

| | | | | | | |
|----------------------------|-------------|------------------|--|------------------------|----------------------------|----------------------------------|
| Flow Time | 1st Min. 30 | 2nd Min. 30 | Date | 10-27-63 | Ticket Number | 401084 S |
| Closed In Pres. Time | 1st Min. 30 | 2nd Min. 30 | Kind of Job | OPEN HOLE | Halliburton District | HAYS |
| Pressure Readings | Field | Office Corrected | Tester | K. L. GROVES | Witness | MR. VAUGHN |
| Depth Top Gauge | 3440 Ft. | Blanked Off No | Drilling Contractor | LEBEN DRILLING INC. | | |
| BT. P.R.D. No. | 294 | Hour Clock 12 | Elevation | 2207' | Top Packer | |
| Initial Hydro Mud Pressure | 1807 | 1778 | Total Depth | 3520' | Bottom Packer | 3435' |
| Initial Closed in Pres. | 1187 | 1186 | Interval Tested | 3435-3520' | Formation Tested | Topeka 23 |
| Initial Flow Pres. | 17 | 20 | Casing or Hole Size | 7 7/8" | Casing Perfs. Top Bot. | |
| Final Flow Pres. | 69 | 42 | Surface Choke | 1/4" | Bottom Choke | 1" |
| Final Closed in Pres. | 1126 | 1133 | Size & Kind Drill Pipe | 4 1/2" FH | Drill Collars Above Tester | I.D. - LENGTH 2 1/4-840 Flex Wt. |
| Final Hydro Mud Pressure | 1762 | 1765 | Mud Weight | 9.9 | Mud Viscosity | 46 |
| Depth Cen. Gauge | 3515 Ft. | Blanked Off Yes | Temperature | 101 | Anchor Size & Length | ID 3 3/4 OD 5" X 85' |
| BT. P.R.D. No. | 374 | Hour Clock 12 | Depths Mea. From | DF | Depth of Tester Valve | 3414' Ft. |
| Initial Hydro Mud Pres. | | 1819 | Cushion | | Depth Back Pres. Valve | Ft. |
| Initial Closed in Pres. | | 1225 | Recovered | 100 Feet of Watery Mud | | |
| Initial Flow Pres. | | 62 | Recovered | Feet of | | |
| Final Flow Pres. | | 94 | Recovered | Feet of | | |
| Final Closed in Pres. | | 83 | Recovered | Feet of | | |
| Final Hydro Mud Pres. | | 104 | Recovered | Feet of | | |
| Final Closed in Pres. | | 1171 | Recovered | Feet of | | |
| Final Hydro Mud Pres. | | 1808 | Oil A.P.I. Gravity | | Water Spec. Gravity | |
| Depth Bot. Gauge | | | Gas Gravity | | Surface Pressure | psi |
| BT. P.R.D. No. | | Hour Clock | Tool Opened | 6:40 AM | Tool Closed | 8:40 AM |
| Initial Hydro Mud Pres. | | | Remarks Tool opened with a weak blow for a 30 minute | | | |
| Initial Closed in Pres. | | | first flow. Rotated tool for a 30 minute initial | | | |
| Initial Flow Pres. | | | closed in pressure. Reopened tool with a weak blow | | | |
| Final Flow Pres. | | | for a 30 minute second flow. Took a 30 minute | | | |
| Final Closed in Pres. | | | final closed in pressure. | | | |
| Final Hydro Mud Pres. | | | | | | |

STAB

Lease Name

Well No.

Test No.

PHILLIPS PETROLEUM COMPANY

GREAT BEND

Owner's District

 Legal Location Sec. - Twp. - Rng. SE SE 123 12 20W
 Field Area
 County ELLIS
 State KANSAS

