injection of water into the Premier and Lovington sands of the Grayburg formation through its Dublin Well No. 3 located in the NW/4 NE/4 of Section 3, Township 17 South, Range 29 East, Square Lake Pool, Eddy County, New Mexico.

CASE 3405: (Reopened) - TO BE CONTINUED TO MAY 21, 1969

In the matter of Case No. 3405 being reopened pursuant to the provisions of Order No. R-3081, which order established 640-acre spacing for the North Indian Hills-Morrow Gas Pool, Eddy County, New Mexico, for a period of one year after first pipeline connection in the pool. All interested parties may appear and show cause why said pool should or should not be developed on 320-acre spacing units.

CASE 4124: Application of Amerada Petroleum Corporation for a unit agreement, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of the State H "A" COM Unit Area comprising 1,281 acres, more or less, of State lands in Sections 18, 19, and 30 of Township 14 South, Range 35 East, Lea County, New Mexico.

CASE 4125: Application of Continental Oil Company for a waterflood project, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a waterflood project by the injection of water into the San Andres formation through ten wells in Sections 34 and 35, Township 16 South, Range 29 East, Forest-San Andres Pool, Eddy County, New Mexico.

CASE 4126: Application of Curtis Hankamer for an exception to Order No. R-3221, as amended, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an exception to Order No. R-3221, as amended, which order prohibits the disposal of water produced in conjunction with the production of oil or gas, or both, on the surface of the ground in Lea, Eddy, Chaves, and Roosevelt Counties, New Mexico, after January 1, 1969. Said exception would be for the applicant's wells located in Sections 12, 13, 14, and 24, Township 26 South, Range 29 East, Brushy-Draw Delaware Pool, Eddy County, New Mexico. Applicant seeks

Docket No. 13-69

Examiner Hearing - May 7, 1969

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(Case 4126 continued)
authority to continue to dispose of salt water produced by said wells in four unlined surface pits.

CASE 4127: Application of Curtis Hankamer for an exception to Order No. R-3221, as amended, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an exception to Order No. R-3221, as amended, which order prohibits the disposal of water produced in conjunction with the production of oil or gas, or both, on the surface of the ground in Lea, Eddy, Chaves, and Roosevelt Counties, New Mexico, after January 1, 1969. Said exception would be for applicant's two wells located in Section 11, Township 24 South, Range 32 East, Double X-Delaware Pool, Lea County, New Mexico. Applicant seeks authority to continue to dispose of salt water produced by said wells in two unlined surface pits.

CASE 4128: Application of C. O. Fulton for a waterflood project, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a waterflood project by the injection of water into the Premier and Lovington sands of the Grayburg formation through one well located in Unit D of Section 2, and two wells in Units D and P of Section 3, Township 17 South, Range 29 East, Square Lake Pool, Eddy County, New Mexico.

CASE 4117: (Continued from the April 23, 1969 Examiner Hearing)
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.

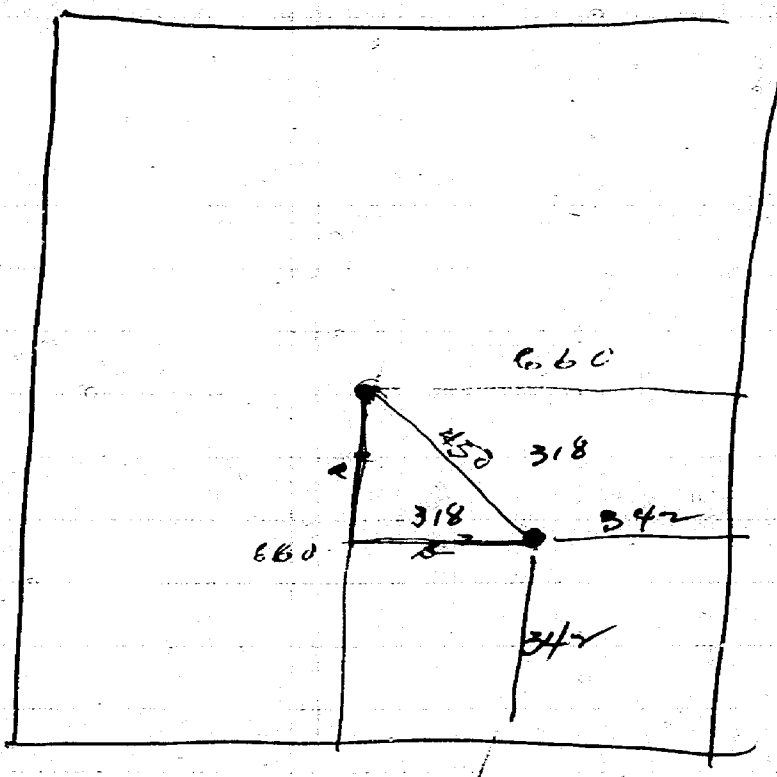
CASE 4118: (Continued from the April 23, 1969 Examiner Hearing)

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.

Docket No. 13-69
Examiner Hearing - May 7, 1969

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CASE 4129: Application of Redfern Development Corporation for gas commingling, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks authority to commingle Devils Fork-Gallup gas and Basin-Dakota gas after separately metering the Dakota gas and determining the Gallup production by means of the subtraction method. Said production is from the dually completed Largo Spur Well No. 1 located in Unit J of Section 18, Township 24 North, Range 6 West, Rio Arriba County, New Mexico.



$$\begin{array}{r} 318 \\ 318 \\ \hline 2544 \\ 318 \\ \hline 754 \\ 101,124 \end{array}$$

$$\begin{array}{r} 660 \\ 318 \\ \hline 342 \end{array}$$

$$\begin{array}{r} 450 \\ 450 \\ \hline 22500 \\ 1800 \\ \hline 202,500 \end{array}$$

$$a^2 + b^2 = c^2$$

$$c^2 = 202500$$

$$a^2 = \frac{202500}{2} = 101250$$

$$\begin{array}{r} 1320 \\ 660 \\ 318 \\ \hline 2298 \end{array}$$

$$\begin{array}{r} 1320 \\ 342 \\ \hline 1662 \end{array}$$

SPERRY-SUN WELL SURVEYING COMPANY

CHARLES E. HAWK
PRESIDENT

P.O. Box 2133
Odessa, Texas
May 5, 1969

JOS. T. WILSON, JR.
SECRETARY-TREASURER

NEW MEXICO OIL CONSERVATION COMMISSION
P.O. Box 2088
Santa Fe, New Mexico

Gentlemen:

At the request of Union Oil Company of California we are submitting to you one copy of our Gyroscopic Multishot Survey No. SU-3-6654 and our Magnetic Multishot Survey No. MS-6655 performed on the Owens lease, Well No. 1, a wildcat, in Lea County, New Mexico on April 30, 1969. This survey was run from surface to a depth of 10,649 feet with records taken each 100 feet.

Very truly yours,

SPERRY-SUN WELL SURVEYING COMPANY

Carl Kisinger, Jr.
Carl Kisinger, Jr.
District Manager

CK
Enclosure
REGISTERED MAIL

cc: Union Oil Company of California
P.O. Box 671
Midland, Texas 79701
Att: Mr. G.W. Coombes

SPERRY-SUN

DIRECTIONAL SURVEY REPORT

FOR

UNION OIL COMPANY OF CALIFORNIA



TYPE OF SURVEY: Gyroscopic and Magnetic Multishots

SURVEY DEPTH: FROM Zero FT. TO 10649 FT.

LEASE: Owens WELL NO. 1

FIELD: Wildcat

COUNTY/PARISH XXXXX Lea STATE New Mexico

DATE OF SURVEY 4-30-69 JOB NO. SU-3-6654
MS-6655

OFFICE: Odessa, Texas 915 563-1106

STATE OF TEXAS
COUNTY/~~PARISH~~ OF ECTOR

I/~~XXX~~ Carl Kisinger, Jr.

