

State of West Virginia
Department of Environmental Protection - Office of Oil and Gas
Well Operator's Report of Well Work

API 47 - 085 - 10210 County RITCHIE District UNION
Quad PULLMAN Pad Name PUL96 Field/Pool Name N/A
Farm name JAMES H. & WILMA J. WILSON Well Number 515977
Operator (as registered with the OOG) EQT Production Company
Address 625 Liberty Ave. EQT Plaza, Suite 1700 City Pittsburgh State PA Zip 15222

As Drilled location NAD 83/UTM Attach an as-drilled plat, profile view, and deviation survey
Top hole Northing N. 4,340,201.64 Easting E. 501,212.87
Landing Point of Curve Northing N. 4,340,155.43 Easting E. 502,030.53
Bottom Hole Northing N. 4,339,318.97 Easting E. 502,276.34

Elevation (ft) 1183' GL Type of Well New Existing Type of Report Interim Final
Permit Type Deviated Horizontal Horizontal 6A Vertical Depth Type Deep Shallow
Type of Operation Convert Deepen Drill Plug Back Redrilling Rework Stimulate
Well Type Brine Disposal CBM Gas Oil Secondary Recovery Solution Mining Storage Other _____
Type of Completion Single Multiple Fluids Produced Brine Gas NGL Oil Other _____
Drilled with Cable Rotary

Drilling Media Surface hole Air Mud Fresh Water Intermediate hole Air Mud Fresh Water Brine
Production hole Air Mud Fresh Water Brine

Mud Type(s) and Additives Water base Mud 11.5 ppg & 1000 lb/bbl of 100 mesh bentonite, 200 lb/bbl of 200 mesh bentonite, sodium chloride, xanthan gum, polyanionic cellulose, modified starch, sodium hydroxide, phosphonates and alkyl phosphates, glutaraldehyde solution, calcium hydroxide, partially hydrolyzed polyacrylamide/polyacrylate, potassium chloride, sodium carbonate, ground walnut shells, alcohol and modified fatty acid, ferrochrome lignosulfonate, calcium carbonate, fibrous cellulose

Date permit issued 06/23/2015 Date drilling commenced 09/24/2015 Date drilling ceased 1/16/2016
Date completion activities began 8/15/2016 Date completion activities ceased 3/24/2016
Verbal plugging (Y/N) N Date permission granted N/A Granted by N/A

Please note: Operator is required to submit a plugging application within 5 days of verbal permission.

Freshwater depth(s) ft 342,368,399,556 Open mine(s) (Y/N) depths N
Salt water depth(s) ft No salt water shows Void(s) encountered (Y/N) depths N
Coal depth(s) ft No coal seams Cavern(s) encountered (Y/N) depths N
Is coal being mined in area (Y/N) N

APPROVED

NAME: Michael Deff
DATE: 12-21-2016

Reviewed by: _____

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API 47-085 10210

Farm name JAMES H. & WILMA J. WILSON Well number 515977

| CASING STRINGS | Hole Size | Casing Size | Depth | New or Used | Grade wt/ft | Basket Depth(s) | Did cement circulate (Y/N) * Provide details below* |
|---------------------------|-----------|-------------|---------|-------------|-------------|-----------------|--|
| Conductor | 24" | 20" | 40' | NEW | A-500 | N/A | Y |
| Surface | 17 1/2" | 13 3/8" | 671' | NEW | J-55 | 332' | Y |
| Coal | | | | | | | |
| Intermediate 1 | 12 3/8" | 9 5/8" | 2577' | NEW | A-500 | 729', 1737' | Y |
| Intermediate 2 | | | | | | | |
| Intermediate 3 | | | | | | | |
| Production | 8 1/2" | 5 1/2" | 10,584' | NEW | P-110 | N/A | N |
| Tubing | | | | | | | |
| Packer type and depth set | | | | | | | |