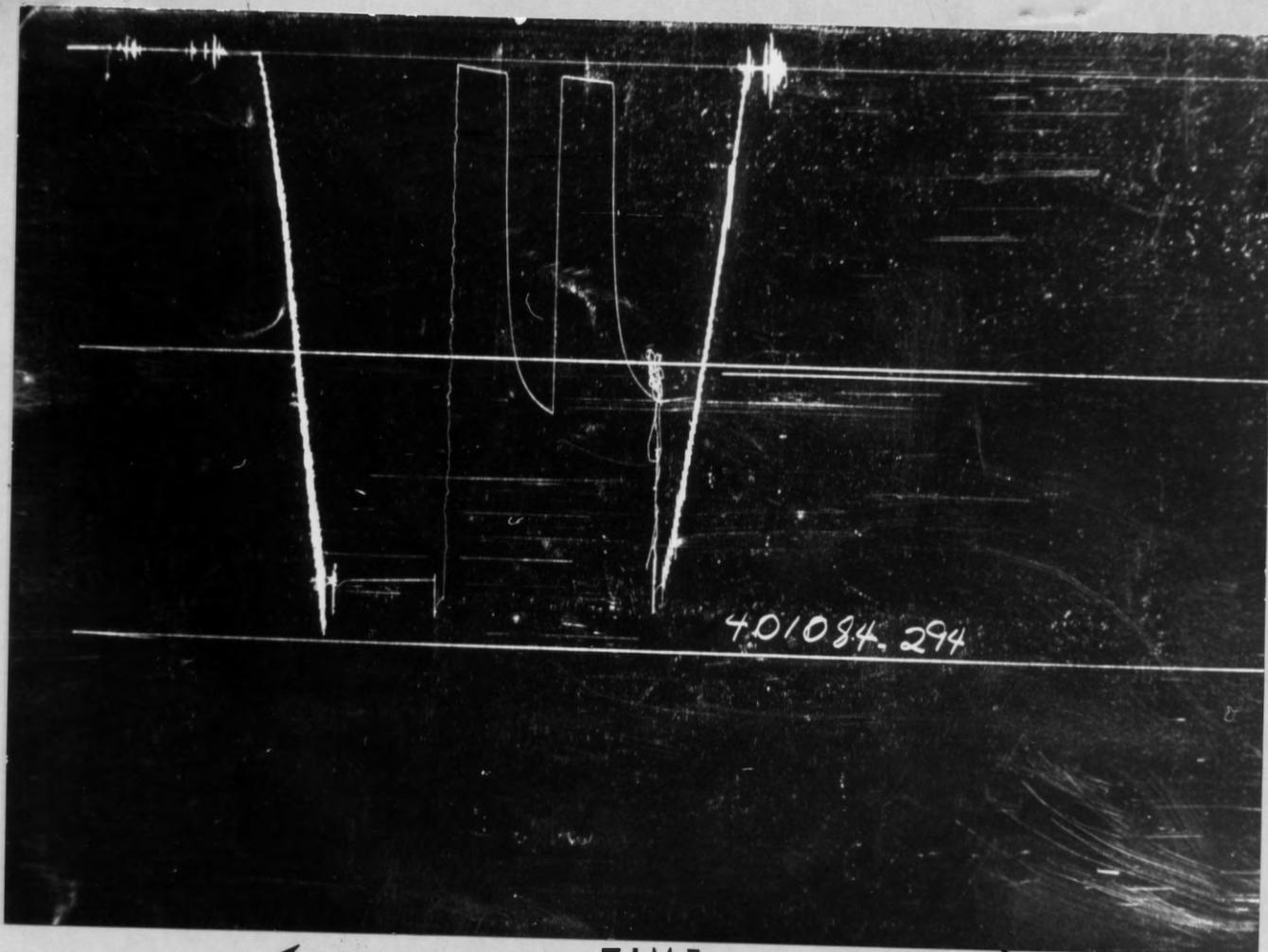
FORMATION TEST DATA

5

| Gauge No. 294 | | Depth 3440 | | | Clock 12 hour | | Ticket No. 401084 | | | |
|--------------------|------------------|----------------------------|-------------------------------|------------------|--------------------|------------------|--------------------------|-------------------------------|------------------|---------|
| First Flow Period | | Initial Closed In Pressure | | | Second Flow Period | | Final Closed In Pressure | | | |
| Time Defl. .000" | PSIG Temp. Corr. | Time Defl. .000" | Log $\frac{t+\theta}{\theta}$ | PSIG Temp. Corr. | Time Defl. .000" | PSIG Temp. Corr. | Time Defl. .000" | Log $\frac{t+\theta}{\theta}$ | PSIG Temp. Corr. | |
| P ₀ | .000 | 20 | .000 | | 42 | .000 | 51 | .000 | | 65 |
| P ₁ | .0394 | 25 | .0224 | | 649 | .0406 | 51 | .0218 | | 586 |
| P ₂ | .0788 | 31 | .0448 | | 891 | .0812 | 54 | .0436 | | 826 |
| P ₃ | .1182 | 34 | .0672 | | 999 | .1218 | 58 | .0654 | | 935 |
| P ₄ | .1576 | 38 | .0896 | | 1061 | .1624 | 61 | .0872 | | 996 |
| P ₅ | .1970 | 42 | .1120 | | 1098 | .2030 | 65 | .1090 | | 1037 |
| P ₆ | | | .1344 | | 1127 | | | .1308 | | 1067 |
| P ₇ | | | .1568 | | 1146 | | | .1526 | | 1088 |
| P ₈ | | | .1792 | | 1 163 | | | .1744 | | 1106 |
| P ₉ | | | .2016 | | 1176 | | | .1962 | | 1120 |
| P ₁₀ | | | .2240 | | 1186 | | | .2180 | | 1133 |
| Gauge No. 374 | | Depth 3515 | | | Clock 12 hour | | | | | |
| P ₀ | .000 | 62 | .000 | | 83 | .000 | 94 | .000 | | 104 |
| P ₁ | .037 | 68 | .0217 | | 667 | .0386 | 92 | .0209 | | 620 |
| P ₂ | .074 | 72 | .0434 | | 924 | .0772 | 96 | .0418 | | 851 |
| P ₃ | .111 | 76 | .0651 | | 1032 | .1158 | 98 | .0627 | | 966 |
| P ₄ | .148 | 79 | .0868 | | 1094 | .1544 | 102 | .0836 | | 1030 |
| P ₅ | .185 | 83 | .1085 | | 1134 | .1930 | 104 | .1045 | | 1072 |
| P ₆ | | | .1302 | | 1164 | | | .1254 | | 1102 |
| P ₇ | | | .1519 | | 1185 | | | .1463 | | 1127 |
| P ₈ | | | .1736 | | 1201 | | | .1672 | | 1145 |
| P ₉ | | | .1953 | | 1214 | | | .1881 | | 1159 |
| P ₁₀ | | | .2170 | | 1225 | | | .2090 | | 1171 |
| Reading Interval 6 | | 3 | | | 6 | | 3 | | | Minutes |
| REMARKS: | | | | | | | | | | |

