west virginia department of environmental protection

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

July 02, 2015

WELL WORK PERMIT

Horizontal 6A Well

This permit, API Well Number: 47-10303082, 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: 514555
Farm Name: CONSOLIDATION COAL COMPA
API Well Number: 47- 10303082
Permit Type: Horizontal 6A Well
Date Issued: 07/02/2015

Promoting a healthy environment.

API Number: _____

PERMIT CONDITIONS 47 103 0308 2

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

1. This proposed activity may require permit coverage from the United States Army Corps of Engineers (USACE). Through this permit, you are hereby being advised to consult with USACE regarding this proposed activity.

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 one hundred (100) 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.

WW - 6B
(9/13)

4710303082

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
W.VA. CODE §22-6A - WELL WORK PERMIT APPLICATION

1) Well Operator: EQT Production Company | 306686 (Operator ID) | 103 (County) | 4 (District) | 655 (Quadrangle)

2) Operator's Well Number: 514555 Well Pad Name FOL109

3) Farm Name/Surface Owner : Consolidation Coal Co Public Road Access: County Route 32

4) Elevation, current ground: 1,507.0 Elevation, proposed post-construction: 1,460.0

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

Other _____

(b) If Gas: Shallow • Deep _____

Horizontal •

RECEIVED
Office of Oil and Gas
JUN 30 2015
WV Department of
Environmental Protection

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 7655 with the anticipated thickness to be 28 feet and anticipated target pressure of 2620 PSI

8) Proposed Total Vertical Depth: 7655

9) Formation at Total Vertical Depth: Geneseo

10) Proposed Total Measured Depth: 11,411

11) Proposed Horizontal Leg Length 3,180

12) Approximate Fresh Water Strata Depths: n/a

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

14) Approximate Saltwater Depths: n/a

15) Approximate Coal Seam Depths: 806, 891, 941, 1077, 1237, 1317, 1346

16) Approximate Depth to Possible Void (coal mine, karst, other): None reported

17) Does proposed well location contain coal seams directly overlying or adjacent to an active mine?

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

GAS
7/1/15

WW - 6B
(3/13)

4710303082

CASING AND TUBING PROGRAM

18)

TYPE	Size	New or Used	Grade	Weight per ft.	FOOTAGE: for Drilling	INTERVALS: Left in Well	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	1,383	1,383	1,221 C.T.S.
Coal	–	–	–	–	–	–	–
Intermediate	9 5/8	New	A-500	40	3,530	3,530	1,367 C.T.S.
Production	5 1/2	New	P-110	20	11,411	11,411	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							

TYPE	Size	Wellbore Diameter	Wall Thickness	Burst Pressure	Cement Type	Cement Yield (cu. ft./k)
Conductor	26	30	0.312	-	Construction	1.18
Fresh Water	13 3/8	17 1/2	0.38	2,730	* See Note 2	1.21
Coal						
Intermediate	9 5/8	12 3/8	0.395	3,950	* See Note 2	1.21
Production	5 1/2	8 1/2	0.361	12,640	-	1.27/1.86
Tubing						
Liners						

Packers

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

RECEIVED
Office of Oil and Gas
NOV 30 2015
WV Department of
Environmental Protection

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)

GCG 7/1/15

WW - 6B

(3/13)

47103030 82

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

Drill and complete a new horizontal well in the Geneseo formation. The vertical drill to go down to an approximate depth of 6068 then kick off the horizontal leg into the Geneseo using a slick water frac.

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): 71.14

22) Area to be disturbed for well pad only, less access road (acres): 37.14

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.

RECEIVED
Office of Oil and Gas
JUN 30 2015
WV Department of
Environmental Protection

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.

GCS 7/1/15

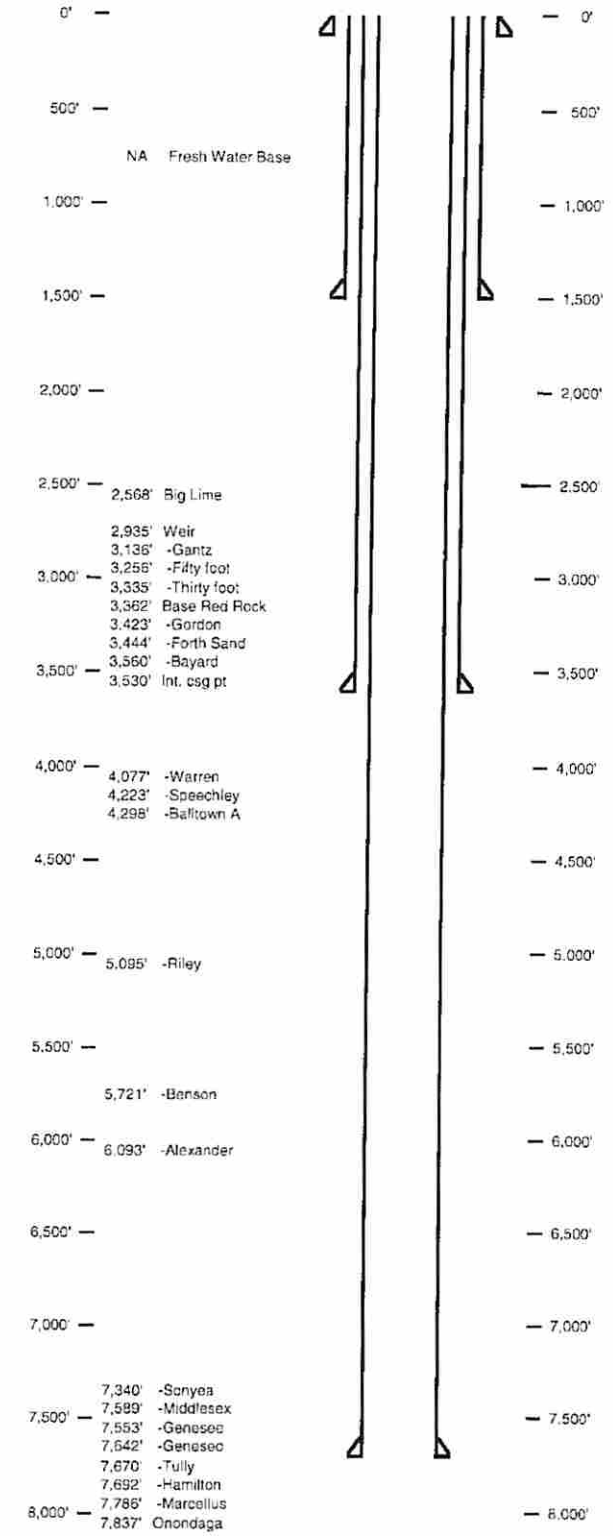
*Note: Attach additional sheets as needed.

47103030 82

Well Schematic
EQT Production

Well Name [redacted]
County [redacted]
State West Virginia

Elevation KB: [redacted]
Target [redacted]
Prospect [redacted]
Azimuth [redacted]
Vertical Section [redacted]



Hole Size 30" - 26" Conductor at 40'
Bit Size 17.5"

TOC @ Surface
13 3/8", MC-50, 54.5# @ [redacted] ft MD
Bit Size 12.375"

TOC @ [redacted]
9 5/8", MC-50, 40# @ [redacted] ft MD
Bit Size 8.5"

KOP = [redacted] ft MD
10 Deg DLS

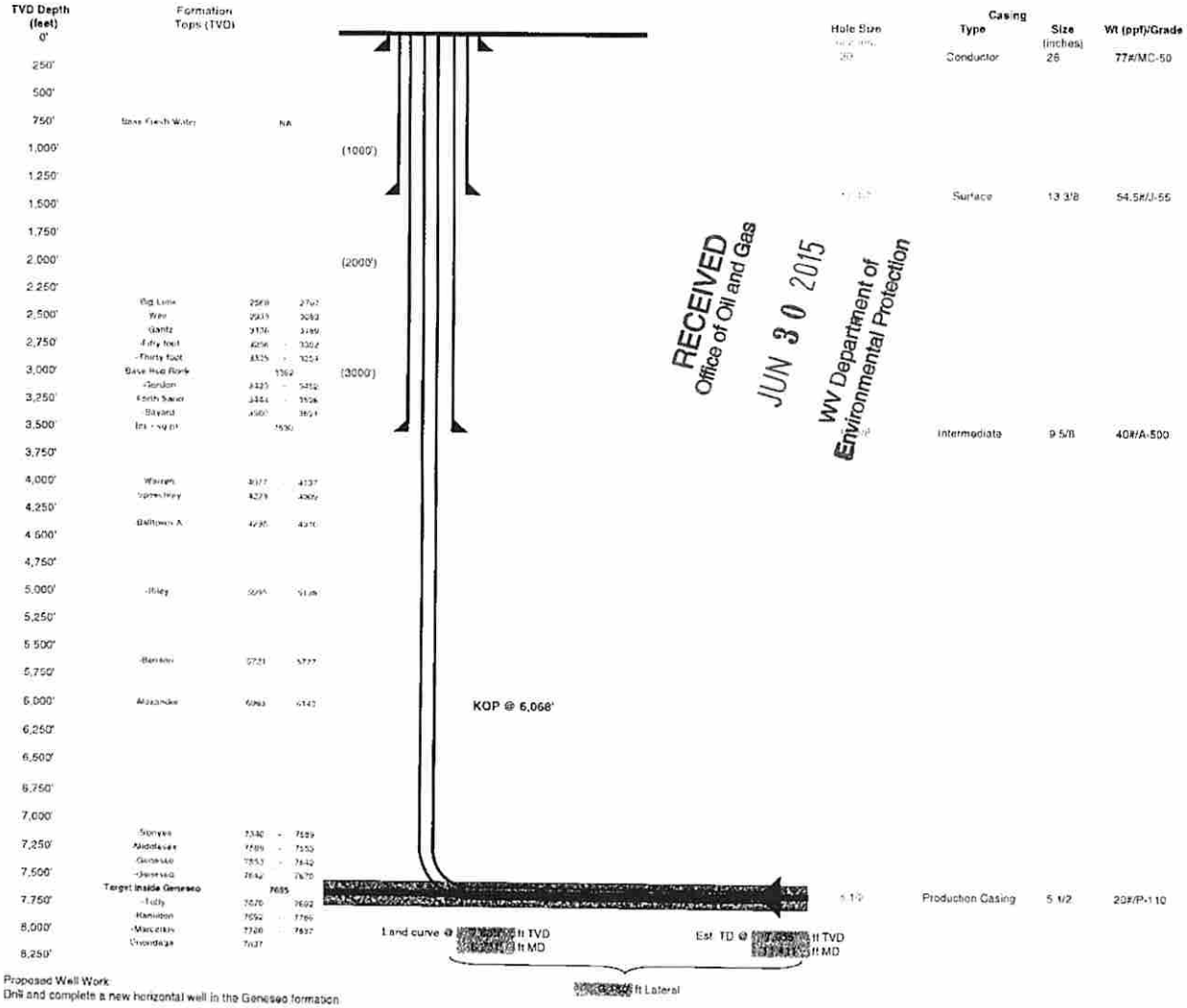
Land @ [redacted] ft MD
[redacted] ft TVD