Comment Details N/A

| CEMENT DATA | Class/Type of Cement | Number of Sacks | Slurry wt (ppg) | Yield (ft ³ /sks) | Volume (ft ³) | Cement Top (MD) | WOC (hrs) |
|----------------|----------------------|-----------------|-----------------|------------------------------|---------------------------|-----------------|-----------|
| Conductor | CLASS A | 38 | 15.6 | 1.18 | 44.84 | 0 | 8 |
| Surface | CLASS A | 599 | 15.6 | 1.20 | 718.80 | 0 | 8 |
| Coal | | | | | | | |
| Intermediate 1 | CLASS A | 988 | 15.6 | 1.18 | 1165.84 | 0 | 8 |
| Intermediate 2 | | | | | | | |
| Intermediate 3 | | | | | | | |
| Production | CLASS H / CLASS H | 922 / 406 | 15.2 / 15.6 | 1.25 / 2.06 | 1988.9 | 2,165' | 72 |
| Tubing | | | | | | | |

Drillers TD (ft) 10,592'

Loggers TD (ft) N/A

Deepest formation penetrated MARCELLUS

Plug back to (ft) N/A

Plug back procedure N/A

Kick off depth (ft) 3,172'

Check all wireline logs run
 caliper density deviated/directional induction
 neutron resistivity gamma ray temperature sonic

Well cored Yes No Conventional Sidewall Were cuttings collected Yes No

DESCRIBE THE CENTRALIZER PLACEMENT USED FOR EACH CASING STRING

CONDUCTOR: NONE

SURFACE: 2 CENTRALIZERS AT JOINTS 1 AND 8

INTERMEDIATE: 6 CENTRALIZERS PLACED EVERY 500'

PRODUCTION: Composite Body Spiral Centralizers installed every joint from td to 3,104 ftMD.

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WAS WELL COMPLETED AS SHOT HOLE Yes No DETAILS _____

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WAS WELL COMPLETED OPEN HOLE? Yes No DETAILS _____

WERE TRACERS USED Yes No TYPE OF TRACER(S) USED _____

API 47- 085 . 10210 Farm name JAMES H. & WILMA J. WILSON Well number 515977

Drilling Contractor Savanna Drilling
Address 125 Industry Road City Waynesburg State PA Zip 15370

Logging Company Phoenix Technology Services
Address 1805 Brittmoore Road City Houston State TX Zip 77043

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515977 Final Formations (API #47-08510210)

