



1935 - 1985

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SANTA FE, NEW MEXICO 87501
(505) 827-5800



TONEY ANAYA
GOVERNOR

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

June 9, 1986

Administrative Order No. DHC-618

Chevron USA Inc.
P. O. Box 670
Hobbs, New Mexico 88240

Attention: R. C. Anderson

Re: W. M. Rinewalt No. 2 Well, Unit E,
Sec. 4, T-22 South, R-37 East, NMPM,
Lea County, New Mexico
Drinkard and Blinebry Oil & Gas Pools

Gentlemen:

Reference is made to your recent application for an exception to Rule 303-A of the Division Rules and Regulations to permit the subject well to commingle the production from both pools in the wellbore.

It appearing that the subject well qualifies for approval for such exception pursuant to the provisions of Rule 303-C, and that reservoir damage or waste will not result from such downhole commingling, and correlative rights will not be violated thereby, you are hereby authorized to commingle the production as described above and any Division Order which authorized the dual completion and required separation of the two zones is hereby placed in abeyance.

In accordance with the provisions of Rule 303.C.4., total commingled oil production from the subject well shall not exceed 40 barrels per day, and total water production from the well shall not exceed 80 barrels per day. The maximum amount of gas which may be produced daily from the well shall be determined by multiplying 4,000 by top unit allowable for the Blinebry Oil and Gas Pool.

Assignment of allowable to the well and allocation of production from the well shall be on the following basis:

Blinebry Pool: Oil 22%, Gas 4%
Drinkard Pool: Oil 78%, Gas 96%

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION
HOBBS DISTRICT OFFICE

May 13, 1986

TO: BY: ANAYA
CO: JAVIER

POST OFFICE BOX 1520
HOBBS, NEW MEXICO 88240
(505) 333-5161

PHC-618

OIL CONSERVATION DIVISION
P. O. BOX 2083
SANTA FE, NEW MEXICO 87501

RE: Proposed:

MC _____
DHC _____ XX _____
NSL _____
NSP _____
SWD _____
WFX _____
PMX _____

Gentlemen:

I have examined the application for the:

Chevron USA Inc.	W. M. Rinewalt #2-E	4-22-37
Operator	Lease & Well No. Unit	S-T-R

and my recommendations are as follows:

OK -- Jerry Sexton

Yours very truly,

Jerry Sexton
Supervisor, District 1

/s/



Chevron U.S.A. Inc.
P. O. Box 670, Hobbs, NM 88240

Production Department
Hobbs Division

May 6, 1986

015 J J

APPLICATION TO DOWNHOLE
COMMINGLE CHEVRON'S
W. M. RINEWALT WELL NO. 2
LOCATED IN UNIT E, SECTION
4-T22S-R37E, LEA COUNTY,
NEW MEXICO

Richard L. Stamets
Oil Conservation Division
P.O. Box 2088
Santa Fe, New Mexico 87504-2088

Gentlemen:

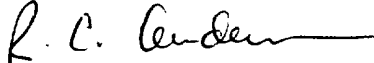
Pursuant to the provision of Statewide Rule 303-C, Chevron U.S.A. Inc. respectfully requests administrative approval to commingle production from the Blinebry and Drinkard pools within the subject wellbore. The W. M. Rinewalt Well No. 2 was drilled and completed in 1947 as an Ellenburger producer. The well has since been recompleted in the Wantz Abo, Penrose Skelly, Drinkard and Blinebry. From 1973 to 1984 the well produced from the Drinkard as a flowing gas well. In 1984 the well became a marginal producer and required considerable swabbing to unload the fluid and maintain production. The well ceased producing in late 1985.

The Blinebry horizon was perforated in 1966 and closed in later the same year as an uneconomical producer. The Blinebry perms have remained isolated in the casing while the Drinkard flowed from beneath a packer.

Under the lease agreement, we had until April 18, 1986 to restore production from the subject well. The well could not be produced without pumping equipment, therefore we requested permission from J. T. Sexton, District 1 Supervisor-OCD, to downhole commingle the two zones while we were working on the well. By doing so we eliminated unnecessary expense.

