OIL CONSERVATION COMMISSION
P. O. BOX 871
SANTA FE, NEW MEXICO

COPY

March 20, 1962

Texaco Inc.
P. O. Box 728
Hobbs, New Mexico

Attention: Mr. H. N. Wade

Gentlemen:

Reference is made to your letter of March 14, 1962, wherein you request temporary allowables to be assigned to the Paddock, Blinebry, Drinkard, Diluro-Devonian, and Fusselman zones in your G. L. Erwin (b) NCT-2 Well No. 2, located in Unit J, Section 35, Township 24 South, Range 37 East, North Justis Field, Lea County, New Mexico. This well was previously approved a quintuple completion by Order No. R-2109 in the Drinkard, Siluro-Devonian, Fusselman, McKee, and Ellenburger zones.

Inasmuch as all of the proposed zones included in the subject well, with the exception of the Paddock, have previously been approved in multiple completions in the area, this office has no objection to such temporary assignment of allowable as each new zone is brought in, with the exception of said Paddock zone.

It is suggested that you make application for a hearing to amend Order No. R-2109 at your earliest convenience to conform to the actual completion of the well.

Very truly yours,

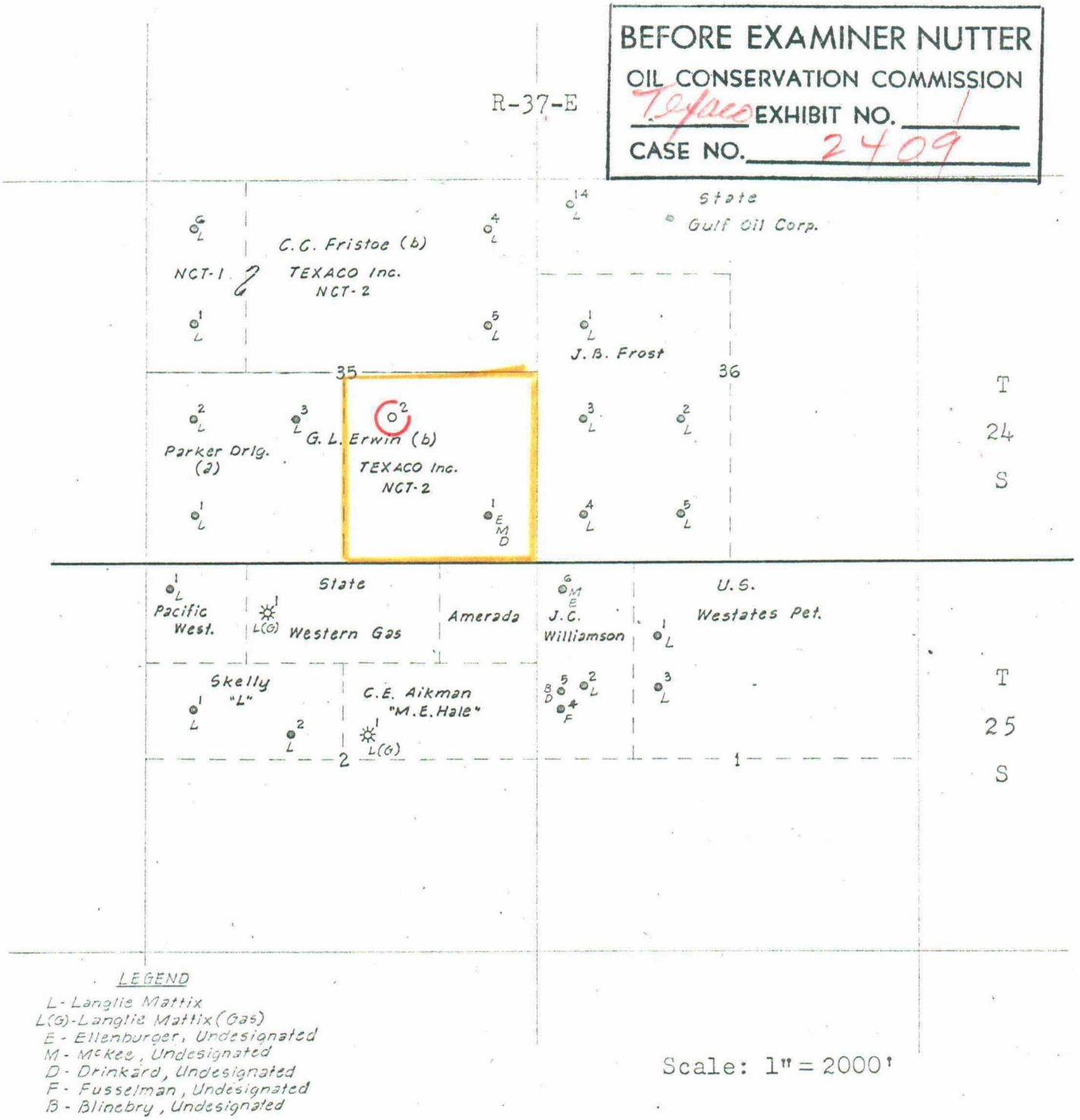
DANIEL S. NUTTER
Chief Engineer

DSN/og
cc: J. D. Ramey
Oil Conservation Commission
Hobbs, New Mexico

3. The following facts are submitted:

| | ZONE V | ZONE W | ZONE X | ZONE Y | ZONE Z |
|---|---|---|---|---|---|
| a. Name of Reservoir | Drinkard | Siluro-Dev. | Fusselman | McKee | Ellenburger |
| b. Top and Bottom of Pay Section (Perforations) | 5950'-6050' | 6700'-6900' | 6950'-7200' | 7900'-8050' | 8400'-8500' |
| c. Type of Production (oil or gas) | Oil | Oil | Oil | Oil | Oil |
| d. Method of Production (Flowing or artificial lift) | Flow | Flow (Est.) | Flow | Flow | Flow |

BEFORE EXAMINER NUTTER
OIL CONSERVATION COMMISSION
Texaco EXHIBIT NO. 1
CASE NO. 2409




LEGEND

L - Langlie Mattix
L(G) - Langlie Mattix (Gas)
E - Ellenburger, Undesignated
M - McKee, Undesignated
D - Drinkard, Undesignated
F - Fusselman, Undesignated
B - Blinebry, Undesignated

Scale: 1" = 2000'

PLAT OF TEXACO Inc. G. L. ERWIN "b" NCT-2 LEASE
AND OFFSET LEASES
Lea County, New Mexico
Scale: 1" = 2000'

OFFSET OPERATORS

J. B. Frost - 2106 Tower Petroleum Bldg. - Dallas 1, Texas
Parker Drilling Co. - Commerce Bldg. - Houston, Texas
Amerada - Drawer D - Monument, New Mexico
Western Gas - 1006 Main St. - Hobbs, New Mexico
J. C. Williamson - 608 V&J Tower - Midland, Texas

DIAGRAMMATIC SKETCH - QUINTUPLE INSTALLATION (TUBINGLESS)
TEXACO INC. G. L. ERWIN (b) NCT-2 WELL NO. 2
UNDESIGNATED ELLENBURGER, MCKEE, FUSSELMAN, SILURO-DEVONIAN AND DRINKARD POOLS
LEA COUNTY, NEW MEXICO

TUBING STRINGS:
All J-55 Buttress with Special Clearance Couplings.
Ellen.(Z),8500' - 2-7/8" OD
McKee(Y), 8150'-2-3/8" OD
Fuss.(X), 7300'-2-3/8" OD
Sil-Dev.(W),7300'-2-3/8" OD
Drink.(V),8500'-2-3/8" OD

Y V Z W X

Sliding Side Doors @ 4600' and 5000'

16' pup jt. w/Rad.Coups.@5920'

Sliding side door @ 5900'

Top at 5930'
Name: Drinkard
Type Prod: Oil
Bottom at 6200'

Sliding Side Door @ 6080'

Sliding Side Door @ 6680'

Top at 6600'
Name: Siluro-Devonian
Type Prod: Oil
Bottom at 6800'

Sliding Side Door @ 6750'

Sliding Side Door @ 6780'

Top at 6800'
Name: Fusselman
Type Prod: Oil
Bottom at 7300'

Sliding Side Door @ 6980'

Sliding Side Door @ 7580'

10' pup jt. w/Rad. Coups. @ 7720'

Top at 7600'
Name: McKee
Type Prod: Oil
Bottom at 7900'

Sliding Side Door @ 7860'

Sliding Side Door @ 8160'

Top at 8180'
Name: Ellenburger
Type Prod: Oil
Bottom at 8500'

Sliding Side Door @ 8380'

20" hole to 250'.