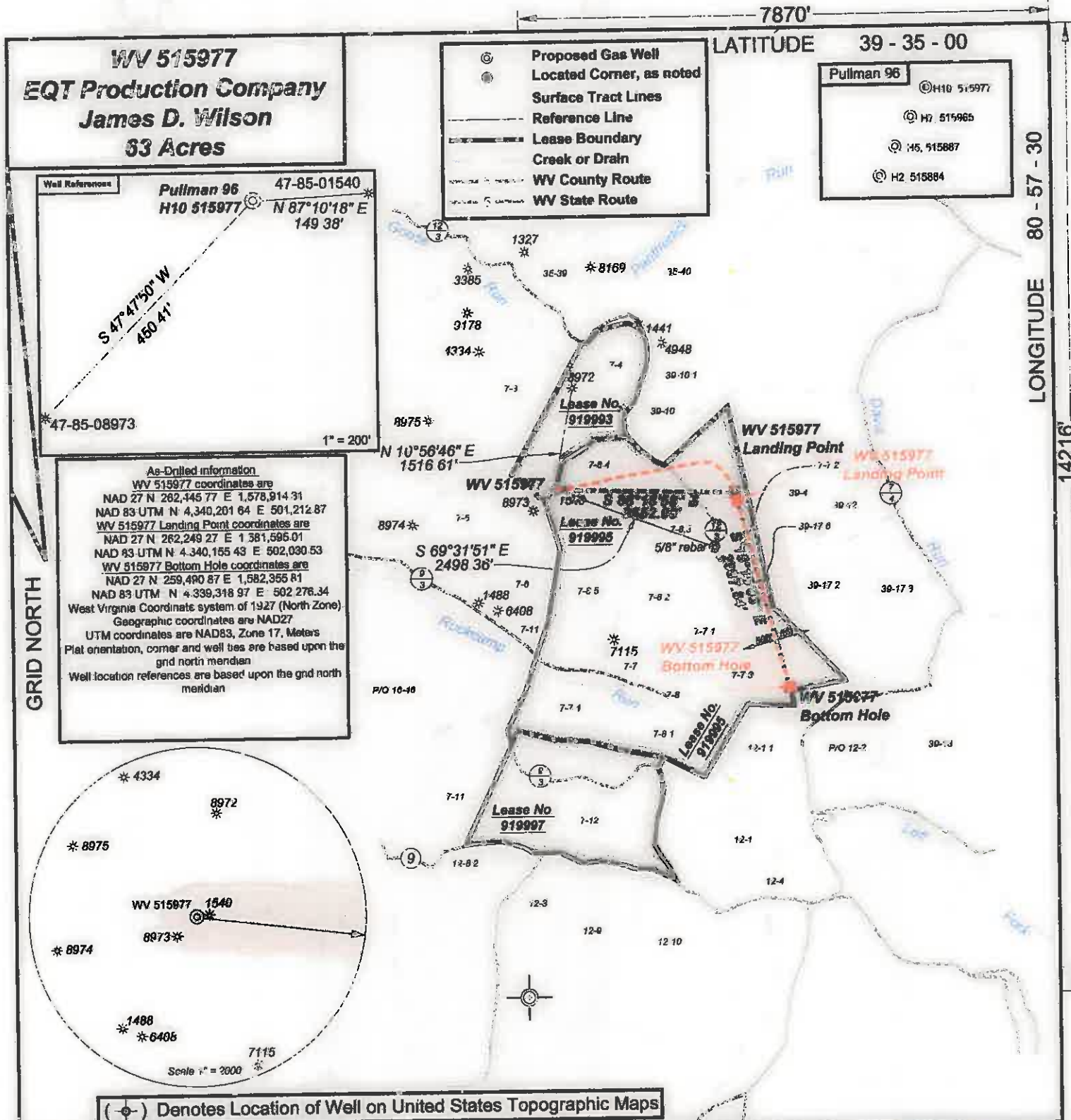
| Formation Name | Final Top MD (ftGL) (ft) | Final Top TVD (ft) | Final Btm MD (ftGL) (ft) | Final Btm TVD (ft) |
|-----------------------|---------------------------------|---------------------------|---------------------------------|---------------------------|
| SAND/SHALE | 1.00 | 1.00 | 1060.00 | 1060.00 |
| MAXTON | 1060.00 | 1060.00 | 1086.00 | 1086.00 |
| SAND/SHALE | 1086.00 | 1086.00 | 1117.00 | 1117.00 |
| BIG LIME | 1117.00 | 1117.00 | 1242.00 | 1242.00 |
| SAND/SHALE | 1242.00 | 1242.00 | 2319.00 | 2318.90 |
| BIG INJUN | 2319.00 | 2318.90 | 2467.00 | 2466.90 |
| SAND/SHALE | 2467.00 | 2466.90 | 2672.00 | 2671.90 |
| GANTZ | 2672.00 | 2671.90 | 2754.00 | 2753.90 |
| 50F | 2754.00 | 2753.90 | 2841.00 | 2840.90 |
| GORDON | 2841.00 | 2840.90 | 3054.00 | 3053.90 |
| 5TH | 3054.00 | 3053.90 | 3111.00 | 3110.90 |
| BAYARD | 3111.00 | 3110.90 | 3513.00 | 3498.90 |
| WARREN | 3513.00 | 3498.90 | 3623.00 | 3598.80 |
| SPEECHLEY | 3623.00 | 3598.80 | 3961.00 | 3865.60 |
| BALLTOWN A | 3961.00 | 3865.60 | 4204.00 | 4051.20 |
| BALLTOWN B | 4204.00 | 4051.20 | 4351.00 | 4163.80 |
| BRADFORD | 4351.00 | 4163.80 | 4607.00 | 4359.70 |
| RILEY | 4607.00 | 4359.70 | 4948.00 | 4610.90 |
| BENSON | 4948.00 | 4610.90 | 5227.00 | 4813.50 |
| ALEXANDER | 5227.00 | 4813.50 | 5241.00 | 4823.80 |
| ANGOLA | 5241.00 | 4823.80 | 5999.00 | 5399.10 |
| RHINESTREET UPPER | 5999.00 | 5399.10 | 6097.00 | 5473.90 |
| RHINESTREET | 6097.00 | 5473.90 | 6974.00 | 6109.70 |
| SONYEA | 6974.00 | 6109.70 | 7147.00 | 6209.50 |
| MIDDLESEX | 7147.00 | 6209.50 | 7252.00 | 6261.30 |
| GENESSEE | 7252.00 | 6261.30 | 7374.00 | 6310.80 |
| GENESEO | 7374.00 | 6310.80 | 7462.00 | 6339.30 |
| TULLY | 7462.00 | 6339.30 | 7500.00 | 6348.50 |
| MARCELLUS | 7500.00 | 6348.50 | 10584.00 | 6374.00 |

