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**west virginia** department of environmental protection

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Office of Oil and Gas  
601 57th Street SE  
Charleston, WV 25304  
(304) 926-0450  
(304) 926-0452 fax

Earl Ray Tomblin, Governor  
Randy C. Huffman, Cabinet Secretary  
www.dep.wv.gov

August 25, 2015

**WELL WORK PERMIT**  
**Horizontal 6A Well**

This permit, API Well Number: 47-4902394, issued to EQT PRODUCTION COMPANY, is evidence of permission granted to perform the specified well work at the location described on the attached pages and located on the attached plat, subject to the provisions of Chapter 22 of the West Virginia Code of 1931, as amended, and all rules and regulations promulgated thereunder, and to all conditions and provisions outlined in the pages attached hereto. Notification shall be given by the operator to the Oil and Gas Inspector at least 24 hours prior to the construction of roads, locations, and/or pits for any permitted work. In addition, the well operator shall notify the same inspector 24 hours before any actual well work is commenced and prior to running and cementing casing. Spills or emergency discharges must be promptly reported by the operator to 1-800-642-3074 and to the Oil and Gas inspector.

Please be advised that form WR-35, Well Operators Report of Well Work is to be submitted to this office within 90 days completion of permitted well work, as should form WR-34 Discharge Monitoring Report within 30 days of discharge of pits, if applicable. Failure to abide by all statutory and regulatory provisions governing all duties and operations hereunder may result in suspension or revocation of this permit and, in addition, may result in civil and/or criminal penalties being imposed upon the operators.

In addition to the applicable requirements of this permit, and the statutes and rules governing oil and gas activity in WV, this permit may contain specific conditions which must be followed. Permit conditions are attached to this cover letter.

Per 35CSR-4-5.2.g this permit will expire in two (2) years from the issue date unless permitted well work is commenced. If there are any questions, please feel free to contact me at (304) 926-0499 ext. 1654.



James Martin  
Chief

Operator's Well No: 515709  
Farm Name: SHAVER, KARL S.  
**API Well Number: 47-4902394**  
**Permit Type: Horizontal 6A Well**  
Date Issued: 08/25/2015

# PERMIT CONDITIONS

West Virginia Code § 22-6A-8(d) allows the Office of Oil and Gas to place specific conditions upon this permit. Permit conditions have the same effect as law. Failure to adhere to the specified permit conditions may result in enforcement action.

## CONDITIONS

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1. This proposed activity may require permit coverage from the United States Army Corps of Engineers (USACE) and WV DEP Department of Water and Waste Management (DWWM). No activity authorized under this permit shall be commenced until all necessary permits from USACE and DWWM are obtained.
2. If the operator encounters an unanticipated void, or an anticipated void at an unanticipated depth, the operator shall notify the inspector within 24 hours. Modifications to the casing program may be necessary to comply with W. Va. Code § 22-6A-5a (12), which requires drilling to a minimum depth of thirty feet below the bottom of the void, and installing a minimum of twenty (20) feet of casing. Under no circumstance should the operator drill more than fifty (50) feet below the bottom of the void or install less than twenty (20) feet of casing below the bottom of the void.
3. When compacting fills, each lift before compaction shall not be more than 12 inches in height, and the moisture content of the fill material shall be within limits as determined by the Standard Proctor Density test of the actual soils used in specific engineered fill, ASTM D698, Standard Test Method for Laboratory Compaction Characteristics of Soil Using Standard Effort, to achieve 95 % compaction of the optimum density. Each lift shall be tested for compaction, with a minimum of two tests per lift per acre of fill. All test results shall be maintained on site and available for review.
4. Operator shall install signage per § 22-6A-8g (6) (B) at all source water locations included in their approved water management plan within 24 hours of water management plan activation.
5. Oil and gas water supply wells will be registered with the Office of Oil and Gas and all such wells will be constructed and plugged in accordance with the standards of the Bureau for Public Health set forth in its Legislative rule entitled *Water Well Regulations*, 64 C.S.R. 19. Operator is to contact the Bureau of Public Health regarding permit requirements. In lieu of plugging, the operator may transfer the well to the surface owner upon agreement of the parties. All drinking water wells within fifteen hundred feet of the water supply well shall be flow tested by the operator upon request of the drinking well owner prior to operating the water supply well.
6. Pursuant to the requirements pertaining to the sampling of domestic water supply wells/springs the operator shall, no later than thirty (30) days after receipt of analytical data provide a written copy to the Chief and any of the users who may have requested such analyses.
7. If any explosion or other accident causing loss of life or serious personal injury occurs in or about a well or well work on a well, the well operator or its contractor shall give notice, stating the particulars of the explosion or accident, to the oil and gas inspector and the Chief, within 24 hours of said accident.
8. During the casing and cementing process, in the event cement does not return to the surface, the oil and gas inspector shall be notified within 24 hours.
9. Operator shall provide the Office of Oil & Gas notification of the date that drilling commenced on this well. Such notice shall be provided by sending an email to DEPOOGNotify@wv.gov within 30 days of commencement of drilling.

08/28/2015





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west virginia department of environmental protection

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Office of Oil and Gas  
601 57<sup>th</sup> Street  
Charleston, WV 25304  
(304) 926-0450 fax (304) 926-0452

Earl Ray Tomblin, Governor  
Randy C. Huffman, Cabinet Secretary  
www.dep.wv.gov

**ORDER  
ISSUED UNDER  
WEST VIRGINIA CODE, CHAPTER 22, ARTICLE 6A**

TO: EQT Production Company  
625 Liberty Ave.  
Pittsburgh, PA 15222

DATE: August 25, 2015  
ORDER NO.: 2015-W-8

**INTRODUCTION**

This Order (hereinafter "Order") is issued by the Office of Oil and Gas (hereinafter "OOG"), by and through its Chief, pursuant to the authority of W. Va. Code §§ 22-1-1, 22-6-1 and 22-6A-1 *et seq.*, and EQT Production Company (hereinafter "EQT" or "Operator"), collectively the "Parties."

**FINDINGS OF THE CHIEF**

In support of this Order, the Chief hereby finds the following:

1. OOG, an office within the West Virginia Department of Environmental Protection, is the agency with the duty and authority to execute and enforce W. Va. Code §22-6-1 and §22-6A-1 *et seq.*, and the rules and regulations promulgated thereunder.
2. EQT is a "person" as defined by W. Va. Code §22-6-1(n), with a corporate address as 625 Liberty Avenue Pittsburgh, Pennsylvania.
3. On March 11, 2015, EQT submitted well work permit applications identified as API#s 47-049-02385, 47-049-02386, and 47-049-02387; on March 12, 2015, EQT submitted a well work permit application identified as 47-049-02388 and on April 24, 2015 EQT submitted a well work permit application identified as 47-049-02394. The five proposed wells are to be located on the FAW 55 Pad in Grant District of Marion County, West Virginia.
4. On March 27, 2015, EQT requested a waiver for Wetlands B, C, D and F as outlined in Attachment F, from well location restriction requirements in W. Va. Code §22-6A-12(b) for gas well permit applications identified as 47-049-02385, 47-049-02386, 47-049-02387, 47-049-02389 and 47-049-02394.

08/28/2015

## **CONCLUSIONS OF LAW**

1. West Virginia Code §22-1-6(d) requires, in part, that “[i]n addition to other powers, duties and responsibilities granted and assigned to the secretary by this chapter, the secretary is authorized and empowered to... (3) Enter private lands to make surveys and inspections for environmental protection purposes; to investigate for violations of statutes or rules which the Office of Oil and Gas is charged with enforcing; to serve and execute warrants and processes; to make arrests; issue orders, which for the purposes of this chapter include consent agreements; and to otherwise enforce the statutes or rules which the Office of Oil and Gas is charged with enforcing.”
2. West Virginia Code §22-6A-2(a)(6) requires, in part, that “Concomitant with the broad powers to condition the issuance of well work permits, the secretary should also have broad authority to waive certain minimum requirements of this article when, in his or her discretion, such waiver is appropriate: *Provided*, That the secretary shall submit a written report of the number of waivers granted to the Legislature commencing January 1, 2013, and each year thereafter.”
3. West Virginia Code §22-6A-12(b) requires, in part, that “[n]o well pad may be prepared or well drilled within one hundred feet measured horizontally from any perennial stream, natural or artificial lake, pond or reservoir, or a wetland, or within three hundred feet of a naturally reproducing trout stream. No well pad may be located within one thousand feet of a surface or ground water intake of a public water supply. The distance from the public water supply as identified by the Office of Oil and Gas shall be measured as follows: (1) For a surface water intake on a lake or reservoir, the distance shall be measured from the boundary of the lake or reservoir. (2) For a surface water intake on a flowing stream, the distance shall be measured from a semicircular radius extending upstream of the surface water intake. (3) For a groundwater source, the distance shall be measured from the wellhead or spring. The Office of Oil and Gas may, in its discretion, waive these distance restrictions upon submission of a plan identifying sufficient measures, facilities or practices to be employed during well site construction, drilling and operations to protect the waters of the state. A waiver, if granted, shall impose any permit conditions as the secretary considers necessary.”

## ORDER

West Virginia Code §22-6A-12(b) requires, in part, that “[n]o well pad may be prepared or well drilled within one hundred feet measured horizontally from any perennial stream, natural or artificial lake, pond or reservoir, or a wetland. The Office of Oil and Gas grants the request for a waiver for Wetlands C, D, and F from well location restriction requirements in W. Va. Code §22-6A-12(b) for gas well permit applications identified as API#s 47-049-02385, 47-049-02386, 47-049-02387, 47-049-02388, and 47-049-02394. Further, a waiver from Wetland B is not needed for construction as proposed. The Office of Oil and Gas hereby **ORDERS** that EQT shall meet the following site construction and operational requirements for the FAW 55 well pad:

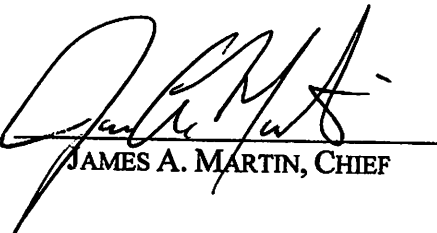
- a. A berm shall be constructed around the perimeter of the pad to contain any potential spills and storm water runoff. Berm is to be at least two feet (2’) in height;
- b. Filter/silt socks and erosion control blankets shall be installed on all slopes and down gradient locations of the pad and topsoil pile areas as erosion and sediment controlling BMPs;
- c. Wetland C shall have a double 32” compost filter sock stack installed adjacent to the wetland and ditch checks shall be installed to minimize sediment flow through pipe inlet;
- d. Wetland D shall have ditch checks installed to minimize sediment from the diversion ditch and compost sock sediment traps installed adjacent to the wetland;
- e. Wetland F shall have a double 32” compost filter stock installed adjacent to the wetland;
- f. Disturbed areas not used for operations shall be seeded and mulched per the seeding tables in the WVDEP-OOG Erosion and Sediment Control Manual;
- g. Drill cuttings and associated drilling mud shall be disposed of in a permitted landfill;
- h. Waste generated by the flowback treatment systems shall be sent to offsite disposal at a permitted landfill;
- i. Weekly site inspections shall be conducted to monitor and maintain the integrity of the BMP storm water controls;
- j. Weekly storm water and spill prevention inspections shall be conducted focusing on storm water and spill prevention BMPs and maintenance of these BMPs;
- k. Inspections of the storm water and spill prevention measures shall be conducted after any major storm event defined as a half inch (½”) rain within any twenty-four (24) hour period;
- l. Pad inspections shall be conducted no less than once a week to identify and mitigate potential deficiencies;
- m. All records from inspections shall be maintained on site for the life of the project and be available upon request.

Thus ORDERED, the 25th day of August, 2015.

IN THE NAME OF THE STATE OF WEST VIRGINIA:

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

By:



JAMES A. MARTIN, CHIEF

**WETLAND WAIVER REQUEST**  
**FAW 55 WELL PAD PROJECT**  
**MARION COUNTY, WEST VIRGINIA**

**Submitted to:**

**WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION**  
**OFFICE OF OIL AND GAS**  
**601 57<sup>TH</sup> STREET**  
**CHARLESTON, WEST VIRGINIA 25305**

**Prepared for:**

**EQT PRODUCTION COMPANY**  
**120 PROFESSIONAL PLACE**  
**BRIDGEPORT, WEST VIRGINIA 26330**

**Prepared by:**

**CIVIL & ENVIRONMENTAL CONSULTANTS, INC.**  
**99 CAMBRIDGE PLACE**  
**BRIDGEPORT, WEST VIRGINIA 26330**

**CEC Project 142-405**

**March 24, 2015**





March 24, 2015

Mr. James Martin, Chief  
West Virginia Department of Environmental Protection  
Office of Oil and Gas  
601 57<sup>th</sup> Street  
Charleston, West Virginia 25304

Dear Mr. Martin:

Subject: Wetland Waiver Request  
EQT Production Company  
FAW 55 Well Pad Project  
Marion County, West Virginia  
CEC Project 142-405

## 1.0 INTRODUCTION

On behalf of EQT Production Company (EQT), Civil & Environmental Consultants, Inc., (CEC) is submitting a Wetland Waiver Request pursuant to Chapter 22 Article 6A Section 12 of West Virginia Code. EQT is requesting a waiver for four wetlands which lie within 100-feet from the limits of disturbance (LOD) of the proposed FAW55 Well Pad Project located in Marion County, West Virginia.

EQT is proposing to construct a natural gas well pad with attendant facilities and associated access roads. The total LOD for the FAW 55 Well Pad Project is 22.38 acres and will support up to 10 horizontal wells. The waiver request form is included as Attachment A and the below sections provide a detailed description as required by the waiver.

## 2.0 WETLAND WAIVER REQUEST

*Question 1: Describe the proposed project location, including unique identifying names of all wetlands, and the names of perennial streams for which the waiver is sought.*

The proposed FAW 55 Well Pad Project is located in southern Marion County, West Virginia near the town of Monongah, as shown on the Site Location Map included as Attachment B. The proposed project's LOD is within 100-feet of four palustrine emergent wetlands. Wetland C is partially located within the LOD, along the access road, but is not proposed for temporary or permanent impacts. Wetland D is located approximately 9 feet to the east and Wetland F is located approximately 57 feet to the east of the proposed access road. Wetland B is located approximately 99 feet south of the proposed pits. No perennial streams are located within 100-feet of the proposed LOD and no surface or ground water intakes of a public water supply are located within 1,000-feet. The Water Topo Map is provided as Attachment C.

*Question 2: Justify the proposed activity by describing alternatives to this project that were considered*

*a. Include a No-Action Alternative as to show "the future without the project".*

The No-Action alternative does not represent "no alteration" of the existing environment, as future development could likely occur. However, under this alternative, the FAW55 Well Pad Project would not be constructed and would produce no immediate environmental impacts and, consequently would not require a waiver; however, this option would not fulfill the project's purpose and need.

*b. Location alternatives must be shown.*

The proposed FAW 55 Well Pad went through various conceptual designs prior to the proposed design. The PP03 Conceptual Design, Attachment D, represented EQT's initial design and most efficient facility



layout prior to obtaining detailed information regarding the location and types of on-site aquatic resources. CEC biologists subsequently performed detailed wetland and stream delineations, and characterized all potentially jurisdictional areas on the site. The resulting aquatic resource data was then incorporated into the design of the facility to arrive at the proposed design. The stream and wetland delineation map is included as Attachment E.

As shown on the conceptual drawings, Wetlands C and D were initially proposed for temporary impacts, which would obviate the need for the wetland waiver; however, in an effort to further minimize impacts to on-site aquatic features the LOD was adjusted to avoid these impacts. The proposed design represents EQT's commitment to reducing aquatic impacts to the furthest extent practicable while still meeting the projects purpose and need. The proposed Site Plans are included as Attachment F.

*c. Must demonstrate why a one hundred foot buffer cannot be maintained.*

Maintaining a 100-foot buffer from all on-site wetlands was not feasible due to topographic restraints and location of the existing features. To maintain a 100-foot buffer for Wetlands B and C the project would need to be shifted north. Shifting the site north would result in excess cut material which would need to be spoiled, potentially in wetland areas. The only other alternative to meet the setback requirements would be a reduction in the project's footprint.

The proposed design represents the minimum footprint required to meet the projects purpose and need. The flowback and completion pits have minimum set volumes, 1.25 million gallons and 5 million gallons respectively, which are based on the minimum requirements needed for fracing. A reduction in the flowback or completion pit size would not allow for project completion. The footprint of the pad is based on the minimum square foot required for equipment needed vital to the operation of the facility.

*d. Describe how the proposed project is the least environmentally damaging practicable alternative.*

The proposed FAW 55 design represents the alternative which reduces both temporary and permanent impacts to the greatest degree. The conceptual design would have reduced the need to obtain wetland waivers but instead would have resulted in direct temporary impacts to on-site features whereas the proposed design will avoid these impacts.

*Question 3: Identify sufficient measures, facilities or practices to be employed during well site construction, drilling and operations to protect waters of the state. This description should include all additional erosion and sediment control measures and devices that will be used.*

As part of their permitting process, EQT has prepared an Erosion and Sedimentation Control Plan (E&SCP) specific for this project which stipulates specific seed mix for post-construction soil stabilization. The E&SCP will be implemented to reduce soil erosion, compaction, and sedimentation of receiving streams and wetlands. Proper construction sequencing and implementation of the E&SCP will ensure water quality impacts are minimized throughout the project area. Furthermore, the pits will be lined with an impermeable barrier to prevent possible contamination of soil and groundwater. EQT will also ensure that any contaminants will be strictly controlled. Furthermore, appropriate stormwater management features and culverts will be installed along the access roads to prevent the damming and funneling of water that might otherwise reach wetland areas.

