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

February 09, 2016

WELL WORK PERMIT

Horizontal 6A Well

This permit, API Well Number: 47-1706759, 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: 513068
Farm Name: HAESSLY LAND& TIMBER, LLC
API Well Number: 47-1706759
Permit Type: Horizontal 6A Well
Date Issued: 02/09/2016

Promoting a healthy environment.

API Number: 47 0 17 0675 0

PERMIT CONDITIONS

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

CONDITIONS

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. The operator shall provide to the Office of Oil and Gas the dates of each of the following within 30 days of their occurrence: completion of construction of the well pad, commencement of drilling, cessation of drilling, completion of any other permitted well work, and completion of the well. Such notice shall be provided by sending an email to DEPOOGNotify@wv.gov.

west virginia department of environmental protection

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

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

February 8, 2016

Haessly Land & Timber, LLC
Attn: Norman E. Haessly, Jr., Member
25 Sheets Run Road
Marietta, OH 45750

Re: Permits for EQT Production Co. Well No.'s 513064, 513065, 513066, 513067, 513068 and 513069
API numbers: 47-017-06755, 47-017-06756, 47-017-06757, 47-017-06758, 47-017-06759 and 47-017-06760

Mr. Haessly:

The Office of Oil and Gas (OOG) has reviewed your comments concerning EQT Production Company's permits for the above referenced wells. The comment was sent to the operator for its response. The operator has responded and the response is enclosed for your records.

After considering your comments, the applicant's response, and the inspector's findings, the OOG has determined that the application meets the requirements set forth in Article 6A Chapter 22 of the West Virginia Code and Legislative Rule Title 35 Series 8. Consequently, the OOG is issuing the permits today. For your information and convenience, I am including with this letter a copy of the permits as issued.

As you may know, surface owners are entitled to compensation for damages to their property resulting from oil and gas drilling activity. Absent an agreement by the parties, such damage compensation may be addressed pursuant to Article 7, Chapter 22 of the West Virginia Code.

Please contact me at (304) 926-0499, extension 1547 if you have any questions.

Sincerely,

Charles T. Brewer
Environmental Resource Specialist
WVDEP Office of Oil and Gas
601 57th Street, SE
Charleston, WV 25304
304-926-0499 ext. 1547

EQT

cc: James Martin

Received
Office of Oil & Gas
NOV 18 2015

November 16, 2015

Haessly Land and Timber, LLC
Attn: Norman E. Haessly, Jr., Member
25 Sheets Run Road
Marietta, OH 45750

Re: Objection to permit applications for wells 513064, 513065, 513066, 513067, 513068, 513069 (OXF155 Well Site, Doddridge County) API numbers 47-017-06755, 47-017-06756, 47-017-06757, 47-017-06758, 47-017-06759, 47-017-06760

Dear Mr. Haessly,

This letter is in response to the objection letter filed with the West Virginia Department of Environmental Protection, Office of Oil and Gas on behalf of Haessly Land and Timber, LLC, dated September 23, 2015 for the wells on the OXF155 site, Southwest District, Doddridge County, WV. Respectfully, EQT wishes to respond to your concerns and objections.

The letter states that "*EQT has refused to respond to Haessly's requests to discuss the proposed well locations and their impact on Haessly's timber management and operations.*" EQT and its contractors met with representatives of Haessly Land and Timber, LLC prior to the application of the subject permits. Early on in the planning process, EQT met with Joe Smith, on October. 8, 2014, to examine the site and considered an alternate accesses road with Mr. Smith. EQT then met with Jack Mathers, Haessly's forester on June 9, 2015 to examine the well site and discuss the best way to get the timber out. EQT offered to discuss the designs with Jack Haessly by way of an email dated September 2, 2015. Subsequent to this formal objection, EQT has offered to meet with Jack Mathers by way of three emails dated October 28, 2015, November 3, 2015, and November 9, 2015, please note Jack Haessly was carbon copied on these emails.
Further, the letter states that EQT has disregarded its obligation "*to locate all wells so as to interfere as little as possible with the cultivated portion*" of the leasehold. Prior to permitting the subject wells, the lands in question were carefully examined to select a location which would provide EQT with a large enough area to reasonably accommodate the development of its mineral resources and keep its disturbance of the surface to a minimum. No other suitable location could be located on the leasehold. Additionally, EQT went through great lengths and expense to purchase access and surface use rights from neighboring landowners to reduce the amount of surface use on the subject tract.

The letter goes on to state "*The proposed well sites and road locations will result in the destruction of the valuable timber situate there before it reaches its prime value; these proposed locations will also adversely impact and degrade the timber located there and significantly interfere and disrupt Haessly's management of its timber on the entire tract for decades in the future*". The removal of some timber is a necessary component of developing the mineral estate

Received
Office of Oil & Gas
NOV 18 2015

and would fall under the category of a reasonable use of the surface to develop the mineral estate. Haessly Land and Timber, LLC will be compensated for the timber based on an appraisal dated October 8, 2015and for the value of future timber based on a Timber Growth and Value report dated October 19, 2015, both prepared by David Hill and Associates, LLC.

The letter also states "*the proposed disturbance of approximately 35 acres is clearly excessive and unreasonable as it far exceeds what is reasonably necessary*". Actual disturbance on the subject lands, as shown on the construction plans is 23.57 acres, and is "reasonably necessary" to safely and effectively develop the mineral estate.

Further, the letter states "*the proposed well work violates the terms of the mineral lease upon which EQT relies for its alleged right of entry. The huge area EQT plans to use is far beyond the contemplation of the parties to the 1902 lease.*" The lease reserved only "40 rods around the building on which no well shall be drilled," therefore it would have been in the contemplation of the parties that any of the remaining property could be used to develop the mineral estate.

In summation, EQT's permit applications meet the technical requirement of W.Va. Code 22-6A-8(d) and the accompanying regulations. The review of the permit conducted by the West Virginia Department of Environmental Protection, Office of Oil and Gas, is limited by statute to a determination of the following: (1) whether the proposed well work will constitute a hazard to the safety of persons; (2) whether the plan for soil erosion and sediment control is not adequate or effective; (3) whether damage would occur to publicly owned lands or resources; or (4) whether the proposed well work fails to protect fresh water sources or supplies. Surface owner comments are considered by the Office of Oil and Gas during this determination with regard to those topics. The comments and objections made by way of the September 23, 2015 letter do not appear to pertain to these topics. EQT asserts it has met all requirement under the relevant statutes, W. Va. Code 22-6A-8(d) and 22-6-11, and will request that the permits be granted.

Sincerely,

David A. Grubb, CPL
Regional Land Manager

HAESSLY LAND & TIMBER, LLC

25 Sheets Run Road
Marietta, OH 45750
Telephone: 740-373-6681
Fax: 740-568-0840

September 23, 2015

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Office of Oil & Gas
SEP 24 2015
WV Department of
Environmental Protection

James Martin, Chief
Gene Smith, Assistant Chief - Permitting
W. Va. Department of Environmental Protection
Oil and Gas Division
601 57th Street, S.E.
Charleston, West Virginia 25304

RE: Surface and Coal Owner's Comments In Response to EQT's Proposed Well Work Permits 503064, 503065, 503067, 503068, 503069

Dear Sirs:

Haessly Land and Timber LLC ("Haessly") is the owner of the surface and fractional coal, oil and gas mineral interests in a tract of land in Doddridge County, West Virginia ("Haessly tract") where EQT plans to drill Marcellus wells on the 615-acre tract and has requested well work permits from the Oil and Gas Division of WVDEP.[1] Haessly purchased the tract in 1973 and has been managing it since then for a sustainable supply of quality hardwood trees.

As a surface and mineral owner, Haessly submits this letter that serves as (1) Haessly's comments and objections to the location and acreage proposed for the new wells and access roads and (2) a request that the well permits not be issued until the planned location and acreage of the well and access roads is modified to change to a mutually agreed upon location after negotiations between Haessly and EQT.

The lease by which EQT purports to have the right to enter Haessly's land and begin work as set forth in its well work permit application requires EQT, as successor lessee, to covenant and to agree "to locate all wells so as to interfere as little as possible with the cultivated portion" of the leasehold.[2] In total disregard for its obligations under the lease, the proposed well site and attendant road construction is in the heart of ***the highest quality***

[1] See copy of notice attached hereto.
[2] See copy of lease attached hereto.

stand of hardwood trees on the tract --- a location that creates the greatest possible damage to and interference with Haessly's silvacultural hardwood crop.

EQT has refused to respond to Haessly's requests to discuss the proposed well locations and their impact on Haessly's timber management and operations. EQT also refuses to even discuss, much less negotiate, reasonable locations of its proposed wells and roads "so as to interfere as little as possible with the cultivated [Silvacultural] portion" of Haessly's tract. The proposed well sites and road locations will result in the destruction of the valuable timber situate there before it reaches its prime value; these proposed locations will also adversely impact and degrade the timber located there and significantly interfere and disrupt Haessly's management of its timber on the entire tract for decades in the future.

Moreover, the proposed disturbance of approximately 35 acres is clearly excessive and unreasonable as it far exceeds what is reasonably necessary for EQT to extract the Marcellus gas from the tract and will cause irreparable harmful soil erosion and stream sedimentation that would be avoided by carefully designed well planning.

Finally, as noted above, the proposed well work violates the terms of the mineral lease upon which EQT relies for its alleged right of entry. The huge area EQT plans to use is far beyond the contemplation of the parties to the 1902 lease.

For these reasons, Haessly comments and objects to the location and acreage of EQT's proposed well sites and requests that the well permits be denied until the well locations are negotiated.

Sincerely yours,

Norman E. Haessly, Jr.
Member

cc: Victoria J. Roark, EQT Permitting Supervisor

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Office of Oil and Gas
SEP 14 2015
WV Department of
Environmental Protection

EQT

Where Energy Meets Innovation

EQT White Oaks Office
P.O. Box 280
Bridgeport, WV 26330

CERTIFIED MAIL

Haessly Land & Timber LLC
25 Sheets Run Rd.
Marietta OH 45750

Dear Sir or Madam

Re: Proposed 513064, 513065, 513066, 513067, 513068,513069 Gas Well
Southwest District, Doddridge County, WV

Pursuant to Section 22B-1-9 of the West Virginia Code, enclosed please find copies of the following documents:

- O Form WW-6A Notice of Application for a Well Work Permit (1 copy)
- O Form WW-6A(1) Lessor/Lessee Disclosure (1 copy)
- O Form WW-6B Application for a Well Work Permit (1 copy)
- O Well Location Plat Certified Copy of WVDEP Well Location Plat
- O Form WW-9 Reclamation Plan and Site Registration Application (1 copy)
- O Water Management Plan
- O Well Site Safety Plan

This application is being filed by EQT Production with the Administrator of the Office of Oil and Gas of the West Virginia Department of Environmental Protection. If you have no objections to this well being drilled, please sign the Waiver on Form WW-6AW and return one copy to our office.

Thank you for your cooperation and consideration. Should you have any questions, comments, or require any additional information, please feel free to contact me at (304) 848-0082.

Sincerely,
EQT PRODUCTION COMPANY

Victoria J. Roark
Permitting Supervisor-WV

Enclosures

See Lease Book 183, Pg. 207
See Lease Bk 154 Pg 475
See Lease Book 32, Page 83
See Lease Book 36, Page 400
See Lease Book 44, Page 425, 426
See Lease Book 45, Page 107
See Lease Book 48, Page 308

See Lease Bk. 185, Pg. 149 1922
See Lease Book 102, Page 574
See Lease Bk. 129, pg. 114

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Book 21

AGREEMENT, Made and entered in the 10th day of May A. D. 1902 by and between Eli Nutter and Mary E. Nutter his wife of Oxford P. O., County of Doddridge and State of W. Virginia parties of the first part, and J. L. Newman party of the second part

WITNESSETH, That the said parties of the first part, for and in consideration of the sum of One Dollar, to them in hand well and truly paid by the said parties of the second part, the receipt of which is hereby acknowledged, and of the covenants and agreements hereinafter contained on the part of the said parties of the second part, to be paid, kept and performed, has.....granted, demised, leased and let, and by these presents do.....grant, demise, lease and let unto the said parties of the second part, his heirs, executors, administrators or assigns, for the sole and only purpose of drilling and operating for oil and gas, and of laying pipe lines, and of building tanks, stations and structures thereon to take care of the said products, all that certain tract of land situate in South West District, Doddridge County, and State of W. Va., on waters of Southwest bounded substantially as follows:

On the North by lands of Wesley Smith & others

On the East by lands of Lewis Maxwell

On the South by lands of W. B. Maxwell

On the West by lands of G. L. Nutter & others

containing 615 acres, more or less, and being same land conveyed to the first part....., by _____ bearing date _____ 19____, reserving, however, therefrom 40 rods feet around the building on which no well shall be drilled by either party except by mutual consent. It is agreed that this lease shall remain in force for the term of ten years from this date, and as long thereafter as oil or gas, or either of them is produced therefrom by the parties of the second part, his heirs, executors, administrators or assigns.