16" casing @ 250'. Cement Circulated

13-3/4" hole to 3450'

11-3/4" casing @ 3450' Cement Circulated

10-5/8" hole 3450' - 8150'

Perforated:
5950' - 6050' (Est.)

12' pup jt. w/ Rad. Coups. @ 6670'

Perforated:
6700' - 6720' (Est.)

8' pup jt. w/Rad. Coups. @ 6920'

Perforated:
6950' - 7050' (Est.)

Perforated:
7750' - 7830' (Est.)

8-3/4" hole 8150' - Total Depth

Radioactive Coupling @ 8270'

Perforated:
8300' - 8350' (Est.)

TOTAL DEPTH 8500'

BEFORE EXAMINER NUTTER
OIL CONSERVATION COMMISSION
Texaco EXHIBIT NO. 2
CASE NO. 2409

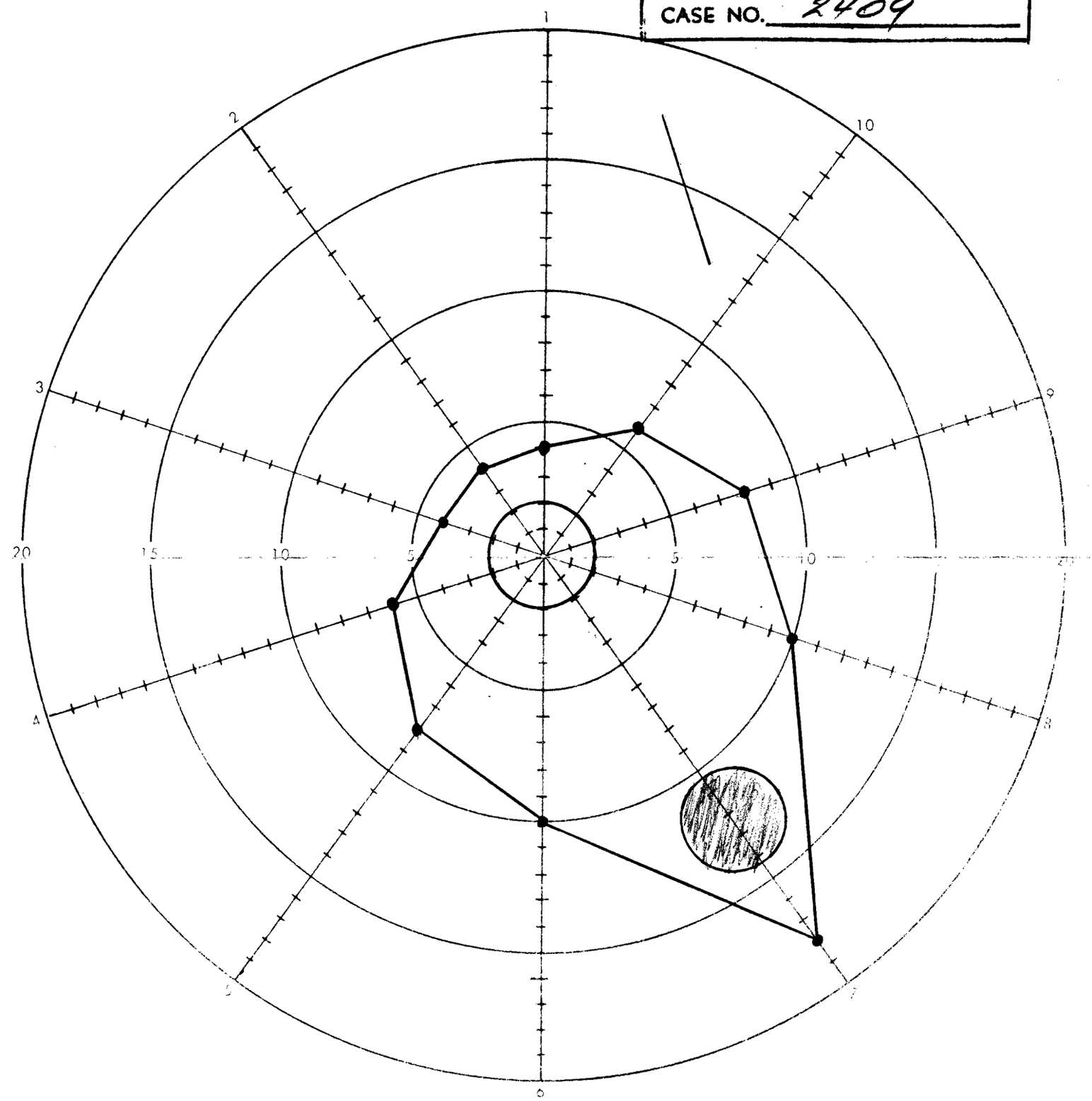
CEMENT PROGRAM ON FIVE TUBING (CASING) STRINGS: Cement through 2-7/8" OD String with 1700 sacks Incor, 8% gel. with retarder. Yield = 2.19 cubic feet per sack. Calculated cement top at 3000', assuming 65% fillup. Block squeeze through Otis Type "A" Sliding Side Doors with 50 to 100 sacks of Incor neat cement at each setting to assure zone isolation.

10/25/61 ~~JG~~

GO, INC.

ORIENTATION CHART

BEFORE EXAMINER NUTTER
OIL CONSERVATION COMMISSION
Dyno EXHIBIT NO. 4
CASE NO. 2409




EXAMPLE OF TWO STRING ORIENTATION PROCEDURE

10/25/61 JH

BEFORE EXAMINER NUTTER
OIL CONSERVATION COMMISSION
Texaco EXHIBIT NO. 5
CASE NO. 2409

GO, INC.