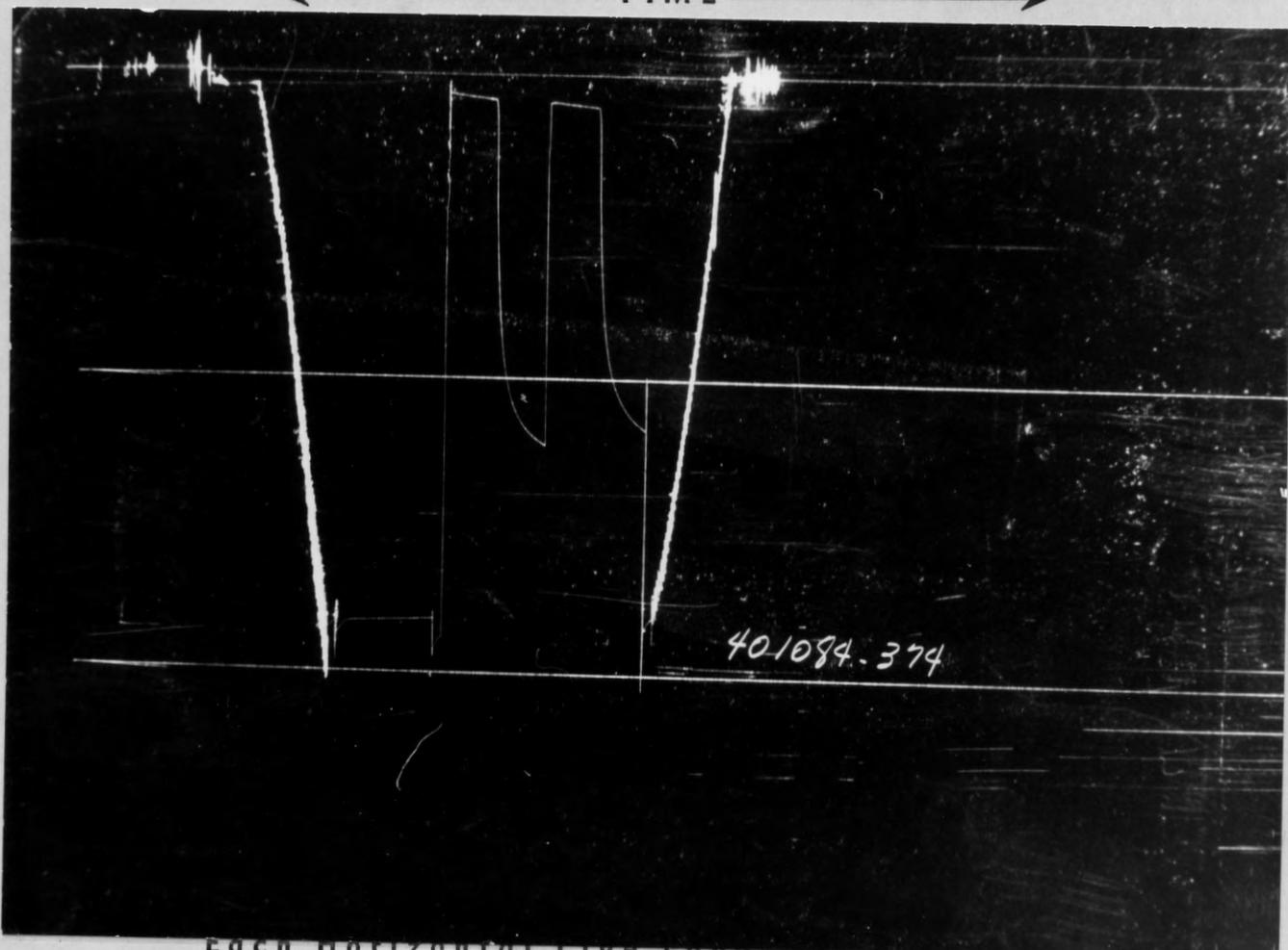
SPECIAL PRESSURE DATA

↑
PRESSURE
↓



401084.294

← TIME →



401084.374

Each horizontal line equal to 1000

| | | | | | | |
|----------------------------|-------------|------------------|------------------------|--|----------------------------|--------------------------|
| Flow Time | 1st 30 Min. | 2nd 30 Min. | Date | 10-28-63 | Ticket Number | 401085 S |
| Closed In Pres. Time | 1st 30 Min. | 2nd 30 Min. | Kind of Job | OPEN HOLE | Halliburton District | HAYS |
| Pressure Readings | Field | Office Corrected | Tester | K. L. GROVES | Witness | MR. VAUGHN |
| Depth Top Gauge | 3568 Ft. | Blanked Off No | Drilling Contractor | LEBEN DRILLING COMPANY | | |
| BT. P.R.D. No. | 294 | 12 Hour Clock | Elevation | 2207' | Top Packer | |
| Initial Hydro Mud Pressure | 1894 | 1846 | Total Depth | 3610' | Bottom Packer | 3563' |
| Initial Closed in Pres. | 1282 | 1268 | Interval Tested | 3563-3610' | Formation Tested | Kansas City |
| Initial Flow Pres. | 15 | 1 14 | Casing or Hole Size | 7 7/8" | Casing Perfs. | Top Bot. |
| Final Flow Pres. | 59 | 2 59 | Surface Choke | 1/4" | Bottom Choke | 1" |
| Final Closed in Pres. | 1247 | 1256 | Size & Kind Drill Pipe | 4 1/2" FH | Drill Collars Above Tester | 2 1/2-840' I.D. - LENGTH |
| Final Hydro Mud Pressure | 1841 | 1834 | Mud Weight | 9.7 | Mud Viscosity | 46 |
| Depth Cen. Gauge | 3606 Ft. | Blanked Off Yes | Temperature | 102 | Anchor Size & Length | ID 5" X 47 |
| BT. P.R.D. No. | 374 | 12 Hour Clock | Depths Mea. From | DF | Depth of Tester Valve | 3550' Ft. |
| Initial Hydro Mud Pres. | | 1875 | Cushion | none | Depth Back Pres. Valve | Ft. |
| Initial Closed in Pres. | | 1294 | Recovered | 180 | Feet of Muddy Saltwater | |
| Initial Flow Pres. | 1 | 42 | Recovered | | Feet of | |
| Final Flow Pres. | 2 | 91 | Recovered | | Feet of | |
| Final Closed in Pres. | 1 | 81 | Recovered | | Feet of | |
| Final Hydro Mud Pres. | | 1281 | Recovered | | Feet of | |
| Depth Bot. Gauge | | 1861 | Oil A.P.I. Gravity | | Water Spec. Gravity | |