5 1/2", P-110, 20# [redacted] ft MD
[redacted] ft TVD

RECEIVED
Office of Oil and Gas
JUN 30 2015
WV Department of
Environmental Protection

Well [redacted] (FOL109H10)
EQT Production
[redacted] **West Virgina**

Azimuth [redacted]
Vertical Section [redacted]



Hole Size	Casing Type	Size (inches)	Wt (ppf)/Grade
[redacted]	Conductor	26	77#/MC-50
[redacted]	Surface	13 3/8	54.5#/J-55
[redacted]	Intermediate	9 5/8	40#/A-500
[redacted]	Production Casing	5 1/2	20#/P-110

Proposed Well Work:
Drill and complete a new horizontal well in the Genesee formation

RECEIVED
Office of Oil and Gas
JUN 30 2015
WV Department of
Environmental Protection

4710303082

EQT

4710303082

June 25, 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 (FOL109)

Dear Mr. Smith,

EQT is requesting the 13 3/8" surface casing to be set at 1383' KB, 30' below the base of Pittsburgh Coal. We will set the 9-5/8" intermediate string at 3530' KB, below the offset production in the Gordon formation.

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

Sincerely,

Vicki Roark
Permitting Supervisor-WV

Enc.

RECEIVED
Office of Oil and Gas
JUN 30 2015
WV Department of
Environmental Protection

4710303082

dep

west virginia department of environmental protection

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
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

James Peterson
Environmental Resources Specialist / Permitting

Promoting a healthy environment.

RECEIVED
Office of Oil and Gas

FEB 09 2015

WV Department of
Environmental Protection

47 1030308 2

west virginia department of environmental protection

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
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.

RECEIVED
Office of Oil and Gas

FEB 09 2015

WV Department of
Environmental Protection

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

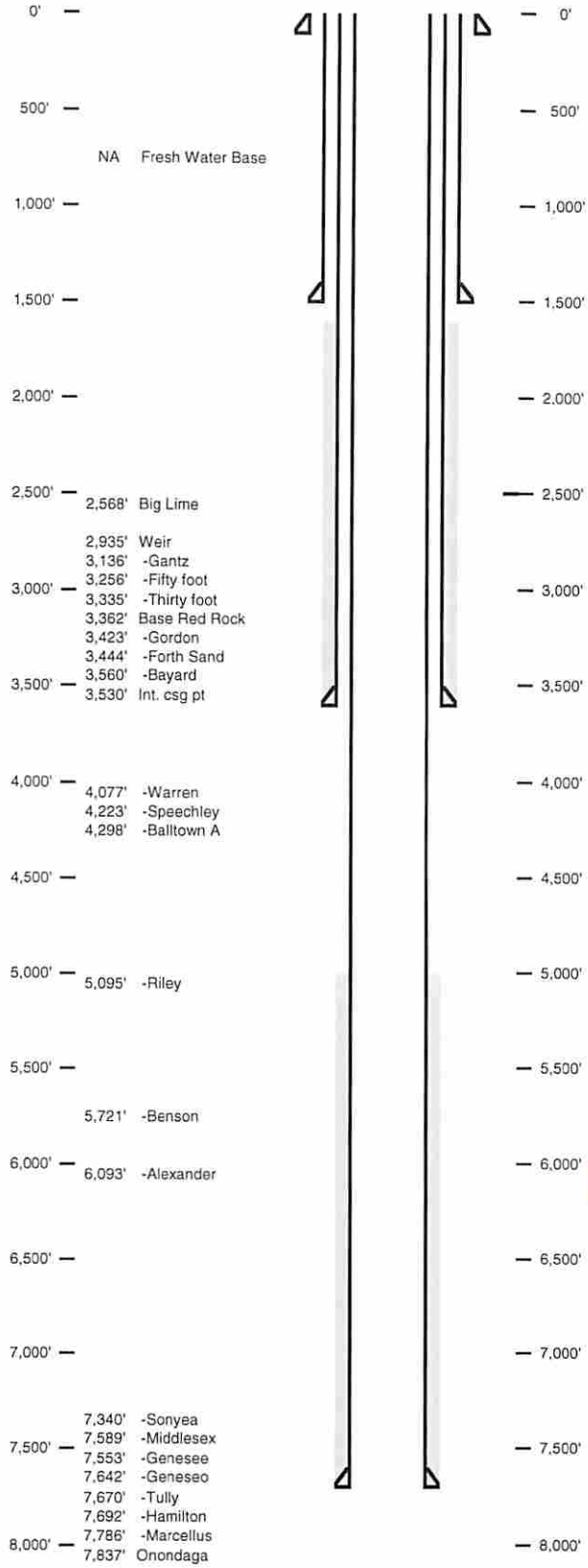
James Martin, Chief
Office of Oil and Gas

RECEIVED
Office of Oil and Gas
FEB 09 2015
WV Department of
Environmental Protection

Well Schematic
EQT Production

Well Name	514555 (FCL109H10)
County	Wetzel
State	West Virgina

Elevation KB:	1473
Target	Geneseo
Prospect	
Azimuth	340
Vertical Section	3316



NA Fresh Water Base

2,568' Big Lime

2,935' Weir
3,136' -Gantz
3,256' -Fifty foot
3,335' -Thirty foot
3,362' Base Red Rock
3,423' -Gordon
3,444' -Forth Sand
3,560' -Bayard
3,530' Int. csg pt

4,077' -Warren
4,223' -Speechley
4,298' -Balltown A

5,095' -Riley

5,721' -Benson

6,093' -Alexander

7,340' -Sonyea
7,589' -Middlesex
7,553' -Genesee
7,642' -Geneseo
7,670' -Tully
7,692' -Hamilton
7,786' -Marcellus
7,837' Onondaga

Hole Size 30" - 26" Conductor at 40'
Bit Size 17.5"

TOC @ Surface
13 3/8", MC-50, 54.5# @ 1,423' ft MD
Bit Size 12.375"

TOC @ Surface
9 5/8", MC-50, 40# @ 3,530' ft MD
Bit Size 8.5"

KOP = 6,068' ft MD
10 Deg DLS

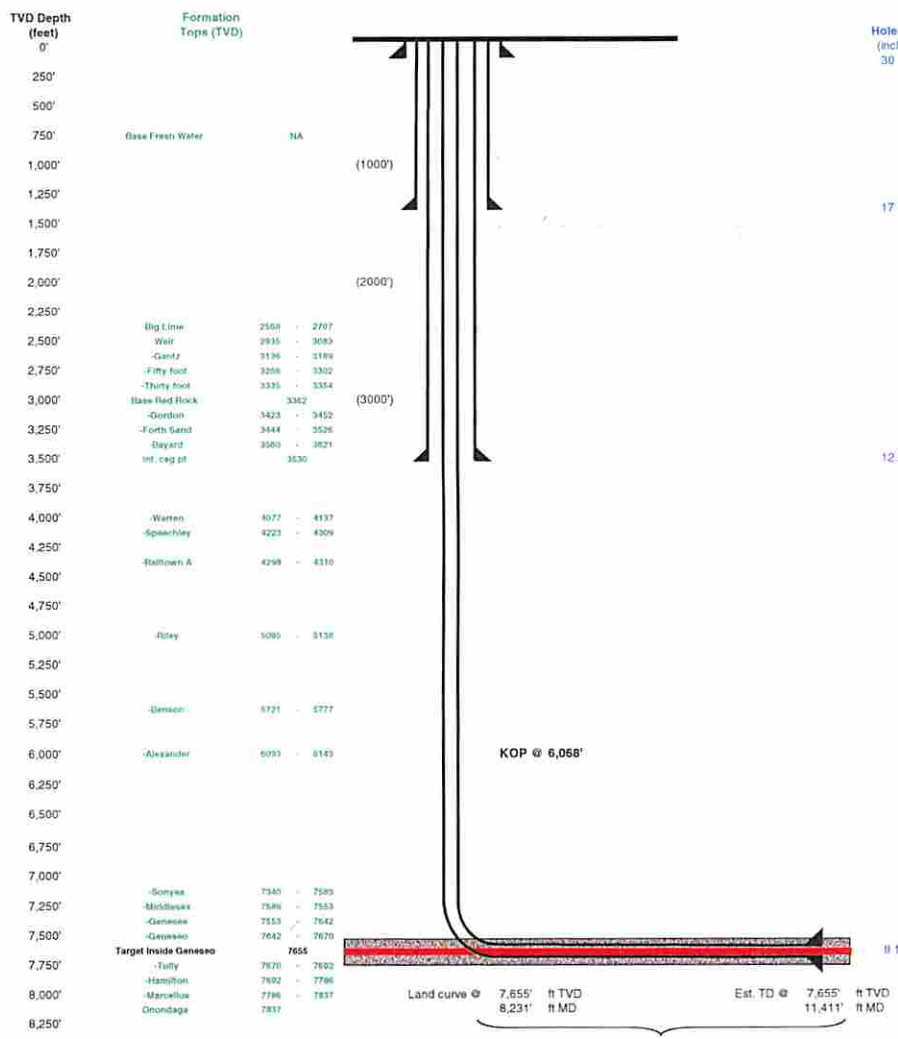
Land @ 8,231' ft MD
7,655' ft TVD

5 1/2", P-110, 20# 11,411' ft MD
7,655' ft TVD

RECEIVED
Office of Oil and Gas
FEB 09 2015
WV Department of
Environmental Protection

Well 514555 (FOL109H10)
EQT Production
Wallace
Wetzel **West Virgina**

Azimuth 340
Vertical Section 3316



Hole Size (inches)	Casing Type	Size (inches)	Wt.(ppf)/Grade
30	Conductor	26	77#/MC-50
17 1/2	Surface	13 3/8	54.5#/J-55
12 3/8	Intermediate	9 5/8	40#/A-500
8 1/2	Production Casing	5 1/2	20#/P-110

Proposed Well Work:
Drill and complete a new horizontal well in the Geneseo formation.
The vertical drill to go down to an approximate depth of 6068'.
Then kick off the horizontal leg into the Geneseo using a slick water frac.