In the interest of conservation and prevention of waste, we request administrative approval for the downhole commingling of the Blinebry and Drinkard pools within the subject wellbore. Enclosed is pertinent data supporting this application as outlined in Rule No. 303-C. If additional information is necessary, please contact Mike Casey at (505)-393-4121.

Yours very truly,



R. C. ANDERSON

MWC/jc

Attachments

cc: J. T. Sexton
District I Supervisor
Oil Conservation Division
P.O. Box 1980
Hobbs, N.M. 88240

Offset Operators - (List Attached)

T. M. Mighton - Hobbs
M. J. Costello - Houston
D. K. Owen - Hobbs

OFFSET OPERATORS

Texaco Inc.
P.O. Box 728
Hobbs, N.M. 88240

Sohio Petroleum Co.
10 Desta Drive, Ste. 600 W.
Midland, Tx. 79705

Wiser Oil Co.
310 W. Texas, Ste. 904
Midland, Tx. 79701

Shell Oil Co.
P.O. Box 2463
Houston, Tx. 77001

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C. C. C.
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1. Operator: Chevron U.S.A. Inc., P.O. Box 670, Hobbs, N.M. 88240
2. Lease, Well and Location: W. M. Rinewalt Well No. 2, 1874' FNL and 750' FWL of Section 4-T22S-R37E, Lea County, N.M.
3. Producing Zones: Blinebry and Drinkard
4. Decline Curve: The Drinkard is expected to IP at 7 BOPD and 150 MCFGPD and decline at 26% per year. The Blinebry is expected to IP at 2 BOPD and 7 MCFGPD and decline at 14% per year.
5. Bottom Hole Pressure: Blinebry calculated BHP of 566 psi at a depth of 5806'. The Drinkard BHP measured 277 psi at a depth of 6300'.
6. Fluid Characteristics: The Blinebry and Drinkard are currently surface commingled at the battery under Commingling Order PC-518. To date there has been no evidence of fluid incompatibility.
7. Well History: The subject well was drilled and completed in 1947 in the Ellenburger at a total depth of 8136'. Thirteen and three-eighths inch surface casing was set at 308' and cement was circulated to the surface. Nine and five-eighths inch casing was set at 2975' and cemented with 1300 sacks, TOC at 533' by T. S. Seven inch production casing set at 7980' and cemented with 900 sacks, TOC at 3245' by T. S. The well was openhole completed in the Ellenburger.
 - 10/56: Stimulated with 5000 gal 15% NEFE Acid.
 - 11/56: Plug back with hydromite to 8030'.
 - 12/56: Squeeze open hole with cement, plug back to 7900'. Perforate 7592'-7890'. Frac with 5000 gal oil and 5000 lb. sand.
 - 6/60: Set CIBP @ 7568' w/25 sxs cmt on top. Perforate Wantz Abo from 7132'-7245', acidize and frac with 9000 gal 15% acid and 20,000 gal oil with 18,000 lb. sand.
 - 10/60: Set CIBP @ 7050' w/25 sxs cmt on top. Perforate Penrose Skelly from 3674'-3734', FRAC with 16,000 gal. oil w/48,000 lb. sand.
 - 2/66: Squeeze Penrose Skelly perfs and Perforate Blinebry from 5746'-5867', frac with 20,000 gal water w/17,250 lb. sand.
 - 7/66: Closed well in, uneconomical to produce.
 - 12/73: Perforated Drinkard from 6376'-6606', frac with 27,000 gal. gel water w/40,000 lb. sand.

4/86: Received temporary permission to downhole commingle the Blinebry and Drinkard from the Oil Conservation District I Supervisor, Jerry Sexton, (Letter Attached). Equipped well to pump.

8. Value of Commingled Fluids: The Blinebry and Drinkard are being commingled at the surface on the subject lease as authorized by Division Order PC-518. Therefore, downhole commingling will not effect the price.
9. Current Production: The downhole commingled Blinebry and Drinkard tested for 9 BOPD, 39 BWPD and 157 MCFGPD.
10. Recommended Oil and Gas Allotments:

<u>Blinebry</u>	<u>Drinkard</u>
22% Oil	78% Oil
4% Gas	96% Gas

11. Ownership and Royalty Interests: Ownership of the two pools to be commingled is common and correlative rights will not be violated.
12. Future Secondary Operations: Commingling will not jeopardize the efficiency of future secondary recovery operations in either zone.
13. Production Methods: The commingled production will be pumped and the fluid level monitored to maintain a pumped off condition and eliminate the possibility of cross flow between reservoirs.
14. Copies if this application have been furnished to all offset operators by certified mail.