| BT. P.R.D. No. | | Blanked Off | Gas Gravity | | Surface Pressure | psi |
| Initial Hydro Mud Pres. | | Hour Clock | Tool Opened | 5:50 AM | Tool Closed | 7:50 AM |
| Initial Closed in Pres. | | | Remarks | Tool opened with a weak blow for a 30 min. first flow. Rotated tool for a 30 minute initial closed in pressure. Reopened tool with a weak blow, building to fair for a 30 minute second flow. Took a 30 minute final closed in pressure. | | |
| Initial Flow Pres. | 1 | | | | | |
| Final Flow Pres. | 2 | | | | | |
| Final Closed in Pres. | 1 | | | | | |
| Final Hydro Mud Pres. | 2 | | | | | |

STAB

Lease Name

Well No.

Test No.

PHILLIPS PETROLEUM COMPANY

GREAT BEND

Legal Location Sec. - Twp. - Rng. SE SE SW 24 12 20
Field Area
County Ellis
State Kansas

FORMATION TEST DATA

5

| Gauge No. 294 | | Depth 3568' | | Clock 12 hour | | Ticket No. 401085 | | | |
|-------------------|------------------|----------------------------|-------------------------------|------------------|--------------------|-------------------|--------------------------|-------------------------------|------------------|
| First Flow Period | | Initial Closed In Pressure | | | Second Flow Period | | Final Closed In Pressure | | |
| Time Defl. .000" | PSIG Temp. Corr. | Time Defl. .000" | Log $\frac{t+\theta}{\theta}$ | PSIG Temp. Corr. | Time Defl. .000" | PSIG Temp. Corr. | Time Defl. .000" | Log $\frac{t+\theta}{\theta}$ | PSIG Temp. Corr. |
| P ₀ | .000 | 14 | | 55 | .000 | 59 | .000 | | 94 |
| P ₁ | .040 | 22 | .0198 | 1054 | .040 | 66 | .0201 | | 1006 |
| P ₂ | .080 | 31 | .0396 | 1161 | .080 | 78 | .0402 | | 1140 |
| P ₃ | .120 | 39 | .0594 | 1199 | .120 | 81 | .0603 | | 1183 |
| P ₄ | .160 | 48 | .0792 | 1221 | .160 | 87 | .0804 | | 1206 |
| P ₅ | .200 | 55 | .0990 | 1235 | .200 | 94 | .1005 | ⁵ | 1222 |
| P ₆ | | | .1188 | 1245 | | | .1206 | ¹⁸ | 1232 |
| P ₇ | | | .1386 | 1253 | | | .1407 | ²¹ | 1241 |
| P ₈ | | | .1584 | 1259 | | | .1608 | ²⁴ | 1246 |
| P ₉ | | | .1782 | 1264 | | | .1809 | ²⁷ | 1251 |
| P ₁₀ | | | .1980 | 1268 | | | .2010 | ³⁰ | 1256 |