Mr. James Martin  
Project 142-405  
Page 3  
March 24, 2015

*Question 4: Proved mapping, plans, specifications and design analysis for the preferred alternative to the project.*

- a. Specify in writing what additional controls, measures, devices, monitoring, etc. will be used to protect wetlands and/or perennial streams for which the waiver is sought.*

West Virginia Department of Environmental Protection approved erosion and sediment controls will be maintained continuously throughout the project. Orange construction fencing will be installed around Wetland C and 32-inch silt sock will be installed upslope of the wetland to prevent secondary impacts from sedimentation. A filter sock sediment trap will be installed upslope of Wetland D, while 32-inch filter sock will be installed upslope of Wetlands B and F to also avoid sedimentation.

The following attachments are included with this waiver request:

- Attachment A: Waiver Request Form
- Attachment B: Site Location Map
- Attachment C: Water Topo Map
- Attachment D: Conceptual Site Plans
- Attachment E: Wetland and Stream Delineation Map
- Attachment F: Proposed Final Site Plans

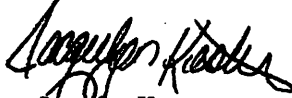
### 3.0 CLOSING

A Nationwide Permit-14 and Stream Activity Application have been submitted to the U.S. Army Corps of Engineers and the West Virginia Division of Natural Resources' (WVDNR) Office of Land and Streams, respectively.

We appreciate your review of this Wetland Waiver Request. Please contact Lacoa Corder at (304) 848-0066, or at [lcorder@eqt.com](mailto:lcorder@eqt.com), if you have any questions or require additional information.

Respectfully submitted,

CIVIL AND ENVIRONMENTAL CONSULTANTS, INC



Jacquelyn Kester  
Project Manager



Joseph D. Robinson, P.E.  
Project Manager

Enclosures

cc: Ms. Lacoa Corder, EQT Production Company

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**ATTACHMENT A**  
**WETLAND WAIVER REQUEST**

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08/28/2015

11/3/14

Wetland and Perennial Stream Waiver Request

API Number: Not yet assigned

Operator's Well Number: 306686

Well Operator: EQT Production Company

Well Number: 515709, 515710, 515711, 515712, 515713, 515714, 515715, 515716, 515717, 515718

Well Pad Name: FAW 55 Well Pad

County, District, Quadrangle of Well Location: Marion County, Grant District, Fairmont West Quad

**Answer the questions below to request a waiver from West Virginia Department of Environmental Protection for any wetlands or perennial streams which lie within one hundred feet of proposed project Limit of Disturbance (LOD), which includes any erosion and sediment control devices to be used.**

**This waiver shall be requested pursuant to Chapter 22 Article 6A Section 12 of West Virginia Code, which states:**

**§22-6A-12(b) No well pad may be prepared or well drilled within one hundred feet measured horizontally from any perennial stream, natural or artificial lake, pond or reservoir, or a wetland, or within three hundred feet of a naturally reproducing trout stream. No well pad may be located within one thousand feet of a surface or ground water intake of a public water supply. The distance from the public water supply as identified by the department shall be measured as follows:**

- (1) For a surface water intake on a lake or reservoir, the distance shall be measured from the boundary of the lake or reservoir.**
- (2) For a surface water intake on a flowing stream, the distance shall be measured from a semicircular radius extending upstream of the surface water intake.**
- (3) For a groundwater source, the distance shall be measured from the wellhead or spring.**

**The department may, in its discretion, waive these distance restrictions upon submission of a plan identifying sufficient measures, facilities or practices to be employed during well site construction, drilling and operations to protect the waters of the state. A waiver, if granted, shall impose any permit conditions as the secretary considers necessary.**

**§22-6A-12(c) Notwithstanding the foregoing provisions of this section, nothing contained in this section prevents an operator from conducting the activities permitted or authorized by a Clean Water Act Section 404 permit or other approval from the United States Army Corps of Engineers within any waters of the state or within the restricted areas referenced in this section.**

08/28/2015



11/3/14

Wetland and Perennial Stream Waiver Request

API Number: Not yet assigned

Operator's Well Number: 306686

**Answer in the space provided, or use additional pages as necessary to fully answer the questions below:**

- 1. Describe the proposed project location, including unique identifying names of all wetlands, and the names of perennial streams for which the waiver is sought.**

Please refer to Section 2.0, Question 1 of the letter.

- 2. Justify the proposed activity by describing alternatives to this project that were considered.**

- a. Include a No-Action Alternative as to show "the future without the project"
- b. Location Alternatives must be shown
- c. Must demonstrate why a one hundred foot buffer cannot be maintained
- d. Describe how the proposed project is the least environmentally damaging practicable alternative

Please refer to Section 2.0, Question 2 of the letter.

08/28/2015

11/3/14

Wetland and Perennial Stream Waiver Request

API Number: Not yet assigned

Operator's Well Number: 306686

- 3. Identify sufficient measures, facilities or practices to be employed during well site construction, drilling and operations to protect the waters of the state. This description should include all additional erosion and sediment control measures and devices that will be used.**

Please refer to Section 2.0, Question 3 of the letter.

- 4. Provide mapping, plans, specifications and design analysis for the preferred alternative to the project.**
  - a. Specify in writing what additional controls, measures, devices, monitoring, etc. will be used to protect these wetlands and/or perennial streams for which the waiver is sought.**

Please refer to Section 2.0, Question 4 of the letter.

08/28/2015

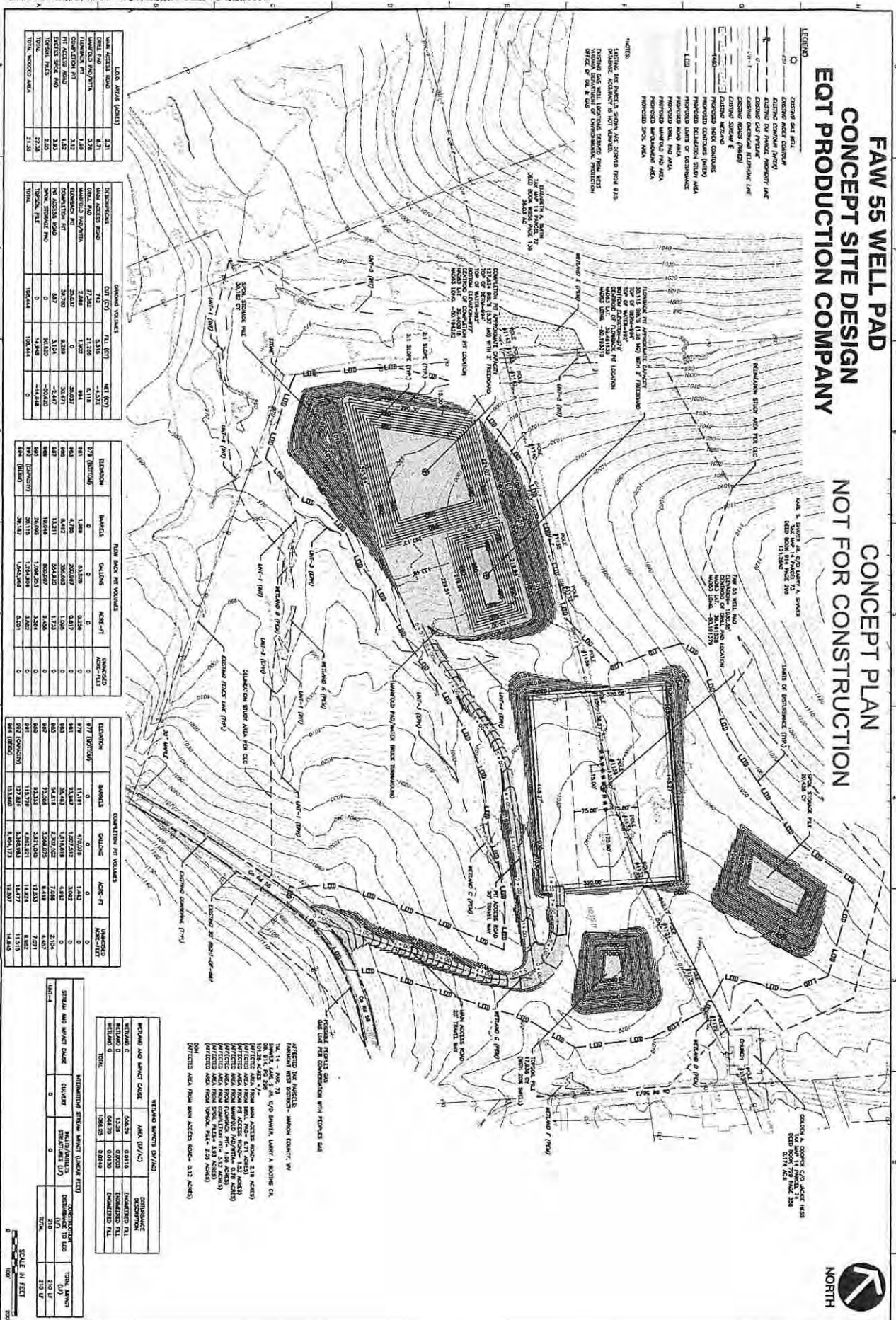
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**ATTACHMENT B**  
**SITE LOCATION MAP**

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# FAW 55 WELL PAD CONCEPT SITE DESIGN EQT PRODUCTION COMPANY

CONCEPT PLAN  
NOT FOR CONSTRUCTION



LEGEND

- Existing Road
- Existing Ditch
- Existing Pipeline
- Proposed Road
- Proposed Ditch
- Proposed Pipeline
- Proposed Well Pad
- Proposed Well Pad Area
- Proposed Well Pad Area
- Proposed Well Pad Area

NOTES

- EXISTING ROAD RIGHT-OF-WAY BOUNDARIES SHOWN AS DASHED LINES.
- EXISTING DITCH RIGHT-OF-WAY BOUNDARIES SHOWN AS DASHED LINES.
- EXISTING PIPELINE RIGHT-OF-WAY BOUNDARIES SHOWN AS DASHED LINES.
- PROPOSED ROAD RIGHT-OF-WAY BOUNDARIES SHOWN AS SOLID LINES.
- PROPOSED DITCH RIGHT-OF-WAY BOUNDARIES SHOWN AS SOLID LINES.
- PROPOSED PIPELINE RIGHT-OF-WAY BOUNDARIES SHOWN AS SOLID LINES.
- PROPOSED WELL PAD RIGHT-OF-WAY BOUNDARIES SHOWN AS SOLID LINES.
- PROPOSED WELL PAD AREA SHOWN AS HATCHED AREA.
- PROPOSED WELL PAD AREA SHOWN AS HATCHED AREA.
- PROPOSED WELL PAD AREA SHOWN AS HATCHED AREA.

ITEM	QUANTITY	UNIT	REMARKS
ROAD ACCESS ROAD	2.31	ACRES	
ROAD ACCESS ROAD	0.71	ACRES	
ROAD ACCESS ROAD	1.60	ACRES	
ROAD ACCESS ROAD	1.18	ACRES	
ROAD ACCESS ROAD	1.18	ACRES	
ROAD ACCESS ROAD	2.02	ACRES	
ROAD ACCESS ROAD	2.02	ACRES	
ROAD ACCESS ROAD	2.02	ACRES	
TOTAL	21.33	ACRES	

ITEM	QUANTITY	UNIT	REMARKS
ROAD ACCESS ROAD	7.14	ACRES	
ROAD ACCESS ROAD	2.88	ACRES	
ROAD ACCESS ROAD	1.00	ACRES	
ROAD ACCESS ROAD	0.00	ACRES	
ROAD ACCESS ROAD	20.70	ACRES	
ROAD ACCESS ROAD	0.00	ACRES	
ROAD ACCESS ROAD	0.00	ACRES	
ROAD ACCESS ROAD	14.84	ACRES	
TOTAL	100.44	ACRES	

ITEM	QUANTITY	UNIT	REMARKS
ROAD ACCESS ROAD	0.00	ACRES	
ROAD ACCESS ROAD	0.00	ACRES	
ROAD ACCESS ROAD	0.00	ACRES	
ROAD ACCESS ROAD	0.00	ACRES	
ROAD ACCESS ROAD	0.00	ACRES	
ROAD ACCESS ROAD	0.00	ACRES	
ROAD ACCESS ROAD	0.00	ACRES	
ROAD ACCESS ROAD	0.00	ACRES	
TOTAL	0.00	ACRES	

ITEM	QUANTITY	UNIT	REMARKS
ROAD ACCESS ROAD	1.31	ACRES	
ROAD ACCESS ROAD	1.00	ACRES	
ROAD ACCESS ROAD	1.00	ACRES	
ROAD ACCESS ROAD	1.00	ACRES	
ROAD ACCESS ROAD	1.00	ACRES	
ROAD ACCESS ROAD	1.00	ACRES	
ROAD ACCESS ROAD	1.00	ACRES	
ROAD ACCESS ROAD	1.00	ACRES	
TOTAL	13.31	ACRES	

ITEM	QUANTITY	UNIT	REMARKS
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ROAD ACCESS ROAD	0.00	ACRES	
ROAD ACCESS ROAD	0.00	ACRES	
ROAD ACCESS ROAD	0.00	ACRES	
ROAD ACCESS ROAD	0.00	ACRES	
ROAD ACCESS ROAD	0.00	ACRES	
ROAD ACCESS ROAD	0.00	ACRES	
TOTAL	0.00	ACRES	

ITEM	QUANTITY	UNIT	REMARKS
ROAD ACCESS ROAD	0.00	ACRES	
ROAD ACCESS ROAD	0.00	ACRES	
ROAD ACCESS ROAD	0.00	ACRES	
ROAD ACCESS ROAD	0.00	ACRES	
ROAD ACCESS ROAD	0.00	ACRES	
ROAD ACCESS ROAD	0.00	ACRES	
ROAD ACCESS ROAD	0.00	ACRES	
TOTAL	0.00	ACRES	

CONCEPT SITE DESIGN

DATE: OCTOBER 2014 (DRAWN BY: SJB)

DWG NO: 11-1001 (CHECKED BY: DRA1)

PROJECT NO: 142-468

APPROVED BY: [Signature]

EQT PRODUCTION COMPANY  
FAW 55  
GRANT DISTRICT  
MARION COUNTY, WEST VIRGINIA

**CEC**  
Civil & Environmental Consultants, Inc.  
99 Cambridge Place - Bridgeport, WY 26330  
Ph: 304.933.2119 - 858.468.9539 - Fax: 304.933.3327  
www.cecinc.com

NO.	DATE	DESCRIPTION

08/28/2015





**NOTES**

1. THE WETLAND DELINEATION SERVICES WERE PERFORMED BY CEA, AN ENVIRONMENTAL CONSULTANT, INC. (CEA), UNDER THE SUPERVISION AND CLOSE PERSONAL SUPERVISION OF THE PROJECT MANAGER, JAMES W. WELLS, JR., AS DESCRIBED BY CEA, A PROFESSIONAL ENGINEER, REGISTERED IN THE STATE OF WEST VIRGINIA, UNDER THE PROFESSIONAL ENGINEERING CONTRACT NO. 142-405-0006. THE SERVICES WERE PROVIDED IN ACCORDANCE WITH THE CONTRACT SPECIFICATIONS AND THE MANUAL AND THE REGIONAL SUPPLEMENT TO THE MANUAL. THE SERVICES WERE PROVIDED TO THE CLIENT FOR THE PURPOSE OF OBTAINING A PERMIT UNDER THE FEDERAL CLEAN WATER ACT AND THE STATE OF WEST VIRGINIA WETLANDS AND STREAMS ACT. THE SERVICES WERE PROVIDED TO THE CLIENT FOR THE PURPOSE OF OBTAINING A PERMIT UNDER THE FEDERAL CLEAN WATER ACT AND THE STATE OF WEST VIRGINIA WETLANDS AND STREAMS ACT. THE SERVICES WERE PROVIDED TO THE CLIENT FOR THE PURPOSE OF OBTAINING A PERMIT UNDER THE FEDERAL CLEAN WATER ACT AND THE STATE OF WEST VIRGINIA WETLANDS AND STREAMS ACT.
2. THE WETLAND DELINEATION SERVICES WERE PROVIDED TO THE CLIENT FOR THE PURPOSE OF OBTAINING A PERMIT UNDER THE FEDERAL CLEAN WATER ACT AND THE STATE OF WEST VIRGINIA WETLANDS AND STREAMS ACT. THE SERVICES WERE PROVIDED TO THE CLIENT FOR THE PURPOSE OF OBTAINING A PERMIT UNDER THE FEDERAL CLEAN WATER ACT AND THE STATE OF WEST VIRGINIA WETLANDS AND STREAMS ACT.

**LEGEND**

- TEST SITE
- DELINEATION BOUNDARY
- WETLAND - PEM
- IDENTIFIED CULVERT
- EPHEMERAL STREAM
- INTERMITTENT STREAM
- WV SAMB STREAM
- 10' CONTOUR

**REFERENCE**

ESRI WORLD IMAGERY / ARCOIS MAP SERVICE:  
 HTTP://SCOT.ARCGISONLINE.COM/MAPS/WORLD\_IMAGERY/  
 ACCESSIED 10/23/2014

10-FT CONTOURS DERIVED FROM 3 METER WV SAMB  
 ELEVATION DATA 2003, DOWNLOADED FROM WV GIS  
 TECHNICAL CENTER: 6/29/2013

OFF-SITE STREAMS WERE DERIVED FROM WV SAMB  
 DATA, CREATED BY WEST VIRGINIA TECHNICAL CENTER.



