## Kansas Corporation Commission One Point Stabilized Open Flow or Deliverability Test

| Type Test   | t:                    |   |  |   | (   | See Instruc                   | tions on Rev  | erse Side              | 9)                    |   |                               |   |   |
|---|-----------------------|---|--|---|---|-------------------------------|---|------------------------|-----------------------|---|-------------------------------|---|---|
|   | en Fio<br>liverab     |   |  |   | Test Date<br>03/14/20   |                               |   |                        |                       | No. 15<br>210250000   |                               |   |   |
| Company<br>MERIT E                                |                       | GY  | COMPANY  |   |   |                               | Lease<br>HEINTZ                                     | A                      |                       |   | 2                             | Well Nu   | ımber   |
| County Location MORTON 560' FSL & 660' FWL        |                       |   |  |   | Section<br>23   |                               | TWP<br><b>35</b> S                                  |                        | RNG (E/W)<br>41W      |   |                               | Acres Attributed<br>640                                     |   |
| Field<br>WILBUR                                   | RTON                  | SE  |  |   | Reservoir<br>MORRO  |                               |   |                        | Gas Gat               | hering Conn<br>K  | ection                        |   |   |
| Complete<br>05/08/19                              |                       | е   | · ·  |   | Plug Bac<br>6084'   | k Total Dept                  | th  |                        | Packer S              | Set at  |                               |   |   |
| Casing S<br>5.5"                                  | ize                   |   | Weigh<br><b>1</b> 5.5#                             |   | Internal E<br>4.950"  | Diameter                      | Set a<br>6167                                       |                        | Perfo<br>572          | rations<br>1'   | то<br>57 <b>5</b> 3'          |   |   |
| Tubing Si 2.375"                                  | ize                   |   | Weigh<br>4.7#                                      | t   | Internal E<br>1.995"  | Diameter                      | Set a <b>5722</b>                                   |                        | Perfo                 | rations   | То                            |   |   |
| Type Cor<br>SINGLE                                |                       |   | escribe)   |   | Type Flui<br>WATE   | d Production                  | 1   |                        |                       | nit or Traveling<br>BEAM PU   |                               | / No  |   |
| Producing   | -                     | (Anı  | nulus / Tubin                                      | g)  | % 0<br>0.3302   | arbon Dioxi                   | de  |                        | % Nitrog<br>5.102     |   | Gas Gr<br>0.763               |   | 3,  |
| Vertical E  |                       | 1)  |  |   |   |                               | sure Taps<br>NGE                                    |                        |                       |   | (Meter<br>3.068               | . ,   | rover) Size                                   |
| Pressure  | Buildu                | p:  | Shut in 03/  | 14 2  | 0_15_at_9   |                               |   | Taken_0                | 3/15                  | 20  | 15 at 9:00 A                  | M   | (AM) (PM)                                     |
| Well on L   | ine:                  |   | Started  | 2   | 0 at  |                               | (AM) (PM)   | Taken                  |                       | 20  | at                            |   | (AM) (PM)                                     |
|   |                       |   |  |   |   | OBSERVE                       | D SURFACE   | DATA                   |                       |   | Duration of Shut-             | in 24   | Hours   |
| Static /<br>Dynamic<br>Property                   | Orifi<br>Siz<br>(înch | е   | Circle one:<br>Meter<br>Prover Pressu<br>psig (Pm) | Pressure Differential in Inches H <sub>2</sub> 0  | Flowing<br>Temperature<br>t   | Well Head<br>Temperature<br>t | Casi<br>Wellhead I<br>(P <sub>ie</sub> ) or (P,     | Pressure               | Wellhe                | fubing<br>ad Pressure<br>r (P <sub>r</sub> ) or (P <sub>c</sub> )<br>psia | Duration<br>(Hours)           | 1   | d Produced<br>Barrels)                        |
| Shut-In   |                       |   |  |   |   |                               | 100.00  |                        | Pols                  |   | 24                            |   |   |