_____, in the employ of the Directional Surveying Department of
Sperry-Sun Well Surveying Company, did on the 30th day of April 1969
and the _____ day of _____ 19____
and the _____ day of _____ 19____
and the _____ day of _____ 19____

respectively conduct or supervise the taking of a Multi-shot/~~Single Shot~~ Directional survey by method in-
dicated:

from a depth of Zero feet to 4650 feet by Gyroscopic/~~Magnetic~~/Oriented Survey
depth of 4650 feet to 10649 feet by Gyroscopic/~~Magnetic~~/Oriented Survey
depth of _____ feet to _____ feet by Gyroscopic/Magnetic/Oriented Survey
depth of _____ feet to _____ feet by Gyroscopic/Magnetic/Oriented Survey

with records of inclination and direction of inclination being taken at approximately every 100 feet.

This survey was conducted at the request of Union Oil Company of California

for their Owens Well No. 1
1980' FNL & 1980' FEL; Sec. 34;
T-14-S; R-35-E Survey, Lea County/~~Parish~~,
State of New Mexico, in the Wildcat Field.

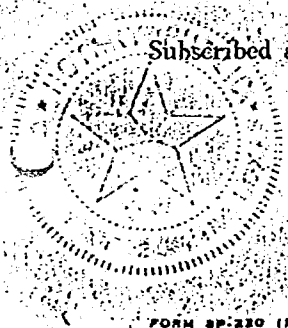
I/~~XXX~~ certify that this is a true and correct report of such survey and that it affords a true and correct repre-
sentation of our findings as to the nature and conditions of the well at the time the ~~survey was~~ surveys were
made.

Carl Kisinger, Jr.

STATE OF TEXAS
COUNTY/~~PARISH~~ OF ECTOR

Before me the undersigned authority/~~authorities~~ on this day personally appeared Carl Kisinger, Jr.,
known to me to be the person/~~persons~~ whose name is/names are subscribed to this instrument, who after being
by me duly sworn on oath, states that he has/~~they have~~ knowledge of all the facts stated above and that the same
is a true and correct statement of the facts therein recited.

Subscribed and sworn to before me this the 1st day of May 1969.



Annie Mae Hill
ANNIE MAE HILL
Notary Public in and for Ector County, Texas

UNION OIL COMPANY OF CALIFORNIA MIDLAND TEXAS
OWENS LEASE WELL NO. 1
WILDCAT
LEA COUNTY NEW MEXICO
SLINHOLE GYROSCOPIC AND MAGNETIC MULTISHOTS

PAGE 1
DATE OF SURVEY APRIL 30, 1969
VERTICAL SECTION COMPUTED ALONG CLOSURE
SU-3-6654, MS-6655

SPERRY-SUN WELL SURVEYING COMPANY
RECORD OF SURVEY

MEASURED DEPTH	TRUE VERTICAL DEPTH	INCLINATION		DIRECTION	DOG-LEG SEVERITY DEG/100	VERTICAL SECTION	RECTANGULAR COORDINATES			
		DEG	MIN				DEG	NORTH	SOUTH	EAST
0	-0.00	ZERO AT ROTARY					-0.00		-0.00	
100	100.00	0	15	N 63	E	.25	.31	.20	.39	
200	200.00	0	30	N 47	E	.27	.75	.79	1.03	
300	299.99	0	45	N 55	E	.26	1.56	1.54	2.10	
400	399.98	0	45	N 62	E	.09	2.48	2.16	3.25	
500	499.97	0	45	N 73	E	.14	3.57	2.54	4.51	
600	599.96	0	45	N 61	E	.16	4.48	3.18	5.65	
700	699.95	0	45	N 69	E	.10	5.51	3.64	6.87	
800	799.95	0	30	N 63	E	.26	6.14	4.04	7.65	
900	899.95	0	15	N 50	E	.26	6.38	4.32	7.99	
1000	999.95	0	15	N 32	E	.08	6.49	4.69	8.22	
1100	1099.95	0	15	N 32	E	0.00	6.61	5.06	8.45	
1200	1199.94	0	15	N 57	E	.11	6.89	5.30	8.81	
1300	1299.94	0	15	N 74	E	.07	7.25	5.42	9.23	
1400	1399.94	0	30	N 63	E	.25	7.93	5.75	10.04	
1500	1499.94	0	30	N 65	E	.02	8.59	6.10	10.84	
1600	1599.93	0	45	N 62	E	.25	9.52	6.72	12.00	
1700	1699.92	0	45	N 59	E	.04	10.40	7.39	13.12	
1800	1799.90	1	0	N 47	E	.31	11.27	8.58	14.39	
1900	1899.89	1	0	N 54	E	.12	12.32	9.61	15.81	
2000	1999.87	1	0	N 36	E	.31	12.89	11.02	16.83	

UNION OIL COMPANY OF CALIFORNIA MIDLAND TEXAS
OWENS LEASE WELL NO. 1
WILDCAT
LEA COUNTY NEW MEXICO
SLIHHOLE GYROSCOPIC AND MAGNETIC MULTISHOTS

PAGE 2
DATE OF SURVEY APRIL 30, 1969
VERTICAL SECTION COMPUTED ALONG CLOSURE

SU-3-6654, MS-6655

SPERRY-SUN WELL SURVEYING COMPANY
RECORD OF SURVEY

MEASURED DEPTH	TRUE VERTICAL DEPTH	INCLINATION		DIRECTION	DOG-LEG SEVERITY DEG/100	VERTICAL SECTION	RECTANGULAR COORDINATES			
		DEG	MIN				NORTH	SOUTH	EAST	WEST
2100	2099.86	0	45	N 39 E	.25	13.38	12.04		17.66	
2200	2199.84	1	15	N 46 E	.51	14.44	13.55		19.22	
2300	2299.81	1	30	N 23 E	.60	14.72	15.96		20.25	
2400	2399.80	0	45	N 68 E	1.11	15.74	16.45		21.46	
2500	2499.78	1	0	N 35 E	.55	16.28	17.88		22.46	
2600	2599.77	1	0	N 48 E	.23	17.18	19.05		23.76	
2700	2699.73	1	30	S 84 E	1.11	19.75	18.77		26.36	
2800	2799.70	1	30	N 64 E	.83	21.67	19.92		28.71	
2900	2899.66	1	30	S 66 E	1.27	24.26	18.86		31.11	
3000	2999.62	1	45	N 88 E	.77	27.15	18.96		34.16	
3100	3099.58	1	30	N 79 E	.36	29.46	19.46		36.73	
3200	3199.57	1	0	S 90 E	.55	31.13	19.46		38.47	
3300	3299.55	1	0	N 64 E	.45	32.41	20.23		40.04	
3400	3399.54	0	45	N 49 E	.34	33.11	21.09		41.03	
3500	3499.52	1	15	N 62 E	.35	34.65	22.11		42.96	
3600	3599.50	1	15	S 68 E	1.66	36.32	21.29		44.98	
3700	3699.49	0	30	N 45 E	1.14	37.25	21.90		45.61	
3800	3799.49	0	30	N 37 E	.08	37.55	22.60		46.13	
3900	3899.49	0	15	N 57 E	.28	37.83	22.83		46.50	
4000	3999.49	0	15	N 87 E	.13	38.24	22.86		46.93	
4100	4099.49	0	15	S 85 E	.03	38.66	22.82		47.37	

UNION OIL COMPANY OF CALIFORNIA MIDLAND TEXAS
OWENS LEASE WELL NO. 1
WILDCAT
LEA COUNTY NEW MEXICO
SLIMHOLE GYROSCOPIC AND MAGNETIC MULTISHOTS