**CEA**  
**Civil & Environmental Consultants, Inc.**  
 99 Cambridge Place - Bridgeport, WV 26330-2820  
 Ph: 304-833-3118 • Toll: 855-488-6539 • Fax: 304-833-3227  
 www.ceac.com

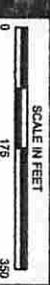
DRAWN BY: GSK | CHECKED BY: JJK  
 DATE: 10/23/2014 | SCALE: 1" = 175'

**EOT PRODUCTION COMPANY**  
 FAW 55 WELL PAD  
 MARION COUNTY, WEST VIRGINIA

WETLAND AND STREAM DELINEATION MAP

APPROVED BY: TJN  
 PROJECT NO: 142-405-0006

FIGURE NO: 4



08/28/2015





**LEGEND**

PROPOSED LOD

**REFERENCE**

USGS TOPOGRAPHIC MAP/ ARCGIS MAP SERVICE:  
 HTTP://GOTO.ARCGISONLINE.COM/MAPS/  
 USGS TOPO MAPS, ACCESSED 12/15/2014  
 FAIRMONT WEST, WEST VIRGINIA QUAD

**CORRELINATE SYSTEM:**

NAD83 STATEPLANE WEST VIRGINIA NORTH US FEET



**Civil & Environmental Consultants, Inc.**

99 Cambridge Place - Bridgeport, WV 26330-2820  
 Ph: 304-933-3119 • Toll: 855-488-9539 • Fax: 304-933-3327  
 www.cecinc.com

DRAWN BY: GSK CHECKED BY: JDK  
 DATE: 12/15/2014 SCALE: 1" = 2,000'

EQT PRODUCTION COMPANY  
 FAW 55 WELL PAD  
 MARION COUNTY, WEST VIRGINIA

USGS SITE LOCATION MAP

APPROVED BY: <sup>\* Hand signature</sup> on file TJN\* FIGURE NO: **1**  
 PROJECT NO: 142-405.0065



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**ATTACHMENT C**  
**WATER TOPO MAP**

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# KARL S. SHAVER JR. LEASE



P:\2014\142-405-Survey\Draw\Well Plats\142405-WELL\_PLAT-FAW55-H1-WATER\_TOPO.dwg\H1 WATER TOPO LS:(2/23/2015 - hmalutich) - LP: 2/25/2015 4:59 PM

WELL PAD	⊙	1500' BUFFER	○	WATER WELL	⊗	CISTERN	⊕
ACCESS ROAD TO WELL	—	PARCEL BOUNDARY	- - -	SPRING	⊙	NO ONE HOME	⊕

## REFERENCE

1. U.S.G.S. 7.5' TOPOGRAPHIC MAP, FAIRMONT WEST QUADRANGLE, WV, DATED: 1997



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99 Cambridge Place - Bridgeport, WV 26330  
 Ph: 304.933.3119 · Fax: 304.933.3327  
 www.cecinc.com

EQT PRODUCTION COMPANY  
 WV 515709  
 GRANT DISTRICT  
 MARION COUNTY, WV

WATERSHED: BOOTH'S CREEK

DRAWN BY: DAM	CHECKED BY: JMS	APPROVED BY: DEM	FIGURE NO.:
DATE: FEBRUARY 23, 2015	DWG SCALE: 1" = 1000'	PROJECT NO: 142-405	08/28/2015



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**ATTACHMENT D**  
**CONCEPTUAL SITE PLANS**

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08/28/2015



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**ATTACHMENT E**

**WETLAND AND STREAM DELINEATION REPORT**

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08/28/2015

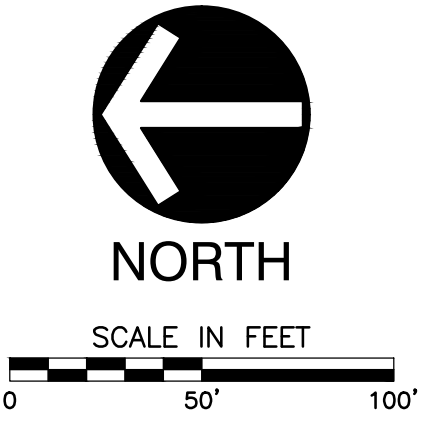
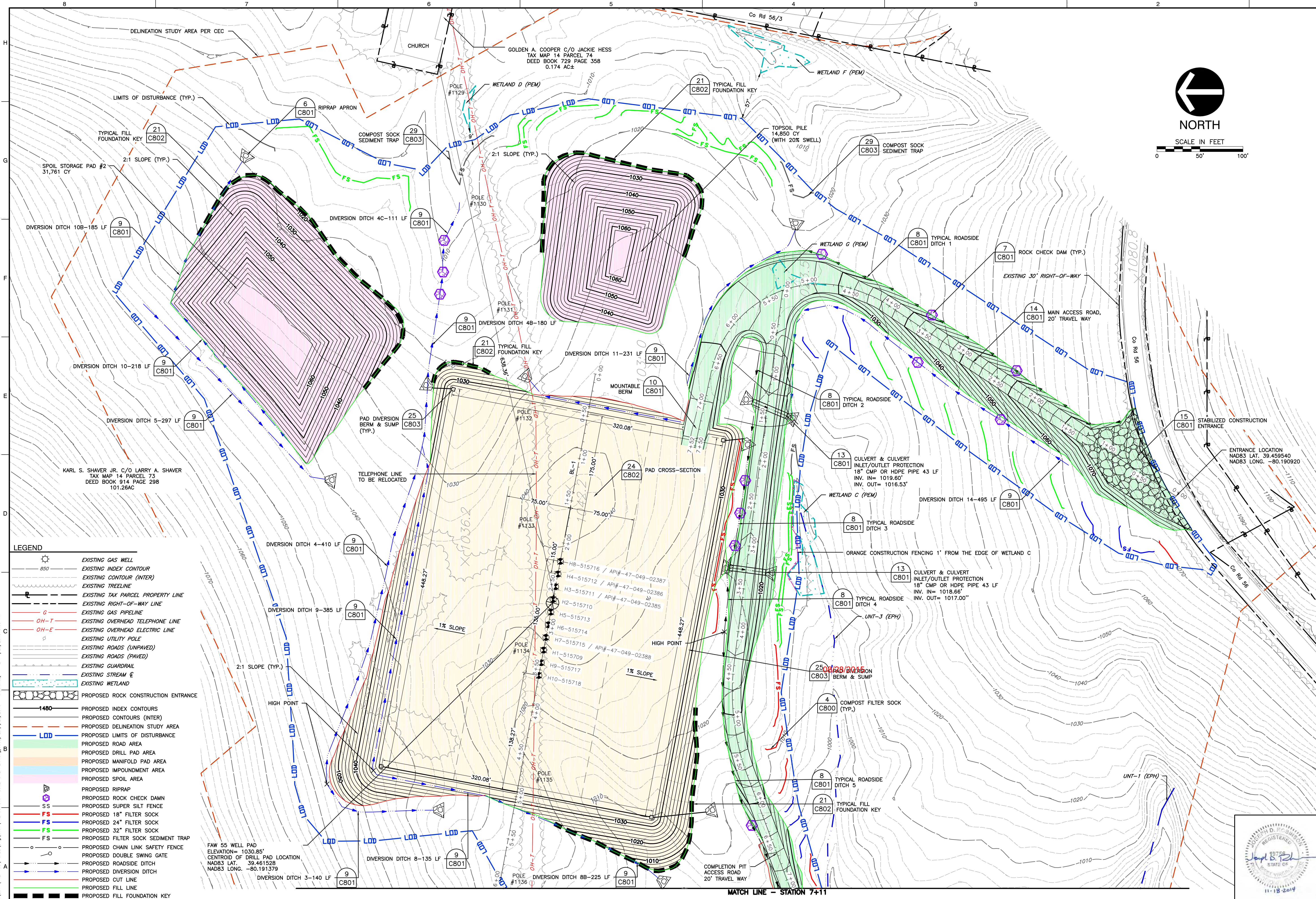
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**ATTACHMENT F**  
**PROPOSED FINAL SITE PLANS**

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08/28/2015





**LEGEND**

	EXISTING GAS WELL
	EXISTING INDEX CONTOUR
	EXISTING CONTOUR (INTER)
	EXISTING TREELINE
	EXISTING TAX PARCEL PROPERTY LINE
	EXISTING RIGHT-OF-WAY LINE
	EXISTING GAS PIPELINE
	EXISTING OVERHEAD TELEPHONE LINE
	EXISTING OVERHEAD ELECTRIC LINE
	EXISTING UTILITY POLE
	EXISTING ROADS (UNPAVED)
	EXISTING ROADS (PAVED)
	EXISTING GUARDRAIL
	EXISTING STREAM
	EXISTING WETLAND
	PROPOSED ROCK CONSTRUCTION ENTRANCE
	PROPOSED INDEX CONTOURS
	PROPOSED CONTOURS (INTER)
	PROPOSED DELINEATION STUDY AREA
	PROPOSED LIMITS OF DISTURBANCE
	PROPOSED ROAD AREA
	PROPOSED DRILL PAD AREA
	PROPOSED MANIFOLD PAD AREA
	PROPOSED IMPOUNDMENT AREA
	PROPOSED SPOIL AREA
	PROPOSED RIPRAP
	PROPOSED ROCK CHECK DAM
	PROPOSED SUPER SILT FENCE
	PROPOSED 18" FILTER SOCK
	PROPOSED 24" FILTER SOCK
	PROPOSED 32" FILTER SOCK
	PROPOSED FILTER SOCK SEDIMENT TRAP
	PROPOSED CHAIN LINK SAFETY FENCE
	PROPOSED DOUBLE SWING GATE
	PROPOSED ROADSIDE DITCH
	PROPOSED DIVERSION DITCH
	PROPOSED CUT LINE
	PROPOSED FILL LINE
	PROPOSED FILL FOUNDATION KEY

FAW 55 WELL PAD  
ELEVATION= 1030.85'  
CENTROID OF DRILL PAD LOCATION  
NAD83 LAT. 39.461528  
NAD83 LONG. -80.191379



**REVISION RECORD**

NO.	DATE	DESCRIPTION
1	10/29/2014	REVISED DRAWING OF SPOIL PILE # & QUANTITIES
2	10/29/2014	REVISION OF SPOIL PILE PLAN
3	02/06/2015	REVISION OF SORE HOLE LOCUT
4	04/23/2015	ADDITION OF PERMITTED APN NUMBERS
5	06/16/2015	ADDITION OF MORE EAS MEASURES AROUND WETLANDS C,D AND F, CHECK DAMS, AND DIVERSION AC.
6	07/20/2015	ADDITION OF DISTANCE LABELS FROM WETLANDS AND F TO CDD
7	07/20/2015	ADDITION OF EAS CONTROLS AROUND WETLANDS C

**Civil & Environmental Consultants, Inc.**  
99 Cambridge Place - Bridgeport, WV 26330  
Ph: 304.933.3119 - 855.488.9539 - Fax: 304.933.3327  
www.cecinc.com

**EQT PRODUCTION COMPANY**  
FAW 55  
GRANT DISTRICT  
MARION COUNTY, WEST VIRGINIA

**FINAL SITE DESIGN PLAN**  
DRAWING NO. **C303**  
SHEET 6 OF 21

DATE: NOVEMBER 12, 2014 | DRAWN BY: MKB/BJH | JDR  
DWG SCALE: 1" = 50' | CHECKED BY: JDR  
PROJECT NO. 142-005  
APPROVED BY: JDR

P:\2014\142-005-CDD\DWG\CDD\142-005-CDD-001-C303-SITE PLAN.dwg(C303) LS(7/29/2015 - 3:05 PM) - LP: 7/29/2015 3:05 PM







4704902394

API NO. 009500202002  
OPERATOR WELL NO. 515709  
Well Pad Name: FAW55

**STATE OF WEST VIRGINIA**  
**DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS**  
**WELL WORK PERMIT APPLICATION**

1) Well Operator: EQT Production Company  
Operator ID 306686 County 049 District 2 Quadrangle 343

2) Operator's Well Number: 515709 Well Pad Name: FAW55

3) Farm Name/Surface Owner: Shaver Public Road Access: CR56

4) Elevation, current ground: 1,039.0 Elevation, proposed post-construction: 1,031.0

5) Well Type: (a) Gas  Oil  Underground Storage

Other \_\_\_\_\_

(b) If Gas: Shallow  Deep

Horizontal

6) Existing Pad? Yes or No: No

7) Proposed Target Formation(s), Depth(s), Anticipated Thicknesses and Associated Pressure(s):

Target formation is Geneseo at a depth of 697' with the anticipated thickness to be 31 feet and anticipated target pressure of 2593 PSI

8) Proposed Total Vertical Depth: 6971

9) Formation at Total Vertical Depth: Geneseo

10) Proposed Total Measured Depth: 11,819

11) Proposed Horizontal Leg Length: 4,334

12) Approximate Fresh Water Strata Depths: 122, 164, & 197

13) Method to Determine Fresh Water Depth: By offset wells

14) Approximate Saltwater Depths: 1014 & 188

15) Approximate Coal Seam Depths: 69, 192\* (see #16), 524, 889, & 1029

16) Approximate Depth to Possible Void (coal mine, karst, other): Flooded Mine Void @ 192' - Pittsburg Seam

17) Does proposed well location contain coal seams directly overlying or adjacent to an active mine? Yes  No  X

(a) If Yes, provide Mine Info: Name: \_\_\_\_\_  
Depth: \_\_\_\_\_  
Seam: \_\_\_\_\_  
Owner: \_\_\_\_\_

*WPH  
4-30-15*

**Received**  
**Office of Oil & Gas**

MAY 11 2015

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**CASING AND TUBING PROGRAM**

18)

TYPE	Size (in)	New or Used	Grade	Weight per ft. (lb/ft)	FOOTAGE: For Drilling (ft)	INTERVALS: Left in Well (ft)	CEMENT: Fill-up (Cu.Ft.)
Conductor	26	New	MC-50	77	40	40	49 C.T.S.
Fresh Water	13 3/8	New	J-55	54.5	300	300	285 C.T.S.
Coal	-	-	-	-	-	-	-
Intermediate	9 5/8	New	A-500	40	2,741	2,741	1,092 C.T.S.
Production	5 1/2	New	P-110	20	12,319	12,319	See Note 1
Tubing	2 3/8		J-55	4.6			May not be run, if run will be set 100' less than TD
Liners							

WRN  
4-30-15

TYPE	Size (in)	Wellbore Diameter (in)	Wall Thickness (in)	Burst Pressure (psi)	Anticipated Max. Internal Pressure (psi)	Cement Type	Cement Yield (cu. ft./k)
Conductor	26	30	0.38	-	18	Construction	1.18
Fresh Water	13 3/8	17 1/2	0.38	2,730	2,184	* See Note 2	1.21
Coal	-	-	-	-	-	-	-
Intermediate	9 5/8	12 3/8	0.395	3,950	3,160	* See Note 2	1.21
Production	5 1/2	8 1/2	0.361	12,640	10,112	-	1.27/1.86
Tubing							
Liners							

**Packers**

Kind:	N/A		
Sizes:	N/A		
Depths Set:	N/A		

Note 1: EQT plans to bring the TOC on the production casing cement job 1,000' above kick off point, which is at least 500' above the shallowest production zone, to avoid communication.

Note 2: Reference Variance 2014-17. (Attached)

Received  
Office of Oil & Gas  
MAY 11 2015

19) Describe proposed well work, including the drilling and plugging back of any pilot hole:

Drill and complete a new horizontal well in the Genesee Formation. The vertical drill to go down to an approximate depth of 5356'. Then kick  
off the horizontal leg into the Marcellus using a slick water frac. The hole will be drilled no more than 100' below the mine void. Cement basket(s)  
and centralizers will be run to facilitate cementing the coal protection casing string to surface.

20) Describe fracturing/stimulating methods in detail, including anticipated max pressure and max rate:

Hydraulic fracturing is completed in accordance with state regulations using water recycled from previously fractured wells and obtained from  
freshwater sources. This water is mixed with sand and a small percentage (less than 0.3%) of chemicals (including 15% Hydrochloric acid,  
gelling agent, gel breaker, friction reducer, biocide, and scale inhibitor), referred to in the industry as a "slickwater" completion. Maximum  
anticipated internal casing pressure is expected to average approximately 8500 psi, maximum anticipated treating rates are expected to average  
approximately 100 bpm. Stage lengths vary from 150 to 300 feet. Average approximately 200,000 barrels of water per stage. Sand sizes  
vary from 100 mesh to 20/40 mesh. Average approximately 200,000 pounds of sand per stage.

21) Total area to be disturbed, including roads, stockpile area, pits, etc, (acres): ± 22.28

22) Area to be disturbed for well pad only, less access road (acres): ± 6.71

23) Describe centralizer placement for each casing string.

- Surface: Bow spring centralizers – One at the shoe and one spaced every 500'.
- Intermediate: Bow spring centralizers– One cent at the shoe and one spaced every 500'.
- Production: One spaced every 1000' from KOP to Int csg shoe

24) Describe all cement additives associated with each cement type. Surface (Type 1 Cement): 0-3% Calcium Chloride  
Used to speed the setting of cement slurries.

0.4% flake. Loss Circulation Material (LCM) is used to combat the loss of the cement slurry to a thief zone.

Intermediate (Type 1 Cement): 0-3% Calcium Chloride. Salt is used in shallow, low temperature formations to speed the setting of cement  
slurries. 0.4% flake. Loss Circulation Material (LCM) is used to combat the loss of whole drilling fluid or cement slurry (not filtrate)  
to a thief zone.

Production:

Lead (Type 1 Cement): 0.2-0.7% Lignosulfonate (Retarder). Lengthens thickening time.

0.3% CFR (dispersant). Makes cement easier to mix.

Tail (Type H Cement): 0.25-0.40% Lignosulfonate (Retarder). Lengthens thickening time.

0.2-0.3% CFR (dispersant). This is to make the cement easier to mix.

60 % Calcuim Carbonate. Acid solubility.

0.4-0.6% Halad (fluid loss). Reduces amount of water lost to formation.

25) Proposed borehole conditioning procedures. Surface: Circulate hole clean (Approximately 30-45 minutes) rotating & reciprocating

one full joint until cuttings diminish at surface. When cuttings returning to surface diminish, continue to circulate an additional 5  
minutes. To ensure that there is no fill, short trip two stands with no circulation. If there is fill, bring compressors back on  
and circulate hole clean. A constant rate of higher than expected cuttings volume likely indicates washouts that will not clean up.