ORIENTATION CHART

BEFORE E... ...UTTER
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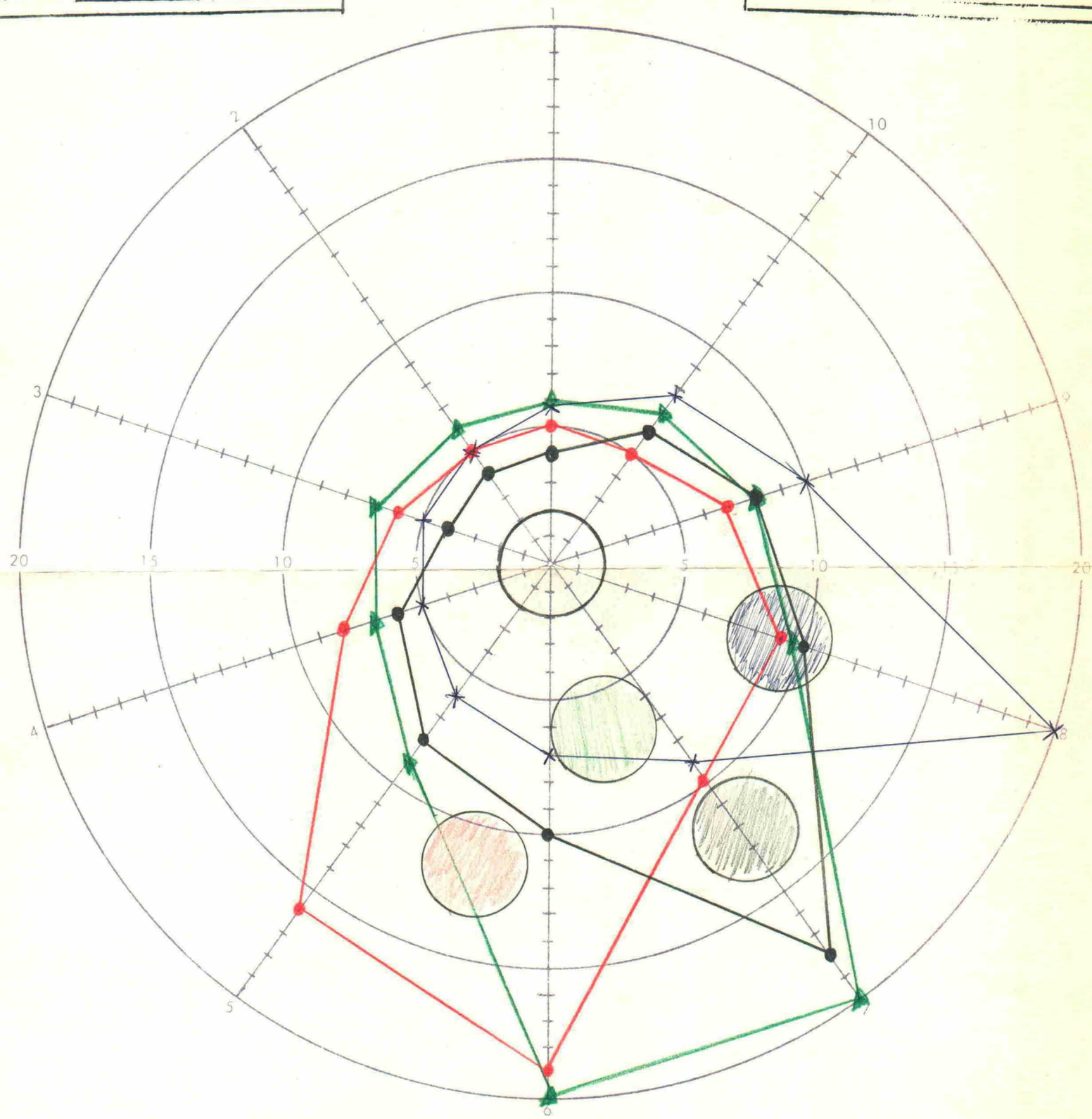
CASE NO. ...




EXAMPLE OF FIVE STRING ORIENTATION PROCEDURE

# D E V I L S  F O R K  F I E L D

RIO ARRIBA COUNTY, N.M.

Bottom Hole Pressure
Buildup
Calculations

BEFORE THE
OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO
Nearburg EXHIBIT No. 2-A
CASE 2409

DEVILS FORK FIELD
Botton Hole Pressure Survey
7-30-62 to 8-6-62

| Well | Highest Measured Pressure | Estrapolated Pressure | Pressure by Horner's Method | Estimated Reservoir Pressure |
|---|---|---|---|---|
| Canyon Largo #89 | 1482 | 1600 | N.A. | 1541 |
| Canyon Largo #106 | 1516 | N.A. | N.A. | 1512 |
| Canyon Largo #118 | 1865 | 1933 | N.A. | 1933 |
| NCRA-State #1 | 1848 | 1941 | N.A. | 1941 |
| Edna #1 | 1127 | 1930 | 1748 | 1748 |
| Edna #2 | 1709 | 1930 | 1843 | 1843 |
| Edna #3 | 1398 | 1843 | 1622 | 1622 |
| Miller A-1 | 1371 | 1575 | N.A. | 1473 |
| Miller B-2 | 1114 | 1532 | 1324 | 1324 |
| Miller B-4 | 1258 | 1838 | 1609 | 1609 |
| Dashko B-1 | 1269 | 1486 | 1356 | 1356 |
| Dashko B-2 | 931 | 1509 | 1286 | 1286 |
| Largo Spur 1 | 1505 | 1616 | 1530 | 1530 |
| Largo Spur 2 | 1505 | N.A. | N.A. | 1505 |
| Largo Spur 3 | 1493 | 1674 | N.A. | 1542 |
| Largo Spur 1-A | 1383 | 1761 | 1582 | 1582 |
| Zamorra 1 | 1499 | N.A. | N.A. | 1499 |
| Byrd 1-23 | 932 | 1330 | 1071 | 1071 |
| Byrd 5-23 | 728 | 955 | 765 | 765 |
| Killarney 1 | 1454 | N.A. | N.A. | ---- |
| Lybrook 1-19 | 1522 | N.A. | N.A. | 1522 |
| New Mexico Fed.G-1 | 1436 | 1563 | N.A. | 1500 |

Bco Inc. Byrd 1-A

BHP Buildup
7-30-62 to 8-6-62

Cum. Prod. = 10,762 bbls

Avg. Stabilized Prod. Rate = 22 B/D

Pseudo Prod. Time $\bar{T} = \frac{10762}{22} = 489.2$ da

Shut in date 7-30-62

| Date | Δt | Δt/T̄+Δt | Pressure |
|---|---|---|---|
| 8-1-62 | 2 | 0.00407 | |
| 8-3-62 | 4 | 0.00811 | |
| 8-6-62 | 7 | 0.0141 | |

Horner Calculation of Average Pressure

$P^* = P_0 - 70.6/kh \times 51. \times y(\alpha)$

$1330 = 2000 - 0.434 \times 214 \times y(\alpha)$

$y(\alpha) = 9.21$

$\alpha = 0.10$

$P_s = 2000 - \frac{0.434 \times 214}{0.1} = 1071$ psi

$P^* = 1330$ psi @ 1.0 2

Slope = 214 psi/cycle 2

BHP @ 1025 datum

1100
1000
900
800

.001 .01 0.1

Dimensionless Time $\frac{\Delta t}{\bar{T}+\Delta t}$

K&E SEMI-LOGARITHMIC 359-61

## REOFERN & HERD KARG SPUR #3

BHP: 2014 psig
7-28-62 to 8-6-62
CUMULATIVE PRODUCTION = 374,856 mcf
AVG. STABILIZED PROD. RATE = 1013 MCFPD
PSEUDO PRODUCING TIME $\bar{T}$ = 371 da
SHUT IN 7-28-62

| DATE | $\Delta T$ | $\Delta T / \bar{T} + \Delta T$ | PRESSURE |
|---|---|---|---|
| 8-1-62 | 4 | 0.0107 | 1955 |
| 8-6-62 | 9 | 0.0237 | 1993 * |

$p^* = 1674$ psig

SLOPE = 111 psi / cycle

### HORNER CALCULATION OF AVG. PRESSURE

$$p^* = p_0 - 70.6/162.6 \times SL \times y(u)$$

$$1674 = 2000 - 0.434 \times 111 \times y(u)$$

$y(u) = 6.74$

$u = 0.105$

$$p_s = 2000 - \frac{0.434 \times 111}{0.105}$$

$= 1542$ psig.

* Pressure adjusted from that previously reported to keep tubing gradient constant.