PAGE 3
DATE OF SURVEY APRIL 30, 1969
VERTICAL SECTION COMPUTED ALONG CLOSURE
SU-3-6654 MS-6655

SPEERRY-SUN WELL SURVEYING COMPANY
RECORD OF SURVEY

MEASURED DEPTH	TRUE VERTICAL DEPTH	INCLINATION		DIRECTION	DOG-LEG SEVERITY DEG/100	VERTICAL SECTION	RECTANGULAR COORDINATES			
		DEG	MIN				NORTH	SOUTH	EAST	WEST
4200	4199.48	0	30	S 63 E	.28	39.52	22.42		48.15	
4300	4299.48	0	30	S 76 E	.11	40.40	22.21		48.99	
4400	4399.48	0	15	S 42 E	.32	40.77	21.89		49.28	
4500	4499.48	0	15	S 19 E	.10	41.03	21.48		49.43	
4600	4599.48	0	0	N 0 E	.25	41.03	21.48		49.43	
4650	4649.48	0	0	N 0 E	0.00	41.03	21.48		49.43	
4700	4699.48	0	30	N 66 E	1.00	41.35	21.65		49.82	
4800	4799.47	0	30	S 0 W	.84	41.61	20.78		49.82	
4900	4899.47	0	30	S 43 E	.37	42.36	20.14		50.42	
5000	4999.46	0	30	S 81 E	.33	43.23	20.01		51.28	
5100	5099.46	0	45	S 51 E	.40	44.44	19.18		52.30	
5200	5199.45	0	45	N 0 E	1.35	44.06	20.49		52.30	
5300	5299.44	0	30	N 57 W	.64	43.22	20.97		51.57	
5400	5399.43	1	0	N 1 W	.83	42.68	22.71		51.54	
5500	5499.43	0	15	N 21 E	.77	42.72	23.12		51.69	
5600	5599.42	0	30	N 26 E	.25	42.85	23.90		52.08	
5700	5699.41	1	0	N 5 E	.56	42.49	25.64		52.23	
5800	5799.36	1	45	N 29 E	.93	43.13	28.31		53.71	
5900	5899.30	2	0	N 43 E	.52	44.66	30.36		56.09	
6000	5999.29	0	45	N 76 E	1.43	45.79	31.18		57.36	
6100	6099.29	0	30	N 8 W	.86	45.42	32.05		57.24	

UNION OIL COMPANY OF CALIFORNIA MIDLAND TEXAS
 OWENS LEASE WELL NO. 1
 WILDCAT
 LEA COUNTY NEW MEXICO
 SLIMHOLE GYROSCOPIC AND MAGNETIC MULTISHOTS

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 DATE OF SURVEY APRIL 30, 1969
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SU-3-6654, MS-6655

SPERRY-SUN WELL SURVEYING COMPANY
 RECORD OF SURVEY

MEASURED DEPTH	TRUE VERTICAL DEPTH	INCLINATION		DIRECTION	DOG-LEG SEVERITY DEG/100	VERTICAL SECTION	RECTANGULAR COORDINATES			
		DEG	MIN				NORTH	SOUTH	EAST	WEST
6200	6199.26	1	15	N 36 E	.96	46.13	33.81		58.52	
6300	6299.26	0	30	N 1 W	.90	45.86	34.68		58.50	
6400	6399.24	1	15	N 56 E	1.06	47.24	35.90		60.31	
6500	6499.24	0	0	N 0 E	1.25	47.24	35.90		60.31	
6600	6599.23	0	45	S 78 E	.75	48.54	35.63		61.59	
6700	6699.22	0	30	N 1 E	.98	48.30	36.50		61.61	
6800	6799.22	0	30	N 36 E	.30	48.59	37.21		62.12	
6900	6899.22	0	30	N 11 E	.22	48.50	38.07		62.29	
7000	6999.20	1	0	N 56 E	1.00	50.13	38.19		64.03	
7100	7099.19	0	45	S 60 E	.56	51.40	37.53		65.16	
7200	7199.18	1	0	S 66 E	.27	53.13	36.82		66.76	
7300	7299.16	1	0	S 68 E	.03	54.87	36.17		68.37	
7400	7399.15	0	45	S 81 E	.32	56.17	35.96		69.67	
7500	7499.15	0	30	N 44 E	.02	56.56	36.59		70.27	
7600	7599.15	0	0	N 0 E	.50	56.56	36.59		70.27	
7700	7699.13	1	0	N 59 E	1.00	57.73	37.49		71.77	
7800	7799.12	1	0	N 79 E	.35	59.28	37.34		73.48	
7900	7899.11	0	45	S 67 E	.56	60.58	37.31		74.69	
8000	7999.10	0	45	N 69 E	.56	61.61	37.78		75.91	
8100	8099.09	1	0	N 76 E	.27	63.11	38.20		77.60	
8200	8199.05	0	45	S 64 E	.54	64.40	37.63		78.76	

UNION OIL COMPANY OF CALIFORNIA MIDLAND TEXAS
OWENS LEASE WELL NO. 1
WILDCAT
LEA COUNTY NEW MEXICO
SLIMHOLE GYROSCOPIC AND MAGNETIC MULTISHOTS

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DATE OF SURVEY APRIL 30, 1969
VERTICAL SECTION COMPUTED ALONG CLOSURE

SU-3-6654, MS-6655

SPERRY-SUN WELL SURVEYING COMPANY
RECORD OF SURVEY

MEASURED DEPTH	TRUE VERTICAL DEPTH	INCLINATION		DIRECTION DEG	DOG-LEG SEVERITY DEG/100	VERTICAL SECTION	RECTANGULAR COORDINATES			
		DEG	MIN				NORTH	SOUTH	EAST	WEST
8300	8299.04	1	30	S 66 E	.75	67.00	36.57		81.17	
8400	8399.00	1	45	S 77 E	.40	70.04	35.88		84.15	
8500	8498.95	1	45	N 75 E	.85	72.63	36.67		87.10	
8600	8598.92	1	30	N 70 E	.29	74.73	37.56		89.56	
8700	8698.88	1	30	N 66 E	.10	76.70	38.63		91.95	
8800	8798.85	1	30	N 72 E	.16	78.85	39.44		94.44	
8900	8898.80	1	45	N 78 E	.30	81.52	40.07		97.42	
9000	8998.11	6	45	S 52 E	5.78	92.49	32.34		106.69	
9100	9097.14	8	0	S 51 E	1.26	105.39	24.08		117.50	
9200	9196.04	8	30	S 53 E	.58	119.27	15.18		129.31	
9300	9294.74	9	15	S 57 E	.97	134.72	6.43		142.79	
9400	9393.22	10	0	S 58 E	.77	151.49		2.77	157.51	
9500	9491.30	11	15	S 60 E	1.30	170.49		12.53	174.41	
9600	9588.73	13	0	S 59 E	1.76	192.31		24.11	193.69	
9700	9685.66	14	15	S 59 E	1.25	216.19		36.79	214.79	
9800	9782.25	15	0	S 62 E	1.07	241.59		48.94	237.64	
9900	9875.37	16	0	S 64 E	1.13	266.81		61.03	252.42	
10000	9974.01	17	0	S 67 E	1.31	297.89		72.45	289.33	
10100	10069.11	18	0	S 67 E	1.00	328.62		84.52	317.78	
10200	10163.66	19	0	S 69 E	1.18	361.09		96.19	348.17	
10300	10258.63	13	15	S 68 E	.82	392.28		107.92	377.21	

UNION OIL COMPANY OF CALIFORNIA MIDLAND TEXAS
 OPEN'S LEASE WELL NO. 1
 WILDCAT
 LEA COUNTY NEW MEXICO
 SLITHOLE GYROSCOPIC AND MAGNETIC MULTISHOTS