| Flow  |                       |   |  |   |   |                               |   |                        |                       |   |                               | l   |   |
|   |                       |   |  |   | 7   | FLOW STR                      | EAM ATTRI   | BUTES                  |                       |   |                               |   |   |
| Plate<br>Coeffied<br>(F <sub>b</sub> ) (F<br>Mofd | ient<br>,)            | Pro   | Circle one:<br>Meter or<br>over Pressure<br>psia   | Press Extension P <sub>m</sub> x h  | Grav<br>Faci<br>F <sub>g</sub>  | or                            | Flowing<br>Femperature<br>Factor<br>F <sub>f1</sub> | Fa                     | iation<br>actor<br>pv | Metered Flor<br>R<br>(Mcfd)   | w GOR<br>(Cubie Fe<br>Barrel) |   | Flowing<br>Fluid<br>Gravity<br>G <sub>m</sub> |
|   | <u> </u>              |   |  |   | (OPEN FLO   | OW) (DELIV                    | ERABILITY)  | CALCUL                 | ATIONS                |   | (P <sub>-</sub> )             | <sup>2</sup> = 0.2  | :07   |
| (P <sub>c</sub> ) <sup>2</sup> =                  |                       | <u>=:</u>   | (P <sub>w</sub> ) <sup>2</sup> =                   |   | P <sub>d</sub> =  |                               | % (P  | <sub>c</sub> - 14.4) + | 14.4 =                | :   | (P <sub>a</sub> )             |   |   |
| $(P_o)^2 - (P_a)^2$<br>or<br>$(P_o)^2 - (P_d)^2$  |                       | (P <sub>e</sub> ) <sup>2</sup> - (P <sub>w</sub> ) <sup>2</sup> |  | Choose formula 1 or 2.  1. $P_c^2 - P_b^2$ 2. $P_c^2 - P_d^2$ divided by: $P_c^2 - P_w^2$ | P <sup>2</sup> -P <sup>2</sup> LOG of formula<br>P <sup>2</sup> -P <sup>2</sup> 1. or 2. and divide |                               | Backpressure Curve Slope = "n"                      |                        | n x LOG               |   | Antilog                       | Open Flow<br>Deliverability<br>Equals R x Antilog<br>(Mcfd) |   |
|   |                       |   |  |   |   |                               | <del> </del>  |                        |                       |   |                               | V   |   |
| Open Flo  | w                     |   |  | Mcfd @ 14.  | 65 psia   |                               | Deliverabi  | lity                   |                       |   | Mcfd @ 14.65 ps               | ia  |   |
| The   | unders                | igned   | authority, or                                      | n behalf of the   | Company, s  | tates that h                  | e is duly au  | -<br>thorized t        | o make th             | ne above repo   | ort and that he ha            | asknow  | ledge of                                      |
| the facts s                                       | tated t               | herei   | n, and that sa                                     | aid report is true  |   | <b>•</b>                      | aceived   |                        | dary of N             | ovember   |                               |   | <sub>20</sub> <u>15</u> .                     |
|   |                       |   |  |   |   | ANSAS CORP                    | ORATION COM   | MISSION                | Me                    | rit Energy (  |                               |   |   |
|   |                       |   | Witness (  |   |   | DEC                           | -   |                        | Ka                    | therine Mo  |                               |   |   |
|   |                       |   | For Comm   | nesion  |   | CONSER<br>W                   | VATION DIVIS<br>ICHITA, KS                          | SION                   |                       | Che   | cked by                       |   |   |

| I declare under penalty of perjury under the laws of the state of Kansas that I am authorized to request exempt status under Rule K.A.R. 82-3-304 on behalf of the operator Merit Energy Company |
|--|
| and that the foregoing pressure information and statements contained on this application form are true and   |
| correct to the best of my knowledge and belief based upon available production summaries and lease records   |
| of equipment installation and/or upon type of completion or upon use being made of the gas well herein named.  |
| I hereby request a one-year exemption from open flow testing for the Heintz A 2  |
| gas well on the grounds that said well:  |
| (Check one)  |
| 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   |
|  |
| I further agree to supply to the best of my ability any and all supporting documents deemed by Commission  |
| staff as necessary to corroborate this claim for exemption from testing.   |
|  |
| Date: November 30, 2015  |
| •  |
|  |
|  |
| Katharina MacClurkon 46 - 11 - MacClurkon  |
| Received KANSAS CORPORATION COMMISSION Signature: Katherine McClurkan Latherine McClurkan  |
| DEC 0 2 2015 Title: Regulatory Analyst   |
| CONSERVATION DIVISION  |
| WICHITA, KS  |

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.