IN CONSIDERATION OF THE PREMISES, the said party of the second part covenants and agrees: 1st—To deliver to the credit of the first parties, their heirs or assigns, free of cost, in the pipe line to which it may connect its wells, the equal one-eighth part of all oil produced and saved from the leased premises; and 2d—to pay $300 Dollars per year for the gas from each and every gas well drilled on said premises, the product from which is used off the premises, and said payment to be made on each well within 60 days after commencing to use the gas therefrom, as aforesaid, and to be paid quarterly thereafter while the gas from said well is so used.

First parties shall have gas for household use, free of cost, from any paying gas well on this farm, by making their own connection at the well, or line.

Second parties covenants and agrees to locate all wells so as to interfere as little as possible with the cultivated portions of the farm. And further, to complete a well on said premises within One months from the date hereof, or pay at the rate of ($ 153.75) One hundred fifty-three 75/100 Dollars, quarterly in advance, for each additional three months such completion is delayed from the time above mentioned for the completion of such well until a well is completed; and it is agreed that the completion of such well shall be and operate as a full liquidation of all rental under this provision during the remainder of the term of this lease. Such payments may be made direct to the lessor, by check or draft, or deposited to their credit in Oxford P. O. Doddridge Co. W. Virginia

IT IS AGREED that the second parties is to have the privilege of using sufficient water from the premises to run all necessary machinery, and at any time to remove all machinery and fixtures placed on such premises; and, further, upon the payment of alle multi dell Dollars, at any time, by the party of the second part, his heirs, successors or assigns, to the parties of the first parties, their heirs, successors or assigns, said part..... of the second part, his heirs, successors or assigns shall have the right to surrender this lease for cancellation, after which all payments and liabilities thereafter to accrue under and by virtue of its terms shall cease and determine, and this lease become absolutely null and void.

IN WITNESS WHEREOF, the parties to this agreement have hereunto set their hands and seals the day and year above written.

Witness:

Eli Nutter [SEAL.]
Mary E. Nutter [SEAL.]
[SEAL.]
J. L. Newman [SEAL.]
[SEAL.]

STATE OF WEST VIRGINIA, } To-wit:
County of Doddridge } Jas. M. Gribble, a Notary Public of the in and for said County of Doddridge, do certify that Eli Nutter and Mary E. Nutter his wife whose names are signed to the writing above, bearing date the 10th day of May A. D. 1902 has this day acknowledged the same before me, in my said County.
GIVEN under my hand this 10th day of May 1902

Jas. M. Gribble
Notary Public

STATE OF WEST VIRGINIA, } To-wit:
County of _____ in and for said County and State, do certify that _____ whose name _____ signed to the writing above, bearing date the _____ day of _____ 190__ has this day acknowledged the same before me, in my said County.
GIVEN under my hand this _____ day of _____ 190__

STATE OF WEST VIRGINIA, Doddridge County, County Clerk's Office, Nov. 12 1902
the foregoing writing and the annexed Certificate were this day admitted to record in this office.
Teste: D. P. Stuart Clerk.

WW - 6B
(4/15)

API NO. 47 - 017 - 06759
OPERATOR WELL NO. 513068
Well Pad Name: OXF155

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

1) Well Operator: EQT Production Company | 306686 Operator ID | 017 County | 7 District | 526 Quadrangle

2) Operator's Well Number: 513068 Well Pad Name OXF155

3) Farm Name/Surface Owner : Haessly Land & Timber LLC Public Road Access: RT 21

4) Elevation, current ground: 1,212.5 Elevation, proposed post-construction: 1,199.0

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

Other _____

(b) If Gas: Shallow • Deep _____

Horizontal •

Michael Goff
9-30-15

6) Existing Pad? Yes or No: no

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

Target formation is Marcellus at a depth of 6635 with the anticipated thickness to be 57 feet and anticipated target pressure of 2951 PSI

Top of Marcellus is 6611

8) Proposed Total Vertical Depth: 6635

9) Formation at Total Vertical Depth: Marcellus

10) Proposed Total Measured Depth: 10,417

11) Proposed Horizontal Leg Length 3,103

12) Approximate Fresh Water Strata Depths: 59, 183, 204, 262, 419

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

14) Approximate Saltwater Depths: 1,397

15) Approximate Coal Seam Depths: 132, 252, 292, 532

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? Yes _____ No x

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

47 017 06759
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Office of Oil & Gas
OCT 01 2015

WW - 6B
(4/15)

API NO. 47 - 017 -
OPERATOR WELL NO. 513068
Well Pad Name: OXF155

CASING AND TUBING PROGRAM

18)

TYPE	Size (in)	New or Used	Grade	Weight per ft. (lb/ft)	FOOTAGE: For Drilling (ft)	INTERVALS: Left in Well (ft)	CEMENT: Fill- up (Cu.Ft.)
Conductor	20	New	MC-50	81	40	40	38 C.T.S.
Fresh Water	13 3/8	New	J-55	54.5	569	569	509 C.T.S.
Coal	–	–	–	–	–	–	–
Intermediate	9 5/8	New	A-500	40	3,466	3,466	1,370 C.T.S.
Production	5 1/2	New	P-110	20	10,417	10,417	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							

MAC 9-30-15

TYPE	Size (in)	Wellbore Diameter (in)	Wall Thickness (in)	Burst Pressure (psi)	Anticipated Max. Internal Pressure (psi)	Cement Type	Cement Yield (cu. ft./k)
Conductor	20	24	0.375	-	18	Construction	1.18
Fresh Water	13 3/8	17 1/2	0.38	2,730	2,184	* See Note 2	1.21
Coal							
Intermediate	9 5/8	12 3/8	0.395	3,950	3,160	* See Note 2	1.21
Production	5 1/2	8 1/2	0.361	12,640	10,112	-	1.27/1.86
Tubing							
Liners							

Packers

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

Note 1: EQT plans to bring the TOC on the production casing cement job 1,000' above kick off point, which is at least 500' above the shallowest production zone, to avoid communication.
Note 2: Reference Variance 2014-17. (Attached)

4708759

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Office of Oil & Gas
OCT 01 2015

WW - 6B
(10/14)

API NO. 47 - 017 -
OPERATOR WELL NO. 513068
Well Pad Name: OXF155

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

MDG 9-30-15

Drill and complete a new horizontal well in the Marcellus formation. The vertical drill to go down to an approximate depth of 4890'.

Then kick off the horizontal leg into the Marcellus 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): 42.01

22) Area to be disturbed for well pad only, less access road (acres): 21.63

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.

4701706759

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.

Received
Office of Oil & Gas
OCT 01 2015

*Note: Attach additional sheets as needed.

Well Schematic
EQT Production

Well Name	513068(OXF155H5)
County	Doddridge
State	West Virgina

Elevation KB:	1212
Target	Marcellus
Prospect	
Azimuth	333
Vertical Section	3185

0'

500' — 419' Fresh Water Base

1,000'

1,500' — 1,570' Maxton

1,915' Big Lime
2,000' — 1,930' Base Red Rock

2,205' Weir

2,416' -Gantz
2,500' — 2,500' -Fifty foot
2,608' -Thirty foot
2,648' -Gordon
2,754' -Forth Sand

3,000' — 2,930' -Bayard

3,253' -Warren
3,324' -Speechley

3,500' — 3,466' Int. csg pt

4,000' — 3,842' -Balltown A

4,500' — 4,456' -Riley

4,889' -Benson
5,000' — 5,146' -Alexander

5,500'

6,000' — 6,282' -Sonyea
6,410' -Middlesex
6,463' -Genesee
6,531' -Geneseo
6,573' -Tully
6,596' -Hamilton
6,500' — 6,611' -Marcellus
6,668' Onondaga

7,000'

7,500'

8,000'

0'

Hole Size 24" - 20" Conductor at 40'
Bit Size 17.5"

500'

TOC @ Surface
13 3/8", MC-50, 54.5# @ 569' ft MD
Bit Size 12.375"

1,000'

1,500'

2,000'

47017067 59

2,500'

3,000'

3,500'

TOC @ Surface
9 5/8", MC-50, 40# @ 3,466' ft MD
Bit Size 8.5"

4,000'

4,500'

KOP = 4,890' ft MD
10 Deg DLS

5,000'

5,500'

6,000'

Land @ 7,314' ft MD
6,635' ft TVD

6,500'

5 1/2", P-110, 20# 10,417' ft MD
6,635' ft TVD

7,000'

7,500'

8,000'

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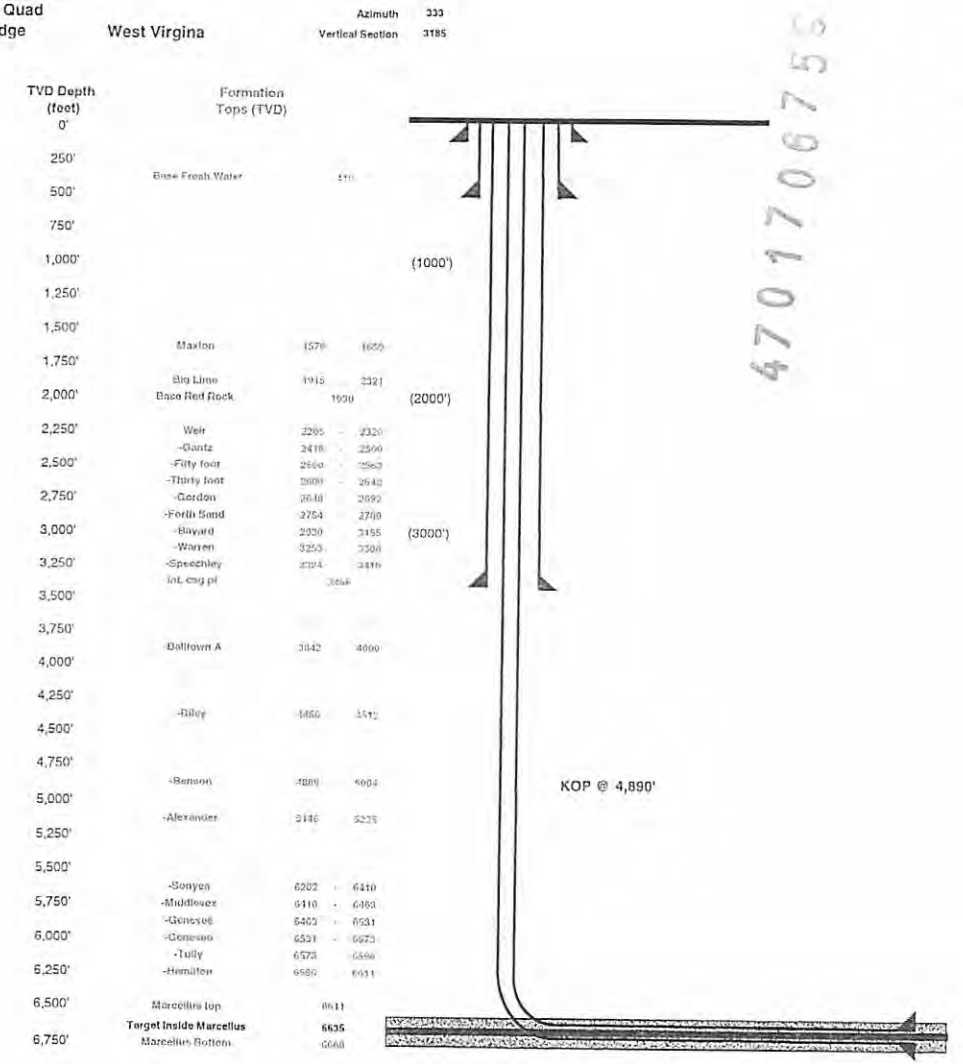
Office of Oil & Gas
OCT 01 2015

MAG
9-30-15

Well 513068(OXF155H5)
EQT Production
Oxford Quad
Doddridge West Virgina

Azimuth 333
Vertical Section 3185



Hole Size (inches)	Casing Type	Size (inches)	Wt (ppf)/Grade
24	Conductor	20	81#/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 Marcellus formation.
The vertical drill to go down to an approximate depth of 4890'.
Then kick off the horizontal leg into the Marcellus using a slick water frac.