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 DATE OF SURVEY APRIL 30, 1969
 VERTICAL SECTION COMPUTED ALONG CLOSURE

SU-3-6654, MS-6655

SPERRY-SUN WELL SURVEYING COMPANY
 RECORD OF SURVEY

MEASURED DEPTH	TRUE VERTICAL DEPTH	INCLINATION		DIRECTION	JOB-LEG SEVERITY DEG/100	VERTICAL SECTION	RECTANGULAR COORDINATES			
		DEG	MIN				NORTH	SOUTH	EAST	WEST
10400	10353.87	17	45	S 69 E	.59	422.69		118.85	405.67	
10500	10449.37	17	15	S 69 E	.50	452.27		129.48	433.35	
10600	10544.75	17	30	S 70 E	.39	432.30		139.76	461.61	
10649	10591.48	17	30	S 70 E	0.00	497.02		144.80	475.45	

THE CALCULATION PROCEDURES ARE BASED ON THE USE OF THE TANGENTIAL OR CHORD METHOD

HORIZONTAL DISPLACEMENT = 497.02 FEET AT SOUTH 73 DEG. 3 MIN. EAST (TRUE)

NO. OF COPIES RECEIVED	
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FILE	
U.S.G.S.	
LAND OFFICE	
OPERATOR	

**NEW MEXICO OIL CONSERVATION COMMISSION
WELL COMPLETION OR RECOMPLETION REPORT AND LOG**

Form C-105
Revised 1-1-65

5a. Indicate Type of Lease
State ☐ Fee ☒
5. State Oil & Gas Lease No.

1a. TYPE OF WELL OIL WELL ☒ GAS WELL ☐ DRY ☐ OTHER ☐		7. Unit Agreement Name	
b. TYPE OF COMPLETION NEW WELL ☒ WORK OVER ☐ DEEPEN ☐ PLUG BACK ☐ DIFF. RESVR. ☐ OTHER ☐		8. Farm or Lease Name <i>OWENS</i>	
2. Name of Operator <i>Union Oil Company of California</i>		9. Well No.	
3. Address of Operator <i>P.O. Box 671, Midland, Texas 79701</i>		10. Field and Pool, or Wildcat <i>WILDCAT</i>	
4. Location of Well UNIT LETTER <i>G</i> LOCATED <i>1980</i> FEET FROM THE <i>NORTH</i> LINE AND <i>1980</i> FEET FROM THE <i>EAST</i> LINE OF SEC. <i>34</i> TWP. <i>14-S</i> RGE. <i>35-E</i> NMPM		12. County <i>LEA</i>	
15. Date Spudded <i>3-3-69</i>	16. Date T.D. Reached <i>4-28-69</i>	17. Date Compl. (Ready to Prod.) <i>5-5-69</i>	18. Elevations (DF, RKB, RT, GR, etc.) <i>4001' GR</i>
19. Elev. Casinghead <i>4001'</i>	20. Total Depth <i>10,649'</i>		
21. Plug Back T.D.		22. If Multiple Compl., How Many	23. Intervals Drilled By <i>0' To T.D.</i>
24. Producing Interval(s), of this completion - Top, Bottom, Name <i>10,630' - 10,649' Lower Wolfcamp</i>			25. Was Directional Survey Made <i>YES</i>
26. Type Electric and Other Logs Run <i>Gamma Ray Neutron, Induction Electric</i>			27. Was Well Cored <i>NO</i>
28. CASING RECORD (Report all strings set in well)			
CASING SIZE	WEIGHT LB./FT.	DEPTH SET	HOLE SIZE
<i>11 3/4"</i>	<i>42#</i>	<i>400'</i>	<i>15"</i>
<i>8 5/8"</i>	<i>32# 24#</i>	<i>4650'</i>	<i>11"</i>
<i>5 1/2"</i>	<i>17# 15.5#</i>	<i>10639.5'</i>	<i>7 7/8"</i>
CEMENTING RECORD		AMOUNT PULLED	
<i>250 SACS</i>		<i>NONE</i>	
<i>400 SACS</i>		<i>NONE</i>	
<i>250 SACS</i>		<i>NONE</i>	
29. LINER RECORD			
SIZE	TOP	BOTTOM	SACKS CEMENT
<i>NONE</i>			
30. TUBING RECORD			
SIZE	DEPTH SET	PACKER SET	
<i>2 3/8"</i>	<i>10500</i>	<i>10644</i>	
31. Perforation Record (Interval, size and number)			
<i>Open hole 10630' - 10649'</i>			
32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.			
DEPTH INTERVAL		AMOUNT AND KIND MATERIAL USED	
		<i>Natural</i>	
33. PRODUCTION			
Date First Production <i>5-5-69</i>	Production Method (Flowing, gas lift, pumping - Size and type pump) <i>Flow</i>		Well Status (Prod. or Shut-in) <i>Prod</i>
Date of Test <i>5-5-69</i>	Hours Tested <i>24</i>	Choke Size <i>1/2"</i>	Prod'n. For Test Period <i>452</i>
Flow Tubing Press. <i>100#</i>	Casing Pressure <i>PRX</i>	Calculated 24-Hour Rate <i>452</i>	Oil - Bbl. <i>452</i>
Gas - MCF <i>461</i>		Water - Bbl. <i>0</i>	Gas - Oil Ratio <i>1020/1</i>
Oil Gravity - API (Corr.) <i>43.0</i>		34. Disposition of Gas (Sold, used for fuel, vented, etc.) <i>Vented</i>	
Test Witnessed By <i>J. L. White</i>		35. List of Attachments	
35. I hereby certify that the information shown on both sides of this form is true and complete to the best of my knowledge and belief.			
SIGNED _____		TITLE _____	
DATE _____		DATE _____	

INSTRUCTIONS

This form is to be filed with the appropriate District Office of the Commission not later than 20 days after the completion of any newly-drilled or deepened well. It shall be accompanied by one copy of all electrical and radio-activity logs run on the well and a summary of all special tests conducted, including drill stem tests. All depths reported shall be measured depths. In the case of directionally drilled wells, true vertical depths shall also be reported. For multiple completions, Items 30 through 34 shall be reported for each zone. The form is to be filed in quadruplicate except on state land, where six copies are required. See Rule 1105.

INDICATE FORMATION TOPS IN CONFORMANCE WITH GEOGRAPHICAL SECTION OF STATE

Southeastern New Mexico

T. Anhy 1954
T. Salt 2062
B. Salt 3000
T. Yates 3053
T. 7 Rivers
T. Queen 3840
T. Grayburg
T. San Andres 4575
T. Glorieta 6136
T. Paddock
T. Blinberry
T. Tubb 7414
T. Drinkard
T. Abo 8185
T. Wolfcamp 9771
T. Penn.
T. Cisco (Bough C) 11024

Northwestern New Mexico

T. Canyon
T. Strawn
T. Atoka
T. Miss
T. Devonian
T. Silurian
T. Montoya
T. Simpson
T. McKee
T. Ellenburger
T. Gr. Wash
T. Granite
T. Delaware Sand
T. Bone Springs
T. Ojo Alamo
T. Kirtland-Fruitland
T. Pictured Cliffs
T. Cliff House
T. Menefee
T. Point Lookout
T. Mancos
T. Gallup
Base Greenhorn
T. Dakota
T. Morrison
T. Todilto
T. Entrada
T. Wingate
T. Chinle
T. Permian
T. Penn. "A"
T. Penn. "B"
T. Penn. "C"
T. Penn. "D"
T. Leadville
T. Madison
T. Elbert
T. McCracken
T. Ignacio Qtzite
T. Granite

FORMATION RECORD (Attach additional sheets if necessary)