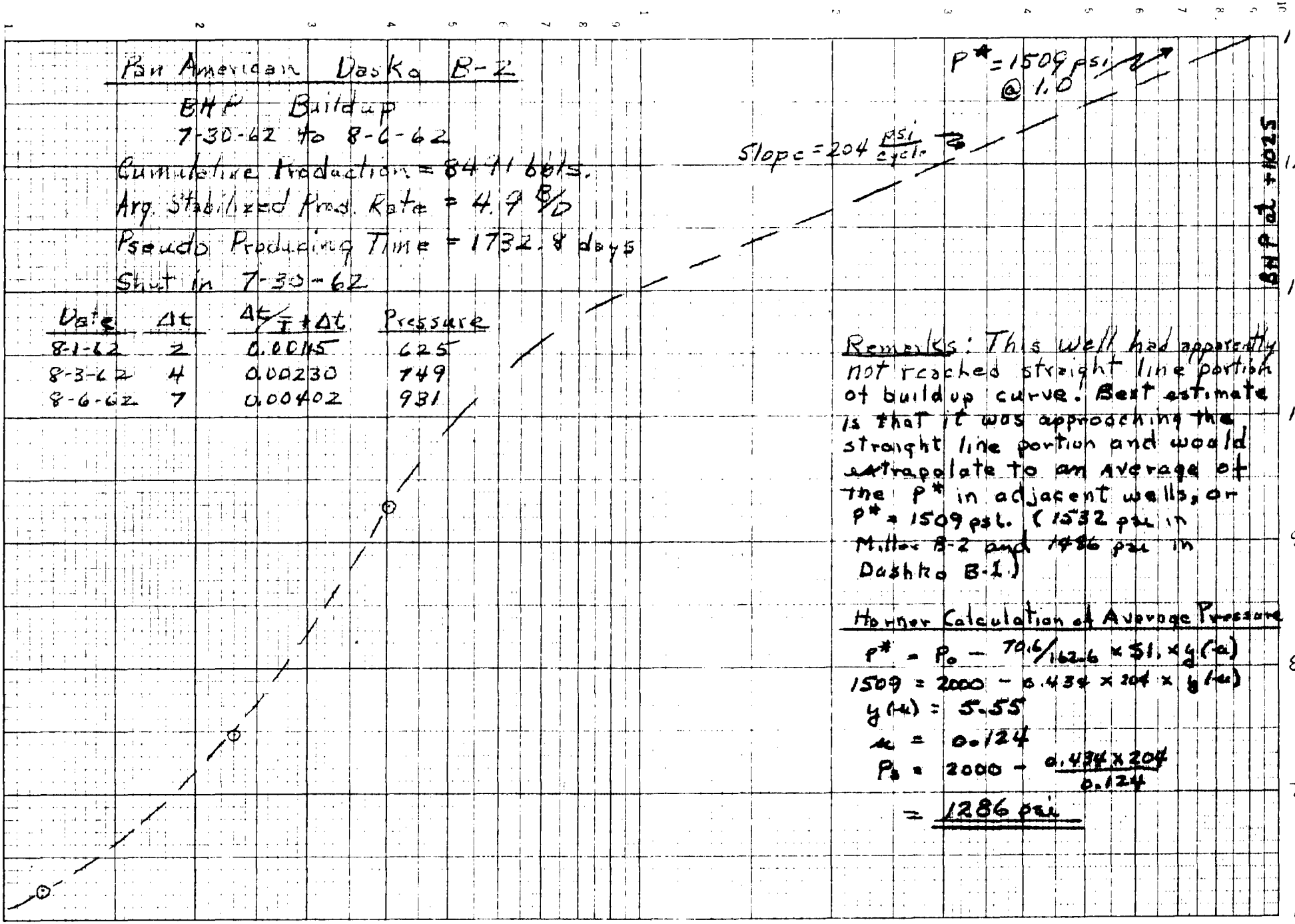
1630
1530
1500
1454

BHP @ 7075 DATUM

0.01 0.1 1.0

DIMENSIONLESS TIME = $\frac{\Delta T}{\bar{T} + \Delta T}$

K·E SEMI-LOGARITHMIC 359-61
2 CYCLES X 70 DIVISIONS



K&E SEMI-LOGARITHMIC 359 61
KEUFFEL & ESSER CO.
2 CYCLES X 70 DIVISIONS

EL PASO NATURAL GAS COMPANY CANYON LARGO Unit #89

BHP BUILDUP

7-18-62 to 8-1-62

CUMULATIVE PRODUCTION = 962.574 MCF

AVG. STABILIZED PROD. RATE = 2450 MCFPD

PSEUDO PRODUCING TIME = 191 days

SHUT IN 7-18-62

| DATE | $\Delta T$ | $\frac{\Delta T}{T+\Delta T}$ | PRESSURE |
|---|---|---|---|
| 8-1-62 | 14 | 0.0682 | 1472 |
| 8-3-62 | 16 | 0.0773 | 1478 |
| 8-6-62 | 19 | 0.0904 | 1482 |

$P^* = 1600$ psi

SLOPE = 116 psi/cycle

HORNER CALCULATION INDICATES $P_s = 1470$ psi

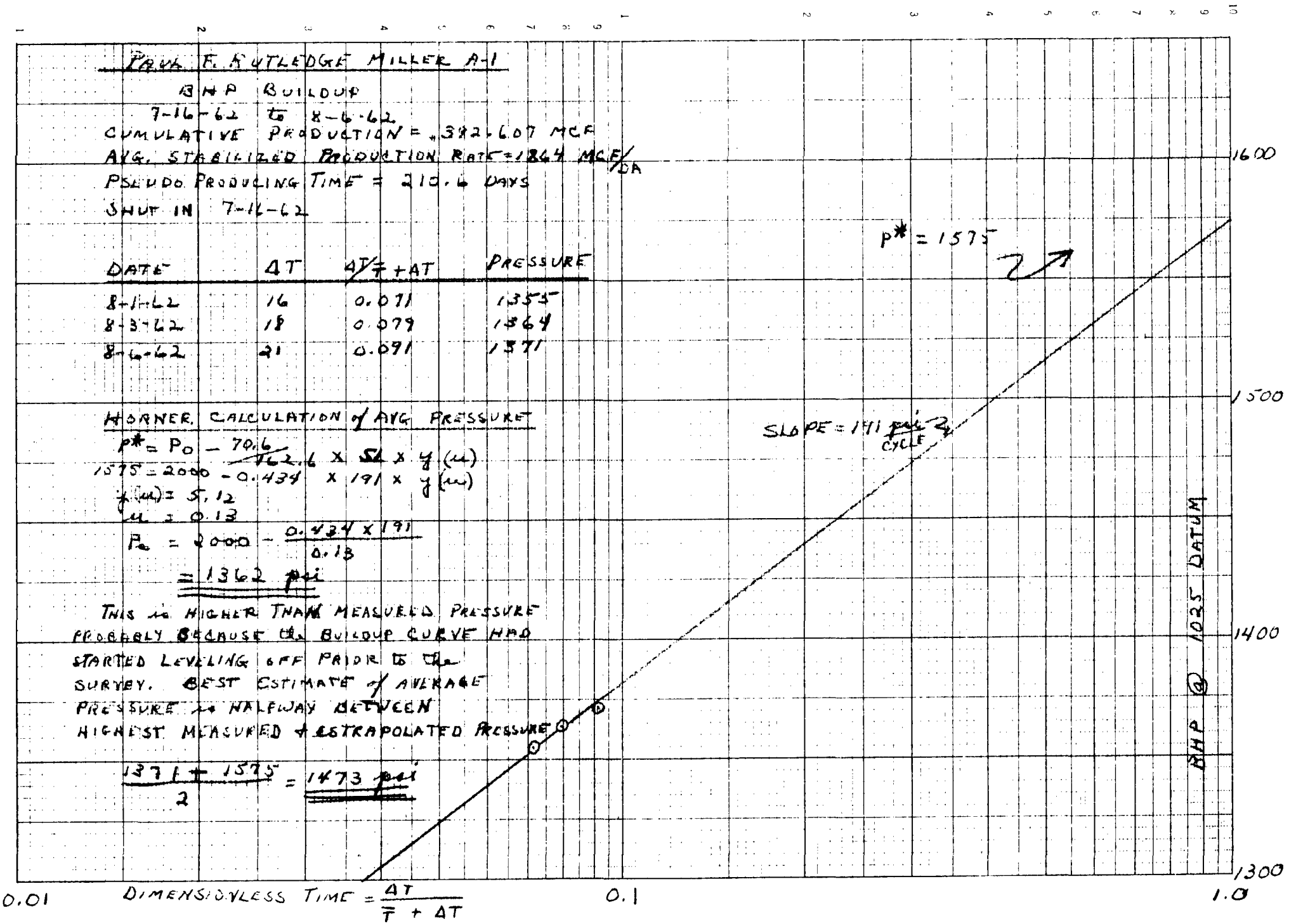
PRESSURE BUILDUP PROBABLY FLATTENING PRIOR to SURVEY.