515977- 47-085-10210-0000- Perforations

| Stage Number | Perforation Date | Top Perf Depth (ftKB) | Bottom Perf Depth (ftKB) | Number of Shots | Formation |
|---------------------|-------------------------|------------------------------|---------------------------------|------------------------|------------------|
| Initiation Sleeve | 3/4/2016 | 10,558.00 | 10,584.00 | 10 | MARCELLUS |
| 1 | 3/15/2016 | 10,437.00 | 10,529.00 | 32 | MARCELLUS |
| 2 | 3/15/2016 | 10,287.00 | 10,409.00 | 40 | MARCELLUS |
| 2.1 | 3/16/2016 | 10,302.00 | 10,394.00 | 32 | MARCELLUS |
| 3 | 3/16/2016 | 10,137.00 | 10,259.00 | 40 | MARCELLUS |
| 4 | 3/17/2016 | 9,987.00 | 10,109.00 | 40 | MARCELLUS |
| 5 | 3/17/2016 | 9,837.00 | 9,959.00 | 40 | MARCELLUS |
| 6 | 3/17/2016 | 9,687.00 | 9,806.00 | 40 | MARCELLUS |
| 7 | 3/18/2016 | 9,537.00 | 9,659.00 | 40 | MARCELLUS |
| 7.1 | 3/18/2016 | 9,495.00 | 9,545.50 | 24 | MARCELLUS |
| 8 | 3/19/2016 | 9,387.00 | 9,509.00 | 40 | MARCELLUS |
| 9 | 3/19/2016 | 9,195.00 | 9,317.00 | 40 | MARCELLUS |
| 10 | 3/19/2016 | 9,045.00 | 9,167.00 | 40 | MARCELLUS |
| 11.01 | 3/20/2016 | 8,895.00 | 9,015.00 | 40 | MARCELLUS |
| 11.1 | 3/21/2016 | 8,850.00 | 8,940.00 | 32 | MARCELLUS |
| 12 | 3/22/2016 | 8,699.00 | 8,821.00 | 40 | MARCELLUS |
| 13 | 3/23/2016 | 8,549.00 | 8,671.00 | 40 | MARCELLUS |
| 14 | 3/23/2016 | 8,399.00 | 8,521.00 | 40 | MARCELLUS |
| 15 | 3/23/2016 | 8,249.00 | 8,371.00 | 40 | MARCELLUS |
| 16 | 3/23/2016 | 8,099.00 | 8,221.00 | 40 | MARCELLUS |
| 17 | 3/23/2016 | 7,949.00 | 8,071.00 | 40 | MARCELLUS |
| 18 | 3/24/2016 | 7,802.00 | 7,921.00 | 40 | MARCELLUS |
| 19 | 3/24/2016 | 7,649.00 | 7,771.00 | 40 | MARCELLUS |
| 20 | 3/24/2016 | 7,499.00 | 7,621.00 | 40 | MARCELLUS |

