Rev (8-10)

State of West Virginia Department of Environmental Protection Office of Oil and Gas

DATE: 10/27/2011 API#: 4700103244

Well Operator's Report of Well Work

| | We | rk | WV GEOLOGICAL SURVEY MORGANTOVYN, WV | | | | | | | |
|----------------|-------------|-------------|---|--------------------|------|----|------|-------|------------|--|
| Farm name: CO2 | | ZAD, GEORGE | | Operator Well No.: | | | 1 | | | |
| LOCATION: | Elevation:_ | 1 | 294' | Quadran | gle: | | , | THOR | NTON | |
| | strict: | CC | OVE | County: | | | В | ARBOI | J R | |
| | ititude: | 860 | Feet South of | 39 | Deg. | 17 | Min. | 30 | Sec. | |
| Lo | ongitude: | 8,780 | Feet West of | 79 | Deg. | 52 | Min. | 30 | Sec. | |

| Company: | Texas Keystone, Inc. | | | | |
|---------------|-------------------------------|-----------------|------------------|--------------|----------------|
| Address: | 560 Epsilon Drive | Casing & Tubing | Used in drilling | Left in well | Cement fill up |
| radi ess. | Pittsburgh, PA 15238 | Tubing | urning | | Cu. Ft. |
| <u> </u> | | | | | |
| Agent: | Jon Farmer | 13 3/8" | 42 | 42 | Sanded In |
| Inspector: | Bryan Harris | | | | |
| Date Perm | it Issued: 07/11/11 | 9 5/8" | 465 | 465 | 260 |
| Date Well | Work Commenced: 08/22/11 | | | | |
| Date Well | Work Completed: 08/30/11 | 7" | 1393 | 1393 | 200 |
| Verbal Plu | gging: | | | | |
| Date Perm | ission granted on: | 4 1/2" | 0 | 5422 | 295 |
| Rotary | X Cable Rig | | | | |
| Total Vert | ical Depth (ft.): 5682 | | | | |
| Total Mea | sured Depth(ft.):5682 | | | | |
| Fresh Wat | er Depth (ft.): 60, 100, 180 | | | | |
| Salt Water | Depth (ft.): none reported | | | | |
| Is coal being | ng mined in the area (N/Y)? N | | | | |
| Coal Dept | ns (ft.): none reported | | | | |
| Void(s) en | countered (N/Y) Depth(s): N | | | | |
| | | | | | |

OPEN FLOW DATA (If more than two producing formations please include additional data on separate sheet)

| Producing formation: | 5TH ELK | | Pay zone Depth (ft) 5 | 284 - 5314 |
|---------------------------|-----------------------------|-----|-------------------------------|------------|
| Gas: Initial open flow: | G/S TSTM | | MCF/D Oil: Initial open flow | : 0 Bbl/d |
| Final open flow | 1253 | | MCF/D Oil: Final open flow: | 0 Bbl/d |
| Time of open flow betwe | en initial and final tests: | N/A | Hours | |
| Static rock Pressure: | 690 | - | _psig(surface pressure) after | 120 Hours |
| | | | _ | |
| Second Producing format | tion: 3RD ELK | | Pay zone Depth (ft) 4 | 933 - 4954 |
| Gas: Initial open flow: | Co-mingled | | MCF/D Oil: Initial open flow | : 0 Bbl/d |
| Final open flow | Co-mingled | , | MCF/D Oil: Final open flow: | 0 Bbl/d |
| Time of open flow between | en initial and final tests: | | Hours | |
| Static rock Pressure: | Co-mingled | | psig(surface pressure) after | - Hours |

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this document and all the attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information I believe that the information is true, accurate, and complete.

Signature

| Were co | re samp | oles taken? | Yes_ | No <u>X</u> | Were | cuttings caught during drilling? | Yes | No_ | X |
|---------|---------|-------------|------|---------------|------|----------------------------------|------------|-----|---|
| Were | N | Electrical, | N | Mechanical, _ | Y | or Geophysical logs recorded on | this well? | | |

NOTE: IN THE AREA BELOW PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF THE TOPS AND BOTTOMS OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE FROM SURFACE TO TOTAL

Perforated Intervals, Fracturing, or Stimulating:

Perfed 5th Elk 5284' - 5314' (21 shots). BD 4200 #. 100 sks 40/70 & 104 sks 20/40. 569 bbl. Gel Frac.