Intermediate: Circulate hole clean (Approximately 30-45 minutes) rotating & reciprocating one full joint until cuttings diminish at  
surface. When cuttings returning to surface diminish, continue to circulate an additional 5 minutes. If foam drilling, to enhance  
hole cleaning use a soap sweep or increase injection rate & foam concentration.

Production: Pump marker sweep with nut plug to determine actual hole washout. Calculate a gauge holes bottoms up volume.

Perform a cleanup cycle by pumping 3-5 bottoms up or until the shakers are clean. Check volume of cuttings coming across  
the shakers every 15 minutes.

\*Note: Attach additional sheets as needed.



04902394

west virginia department of environmental protection

Office of Oil and Gas  
601 57<sup>th</sup> Street, SE  
Charleston, WV 25304  
(304) 926-0450  
(304) 926-0452 fax

Earl Ray Tomblin, Governor  
Randy C. Huffman, Cabinet Secretary  
dep.wv.gov

March 18, 2014

Nabors Completion & Production Services Company  
1380 Route 286 Hwy E #121  
Indiana PA 15701

Re: Cement Variance Request

Dear Sir or Madam,

This agency is approving a variance request for the cement blend listed below to be used on surface and coal protection strings for the drilling of oil and gas wells in the state of West Virginia. The variance cannot be used without requesting its use on a permit application and approval by this agency:

- Type 1 (2% Calcium Chloride-Accelerator, 0.25% Super Flake-Lost Circulation, 5.2% Water, 94% Type "1" Cement)

If you have any questions regarding this matter feel free to contact me at 304-926-0499, ext. 1653.

Sincerely,

James Peterson  
Environmental Resources Specialist / Permitting

Promoting a healthy environment.

RECEIVED  
Office of Oil and Gas

APR 24 2015

WV Department of  
Environmental Protection

08/28/2015



04902394

west virginia department of environmental protection

Office of Oil and Gas  
601 57<sup>th</sup> Street, SE  
Charleston, WV 25304  
(304) 926-0450  
(304) 926-0452 fax

Earl Ray Tomblin, Governor  
Randy C. Huffman, Cabinet Secretary  
dep.wv.gov

**BEFORE THE OFFICE OF OIL AND GAS  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
STATE OF WEST VIRGINIA**

**IN THE MATTER OF A VARIANCE FROM ) ORDER NO. 2014 - 17**  
**REGULATION 35 CSR § 4-11.4/11.5/14.1 )**  
**AND 35 CSR § 8-9.2.h. 4/5/6/8 OF THE )**  
**THE OPERATIONAL )**  
**REGULATIONS OF CEMENTING OIL )**  
**AND GAS WELLS )**

**REPORT OF THE OFFICE**

Nabors Completion & Production Services Co. requests approval of a different cement blend for use in cementing surface and coal protection casing of oil and gas wells.

**FINDINGS OF FACT**

- 1.) Nabors Completion & Production Services Co. proposes the following cement blend:
- 2% Calcium Chloride (Accelerator)
  - 0.25 % Super Flake (Lost Circulation)
  - 94% Type "1" Cement
  - 5.20 % Water
- 2.) Laboratory testing results indicate that the blend listed in Fact No.1 will achieve a 500 psi compressive strength within 6 hours and a 2,435 psi compressive strength within 24 hours.

Promoting a healthy environment.

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**Office of Oil and Gas**  
**APR 24 2015**  
**WV Department of**  
**Environmental Protection**

08/28/2015



**CONCLUSIONS OF LAW**

Pursuant to Articles 6 and 6A, Chapter 22 of the Code of West Virginia, the Office of Oil and Gas has jurisdiction over the subject matter embraced in said notice, and the persons interested therein, and jurisdiction to promulgate the hereinafter prescribed Order.

Pursuant to 35 CSR § 4-11.5 and 35 CSR § 8-9.2.h.8 the Chief of the Office of Oil and Gas may approve different cement blends upon the well operator providing satisfactory proof that different cement types are adequate.

**ORDER**

It is ordered that Nabors Completion & Production Services Co. may use the cement blend listed in Findings of Fact No.1 for the cementing of surface and coal protection casing of oil and gas wells in the State as may be requested by oil and gas operators. The waiting time on the cement blend shall be 8 hours. The cement blend shall be mixed in strict accordance with the specifications for each blend and weight measurements made on-site to assure the cement slurries meet the minimum weight specifications. A sample shall be collected and, if after 8 hours the cement is not set up, additional time will be required. Nabors Completion & Production Services Co. shall keep a record of cement blend jobs in which the cement blend approved under this order is to be used and made available to the Office of Oil and Gas upon request.

Dated this, the 18th day of March, 2014.

IN THE NAME OF THE STATE OF WEST VIRGINIA

OFFICE OF OIL AND GAS  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
OF THE STATE OF WEST VIRGINIA



James Martin, Chief  
Office of Oil and Gas

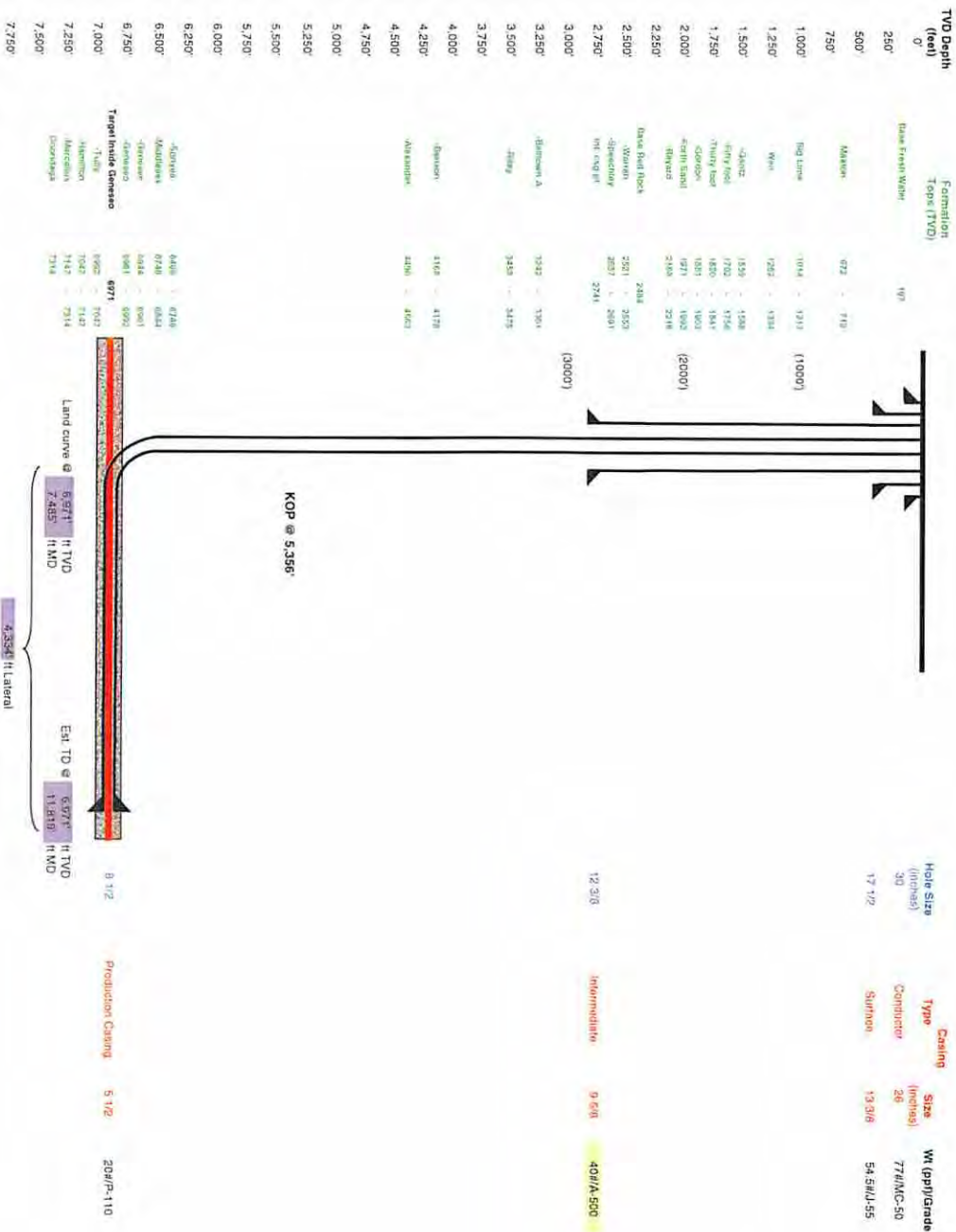
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Office of Oil and Gas  
APR 24 2015  
WV Department of  
Environmental Protection

04902394

Well: 515709(FW55H1)  
 EOT Production  
 Fairmont West  
 Marion

Adm: 355  
 Vertical Section: 4728

West Virginia



Proposed Well Work:  
 Drill and complete a new horizontal well in the Geoseno formation.  
 The vertical drill to go down to an approximate depth of 5356'.  
 Then kick off the horizontal leg into the Geoseno using a slick water frac.

RECEIVED  
 Office of Oil and Gas  
 APR 24 2015  
 WV Department of  
 Environmental Protection

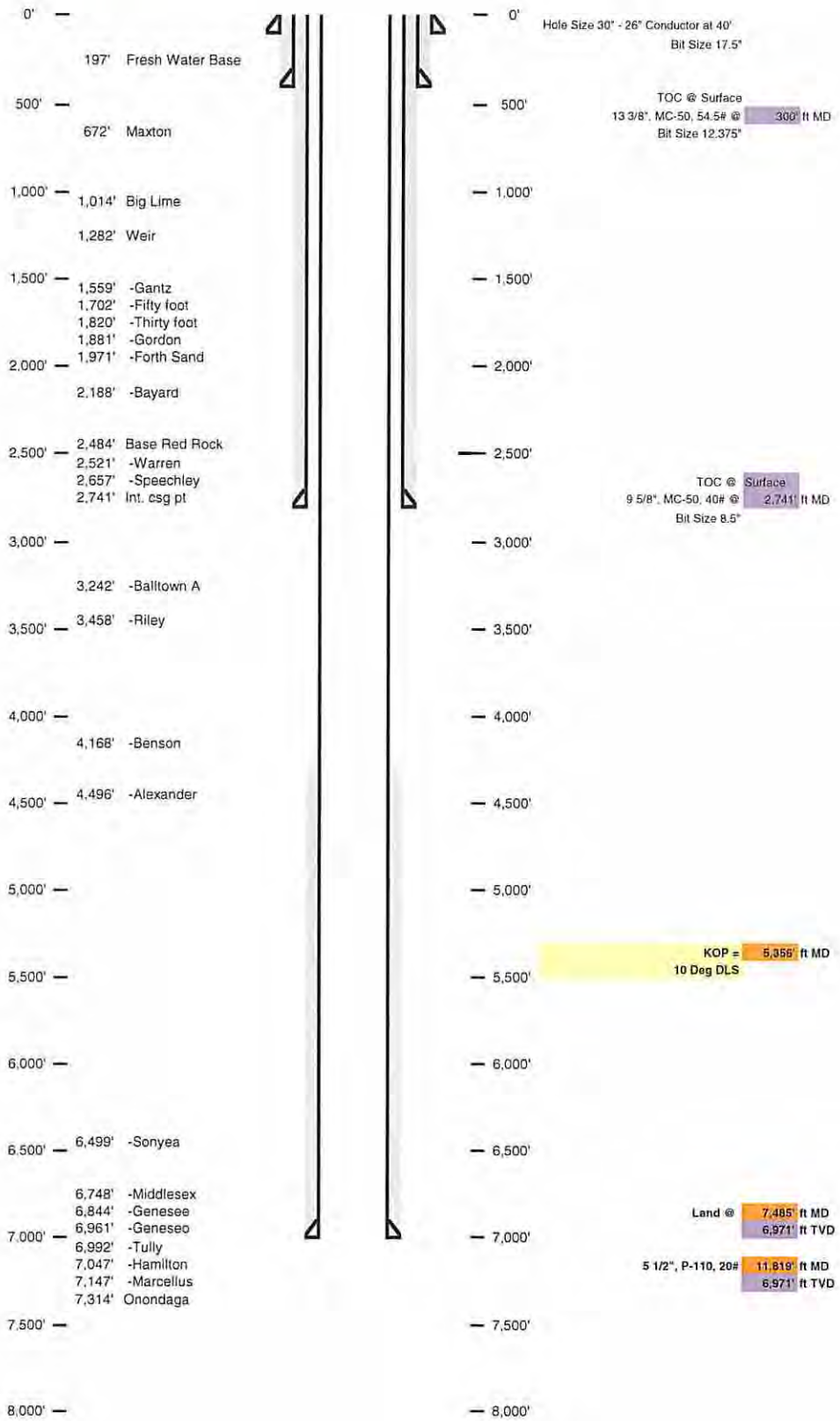
08/28/2015

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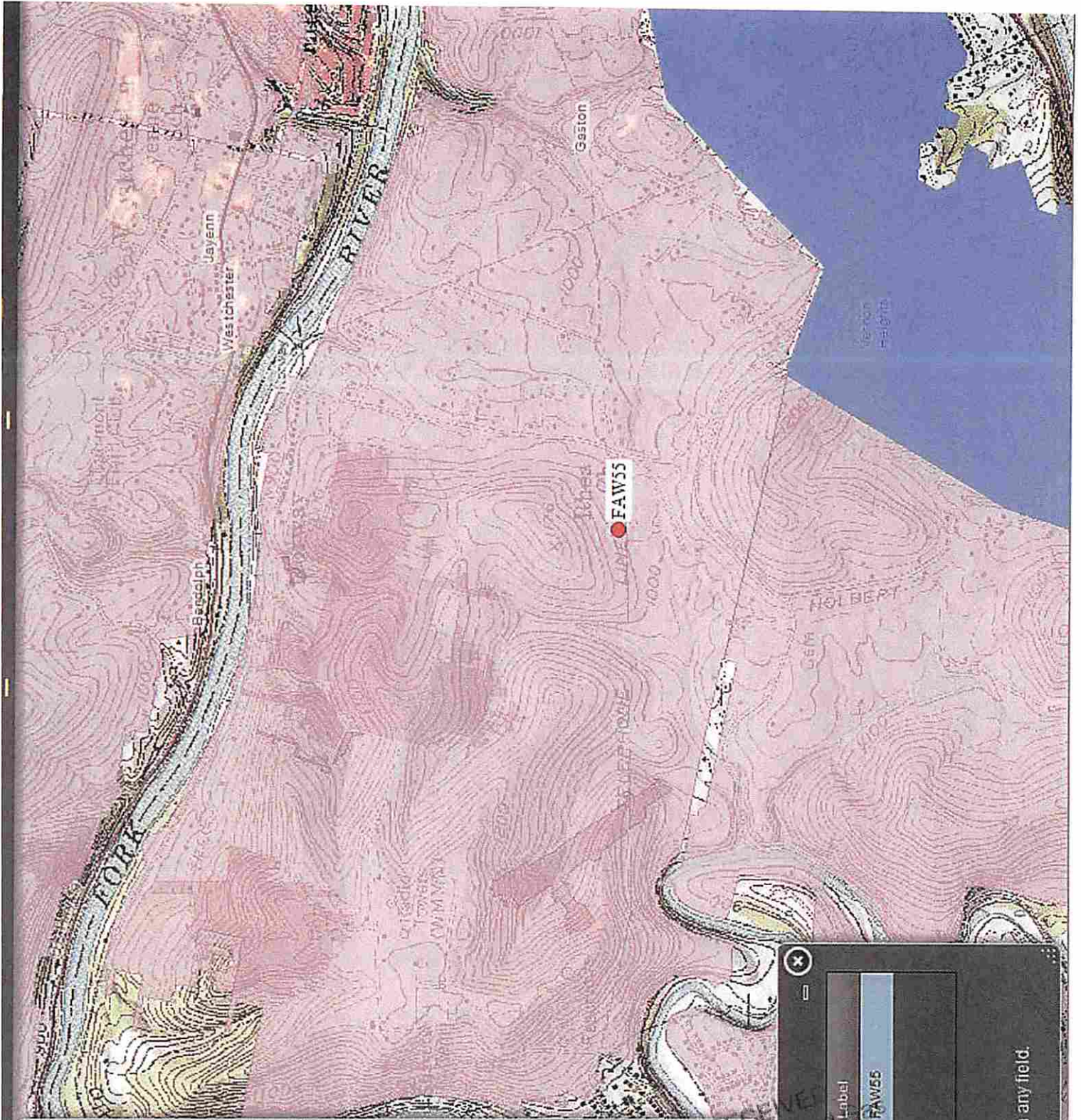
Well Schematic  
EQT Production

Well Name: 515709 (FAW55H1)  
County: Marion  
State: West Virginia

Elevation KB: 1044  
Target: Genesee  
Prospect: 335  
Azimuth: 335  
Vertical Section: 4378







Layers

08/28/2015

00m

08/28/2015

Lat deg	Lon deg	Lon mir	Lon sec	Label
0	-80.18145	0		FAW55

00m

Delete

able above. Decimals can be used in any field.





January 7, 2015

Mr. Gene Smith  
West Virginia Department of Environmental Protection  
Office of Oil and Gas  
601 57th Street SE  
Charleston, WV 25304

Re: Casing plan on Wells (FAW55)

Dear Mr. Smith,

EQT is requesting the 13-3/8" surface casing be set at 300' KB, 103' below the mine void in the Pittsburgh Coal and at regulation minimum depth. We will set the 9-5/8" intermediate string at 2741' KB, 50' below the base of the Speechley formation.

In the event of drilling issues while drilling the intermediate section of the first well, EQT is requesting the option to set 20" casing at 300' KB, 103' below the mine void in the Pittsburgh Coal and at regulation minimum depth, 13 3/8" casing at 1188' KB, 100' below the SW show at 1088' and 9 5/8" casing at 2741' KB, 50' below the base of the Speechley formation on the remaining wells.