4710303082

RECEIVED
Office of Oil and Gas
FEB 09 2015
WV Department of
Environmental Protection

4710303082

WW-9
(5/13)

Page ____ of ____

API No. 47 - 103 - 0
Operator's Well No. 514555

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

Fluids/Cuttings Disposal & Reclamation Plan

Operator Name EQT Production Co. OP Code 306686

Watershed (HUC10) Sams Run of Fishing Creek Quadrangle Wallace

Elevation 1460.0 County Wetzel District Grant

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

Will a pit be used ? Yes: X No: ____

If so please describe anticipated pit waste: ____

Will a synthetic liner be used in the pit? Yes X 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

DMH
2-10-15

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.

RECEIVED
Office of Oil and Gas
FEB 17 2015
WV Department of
Environmental Protection

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

Subscribed and sworn before me this 16 day of Feb, 20 15

____ Notary Public

My commission expires 8.24.22

OFFICIAL SEAL
STATE OF WEST VIRGINIA
NOTARY PUBLIC
Pamela Sykes
EQT Production
PO Box 280
Bridgeport, WV 26330
My Commission Expires Aug. 24, 2022

WW-9

Operator's Well No. 514555

Proposed Revegetation Treatment: Acres Disturbed 71.14 Prevegetation pH 6.1

Lime 3 Tons/acre or to correct to pH 6.5

Fertilize type Granular 10-20-20

Fertilizer Amount 1/3 lbs/acre (500 lbs minimum)

Mulch 2 Tons/acre

Seed Mixtures

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

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

Photocopied section of involved 7.5' topographic sheet.

Plan Approved by: [signature]

Comments:

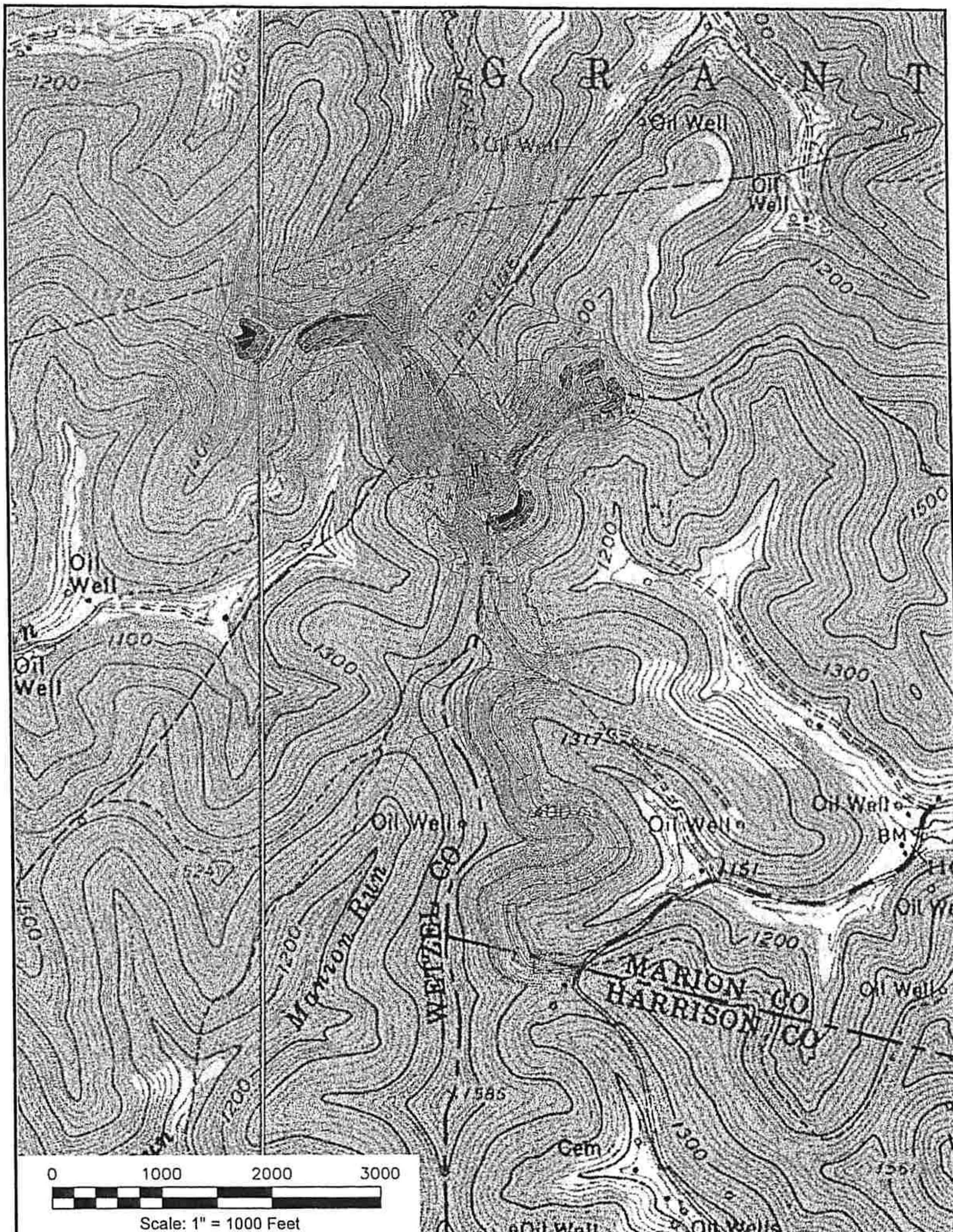
Title: Oil + Gas Inspector Date: 2-12-15

Field Reviewed? (✓) Yes ( ) No

RECEIVED
Office of Oil and Gas

JUN 29 2015

WV Department of
Environmental Protection



Folsom & Wallace 7.5' USGS QUADRANGLE		Proposed Disturbance Area	
Projected culvert inventory. (for bid purposes only)		Well Site Location	See Site Plan
15" minimum diameter culverts	See Site Plan	Proposed Access Road	See Site Plan
24" minimum diameter culverts	See Site Plan	Approximate Total Disturbance	See Site Plan
DRAWN BY: Dale Tomlin PS	DATE: December 5, 2014	FILE NO. 165-13	DRAWING FILE NO. 165-13 Rec Plan

Note: SEE SITE PLAN OF FOLSOM 109 FOR COMPLETE GRADING & DRAINAGE CONSTRUCTION INCLUDING EROSION & SEDIMENT CONTROL DETAILS, ETC.

DMH
2-10-15

SURVEYING AND MAPPING SERVICES PERFORMED BY:

ALLEGHENY SURVEYS, INC.

1-800-482-8606

Birch River Office
Phone: (304) 649-8606
Fax: (304) 649-8608

237 Birch River Road
P.O. Box 438
Birch River, WV 26610

RECEIVED
Office of Oil and Gas

FEB 17 2015

WV Department of
Environmental Protection

4710303082

WW-9

FOLSOM 109

Folsom & Wallace 7.5' USGS QUADRANGLE		Proposed Disturbance Area	
Projected culvert inventory. (for bid purposes only)		Well Site Location	See Site Plan
15" minimum diameter culverts	See Site Plan	Proposed Access Road	See Site Plan
24" minimum diameter culverts	See Site Plan	Approximate Total Disturbance	See Site Plan
DRAWN BY: Dale Tomlin PS	DATE: December 5, 2014	FILE NO. 165-13	DRAWING FILE NO. 165-13 Rec Plan

Note: SEE SITE PLAN OF FOLSOM 109 FOR COMPLETE GRADING & DRAINAGE CONSTRUCTION INCLUDING EROSION & SEDIMENT CONTROL DETAILS, ETC.