BEST ESTIMATE of $P_s = \frac{1600 + 1482}{2} = 1541$ psi

BHP @ 1025' DATUM

1600
1550
1500
1450

0.01 DIMENSIONLESS TIME = $\frac{\Delta T}{T + \Delta T}$ 0.1 1.0




PAUL F. AUTLEDGE MILLER A-1

BHP BUILDUP

7-16-62 to 8-6-62

CUMULATIVE PRODUCTION = 382,607 MCF

AVG. STABILIZED PRODUCTION RATE = 1864 MCF/DA

PSEUDO PRODUCING TIME = 210.4 DAYS

SHUT IN 7-16-62

| DATE | ΔT | 4T/T+ΔT | PRESSURE |
|---|---|---|---|
| 8-1-62 | 16 | 0.071 | 1355 |
| 8-3-62 | 18 | 0.079 | 1364 |
| 8-6-62 | 21 | 0.091 | 1371 |

HORNER CALCULATION of AVG PRESSURE

$p^* = P_0 - \frac{70.6}{162.6} \times SL \times y(u)$

$1575 = 2000 - 0.434 \times 191 \times y(u)$

$y(u) = 5.12$

$u = 0.13$

$P_a = 2000 - \frac{0.434 \times 191}{0.13}$

$= 1362$ psi

THIS is HIGHER THAN MEASURED PRESSURE PROBABLY BECAUSE the BUILDUP CURVE HAD STARTED LEVELING OFF PRIOR to the SURVEY. BEST ESTIMATE of AVERAGE PRESSURE is HALFWAY BETWEEN HIGHEST MEASURED & EXTRAPOLATED PRESSURE

$\frac{1371 + 1575}{2} = 1473$ psi

K&E SEMI-LOGARITHMIC 359-61
KEUFFEL & ESSER CO. MADE IN U.S.A.
2 CYCLES X 70 DIVISIONS

J. GREGORY MERRION + ASSOCIATES, NCRA-STATE #1

BHP BUILDUP
9-2-62 to 9-5-62

CUMULATIVE PRODUCTION = 343 BBLS

AVG. STABILIZED PROD. RATE = 188 B/D

PSEUDO-PRODUCING TIME = 1.82 DAYS = 43.8 hrs.

SHUT IN 11:40 A.M. SEPT. 2, 1962

| DATE | ΔT - hrs. | $\frac{\Delta T}{T + \Delta T}$ | PRESSURE |
|---|---|---|---|
| 9-3-62 | 29.33 | 0.401 | 1757 |
| 9-4-62 | 44.0 | 0.501 | 1804 |
| 9-4-62 | 58.0 | 0.587 | 1830 |
| 9-5-62 | 73.25 | 0.625 | 1848 |

HORNER CALCULATION NOT APPLICABLE DUE TO SHORT PRODUCING HISTORY

$p^* = P_s = 1941$ psi

$p^* = P_a = 1941$ psi

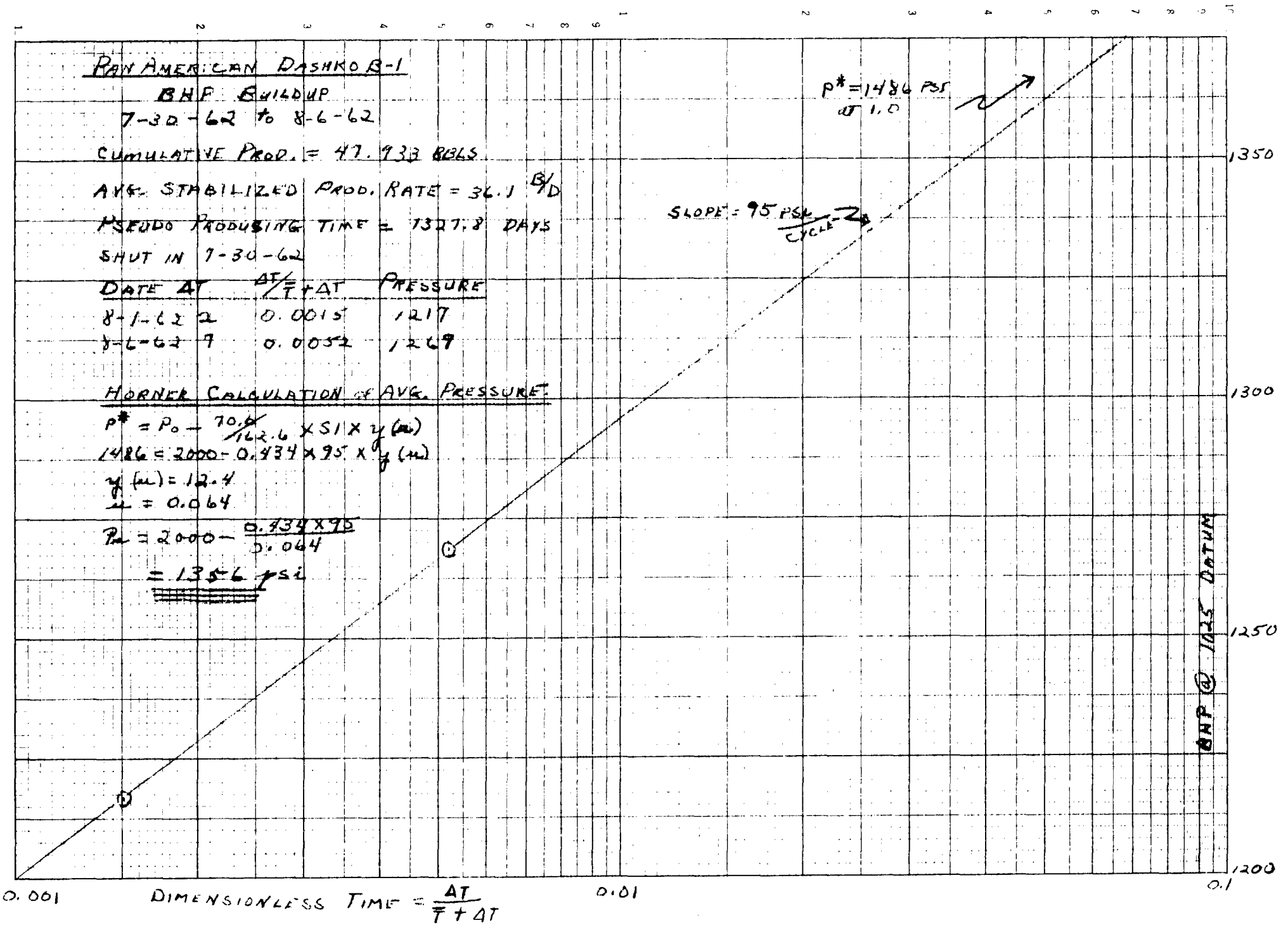
SLOPE = 56 psi / CYCLE

BHP @ 7625' DATUM

2000
1900
1800
1700

0.01 DIMENSIONLESS TIME = $\frac{\Delta T}{T + \Delta T}$ 0.1 1.0

K&E SEMI-LOGARITHMIC 359-61
KEUFFEL & ESSER CO.
2 CYCLES X 70 DIVISIONS



K-E SEMI-LOGARITHMIC 359-61
KEUFFEL & ESSER CO.
2 CYCLES X 70 DIVISIONS

# Paul F. Rutledge Miller B-4

BHP Buildup
7-30-62 to 8-6-62
Cumulative Production = 6158 bbls.
Avg. Prod. Rate = 11 B/D
Pseudo Producing Time = 559.8 days
Shut in 7-30-62

| Date | Δt | $\frac{t}{T+\Delta t}$ | Pressure |
|---|---|---|---|
| 8-1-62 | 1.88 | 0.00835 | 1101 |
| 8-3-62 | 3.88 | 0.00688 | 1197 |
| 8-6-62 | 6.88 | 0.01214 | 1258 |

Horner Calculation of Avg. Pressure

$P^* = P_o - 70.6/162.6 \times St. \times y(u)$

$1838 = 2000 - 0.434 \times 297 \times y(u)$

$y(u) = 1.255$

$u = 0.33$

$P_s = 2000 - \frac{0.434 \times 297}{0.33} = 1609$ psi

$P^* = 1838$ psi @ 1.0

slope = 297 psi/cycle

BHP @ 1625 days

Dimensionless Time = $\frac{\Delta t}{T + \Delta t}$

0.001 0.01 0.1

K+E SEMI-LOGARITHMIC 359-61

## Redfern & Hard Large Spur 1-A

BHP Buildup 7-28-62 to 8-6-62

Cumulative Production = 2053 bbls.