If you have any questions, please do not hesitate to contact me at (304) 848-0076.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Vicki Roark'.

Vicki Roark  
Permitting Supervisor

Enc.

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Office of Oil and Gas  
APR 24 2015  
WV Department of  
Environmental Protection

4704902394

WW-9  
(5/13)

4704902394

Page 1 of 2  
API No. 47 - 049 - 0  
Operator's Well No. 515709

STATE OF WEST VIRGINIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS

Fluids/Cuttings Disposal & Reclamation Plan

Operator Name EQT Production Company OP Code 306686  
Watershed (HUC10) Booths Creek Quadrangle Fairmont West 7.5'  
Elevation 1031.0 County Marion District Grant

Do you anticipate using more than 5,000 bbls of water to complete the proposed well work? Yes  No

Will a pit be used? Yes:  No:

If so please describe anticipated pit waste: flowback water & residual solids

Will a synthetic liner be used in the pit? Yes  No  If so, what ml.? 60

Proposed Disposal Method For Treated Pit Wastes:

- Land Application
- Underground Injection ( UIC Permit Number 0014, 8462, 4037 )
- Reuse (at API Number Various )
- Off Site Disposal (Supply form WW-9 for disposal location)
- Other (Explain \_\_\_\_\_ )

Will closed loop system be used? Yes, The closed loop system will remove drill cuttings from the drilling fluid. The drill cuttings are then prepared for transportation to an off-site disposal facility.

Drilling medium anticipated for this well? Air, freshwater, oil based, etc. Air is used to drill the top-hole sections of the wellbore. Surface, Intermediate, and Pilot hole sections, water based mud is used to drill the curve and lateral.

If oil based, what type? Synthetic, petroleum, etc \_\_\_\_\_

Additives to be used in drilling medium? MILBAR, Viscosifer, Alkalinity Control, Lime, Chloride Salts, Rate Filtration Control, Deflocculant, Lubricant, Detergent, Defoaming, Walnut Shell, X-Cide, SOLTEX Terra. Of the listed chemicals the following are generally used when drilling on air: lubricant, detergent, defoaming. Water based fluids use the following chemicals: MILBAR, viscosifer, alkalinity control, lime, chloride salts, rate filtration control, deflocculant, lubricant, detergent, defoaming, walnut shell, x-cide, SOLTEX terra

Drill cuttings disposal method? Leave in pit, landfill, removed offsite, etc. Landfill  
- If left in pit and plan to solidify what medium will be used? (Cement, Lime, sawdust) n/a  
- Landfill or offsite name/permit number? See Attached List

I certify that I understand and agree to the terms and conditions of the GENERAL WATER POLLUTION PERMIT issued on August 1, 2005, by the Office of Oil and Gas of the West Virginia Department of Environmental Protection. I understand that the provisions of the permit are enforceable by law. Violations of any term or condition of the general permit and/or other applicable law or regulation can lead to enforcement action.

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this application form and all attachments thereto 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. I am aware that there are significant penalties for submitting false information, including the possibility of fine or imprisonment.

Company Official Signature \_\_\_\_\_  
Company Official (Typed Name) Victoria J. Roark  
Company Official Title Permitting Supervisor

Subscribed and sworn before me this 10 day of MARCH, 2015 Received  
Office of Oil & Gas

My commission expires 7/27/2018

Notary Public MAR 12 2015

OFFICIAL SEAL  
STATE OF WEST VIRGINIA  
NOTARY PUBLIC  
Nicholas L. Bumgardner  
Rt. 1, Box 4  
Liberty, WV 25124  
My Commission Expires July 27, 2018

08/28/2015



4704902394

Form WW-9

Operator's Well No. 0

Proposed Revegetation Treatment: Acres Disturbed ± Prevegetation pH 0

Lime 3 Tons/acre or to correct to pH 6.5

Fertilize type Granular 10-20-20

Fertilizer Amount 13 lbs/acre (500 lbs minimum)

Mulch 2 Tons/acre

Seed Mixtures

Temporary		Permanent	
Seed Type	lbs/acre	Seed Type	lbs/acre
KY-31	<u>40</u>	Orchard Grass	<u>15</u>
Alsike Clover	<u>5</u>	Alsike Clover	<u>5</u>
Annual Rye	<u>15</u>		

Attach:  
Drawing(s) of road, location, pit and proposed area for land application.

Photocopied section of involved 7.5' topographic sheet.

Plan Approved by: Bill Hedges

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

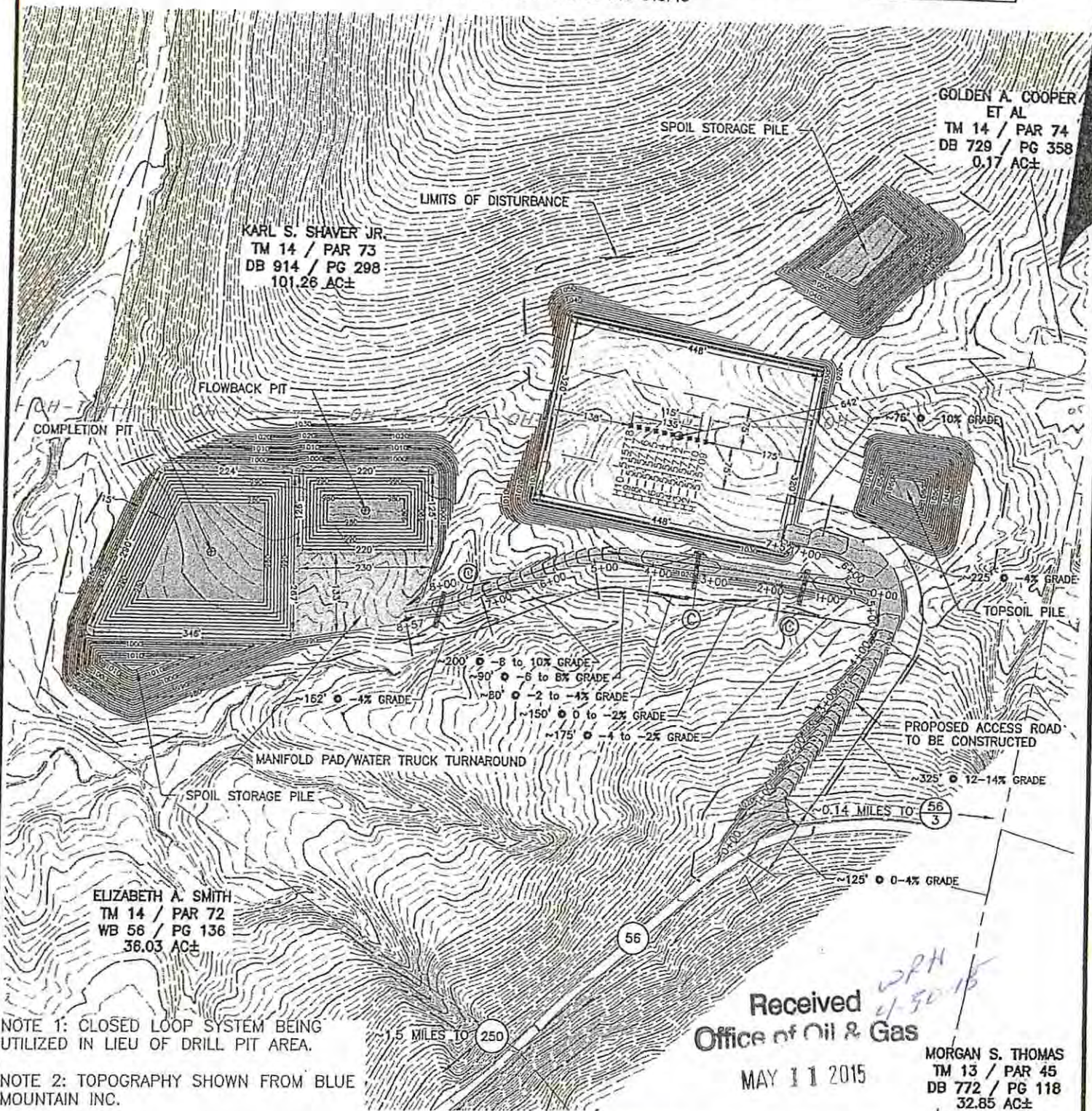
Title: Environmental Inspector Date: 4-30-15

Field Reviewed? (  ) Yes (  ) No

Received  
Office of Oil & Gas  
MAY 11 2015

08/28/2015





KARL S. SHAVER JR.  
TM 14 / PAR 73  
DB 914 / PG 298  
101.26 AC±

GOLDEN A. COOPER  
ET AL  
TM 14 / PAR 74  
DB 729 / PG 358  
0.17 AC±

ELIZABETH A. SMITH  
TM 14 / PAR 72  
WB 56 / PG 136  
36.03 AC±

NOTE 1: CLOSED LOOP SYSTEM BEING UTILIZED IN LIEU OF DRILL PIT AREA.

NOTE 2: TOPOGRAPHY SHOWN FROM BLUE MOUNTAIN INC.

Received  
Office of Oil & Gas  
MAY 11 2015

MORGAN S. THOMAS  
TM 13 / PAR 45  
DB 772 / PG 118  
32.85 AC±

© - DENOTES INSTALL MINIMUM 15" DIA. CULVERT



**Civil & Environmental Consultants, Inc.**  
99 Cambridge Place - Bridgeport, WV 26330  
Ph: 304.933.3119 - Fax: 304.933.3327  
www.cecinc.com

EQT PRODUCTION COMPANY  
FAW 55 WELL PAD  
GRANT DISTRICT,  
MARION COUNTY, WEST VIRGINIA

PERMIT APPLICATION  
REC PLAN **08/28/2015**

DRAWN BY: RMC CHECKED BY: JMS APPROVED BY: DEM FIGURE NO.:



**EQT Production Water plan**  
**Offsite disposals for Marcellus wells**

04902394

**CWS TRUCKING INC.**

P.O. Box 391  
Williamstown, WV 26187  
740-516-3586  
Noble County/Noble Township  
Permit # 3390

**BROAD STREET ENERGY LLC**

37 West Broad Street  
Suite 1100  
Columbus, Ohio 43215  
740-516-5381  
Washington County/Belpre Twp.  
Permit # 8462

**LAD LIQUID ASSETS DISPOSAL INC.**

226 Rankin Road  
Washington, PA 15301  
724-350-2760  
724-222-6080  
724-229-7034 fax  
Ohio County/Wheeling  
Permit # USEPA WV 0014

**TRIAD ENERGY**

P.O. Box 430  
Reno, OH 45773  
740-516-6021 Well  
740-374-2940 Reno Office Jennifer  
Nobel County/Jackson Township  
Permit # 4037

**TRI COUNTY WASTE WATER MANAGEMENT, INC.**

1487 Toms Run Road  
Holbrook, PA 15341  
724-627-7178 Plant  
724-499-5647 Office  
Greene County/Waynesburg  
Permit # TC-1009

**KING EXCAVATING CO.**

Advanced Waste Services  
101 River Park Drive  
New Castle, Pa. 16101  
Facility Permit# PAR000029132

**Waste Management - Meadowfill Landfill**

Rt. 2, Box 68 Dawson Drive  
Bridgeport, WV 26330  
304-326-6027  
Permit #SWF-1032-98  
Approval #100785WV

**Waste Management - Northwestern Landfill**

512 E. Dry Road  
Parkersburg, WV 26104  
304-428-0602  
Permit #SWF-1025 WV-0109400  
Approval #100833WV

**RECEIVED**  
**Office of Oil and Gas**

**APR 24 2015**

**WV Department of**  
**Environmental Protection**

**08/28/2015**



Where energy meets innovation.™

# Site Specific Safety Plan

EQT FAW 55 Pad

Fairmont

Marion County, WV

515709

515711

515712

For Wells:

515715

Date Prepared:

October 24, 2014

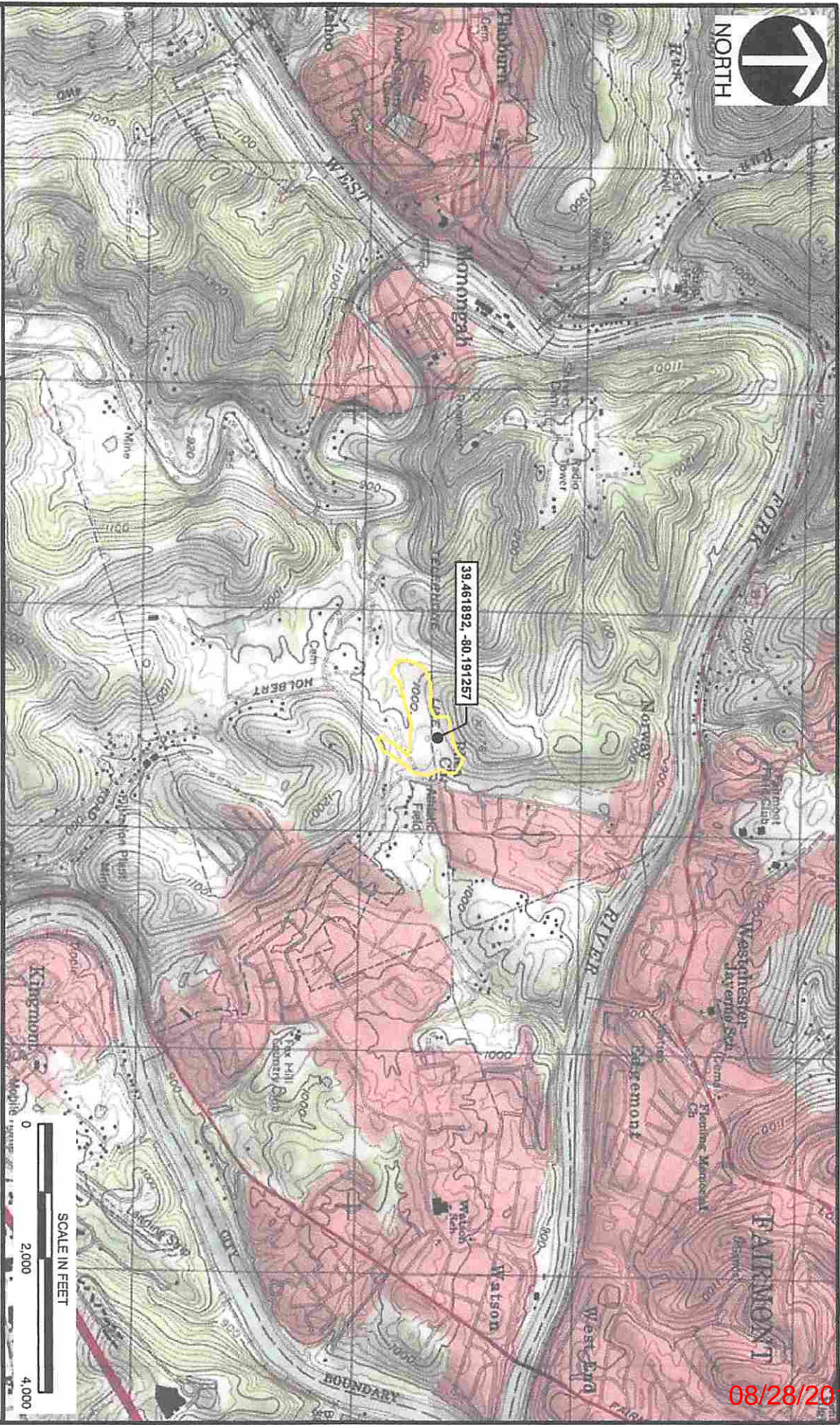
*[Signature]*  
EQT Production  
Permitting Supervisor  
Title  
3-4-15  
Date

*[Signature]*  
WV Oil and Gas Inspector  
Environmental Inspector  
Title  
4-30-15  
Date

Received  
Office of Oil & Gas  
MAY 11 2015

08/28/2015





**LEGEND**  
PROPOSED LOD

**REFERENCE**  
USGS TOPOGRAPHIC MAP/ ARCGIS MAP SERVICE:  
HTTP://GOTO.ARCGISONLINE.COM/MAPS/  
USA\_TOPO\_MAPS\_ACCESSED 12/15/2014  
FAIRMONT WEST, WEST VIRGINIA QUAD

**COORDINATE SYSTEM:**  
NAD 83 STATEPLANE WEST VIRGINIA NORTH US FEET

**Civil & Environmental Consultants, Inc.**  
99 Cambridge Place - Bridgeport, WV 26330-2820  
Ph: 304-933-3119 · Toll: 855-488-9539 · Fax: 304-933-3327  
www.cecinc.com



MAR 27 2014  
EQT PRODUCTION COMPANY  
FAW 55 WELL PAD  
MARION COUNTY, WEST VIRGINIA

USGS SITE LOCATION MAP

DRAWN BY:	GSK	CHECKED BY:	JDK	APPROVED BY:	TJN*	FIGURE NO.:	1
DATE:	12/15/2014	SCALE:	1" = 2,000'	PROJECT NO.:	142-405.0065		



# EQT PRODUCTION COMPANY WELL NO. 515709 - KARL S. SHAVER JR LEASE

LONGITUDE: 80°10'00"

14,004'

SURVEYED LATITUDE 39°27'41.60"

### NOTES ON SURVEY

- NO OCCUPIED DWELLINGS OR BUILDINGS 2500 SQUARE FEET OR LARGER USED TO HOUSE OR SHELTER DAIRY CATTLE OR POULTRY HUSBANDRY WITHIN 625' OF THE CENTER OF THE WELL PAD WERE OBSERVED.
- NO WATER WELLS OR DEVELOPED SPRINGS USED FOR HUMAN OR DOMESTIC ANIMAL CONSUMPTION WERE FOUND WITHIN 250'.
- SURFACE OWNERSHIP TAKEN FROM THE MARION COUNTY TAX ASSESSOR AND COUNTY CLERK OFFICES IN SEPTEMBER, 2014.
- WELL LATITUDE AND LONGITUDE FROM SURVEY GRADE OPUS SOLUTION DERIVED ON JULY 17, 2014.
- BEARINGS SHOWN ARE BASED UPON THE WV STATE PLANE COORDINATE SYSTEM, NAD 83 GRID NORTH ZONE.
- LEASE INFORMATION PROVIDED BY EQT PRODUCTION COMPANY