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0-22
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All distances must be from the outer boundaries of the Section.

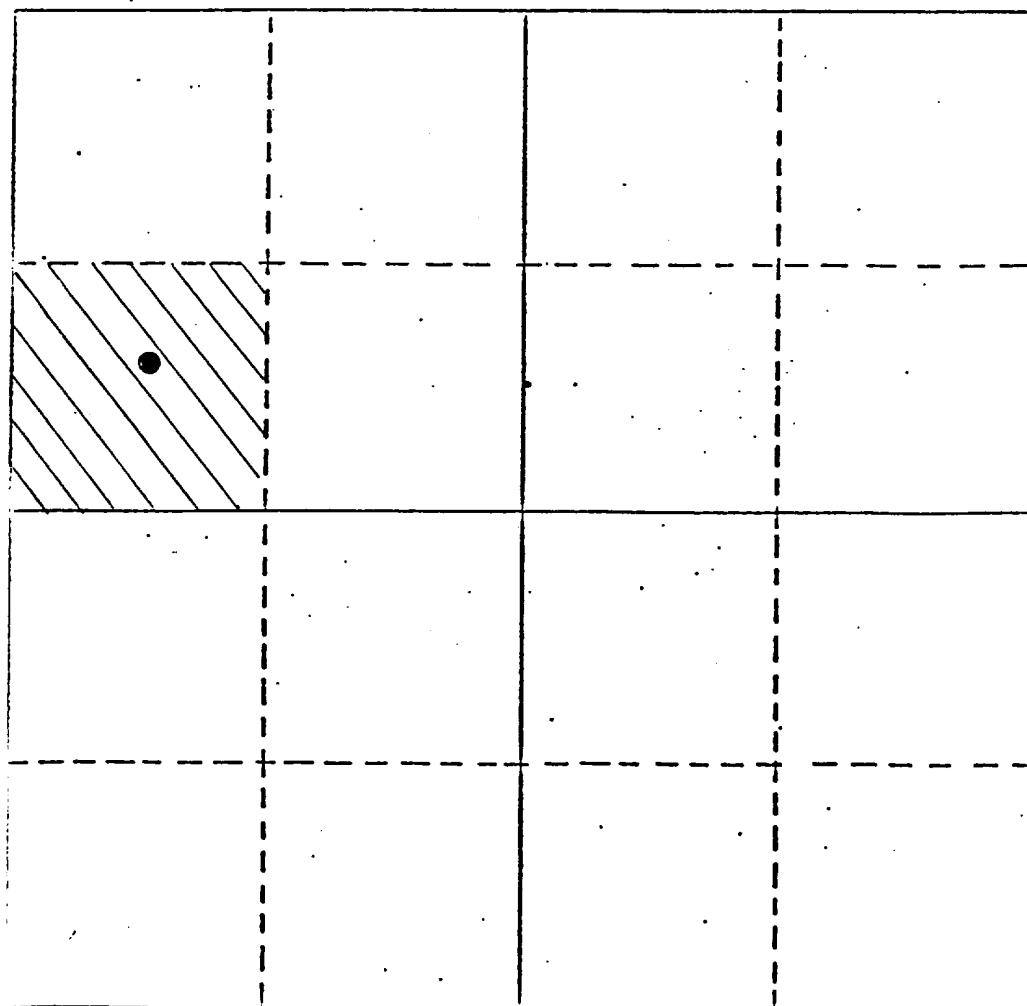
Operator Chevron U.S.A. Inc.			Lease W. M. Rinewalt			Well No. 2		
Unit Letter E	Section 4	Township 22 S	Range 37 E	County Lea				
Actual Footage Location of Well: 1874 feet from the North line and 750 feet from the West line								
Ground Level Elev. 3456'	Producing Formation Blinebry/Drinkard		Pool Blinebry/Drinkard (CDH)			Dedicated Acreage: 40 Acres		

1. Outline the acreage dedicated to the subject well by colored pencil or hatchure marks on the plat below.
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
3. If more than one lease of different ownership is dedicated to the well, have the interests of all owners been consolidated by communitization, unitization, force-pooling, etc?

