KANSAS CORPORATION COMMISSION ONE POINT STABILIZED OPEN FLOW OR DELIVERABILITY TEST

| Type Test | : | | | | | (- | See Instr | ucti | ions on Rev | verse Side | 2) | | | | | | | |
|--|-----------------------|---|----------------------------------|---|--------------------------------|---|--|-------------------------------------|--|--------------------------|--|-------------------------|---------------------------------------|------------------|------------------------------|-------------------|---|--|
| | en Flo liverab | | | | | Test Date |); | | | | | PI No 5 - 02: | o. 15 3-20992-0 | 0-00 |) | | | |
| Company Noble E | Energ | jy Ir | 1C. | | | | | | Lease Douthit | | | | | | 12-16 | Well Nu | ımber | |
| County Location Cheyenne S2-SW-SW-NW | | | | Section 16 | | | | | RNG (| RNG (E/W) 41W | | | | Acres Attributed | | | | |
| | | | | Reservoir Niobrara | Reservoir Niobrara | | | | Gas Gathering Connection Southern Star/Kinder Morgan | | | | n organ | RECEIVEL | | | | |
| | | | | Plug Back | Plug Back Total Depth | | | | | Packer Set at | | | | DEC 2 0 201 | | | | |
| Casing Size Weight 7", 4-1/2" 17#, 11.6# | | | | Internal Diameter 9-7/8", 6-1/4" | | | Set at 110', 1510' | | Perforations 1217' | | | | DEC 2 0 20 | | | | | |
| Tubing Size 2-3/8" | | | Weight 4.7# | | | Internal Diameter 1.995 | | | Set at 1275' | | Perforations | | | To | | | | |
| | | | Type Flui | Type Fluid Production saltwater | | | | Pump Unit or Traveling Plunger? Yes | | | | iger? Yes | es / No | | | | | |
| Producing | | (Anr | nulus / Tubin | g) | | | arbon Di | oxic | ie | | % Nitr | ogen | | | Gas Gr | avity - (| G _g | |
| tubing Vertical D | epth(F | 1) | | | | | Pr | ess | sure Taps | | | | | | (Meter I | Run) (P | rover) Size | |
| | | ., | | | | | | | | | | | | | (| | | |
| Pressure | Buildu | • | Shut in 10 | | | 0_12_at_3: | | _ | (AM)(PM) | Taken | | | 20 | | at | | (AM) (PM) | |
| Well on L | ine: | : | Started 10 | 24 | 20 | 0_12_at_3 | :45 | _ | (AM) (PM) | Taken | | | 20 | | at | | (AM) (PM) | |
| <u></u> | | | | | | · · · · · · · · · · · · · · · · · · · | OBSER | VE | D SURFACI | E DATA | | | · · · · · · · · · · · · · · · · · · · | Dura | ition of Shut- | _{in_} 24 | .75 Hours | |
| Static / Dynamic Property | Orifi Siz (inch | ze Prover Press | | - 3 | Pressure Differential in | Flowing Temperature t | Temperature Temperature | | Casing Wellhead Pressure (P _w) or (P ₁) or (P _c) | | Tubing Wellhead Pressure (P_w) or (P_f) or (P_c) | | | | Duration (Hours) | | Liquid Produced (Barrels) | |
| Shut-In | | | psig (Pm) | | Inches H₂0 | | | | psig 191 | psia | psig |) | psia | | | | | |
| Flow | | | | | | | | | | | | | • | | | | | |
| | | | | | | | FLOW S | TR | EAM ATTR | IBUTES | | | | | | | | |
| Plate Coeffiecient (F _b) (F _p) Mcfd | | Circle one: Meter or Prover Pressure psia | | Press Extension ✓ P _m x h | | Gravity Factor F ₆ | | T | Flowing emperature Factor F _{f1} | Fá | Deviation Factor F _{pv} | | Metered Flow R (Mcfd) | | GOR (Cubic Fee Barrel) | | Flowing Fluid Gravity G _m | |
| | | | | Ш. | | (ODEN EL | OW) (DE | 11/1 | ERABILITY |) CALCIII | ATIONS | | | | | | | |
| (P _c) ² = | | _: | (P _w) ² : | | : | P _d = | | % | | ر - 14.4) ء او - 14.4 | | | : | | _ | 2 = 0.2 2 = | | |
| $(P_c)^2 - (P_a)^2$ or $(P_c)^2 - (P_d)^2$ | | (P _c) ² - (P _w) ² | | Choose formula 1 or 2: 1. P _c ² - P _a ² 2. P _c ² - P _d ² divided by: P _c ² - P _w ² | | LOG of formula 1. or 2. and divide | P _c ² -P _w ² | | Backpressure Curve Slope = "n"or Assigned Standard Slope | | n | x LO | roe | | Antilog | | Open Flow Deliverability Equals R x Antilog (Mcfd) | |
| | | | | | | | | | | | | | | | | | | |
| Open Flo | W | | | | Mcfd @ 14. | 65 psia | | | Deliverab | ility | | | | Mcfd | @ 14.65 psi | а | | |
| | | • | • | | ehalf of the | • • | | | • | | | | | rt an | d that he ha | | rledge of 20 12 . | |
| | | | Witness | (if an | у) | | | | _ | | | | For C | ompar | ıy | | | |
| | ··· | | For Com | missi | on | | | - | | | | - , , | Chec | ked by | / | | | |

| | der penalty of perjury under the laws of the state of Kansas that I am authorized to request der Rule K.A.R. 82-3-304 on behalf of the operator Noble Energy Inc. |
|--|--|
| and that the fore correct to the bea of equipment ins I hereby requ | going pressure information and statements contained on this application form are true and st of my knowledge and belief based upon available production summaries and lease records allation and/or upon type of completion or upon use being made of the gas well herein named. Lest a one-year exemption from open flow testing for the Douthit 12-16 rounds that said well: |
| • | is a coalbed methane producer is cycled on plunger lift due to water is a source of natural gas for injection into an oil reservoir undergoing ER is on vacuum at the present time; KCC approval Docket No is not capable of producing at a daily rate in excess of 250 mcf/D se to supply to the best of my ability any and all supporting documents deemed by Commission to corroborate this claim for exemption from testing. |
| | Signature: |

Instructions:

If a gas well meets one of the eligibility criteria set out in KCC regulation K.A.R. 82-3-304, the operator may complete the statement provided above in order to claim exempt status for the gas well.

At some point during the current calendar year, wellhead shut-in pressure shall have been measured after a minimum of 24 hours shut-in/buildup time and shall be reported on the front side of this form under **OBSERVED SURFACE DATA**. Shut-in pressure shall thereafter be reported yearly in the same manner for so long as the gas well continues to meet the eligibility criterion or until the claim of eligibility for exemption **IS** denied.

The G-2 form conveying the newest shut-in pressure reading shall be filed with the Wichita office no later than December 31 of the year for which it's intended to acquire exempt status for the subject well. The form must be signed and dated on the front side as though it was a verified report of annual test results.