From	To	Thickness in Feet	Formation	From	To	Thickness in Feet	Formation
0	400		LIME	9714	10581	25	Y sh
400	1954		Red beds	10581	10610	29	LS
1954	2062		Anhydrite	10610	10660	50	LS & Dol.
2062	3000		SALT	10660	10850	190	LS
3000	3053		Anhydrites	10850	11040	190	LS v sh
3053	3110		Sandstone	11040	11110	70	LS v sh
3110	3840		Anhydrites & ss	11110	11170	60	LS v sh
3840	3900		Sandstone	11170	11190	20	LS & Dol
3900	4576		Anhyd. ss & Dol				
4576	5800		Dolomite				
5800	6135		LS & Dol				
6135	6200		Sandstone				
6200	7414		Dol & Anhyd.				
7414	7540		SS & Dol				
7540	8185		Dol & Anhyd.				
8185	9771		Dol & Shale				

DISTRIBUTION	
SANTA FE	
FILE	
U.S.G.S.	
LAND OFFICE	
TRANSPORTER	OIL
	GAS
OPERATOR	
PROBATION OFFICE	

NEW MEXICO OIL CONSERVATION COMMISSION
REQUEST FOR ALLOWABLE
AND
AUTHORIZATION TO TRANSPORT OIL AND NATURAL GAS

Form C-104
Supersedes Old C-104 and C-110
Effective 1-1-65

I. OPERATOR
Operator Union Oil Co of Calif
Address Box 671 Midland Texas 79701
Reason(s) for filing (Check proper box)
New Well ☒ Change in Transporter of:
Recompletion ☐ Oil ☐ Dry Gas ☐
Change in Ownership ☐ Casinghead Gas ☐ Condensate ☐

If change of ownership give name
and address of previous owner _____

II. DESCRIPTION OF WELL AND LEASE

Lease Name <u>OWENS</u>	Well No. <u>1</u>	Pool Name, including Formation <u>Undesignated Wolfcamp</u>	Kind of Lease State, Federal or Fee <u>Fee</u>	Lease No.
Location <u>(2124)</u> <u>(1504)</u>				
Unit Letter <u>F</u>	: <u>1980</u>	Feet From The <u>N</u> Line and <u>1980</u>	Feet From The <u>E</u>	
Line of Section <u>34</u>	Township <u>14S</u>	Range <u>35E</u>	NMPM	County <u>Lea</u>

III. DESIGNATION OF TRANSPORTER OF OIL AND NATURAL GAS

Name of Authorized Transporter of Oil ☐ or Condensate ☐	Address (Give address to which approved copy of this form is to be sent)	
<u>Admiral Crude Oil</u>	<u>Midland Tex</u>	
Name of Authorized Transporter of Casinghead Gas ☐ or Dry Gas ☐	Address (Give address to which approved copy of this form is to be sent)	
If well produces oil or liquids, give location of tanks.	Unit	Sec. Twp. Rge.
	Is gas actually connected?	When
	<u>NO</u>	

If this production is commingled with that from any other lease or pool, give commingling order number: _____

IV. COMPLETION DATA

Designate Type of Completion - (X)	Oil Well ☒	Gas Well ☐	New Well ☐	Workover ☐	Deepen ☐	Plug Back ☐	Same Res'v. ☐	Diff. Res'v. ☐
Date Spudded <u>3-3-69</u>	Date Compl. Ready to Prod. <u>5- - - 69</u>		Total Depth <u>10649</u>		P.B.T.D. <u>10649</u>			
Elevations (DF, RKB, RT, GR, etc.) <u>4001</u>	Name of Producing Formation <u>Wolfcamp</u>		Top Oil/Gas Pay <u>10,620'</u>		Tubing Depth			
Perforations <u>Open Hole 10630 - 10649</u>					Depth Casing Shoe <u>10,630'</u>			
TUBING, CASING, AND CEMENTING RECORD								
HOLE SIZE	CASING & TUBING SIZE		DEPTH SET		SACKS CEMENT			
<u>15"</u>	<u>11 3/4</u>		<u>400</u>		<u>250</u>			
<u>11"</u>	<u>8 5/8</u>		<u>4050</u>		<u>400</u>			
<u>7 1/2"</u>	<u>5 1/2</u>		<u>10630</u>		<u>250</u>			

V. TEST DATA AND REQUEST FOR ALLOWABLE OIL WELL

(Test must be after recovery of total volume of load oil and must be equal to or exceed top allowable for this depth or be for full 24 hours)

Date First New Oil Run To Tanks	Date of Test	Producing Method (Flow, pump, gas lift, etc.)	
Length of Test	Tubing Pressure	Casing Pressure	Choke Size
Actual Prod. During Test	Oil - Bbls.	Water - Bbls.	Gas - MCF

GAS WELL

Actual Prod. Test-MCF/D	Length of Test	Bbls. Condensate/MMCF	Gravity of Condensate
Testing Method (pilot, back pr.)	Tubing Pressure (Shut-in)	Casing Pressure (Shut-in)	Choke Size

VI. CERTIFICATE OF COMPLIANCE

I hereby certify that the rules and regulations of the Oil Conservation Commission have been complied with and that the information given above is true and complete to the best of my knowledge and belief.

(Signature)

(Title)

(Date)

OIL CONSERVATION COMMISSION

APPROVED _____, 19 _____

BY _____

TITLE _____

This form is to be filed in compliance with RULE 1104.

If this is a request for allowable for a newly drilled or deepened well, this form must be accompanied by a tabulation of the deviation tests taken on the well in accordance with RULE 111.

All sections of this form must be filled out completely for allowable on new and recompleted wells.

Fill out only Sections I, II, III, and VI for changes of owner, well name or number, or transporter or other such change of condition.

Separate Forms C-104 must be filed for each pool in multiply completed wells.

BEFORE EXAMINER NUTTER
OIL CONSERVATION COMMISSION
APPA EXHIBIT NO. 2
CASE NO. 4119

SPERRY-SUN

DIRECTIONAL SURVEY REPORT

FOR

UNION OIL COMPANY OF CALIFORNIA



TYPE OF SURVEY: Gyroscopic and Magnetic Multishots

SURVEY DEPTH: FROM Zero FT. TO 1061.9 FT.

LEASE: Owens WELL NO. 1

FIELD: Wildcat

COUNTY/PARISH: YVYV Lea STATE: New Mexico

DATE OF SURVEY: 11-30-69 JOB NO. SU-3-6651 MS-6655

OFFICE: Odessa, Texas 915 563-1106

STATE OF TEXAS
COUNTY/PARISH OF ECTOR

I/~~XX~~ Carl Kisinger, Jr.

in the employ of the Directional Surveying Department of
Sperry-Sun Well Surveying Company, did on the 30th day of April 1969
and the _____ day of _____ 19____
and the _____ day of _____ 19____
and the _____ day of _____ 19____

respectively conduct or supervise the taking of a Multi-shot/~~SSG~~ Directional survey by method in-
dicated:

from a depth of Zero feet to 4650 feet by Gyroscopic/~~Magnetic~~/~~Oriented~~ Survey
depth of 4650 feet to 10649 feet by Gyroscopic/~~Magnetic~~/~~Oriented~~ Survey
depth of _____ feet to _____ feet by Gyroscopic/Magnetic/Oriented Survey
depth of _____ feet to _____ feet by Gyroscopic/Magnetic/Oriented Survey

with records of inclination and direction of inclination being taken at approximately every 100 feet.

This survey was conducted at the request of Union Oil Company of California,

for their Owens Well No. 1

1980' FNL & 1980' FEL; Sec. 34;

T-14-S; R-35-E Survey, Lea County/Parish,

State of New Mexico, in the Wildcat Field.