☐ Yes ☐ No If answer is "yes," type of consolidation _____

If answer is "no," list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.) _____

No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Division.



CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.

Name MW Casey
Position Division Proration Engineer
Company Chevron U.S.A. Inc.
Date May 6, 1986

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

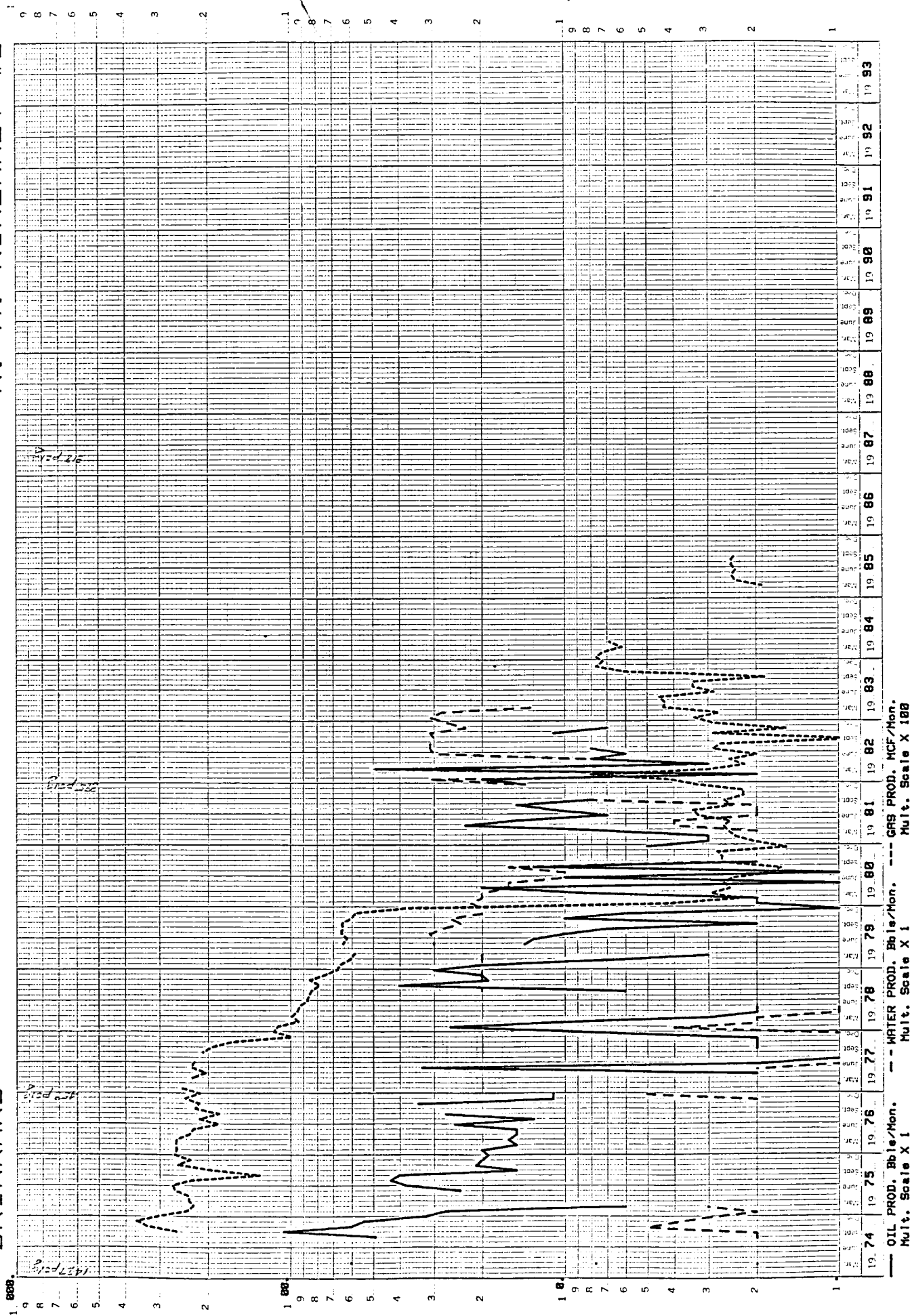
Date Surveyed _____
Registered Professional Engineer and/or Land Surveyor _____