LEASE BOUNDARY (approx.)	---
SURFACE BOUNDARY (approx.)	- - - -
CREEK/STREAM	~~~~~
ROADS	=====
RAILROAD	-----
PROPOSED LATERAL	-----
500' LATERAL OFFSET	-----
EXISTING GAS WELL (active)	⊙
EXISTING GAS WELL (plugged)	⊙
EXISTING GAS WELL (canceled permit)	⊙
FOUND MONUMENT (as noted)	⊙

(\*) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS

### FAW 55 PAD LAYOUT



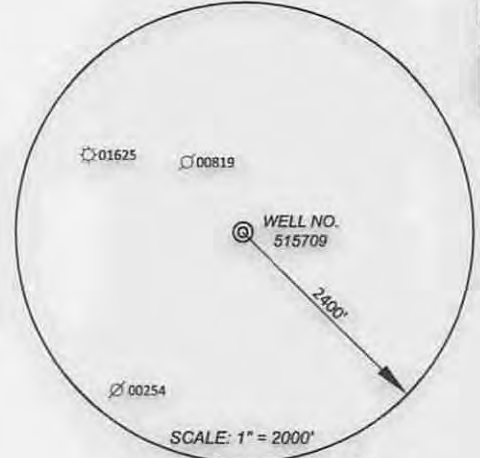
NOT TO SCALE

ID	BEARING	DISTANCE
L1	S 11°26' W	1090.81'
L2	S 65°25' W	1169.79'
L3	S 72°03' W	280.03'
L4	N 25°00' W	4334.43'
L5	N 55°30' W	1028.36'
L6	N 07°48' E	242.96'
L7	N 67°24' E	763.26'

### REFERENCES



EQT PRODUCTION COMPANY WELL NO. WV 515709		
LEASE NO.	LESSOR	LEASE AC.
965556	KARL S. SHAVER JR	29.57
965558	KARL S. SHAVER JR	85.00
965601	ELIZABETH ANN WYCOFF	36.03



### EQT PRODUCTION COMPANY WELL NO. WV 515709 KARL S. SHAVER JR LEASE 101.26 ACRES ±

**SURFACE HOLE**  
NAD 27 NORTH S.P.C.: N. 350338.973 E. 1804685.276  
NAD 27 NORTH GEO. COORDINATES: LAT. 39.461470 LONG. -80.191770  
NAD 83 UTM 17N: N. 4368303.71 E. 589548.43

**LANDING POINT**  
NAD 27 NORTH S.P.C.: N. 350852.670 E. 1804418.880  
NAD 27 NORTH GEO. COORDINATES: LAT. 39.461227 LONG. -80.192712  
NAD 83 UTM 17N: N. 4368282.06 E. 589465.70

**BOTTOM HOLE**  
NAD 27 NORTH S.P.C.: N. 354781.203 E. 1802587.341  
NAD 27 NORTH GEO. COORDINATES: LAT. 39.471974 LONG. -80.199307  
NAD 83 UTM 17N: N. 4389468.65 E. 588887.74

99 Cambridge Place Bridgeport, WV 26330  
Toll Free 855-488-9539  
Fax 304-933-3327



### Civil & Environmental Consultants, Inc.

DATE APRIL 07, 2015

SCALE 1" = 1000' ACCURACY 1:200

OPERATORS WELL No. 515709

47 - 049 - 02394 H6A  
API No.

TYPE OF WELL:

GAS:  
Production  Storage  \*Deep  \*Shallow

PROPOSED WORK ON LOCATION:

Drill  Drill Deeper  Redrill  Convert   
 Fracture/ Stimulate  \*Plug off to Formation   
 Perforate New Formation  Plug and Abandon   
 Clean/ Replug  Other Than Above   
 If "Other" Please see Details below—  
 DETAILS OF PROPOSED WORK \_\_\_\_\_

\*TARGET FORMATION GENESE0  
 ESTIMATED DEPTH TVD: 7255' (6961')



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 rules issued and prescribed by the Division of Environmental Protection.

### STATE OF WEST VIRGINIA DIVISION OF ENVIRONMENTAL PROTECTION OFFICE OF OIL AND GAS



WELL AREA & LOCATION INFORMATION:

ELEVATION SOURCE DGPS (OPUS)  
 ELEVATION 1029' (GROUND), 1031' (PROPOSED)  
 WATERSHED BOOTH'S CREEK DISTRICT GRANT  
 COUNTY MARION TOPO QUAD FAIRMONT WEST  
 SURFACE OWNER KARL S. SHAVER JR ET AL  
 ACREAGE 101.26 ±  
 ROYALTY OWNER KARL S. SHAVER JR, LEASE NO. 965557  
 LEASE ACREAGE 101.26 ±

WELL OPERATOR EQT PRODUCTION COMPANY  
 ADDRESS 115 PROFESSIONAL PLACE P.O. BOX 280  
BRIDGEPORT, WV 26330

DESIGNATED AGENT REX C. RAY  
 ADDRESS 115 PROFESSIONAL PLACE P.O. BOX 280  
BRIDGEPORT, WV 26330

08/28/2015



**INFORMATION SUPPLIED UNDER WEST VIRGINIA CODE**  
**Chapter 22, Article 6A, Section 5(a)(5)**  
**IN LIEU OF FILING LEASE(S) AND OTHER CONTINUING CONTRACT(S)**

Under the oath required to make the verification on page 1 of this Notice and Application, I depose and say that I am the person who signed the Notice and Application for the Applicant, and that –

- (1) the tract of land is the same tract described in this Application, partly or wholly depicted in the accompanying plat, and described in the Construction and Reclamation Plan;
- (2) the parties and recordation data (if recorded) for lease(s) or other continuing contract(s) by which the Applicant claims the right to extract, produce or market the oil or gas are as follows:

Lease Name or Number	Grantor, Lessor, etc.	Grantee, Lessee, etc.	Royalty Min 1/8 pd	Book/Page
<u>Lease 965557</u>	Karl S. Shaver, Jr. Hunt Marcellus, LLC	Hunt Marcellus, LLC EQT Production Company		DB 1071/97 AB 46/916
<u>Lease 965558</u>	Karl S. Shaver, Jr. Hunt Marcellus, LLC	Hunt Marcellus, LLC EQT Production Company	<i>min 1/8 PD</i>	DB 1071/101 AB 46/916
<u>Lease 965556</u>	Karl S. Shaver, Jr. Hunt Marcellus, LLC	Hunt Marcellus, LLC EQT Production Company	<i>min 1/8 PD</i>	DB 1071/103 AB 46/916
<u>Lease 965601</u>	Elizabeth Ann Shaver, a/k/a Elizabeth Wycoff Hunt Marcellus, LLC	Hunt Marcellus, LLC EQT Production Company	<i>min 1/8 PD</i>	DB 1073/406 AB 46/916

Upon information and belief, Operator's lease and/or other real property rights permit it to conduct drilling operations for the subject well in the location shown on the plat, including under any public roads that the well lateral crosses.

**Acknowledgement of Possible Permitting/Approval**  
**In Addition to the Office of Oil and Gas**

The permit applicant for the proposed well work addressed in this application hereby acknowledges the possibility of the need for permits and/or approvals from local, state, or federal entities in addition to the DEP, Office of Oil and Gas, including but not limited to the following:

- WV Division of Water and Waste Management
- WV Division of Natural Resources WV Division of Highways
- U.S. Army Corps of Engineers
- U.S. Fish and Wildlife Service
- County Floodplain Coordinator

The applicant further acknowledges that any Office of Oil and Gas permit in no way overrides, replaces, or nullifies the need for other permits/approvals that may be necessary and further affirms that all needed permits/approvals should be acquired from the appropriate authority before the affected activity is initiated.

Well Operator: EQT Production Company  
 By:   
 Its: Permitting Supervisor



**STATE OF WEST VIRGINIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS  
NOTICE CERTIFICATION**

Date of Notice Certification: 4/23/2015

04902394  
API No. 47 - 049 - 0  
Operator's Well No. 515709  
Well Pad Name: FAW55

**Notice has been given:**

Pursuant to the provisions in West Virginia Code § 22-6A, the Operator has provided the required parties with the Notice Forms listed below for the tract of land as follows:

State: <u>WV</u>	UTM NAD 83 Easting: <u>569,546.43</u>
County: <u>Marion</u>	UTM NAD 83 Northing: <u>4,368,307.71</u>
District: <u>Grant</u>	Public Road Access: <u>CR 56</u>
Quadrangle: <u>Fairmont West 7.5'</u>	Generally used farm name: <u>Shaver</u>
Watershed: <u>Booths Creek</u>	

Pursuant to West Virginia Code § 22-6A-7(b), every permit application filed under this section shall be on a form as may be prescribed by the secretary, shall be verified and shall contain the following information: (14) A certification from the operator that (i) it has provided the owners of the surface described in subdivisions (1), (2) and (4), subsection (b), section ten of this article, the information required by subsections (b) and (c), section sixteen of this article; (ii) that the requirement was deemed satisfied as a result of giving the surface owner notice of entry to survey pursuant to subsection (a), section ten of this article six-a; or (iii) the notice requirements of subsection (b), section sixteen of this article were waived in writing by the surface owner; and Pursuant to West Virginia Code § 22-6A-11(b), the applicant shall tender proof of and certify to the secretary that the notice requirements of section ten of this article have been completed by the applicant.

<p>Pursuant to West Virginia Code § 22-6A, the Operator has attached proof to this Notice Certification that the Operator has properly served the required parties with the following:</p> <p>*PLEASE CHECK ALL THAT APPLY</p> <p><input type="checkbox"/> NOTICE OF SEISMIC ACTIVITY or <input checked="" type="checkbox"/> NOTICE NOT REQUIRED BECAUSE NO SEISMIC ACTIVITY WAS CONDUCTED</p> <p><input checked="" type="checkbox"/> NOTICE OF ENTRY FOR PLAT SURVEY or <input type="checkbox"/> NO PLAT SURVEY WAS CONDUCTED</p> <p><input type="checkbox"/> NOTICE OF INTENT TO DRILL or <input checked="" type="checkbox"/> NOTICE NOT REQUIRED BECAUSE NOTICE OF ENTRY FOR PLAT SURVEY WAS CONDUCTED OR</p> <p><input type="checkbox"/> WRITTEN WAIVER BY SURFACE OWNER (PLEASE ATTACH)</p> <p><input checked="" type="checkbox"/> NOTICE OF PLANNED OPERATION</p> <p><input checked="" type="checkbox"/> PUBLIC NOTICE</p> <p><input checked="" type="checkbox"/> NOTICE OF APPLICATION</p>	<p><b>OOG OFFICE USE ONLY</b></p> <p><input type="checkbox"/> RECEIVED/NOT REQUIRED</p> <p><input type="checkbox"/> RECEIVED</p> <p><input type="checkbox"/> RECEIVED/NOT REQUIRED</p> <p><input type="checkbox"/> RECEIVED</p> <p><input type="checkbox"/> RECEIVED</p> <p><input type="checkbox"/> RECEIVED</p>
---	---

**Required Attachments:**

The Operator shall attach to this Notice Certification Form all Notice Forms and Certifications of Notice that have been provided to the required parties and/or any associated written waivers. For the Public Notice, the operator shall attach a copy of the Class II Legal Advertisement with publication date verification or the associated Affidavit of Publication. The attached Notice Forms and Certifications of Notice shall serve as proof that the required parties have been noticed as required under West Virginia Code § 22-6A. Pursuant to West Virginia Code § 22-6A-11(b), the Certification of Notice to the person may be made by affidavit of personal service, the return receipt card or other postal receipt for certified mailing.

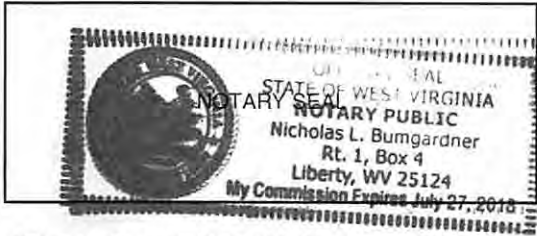
08/28/2015

**Certification of Notice is hereby given:**

THEREFORE, *[Signature]*, have read and understand the notice requirements within West Virginia Code § 22-6A. I certify that as required under West Virginia Code § 22-6A, I have served the attached copies of the Notice Forms, identified above, to the required parties through personal service, by registered mail or by any method of delivery that requires a receipt or signature confirmation. I certify under penalty of law that I have personally examined and am familiar with the information submitted in this Notice Certification and all 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. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Well Operator: EQT Production Company  
By: Victoria J. Roark  
Its: Permitting Supervisor  
Telephone: 304-848-0076

Address: P.O. Box 280  
Bridgeport, WV 26330  
Facsimile: 304-848-0040  
Email: [vroark@eqt.com](mailto:vroark@eqt.com)



Subscribed and sworn before me this 22 day of April, 2015  
*[Signature]* Notary Public  
My Commission Expires 7/27/2018

**Oil and Gas Privacy Notice:**

The Office of Oil and Gas processes your personal information, such as name, address and telephone number, as part of our regulatory duties. Your personal information may be disclosed to other State agencies or third parties in the normal course of business or as needed to comply with statutory or regulatory requirements, including Freedom of Information Act requests. Our office will appropriately secure your personal information. If you have any questions about our use or your personal information, please contact DEP's Chief Privacy Officer at [depprivacyofficer@wv.gov](mailto:depprivacyofficer@wv.gov).



**STATE OF WEST VIRGINIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS  
NOTICE OF APPLICATION**

Notice Time Requirement: notice shall be provided no later than the filing date of permit application.

Date of Notice: 4/23/2015 Date Permit Application Filed: 4/24/2015

Notice of:

- PERMIT FOR ANY WELL WORK
- CERTIFICATE OF APPROVAL FOR THE CONSTRUCTION OF AN IMPOUNDMENT OR PIT

Delivery method pursuant to West Virginia Code § 22-6A-10(b)

- PERSONAL SERVICE
- REGISTERED MAIL
- METHOD OF DELIVERY THAT REQUIRES A RECEIPT OR SIGNATURE CONFIRMATION

Pursuant to W. Va. Code § 22-6A-10(b) no later than the filing date of the application, the applicant for a permit for any well work or for the construction of an impoundment or pit as required by this article shall deliver, by personal service or by registered mail or by any method that requires a receipt or signature confirmation, copies of the application, the erosion and sediment control plan required by section seven of this article to each of the following persons: (1) The owners of record of the surface of the tract on which the well is or is proposed to be located; (2) The surface tract or tracts overlying the oil and gas leasehold being developed by the proposed well work, if the surface tract is to be used for construction, enlargement, alteration, repair, removal or abandonment of any impoundment or pit as described in section nine of this article; (3) The lessee, in the event the tract of land on which the well proposed to be drilled is located [sic] is known to be underlain by one or more coal leases; (4) The water purveyor who is known to the applicant to have a water well, spring or water supply source located within one thousand feet of the well which is used to provide water for consumption by humans or domestic animals; and (6) The operator of any natural gas storage field in which work activity is to take place. (c)(1) If more than three tenants in common or other co-owners of interests described in subsection (b) of this article are in the lands, the applicant may serve the documents required upon the person described in the records of the sheriff required to be served under article one, chapter eleven-a of this code. (2) Notwithstanding any provision of this article to the contrary, notice to a lien holder is not required unless the lien holder is the landowner. W. Va. Code R. § 35-8-5.7.a requires, in part, that the operator shall also provide the Well Site Notice to the surface owner and any water purveyor or surface owner subject to notice and water testing as provided in section 15 of this rule.

- Application Notice
- WSSP Notice
- E&S Plan Notice
- Well Plat Notice is hereby provided to:

SURFACE OWNER(s)  
Name: Karl S. Shaver Jr.  
Address: POA for Larry A. Shaver  
129 Old Monongah Road  
Fairmont, WV 26554

Name: 0  
Address: 0  
0  
0

SURFACE OWNERS(s) (Road and/or Other Disturbance)  
Name: Karl S. Shaver Jr.  
Address: POA for Larry A. Shaver  
129 Old Monongah Road  
Fairmont, WV 26554

Name: 0  
Address: 0  
0  
0

SURFACE OWNER(s) (Impoundments/Pits)  
Name: Karl S. Shaver Jr.  
Address: POA for Larry A. Shaver  
129 Old Monongah Road  
Fairmont, WV 26554

COAL OWNER OR LESSEE  
Name: Bell Shareholders, LLC  
Address: 5700 Buck Hollow Drive  
Alpharetta, GA 30005

COAL OPERATOR  
Name: 0  
Address: 0  
0  
0

SURFACE OWNER OF WATER WELL AND/OR WATER PURVEYOR(s)  
Name: Elizabeth A. Smith  
Address: 259 OLD MONONGAH RD  
FAIRMONT WV 26554-5374

OPERATOR OF ANY NATURAL GAS STORAGE FIELD  
Name: \_\_\_\_\_  
Address: \_\_\_\_\_

\*Please attach additional forms if necessary

WW6-A

04902394

**Additional Coal Owners:**

Karl S. Shaver Jr.  
POA for Larry A. Shaver  
129 Old Monongah Road  
Fairmont, WV 26554

Shirley A. Martin,  
Trustee of the Carl J. Martin Testamentary Trust "A"  
P.O. Box 788  
Buckhannon, WV 26201

**Additional water purveyors:**

Glen G & Ruth A Shaver  
RR1 Box 385B  
Fairmont, WV 26554



**VOID**

04902394

WW6-A

**Additional Coal Owners:**

Karl S. Shaver  
C/O Larry Shaver  
4728 N. Cromwell Road  
Oklahoma City, OK 73112

Shirley A. Martin,  
Trustee of the Carl J. Martin Testamentary Trust "A"  
P.O. Box 788  
Buckhannon, WV 26201

**Additional water purveyors:**

Glen G & Ruth A Shaver  
RR1 Box 385B  
Fairmont, WV 26554

**VOID**

**VOID**

08/28/2015

**Notice is hereby given:**

Pursuant to West Virginia Code § 22-6A-10(b), notice is hereby given that the undersigned well operator has applied for a permit for well work or for a certificate of approval for the construction of an impoundment or pit.