Avg. Stabilized Prod. Rate = 2.8 B/D

Pseudo Producing Time $T$ = 733.2 days

Shut in 7-28-62

| Date | $\Delta t$ | $\Delta t/T+\Delta t$ | Pressure |
|---|---|---|---|
| 8-1-62 | 4 | 0.00542 | 1315 |
| 8-6-62 | 9 | 0.0121 | 1383 |

### Horner Calculation of Avg. Pressure

$P^* = P_0 - 70.6/162.6 \times \text{Sl.} \times y(u)$

$1761 = 2000 - 0.434 \times 194 \times y(u)$

$y(u) = 2.90$

$u = 0.197$

$P_s = 2000 - \dfrac{0.434 \times 194}{0.197} = 1582$ PSI

$P^* = 1761$ psi @ 1.0

Slope = 194 PS/Cycle

BHP @ 1023' datum

1600

1500

1400

1300

0.001 Dimensionless Time = $\dfrac{\Delta t}{T+\Delta t}$ 0.01 0.1

K·E SEMI-LOGARITHMIC 359-61
KEUFFEL & ESSER CO.
2 CYCLES X 70 DIVISIONS

J. Gregory Merrion & Assoc. Edna #3

BHP Buildup

7-30-62 to 8-6-62

Cumulative Production = 8844 bbls

Avg. Stabilized Prod. Rate = 36 B/D

Pseudo Producing Time $T$ = 245.7 days

Shut in 7-30-62

| Date | $\Delta t$ | $\frac{\Delta t}{T+\Delta t}$ | Pressure |
|---|---|---|---|
| 8-1-62 | 2 | 0.00807 | 1243 |
| 8-3-62 | 4 | 0.01607 | 1356* |
| 8-6-62 | 7 | 0.02777 | 1598* |

Horner Calculation of Avg. Pressure

$p^* = p_0 - 70.6/162.6 \times 51 \times y(u)$

$1843 = 2000 - 0.434 \times 281 \times y(u)$

$y(u) = 1.288$

$u = 0.323$

$p^* = 2000 - \frac{0.434 \times 281}{0.323} = 1622$ psi

* These pressures adjusted from those reported by B+R to allow for increasing weight of gas column at higher pressures.

$p^* = 1843$ psi @ 1.0

Slope = 281 psi/cycle

BHP @ 1275 datum

1900 1800 1700 1600 1500 1400 1300 1200

.001 .01 0.1

Dimensionless Time = $\frac{\Delta t}{T+\Delta t}$

K&E SEMI LOGARITHMIC 359-61
KEUFFEL & ESSER CO.
2 CYCLE X 70 DIVISIONS

J. Gregory Merrion & Assoc. Edna #1

BHP Buildup

7-30-62 to 8-6-62

Cumulative Production = 42,216 bbls.

Avg. Stabilized Prod. Rate = 55 B/D

Pseudo Producing Time $T = \frac{42,216}{55} = 767.6$ da.

Shut in 7-30-62

| Date | $\Delta t$ | $\frac{\Delta t}{T+\Delta t}$ | Pressure |
|---|---|---|---|
| 8-1-62 | 2 | 0.0026 | 926 |
| 8-3-62 | 4 | 0.0052 | 1045 |
| 8-6-62 | 7 | 0.00904 | 1127 |

Horner Calculation of Avg. Pressure

$p^* = p_0 = 70.6/162.6 \times 51. \times 4(u)$

$1930 = 2000 - 0.434 \times 387 \times 4(u)$

$4(u) = 0.417$

$u = 0.64$

$P_s = 2000 - \frac{0.434 \times 387}{0.64} = 1748$ psi

$p^* = 1930$ psi @ 1.0 hr

Slope = 337 psi/cycle

1748 psi @ $\frac{\Delta t}{T+\Delta t} = 0.25$

1600
1500
1400
1300
1200
1100
1000
900

0.001 Dimensionless Time = $\frac{\Delta t}{T+\Delta t}$ 0.01 0.1

K&E SEMI-LOGARITHMIC 350-61
KEUFFEL & ESSER CO.
2 CYCLES X 70 DIVISIONS

J. Gregory Merrion & Assoc Edna #2
BHP Buildup
7-30-62 to 8-6-62
Cumulative Production = 31,708 bbls
Avg. Stabilized Prod. Rate = 65 bbls/day
Pseudo Producing Time $T = \frac{31708}{65} = 487.8$ days
Shut in 7-30-62

| Date | $\Delta t$ | $\frac{\Delta t}{T+\Delta t}$ | Pressure |
|---|---|---|---|
| 8-6-62 | 7 | 0.014 | 1709 |

Remark: Only one pressure point available. Best estimate of $P^*$ is same as Edna #1 or 1930 psi.

Horner Calculation of Avg. Pressure
$P^* = P_o - 70.6/162.6 \times \$1. \times y(u)$
$1930 = 2000 - 0.434 \times 119 \times y(u)$
$y(u) = 1.36$
$u = 0.328$
$P_s = 2000 - \frac{0.434 \times 119}{0.328} = 1843$ psi