Certificate No. _____

330 660 990 1320 1650 1980 2310 2640 2970 3300 3630 3960 4290 4620 4950 5280 5610 5940 6270 6600

DRINKARD

W. M. RINEWALT #2





CALCULATION SHEET
Chevron U.S.A. Inc.

Date 5 2 86

Prepared by
MWC

Page No.
of

Title

W.M. RINEWALT WELL No. 2 - Downhole Commingle

Location

Department

Project Number

Blueberry BHP Calculation

$$P_{RES} = P_{BHP \text{ STATIC}} = P_{CSG. \text{ PRESS.}} + P_{GAS \text{ COL.}} + P_{OIL \text{ WATER COLUMN}}$$

① ② ③

① $P_{CSG} = 522 \text{ psi (measured)}$

② $P_{GAS \text{ COL.}} = \text{GAS GRADIENT (psi/ft)} \times \text{DEPTH (ft)}$

$\text{GAS GRADIENT} = 0.0006 \text{ psi/ft (ESTIMATED)}$

$\text{DEPTH TO TOP OF FLUID} = 5704 \text{ ft}$

$P_{GAS} = (0.0006 \text{ psi/ft})(5704 \text{ ft}) = 3.42 \text{ PSI}$

③ $P_{OIL \text{ WATER COL.}} = \text{FLUID GRADIENT (psi/ft)} \times \text{COLUMN HT. (ft)}$

$\text{FLUID GRADIENT} = 0.40 \text{ psi/ft (ESTIMATED)}$

$\text{Col. Ht} = \text{Mid Perfs (ft)} - \text{Fluid Level (ft)}$
 $= 5806 \text{ ft} - 5704 \text{ ft}$
 $= 102 \text{ ft}$

$P_{OIL \text{ WATER COL.}} = (0.40 \text{ psi/ft})(102 \text{ ft}) = 40.8 \text{ PSI}$

$\therefore P_{RES.} = P_{CSG} + P_{GAS} + P_{OIL \text{ WATER}} = 522 \text{ psi} + 3.42 \text{ psi} + 40.8 \text{ psi} = \underline{\underline{566.2 \text{ PSI}}}$