515977- 47-085-10210-0000 - Stimulated Stages

| Stage Number | Stimulation Date | Ave Pump Rate (BPM) | Ave Treatment Pressure (PSI) | Max Breakdown Pressure (PSI) | ISIP (PSI) | Amount of Proppant (lbs) | Amount of Water (bbls) | Amount of Nitrogen/other (units) |
|-------------------|------------------|---------------------|------------------------------|------------------------------|------------|--------------------------|------------------------|----------------------------------|
| Initiation Sleeve | 3/15/2016 | 0.00 | 0.00 | 0.00 | 5,582.00 | 0 | 382 | 0 |
| 1 | 3/15/2016 | 95.00 | 8,597.00 | 9,244.00 | 2,148.00 | 255,560 | 5083 | 0 |
| 2 | 3/15/2016 | 23.32 | 8,599.00 | 9,546.00 | 5,405.00 | 2,020 | 2286 | 0 |
| 2.01 | 3/16/2016 | 10.40 | 7,797.00 | 8,424.00 | 4,246.00 | 0 | 3741 | 0 |
| 2.1 | 3/16/2016 | 54.79 | 8,871.00 | 9,271.00 | 6,182.00 | 9,380 | 2353 | 0 |
| 3 | 3/16/2016 | 95.48 | 8,050.00 | 8,517.00 | 2,313.00 | 395,680 | 7450 | 0 |
| 4 | 3/17/2016 | 91.87 | 7,760.00 | 9,032.00 | 2,428.00 | 273,420 | 5676 | 0 |
| 5 | 3/17/2016 | 89.10 | 8,562.00 | 9,108.00 | 2,402.00 | 275,230 | 5737 | 0 |
| 6 | 3/17/2016 | 90.00 | 8,376.00 | 9,190.00 | 5,087.00 | 90,580 | 3373 | 0 |
| 6.01 | 3/17/2016 | 83.53 | 8,070.00 | 9,630.00 | 4,972.00 | 139,620 | 4654 | 0 |
| 7 | 3/18/2016 | 66.97 | 7,969.00 | 8,957.00 | 4,612.00 | 35,120 | 3603 | 0 |
| 7.1 | 3/18/2016 | 63.50 | 8,298.00 | 9,780.00 | 5,153.00 | 4,500 | 1453 | 0 |
| 7.11 | 3/18/2016 | 42.65 | 8,854.00 | 9,243.00 | 5,907.00 | 4,500 | 5538 | 0 |
| 7.12 | 3/19/2016 | 8.30 | 6,463.00 | 8,471.00 | 5,145.00 | 0 | 2527 | 0 |
| 8 | 3/19/2016 | 91.08 | 7,853.00 | 8,514.00 | 2,645.00 | 398,460 | 8029 | 0 |
| 9 | 3/19/2016 | 82.69 | 8,039.00 | 8,865.00 | 4,299.00 | 207,690 | 4661 | 0 |
| 10 | 3/20/2016 | 79.52 | 7,940.00 | 8,687.00 | 3,899.00 | 199,900 | 4437 | 0 |
| 11 | 3/20/2016 | 69.00 | 7,957.00 | 9,582.00 | 6,120.00 | 109,740 | 4863 | 0 |
| 11.01 | 3/20/2016 | 3.00 | 4,887.00 | 9,315.00 | 6,101.00 | 0 | 492 | 0 |
| 11.02 | 3/20/2016 | 2.53 | 5,353.00 | 9,610.00 | 8,674.00 | 0 | 933 | 0 |
| 11.03 | 3/21/2016 | 5.50 | 6,209.00 | 8,556.00 | 5,202.00 | 0 | 2938 | 0 |
| 11.1 | 3/21/2016 | 80.71 | 7,809.00 | 9,502.00 | 8,253.00 | 138,420 | 3052 | 0 |
| 12.01 | 3/22/2016 | 2.50 | 5,040.00 | 9,146.00 | 7,524.00 | 0 | 560 | 0 |
| 12.02 | 3/22/2016 | 8.55 | 5,153.00 | 6,505.00 | 5,403.00 | 0 | 2790 | 0 |
| 12.03 | 3/22/2016 | 74.20 | 7,106.00 | 9,323.00 | 3,792.00 | 89,520 | 2589 | 0 |
| 12.04 | 3/23/2016 | 85.80 | 7,051.00 | 7,558.00 | 4,272.00 | 164,320 | 9298 | 0 |
| 13 | 3/23/2016 | 88.90 | 7,098.00 | 7,289.00 | 2,850.00 | 252,520 | 4914 | 0 |
| 14 | 3/23/2016 | 73.70 | 7,170.00 | 8,250.00 | 4,406.00 | 253,520 | 8548 | 0 |
| 15 | 3/23/2016 | 80.69 | 6,925.00 | 7,542.00 | 3,129.00 | 251,020 | 4840 | 0 |
| 16 | 3/23/2016 | 80.51 | 6,719.00 | 7,263.00 | 2,509.00 | 249,740 | 4898 | 0 |
| 17 | 3/23/2016 | 82.49 | 7,059.00 | 7,722.00 | 2,523.00 | 249,120 | 5267 | 0 |
| 18 | 3/24/2016 | 74.20 | 7,482.00 | 8,471.00 | 2,893.00 | 247,360 | 7760 | 0 |
| 19 | 3/24/2016 | 80.50 | 6,898.00 | 7,243.00 | 2,491.00 | 247,620 | 5989 | 0 |
| 20 | 3/24/2016 | 94.80 | 6,925.00 | 7,944.00 | 2,493.00 | 251,520 | 5134 | 0 |