**This Notice Shall Include:**

Pursuant to W. Va. Code § 22-6A-10(b), this notice shall include: (1) copies of the application; (2) the erosion and sediment control plan required by section seven of this article; and (3) the well plat.

Pursuant to W. Va. Code § 22-6A-10(f), this notice shall include: (1) a statement of the time limits for filing written comments; (2) who may file written comments; (3) the name and address of the secretary for the purpose of filing the comments and obtaining additional information; and (4) a statement that the persons may request, at the time of submitting written comments, notice of the permit decision and a list of persons qualified to test water.

Pursuant to W. Va. Code R. § 35-8-5.7.a, the operator shall provide the Well Site Safety Plan to the surface owner and any water purveyor or surface owner subject to notice and water testing as provided in section 15 of this rule.

Pursuant to W. Va. Code R. § 35-8-15.2.c, this notice shall: (1) contain a statement of the surface owner's and water purveyor's right to request sampling and analysis; (2) advise the surface owner and water purveyor of the rebuttable presumption for contamination or deprivation of a fresh water source or supply; advise the surface owner and water purveyor that refusal to allow the operator to conduct a pre-drilling water well test constitutes a method to rebut the presumption of liability; (3) advise the surface owner and water purveyor of his or her independent right to sample and analyze any water supply at his or her own expense; advise the surface owner and water purveyor whether or not the operator will utilize an independent laboratory to analyze any sample; and (4) advise the surface owner and or water purveyor that he or she can obtain from the Chief a list of water testing laboratories in the subject area capable of and qualified to test water supplies in accordance with standard acceptable methods.

Additional information related to horizontal drilling may be obtained from the Secretary, at the WV Department of Environmental Protection headquarters, located at 601 57th Street, SE, Charleston, WV 25304 (304-926-0450) or by visiting [www.dep.wv.gov/oil-and-gas/pages/default.aspx](http://www.dep.wv.gov/oil-and-gas/pages/default.aspx).

**Well Location Restrictions**

Pursuant to W. Va. Code § 22-6A-12, Wells may not be drilled within two hundred fifty feet measured horizontally from any existing water well or developed spring used for human or domestic animal consumption. The center of well pads may not be located within six hundred twenty-five feet of an occupied dwelling structure, or a building two thousand five hundred square feet or larger used to house or shelter dairy cattle or poultry husbandry. This limitation is applicable to those wells, developed springs, dwellings or agricultural buildings that existed on the date a notice to the surface owner of planned entry for surveying or staking as provided in section ten of this article or a notice of intent to drill a horizontal well as provided in subsection (b), section sixteen of this article was provided, whichever occurs first, and to any dwelling under construction prior to that date. This limitation may be waived by written consent of the surface owner transmitted to the department and recorded in the real property records maintained by the clerk of the county commission for the county in which such property is located. Furthermore, the well operator may be granted a variance by the secretary from these distance restrictions upon submission of a plan which identifies the sufficient measures, facilities or practices to be employed during well site construction, drilling and operations. The variance, if granted, shall include terms and conditions the department requires to ensure the safety and protection of affected persons and property. The terms and conditions may include insurance, bonding and indemnification, as well as technical requirements. (b) No well pad may be prepared or well drilled within one hundred feet measured horizontally from any perennial stream, natural or artificial lake, pond or reservoir, or a wetland, or within three hundred feet of a naturally reproducing trout stream. No well pad may be located within one thousand feet of a surface or ground water intake of a public water supply. The distance from the public water supply as identified by the department shall be measured as follows: (1) For a surface water intake on a lake or reservoir, the distance shall be measured from the boundary of the lake or reservoir. (2) For a surface water intake on a flowing stream, the distance shall be measured from a semicircular radius extending upstream of the surface water intake. (3) For a groundwater source, the distance shall be measured from the wellhead or spring. The department may, in its discretion, waive these distance restrictions upon submission of a plan identifying sufficient measures, facilities or practices to be employed during well site construction, drilling and operations to protect the waters of the state. A waiver, if granted, shall impose any permit conditions as the secretary considers necessary. (c) Notwithstanding the foregoing provisions of this section, nothing contained in this section prevents an operator from conducting the activities permitted or authorized by a Clean Water Act Section 404 permit or other approval from the United States Army Corps of Engineers within any waters of the state or within the restricted areas referenced in this section. (d) The well location restrictions set forth in this section shall not apply to any well on a multiple well pad if at least one of the wells was permitted prior to the effective date of this article. (e) The secretary shall, by December 31, 2012, report to the Legislature on the noise, light, dust and volatile organic compounds generated by the drilling of horizontal wells as they relate to the well location restrictions regarding occupied dwelling structures pursuant to this section. Upon a finding, if any, by the secretary that the well location restrictions regarding occupied dwelling structures are inadequate or otherwise require alteration to address the items

examined in the study required by this subsection, the secretary shall have the authority to propose for promulgation legislative rules establishing guidelines and procedures regarding reasonable levels of noise, light, dust and volatile organic compounds relating to drilling horizontal wells, including reasonable means of mitigating such factors, if necessary.

**Water Well Testing:**

Pursuant to West Virginia Code § 22-6A-10(d), notification shall be made, with respect to surface landowners identified in subsection (b) or water purveyors identified in subdivision (5), subsection (b) of this section, of the opportunity for testing their water well. The operator shall provide an analysis to such surface landowner or water purveyor at their request.

**Water Testing Laboratories:**

Pursuant to West Virginia Code § 22-6A-10(i), persons entitled to notice pursuant to subsection (b) of this section may contact the department to ascertain the names and locations of water testing laboratories in the subject area capable and qualified to test water supplies in accordance with standard accepted methods. In compiling that list of names the department shall consult with the state Bureau for Public Health and local health departments. A surface owner and water purveyor has an independent right to sample and analyze any water supply at his or her own expense. The laboratory utilized by the operator shall be approved by the agency as being certified and capable of performing sample analyses in accordance with this section.

**Rebuttable Presumption for Contamination or Deprivation of a Fresh Water Source or Supply:**

W. Va. Code § 22-6A-18 requires that (b) unless rebutted by one of the defenses established in subsection (c) of this section, in any action for contamination or deprivation of a fresh water source or supply within one thousand five hundred feet of the center of the well pad for horizontal well, there is a rebuttable presumption that the drilling and the oil or gas well or either was the proximate cause of the contamination or deprivation of the fresh water source or supply. (c) In order to rebut the presumption of liability established in subsection (b) of this section, the operator must prove by a preponderance of the evidence one of the following defenses: (1) The pollution existed prior to the drilling or alteration activity as determined by a predrilling or prealteration water well test. (2) The landowner or water purveyor refused to allow the operator access to the property to conduct a predrilling or prealteration water well test. (3) The water supply is not within one thousand five hundred feet of the well. (4) The pollution occurred more than six months after completion of drilling or alteration activities. (5) The pollution occurred as the result of some cause other than the drilling or alteration activity. (d) Any operator electing to preserve its defenses under subdivision (1), subsection (c) of this section shall retain the services of an independent certified laboratory to conduct the predrilling or prealteration water well test. A copy of the results of the test shall be submitted to the department and the surface owner or water purveyor in a manner prescribed by the secretary. (e) Any operator shall replace the water supply of an owner of interest in real property who obtains all or part of that owner's supply of water for domestic, agricultural, industrial or other legitimate use from an underground or surface source with a comparable water supply where the secretary determines that the water supply has been affected by contamination, diminution or interruption proximately caused by the oil or gas operation, unless waived in writing by that owner. (f) The secretary may order the operator conducting the oil or gas operation to: (1) Provide an emergency drinking water supply within twenty-four hours; (2) Provide temporary water supply within seventy-two hours; (3) Within thirty days begin activities to establish a permanent water supply or submit a proposal to the secretary outlining the measures and timetables to be used in establishing a permanent supply. The total time in providing a permanent water supply may not exceed two years. If the operator demonstrates that providing a permanent replacement water supply cannot be completed within two years, the secretary may extend the time frame on case-by-case basis; and (4) Pay all reasonable costs incurred by the real property owner in securing a water supply. (g) A person as described in subsection (b) of this section aggrieved under the provisions of subsections (b), (e) or (f) of this section may seek relief in court... (i) Notwithstanding the denial of the operator of responsibility for the damage to the real property owner's water supply or the status of any appeal on determination of liability for the damage to the real property owner's water supply, the operator may not discontinue providing the required water service until authorized to do so by the secretary or a court of competent jurisdiction.

**Written Comment:**

Pursuant to West Virginia Code § 22-6A-11(a), all persons described in subsection (b), section ten of this article may file written comments with the secretary as to the location or construction of the applicant's proposed well work within thirty days after the application is filed with the secretary. All persons described in West Virginia Code § 22-6A-10(b) may file written comments as to the location or construction of the applicant's proposed well work to the Secretary at:

Chief, Office of Oil and Gas  
Department of Environmental Protection  
601 57th St. SE  
Charleston, WV 25304  
(304) 926-0450

Such persons may request, at the time of submitting written comments, notice of the permit decision and a list of persons qualified to test water.  
NOTE: YOU ARE NOT REQUIRED TO FILE ANY COMMENT.



**Time Limits and Methods for Filing Comments.**

The law requires these materials to be served on or before the date the operator files its Application. You have THIRTY (30) DAYS after the filing date to file your comments. Comments must be filed in person or received in the mail by the Chief's office by the time stated above. You may call the Chief's office to be sure of the date. Check with your postmaster to ensure adequate delivery time or to arrange special expedited handling. If you have been contacted by the well operator and you have signed a "voluntary statement of no objection" to the planned work described in these materials, then the permit may be issued at any time.

Pursuant to West Virginia Code § 22-6A-11(c)(2), Any objections of the affected coal operators and coal seam owners and lessees shall be addressed through the processes and procedures that exist under sections fifteen, seventeen and forty, article six of this chapter, as applicable and as incorporated into this article by section five of this article. The written comments filed by the parties entitled to notice under subdivisions (1), (2), (4), (5) and (6), subsection (b), section ten of this article shall be considered by the secretary in the permit issuance process, but the parties are not entitled to participate in the processes and proceedings that exist under sections fifteen, seventeen or forty, article six of this chapter, as applicable and as incorporated into this article by section five of this article

**Comment Requirements**

Your comments must be in writing and include your name, address and telephone number, the well operator's name and well number and the approximate location of the proposed well site including district and county from the application. You may add other documents, such as sketches, maps or photographs to support your comments.

Disclaimer: All comments received will be placed on our web site <http://www.dep.wv.gov/oil-and-gas/Horizontal-Permits/Pages/default.aspx> and the applicant will automatically be forwarded an email notice that such comments have been submitted. The applicant will be expected to provide a response to comments submitted by any surface owner, water purveyor or natural gas storage operator noticed within the application.

**Permit Denial or Condition**

The Chief has the power to deny or condition a well work permit. Pursuant to West Virginia Code § 22-6A-8(d), the permit may not be issued or be conditioned, including conditions with respect to the location of the well and access roads prior to issuance if the director determines that:

- (1) The proposed well work will constitute a hazard to the safety of persons;
- (2) The plan for soil erosion and sediment control is not adequate or effective;
- (3) Damage would occur to publicly owned lands or resources; or
- (4) The proposed well work fails to protect fresh water sources or supplies.

A permit may also be denied under West Virginia Code § 22-6A-7(k), the secretary shall deny the issuance of a permit if the secretary determines that the applicant has committed a substantial violation of a previously issued permit for a horizontal well, including the applicable erosion and sediment control plan associated with the previously issued permit, or a substantial violation of one or more of the rules promulgated under this article, and in each instance has failed to abate or seek review of the violation within the time prescribed by the secretary pursuant to the provisions of subdivisions (1) and (2), subsection (a), section five of this article and the rules promulgated hereunder, which time may not be unreasonable.

Pursuant to West Virginia Code § 22-6A-10(g), any person entitled to submit written comments to the secretary pursuant to subsection (a), section eleven of this article, shall also be entitled to receive from the secretary a copy of the permit as issued or a copy of the order modifying or denying the permit if the person requests receipt of them as a part of the written comments submitted concerning the permit application. Such persons may request, at the time of submitting written comments, notice of the permit decision and a list of persons qualified to test water.

04902394

Notice is hereby given by:

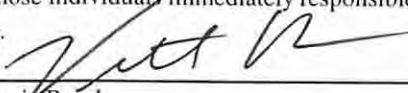
Well Operator: EQT Production Company  
Telephone: 304-848-0082  
Email: Vroark@eqt.com

Address: 115 Professional Place P.O. Box 280  
Bridgeport, WV 26330  
Facsimile: 304-848-0041

**Oil and Gas Privacy Notice:**

The Office of Oil and Gas processes your personal information, such as name, address and telephone number, as part of our regulatory duties. Your personal information may be disclosed to other State agencies or third parties in the normal course of business or as needed to comply with statutory or regulatory requirements, including Freedom of Information Act requests. Our office will appropriately secure your personal information. If you have any questions about our use or your personal information, please contact DEP's Chief Privacy Officer at [depprivacyofficer@wv.gov](mailto:depprivacyofficer@wv.gov).

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this application form and all 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.



By: Victoria Roark

Its: Permitting Supervisor

Subscribed and sworn before on 22 day of April, 2015

Notary Public

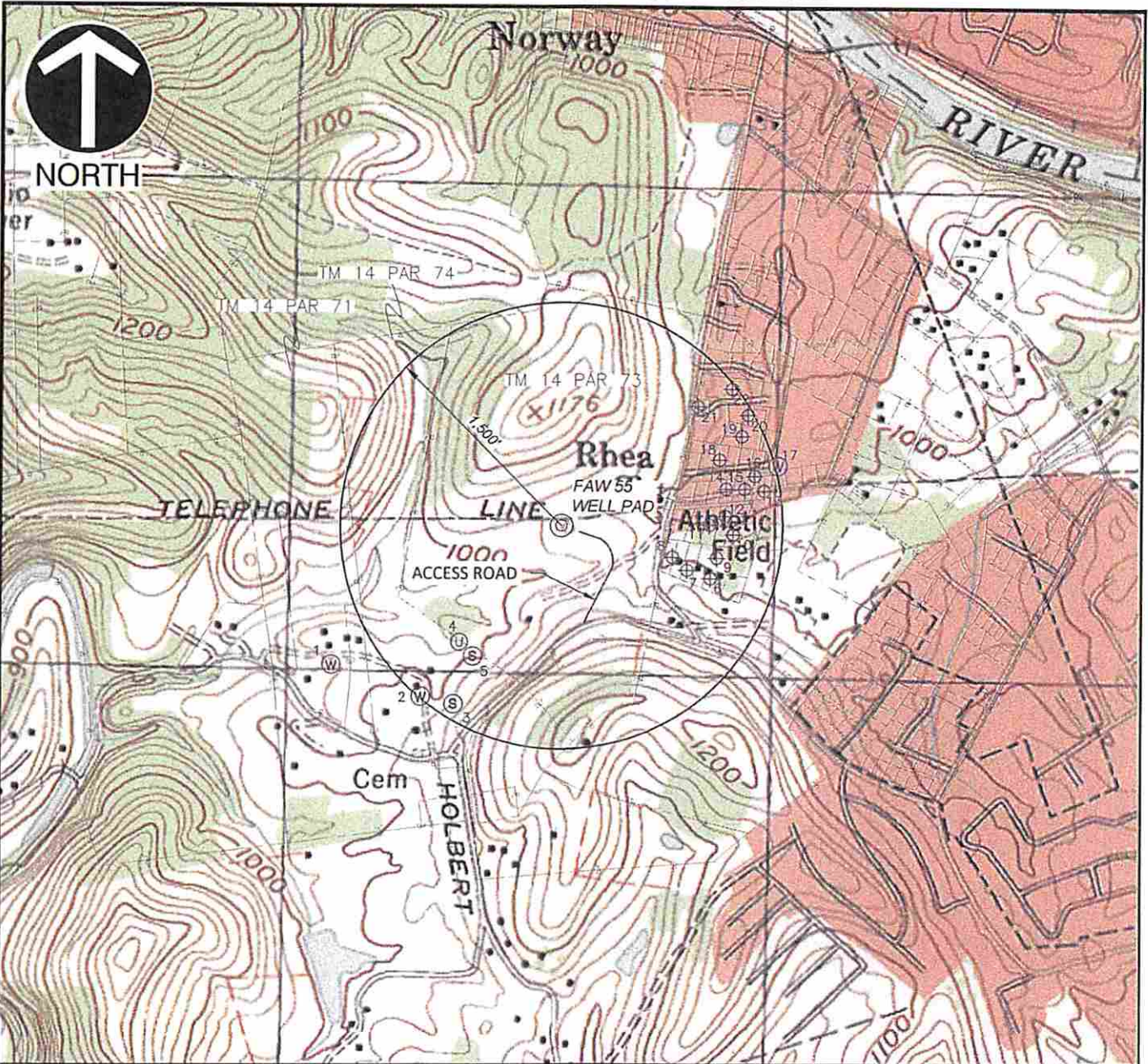
My Commission Expires 7/27/2018





04902394

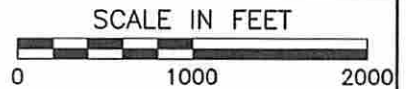
KARL S. SHAVER JR. LEASE



WELL PAD	⊙	1500' BUFFER	○	WATER WELL	⊗	CISTERN	⊕
ACCESS ROAD TO WELL	—	PARCEL BOUNDARY	- - -	SPRING	Ⓢ	NO ONE HOME	⊕

REFERENCE

1. U.S.G.S. 7.5' TOPOGRAPHIC MAP, FAIRMONT WEST QUADRANGLE, WV, DATED: 1997



Civil & Environmental Consultants, Inc.