I/~~XX~~ certify that this is a true and correct report of such survey and that it affords a true and correct repre-
sentation of our findings as to the nature and conditions of the well at the time the survey/surveys were
made.

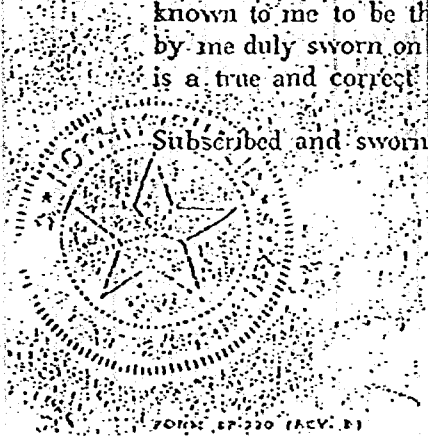
Carl Kisinger, Jr.

STATE OF TEXAS
COUNTY/PARISH OF ECTOR

Before me the undersigned authority/~~authorities~~ on this day personally appeared Carl Kisinger, Jr.,

known to me to be the person/~~persons~~ whose name is/names are subscribed to this instrument, who after being
by me duly sworn on oath, states that he has/~~they have~~ knowledge of all the facts stated above and that the same
is a true and correct statement of the facts therein recited.

Subscribed and sworn to before me this the 1st day of May 1969.



Annie Mae Hill
ANNIE MAE HILL
Notary Public in and for El Paso County, Texas

UNION OIL COMPANY OF CALIFORNIA MIDLAND TEXAS
OWENS LEASE WELL NO. 1
WILDCAT
LEA COUNTY NEW MEXICO
SLIMHOLE GYROSCOPIC AND MAGNETIC MULTISHOTS

PAGE 1
DATE OF SURVEY APRIL 30, 1969
VERTICAL SECTION COMPUTED ALONG CLOSURE

SU-3-6654, MS-6655

SPERRY-SUN WELL SURVEYING COMPANY
RECORD OF SURVEY

MEASURED DEPTH	TRUE VERTICAL DEPTH	INCLINATION		DIRECTION	DOG-LEG SEVERITY DEG/100	VERTICAL SECTION	RECTANGULAR COORDINATES			
		DEG	MIN				DEG	NORTH	SOUTH	EAST
0	-0.00	ZERO AT ROTARY					-0.00		-0.00	
100	100.00	0	15	N 63 E	.25	.31	.20		.39	
200	200.00	0	30	N 47 E	.27	.75	.79		1.03	
300	299.99	0	45	N 55 E	.26	1.56	1.54		2.10	
400	399.98	0	45	N 62 E	.09	2.48	2.16		3.25	
500	499.97	0	45	N 73 E	.14	3.57	2.54		4.51	
600	599.96	0	45	N 61 E	.16	4.48	3.18		5.65	
700	699.95	0	45	N 69 E	.10	5.51	3.64		6.87	
800	799.95	0	30	N 63 E	.26	6.14	4.04		7.65	
900	899.95	0	15	N 50 E	.26	6.38	4.32		7.99	
1000	999.95	0	15	N 32 E	.08	6.49	4.69		8.22	
1100	1099.95	0	15	N 32 E	0.00	6.61	5.06		8.45	
1200	1199.94	0	15	N 57 E	.11	6.89	5.30		8.81	
1300	1299.94	0	15	N 74 E	.07	7.25	5.42		9.23	
1400	1399.94	0	30	N 68 E	.25	7.93	5.75		10.04	
1500	1499.94	0	30	N 60 E	.02	8.59	6.10		10.84	
1600	1599.93	0	45	N 62 E	.25	9.52	6.72		12.00	
1700	1699.92	0	45	N 59 E	.04	10.40	7.39		13.12	
1800	1799.90	1	0	N 47 E	.31	11.27	8.58		14.39	
1900	1899.89	1	0	N 54 E	.12	12.32	9.61		15.81	
2000	1999.87	1	0	N 36 E	.31	12.89	11.02		16.83	

UNION OIL COMPANY OF CALIFORNIA MIDLAND TEXAS
OWENS LEASE WELL NO. 1
WILDCAT
LEA COUNTY NEW MEXICO
SLIMHOLE GYROSCOPIC AND MAGNETIC MULTISHOTS

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SPERRY-SUN WELL SURVEYING COMPANY.
RECORD OF SURVEY

MEASURED DEPTH	TRUE VERTICAL DEPTH	INCLINATION		DIRECTION		DOG-LEG SEVERITY DEG/100	VERTICAL SECTION	RECTANGULAR COORDINATES			
		DEG	MIN	DEG				NORTH	SOUTH	EAST	WEST
2100	2099.86	0	45	N 39	E	.25	13.38	12.04		17.66	
2200	2199.84	1	15	N 46	E	.51	14.44	13.55		19.22	
2300	2299.81	1	30	N 23	E	.60	14.72	15.96		20.25	
2400	2399.80	0	45	N 68	E	1.11	15.74	16.45		21.46	
2500	2499.78	1	0	N 35	E	.55	16.28	17.88		22.46	
2600	2599.77	1	0	N 48	E	.23	17.18	19.05		23.76	
2700	2699.73	1	30	S 84	E	1.11	19.75	18.77		26.36	
2800	2799.70	1	30	N 64	E	.83	21.67	19.92		28.71	
2900	2899.66	1	30	S 66	E	1.27	24.26	18.86		31.11	
3000	2999.62	1	45	N 88	E	.77	27.15	18.96		34.16	
3100	3099.58	1	30	N 79	E	.36	29.46	19.46		36.73	
3200	3199.57	1	0	S 90	E	.55	31.13	19.46		38.47	
3300	3299.55	1	0	N 64	E	.45	32.41	20.23		40.04	
3400	3399.54	0	45	N 49	E	.34	33.11	21.09		41.03	
3500	3499.52	1	15	N 62	E	.55	34.65	22.11		42.96	
3600	3599.50	1	15	S 68	E	1.06	36.82	21.29		44.98	
3700	3699.49	0	30	N 46	E	1.14	37.25	21.90		45.61	
3800	3799.49	0	30	N 37	E	.08	37.55	22.60		46.13	
3900	3899.49	0	15	N 57	E	.28	37.83	22.83		46.50	
4000	3999.49	0	15	N 87	E	.13	38.24	22.86		46.93	
4100	4099.49	0	15	S 85	E	.03	38.06	22.82		47.37	

UNION OIL COMPANY OF CALIFORNIA MIDLAND TEXAS
 OWENS LEASE WELL NO. 1
 WILDCAT
 LEA COUNTY NEW MEXICO
 SLIMHOLE GYROSCOPIC AND MAGNETIC MULTISHOTS