4701706755

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Office of Oil & Gas
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MDG
9-30-15

April 2, 2015

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

Re: Casing change on OXF155 (513064, 513065, 513066, 513067, 513068, 513069)

Dear Mr. Smith,

EQT is requesting the 13-3/8" surface casing be set at 569' KB, 150' below the deepest fresh water. We will set the 9-5/8" intermediate string at 3466' KB, 50' below the base of the Speechley formation.

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

Sincerely,

Vicki Roark
Permitting Supervisor - WV

4701706759

Enc.

Received
Office of Oil & Gas
SEP 08 2015

EQT Production 115 Professional Place I P.O. Box 280 I Bridgeport, WV 26330
T 304.848.0000 I F 304.848.0040 I www.eqt.com

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 4701706756

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 by GCS

James Peterson
Environmental Resources Specialist / Permitting

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SEP 08 2015

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.

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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.

4701706759

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

IN THE NAME OF THE STATE OF WEST VIRGINIA

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

James Martin, Chief
Office of Oil and Gas

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Office of Oil & Gas
SEP 08 2015

EQT Production Water plan
Offsite disposals for Marcellus wells

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

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

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

4701706750

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

TRI COUNTY WASTE WATER MANAGEMENT, INC.
1487 Toms Run Road
Holbrook, PA 15341
724-627-7178 Plant
724-499-5647 Office
Greene County/Waynesburg
Permit # TC-1009

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

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

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

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Office of Oil & Gas
SEP 08 2015

WW-9
(2/15)

API No. 47 - 017 - 0
Operator's Well No. 513068

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF OIL AND GAS
Fluids/Cuttings Disposal & Reclamation Plan

Operator Name EQT Production Company OP Code 306686

Watershed (HUC10) Sheep Run Of South Fork Hughes River Quadrangle Oxford

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: flowback water & residual solids

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 ___)

MAG
9-30-15

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 (vertical and horizontal)? Air, freshwater, oil based, etc.

Air is used to drill the top-hole sections of the wellbore (surface, intermediate, and pilot). Water based mud may be necessary depending on hole conditions to stabilize and drill the intermediate section. The pilot hole, curve, and lateral sections will be drilled with either air, water based mud, or oil based mud.

– If oil based, what type? Synthetic, petroleum, etc Synthetic mud

Additives to be used in drilling medium? Air - biodegradable oil lubricant , detergent, defoaming, water. Water based mud – Barite, viscosifer, alkalinity control, lime, filtration control, deflocculates, biodegradable oil lubricant , defoaming, walnut shell, salt, x-cide, carbonates. Oil based mud – synthetic base oil, emulsifier, salt, lime, viscosifer, alkalinity control, filtration control, deflocculates, biodegradable oil lubricant , defoaming, carbonates.

4701706759

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

Permittee shall provide written notice to the Office of Oil and Gas of any load of drill cuttings or associated waste rejected at any West Virginia solid waste facility. The notice shall be provided within 24 hours of rejection and the permittee shall also disclose where it was properly disposed.

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

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this application form and all attachments thereto and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine or imprisonment.

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

Received
Office of Oil & Gas
OCT 01 2015

Subscribed and sworn before me this 1 day of Sept , 20 15

Pamela Sykes 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

Form WW-9

Operator's Well No. 513068

Proposed Revegetation Treatment: Acres Disturbed 42.01 Prevegetation pH 6

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: Michael Goff

Comments: Preseed & Mulch any disturbed areas per WVDEP regulations. Maintain & upgrade E-n-S as necessary.

Title: Oil & Gas Inspector Date: 9-30-2015

Field Reviewed? (✓) Yes ( ) No

4705106759

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Office of Oil & Gas
OCT 01 2015

WW-9

OXF 155 H1 513064 OXF 155 H2 513065 OXF 155 H3 513066 OXF 155 H4 513067
OXF 155 H5 513068 OXF 155 H6 513069 OXF 155 H7 516483 OXF 155 H8 516484

Pullman 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: August 13, 2015	FILE NO. 239-13	DRAWING FILE NO 239-13 Rec Plan.dwg

Note: SEE SITE PLAN OF OXF 155 FOR COMPLETE GRADING & DRAINAGE CONSTRUCTION INCLUDING EROSION & SEDIMENT CONTROL DETAILS, ETC.

Received
Office of Oil & Gas
OCT 0 1 2015

MAG
9-30-15

SURVEYING AND MAPPING SERVICES PERFORMED BY:

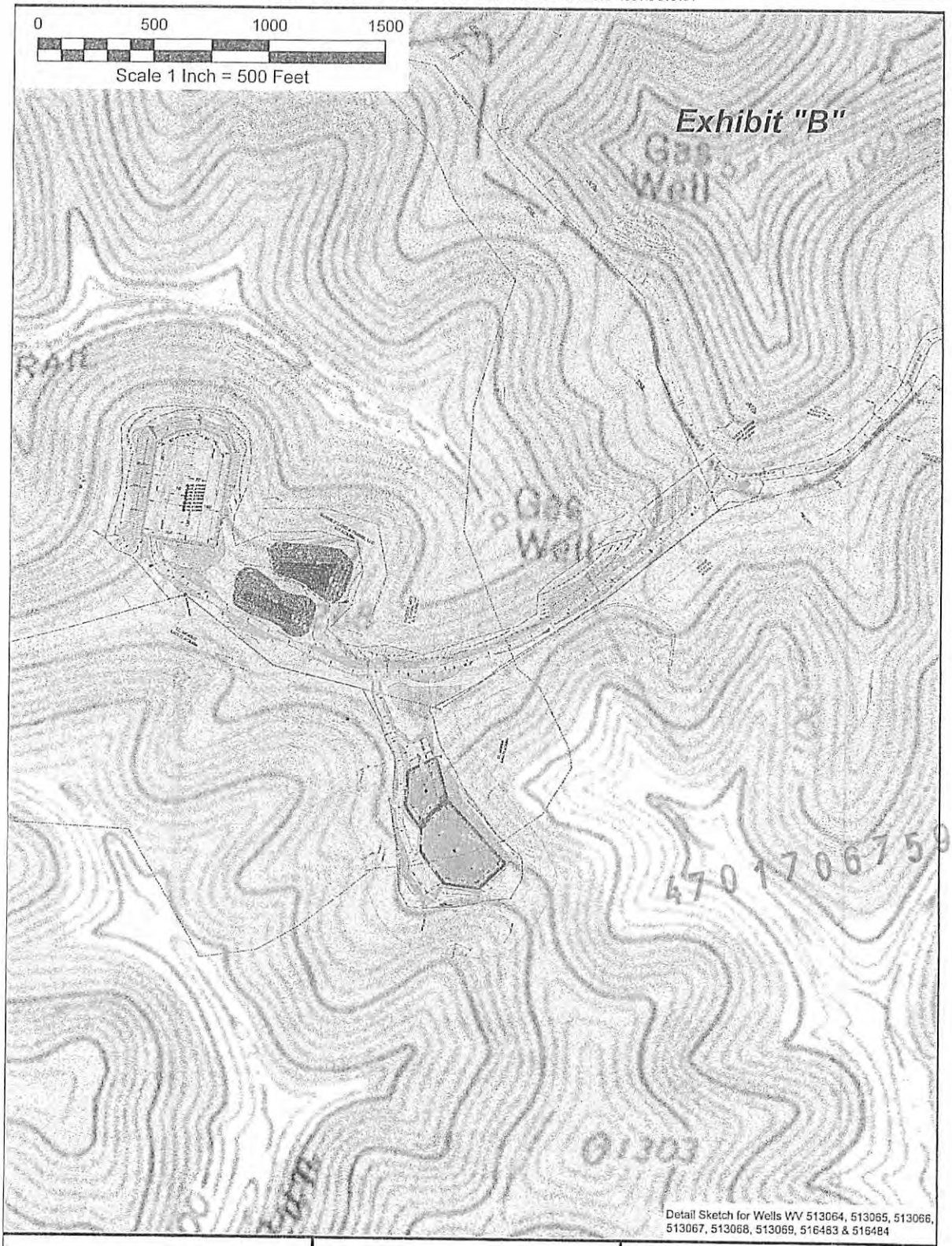
ALLEGHENY SURVEYS, INC.

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

OXF 155 H1 513064 OXF 155 H2 513065 OXF 155 H3 513066 OXF 155 H4 513067
OXF 155 H5 513068 OXF 155 H6 513069 OXF 155 H7 516483 OXF 155 H8 516484



Detail Sketch for Wells WV 513064, 513065, 513066, 513067, 513068, 513069, 516483 & 516484

Pullman 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: August 13, 2015	FILE NO: 239-13	DRAWING FILE NO: 239-13 Rec Plan.dwg

Note: SEE SITE PLAN OF OXF 155 FOR COMPLETE GRADING & DRAINAGE CONSTRUCTION INCLUDING EROSION & SEDIMENT CONTROL DETAILS, ETC.

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

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MAC
9-30-15

EQT

Where energy meets innovation.™

Site Specific Safety Plan

EQT OXF155 Pad

Oxford

Doddridge County, WV

4701706755

For Wells:

513068

Date Prepared: March 27, 2015

EQT Production

Title: Permitting Supervisor

8-3-15
Date

Michael Goff
WV Oil and Gas Inspector

Title

9-30-15
Date

Received
Office of Oil & Gas
OCT 01 2015

PHOENIX
TECHNOLOGY SERVICES

EQT
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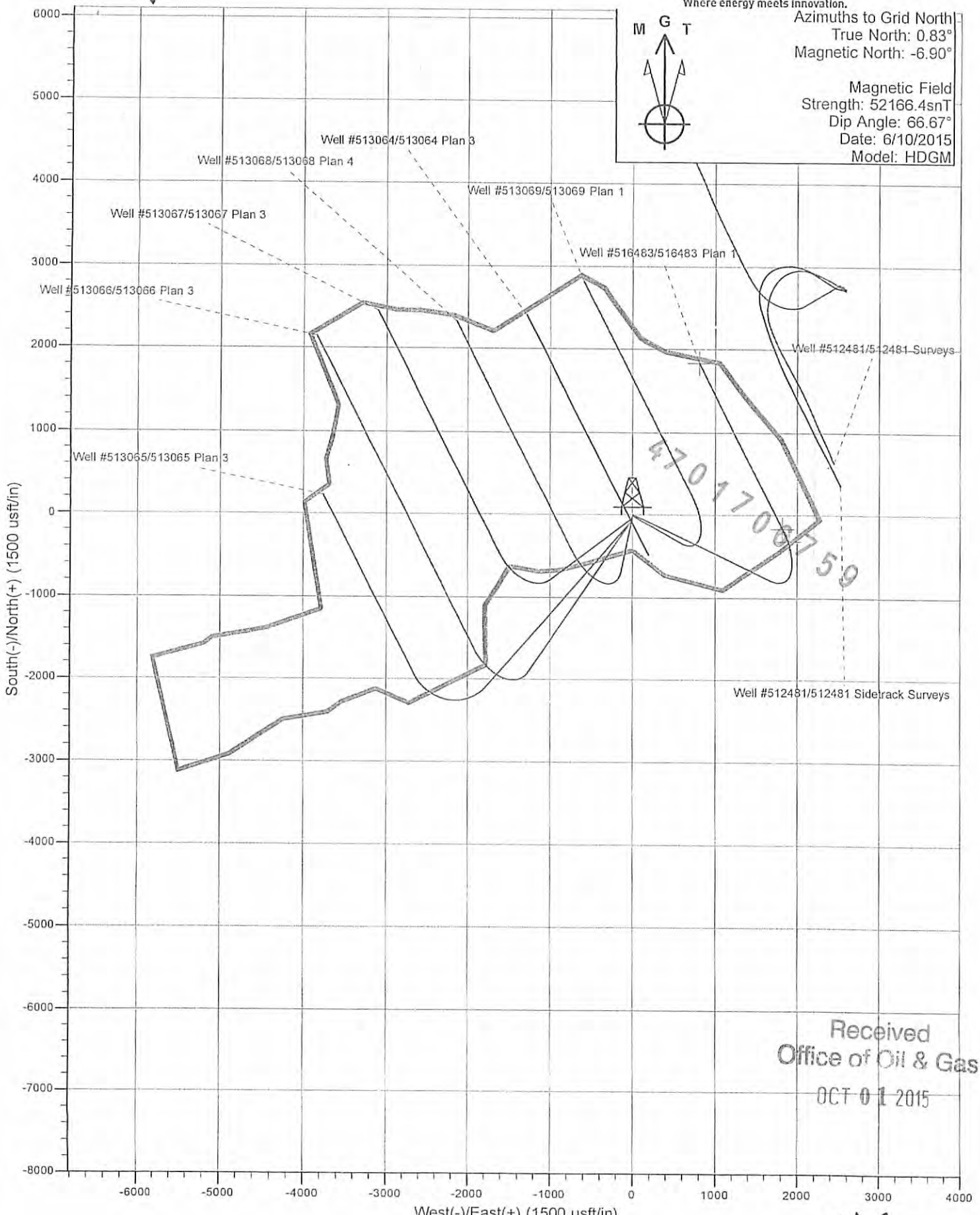

47017067 59

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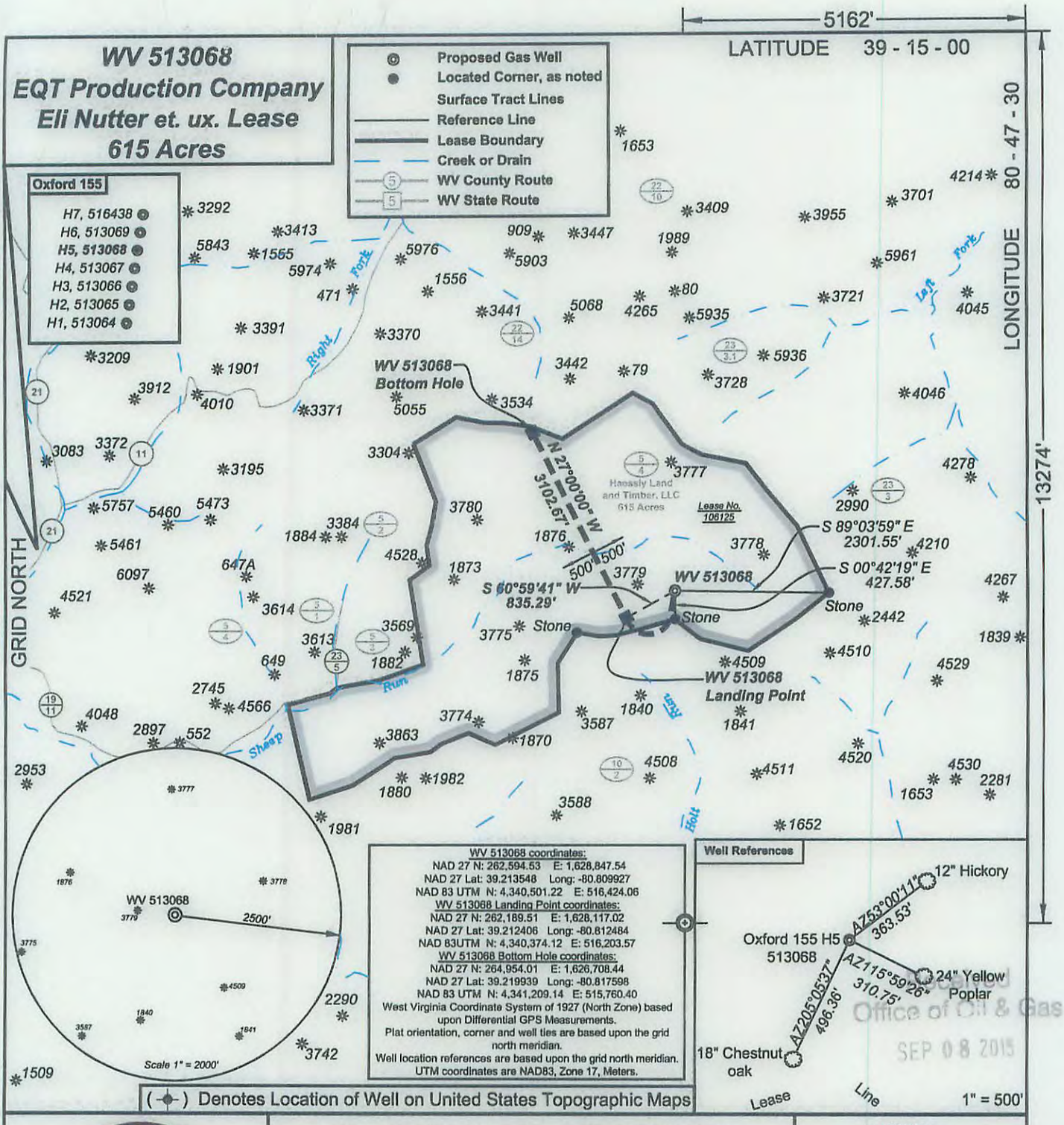
Office of Oil & Gas
OCT 01 2015

MAG
9-30-15

WV 513068
EQT Production Company
Eli Nutter et. ux. Lease
615 Acres



WV 513068 coordinates:
NAD 27 N: 262,594.53 E: 1,628,847.54
NAD 27 Lat: 39.213548 Long: -80.809927
NAD 83 UTM N: 4,340,501.22 E: 516,424.06
WV 513068 Landing Point coordinates:
NAD 27 N: 262,189.51 E: 1,628,117.02
NAD 27 Lat: 39.212406 Long: -80.812484
NAD 83UTM N: 4,340,374.12 E: 516,203.57
WV 513068 Bottom Hole coordinates:
NAD 27 N: 264,954.01 E: 1,626,708.44
NAD 27 Lat: 39.219939 Long: -80.817598
NAD 83 UTM N: 4,341,209.14 E: 515,760.40
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.

Well References
12" Hickory AZ53°00'11" 363.53'
Oxford 155 H5 513068
AZ115°59'26" 310.75'
24" Yellow Poplar
AZ205°05'37" 496.36'
18" Chestnut oak
Lease Line
1" = 500'

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

Received
Office of Oil & Gas
SEP 08 2015

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: 239-13
DRAWING NO: Oxford 155 H5
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: August 11 20 15
OPERATOR'S WELL NO. 513068
API WELL NO
47 - 017 - 06759 H6A
STATE COUNTY PERMIT

WELL TYPE: ☐ OIL ☒ GAS ☐ LIQUID INJECTION ☐ WASTE DISPOSAL
(IF GAS) PRODUCTION : ☐ STORAGE ☐ DEEP ☒ SHALLOW
LOCATION: ELEVATION: Original 1212.5 Proposed 1139 WATERSHED Sheep Run of South Fork of Hughes River QUADRANGLE: Oxford
DISTRICT: South West COUNTY: Doddridge
SURFACE OWNER: Haessly Land & Timber, LLC ACREAGE: 615
ROYALTY OWNER: Eli Nutter Heirs LEASE NO: 106125 ACREAGE: 615
PROPOSED WORK: ☒ DRILL ☐ CONVERT ☐ DRILL DEEPER ☒ FRACTURE OR STIMULATE ☐ PLUG OFF OLD FORMATION
☐ PERFORATE NEW FORMATION ☐ OTHER PHYSICAL CHANGE IN WELL (SPECIFY)
☐ PLUG AND ABANDON ☐ CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus ESTIMATED DEPTH: TVD 6,611

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. 513068

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

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

(1) the tract of land is the same tract described in this Application, partly or wholly depicted in the accompanying plat, and described in the Construction and Reclamation Plan;

(2) the parties and recordation data (if recorded) for lease(s) or other continuing contract(s) by which the Applicant claims the right to extract, produce or market the oil or gas are as follows:

Lease Name or Number	Grantor, Lessor, etc.	Grantee, Lessee, etc.	Royalty	Book/Page	
106125			Min 1/8 pd		
	Eli Nutter and Mary Nutter	J.L. Newman		LB21/211	
	J.L. Newman	The Philadelphia Company of West Virginia		LB24/56	
	The Philadelphia Company of West Virginia	Pittsburgh and West Virginia Gas Company		DB87/90	
	Pittsburgh and West Virginia Gas Company	Equitable Gas Company		LB121/303	
	Equitable Gas Company	Equitrans, Inc.		LB154/475	
	Equitrans, Inc.	Equitrans, LP		DB433/777	
	Equitrans, LP	Equitable Production Company		DB433/738	
	Equitable Production Company	EQT Production Company		CB281/346	(Name Change
7-10-2	I.L. Morris	EQT Production Company	N/A	360/100 Sub Surface Easement	

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

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

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

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

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

Well Operator: EQT Production Company

By:

Its: Permitting Supervisor

Where energy meets innovation.

EQT Production Company
2400 Zenith Ridge Rd.
Suite 200
Canonsburg, PA 15317
www.eqt.com

Todd Klaner
Manager, Permitting
tklaner@eqt.com

December 9, 2015

WV DEP Reviewer

RE: EQT Production Company
PAD ID – OXF155
Well# - 513068
Doddridge County

Dear Reviewer,

This well indicated by this permit application contains a Subsurface Easement Agreement for non-productive portions of the well bore. Attached is a Memorandum of Subsurface Use Agreement which gives EQT the right to drill below the surface of the tract 10/2 shown on the well plat.

EQT Production understands that the WVDEP will issue the permit in the normal process subject to the completeness of the requirements of the Office of Oil and Gas and does not take a position with regards to the property rights under this agreement.

EQT Production agrees that the WVDEP's issuance of the permit is in no way an affirmance or validation of EQT Production's claimed rights.

Regards,

Todd Klaner
Manager, Permitting
EQT Production Company

MEMORANDUM OF
SUBSURFACE RIGHT-OF-WAY AND EASEMENT AGREEMENT

1. NAME AND ADDRESS OF GRANTOR:

   I.L. Morris
   P.O. Box 397
   Glenville, WV 26351

2. NAME AND ADDRESS OF GRANTEE:

   EQT Production Company
   625 Liberty Avenue
   Suite 1700
   Pittsburgh, PA 15222

3. SUBSURFACE RIGHT-OF-WAY AND EASEMENT AGREEMENT REFERENCE: A SUBSURFACE RIGHT-OF-WAY AND EASEMENT AGREEMENT dated the **30th** day of **July, 2015**, was entered into for good and valuable consideration by and between **I.L. Morris** ("Grantor", whether one or more) and EQT Production Company ("Grantee").

4. DESCRIPTION OF PREMISES: That certain tract or parcel of land containing 6600.75 acres, more or less, located on Big Run in Doddridge County, West Virginia, being the same lands conveyed to Grantor by Deed dated the 12th day of February, 1996, of record in the Office of the Clerk of the County Commission of Doddridge County, West Virginia in Deed Book 230, at Page 307. ("the Property").

5. TERM: The SUBSURFACE RIGHT-OF-WAY AND EASEMENT shall run with the land and shall remain in full force and effect until released and relinquished by the Grantee back to the Grantor, in writing.

(REMAINDER OF PAGE LEFT BLANK INTENTIONALLY)

Received
Office of Oil & Gas
SEP 08 2015

IN WITNESS WHEREOF, the parties have signed their names hereto as of the date of the Agreement referenced in Section 3 above.