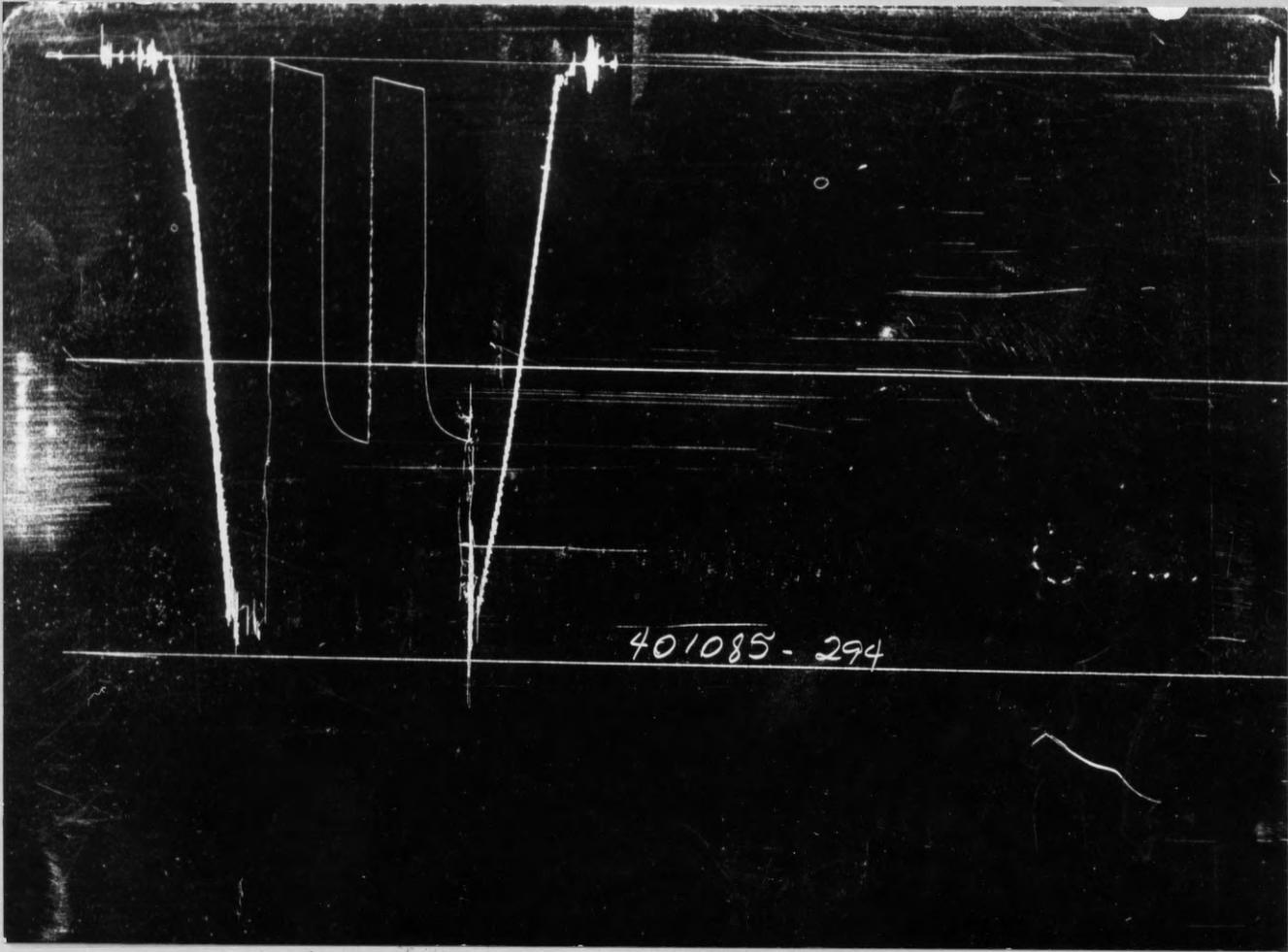
| Gauge No. 374 | | Depth 3606' | | Clock 12 hour | | | | | |
|------------------|------------------|------------------|-------------------------------|------------------|------------------|------------------|------------------|-------------------------------|------------------|
| Time Defl. .000" | PSIG Temp. Corr. | Time Defl. .000" | Log $\frac{t+\theta}{\theta}$ | PSIG Temp. Corr. | Time Defl. .000" | PSIG Temp. Corr. | Time Defl. .000" | Log $\frac{t+\theta}{\theta}$ | PSIG Temp. Corr. |
| P ₀ | .000 | 42 | | 81 | .000 | 91 | .000 | | 120 |
| P ₁ | .0416 | 48 | .0215 | 938 | .0418 | 93 | .0219 | | 949 |
| P ₂ | .0832 | 57 | .0430 | 1156 | .0836 | 100 | .0438 | | 1155 |
| P ₃ | .1248 | 65 | .0645 | 1210 | .1254 | 108 | .0657 | | 1206 |
| P ₄ | .1664 | 72 | .0860 | 1239 | .1672 | 114 | .0876 | | 1231 |
| P ₅ | .2080 | 81 | .1075 | 1256 | .2090 | 120 | .1095 | | 1247 |
| P ₆ | | | .1290 | 1269 | | | .1314 | | 1258 |
| P ₇ | | | .1505 | 1277 | | | .1533 | | 1266 |
| P ₈ | | | .1720 | 1284 | | | .1752 | | 1272 |
| P ₉ | | | .1935 | 1289 | | | .1971 | | 1277 |
| P ₁₀ | | | .2150 | 1294 | | | .2190 | | 1281 |

Reading Interval 6 3 6 3 Minutes

REMARKS:

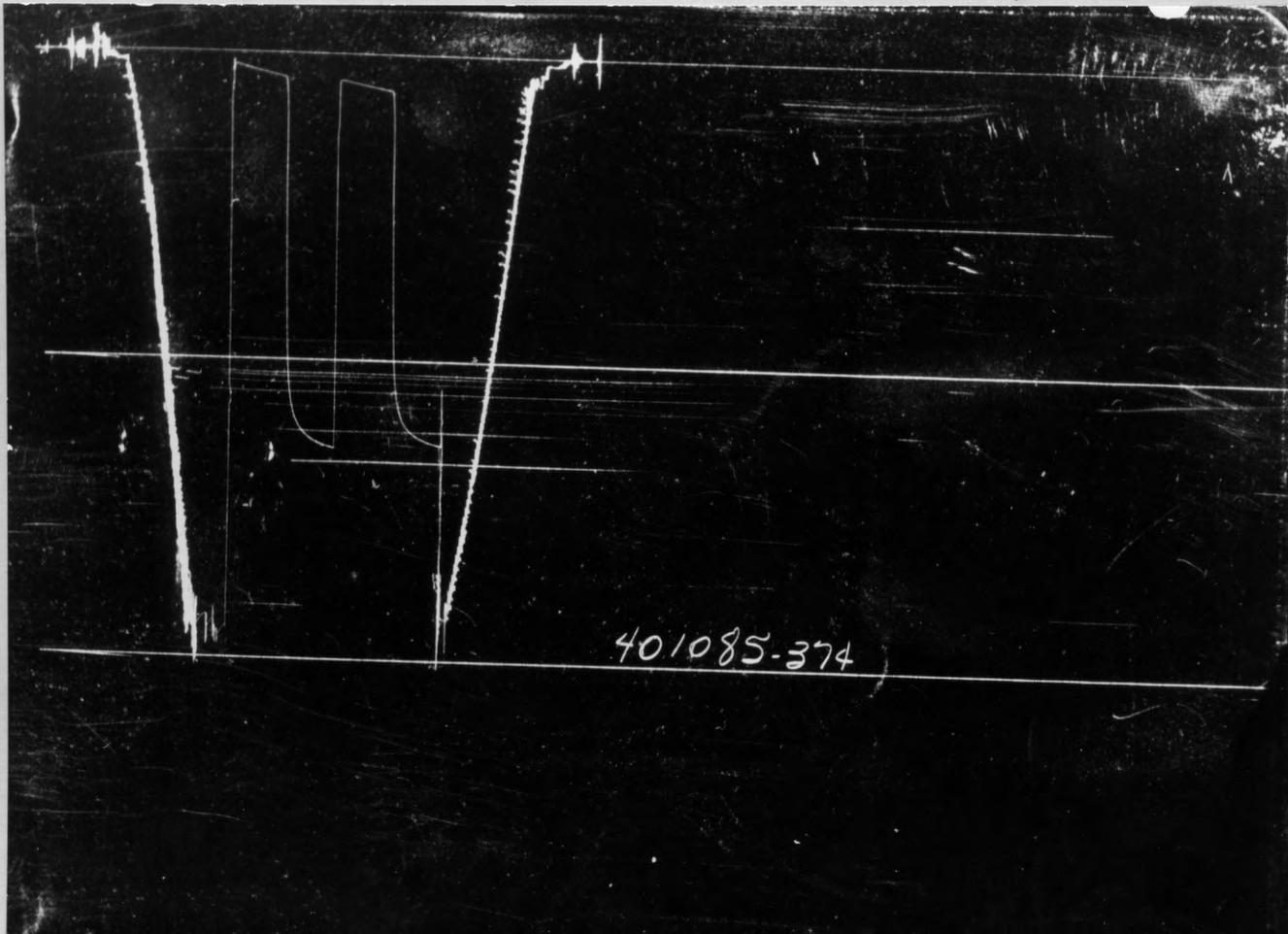
SPECIAL PRESSURE DATA

PRESSURE



401085-294

TIME



401085-374

| | | | | | | |
|----------------------------|-------------|------------------|------------------------|--|----------------------------|-----------------------------------|
| Flow Time | 1st 5 Min. | 2nd 30 Min. | Date | 10-29-63 | Ticket Number | 401086 S |
| Closed In Press. Time | 1st 30 Min. | 2nd 30 Min. | Kind of Job | Open hole test | Halliburton District | Hays |
| Pressure Readings | Field | Office Corrected | Tester | Mr. Grover | Witness | Mr. Vaughn |
| Depth Top Gauge | 3813 Ft. | NO Blanked Off | Drilling Contractor | Leben Drilling Company | | |
| BT. P.R.D. No. | 294 | 12 Hour Clock | Elevation | 2207' | Top Packer | 3803' |
| Initial Hydro Mud Pressure | 2071 | 2030 | Total Depth | 3832' | Bottom Packer | 3809' |
| Initial Closed in Pres. | 1178 | 1179 | Interval Tested | 3809'-3832' | Formation Tested | Morm. |
| Initial Flow Pres. | - 1 37 | 76 2 83 | Casing or Hole Size | 7 7/8" | Casing Perfs. } Top | - |
| Final Flow Pres. | - 1 65 | 254 2 244 | Surface Choke | 1/4" | Bottom Choke | 1" |
| Final Closed in Pres. | 1109 | 1105 | Size & Kind Drill Pipe | 4 1/2" FH | Drill Collars Above Tester | I.D. - LENGTH 2 1/2" x 840' |
| Final Hydro Mud Pressure | 2025 | 2006 | Mud Weight | 10 | Mud Viscosity | 46 |
| Depth Cen. Gauge | 3828 Ft. | YES Blanked Off | Temperature | 103 °F Est. °F Actual | Anchor Size & Length | ID 3.84" OD 5.00" X 23' |