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SPERRY-SUN WELL SURVEYING COMPANY
 RECORD OF SURVEY

MEASURED DEPTH	TRUE VERTICAL DEPTH	INCLINATION		DIRECTION	DOG-LEG SEVERITY DEG/100	VERTICAL SECTION	RECTANGULAR COORDINATES			
		DEG	MIN				NORTH	SOUTH	EAST	WEST
4200	4199.48	0	30	S 63 E	.28	39.52	22.42		48.15	
4300	4299.48	0	30	S 76 E	.11	40.40	22.21		48.99	
4400	4399.48	0	15	S 42 E	.32	40.77	21.89		49.28	
4500	4499.48	0	15	S 19 E	.10	41.03	21.48		49.43	
4600	4599.48	0	0	N 0 E	.25	41.03	21.48		49.43	
4650	4649.48	0	0	N 0 E	0.00	41.03	21.48		49.43	
4700	4699.48	0	30	N 66 E	1.00	41.35	21.65		49.82	
4800	4799.47	0	30	S 0 W	.84	41.61	20.78		49.82	
4900	4899.47	0	30	S 43 E	.37	42.36	20.14		50.42	
5000	4999.46	0	30	S 81 E	.33	43.23	20.01		51.28	
5100	5099.46	0	45	S 51 E	.40	44.44	19.18		52.30	
5200	5199.45	0	45	N 0 E	1.35	44.06	20.49		52.30	
5300	5299.44	0	30	N 57 W	.64	43.22	20.97		51.57	
5400	5399.43	1	0	N 1 W	.83	42.68	22.71		51.54	
5500	5499.43	0	15	N 21 E	.77	42.72	23.12		51.69	
5600	5599.42	0	30	N 26 E	.25	42.85	23.90		52.08	
5700	5699.41	1	0	N 5 E	.56	42.49	25.64		52.23	
5800	5799.36	1	45	N 29 E	.93	43.13	28.31		53.71	
5900	5899.30	2	0	N 43 E	.52	44.66	30.86		56.09	
6000	5999.29	0	45	N 70 E	1.43	45.79	31.18		57.36	
6100	6099.29	0	30	N 8 W	.80	45.42	32.05		57.24	

UNION OIL COMPANY OF CALIFORNIA MIDLAND TEXAS
 OWENS LEASE WELL NO. 1
 #1 LOCAT
 LEA COUNTY NEW MEXICO
 SLIMHOLE GYROSCOPIC AND MAGNETIC MULTISHOTS

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SPERRY-SUN WELL SURVEYING COMPANY
 RECORD OF SURVEY

MEASURED DEPTH	TRUE VERTICAL DEPTH	INCLINATION		DIRECTION		DOG-LEG SEVERITY DEG/100	VERTICAL SECTION	RECTANGULAR COORDINATES			
		DEG	MIN.	DEG				NORTH	SOUTH	EAST	WEST
6200	6199.26	1	15	N 36 E		.96	46.13	33.81		58.52	
6300	6299.26	0	30	N 1 W		.90	45.86	34.68		58.50	
6400	6399.24	1	15	N 56 E		1.06	47.24	35.90		60.31	
6500	6499.24	0	0	N 0 E		1.25	47.24	35.90		60.31	
6600	6599.23	0	45	S 78 E		.75	48.54	35.63		61.59	
6700	6699.22	0	30	N 1 E		.96	48.30	36.50		61.61	
6800	6799.22	0	30	N 36 E		.30	48.59	37.21		62.12	
6900	6899.22	0	30	N 11 E		.22	48.50	38.07		62.29	
7000	6999.20	1	0	N 86 E		1.00	50.13	38.19		64.03	
7100	7099.19	0	45	S 60 E		.56	51.40	37.53		65.16	
7200	7199.18	1	0	S 66 E		.27	53.13	36.82		66.76	
7300	7299.16	1	0	S 68 E		.03	54.87	36.17		68.37	
7400	7399.15	0	45	S 81 E		.32	56.17	35.96		69.67	
7500	7499.15	0	30	N 44 E		.02	56.56	36.59		70.27	
7600	7599.15	0	0	N 0 E		.50	56.56	36.59		70.27	
7700	7699.13	1	0	N 59 E		1.00	57.73	37.49		71.77	
7800	7799.12	1	0	N 79 E		.35	59.28	37.62		73.48	
7900	7899.11	0	45	S 67 E		.56	60.58	37.31		74.69	
8000	7999.10	0	45	N 69 E		.56	61.61	37.78		75.91	
8100	8099.09	1	0	N 76 E		.27	63.11	38.20		77.60	
8200	8199.08	0	45	S 64 E		.64	64.40	37.63		78.78	

UNION OIL COMPANY OF CALIFORNIA MIDLAND TEXAS
OWENS LEASE WELL NO. 1
WILDCAT
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SPERRY-SUN WELL SURVEYING COMPANY
RECORD OF SURVEY

MEASURED DEPTH	TRUE VERTICAL DEPTH	INCLINATION		DIRECTION		DOG-LEG SEVERITY DEG/100	VERTICAL SECTION	RECTANGULAR COORDINATES			
		DEG	MIN	DEG				NORTH	SOUTH	EAST	WEST
8300	8299.04	1	30	S 66 E		.75	67.00	36.57		81.17	
8400	8399.00	1	45	S 77 E		.40	70.04	35.88		84.15	
8500	8498.95	1	45	N 75 E		.85	72.63	36.67		87.10	
8600	8598.92	1	30	N 70 E		.29	74.73	37.56		89.56	
8700	8698.88	1	30	N 66 E		.10	76.70	38.63		91.95	
8800	8798.85	1	30	N 72 E		.15	76.85	39.44		94.44	
8900	8898.80	1	45	N 78 E		.30	81.52	40.07		97.42	
9000	8998.11	6	45	S 52 E		5.78	92.49	32.34		106.69	
9100	9097.14	8	0	S 51 E		1.26	105.39	24.08		117.50	
9200	9196.04	8	30	S 53 E		.58	119.27	15.18		129.31	
9300	9294.74	9	15	S 57 E		.97	134.72	6.43		142.79	
9400	9393.22	10	0	S 58 E		.77	151.49		2.77	157.51	
9500	9491.30	11	15	S 60 E		1.30	170.49		12.53	174.41	
9600	9588.73	13	0	S 59 E		1.76	192.31		24.11	193.69	
9700	9685.06	14	15	S 59 E		1.25	216.19		36.79	214.79	
9800	9782.25	15	0	S 62 E		1.07	241.59		48.94	237.64	
9900	9878.37	16	0	S 64 E		1.13	266.81		61.03	262.42	
10000	9974.01	17	0	S 67 E		1.31	297.89		72.45	289.33	
10100	10069.11	18	0	S 67 E		1.00	326.62		84.52	317.76	
10200	10163.66	19	0	S 69 E		1.18	361.09		96.19	346.17	
10300	10258.63	13	15	S 68 E		.82	392.28		107.92	377.21	

UNION OIL COMPANY OF CALIFORNIA MIDLAND TEXAS
 OWENS LEASE WELL NO. 1
 WILDCAT
 LEA COUNTY NEW MEXICO
 SLIMHOLE GYROSCOPIC AND MAGNETIC MULTISHOTS