99 Cambridge Place - Bridgeport, WV 26330  
 Ph: 304.933.3119 - Fax: 304.933.3327  
 www.cecinc.com

EQT PRODUCTION COMPANY  
 WV 515709  
 GRANT DISTRICT  
 MARION COUNTY, WV

WATERSHED: BOOTH'S CREEK

DRAWN BY:	DAM	CHECKED BY:	JMS	APPROVED BY:	DEM	FIGURE NO.:
DATE:	FEBRUARY 23, 2015	DWG SCALE:	1"=1000'	PROJECT NO.:	142-405	

P:\2014\142-405\Survey\Draw Well Plats\142405-WELL\_PLAT-FAW55-H1-WATER\_TOPO.dwg\H1 WATER TOPO LS(2/23/2015 - hmalutich) - LP: 2/25/2015 4:59 PM

08/28/2015



04902394

**STATE OF WEST VIRGINIA**  
**DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS**  
**NOTICE OF ENTRY FOR PLAT SURVEY**

**Notice Time Requirement:** Notice shall be provided at least **SEVEN (7)** days but no more than **FORTY-FIVE (45)** days prior to entry.

**Date of Notice:** 4/28/2014

**Date of Planned Entry:** 5/5/2014

**Delivery method pursuant to West Virginia Code § 22-6A-10(a):**

PERSONAL SERVICE     CERTIFIED MAIL     METHOD OF DELIVERY THAT REQUIRES A RECEIPT OR SIGNATURE CONFIRMATION

Pursuant to West Virginia Code § 22-6A-10(a), prior to filing a permit application, the operator shall provide notice of planned entry on to the surface tract to conduct any plat surveys required pursuant to this article. Such notice shall be provided at least seven days but no more than forty-five days prior to such entry to: (1) The surface owner of such tract; (2) to any owner or lessee of coal seams beneath such tract that has filed a declaration pursuant to section thirty-six, article six, chapter twenty-two of this code; and (3) any owner of minerals underlying such tract in the county tax records. The notice shall include a statement that copies of the state Erosion and Sediment Control Manual and the statutes and rules related to oil and gas exploration and production may be obtained from the Secretary, which statement shall include contact information, including the address for a web page on the Secretary's web site, to enable the surface owner to obtain copies from the secretary.

**Notice is hereby provided to:**

**SURFACE OWNER(S)**

Name: Karl S. Shaver, Jr.  
Address: 129 Old Monongah Rd.  
Fairmont, WV 26554

**MINERAL OWNER(S)**

Name: Karl S. Shaver, Jr.  
Address: 129 Old Monongah Rd.  
Fairmont, WV 26554

**COAL OWNER(S) OR LESSEE(S)**

Coal Declaration pursuant to §22-6A-10 and  
§22-6-36 Not of Record

\*Please attach additional forms if necessary

**Notice is hereby given:**

Pursuant to West Virginia Code § 22-6A-10(a), notice is hereby given that the undersigned well operator is planning entry to conduct a plat survey on the tract of land as follows:

State: <u>West Virginia</u>	Approx. Latitude & Longitude: <u>39.46970 / -80.19990</u>
County: <u>Marion</u>	Approx. Latitude & Longitude: <u>39.46659 / -80.19501</u>
Dist/Map/Par: <u>Grant / Map 14 / Parcels 30, 31, 73</u>	Approx. Latitude & Longitude: <u>39.46519 / -80.19089    39.46079 / -80.19467</u>
Quadrangle: <u>Fairmont West</u>	Public Road Access: <u>CR56/3 and CR56/4</u>
Watershed: <u>West Fork River</u>	Generally Used Farm Name: <u>Shaver</u>

Copies of the state Erosion and Sediment Control Manual and the statues and rules related to oil and gas exploration and production may be obtained from the Secretary, at the WV Department of Environmental Protection headquarters, located at 601 57<sup>th</sup> Street, SE, Charleston, WV 25304 (304-926-0450). Copies of such documents or additional information related to horizontal drilling may be obtained from the Secretary by visiting [www.dep.wv.gov/oil-and-gas/pages/default.aspx](http://www.dep.wv.gov/oil-and-gas/pages/default.aspx).

**Notice is hereby given by:**

Well Operator: EQT Production Company  
Telephone: 304-848-0099  
Facsimile: 304-848-0040  
Email: eqtlandentrynotice@eqt.com

Address: 115 Professional Place, Bridgeport, WV 26330  
EQT Representative: Kathy Kugel

Signature: *Kathy Kugel*

**Oil and Gas Privacy Notice:**

The Office of Oil and Gas processes your personal information, such a name, address and telephone number, as part of regulatory duties. Your personal information may be disclosed to other State agencies or third parties in the normal course of business or as needed to comply with statutory or regulatory requirements, including Freedom of Information Act requests. Our office will appropriately secure your personal information. If you have any questions about our use or your personal information, please contact DEP's Chief Privacy Officer at [depprivacyofficer@WV.gov](mailto:depprivacyofficer@WV.gov).



WW-6A5  
(1/12)

Operator Well No.

04902394  
515709

STATE OF WEST VIRGINIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS  
NOTICE OF PLANNED OPERATION

Notice Time Requirement: notice shall be provided no later than the filing date of permit application.

Date of Notice: 4/23/2015 Date Permit Application Filed: 4/24/2015

Delivery method pursuant to West Virginia Code § 22-6A-16(c)

CERTIFIED MAIL  HAND  
RETURN RECEIPT REQUESTED DELIVERY

Pursuant to W. Va. Code § 22-6A-16(c), no later than the date for filing the permit application, an operator shall, by certified mail return receipt requested or hand delivery, give the surface owner whose land will be used for the drilling of a horizontal well notice of the planned operation. The notice required by this subsection shall include: (1) A copy of this code section; (2) The information required to be provided by subsection (b), section ten of this article to a surface owner whose land will be used in conjunction with the drilling of a horizontal well; and (3) A proposed surface use and compensation agreement containing an offer of compensation for damages to the surface affected by oil and gas operations to the extent the damages are compensable under article six-b of this chapter. (d) The notices required by this section shall be given to the surface owner at the address listed in the records of the sheriff at the time of notice.

Notice is hereby provided to the SURFACE OWNER(s)

(at the address listed in the records of the sheriff at the time of notice):

Name: Karl S. Shaver Jr. Name: \_\_\_\_\_ 0  
Address: POA for Larry A. Shaver Address: \_\_\_\_\_ 0  
129 Old Monongah Road \_\_\_\_\_ 0

Notice is hereby given:

Pursuant to West Virginia Code § 22-6A-16(c), notice is hereby given that the undersigned well operator has developed a planned operation on the surface owner's land for the purpose of drilling a horizontal well on the tract of land as follows:

State: WV UTM NAD 83 Easting: 569,546.430000  
County: Marion Northing: 4,368,307.710000  
District: Grant Public Road Access: CR 56  
Quadrangle: Fairmont West 7.5' Generally used farm name: Shaver  
Watershed: Booths Creek

This Notice Shall Include:

Pursuant to West Virginia Code § 22-6A-16(c), this notice shall include: (1) A copy of this code section; (2) The information required to be provided by **W. Va. Code § 22-6A-10(b)** to a surface owner whose land will be used in conjunction with the drilling of a horizontal well; and (3) A proposed surface use and compensation agreement containing an offer of compensation for damages to the surface affected by oil and gas operations to the extent the damages are compensable under article six-b of this chapter. Additional information related to horizontal drilling may be obtained from the Secretary, at the WV Department of Environmental Protection headquarters, located at 601 57th Street, SE, Charleston, WV 25304 (304-926-0450) or by visiting [www.dep.wv.gov/oil-and-gas/pages/default.aspx](http://www.dep.wv.gov/oil-and-gas/pages/default.aspx).

Well Operator: EQT Production Company Address: 115 Professional Place, P.O. Box 280  
Telephone: 304-848-0082 Bridgeport, WV 26330  
Email: vroark@eqt.com Facsimile: 304-848-0040

Oil and Gas Privacy Notice:

The Office of Oil and Gas processes your personal information, such as name, address and telephone number, as part of our regulatory duties. Your personal information may be disclosed to other State agencies or third parties in the normal course of business or as needed to comply with statutory or regulatory requirements, including Freedom of Information Act requests. Our office will appropriately secure your personal information. If you have any questions about our use or your personal information, please contact DEP's Chief Privacy Officer at [depprivacyofficer@wv.gov](mailto:depprivacyofficer@wv.gov).

08/28/2015

04902394



WEST VIRGINIA DEPARTMENT OF TRANSPORTATION

Division of Highways

1900 Kanawha Boulevard East • Building Five • Room 110  
Charleston, West Virginia 25305-0430 • (304) 558-3505

Earl Ray Tomblin  
Governor

Paul A. Mattox, Jr., P. E.  
Secretary of Transportation/  
Commissioner of Highways

February 23, 2015

James A. Martin, Chief  
Office of Oil and Gas  
Department of Environmental Protection  
601 57<sup>th</sup> Street, SE  
Charleston, WV 25304

Subject: DOH Permit for the FAW 55 Pad Site, Marion County

515709 FAW 55 H1  
515712 FAW 55 H4  
515715 FAW 55 H7  
515718 FAW 55 H10

515710 FAW 55 H2  
515713 FAW 55 H5  
515716 FAW 55 H8

515711 FAW 55 H3  
515714 FAW 55 H6  
515717 FAW 55 H9

Dear Mr. Martin,

This well site will be accessed from Permit #04-2014-1380 applied for by EQT Production Company for access to the State Road. The well site is located off of Marion County Route 56 SLS. The approved DOH permit must be received before construction of or any use of this access to the roadway.

The operator has signed a STATEWIDE OIL AND GAS ROAD MAINTENANCE BONDING AGREEMENT and provided the required Bond. This operator is currently in compliance with the DOH OIL AND GAS POLICY dated January 3, 2012.

Very Truly Yours,

Gary K. Clayton, P.E.  
Regional Maintenance Engineer  
Central Office O&G Coordinator

Cc: Nick Bumgardner  
EQT Production Company  
CH, OM, D-4, File



04902394

**Anticipated Frac Additives**  
**Chemical Names and CAS numbers**

<u>Material</u>	<u>Ingredient</u>	<u>CAS Number</u>
Water		
Sand	Hydrotreated light petroleum distillate	14808-60-7
Friction Reducer	Tributyl tetradecyl phosphonium chloride	64742-47-8
Biocide	Ammonium chloride	81741-28-8
Scale Inhibitor	Hydrochloric Acid	12125-02-9
15% Hydrochloric Acid	Propargyl Alcohol	7647-01-0
Corrosion Inhibitor	Methanol	107-19-7
Corrosion Inhibitor	Guar Gum	67-56-1
Gelling Agent	Sodium Persulfate	9000-30-0
Oxidizing Breaker	Potassium Carbonate	7775-27-1
Buffering Agent		584-08-7







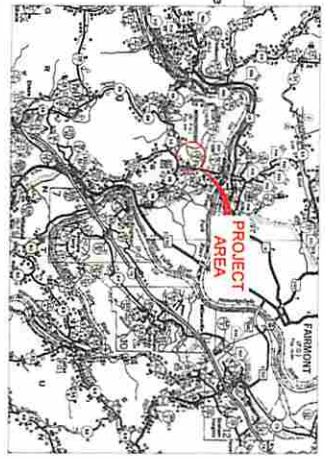
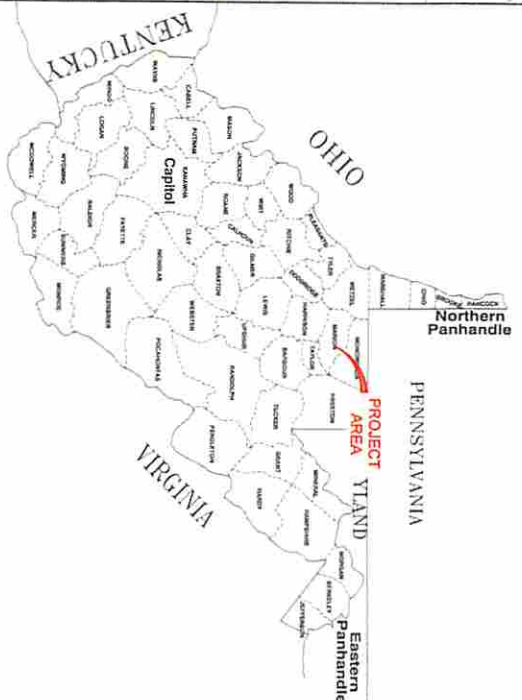
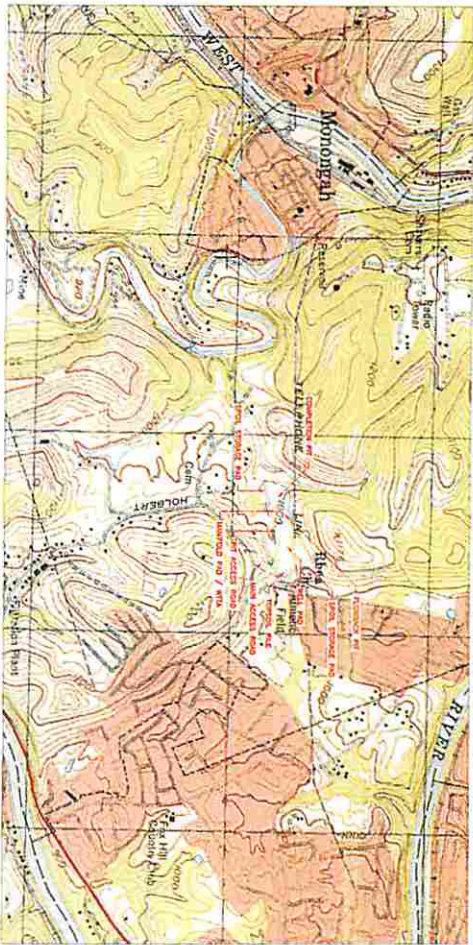
# FAW 55 FINAL SITE DESIGN, CONSTRUCTION PLANS, & EROSION & SEDIMENT CONTROL PLANS EQT PRODUCTION COMPANY

LAT. LONG. N 39° 27' 40.14" W 80° 11' 31.80"  
(APPROXIMATE CENTER OF PROJECT)



**WEST VIRGINIA ONE CALL**  
1-800-248-4948  
1-800-248-4948  
West Virginia One Call is a free service that will help you locate underground utilities before you dig. It's the law.

LOCAL EMERGENCY SERVICES	NAME	PHONE NO.
EMERGENCY	911	911
WEST VIRGINIA POWER & LIGHT	800-248-4948	800-248-4948
WEST VIRGINIA GAS	800-248-4948	800-248-4948
WEST VIRGINIA WATER	800-248-4948	800-248-4948
WEST VIRGINIA WASTE	800-248-4948	800-248-4948



**LOCATION MAP**  
FARMINGTON WEST TOWNSHIP 7.5 QUAD  
SCALE: 1" = 1 MILE  
1 INCH = 1000 FEET

**VICINITY MAP**  
MARION COUNTY ROAD MAP  
SCALE: 1" = 1 MILE  
1 INCH = 1 MILE

SITE ELEVATIONS	WATER	WELL
EXISTING ELEVATION	EXISTING ELEVATION	EXISTING ELEVATION
PROPOSED ELEVATION	PROPOSED ELEVATION	PROPOSED ELEVATION

**FLOOD PLAIN CONDITIONS**  
FLOOD PLAIN ZONE: FLOOD PLAIN ZONE  
FLOOD PLAIN ZONE: FLOOD PLAIN ZONE  
FLOOD PLAIN ZONE: FLOOD PLAIN ZONE

*UP A 4730-15*

SHEET NO.	DESCRIPTION
1	COVER SHEET
2	GENERAL NOTES
3	EROSION & SEDIMENT CONTROL
4	CONSTRUCTION
5	CONSTRUCTION
6	CONSTRUCTION
7	CONSTRUCTION
8	CONSTRUCTION
9	CONSTRUCTION
10	CONSTRUCTION

**RAIN EROSION CONTROL METHODS**  
THE PLAN HAS BEEN DESIGNED TO MEET THE REQUIREMENTS OF THE EROSION CONTROL ACT AND THE SUDAS ACT. THE DESIGNER HAS CONSIDERED THE EFFECTS OF RAINFALL AND SOIL TYPE ON EROSION CONTROL. THE DESIGNER HAS CONSIDERED THE EFFECTS OF RAINFALL AND SOIL TYPE ON EROSION CONTROL.

WELL #	WELL DEPTH	WELL TYPE
1	100 FT	ARTESIAN
2	100 FT	ARTESIAN
3	100 FT	ARTESIAN
4	100 FT	ARTESIAN
5	100 FT	ARTESIAN
6	100 FT	ARTESIAN
7	100 FT	ARTESIAN
8	100 FT	ARTESIAN
9	100 FT	ARTESIAN
10	100 FT	ARTESIAN

Received  
Office of Oil & Gas  
MAY 11 2015

**COVER SHEET**

DATE: NOVEMBER 12, 2014  
DRAWN BY: MKB/SJM  
DESIGNED BY: AS SHOWN  
CHECKED BY: 140-484  
APPROVED BY: 204

**C000**

**EQT PRODUCTION COMPANY**  
FAW 55  
GRANT DISTRICT  
MARION COUNTY, WEST VIRGINIA

**C&E**  
Civil & Environmental Consultants, Inc.  
99 Cambridge Place - Bridgeport, WV 26330  
Ph: 304.933.5119 - 855.488.9539 - Fax: 204.933.3327  
www.candc.com

NO.	DATE	REVISION RECORD
1	08/28/2015	REVISION RECORD