| BT. P.R.D. No. | 374 | 12 Hour Clock | Depths Mea. From | Derrick Floor | Depth of Tester Valve | 3783' Ft. |
| Initial Hydro Mud Pres. | - | 2042 | Cushion | - | Depth Back Pres. Valve | - |
| Initial Closed in Pres. | - | 1182 | Recovered | 430 | Feet of | Heavy highly gas & oil cut mud |
| Initial Flow Pres. | - 1 29 | - 2 89 | Recovered | 60 | Feet of | Very slightly oil & water cut mud |
| Final Flow Pres. | - 1 71 | - 2 248 | Recovered | 60 | Feet of | Very slightly oil cut watery mud |
| Final Closed in Pres. | - | 1110 | Recovered | - | Feet of | - |
| Final Hydro Mud Pres. | - | 2015 | Oil A.P.I. Gravity | - | Water Spec. Gravity | - |
| Depth Bot. Gauge | - | - | Gas Gravity | - | Surface Pressure | - psi |
| BT. P.R.D. No. | - | - | Tool Opened | 2:45 A.M. P.M. | Tool Closed | 4:20 A.M. P.M. |
| Initial Hydro Mud Pres. | - | - | Remarks | Opened tool for 5 minute 1st flow. Closed tool for 30 minute initial closed in pressure. | | |
| Initial Closed in Pres. | - | - | | Reopened tool for 30 minute 2nd flow with strong blow throughout test. Closed tool for 30 minute final closed in pressure. | | |
| Initial Flow Pres. | - 1 | - 2 | | | | |
| Final Flow Pres. | - 1 | - 2 | | | | |
| Final Closed in Pres. | - | - | | | | |
| Final Hydro Mud Pres. | - | - | | | | |

FORMATION TEST DATA

5

STAB
 Lease Name
 1
 Well No.
 3
 Test No.
 PHILLIPS PETROLEUM COMPANY
 Lease Owner/Company Name
 GREAT BEND
 Owner's District

Legal Location
 Sec. - Twp. - Rng.
 SEC. 25 - 12 - 20
 Field Area
 WILDCAT
 County
 ELLIS
 State
 KANSAS