$P_{RES} = 566.2 \text{ PSI}$

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G. E. D.
HOBBS OFFICE

JOHN W. WEST ENGINEERING COMPANY
412 NORTH DAL PASO, HOBBS, NEW MEXICO

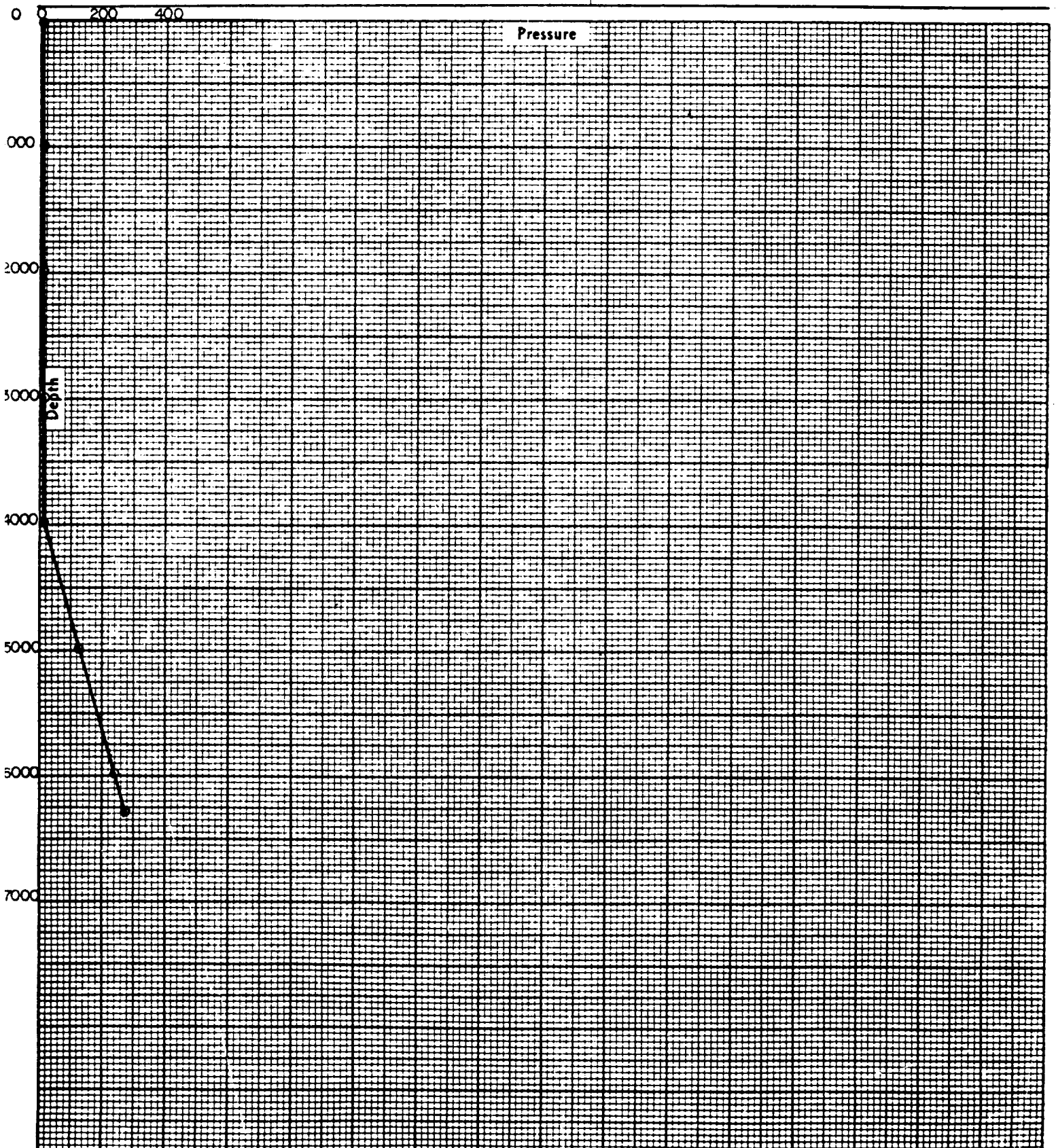
TELEPHONES 393-3942
393-3117

BOTTOM HOLE PRESSURE SURVEY REPORT

OPERATOR CHEVRON U.S.A., INC.
LEASE RINEWALT
WELL NO. 2
FIELD DRINKARD
DATE 4-9-86 TIME 3:30 P.M.
STATUS Shut-In TEST DEPTH 6300'
TIME S.I. LAST TEST DATE
CAS. PRES. BHP LAST TEST
TUB. PRES. 9 PSI BHP CHANGE
ELEV. FLUID TOP
DATUM WATER TOP
TEMP RUN BY B.T.
CLOCK NO. 24959 GAUGE NO. 16389
ELEMENT NO. 25613 (0-945 PSI)

DEPTH	PRESSURE	GRADIENT
000	009	
1000	010	.001
2000	010	Neg.
3000	012	.002
4000	013	.001
5000	122	.109
6000	240	.118
6300	277	.123

A 1½" Sinker Bar was run to 6320'



CURRENT DOWNHOLE COMMINGLED INSTALLATION

LEASE & WELL NO. W.M. Rincoast #2 FIELD/POOL Burnaby/Drinkard DATE 4-25-76
 LOCATION 766 FEET FROM West LINE AND 1874 FEET FROM North LINE
 SECTION Section 4 T22S R37E COUNTY Lea STATE NM