GRANTOR:

I.L. Morris

GRANTEE:
EQT Production Company

By: John W. Damato
Its: Attorney in fact

115 PROFESSIONAL PLACE
BRIDGEPORT, WV 26330-4509

STATE OF West Virginia;

COUNTY OF Gilmer:

I, Sandra Ann Pettit, a Notary Public, in and for said State and County, do hereby certify that **I.L. Morris**, personally known to be the same persons whose names are subscribed to the foregoing instrument, appeared before me this day in person in the State and County aforesaid, and acknowledged and delivered the said instrument to be their free act and deeds for uses and purposes therein set forth.

Given under my hand this 30th day of July, 2015.

My Commission expires: 8-7-2017.

OFFICIAL SEAL
COMMISSIONER
State of West Virginia
SANDRA ANN PETTIT
Gilmer County

Sandra Ann Pettit
Notary Public

470 7706759

STATE OF WEST VIRGINIA;

COUNTY OF HARRISON:

I, Charles C. Metzgar, a Notary Public, in and for said State and County, do hereby certify that John W. Damato, personally known to be the same person whose name is subscribed to the foregoing instrument and the Attorney in fact of EQT Production Company, appeared before me this day in person in the State and County aforesaid, and acknowledged and delivered the said instrument to be his free act and deed for uses and purposes therein set forth on behalf of said company.

Given under my hand this 26th day of August, 2015.

My Commission expires: May 21, 2017.

OFFICIAL SEAL
Commissioner for
State of West Virginia
CHARLES C. METZGAR
310 HAMPTON RD.
FAIRMONT, WV 26554
My commission expires May 21, 2017

Charles C. Metzgar
Notary Public

This instrument was prepared by EQT Production Company, 1710 Pennsylvania Avenue, Charleston, WV 25302.

Beth A Rogers
GOODRIDGE County 03:08:47 PM
Instrument No 237302
Date Recorded 08/31/2015
Document Type MEM/R/W
Pages Recorded 2
Book-Page 360-100
Recording Fee $5.00
Additional $6.00

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WW-6AC
(1/12)

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

Date of Notice Certification: 9-1-15

API No. 47 - 017 - 0
Operator's Well No. 513068
Well Pad Name: OXF155

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:	516,424.06
County:	Doddridge	UTM NAD 83 Northing:	4,340,501.22
District:	Southwest	Public Road Access:	RT 21
Quadrangle:	Oxford	Generally used farm name:	Haessly Land & Timber LLC
Watershed:	Sheep Run Of South Fork Hughes River		

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:

*PLEASE CHECK ALL THAT APPLY

		OOG OFFICE USE ONLY
☐ 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	☐ RECEIVED/NOT REQUIRED
	☐ WRITTEN WAIVER BY SURFACE OWNER (PLEASE ATTACH)	
☑ NOTICE OF PLANNED OPERATION		☐ RECEIVED
☑ PUBLIC NOTICE		☐ RECEIVED
☑ NOTICE OF APPLICATION		☐ RECEIVED

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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.

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(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.

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
Pamela Sykes
EQT Production
PO Box 280
Bridgeport, WV 26330
My Commission Expires Aug. 24, 2022
NOTARIAL SEAL

Subscribed and sworn before me this 1 day of Sept ,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.

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(9-13)

API NO. 47 - 017 - 0
OPERATOR WELL NO. 513068
Well Pad Name: OXF155

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: 9-1-15 Date Permit Application Filed: 9-1-15

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 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) 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: Haessly Land & Timber LLC
Address: 25 Sheets Run Rd.
Marietta OH 45750
0

Name: 0
Address: 0
0
0

☑ SURFACE OWNERS(s) (Road and/or Other Disturbance)
Name: Haessly Land & Timber LLC
Address: 25 Sheets Run Rd.
Marietta OH 45750
0
Name: Lucy E. Harper
Address: 511 Boca Ciega Point Blvd. North
St. Petersburg FL 33708
See Attached

☑ SURFACE OWNER(s) (Impoundments/Pits)
Name: I.L. (Ike) Morris
Address: PO Box 397
Glenville WV 26351
0

☑ COAL OWNER OR LESSEE
Name: Hassel Thomas Hicks
Address: 361 Glade Creek Estate
Coolridge WV 25825
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: 0
Address: 0
0
0

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

*Please attach additional forms if necessary

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October 23, 2015

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

Re: WW6A name correction
017-06755, 017-06756, 017-06757, 017-06758. 017-06759, 017-06760

Dear Mr. Smith,

Enclosed is a name change on the above API numbers. The name was submitted as Tracy Ruth Paul Roby and should be TACY. Please insert this change into the permits on file.

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

Sincerely,

Vicki Roark
Permitting Supervisor-WV

Enc.

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OCT 26 2015

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Surface Owners(road or other disturbance):

I.L. (Ike) Morris
PO Box 397
Glenville WV 26351

Additional Coal Owners

Frank J Hicks
7232 Twin Lakes Lane
Pensacola FL 32504

Skeeter Hicks
220 W Marigold St
Munhall PA 15120

Elizabeth D Delabar
6405 Nelson Drive
LaPlata MD 20646

Peggy A Mudd
Unknown Address

Mary A.G. Willis
Unknown Address

David Thomas Hickman Jr.
3315 Dublin Manor Rd
Street MD 21154

Edward Jo Nutter
RT2 Box 196
Salem WV 26426

Dorthy Gola
PO Box 117
Reynoldsville WV 26422

Ancient Energy
465 Hill Street
Fort Royal VA 22630

Anna Marie Guthrie
4735 Dustin Place Dr.
Southhaven MS 38671

Terry Alan Nutter
9039 Willey Rd.
Harrison OH 45030

Mary Catherine Burgess
17 Washington Ave
North Bend OH 45052

Tacy Ruth Paul Roby
8708 Tuckerman Lane
Potomic MD 20854

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Updated Address List

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WELL
513068

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Environmental Protection

Surface Owners(road or other disturbance):

I.L. (Ike) Morris
PO Box 397
Glenville WV 26351

Additional Coal Owners

Frank J Hicks
7232 Twin Lakes Lane
Pensacola FL 32504

Skeeter Hicks
220 W Marigold St
Munhall PA 15120

Elizabeth D Delabar
6405 Nelson Drive
LaPlata MD 20646

Peggy A Mudd
Unknown Address

Mary A.G. Willis
Unknown Address

David Thomas Hickman Jr.
3315 Dublin Manor Rd
Street MD 21154

Edward Jo Nutter
RT2 Box 196
Salem WV 26426

Dorthy Gola
PO Box 117
Reynoldsville WV 26422

Ancient Energy
465 Hill Street
Fort Royal VA 22630

Anna Marie Guthrie
4735 Dustin Place Dr.
Southhaven MS 38671

Terry Alan Nutter
9039 Willey Rd.
Harrison OH 45030

Mary Catherine Burgess
17 Washington Ave
North Bend OH 45052

Tracy Ruth Paul Roby
8708 Tuckerman Lane
Potomic MD 20854

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Additional Coal Owners

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WV Department of
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Stephen E Miner
PO Box 55853
Shoreline WA 98155

Michael I Spiker
103 Cedar Ridge Drive
Ripley WV 25271

Drew M Spiker
103 Cedar Ridge Drive
Ripley WV 25271

Willa Dean Spiker
Unknown Address

Thomas Miller
3616 Glenmore Ave
Cincinnati OH 45211

Cathy Gregis
RR 2 Box 140
Bristol WV 26332

Jeffrey Spiker
8168 Good Hope Pike
Lost Creek WV 26385
New Address

Mary Elta Knight
102 Elizabeth Street
West Union WV 26456

Worthy Carson Underwood Jr.
4192 Nutter Fork Rd.
West Union WV 26456

Sharon Knight
1706 Oak St.
Parkersburg WV 26101

Stephen Knight
48 Twin Lakes Circle
Martinsburg WV 25405

Diana Lynne Knight
3835 Nutter Fork
West Union WV 26456

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Melanie Fouse
249 Joe Miller Rd
Kearneysville WV 25430

Bobbi Jo Conley
413 Fryer Oaks Ct St.
Cloud FL 34771

Brada Stotts
100 Pine Drive
Evans WV 25241
New Address

Additional Coal Owners

WELL 513068

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Mark Spiker
3174 Lamberton Rd
Pennsboro WV 26415
New Address

Briana Deremer (Spiker)
1280 Fairlawns Ave.
Morgantown WV 26505

John Spiker
166 Linden Lane
Jane Lew WV 26378

Melinda Chambers
HC 63 Box 1820
Romney WV 26757

Idell Kehoe
Unknown Address

Beverly Karman
6742 S. Taylor Drive
Tempe AZ 85283

Diane Smith
420 Spiketon Rd. Apt. 21
Buckley WA 98321

Marc Stinespring
C/O Beverly Karman
6742 S Taylor Dr
Tempe AZ 85283
Found Address

Jean S. Richardson
106 Meadowbrook Ct..
Niceville FL 32578

Faye Coe
16625 Valley Dr.
Tampa FL 33618

Jean Haught
Unknown Address

Mary Maudaline Haught
Unknown Address

Mildred Lee Maxwell
3378 Route 18 South
West Union WV 26456

Charter D Stinespring II
POB 4
Arthurdale WV 26520

Victor G. Stinespring
PO Box 81
West Union WV 26456

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Additional Coal Owners

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Delores Stinespring
2526 North Main St.
Danville VA 24540

Pamela Stinespring
8808 S. 47th Ave
Laveen AZ 85339

Lucy Harsch
Unknown Address

Leslie W. Dotson
803 Dewey Ave
St. Marys WV 26170

Lorene Dotson Kinney
Corrected Name
1009 E Penn Ave
Pennsboro WV 26415

Mary Lucile Dotson
803 Dewey Ave
St. Marys WV 26170

Lehman B. Jackson
Rt 1 Box 165
Pennsboro WV 26415

Norman L Jackson
New Address
1764 Mountain Dr
Pennsboro WV 26415

Robert P Jackson
305 Stewarts Run
Harrisville WV 26362

Judith A. Basile
842 Beaumont Rd.
Charleston WV 25314

Sandra L Hammond
1104 Tates Brooke Drive
Lexington KY 40517

Barbara S Lopez
23660 Elkwood Street
West Hills CA 91304

Sonja Upton
320 Hurricane Ave
Hurricane WV 25526

Letitia Bennett
RT 2 Box 52
Chapmanville WV 26508

Ioma Kathryn Dotson
4635-B Pennsylvania Ave
Charleston WV 25302

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(8-13)

API NO. 47 - 017 - 0
OPERATOR WELL NO. 513068
Well Pad Name: OXF155

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.

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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, lighting 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

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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

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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.

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(8-13)

API NO. 47 - 017 - 0
OPERATOR WELL NO. 513068
Well Pad Name: OXF155

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.

