

STATE OF KANSAS - CORPORATION COMMISSION  
ONE POINT STABILIZED OPEN FLOW OR DELIVERABILITY TEST

FORM G-2  
8-7-58

15-023-20056-000

TYPE TEST:  Deliverability  Open Flow TEST DATE: 2-14-80

COMPANY: *Murphy Drilling Co* LEASE: *McCurry* WELL NO.: *1-17*  
 COUNTY: *Cherokee* LOCATION: SECTION: *17* TWP: *4* RNG: *40* ACRES: *640*  
 FIELD: *Cherry Creek* RESERVOIR: *Neohoran* PIPELINE CONNECTION: *Kans. Nat. Gas*  
 COMPLETION DATE: *1-10-80* PLUG BACK TOTAL DEPTH: *1333* PACKER SET AT:  
 CASING SIZE: *4 1/2* WT. I.D. SET AT: *1378* PERF. TO: *1228*  
 TUBING SIZE: WT. I.D. SET AT: PERF. TO:

TYPE COMPLETION (Describe)

TYPE FLUID PRODUCTION

PRODUCING THRU: *Craving* RESERVOIR TEMPERATURE F: BAR. PRESS - P<sub>a</sub>: *14.4* Psia  
 GAS GRAVITY - G<sub>g</sub>: *.580* % CARBON DIOXIDE: % NITROGEN: API GRAVITY OF LIQUID:

VERTICAL DEPTH (H): TYPE METER CONN.: *fly* (METER RUN) (PROVER) SIZE: *2"*  
 SHUT-IN PRESSURE: SHUT IN: *2-14* 1981 AT: (AM)(PM) TAKEN: *2-17* 1981 AT: (AM)(PM)  
 FLOW TEST: STARTED: *2-17* 1981 AT: (AM)(PM) TAKEN: *2-18* 1981 AT: (AM)(PM)

OBSERVED DATA

DURATION OF SHUT-IN: HR.

| SHUT-IN OR FLOW | ORIFICE SIZE in. | (METER) (PROVER) PRESSURE psig | DIFF. in. (h <sub>w</sub> )(h <sub>d</sub> ) | FLOWING TEMP. t | WELL-HEAD TEMP. t | CASING WELLHEAD PRESS. |  | TUBING WELLHEAD PRESS. |  | DURATION HOURS | LIQUID PROD. Bbls. |
|-----------------|------------------|--------------------------------|--|-----------------|-------------------|------------------------|--|------------------------|--|----------------|--------------------|
|                 |                  |                                |  |                 |                   | psig                   | (P <sub>w</sub> )(P <sub>t</sub> )(P <sub>c</sub> ) psia | psig                   | (P <sub>w</sub> )(P <sub>t</sub> )(P <sub>c</sub> ) psia |                |                    |
| SHUT-IN         |                  |                                |  |                 |                   | 137.7                  | 152.1  |                        |  |                |                    |
| FLOW            | <i>1/2</i>       | <i>43.0</i>                    | <i>7.8</i>                                   |                 |                   | <i>130.0</i>           | <i>144.4</i>   |                        |  |                |                    |

RATE OF FLOW CALCULATIONS

| COEFFICIENT (F <sub>d</sub> )(F <sub>p</sub> ) Mcfd | (METER) (PROVER) PRESSURE psia | EXTENSION $\sqrt{P_m \cdot h_w}$ | GRAVITY FACTOR F <sub>g</sub> | FLOWING TEMP. FACTOR F <sub>t</sub> | DEVIATION FACTOR F <sub>pv</sub> | RATE OF FLOW R Mcfd | GOR | G <sub>m</sub> |
|---|--------------------------------|----------------------------------|-------------------------------|-------------------------------------|----------------------------------|---------------------|-----|----------------|
| <i>1.219</i>  | <i>57.4</i>                    | <i>21.159</i>                    | <i>1.313</i>                  | <i>1.000</i>                        | <i>1.000</i>                     | <i>34.0</i>         |     |                |

(OPEN FLOW) (DELIVERABILITY) CALCULATIONS

(P<sub>c</sub>)<sup>2</sup> = *23.1*, (P<sub>w</sub>)<sup>2</sup> = *20.9*, P<sub>d</sub> = \_\_\_\_\_ % (P<sub>c</sub> - 14.4) + 14.4 = \_\_\_\_\_, (P<sub>a</sub>)<sup>2</sup> = 0.207, (P<sub>d</sub>)<sup>2</sup> = \_\_\_\_\_

| $\frac{(P_c)^2 - (P_a)^2}{(P_c)^2 - (P_d)^2}$ | $(P_c)^2 - (P_w)^2$ | $\frac{P_c^2 - P_a^2}{P_c^2 - P_w^2}$ | LOG [ ]       | "n"         | n x LOG [ ]  | ANTILOG       | OPEN FLOW DELIVERABILITY EQUALS R x ANTILOG Mcfd |
|---|---------------------|---------------------------------------|---------------|-------------|--------------|---------------|--|
| <i>27.9</i>                                   | <i>2.2</i>          | <i>10.409</i>                         | <i>1.0174</i> | <i>.820</i> | <i>.8343</i> | <i>6.8278</i> | <i>232.0</i>                                     |

OPEN FLOW *232.0* Mcfd @ 14.65 psia DELIVERABILITY Mcfd @ 14.65 psia

The undersigned authority, on behalf of the Company, states that he is duly authorized to make the above report and that he has knowledge of the facts stated therein, and that said report is true and correct.

Executed this the \_\_\_\_\_ day of \_\_\_\_\_, 19\_\_\_\_.

Witness (if any)  
*[Signature]*  
For Commission

For Company  
Checked by

CONSTITUTIONAL DIVISION  
FEB 23 1981