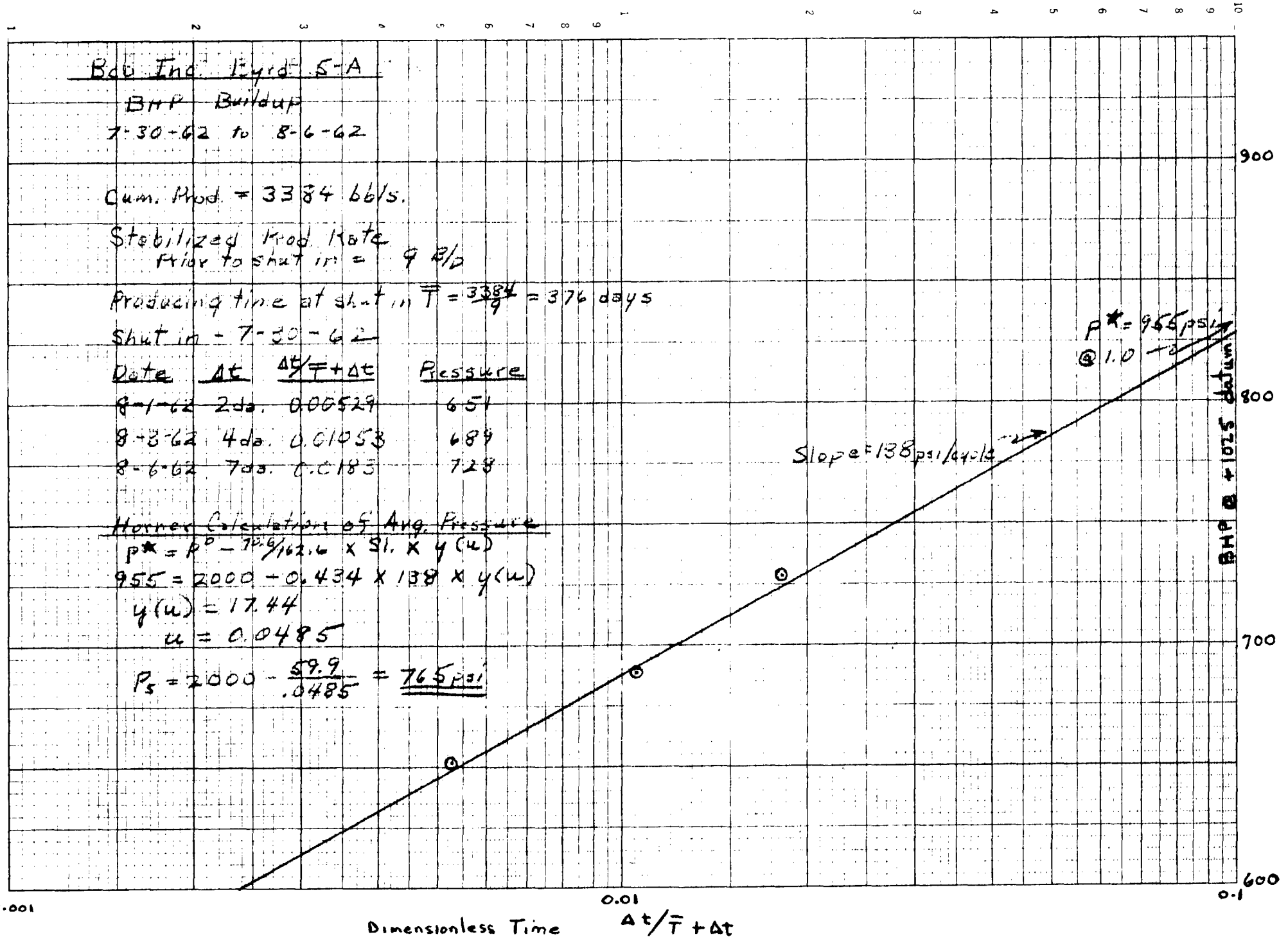
Slope = 119 psi/cycle

2000
1900
1800
1700

BHP @ 1025' datum

0.01 Dimensionless Time = $\frac{\Delta t}{T+\Delta t}$ 0.1 1.0

K&E SEMI-LOGARITHMIC 359-61
KEUFFEL & ESSER CO.
2 CYCLES X 70 DIVISIONS



K&E SEMI-LOGARITHMIC 359 61
KEUFFEL & ESSER CO.
2 CYCLES X 70 DIVISIONS

El Paso Nat Gas Co. Canyon Largo Unit #118

BHP Build-up

7-29-62 to 8-6-62

Cumulative Production = 604 66 Mcf

Avg. Stabilized Prod. Rate = 130 Mcf/D

Pseudo Producing Time $T$ = 4.63 days

Shut in 7-29-62

| Date | $\Delta t$ | $\frac{\Delta t}{T+\Delta t}$ | Pressure |
|---|---|---|---|
| 8-1-62 | 3 | 0.391 | 1812 |
| 8-3-62 | 5 | 0.517 | 1855 |
| 8-6-62 | 8 | 0.631 | 1865 |

Horner Calculation - Not Applicable

Due to shut producing history, well was producing with such a small drainage radius that reservoir can be considered infinite and