4701710759

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 & Gas
SEP 08 2015

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

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 1 day of Sept , 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

4701706759

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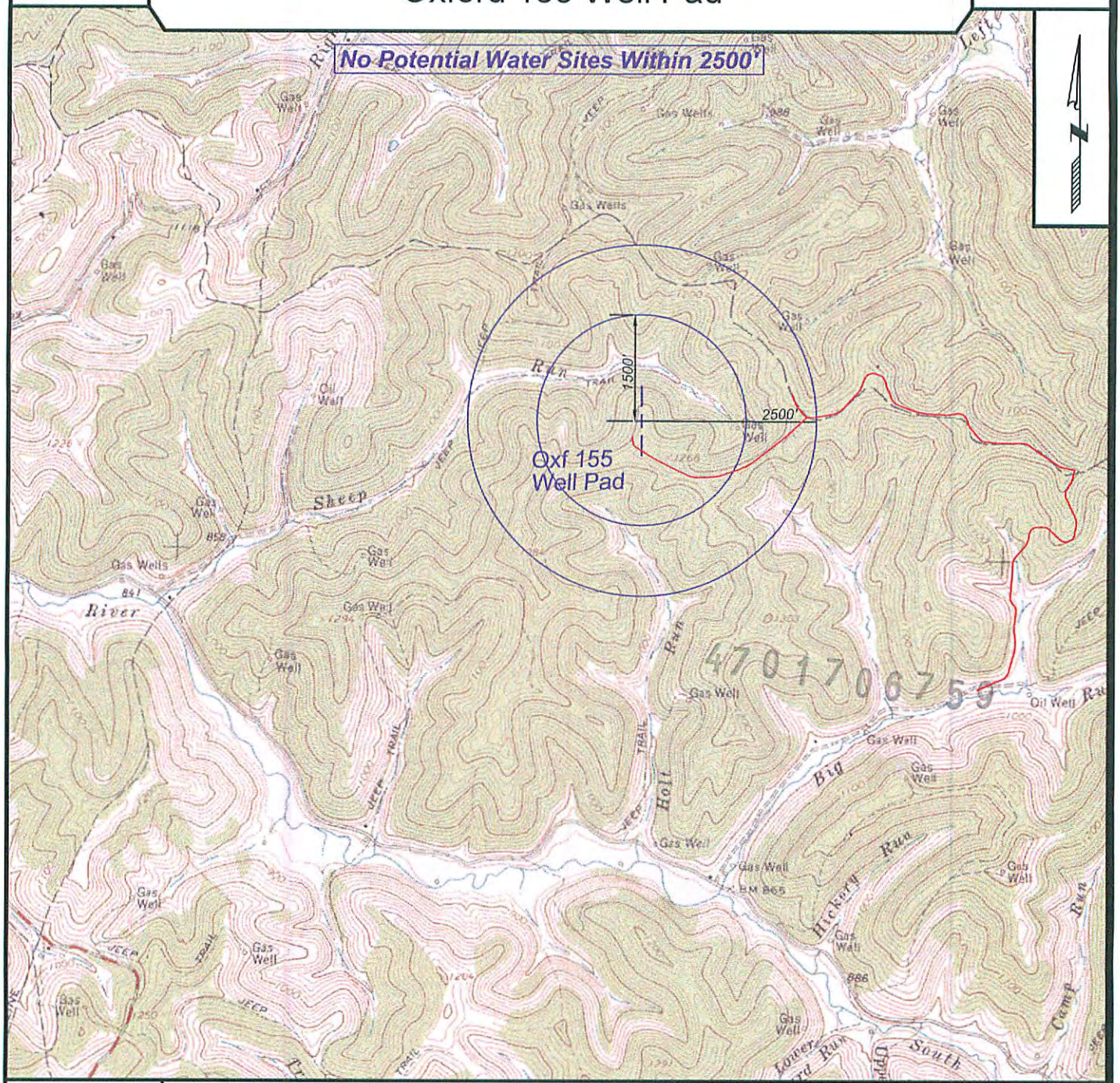
Office of Oil & Gas
SEP 08 2015

Topo Quad:	Oxford 7.5'	Scale:	1 " = 2000'
County:	Doddridge	Date:	January 29, 2015
District:	Southwest	Project No:	239-36-S-13

Oxford 155 Well Pad



SURVEYING AND MAPPING SERVICES PERFORMED BY:

ALLEGHENY SURVEYS, INC.

1-800-482-8606
P.O. BOX 438
BIRCH RIVER, WV 26610
PH: (304) 649-8606
FAX: (304) 649-8608

PREPARED FOR:

EQT Production Company
P.O. Box 280
Bridgeport, WV 26330

Received
Office of Oil & Gas
SEP 08 2015

WW-6A4
(1/12)

Operator Well No. 513068

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
NOTICE OF INTENT TO DRILL

Pursuant to W. Va. Code § 22-6A-16(b), the Notice of Intent to Drill is only required if the notice requirements of W. Va. Code § 22-6A-10(a) have NOT been met or if the Notice of Intent to Drill requirement has NOT been waived in writing by the surface owner.

Notice Time Requirement: Notice shall be provided at least TEN (10) days prior to filing a permit application.
Date of Notice: AUG 12 2015 **Date Permit Application Filed:** AUG 22 2015

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

☐ HAND DELIVERY ☑ CERTIFIED MAIL RETURN RECEIPT REQUESTED

Pursuant to W. Va. Code § 22-6A-16(b), at least ten days prior to filing a permit application, an operator shall, by certified mail return receipt requested or hand delivery, give the surface owner notice of its intent to enter upon the surface owner's land for the purpose of drilling a horizontal well: Provided, That notice given pursuant to subsection (a), section ten of this article satisfies the requirements of this subsection as of the date the notice was provided to the surface owner: Provided, however, That the notice requirements of this subsection may be waived in writing by the surface owner. The notice, if required, shall include the name, address, telephone number, and if available, facsimile number and electronic mail address of the operator and the operator's authorized representative.

Notice is hereby provided to the SURFACE OWNER(s):

Name: Haessly Land & Timber LLC
Address: 25 Sheets Run Rd.
Marietta OH 45750

Name: Lucy E Harper
Address: 511 Boca Ciega Point Blvd
St Petersburg FL 33708

4701706138

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

State: WV
County: Doddridge
District: Southwest
Quadrangle: Oxford
Watershed: Sheep Run Of South Fork Hughes River

UTM NAD 83 Easting: 516,424.06
Northing: 4,340,501.22
Public Road Access: RT 21
Generally used farm name: Haessly Land & Timber LLC

This Notice Shall Include:
Pursuant to West Virginia Code § 22-6A-16(b), this notice shall include the name, address, telephone number, and if available, facsimile number and electronic mail address of the operator and the operator's authorized representative. 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

Notice is hereby given by:

Well Operator: EQT Production Company
Address: 115 Professional Place, P.O Box 280
Bridgeport, WV 26330
Telephone: 304-848-0076
Email: vroark@eqt.com
Facsimile: 304-848-0041

Authorized Representative: Victoria Roark
Address: 115 Professional Place, P.O Box 280
Bridgeport, WV 26330
Telephone: 304-848-0076
Email: vroark@eqt.com
Facsimile: 304-848-0041

Received
Office of Oil & Gas
SEP 08 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.

WW-6A4
(1/12)

Operator Well No. 513068

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
NOTICE OF INTENT TO DRILL

Pursuant to W. Va. Code § 22-6A-16(b), the Notice of Intent to Drill is only required if the notice requirements of W. Va. Code § 22-6A-10(a) have NOT been met or if the Notice of Intent to Drill requirement has NOT been waived in writing by the surface owner.

Notice Time Requirement: Notice shall be provided at least TEN (10) days prior to filing a permit application.
Date of Notice: AUG 12 2015 **Date Permit Application Filed:** AUG 22 2015

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

☐ HAND DELIVERY ☑ CERTIFIED MAIL RETURN RECEIPT REQUESTED

Pursuant to W. Va. Code § 22-6A-16(b), at least ten days prior to filing a permit application, an operator shall, by certified mail return receipt requested or hand delivery, give the surface owner notice of its intent to enter upon the surface owner's land for the purpose of drilling a horizontal well: Provided, That notice given pursuant to subsection (a), section ten of this article satisfies the requirements of this subsection as of the date the notice was provided to the surface owner: Provided, however, That the notice requirements of this subsection may be waived in writing by the surface owner. The notice, if required, shall include the name, address, telephone number, and if available, facsimile number and electronic mail address of the operator and the operator's authorized representative.

Notice is hereby provided to the SURFACE OWNER(s):

Name: I L Morris ✓
Address: PO Box 397
Glenville WV 26351

Name:
Address:

Notice is hereby given:

Pursuant to West Virginia Code § 22-6A-16(b), notice is hereby given that the undersigned well operator has an intent to enter upon 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	516,424.06
County:	Doddridge		Northing	4,340,501.22
District:	Southwest		Public Road Access:	RT 21
Quadrangle:	Oxford		Generally used farm name:	Haessly Land & Timber LLC
Watershed:	Sheep Run Of South Fork Hughes River			

This Notice Shall Include:

Pursuant to West Virginia Code § 22-6A-16(b), this notice shall include the name, address, telephone number, and if available, facsimile number and electronic mail address of the operator and the operator's authorized representative. 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

Notice is hereby given by:

Well Operator:	EQT Production Company	Authorized Representative:	Victoria Roark
Address:	115 Professional Place, P.O Box 280	Address:	115 Professional Place, P.O Box 280
	Bridgeport, WV 26330		Bridgeport, WV 26330
Telephone:	304-848-0076	Telephone:	304-848-0076
Email:	vroark@eqt.com	Email:	vroark@eqt.com
Facsimile:	304-848-0041	Facsimile:	304-848-0041

Received
Office of Oil & Gas
SEP 08 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.

WW-6A5
(1/12)

Operator Well No. 513068

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: 9-1-15 **Date Permit Application Filed:** 9-1-15

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: Haessly Land & Timber LLC
Address: 25 Sheets Run Rd.
Marietta OH 45750

Name: 4701706759 Lucy E. Harper
Address: 511 Boca Ciegga Point Blvd. North
St. Petersburg FL 33708

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:	516,424.060000
County:	Doddridge		Northing:	4,340,501.220000
District:	Southwest	Public Road Access:		RT 21
Quadrangle:	Oxford	Generally used farm name:		Haessly Land & Timber LLC
Watershed:	Sheep Run Of South Fork Hughes River			

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

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Received
Office of Oil & Gas
SEP 08 2015

WW-6A5
(1/12)

Operator Well No. 513068

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: 9-1-15 **Date Permit Application Filed:** 9-1-15

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.

4701706759

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: I. L. (Ike) Morris
Address: PO Box 397
Glenville WV 26351

Name:
Address:

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:	516,424.060000
County:	Doddridge		Northing:	4,340,501.220000
District:	Southwest	Public Road Access:		RT 21
Quadrangle:	Oxford	Generally used farm name:		Haessly Land & Timber LLC
Watershed:	Sheep Run Of South Fork Hughes River			

This Notice Shall Include:
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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

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Received
Office of Oil & Gas
SEP 08

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

May 15, 2015

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

4701706759

Subject: DOH Permit for the OXF155 Pad, Doddridge County

513064 OXF155H1	513065 OXF155H2	513066 OXF155H3
513067 OXF155H4	513068 OXF155H5	513069 OXF155H6

Dear Mr. Martin,

This well site will be accessed from Permit # 04-2014-0427 applied for by EQT Production Company for access to the State Road for a well site located off of Doddridge County Route 23/2 SLS.

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

Very Truly Yours,

Gary K. Clayton

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

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

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SEP 08 2015

Anticipated Frac Additives
Chemical Names and CAS numbers

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		4584-08-7

4701706759

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SEP 08 2015

IMP-1A

Office of Oil and Gas

DEP Office Use only	
Date Received by Oil & Gas:	
Assigned Impoundment ID #:	

West Virginia Department of
Environmental Protection
Office of Oil & Gas
601 57th Street SE
Charleston, WV 25304-2345

Permit Associated Impoundment / Pit Registration

Instruction: This form is to be used to register impoundments or waste pits, greater than 5,000 bbls, that are associated with a WVDEP, Office of Oil and Gas, well drilling permit. An **associated impoundment or pit** means it has been designed and included in the well drilling permit application, will follow the reclamation time frame of well work permit, and will be approved in conjunction with the well work permit. An impoundment ID number will be assigned by WVDEP, Office of Oil and Gas, to all impoundments and pits. This impoundment ID number will be sent to the applicant following receipt of this form by WVDEP. Please reference this impoundment ID number with all future correspondence and reference to this impoundment. Conditions as described in W.Va. State Rule §35-4-21 will be followed as it relates to impoundments and pits.

Section 1 – Operator Information

Operator Name:	EQT Production Company		
Operator ID:	306686		
Address: Street	115 Professional Place		
City:	Bridgeport	State: WV	Zip: 26330
Contact Name:	Ron Furby	Contact Title:	Sr. Mgr. Water Operations
Contact Phone:	412-395-7052	Contact Email:	rfurby@eqt.com

Section 2 – Engineering / Design Contractor Information

Design will be contracted ☒ Designed in-house ☐

Company Name:	Hornor Brothers Engineers		
Address: Street	P.O. Box 386		
City:	Clarksburg	State: WV	Zip: 26302
Contact Name:	Thomas D. Corathers	Contact Title:	PE, PS
Contact Phone:	304-624-6445	Contact Email:	tom@hbe1902.com
Certifying Professional Engineer:	Thomas D. Corathers		
Professional Engineer Registration Number:	14161		

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SEP 08 2015

IMP-1A

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Office of Oil and Gas

Section 3 - Impoundment / Pit Information

Type of Structure. Check one of two choices below:

☐ Freshwater Impoundment ☒ Waste Pit

Note: Any waste in a pit will make it a waste pit.