Perfed 3rd Elk 4933' - 4954' (21 shots). BD 3150 #. 200 sks 40/70 & 109 sks 20/40. 661 bbl. Gel Frac.

Perfed Lower Benson 4054' - 4065' (18 shots). BD 3807 #. 100 sks 40/70 & 107 sks 20/40. 568 bbl. Gel Frac.

Perfed Upper Benson 4016' - 4024' (24 shots). BD 3864 #. 200 sks 40/70 & 101 sks 20/40. 605 bbl. Gel Frac.

Perfed Gordon 1732' - 1742' (30 shots). BD 3948 #. 250 sks 40/70 & 104 sks 20/40. 645 bbl. Gel Frac.

| Formations Encountered: | Top Depth | Bottom Depth | Notes: |
|-------------------------|-----------|--------------|---------------------------|
| FILL | 0 | 15 | |
| SHALE | 15 | 25 | |
| SANDY SHALE | 25 | 150 | 1" FW @ 60', 2" FW @ 100' |
| SANDSTONE | 150 | 265 | 2" FW @ 180' |
| SANDY SHALE | 265 | 340 | 2 1 1 100 |
| SANDSTONE | 340 | 480 | |
| SANDY SHALE | 480 | 610 | |
| REDROCK SHALE | 610 | 954 | |
| LITTLE LIME | 954 | 967 | |
| PENCIL CAVE SHALE | 967 | 998 | |
| BIG LIME | 998 | 1196 | |
| SQUAW SANDSTONE | 1196 | 1208 | |
| SHALE | 1208 | 1291 | |
| WEIR SANDSTONE | 1291 | 1436 | |
| BEREA SANDSTONE | 1436 | 1448 | |
| SHALE | 1448 | 1474 | |
| GANTZ SANDSTONE | 1474 | 1515 | |
| LOWER GANTZ SANDSTONE | 1515 | 1539 | |
| SANDY SHALE | 1539 | 1730 | |
| GORDON SANDSTONE | 1730 | 1745 | |
| SANDY SHALE | 1745 | 2179 | |
| BAYARD SANDSTONE | 2179 | 2202 | |
| SANDY SHALE | 2202 | 2240 | |
| SPEECHLEY A SANDSTONE | 2240 | 2343 | |
| SPEECHLEY B SANDSTONE | 2343 | 2349 | |
| SANDY SHALE | 2349 | 2845 | |
| BALLTOWN B SANDSTONE | 2845 | 2868 | |
| SANDY SHALE | 2868 | 4016 | |
| BENSON SILTSTONE | 4016 | 4080 | • |
| SANDY SHALE | 4080 | 4217 | |
| ALEXANDER | 4217 | 4286 | |
| SHALE | 4286 | 4417 | • |
| 1ST ELK SILTSTONE | 4417 | 4484 | •- |
| SANDY SHALE | 4484 | 4658 | |
| 2ND ELK SILTSTONE | 4658 | 4710 | |
| SANDY SHALE | 4710 | 4933 | |
| 3RD ELK SILTSTONE | 4933 | 4992 | |
| SANDY SHALE | 4992 | 5285 | • |
| 5TH ELK SILTSTONE | 5285 | 5317 | |
| SHALE | 5317 | 5682 | TD |
| | | | |

| Third Producing formation Gas: Initial open flow: Final open flow Time of open flow betwee Static rock Pressure: | Co-mingled Co-mingled | Pay zone Depth (ft) MCF/D Oil: Initial open f MCF/D Oil: Final open f Hours psig(surface pressure) after | low: 0 Bbl/d |
|--|-----------------------|--|--------------|
| Fourth Producing format Gas: Initial open flow: Final open flow Time of open flow betwe Static rock Pressure: | Co-mingled Co-mingled | Pay zone Depth (ft) MCF/D Oil: Initial open for the control of th | low: 0 Bbl/d |
| Fifth Producing formatio Gas: Initial open flow: Final open flow Time of open flow betwe Static rock Pressure: | Co-mingled Co-mingled | Pay zone Depth (ft) MCF/D Oil: Initial open for the depth of the dept | low: 0 Bbl/d |

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