GRID NORTH

WV 515977
EQT Production Company
James D. Wilson
53 Acres

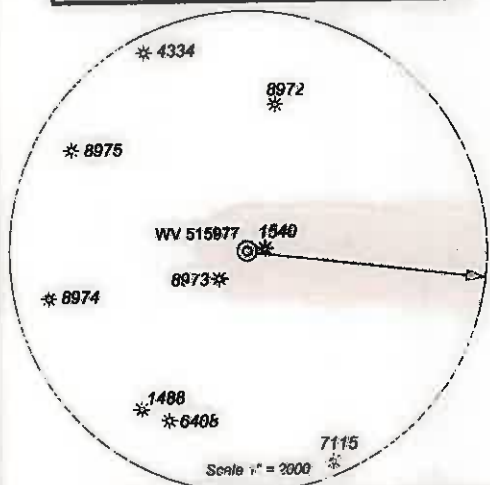
Well References
 Pullman 96 47-85-01540
 H10 515977 N 87°10'18" E
 149 38'

S 47°47'50" W
 450 41'

*47-85-08973

1" = 200'

As-Drilled information
 WV 515977 coordinates are
 NAD 27 N 262,445 77 E 1,578,914 31
 NAD 83 UTM N 4,340,201 64 E 501,212 87
 WV 515977 Landing Point coordinates are
 NAD 27 N 262,249 27 E 1 381,595 01
 NAD 83 UTM N 4,340,155 43 E 502,030 53
 WV 515977 Bottom Hole coordinates are
 NAD 27 N 259,490 87 E 1,582,355 81
 NAD 83 UTM N 4,339,318 97 E 502 276.34
 West Virginia Coordinate system of 1927 (North Zone)
 Geographic coordinates are NAD27
 UTM coordinates are NAD83, Zone 17, Meters
 Plat orientation, corner and well ties are based upon the
 grid north meridian
 Well location references are based upon the grid north
 meridian



(⊙) Denotes Location of Well on United States Topographic Maps



I, the undersigned, hereby certify that this plat is correct to the best of my knowledge and belief and shows all the information required by law and the regulations issued and prescribed by the Department of Environmental Protection.

Wayne A Hall
 P.S. 2089SU



FILE NO 243-14
 DRAWING NO 243-14 Pullman 96 H10.dwg
 SCALE 1" = 2000'
 MINIMUM DEGREE OF ACCURACY 1 2500
 PROVEN SOURCE OF ELEVATION NGS CORS Station

STATE OF WEST VIRGINIA
 DEPARTMENT OF ENVIRONMENTAL PROTECTION
OIL AND GAS DIVISION

DATE February 22 20 16
 OPERATOR'S WELL NO 515977
 API WELL NO 47 - 85 - 10210
 STATE COUNTY PERMIT

WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL
 (IF GAS) PRODUCTION: STORAGE DEEP SHALLOW

LOCATION ELEVATION: Original 1194' Proposed 1182' WATERSHED Goose Run of Rockcamp Run QUADRANGLE: Pullman
 DISTRICT Union COUNTY: Ritchie

SURFACE OWNER: James H. & Wilma J. Wilson ACREAGE: 40.089
 ROYALTY OWNER: Laune Ann Haddox, et al LEASE NO 919995 ACREAGE: 360

PROPOSED WORK: DRILL CONVERT DRILL DEEPER FRACTURE OR STIMULATE PLUG OFF OLD FORMATION
 PERFORATE NEW FORMATION OTHER PHYSICAL CHANGE IN WELL (SPECIFY) _____
 PLUG AND ABANDON CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus ESTIMATED DEPTH: TVD 6,396

WELL OPERATOR: EQT Production Company DESIGNATED AGENT: Rex C. Ray
 ADDRESS: PO Box 280 / 115 Professional Place ADDRESS: PO Box 280 / 115 Professional Place
Bridgeport, WV 26330 Bridgeport, WV 26330