Name of Structure (Company Name :) EQT-OXF 155 Completion Pit

County: Doddridge District: Southwest and West Union

USGS 7.5' Quad Map Name: OXFORD

Farm Name: 4701706759

Pad Name: OXF 155

Surface Owner Name: I.L. Morris

Physical Description of Location: From intersection Doddridge Co Rte 23/2 & OXF 149 Site Access Road travel Northwesterly along access road 1.72 miles to OXF 155 access turn left and travel southwest 1800' turn left, go 800' to completion pit on left.

(Note: Give general location, example: 2 miles south of Smalltown, WV on Rt. 22, left on Buffalo Creek)

Watershed (nearest perennial): Holt Run and an unnamed tributary to Big Run

Distance (Drainage Distance) to nearest perennial stream: approximately 1,030 feet to each

Location Coordinates (NAD83, Decimal Degrees (xx.xxxx, -xx.xxxx))

Latitude: 39.209547 Longitude (Use negative sign): -80.805559

UTM Coordinates : UTM 83-17NF:1695492.653199 E UTM 83-17NF:14238976.211983 N

Access Road Coordinates (junction of state highway access)

Latitude: 39.203497 Longitude (Use negative sign): -80.792680

UTM Coordinates : UTM 83-17NF:1699145.657103 E UTM 83-17NF:14236781.647751 N

Approximate Dimensions

Length: 352' Width: 226' Height: 19'

Note: If irregularly shaped, give approximate dimensions of long axis.

Total Capacity – Provide all units of measure below:

Barrels: 173,268 Gallons: 7,277,758 Acre-Feet: 22.335

Capacity with 2' Freeboad – Provide all units of measure below:

Barrels: 148,521 Gallons: 6,238,314 Acre-Feet: 19.145

Incised volume:

Barrels: 105,461 Gallons: 4,429,657 Acre-Feet: 13.594

Net impounded volume: (Total volume less incised volume.)

Barrels: 67,807 Gallons: 2,848,101 Acre-Feet: 8.741

Anticipated Construction Start Date (estimation, non-binding): _____

Note: No construction may begin on **Associoated** impoundment until WVDEP issues the drilling permit. At least 7 calendar days prior to confirmed construction start date, notify the Office of Oil & Gas, and the local Oil and Gas inspector of construction start date. Use form IMP-2, "Notification of Impoundment / Pit Construction."

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Office of Oil & Gas
SEP 08 2015

IMP-1A

Office of Oil and Gas

Section 4 - Associated Well Numbers and API Numbers. List associated well numbers and API number. API numbers may not be assigned at time of registering this impoundment, if so list as pending.

Well Number(s):	API Number(s) – If issued:
H1 513064	
H2 513065	
H3 513066	
H4 513067	4701706759
H5 513068 H6 513069	
H7 516483	
H8 516484	

Section 5 - Required Information Checklist To Register Permit Associated Impoundments or Pits. Include the following information and plans with application.

- ☒ Engineered Construction Plans, certified by WV Registered P.E.
- ☒ Erosion and Sediment Control Plan, certified by WV Registered P.E.
- ☒ Reclamation Plan, certified by WV Registered P.E.

Section 6 – Dam Standard Qualifying Evaluation

- ☐ The design of this structure has been evaluated by the applicant to determine it does NOT qualify to be defined as a dam, under W.Va Rule §47-34. If the design of this structure qualifies it to be defined as a dam, all permits regulating dams will be required prior to registering the structure with the Office of Oil and Gas. The dam standard, from the WVDEP, Div. Of Water and Waste, is available for review at: http://www.dep.wv.gov/WWE/ee/ds/Pages/default.aspx

Section 7 –Comments – Provide any additional comments concerning this project

Received
Office of Oil & Gas
SEP 08 2015

IMP-1A

Office of Oil and Gas

Section 8 - Application Certification

I hereby certify that the information listed above is true and accurate. I understand that this pit/impoundment is to be constructed only in a location appropriate for the storage of water, including wastewater, and will be constructed in accordance with plans designed and certified by a West Virginia registered professional engineer. I further recognize that all required plans have been submitted to the Office of Oil and Gas. I understand that after construction, and prior to any fluid being placed in the pit/impoundment, it shall be inspected by a West Virginia registered professional engineer to ensure compliance with the certified design and construction plan, and that the professional engineer shall certify that this structure was constructed in accordance with design and construction plans. I understand that such certification shall be in writing to the Chief and that no fluids may be placed in the pit/impoundment until the certification has been filed with the chief. I agree that this pit/impoundment shall be constructed, maintained, operated and closed in accordance with all applicable laws and rules, including the requirements of W. Va. Code R § 35-4-2 .

Name: Victoria J. Roark

Title: Permitting Supervisor

Signature: 4701706759

Taken, subscribed and sworn to before me this, 27 Day of Aug 20 15

Notary Public:

My commission expires: 8-24-22

Notary Seal:

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

Section 9. Submittal Instructions

Submit original paper copy of application to:

West Virginia Department of Environmental Protection
Office of Oil and Gas
Impoundment Registration
601 57th Street, SE
Charleston WW 25304

Email PDF file format of this application and all related engineering Plans to :

Depimpoundments@wv.gov

Received
Office of Oil & Gas
SEP 08 2015

IMP-1A

dep

Office of Oil and Gas

DEP Office Use only	
Date Received by Oil & Gas:	
Assigned Impoundment ID #:	

West Virginia Department of
Environmental Protection
Office of Oil & Gas
601 57th Street SE
Charleston, WV 25304-2345

Permit Associated Impoundment / Pit Registration

Instruction: This form is to be used to register impoundments or waste pits, greater than 5,000 bbls, that are associated with a WVDEP, Office of Oil and Gas, well drilling permit. An **associated impoundment or pit** means it has been designed and included in the well drilling permit application, will follow the reclamation time frame of well work permit, and will be approved in conjunction with the well work permit. An impoundment ID number will be assigned by WVDEP, Office of Oil and Gas, to all impoundments and pits. This impoundment ID number will be sent to the applicant following receipt of this form by WVDEP. Please reference this impoundment ID number with all future correspondence and reference to this impoundment. Conditions as described in W.Va. State Rule §35-4-21 will be followed as it relates to impoundments and pits.

4701706759

Section 1 – Operator Information

Operator Name:	EQT Production Company				
Operator ID:	306686				
Address: Street	115 Professional Place				
City:	Bridgeport	State:	WV	Zip:	26330
Contact Name:	Ron Furby	Contact Title:	Sr. Mgr. Water Operations		
Contact Phone:	412-395-7052	Contact Email:	rfurby@eqt.com		

Section 2 – Engineering / Design Contractor Information

Design will be contracted ☒ Designed in-house ☐

Company Name:	Hornor Brothers Engineers				
Address: Street	P.O. Box 386				
City:	Clarksburg	State:	WV	Zip:	26302
Contact Name:	Thomas D. Corathers	Contact Title:	PE, PS		
Contact Phone:	304-624-6445	Contact Email:	tom@hbe1902.com		
Certifying Professional Engineer:	Thomas D. Corathers				
Professional Engineer Registration Number:	14161				

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SEP 08 20[illegible]

IMP-1A

dep

Office of Oil and Gas

Section 3 - Impoundment / Pit Information

Type of Structure. Check one of two choices below:

☐ Freshwater Impoundment ☒ Waste Pit

Note: Any waste in a pit will make it a waste pit.

Name of Structure (Company Name :) EQT-OXF 155 Flow Back Pit

County: Doddridge District: Southwest and West Union

USGS 7.5' Quad Map Name: OXFORD

Farm Name:

Pad Name: OXF 155

Surface Owner Name: I.L. Morris

Physical Description of Location: From intersection Doddridge Co Rte 23/2 & OXF 149 Site Access Road travel northwesterly along access road 1.72 miles to OXF 155 access turn left and travel southwest 1800' turn left, go 400' to flow back pit on left

(Note: Give general location, example: 2 miles south of Smalltown, WV on Rt. 22, left on Buffalo Creek)

Watershed (nearest perennial): Holt Run and an unnamed tributary to Big Run

Distance (Drainage Distance) to nearest perennial stream: approximately 1,030 feet to each

Location Coordinates (NAD83, Decimal Degrees (xx.xxxx, -xx.xxxx))

Latitude: 39.210235 Longitude (Use negative sign): -80.806013

UTM Coordinates : UTM 83-17NF:1695363.626904 E UTM 83-17NF:14239226.621075 N

Access Road Coordinates (junction of state highway access)

Latitude: 39.203497 Longitude (Use negative sign): -80.792680

UTM Coordinates : UTM 83-17NF:1699145.653103 E UTM 83-17NF:14236781.647751 N

Approximate Dimensions

Length: 186' Width: 185' Height: 4

Note: If irregularly shaped, give approximate dimensions of long axis.

API 47 017 06759

Total Capacity – Provide all units of measure below:

Barrels: 45,129 Gallons: 1,895,557 Acre-Feet: 5.817

Capacity with 2' Freeboad – Provide all units of measure below:

Barrels: 35,544 Gallons: 1,492,957 Acre-Feet: 4.582

Incised volume:

Barrels: 17,288 Gallons: 726,147 Acre-Feet: 2.228

Net impounded volume: (Total volume less incised volume.)

Barrels: 27,841 Gallons: 1,169,410 Acre-Feet: 3.589

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Anticipated Construction Start Date (estimation, non-binding):

Note: No construction may begin on **Associoated** impoundment until WVDEP issues the drilling permit. At least 7 calendar days prior to confirmed construction start date, notify the Office of Oil & Gas, and the local Oil and Gas inspector of construction start date. Use form IMP-2, "Notification of Impoundment / Pit Construction."

Office of Oil and Gas

Section 4 - Associated Well Numbers and API Numbers. List associated well numbers and API number. API numbers may not be assigned at time of registering this impoundment, if so list as pending.

Well Number(s):	API Number(s) – If issued:
H1 513064	
H2 513065	
H3 513066	
H4 513067	
H5 513068 H6 513069	
H7 516483	
H8 516484	

Section 5 - Required Information Checklist To Register Permit Associated Impoundments or Pits. Include the following information and plans with application.

- ☒ Engineered Construction Plans, certified by WV Registered P.E.
- ☒ Erosion and Sediment Control Plan, certified by WV Registered P.E.
- ☒ Reclamation Plan, certified by WV Registered P.E.

Section 6 – Dam Standard Qualifying Evaluation

- ☐ The design of this structure has been evaluated by the applicant to determine it does NOT qualify to be defined as a dam, under W.Va Rule §47-34. If the design of this structure qualifies it to be defined as a dam, all permits regulating dams will be required prior to registering the structure with the Office of Oil and Gas. The dam standard, from the WVDEP, Div. Of Water and Waste, is available for review at: http://www.dep.wv.gov/WWE/ee/ds/Pages/default.aspx

Section 7 –Comments – Provide any additional comments concerning this project

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SEP 08 2015

IMP-1A

Office of Oil and Gas

Section 8 - Application Certification

I hereby certify that the information listed above is true and accurate. I understand that this pit/impoundment is to be constructed only in a location appropriate for the storage of water, including wastewater, and will be constructed in accordance with plans designed and certified by a West Virginia registered professional engineer. I further recognize that all required plans have been submitted to the Office of Oil and Gas. I understand that after construction, and prior to any fluid being placed in the pit/impoundment, it shall be inspected by a West Virginia registered professional engineer to ensure compliance with the certified design and construction plan, and that the professional engineer shall certify that this structure was constructed in accordance with design and construction plans. I understand that such certification shall be in writing to the Chief and that no fluids may be placed in the pit/impoundment until the certification has been filed with the chief. I agree that this pit/impoundment shall be constructed, maintained, operated and closed in accordance with all applicable laws and rules, including the requirements of W. Va. Code R § 35-4-2 .