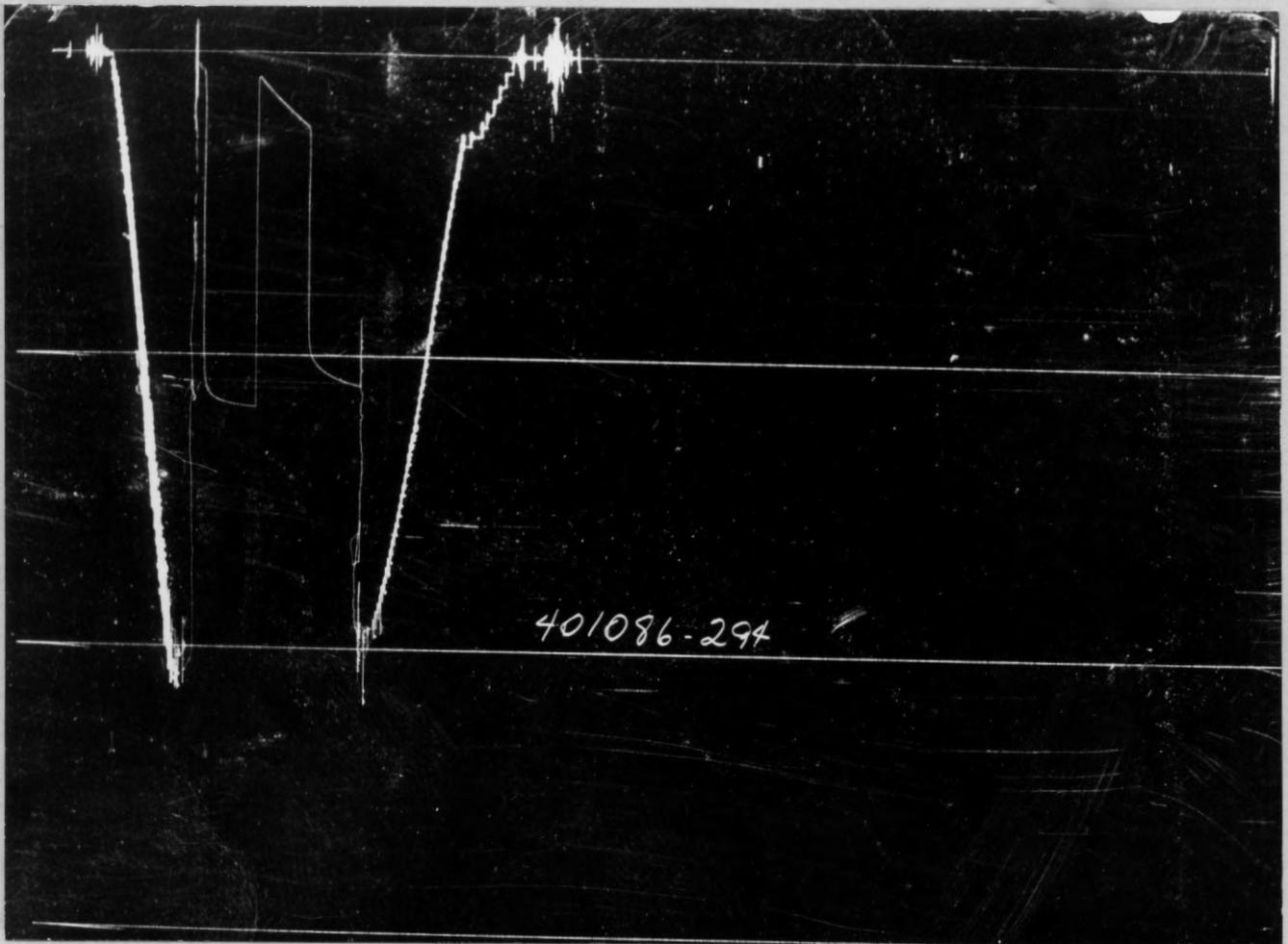
| Gauge No. 294 | | Depth 3813' | | | Clock 12 hour | | Ticket No. 401086 | | | |
|-------------------|------------------|----------------------------|-------------------------------|------------------|--------------------|------------------|--------------------------|-------------------------------|------------------|------|
| First Flow Period | | Initial Closed In Pressure | | | Second Flow Period | | Final Closed In Pressure | | | |
| Time Defl. .000" | PSIG Temp. Corr. | Time Defl. .000" | Log $\frac{t+\theta}{\theta}$ | PSIG Temp. Corr. | Time Defl. .000" | PSIG Temp. Corr. | Time Defl. .000" | Log $\frac{t+\theta}{\theta}$ | PSIG Temp. Corr. | |
| P ₀ | .000 | 37 | .000 | | 65 | .000 | 83 | .000 | | 244 |
| P ₁ | .0064 | 41 | .0217 | | 1120 | .041 | 116 | .0215 | | 1012 |
| P ₂ | .0128 | 42 | .0434 | | 1144 | .082 | 153 | .0430 | | 1039 |
| P ₃ | .0192 | 55 | .0651 | | 1155 | .123 | 185 | .0645 | | 1055 |
| P ₄ | .0256 | 58 | .0868 | | 1161 | .164 | 216 | .0860 | | 1067 |
| P ₅ | .0320 | 65 | .1085 | | 1166 | .205 | 244 | .1075 | | 1076 |
| P ₆ | | | .1302 | | 1171 | | | .1290 | | 1084 |
| P ₇ | | | .1519 | | 1173 | | | .1505 | | 1090 |
| P ₈ | | | .1736 | | 1175 | | | .1720 | | 1096 |
| P ₉ | | | .1953 | | 1177 | | | .1935 | | 1101 |
| P ₁₀ | | | .2170 | | 1179 | | | .2150 | | 1105 |

| Gauge No. 374 | | Depth 3828' | | | Clock 12 hour | | | | | |
|--------------------|------------------|------------------|-------------------------------|------------------|------------------|------------------|------------------|-------------------------------|------------------|---------|
| Time Defl. .000" | PSIG Temp. Corr. | Time Defl. .000" | Log $\frac{t+\theta}{\theta}$ | PSIG Temp. Corr. | Time Defl. .000" | PSIG Temp. Corr. | Time Defl. .000" | Log $\frac{t+\theta}{\theta}$ | PSIG Temp. Corr. | |
| P ₀ | .000 | 29 | .000 | | 71 | .000 | 89 | .000 | | 248 |
| P ₁ | .006 | 39 | .0206 | | 1116 | .0388 | 118 | .0206 | | 1012 |
| P ₂ | .012 | 49 | .0412 | | 1146 | .0776 | 155 | .0412 | | 1041 |
| P ₃ | .018 | 57 | .0618 | | 1158 | .1164 | 189 | .0618 | | 1058 |
| P ₄ | .024 | 64 | .0824 | | 1165 | .1552 | 218 | .0824 | | 1070 |
| P ₅ | .030 | 71 | .1030 | | 1170 | .1940 | 248 | .1030 | | 1080 |
| P ₆ | | | .1236 | | 1174 | | | .1236 | | 1087 |
| P ₇ | | | .1442 | | 1176 | | | .1442 | | 1094 |
| P ₈ | | | .1648 | | 1179 | | | .1648 | | 1100 |
| P ₉ | | | .1854 | | 1181 | | | .1854 | | 1105 |
| P ₁₀ | | | .2060 | | 1182 | | | .2060 | | 1110 |
| Reading Interval 1 | | 3 | | | 6 | | 3 | | | Minutes |

REMARKS:

SPECIAL PRESSURE DATA

PRESSURE



TIME