Date Completed 9-12-47
 Initial Formation Ellenburger
 From: 7952 to 7136 COR 1065
 Initial: Production ☒ 256 bopd 0 bwpd
 Or: Injection ☐ bwpd @ psi
 Completion Data:
Natural Completion - no stimulation

GE 3456
 KDB to GE
 DF to GE 13.00

13 3/8 " OD Surface Pipe
 set @ 308 ' w/ 300 sx
 Cmt. Circulated? Yes

2 3/8 " PRODUCTION TUBING
 SET @ 6479 '

9 5/8 " OD 36 # Thd
 Gr. H-40 , Csg.
 set @ 2975 ' w/ 1200 sx
 Cmt Circulated? No
 TOC @ 532 ' by TS

2674-3724

786 ANCHOR @ 5508 '
Burnaby Perfs
5746, 5805, 5824, 5867 1-1" HPF

Drinkard Perfs
6376-6604 w/ 2 0.72" JHPF
 (total 28 holes)

Fill in hole to 6425 '

Packer CIP @ 7050
7132-7226 4-7/8" JHPF
7239-7245 4-7/8" JHPF

Packer CIP @ 7568
7592-7686
7676-7890

PETD=7920
7942-7972 4-1/2" JHPF

PETD=7973
7 " OD 26 # Thd
 Gr. H-40 , LT & C Csg.
 set @ 7980 ' w/ 900 sx
 Cmt Circulated? No
 TOC @ 3245 ' by TS

3 1/2 open hole
3000 sx cmt.

PETD=8030 (PE w/ Hydramite)
TD = 8136

Subsequent Workover or Reconditioning:
4-51 Install acc. lift equipment - Before: 51
After: 271 PW 124 PW
8-52 Install submersible - Before: 51
After: 92 PW 412 PW
6-53 Replaced Rods - Before: 30 PW 97 PW
After: 57 PW 446 PW
7-53 Holdover w/ 2000 gal LTNE - Before: 51 PW
254 PW After: 59 PW 554 PW
9-53 Replaced Rods - Before: 19 PW 321 PW
After: 71 PW 52 PW
12-53 Replaced Rods - Before: 92 PW 412 PW
After: 97 PW 606 PW
10-56 Treated 7950-8041 w/ 5000 gal 15% NEFE
11-56 PE w/ Hydramite to 7030
12-56 PE w/ 2 mt to 7973
12-56 Part 1 7921-7972 Hold w/ Hydramite 15% NEFE
Source w/ 1000 sx PPTN 7988
12-56 Part 2 7972-7988 Fracs w/ 5000 gal 25% oil
1 lb - PK. Part 7592-7686 Holdover w/ 5000 gal
Mud Hold.
6-60 Set CIP @ 7568 rod w/ 2500 gal 15% NEFE Part 7132-7226
Holdover w/ 1000 gal 15% NEFE Part 7239-7245
Acidize - 7132-7245 w/ 8000 gal 15% NEFE
7-60 Fracs 7132-7245 w/ 20000 gal red-oil 512 gal
10-60 Set CIP @ 7050 rod w/ 2500 gal 15% NEFE Set CIP @
3015 rod w/ 2500 gal Part 3676-3724 Fracs
w/ 16000 gal 20 anti. oil @ 3 lb - PK.
2-66 Set CIP @ 7568 rod w/ 2500 gal 15% NEFE Part 7592-7686
Fracs w/ 20,000 gal 17.25% 20-40 sand @ 12-20 mesh
also - 6000 lb 20-40 sand
11-73 Part 6376-72 6452-54 6480-72 6572-25 6546-47
6572-77 6602-06 Fracs w/ 127000 gal 600
60000 lb 20-40 sand
4-86 Downhole (commingled Ellenburger/Drinkard) & Replaced
well to Pump.

Present Inj. ☐ bwpd @ psi Date
 Present Prod. ☒ 24 bopd 39 bwpd Date 4-24-86
GAS 120 MCFPD

Remarks Or Additional Data:
Formation Tops:
Unburdrite 1180
Red salt 2440
Yates 3630
San Andres 3870
Glorieta 5090
Tubb 6080
Vivian 6440-6530
Simmons 7270
Ellenburger 7952