DMH
2-10-15

RECEIVED
Office of Oil and Gas

FEB 17 2015

WV Department of
Environmental Protection

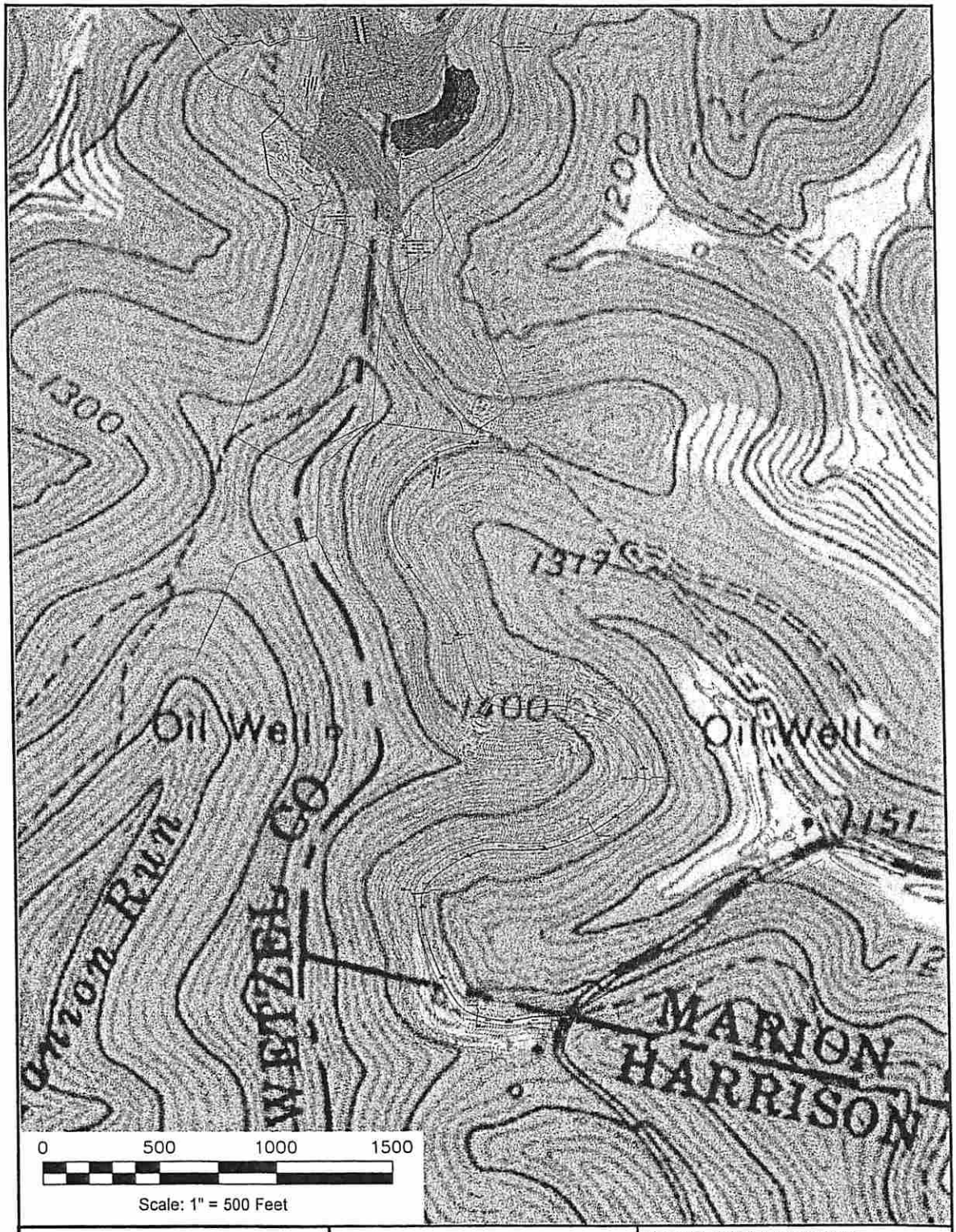
SURVEYING AND MAPPING SERVICES PERFORMED BY:

ALLEGHENY SURVEYS, INC.

1-800-482-8606

Birch River Office
Phone: (304) 649-8606
Fax: (304) 649-8608

237 Birch River Road
P.O. Box 438
Birch River, WV 26610



Folsom & Wallace 7.5' USGS QUADRANGLE		Proposed Disturbance Area		
Projected culvert inventory. (for bid purposes only)		Well Site Location	See Site Plan	
15" minimum diameter culverts	See Site Plan	Proposed Access Road	See Site Plan	
24" minimum diameter culverts	See Site Plan	Approximate Total Disturbance	See Site Plan	
DRAWN BY: Dale Tomlin PS	DATE: December 5, 2014	FILE NO. 165-13	DRAWING FILE NO. 165-13 Rec Plan	

Note: SEE SITE PLAN OF FOLSOM 109 FOR COMPLETE GRADING & DRAINAGE CONSTRUCTION INCLUDING EROSION & SEDIMENT CONTROL DETAILS, ETC.

DMH
2-10-15

SURVEYING AND MAPPING SERVICES PERFORMED BY:

ALLEGHENY SURVEYS, INC.

1-800-482-8606

Birch River Office
Phone: (304) 649-8606
Fax: (304) 649-8608

237 Birch River Road
P.O. Box 438
Birch River, WV 26610

RECEIVED
Office of Oil and Gas
FEB 17 2015
WV Department of
Environmental Protection

WV 514555
EQT Production Company
L.G. Robinson et. vir. Lease
2600 Acres

Folsom 109

H1, 514495	H9, 514554
H2, 514496	H10, 514555
H3, 514497	H11, 515487
H4, 514498	H12, 515488
H5, 514499	H13, 515489
H6, 514500	H14, 515490
H7, 514552	H15, 515491
H8, 514553	H16, 515492

- Proposed Gas Well
- Located Corner, as noted
- Surface Tract Lines
- Reference Line
- Lease Boundary
- Creek or Drain
- WV County Route
- WV State Route

LATITUDE 39 - 30 - 00

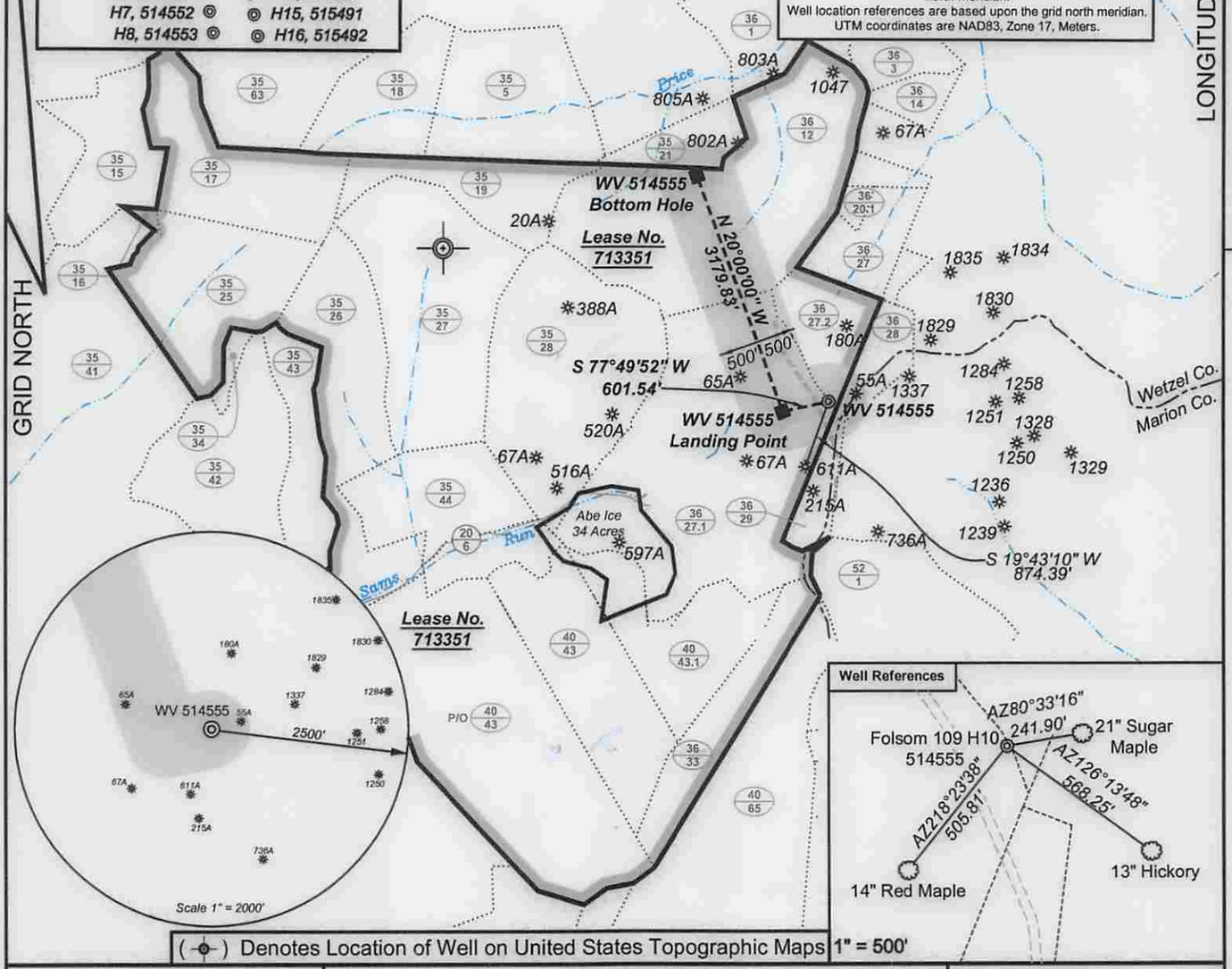
LONGITUDE 80 - 27 - 30

9908'

7070'

WV 514555 coordinates:
NAD 27 N: 358,728.79 E: 1,719,587.86
NAD 27 Lat: 39.480665 Long: -80.493455
NAD 83 UTM N: 4,370,250.66 E: 543,580.41
WV 514555 Landing Point coordinates:
NAD 27 N: 358,601.99 E: 1,718,999.84
NAD 27 Lat: 39.480299 Long: -80.495533
NAD 83 UTM N: 4,370,209.04 E: 543,401.91
WV 514555 Bottom Hole coordinates:
NAD 27 N: 361,590.05 E: 1,717,912.27
NAD 27 Lat: 39.488469 Long: -80.499503
NAD 83 UTM N: 4,371,113.86 E: 543,055.39

West Virginia Coordinate System of 1927 (North Zone) based upon Differential GPS Measurements.
Plat orientation, corner and well ties are based upon the grid north meridian.
Well location references are based upon the grid north meridian.
UTM coordinates are NAD83, Zone 17, Meters.



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

Well References

ALLEGHENY SURVEYS, INC.