$P^* = P_s$ = 1933 psi

$P^* - P_s$ = 1933 psi

1950

1900

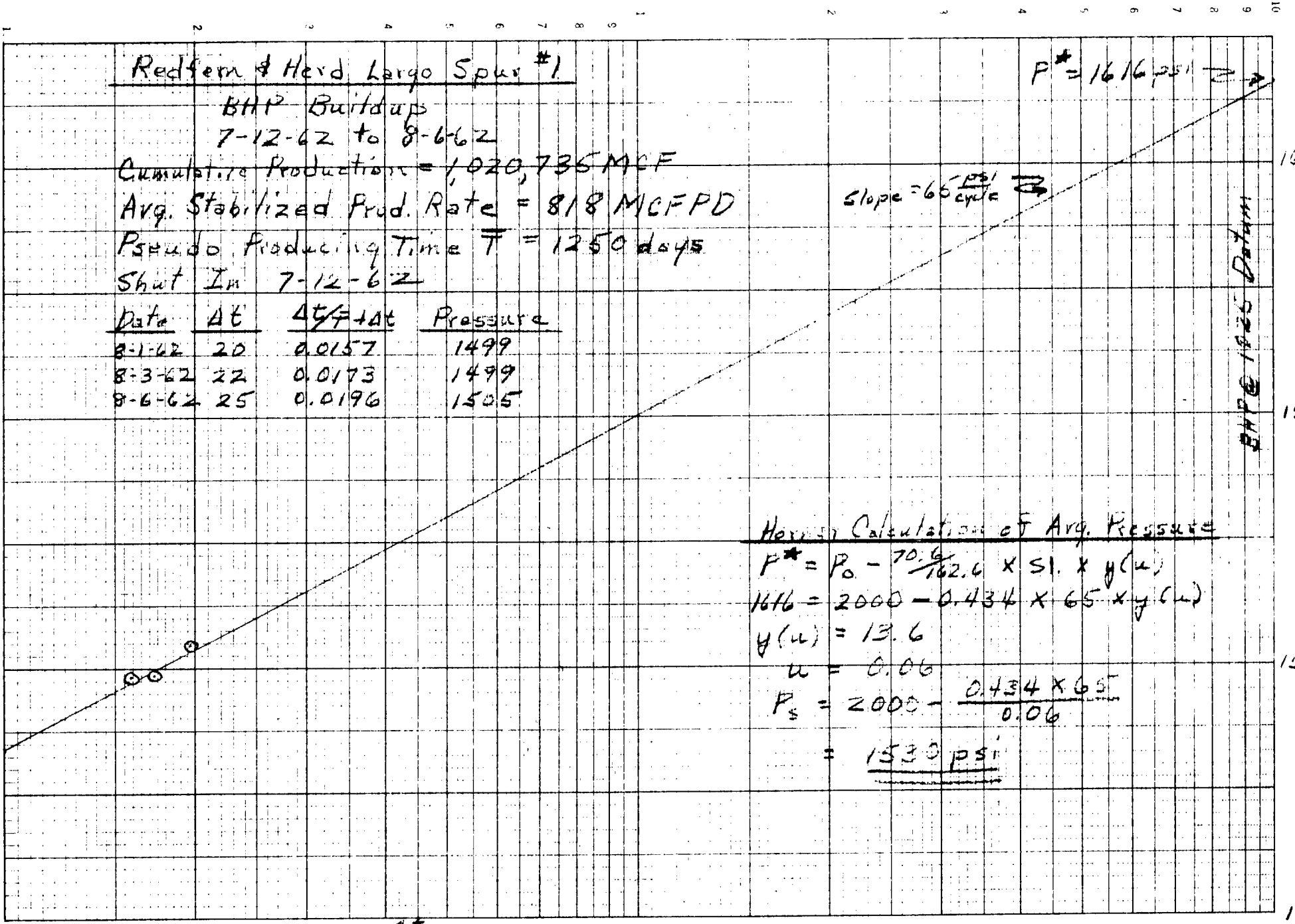
1850

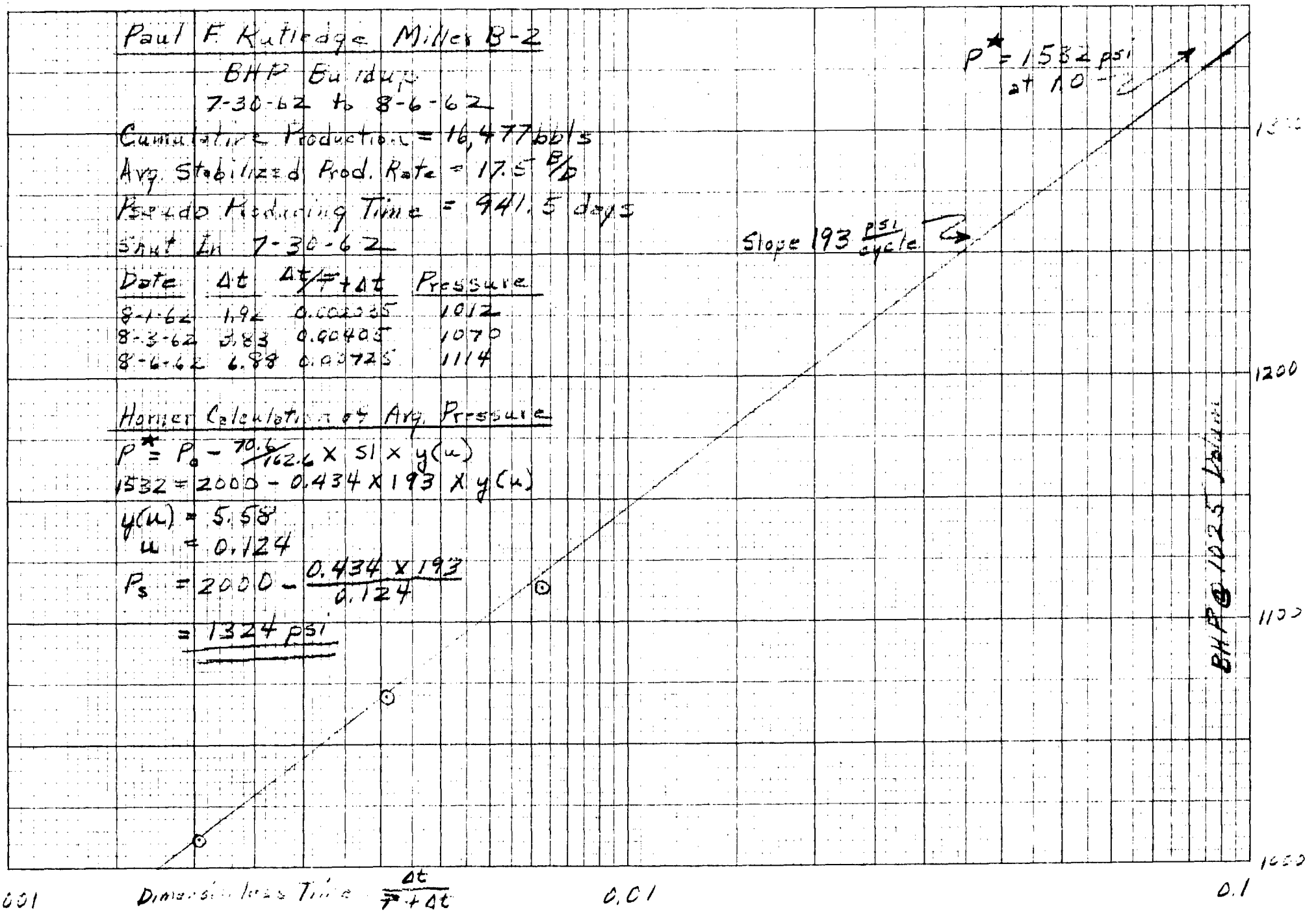
Dimensionless Time = $\frac{\Delta t}{T+\Delta t}$

0.01

0.1

1.0





K&E SEMI-LOGARITHMIC 359-61
KEUFFEL & ESSER CO. MADE IN U.S.A.
2 CYCLES X 70 DIVISIONS

Skelly Oil Co. New Mexico Federal G-1

BHP Buildup

7-23-62 to 8-6-62

Cumulative Production = 345,046 MCF

Avg. Stabilized Producing Rate = 1137 MCFPD

Pseudo Producing Time = 303.5 days

Shut in 7-23-62

| Date | $\Delta t$ | $\frac{\Delta t}{T+\Delta t}$ | Pressure |
|---|---|---|---|
| 8-1-62 | 9 | 0.031 | 1422 |
| 8-6-62 | 14 | 0.044 | 1436 |

Horner Calculation indicates $P_s$ = 1444 psi

However, curve had probably begun to level off prior to running the survey. Best estimate of average pressure is halfway between highest measured and extrapolated pressures.

$P_s = \frac{1436 + 1562}{2} = 1500$ psi

$P^* = 1563$ psi

Slope = 92 psi/cycle

BHP @ 10,225' Datum

155

150

145

140

0.01

Dimensionless Time = $\frac{\Delta t}{T+\Delta t}$

0.1

1.0

PETROLEUM TECHNOLOGISTS, INC

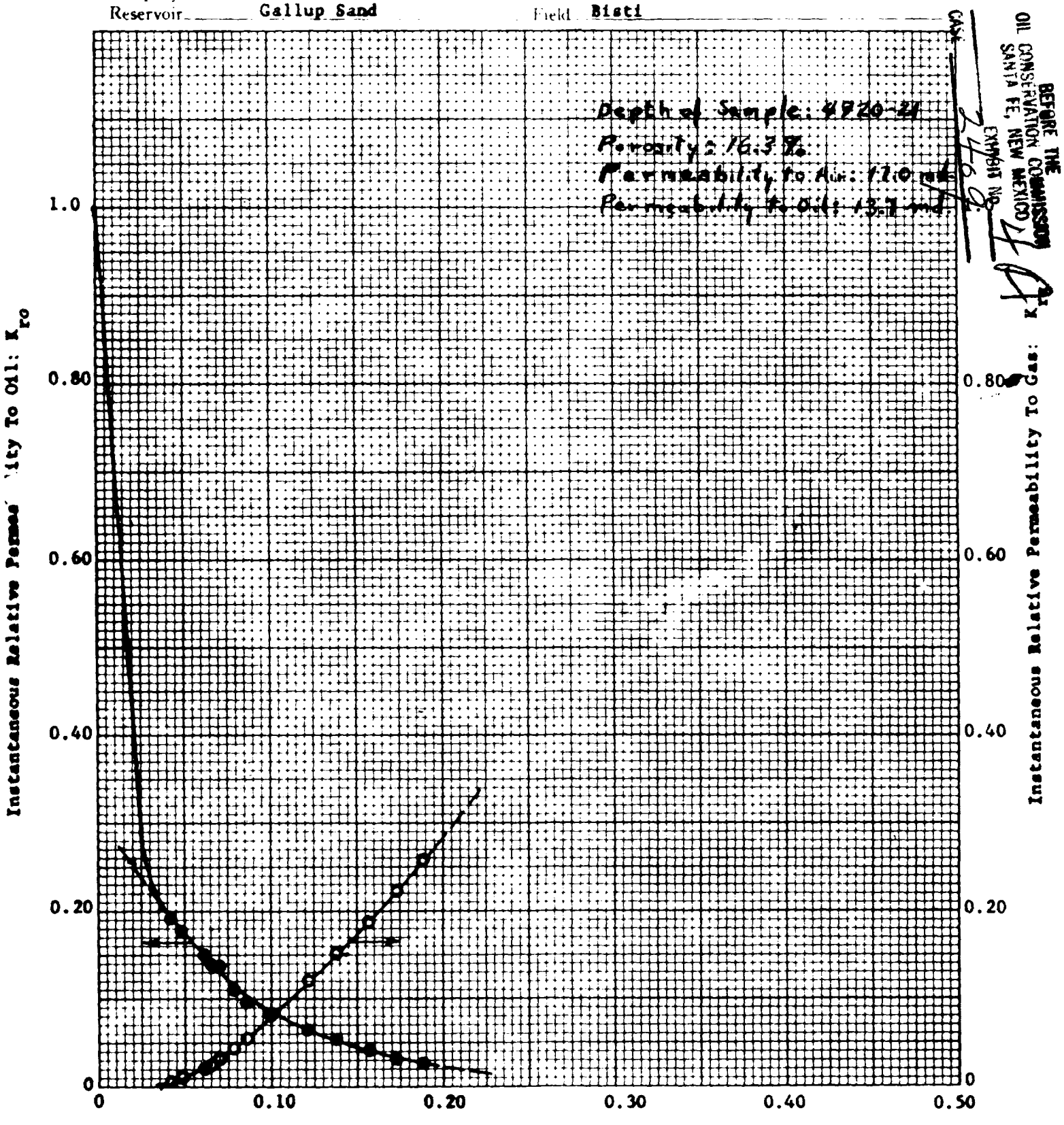
File No. BA-3042-S

## INSTANTANEOUS RELATIVE PERMEABILITY TO GAS AND OIL VS. CORRESPONDING GAS PHASE SATURATION

Sample No. 2 The British-American Depth 4920-21

Company Oil Producing Company Well Marye "B" No. 4

Reservoir Gallup Sand Field Bisti




BEFORE THE OIL CONSERVATION COMMISSION SANTA FE, NEW MEXICO EXHIBIT NO. 4 CASE



Figure 1-8