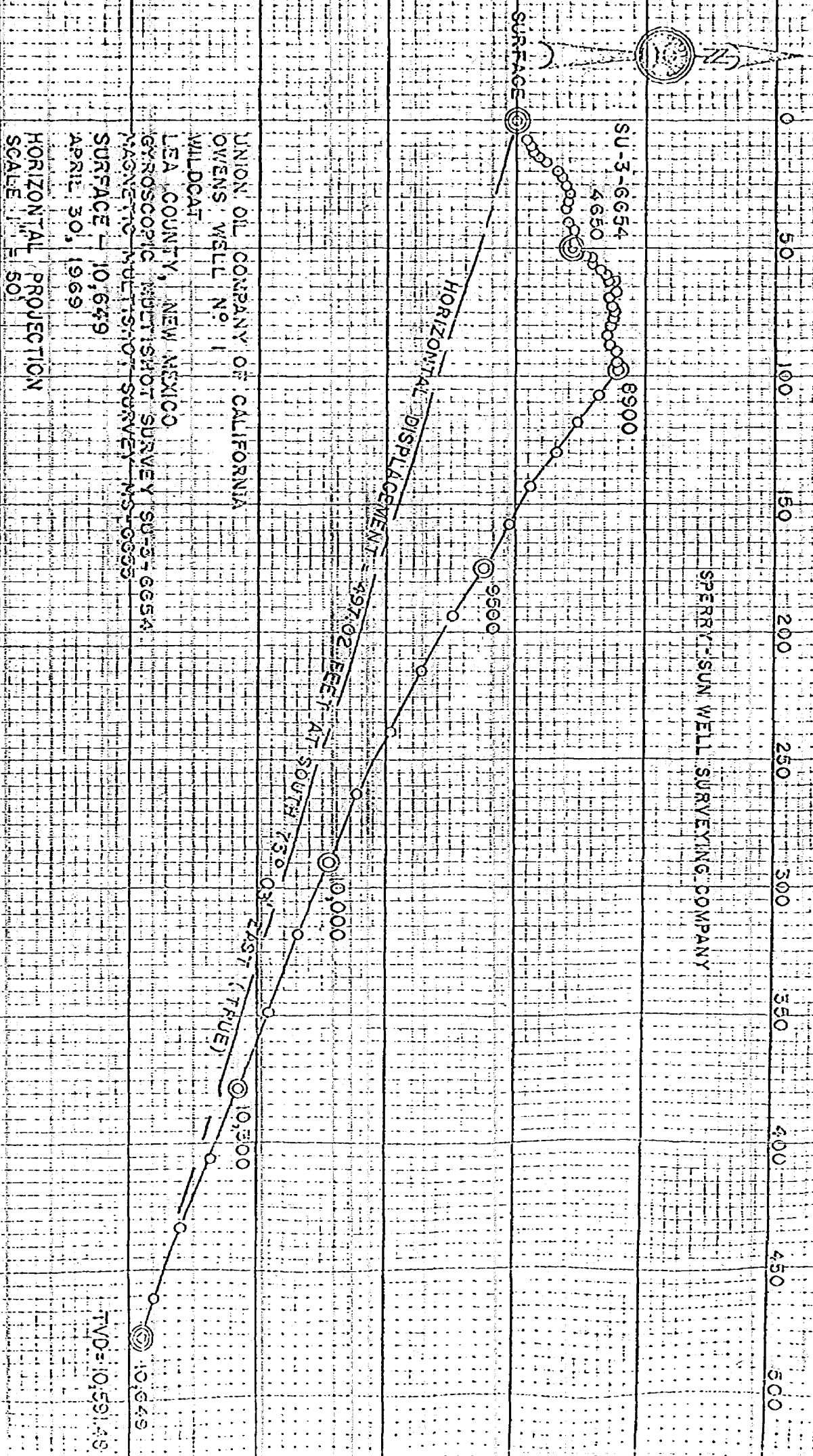
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SPERRY-SUN WELL SURVEYING COMPANY
 RECORD OF SURVEY

MEASURED DEPTH	TRUE VERTICAL DEPTH	INCLINATION		DIRECTION DEG	DOG-LEG SEVERITY DEG/100	VERTICAL SECTION	RECTANGULAR COORDINATES			
		DEG	MIN				NORTH	SOUTH	EAST	WEST
10400	10353.87	17	45	S 69 E	.59	422.69		118.85	405.67	
10500	10449.37	17	15	S 69 E	.50	452.27		129.48	433.35	
10600	10544.75	17	30	S 70 E	.39	432.30		139.76	461.61	
10649	10591.48	17	30	S 70 E	0.00	497.02		144.80	475.45	

THE CALCULATION PROCEDURES ARE BASED ON THE USE OF THE TANGENTIAL OR CHORD METHOD

HORIZONTAL DISPLACEMENT = 497.02 FEET AT SOUTH 73 DEG. 3 MIN. EAST (TRUE)



LAW OFFICES OF
JOHN F. RUSSELL
412 HINKLE BUILDING
P.O. DRAWER 640
ROSWELL, NEW MEXICO 88201

April 14, 1969

APR 15 AM 9 25 '69

TELEPHONE 622-4641
AREA CODE 505

Case 4119

Mr. A. L. Porter, Jr.
Secretary-Director
New Mexico Oil Conservation Commission
State Land Office
Santa Fe, New Mexico 87501

Dear Mr. Porter:

I transmit herewith, in triplicate, the
Application of Union Oil Company of California
which I understand is set for hearing on May 7,
1969, before an Examiner.

Very truly yours,

John F. Russell
John F. Russell

JFR:dn

Enclosure

DOCKET MAILED

Date 4-23-69

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

APR 15 AM 9 25

IN THE MATTER OF THE APPLICATION)
OF UNION OIL COMPANY OF CALIFORNIA)
FOR AN ORDER AUTHORIZING IT TO)
DIRECTIONALLY DRILL ITS OWENS)
NO. 1 WELL LOCATED 1,980 FEET)
FROM THE NORTH AND EAST LINES)
OF SECTION 34, TOWNSHIP 14 SOUTH,)
RANGE 35 EAST, LEA COUNTY, NEW)
MEXICO.)

NO. 4119

APPLICATION

COMES NOW Union Oil Company of California, by its attorney, John F. Russell, and states:

1. Applicant drilled its Owens No. 1 Well, located 1,980 feet from the North and East lines of Section 34, Township 14 South, Range 35 East, Lea County, New Mexico, to a total depth of 11,199 feet into the Cisco formation of Pennsylvanian Age where it was non-productive and the well was plugged back to approximately 9,000 feet.

2. Applicant requests authority to set a whipstock at approximately 9,000 feet and to directionally drill in a Southeasterly direction to a point approximately 450 feet to bottom the well into the Lower Hueco formation.

3. Approval of this Application will prevent the drilling of unnecessary wells and otherwise prevent waste and protect correlative rights.

WHEREFORE, Applicant requests that the Commission

set this matter down for hearing before its Examiner, publish notice as required by law and, after hearing, issue its order authorizing the directional drilling as aforesaid.

Respectfully submitted,

UNION OIL COMPANY OF CALIFORNIA

By: John F. Russell
John F. Russell
P. O. Drawer 640
Roswell, New Mexico 88201

Applicant's Attorney

DATED: April 14, 1969

DRAFT

GMH/esr
May 16, 1969

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. 4119

Order No. R-3760

APPLICATION OF UNION OIL COMPANY
OF CALIFORNIA TO DIRECTIONALLY
DRILL, LEA COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on May 7, 1969,
at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this day of May, 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, Union Oil Company of California, is
the owner and operator of the Owens Well No. 1 which has a surface
location in Unit G at a point 1980 feet from the North line and
1980 feet from the East line of Section 34, Township 14 South,
Range 35 East, NMPM, Lea County, New Mexico.

(3) That the subject well was originally drilled to a
total depth of 11,199 feet into the Pennsylvanian formation
where it was unproductive.

(4) That the applicant seeks approval for the setting of
a whipstock in the subject well at approximately 8900 feet, and
the directional drilling in a southeasterly direction to bottom

said well in the Lower Wolfcamp formation at a true vertical depth of approximately 10,591 feet at a point in said Unit G approximately 497 feet south 73 degrees 3 minutes east from the aforesaid surface location in order to avoid the water encountered in the original attempt to complete.

(5) That approval of the subject application will prevent the drilling of unnecessary wells, avoid the augmentation of risk arising from the drilling of an excessive number of wells, and otherwise prevent waste and protect correlative rights.

IT IS THEREFORE ORDERED:

(1) That approval is hereby granted the applicant, Union Oil Company of California, for the setting of a whipstock at approximately 8900 feet in its Owens Well No. 1, having a surface location in Unit G 1980 feet from the North line and 1980 feet from the East line of Section 34, Township 14 South, Range 35 East, NMPM, Lea County, New Mexico, and the directional drilling in a southeasterly direction to bottom said well in the Lower Wolfcamp formation at a true vertical depth of approximately 10,591 feet at a point in said Unit G approximately 497 feet south 73 degrees 3 minutes east from the aforesaid surface location.

2. (2) That Form C-105 shall be filed in accordance with Rule 1105 and the operator shall indicate thereon the true vertical depths in addition to measured depths.

(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.