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

Ben R. Singleton

P.S. 2092

Ben R. Singleton LICENSED NO. 2092 STATE OF WEST VIRGINIA PROFESSIONAL SURVEYOR

SEAL

FILE NO: 165-13
DRAWING NO: Folsom 109 H10
SCALE: 1" = 2000'
MINIMUM DEGREE OF ACCURACY: 1:2500
PROVEN SOURCE OF ELEVATION: NGS CORS Station

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

DATE: January 8 20 15
OPERATOR'S WELL NO. 514555
API WELL NO H6A
47 - 103 - 03082
STATE COUNTY PERMIT

WELL TYPE: ☐ OIL ☒ GAS ☐ LIQUID INJECTION ☐ WASTE DISPOSAL
(IF GAS) PRODUCTION : ☐ STORAGE ☐ DEEP ☒ SHALLOW
LOCATION: ELEVATION: Original 1507 Proposed 1460 WATERSHED Sams Run of Fishing Creek QUADRANGLE: Wallace
DISTRICT: Grant COUNTY: Wetzel
SURFACE OWNER: Consolidation Coal Company ACREAGE: 175
ROYALTY OWNER: Ed Broome, Inc. et. al. LEASE NO: 713351 ACREAGE: 2600
PROPOSED WORK: ☒ DRILL ☐ CONVERT ☐ DRILL DEEPER ☒ FRACTURE OR STIMULATE ☐ PLUG OFF OLD FORMATION
☐ PERFORATE NEW FORMATION ☐ OTHER PHYSICAL CHANGE IN WELL (SPECIFY)
☐ PLUG AND ABANDON ☐ CLEAN OUT AND REPLUG TARGET FORMATION: Geneseo ESTIMATED DEPTH: TVD 7700

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

WW-6A1
(5/13)

Operator's Well No. 514555

47 Pn 30 - 0 -

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.	1/8 Min Pd Royalty	Book/Page
713351	L.G. Robionson & J.S. Robinson	J.E. Carhahan		DB 73/266
	J.E. Carhahan	Carnegie Natural Gas Company		LB 22/313 Doddridge
	Carnegie Natural Gas Company	Carnegie Production Company		LB 78A/513
	Carnegie Production Company (USX)	Equitable Resources, Inc.		Unrecorded Purchase & Sale Agreement
	Equitable Resources, Inc.	EQT Production Company, a subsidiary of EQT Corporation		CB 13/230

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

RECEIVED
Office of Oil and Gas
FEB 09 2015
WV Department of Environmental Protection

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

47 10303082
47 1030-C

PURCHASE AND SALE AGREEMENT

PURCHASE AND SALE AGREEMENT, dated as of May 27, 1999 (this "Agreement"), by and between USX CORPORATION, a Delaware corporation, ("USX") and EQUITABLE RESOURCES, INC., a Pennsylvania corporation (hereinafter referred to as "Buyer").

WHEREAS, USX owns directly or indirectly all of the outstanding capital stock or other evidence of an equity interest of the following companies (each a "Carnegie Company" and collectively the "Carnegie Companies"), which are involved in one or more of the production, gathering, transportation, treatment, distribution and sale of natural gas: (i) Carnegie Natural Gas Company, a Pennsylvania corporation, ("Carnegie"), (ii) Carnegie Interstate Pipeline Company, a Delaware corporation, ("CIPCO"), (iii) Carnegie Production Company, a Pennsylvania corporation, ("CPC"), (iv) Carnegie Natural Gas Sales, Inc., a Delaware corporation, ("CNGS") and (v) Carnegie Gas Storage, LLC, a Delaware limited liability company, ("CGS"); and

WHEREAS, USX desires to sell to Buyer and Buyer desires either for itself and/or one or more designated subsidiaries to purchase from USX one hundred percent (100%) of the capital stock and other evidence of equity interest in the Carnegie Companies;

NOW, THEREFORE, for and in consideration of the premises and the representations, warranties, covenants and agreements herein set forth and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties hereto, intending to be legally bound, agree as follows:

ARTICLE I
DEFINITIONS

Unless otherwise specifically stated in the text of this Agreement, the following terms shall have the following meanings:

Section 1.1 The "1935 Act" shall mean the Public Utility Holding Company Act of 1935, as amended.

RECEIVED
Office of Oil and Gas
FEB 09 2015
WV Department of
Environmental Protection

5.13 No Third-Party Rights. Nothing in this Agreement, expressed or implied, shall or is intended to confer upon any Person other than the parties hereto or their respective successors or assigns.

47 1030 3082

IN WITNESS WHEREOF, the parties have executed, delivered and entered into this agreement as of the day and year first above written.

USX Corporation

By: _____

Typed Name: V. G. Beghini
Title: Vice Chairman - Marathon Group

Equitable Resources, Inc.

By: _____

Typed Name: David L. Porges
Title: Senior Vice President and Chief Financial Officer

RECEIVED
Office of Oil and Gas
FEB 09 2015
WV Department of
Environmental Protection

WW-6AC
(1/12)

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

47 103 0303 0

Date of Notice Certification: FEB 06 2015

API No. 47 - 103 - 0
Operator's Well No. 514555
Well Pad Name: FOL109

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:	WV	UTM NAD 83 Easting:	4,370,251.00
County:	Wetzel	UTM NAD 83 Northing:	543,580.00
District:	Grant	Public Road Access:	CO 20/11
Quadrangle:	Wallace	Generally used farm name:	Consolidation Coal Co
Watershed:	Sams Run of Fishing Creek		

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.

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:	OOG OFFICE USE ONLY
*PLEASE CHECK ALL THAT APPLY	
☐ NOTICE OF SEISMIC ACTIVITY or ☑ NOTICE NOT REQUIRED BECAUSE NO SEISMIC ACTIVITY WAS CONDUCTED	☐ RECEIVED/NOT REQUIRED
☑ NOTICE OF ENTRY FOR PLAT SURVEY or ☐ NO PLAT SURVEY WAS CONDUCTED	☐ RECEIVED
☐ NOTICE OF INTENT TO DRILL or ☑ NOTICE NOT REQUIRED BECAUSE NOTICE OF ENTRY FOR PLAT SURVEY WAS CONDUCTED OR ☐ WRITTEN WAIVER BY SURFACE OWNER (PLEASE ATTACH)	☐ RECEIVED/NOT REQUIRED
☑ NOTICE OF PLANNED OPERATION	☐ RECEIVED
☑ PUBLIC NOTICE	☐ RECEIVED
☑ NOTICE OF APPLICATION	☐ RECEIVED

RECEIVED
Office of Oil and Gas
FEB 09 2015
WV Department of
Environmental Protection

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.

WW-6AC
(1/12)

Certification of Notice is hereby given:

THEREFORE, I _____, 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.

4710303082

Well Operator:	EQT Production Company	Address:	P.O. Box 280
By:	Victoria J. Roark		Bridgeport, WV 26330
Its:	Permitting Supervisor	Facsimile:	304-848-0040
Telephone:	304-848-0076	Email:	vroark@eqt.com

OFFICIAL SEAL
STATE OF WEST VIRGINIA
NOTARY PUBLIC
NOTARY SEAL Pamela Sykes
EQT Production
PO Box 280
Bridgeport, WV 26330
My Commission Expires Aug. 24, 2022

Subscribed and sworn before me this 6 day of Feb ,2015

_____ Notary Public

My Commission Expires 8-24-22

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.

RECEIVED
Office of Oil and Gas
FEB 09 2015
WV Department of
Environmental Protection

WW-6A
(9-13)

API NO. 47 - 103 - 0
OPERATOR WELL NO. 514555
Well Pad Name: FOL109

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: FEB 06 2015 Date Permit Application Filed: ~~FEB 06 2015~~ 47 103 0308 2

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 a 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 requires a receipt or signature confirmation, copies of the application, the erosion and sediment control plan required by section seven of plat 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; 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 disturbance as described in the erosion and sediment control plan submitted pursuant to subsection (c), section seven 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 record of the surface tract or tracts overlying the oil and gas leasehold being developed by the proposed well work, if the surface tract is to construction, enlargement, alteration, repair, removal or abandonment of any impoundment or pit as described in section nine of this water purveyor who is known to the applicant to have a water well, spring or water supply source located within one thousand five which is used to provide water for consumption by humans or domestic animals; and (6) The operator of any natural gas storage field 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 in the lands, the applicant may serve the documents required upon the person described in the records of the sheriff required to be 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 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 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: Consolidation Coal Co
Address: Engineering and Operations Support Dept - Coal
CNX Center 1000 Consol Energy Dr
Canonsburg, PA 15317
see attached

Name: 0
Address: 0
0
0

☑ SURFACE OWNERS(s) (Road and/or Other Disturbance)
Name: Consolidation Coal Co
Address: Engineering and Operations Support Dept - Coal
CNX Center 1000 Consol Energy Dr
Canonsburg, PA 15317
see attached

Name: 0
Address: 0
0
0

☑ SURFACE OWNER(s) (Impoundments/Pits)
Name: Consolidation Coal Co
Address: Engineering and Operations Support Dept - Coal
CNX Center 1000 Consol Energy Dr
Canonsburg, PA 15317
see attached

☑ COAL OWNER OR LESSEE
Name: Murray American Energy Inc
Address: 1 Bridge Street
Monongah WV 26554
0
See attached for additional coal owners.

☐ COAL OPERATOR
Name: 0
Address: 0
0
0

☑ SURFACE OWNER OF WATER WELL AND/OR WATER PURVEYOR(s)
Name: Consolidation Coal Co
Address: 1000 Consol Energy Dr
Canonsburg, PA 15317
0

☐ OPERATOR OF ANY NATURAL GAS STORAGE FIELD
Name:
Address:

*Please attach additional forms if necessary

RECEIVED
Office of Oil and Gas
FEB 09 2015
WV Department of
Environmental Protection

WW6-A

Additional Surface Owners:

Coastal Forest Resources Company
P.O. Box 709
Buckhannon, WV 26201

4710303082

Additional Surface Owners: Pits/Impoundments

Coastal Forest Resources Company
P.O. Box 709
Buckhannon, WV 26201

Tall Timber Inc
4464 Mannington Road
Smithfield, WV 26437

Additional Surface Owners: Access Road

Coastal Forest Resources Company
P.O. Box 709
Buckhannon, WV 26201

James W Moore et al
707 Quaker Fork Road
Wallace WV 26448

Tall Timber Inc
4464 Mannington Road
Smithfield, WV 26437

Larry Hood
1007 Sams Run Road
Folsom WV 26348

James Edward Gifford
2145 Big Elk Road
Wallace WV 26448

Additional Coal Owners

Murray American Energy Inc
C/O Murray Energy Corporation
46226 National Road
St Clairsville OH 43950

CNX RCPC LLC
CNX Center
1000 Consol Energy Drive
Canonsburg PA 15317

RECEIVED
Office of Oil and Gas
FEB 09 2015
WV Department of
Environmental Protection

Additional Coal Owners

Consol Mining Company LLC
Engineering and Operations Support Dept - Coal
CNX Center
1000 Consol Energy Drive
Canonsburg PA 15317

47 103030 82

State of West Virginia
Property Tax Division
Albert T Summers Center
P.O. Box 2389
Charleston, WV 25301

CBM Lessee:

CNX Gas Company LLC
Engineering and Operations Support Dept - Coal
CNX Center
1000 Consol Energy Drive
Canonsburg PA 15317

RECEIVED
Office of Oil and Gas
FEB 09 2015
WV Department of
Environmental Protection

WW-6A
(8-13)

API NO. 47 - 103 - 0
OPERATOR WELL NO 514555
Well Pad Name: JFO2108

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.

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

RECEIVED
Office of Oil and Gas
FEB 09 2015
WV Department of
Environmental Protection

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

RECEIVED
Office of Oil and Gas
FEB 09 2015
WV Department of
Environmental Protection

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.

WW-6A
(8-13)

API NO. 47 - 103 - 0
OPERATOR WELL NO. 514555
Well Pad Name: FOL109

4710303082

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.

RECEIVED
Office of Oil and Gas

FEB 09 2015

WV Department of
Environmental Protection

Notice is hereby given by:

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:	304-848-0041

47 103 0308 2

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.

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 n 6 day of Feb , 2015

Notary Public

My Commission Expi 8-24-22

OFFICIAL SEAL
STATE OF WEST VIRGINIA
NOTARY PUBLIC
Pamela Sykes
EQT Production
PO Box 280
Bridgeport, WV 26330
My Commission Expires Aug. 24, 2022

RECEIVED
Office of Oil and Gas
FEB 09 2015
WV Department of
Environmental Protection

Topo Quad: Wallace 7.5' Scale: 1 " = 2000'

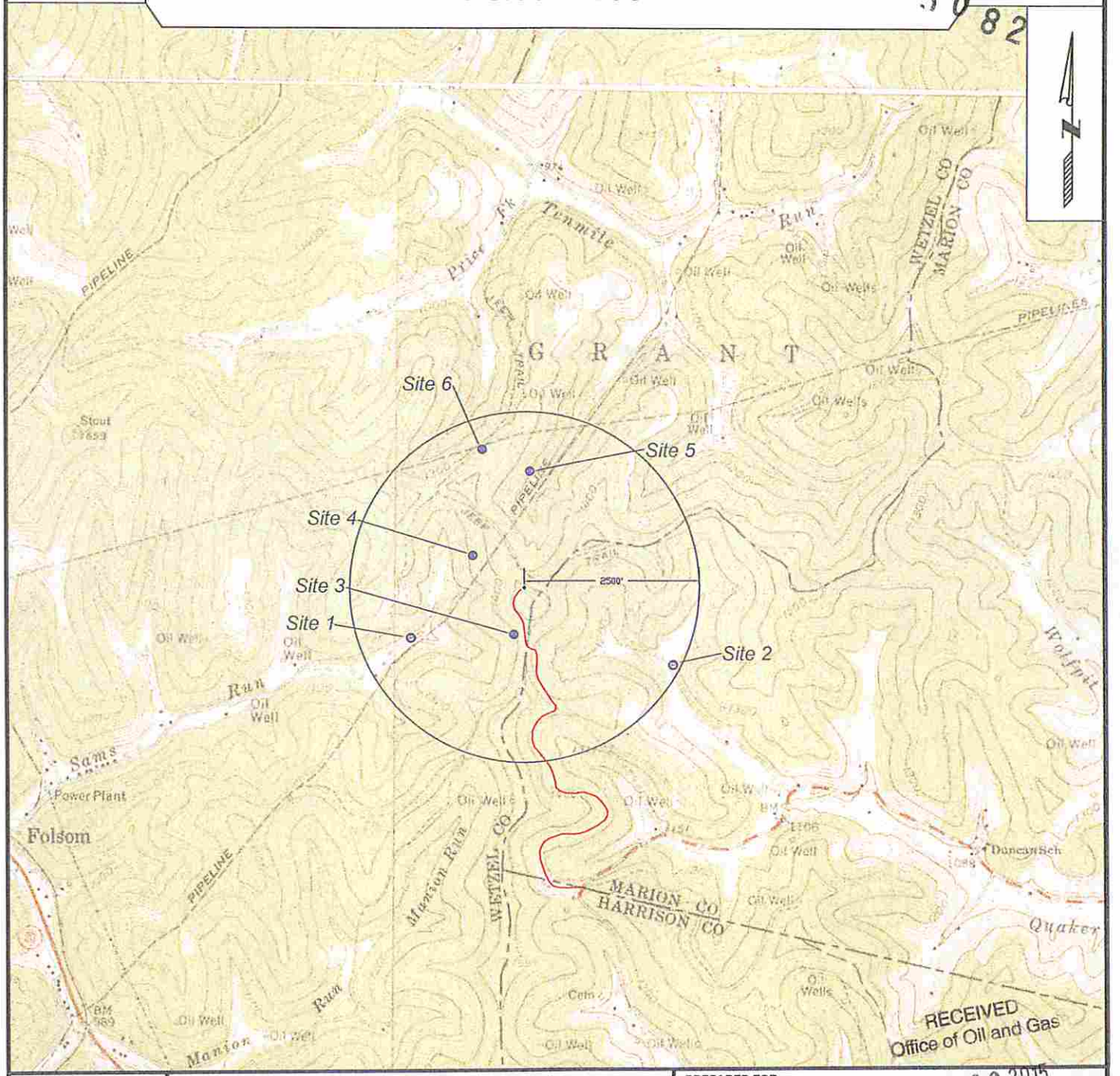
County: Wetzel Date: November 25, 2014

District: Grant Project No: 165-34-00-13

47 103 0308 2

Water

Folsom 109



RECEIVED
Office of Oil and Gas
FEB 09 2015
WV Department of
Environmental Protection

SURVEYING AND MAPPING SERVICES PERFORMED BY:

ALLEGHENY SURVEYS, INC.

1-800-482-8606
237 Birch River Road
Birch River, WV 26610
PH: (304) 649-8606
FAX: (304) 649-8608

PREPARED FOR:

EQT Production Company

P.O. Box 280
Bridgeport, WV 26330

WW-6A3
(1/12)

Operator Well No. FOL109 Lease 713351

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: 7/1/2014 **Date of Planned Entry:** 7/8/2014

4 7 1 0 3 0 3 0 8 2

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

[ ] PERSONAL SERVICE [X] 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:

[X] **SURFACE OWNER(S)** and Coal
Consolidation Coal Company
Name: Engineering & Operations Support Dept. Coal
Address: 1000 CONSOL Energy Drive
Canonsburg, PA 15317-6506

[ ] **MINERAL OWNER(S)**
Name:
Address:

[X] **COAL OWNER(S)** Surface & Coal
Murray American Energy Inc.
Name: Troy Freels
Address: 1 Bridge St.
Monongah, WV 26554-1076

*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:	West Virginia	Approx. Latitude & Longitude:	39.47413 / -80.50296
County:	Wetzel	Public Road Access:	CR 20/6
Dist/Map/Par:	Grant / Map 40 / Parcel 43, 43.1	Watershed:	Sams Run
Quadrangle:	Folsom	Generally Used Farm Name:	

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 57th 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.

Notice is hereby given by:

Well Operator:	EQT Production Company	Address:	115 Professional Place, Bridgeport, WV 26330
Telephone:	304-848-0099	EQT Representative:	Kathy Kugel
Facsimile:	304-848-0040	Signature:	Kathy Kugel
Email:	eqtlandentrynotice@eqt.com		

RECEIVED
Office of Oil and Gas
FEB 03 2015
WV Department of
Environmental Protection

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.

WW-6A3
(1/12)

Operator Well No. FOL109 Lease 713351

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: 7/1/2014 **Date of Planned Entry:** 7/8/2014

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

4710303082

☐ 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: _____

Address: _____

☒ MINERAL OWNER(S)

Name: Ed & Douglas Broome

Address: PO Box 186
Glenville, WV 26351

☐ COAL OWNER(S) OR LESSEE(S)

_____

*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:	West Virginia	Approx. Latitude & Longitude:	39.47413 / -80.50296
County:	Wetzel	Public Road Access:	CR 20/6
Dist/Map/Par:	Grant / Map 40 / Parcel 43, 43.1	Watershed:	Sams Run
Quadrangle:	Folsom	Generally Used Farm Name:	

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 57th 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.

Notice is hereby given by:

Well Operator:	EQT Production Company	Address:	115 Professional Place, Bridgeport, WV 26330
Telephone:	304-848-0099	EQT Representative:	Kathy Kugel
Facsimile:	304-848-0040	Signature:	Kathy Kugel
Email:	eqtlandentrynotice@eqt.com		

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 its 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.

RECEIVED
Office of Oil and Gas
FEB 09 2015
WV Department of
Environmental Protection

WW-6A5
(1/12)

Operator Well No. 514555

4710303082

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: FEB 06 2015 **Date Permit Application Filed:** FEB 06 2015

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

☑ CERTIFIED MAIL RETURN RECEIPT REQUESTED ☐ HAND 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: Consolidation Coal Co
Address: Engineering and Operations Support Dept - Coal
CNX Center 1000 Consol Energy Dr
Canonsburg PA 15317

Name: James Edward Gifford
Address: 2145 Big Elk Rd
Wallace WV 26448

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:	4,370,251.000000
County:	Wetzel		Northing:	543,580.000000
District:	Grant	Public Road Access:		CO 20/11
Quadrangle:	Wallace	Generally used farm name:		Consolidation Coal Co
Watershed:	Sams Run of Fishing 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.

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.

RECEIVED
Office of Oil and Gas
FEB 09 2015
WV Department of
Environmental Protection

WW-6A5
(1/12)

Operator Well No. 514555

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

47 1030308 2

Notice Time Requirement: notice shall be provided no later than the filing date of permit application.
Date of Notice: FEB 06 2015 **Date Permit Application Filed:** FEB 06 2015

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

☑ CERTIFIED MAIL RETURN RECEIPT REQUESTED ☐ HAND 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: Coastal Forest Resources Co
Address: P.O. Box 709
Buckhannon WV 26201

Name: James W Moore et al
Address: 707 Quaker Fork
Wallace WV 26448

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:	4,370,251.000000
County:	Wetzel		Northing:	543,580.000000
District:	Grant	Public Road Access:		CO 20/11
Quadrangle:	Wallace	Generally used farm name:		Consolidation Coal Co
Watershed:	Sams Run of Fishing 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.

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.

RECEIVED
Office of Oil and Gas
FEB 06 2015
WV Department of
Environmental Protection

WW-6A5
(1/12)

Operator Well No. 514555

4-1030382

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: FEB 06 2015 **Date Permit Application Filed:** FEB 06 2015

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

☑ CERTIFIED MAIL RETURN RECEIPT REQUESTED ☐ HAND 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: Tall Timber Inc
Address: 4464 Mannington Road
Smithfield WV 26437

Name: Larry Hood
Address: 1007 Sams Run Road
Folsom WV 26348

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:	4,370,251.000000
County:	Wetzel		Northing:	543,580.000000
District:	Grant	Public Road Access:		CO 20/11
Quadrangle:	Wallace	Generally used farm name:		Consolidation Coal Co
Watershed:	Sams Run of Fishing 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.

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.

RECEIVED
Office of Oil and Gas
FEB 09 2015
WV Department of
Environmental Protection

WW-6AW
(1-12)

API NO. _____
OPERATOR WELL NO. 514555 FOL109 H10
Well Pad Name: FOL109

47 103 0109

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

VOLUNTARY STATEMENT OF NO OBJECTION

Instructions to Persons Named on Page WW-6A
The well operator named on page WW-6A is applying for a permit from the State of West Virginia to conduct oil or gas well work. Well work permits are valid for twenty-four (24) months. Please contact the listed well operator and the Office of Oil and Gas if you do not own any interest in the listed surface tract.

Comment and Waiver Provisions
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.

Pursuant to West Virginia Code § 22-6A-8(b) No permit may be issued less than thirty days after the filing date of the application for any well work except plugging or replugging; and no permit for plugging or replugging may be issued less than five days after the filing date of the application except a permit for plugging or replugging a dry hole: *Provided,* That if the applicant certifies that all persons entitled to notice of the application under the provisions of subsection (b), section ten of this article have been served in person or by certified mail, return receipt requested, with a copy of the well work application, including the erosion and sediment control plan, if required, and the well plat, and further files written statements of no objection by all such persons, the secretary may issue the well work permit at any time.

VOLUNTARY STATEMENT OF NO OBJECTION

I, Alex O'Neill, hereby state that I have read the Instructions to Persons Named on Page WW-6A and the associated provisions listed above, and that I have received copies of a Notice of Application, an Application for a Well Work Permit on Form WW-6A and attachments consisting of pages one (1) through _____, including the erosion and sediment control plan, if required, and the well plat, all for proposed well work on the tract of land as follows:

State:	West Virginia	West Virginia North State Plane NAD 27	East:	1,719,588.000 ft
County:	Wetzel		North:	358,729.000 ft
District:	Grant	Public Road Access:		CO 20/11
Quadrangle:	FOLSOM	Generally used farm name:		Consolidation Coal Company
Watershed:	Sams Run of Fishing Creek			

I further state that I have no objection to the planned work described in these materials, and I have no objection to a permit being issued on those materials, **provided that EQT Production Company drills the well on West Virginia North State Plane NAD 27 coordinates of North 358,729.000 ft, East 1,719,588.000 ft in accordance with the Agreement between Consolidation Coal Company and Murray American Energy, Inc. and EQT Production Company dated 2/2/2015.**

*Please check the box that applies

- ☐ SURFACE OWNER
- ☐ SURFACE OWNER (Road and/or Other Disturbance)
- ☐ SURFACE OWNER (Impoundments/Pits)
- ☒ COAL OWNER OR LESSEE
- ☒ COAL OPERATOR
- ☐ WATER PURVEYOR
- ☐ OPERATOR OF ANY NATURAL GAS STORAGE FIELD

FOR EXECUTION BY A NATURAL PERSON

Signature: _____
Print Name: _____
Date: _____

FOR EXECUTION BY A CORPORATION, ETC.

Company: Consolidation Coal Company
By: Alex O'Neill
Its: Coal, Oil & Gas Relations Manager
Signature: _____
Date: 2/2/2015

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.

RECEIVED
Office of Oil and Gas
FEB 09 2015
WV Department of
Environmental Protection

4710303082

4710303082

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 13, 2015

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

Subject: DOH Permit for the FOL 109 Pad Site, Marion County

514495 FOL109H1	514496 FOL109H2	514497 FOL109H3
514498 FOL109H4	514499 FOL109H5	514500 FOL109H6
514552 FOL109H7	514553 FOL109H8	514554 FOL109H9
514555 FOL109H10	515487 FOL109H11	515488 FOL109H12
515489 FOL109H13	515490 FOL109H14	515491 FOL109H15
515492 FOL109H16		

Dear Mr. Martin,

This well site will be accessed from Permit #04-2015-0152 applied for by EQT Production Company for access to the State Road. The well site is located off of Marion County Route 32 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.

RECEIVED
Office of Oil and Gas

FEB 17 2015

WV Department of
Environmental Protection

Very Truly Yours,

Gary K. Clayton

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

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

Anticipated Frac Additives

Chemical Names and CAS numbers

4-1030308 2

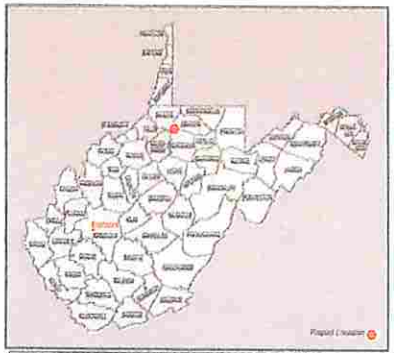
Material	Ingredient	CAS Number
Water		
Sand	Hydrotreated light petroleum distillate	14808-60-7
Friction Reducer	Tributyl tetradecyl phosphonium chloride	64742-47-8
Biocide	Ammonium chloride	81741-28-8
Scale Inhibitor	Hydrochloric Acid	12125-02-9
15% Hydrochloric Acid	Propargyl Alcohol	7647-01-0
Corrosion 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

RECEIVED
Office of Oil and Gas
FEB 09 2015
WV Department of
Environmental Protection

4710303082

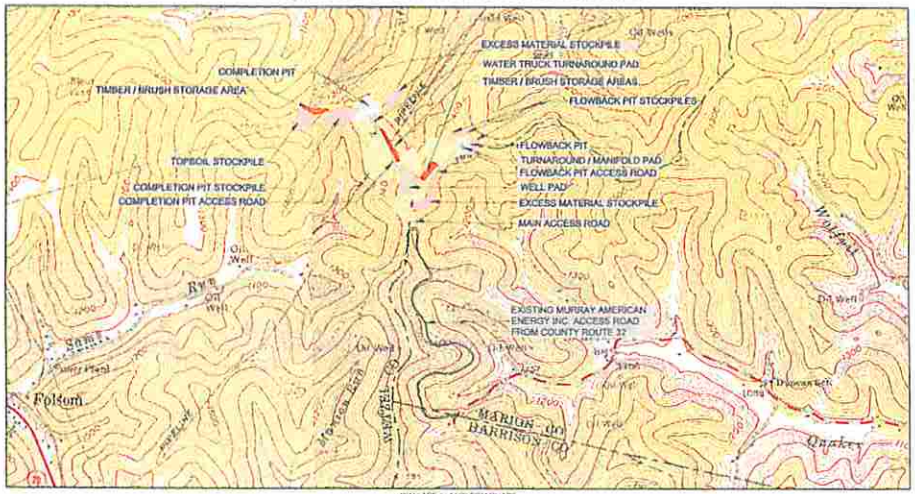
RECEIVED
Office of Oil and Gas
FEB 17 2015
WV Department of Environmental Protection

FOL 109
FINAL SITE DESIGN, CONSTRUCTION PLANS, & EROSION & SEDIMENT CONTROL PLANS
EQT PRODUCTION COMPANY



FLOODPLAIN CONDITIONS		
DO SITE CONSTRUCTION ACTIVITIES TAKE PLACE IN FLOODPLAIN		NO
PERMIT NEEDED FROM COUNTY FLOODPLAIN COORDINATOR		NO
HEC-RAS STUDY COMPLETED		N/A
FLOODPLAIN SHOWN ON DRAWINGS		NO
FIRM MAP NUMBER(S) FOR SITE	54103C0285C & 54049C0155D	
ACREAGES OF CONSTRUCTION IN FLOODPLAIN:	N/A	

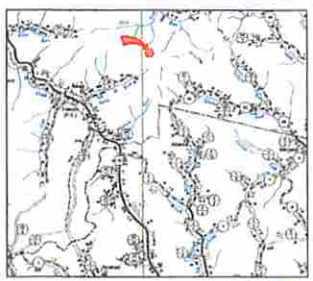
NO WETLANDS ARE IMPACTED OR STREAMS IMPACTED



WALLACE 6-MIN FOLSOM QUADS
FISHING CREEK AND TENMILE RUN WATERSHEDS

SITE LOCATIONS
NAD 83

	LATITUDE	LONGITUDE
Center of Well Pad	39.480853	-80.493307
Center of Flow Back Pit	39.482593	-80.486851
Center of Completion Pit	39.484412	-80.493858
Sta. 0+00 Main Access	39.478090	-80.493231
Murray Access at County Rt. 32	39.488882	-80.495175



GRAPHIC SCALE
1 INCH = 1 MILE

West Virginia Coordinate System of 1983
State Plane Grid North
Elevations NAVD88
Established By Survey Grade GPS

AFFECTED PROPERTIES FOR PROPOSED WELL PAD SITE

MANNINGTON DISTRICT - MARION COUNTY, WV
GRANT DISTRICT - WETZEL COUNTY, WV
SANDS DISTRICT - HARRISON COUNTY, WV

Larry Hood
TM 25 - PCL 29
117 Acres±
SITE DISTURBANCE

TOPSOIL STOCKPILE = 0.31 ACRES
TOTAL DISTURBANCE = 6.27 ACRES
TOTAL WOOD REMOVAL = 6.21

Coastal Forest Resources
TM 38 - PCL 12
258 Acres±
SITE DISTURBANCE

TOPSOIL STOCKPILE = 1.79 ACRES
TIMBER / BRUSH STORAGE = 1.82 ACRES
COMPLETION PIT STOCKPILE = 1.86 ACRES
COMPLETION PIT = 1.68 ACRES
TOTAL DISTURBANCE = 5.45
TOTAL WOOD REMOVAL = 5.45 ACRES

Tall Timber
TM 38 - PCL 24
172 Acres±
SITE DISTURBANCE

FLOWBACK PIT = 0.82 ACRES
FLOWBACK PIT STOCKPILES = 1.13 ACRES
TOTAL DISTURBANCE = 2.31 ACRES
TOTAL WOOD REMOVAL = 2.23 ACRES

Coastal Lumber Company
TM 38 - PCL 21
18 Acres±
SITE DISTURBANCE

EXCESS MATERIAL STOCKPILE 3 = 1.58 ACRES
TOTAL DISTURBANCE = 0.58 ACRES
TOTAL WOOD REMOVAL = 0.58 ACRES

Consolidation Coal Co
TM 38 - PCL 27.1
173 Acres±
SITE DISTURBANCE

TOPSOIL STOCKPILE = 1.80 ACRES
COMPLETION PIT STOCKPILE = 4.11 ACRES
COMPLETION PIT = 1.47 ACRES
COMPLETION PIT ACCESS ROAD / TURNAROUND = 11.90 ACRES
WELL PAD = 2.34 ACRES
MAIN ACCESS ROAD = 1.94 ACRES
TOTAL DISTURBANCE = 24.08 ACRES
TOTAL WOODS REMOVAL = 24.08 ACRES

Coastal Forest Resources Company
TM 15 - PCL 27.1
27 Acres±
SITE DISTURBANCE

COMPLETION PIT = 2.26 ACRES
COMPLETION PIT ACCESS ROAD / TURNAROUND = 1.05 ACRES
EXCESS MATERIAL STOCKPILE = 1.79
TIMBER / BRUSH STORAGE = 1.39 ACRES
WELL PAD = 4.63 ACRES
FLOWBACK PIT ACCESS ROAD = 2.73 ACRES
TOTAL DISTURBANCE = 11.86 ACRES
TOTAL WOOD REMOVAL = 11.86 ACRES

Coastal Forest Resources Company
TM 38 - PCL 29
19.6 Acres±
SITE DISTURBANCE

WELL PAD = 0.87 ACRES
TIMBER / BRUSH STORAGE = 1.09 ACRES
FLOWBACK PIT ACCESS RVARS / TURNAROUND = 7.95 ACRES
FLOWBACK PIT = 0.98 ACRES
FLOWBACK PIT STOCKPILE = 1.73 ACRES
TOTAL DISTURBANCE = 12.56 ACRES
TOTAL WOOD REMOVAL = 12.56 ACRES

Consolidation Coal Co
TM 38 - PCL 29
29 Acres±
SITE DISTURBANCE

MAIN ACCESS ROAD = 1.09 ACRES
EXCESS SPOIL STOCKPILE = 0.12 ACRES
WELL PAD = 0.89 ACRES
TOTAL DISTURBANCE = 3.19 ACRES
TOTAL WOOD REMOVAL = 3.08 ACRES

James Wayne Moore et al
TM 53 - PCL 8
67 1/2 Acres±
SITE DISTURBANCE

FLOWBACK PIT ACCESS ROAD = 0.75 ACRES
EXCESS MATERIAL STOCKPILE = 2.09 ACRES
WELL PAD = 0.34 ACRES
FLOWBACK PIT = 0.63 ACRES
FLOWBACK PIT STOCKPILES = 0.11 ACRES
TOTAL DISTURBANCE = 3.33 ACRES
TOTAL WOOD REMOVAL = 3.32 ACRES

Consolidation Coal Company
TM 52 - PCL 8.1
10 Acres±
SITE DISTURBANCE

MAIN ACCESS ROAD = 0.88 ACRES
EXCESS MATERIAL STOCKPILE = 0.05 ACRES
MURRAY ENERGY ACCESS ROAD = 1.13 ACRES
TOTAL DISTURBANCE = 1.88 ACRES
TOTAL WOOD REMOVAL = 0.06 ACRES

Consolidation Coal Company
TM 52 - PCL 9
85 Acres±
SITE DISTURBANCE

MURRAY ENERGY ACCESS ROAD = 1.6 ACRES
TOTAL DISTURBANCE = 1.6 ACRES

Consolidation Coal Company
TM 52 - PCL 30
19.8 Acres±
SITE DISTURBANCE

MURRAY ENERGY ACCESS ROAD = 1.14 ACRES
TOTAL DISTURBANCE = 1.14 ACRES

Consolidation Coal Company
TM 52 - PCL 31
1.08 Acres±
SITE DISTURBANCE

MURRAY ENERGY ACCESS ROAD = 0.83 ACRES
TOTAL DISTURBANCE = 0.83 ACRES

Project Contacts

Field Gray EQT Production Company
304-848-0085 Off

Surveyor & Engineer

Ben Singleton - PS - Allegheny Surveys Inc
304-649-8606 Off

James D. Fields - E.I.T. - Horner Brothers Engineers
304-624-6445 Office

Tom Carothers - PE, PS - Horner Brothers Engineers
304-624-6445 Office

Design Certification

The drawings, construction notes, and reference diagrams attached hereto have been prepared in accordance with the West Virginia Code of State Rules, Division of Environmental Protection, Office of Oil and Gas §35-4-21. This information contained therein reflects the construction of temporary completion and flow back pits. The computed above grade storage volume(s) for the proposed pits is less than 15 acre feet, the filling method shall be pumped, and all pits shall be lined as indicated.

SHEET INDEX

COVER SHEET / LOCATION MAP	1
EXISTING CONDITIONS PLAN	2
OVERVIEW PLAN	3
SCHEDULE OF QUANTITIES	4
CONSTRUCTION, GENERAL AND E&S NOTES	5
MURRAY ROAD	6-8
FINAL DESIGN PLANS	9-14
WELL PAD PROFILE & CROSS SECTIONS	15-22
COMPLETION PIT PROFILE & CROSS SECTIONS	23-25
FLOWBACK PIT PROFILE & CROSS SECTIONS	26
MURRAY ROAD PROFILE & CROSS SECTIONS	27-31
MAIN ACCESS ROAD PROFILE & CROSS SECTIONS	32-34
COMP. PIT ACCESS ROAD PROFILE & CROSS SECTIONS	35-42
FLOWBACK PIT ACCESS ROAD PROFILE & CROSS SECTIONS	43-48
CONSTRUCTION DETAILS	49-51
RECLAMATION PLANS	52-57

PROPOSED WELL LEGEND

H1	LAT:39.480795	LONG:-80.493388
H2	LAT:39.480755	LONG:-80.493378
H3	LAT:39.480714	LONG:-80.493368
H4	LAT:39.480674	LONG:-80.493358
H5	LAT:39.480633	LONG:-80.493348
H6	LAT:39.480593	LONG:-80.493338
H7	LAT:39.480552	LONG:-80.493328
H8	LAT:39.480512	LONG:-80.493318
H9	LAT:39.480790	LONG:-80.493278
H10	LAT:39.480750	LONG:-80.493268
H11	LAT:39.480710	LONG:-80.493258
H12	LAT:39.480669	LONG:-80.493248
H13	LAT:39.480629	LONG:-80.493238
H14	LAT:39.480588	LONG:-80.493228
H15	LAT:39.480548	LONG:-80.493218
H16	LAT:39.480507	LONG:-80.493208

MISS Utility of West Virginia
1-800-245-4848
West Virginia State Law
(Section XIV: Chapter 24-C)
Requires that you call two business days before you dig in the state of West Virginia.
IT'S THE LAW!!

811
Know what's below.
Call before you dig.

DMH
2-10-15

DATE	REVISIONS
1/29/2015	ADDED NEW DELINEATIONS

Date: 12/1/2014
Scale: AS SHOWN
Designed By: TJC
File No.
Plat: 1 of 57

Allegheny Surveys Inc.
P.O. Box 438
237 Birch River Road
Birch River, WV 26610
304-649-8606

Horner Bros. Engineers
Civil Mining, Environmental and Consulting Engineering

EQT

THIS DOCUMENT PREPARED FOR EQT PRODUCTION COMPANY

COVER SHEET / LOCATION MAP
EQT FOL 109
WELL PAD SITE
MANNINGTON DISTRICT - MARION COUNTY, WV
GRANT DISTRICT - WETZEL COUNTY, WV