Name: Victoria J. Roark

Title: Permitting Supervisor 4701706759

Signature:

Taken, subscribed and sworn to before me this 27 Day of Aug 20 15

Notary Public: Pamela Sykes

My commission expires: 8-24-22

Notary Seal:

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

Section 9. Submittal Instructions

Submit original paper copy of application to:

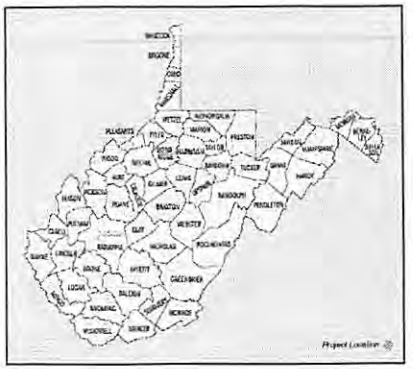
West Virginia Department of Environmental Protection
Office of Oil and Gas
Impoundment Registration
601 57th Street, SE
Charleston WW 25304

Email PDF file format of this application and all related engineering Plans to :
Depimpoundments@wv.gov

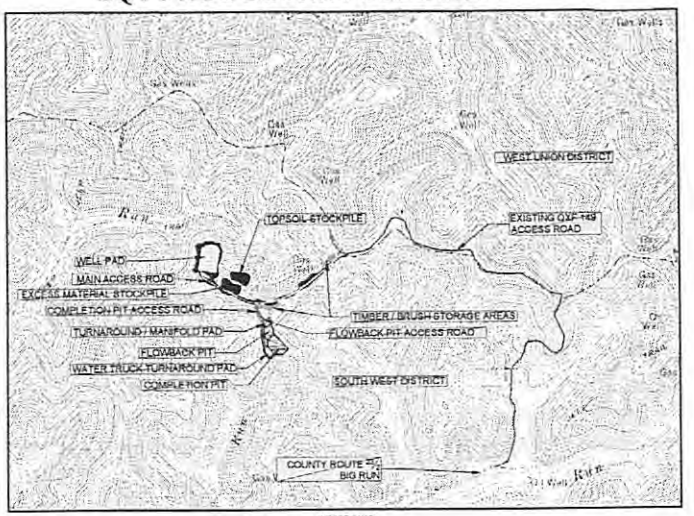
Received
Office of Oil & Gas
SEP 08 2015

OXF 155

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



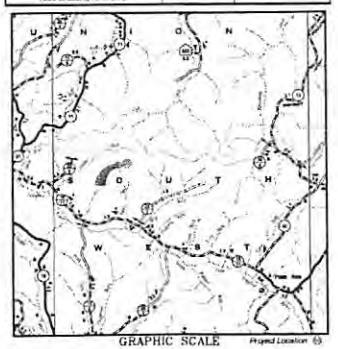
FLOODPLAIN CONDITIONS	
DO SITE CONSTRUCTON ACTIVITIES TAKE PLACE IN FLOODPLAIN:	NO
PERMIT NEEDED FROM COUNTY FLOODPLAIN COORDINATOR:	NO
HEC-RAS STUDY COMPLETED:	N/A
FLOODPLAIN SHOWN ON DRAWINGS:	N/A
FIRM MAP NUMBER(S) FOR SITE:	54017C0225C
ACREAGES OF CONSTRUCTION IN FLOODPLAIN:	N/A



PROPOSED WELL LEGEND

H8 516484 - LAT: 39.213754 / LONG:-80.809732
H7 516483 - LAT: 39.213713 / LONG:-80.809739
H6 513069 - LAT: 39.213673 / LONG:-80.809747
H5 513068 - LAT: 39.213632 / LONG:-80.809754
H4 513067 - LAT: 39.213591 / LONG:-80.809762
H3 513066 - LAT: 39.213550 / LONG:-80.809769
H2 513065 - LAT: 39.213510 / LONG:-80.809777
H1 513064 - LAT: 39.213469 / LONG:-80.809784

SITE LOCATIONS NAD 83	LATITUDE	LONGITUDE
Beginning Main Access Road 0+00	39.214037	-80.801494
Center of Completion Pit	39.209547	-80.805553
Center of Flowback Pit	39.210225	-80.806013
Center of Well Pad	39.213727	-80.809717
Beginning of OXF 149 access road at county road 23/2	39.203497	-80.792680



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

AFFECTED PROPERTIES
WEST UNION DISTRICT
DODDRIDGE COUNTY, WV

TM 23 - PCL 3
LUCY E. HARPER
440.80 ACRES
SITE DISTURBANCE

MAIN ACCESS ROAD = 0.79 ACRES
TIMBER REMOVAL = 0.61 ACRES

AFFECTED PROPERTIES
SOUTHWEST DISTRICT
DODDRIXIE COUNTY WV

HARSELY LAND & TIMBER, LLC
910 ACRES
SITE DISTURBANCE

MAIN ACCESS ROAD = 9.34 ACRES
COMPLETION PIT ACCESS ROAD = 0.12 ACRES
TOPSOIL STOCKPILE = 2.53 ACRES
EXCESS MATERIAL STOCKPILE = 2.33 ACRES
TIMBER & BRUSH STORAGE = 1.40 ACRES
WELL PAD 7.83 ACRES
TIMBER REMOVAL = 23.55 ACRES

I. L. MORRIS
6,501.75 ACRES
SITE DISTURBANCE

COMPLETION PIT ACCESS & TURNAROUND = 1.84 ACRES
COMPLETION PIT = 3.40 ACRES
FLOWBACK ACCESS & MANIFOLD/TURNAROUND = 0.96 ACRES
FLOWBACK PIT = 1.30 ACRES

TIMBER REMOVAL = 1.16 ACRES
EXISTING WELLS ACCESS ROAD = 10.26 ACRES

APPROVED
WVDEP OOG
9/29/2015

Project Contacts

EQT

Chris Metzgar - EQT Production Company
304-848-0075 Off.

Billy Miller - Landman II-Drilling EQT Production Company
304-627-0357 Mobile
304-848-0039 Office

Surveyor & Engineer

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

Thomas D. Corathers - 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. The information reflects a temporary frac pit pond. The computed above grade storage volume is less than 15 acre feet, filling method pumped, frac. pond is lined.

SHEET INDEX

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SCHEDULE OF QUANTITIES ---- 3
CONSTRUCTION, GENERAL AND E&S NOTES ---- 4
OVERVIEW PLAN ---- 5
EXISTING ACCESS ROAD ---- 6-10
FINAL DESIGN PLANS ---- 11-13
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COMPLETION PIT PROFILE & CROSS SECTIONS ---- 18
FLOWBACK PIT PROFILE & CROSS SECTIONS ---- 19
EXCESS SPOIL PROFILE & CROSS SECTIONS ---- 20
TOPSOIL STOCKPILE PROFILE & CROSS SECTIONS ---- 21
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FLOWBACK PIT ACCESS PROFILE & CROSS SECTIONS ---- 27
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EXISTING ACCESS ROAD CROSS SECTIONS ---- 30-37
CONSTRUCTION DETAILS ---- 38-40
RECLAMATION PLANS ---- 41-48

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.

DATE	REVISIONS

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

Horner Bros. Engineers
Sinclair Bros. Mining, Environmental and Consulting Engineering

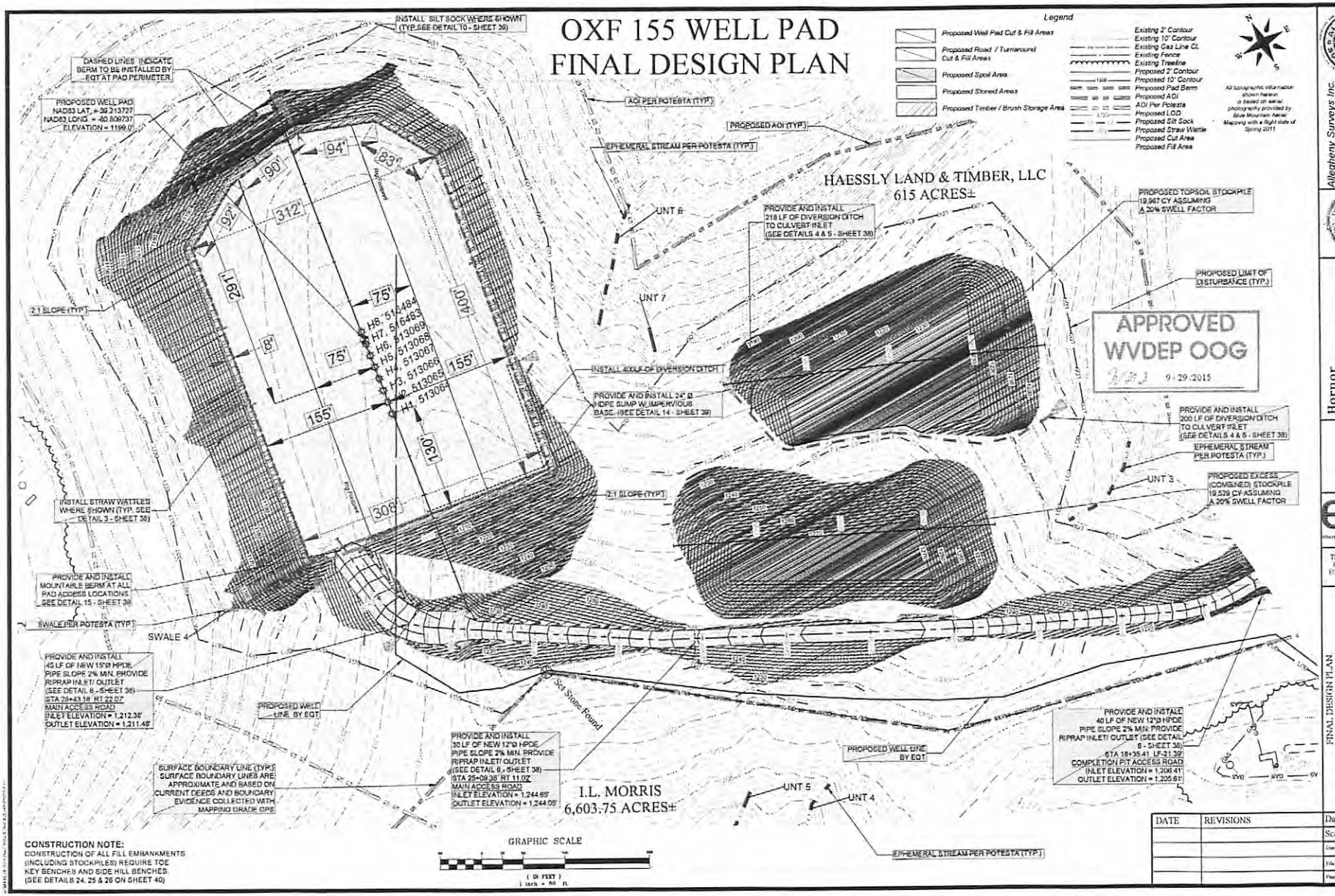
EQT

THIS DOCUMENT PREPARED FOR EQT PRODUCTION COMPANY

FINAL SITE DESIGN COVER SHEET
OXF 155
WELL PAD SITE
SOUTHWEST & WEST UNION DISTRICTS
DODDRIDGE COUNTY, WV

Date: 8/17/2015
Scale: N.A.
Designed By: TDC & BS
File No.:
Page 1 of 48

OXF 155 WELL PAD
FINAL DESIGN PLAN



CONSTRUCTION NOTE:
CONSTRUCTION OF ALL FILL EMBANKMENTS (INCLUDING STOCKPILES) REQUIRE TOE KEY BENCHES AND SIDE HILL BENCHES. (SEE DETAILS 24, 25 & 26 ON SHEET 40)

DATE	REVISIONS

Date: 8/17/2015
Scale: 1"=50'
Designed by: TBC & JDF
File No:
Page: 15 of 44

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

Hornor Bros. Engineers
Civil, Mining, Environmental and Consulting Engineering

EQT

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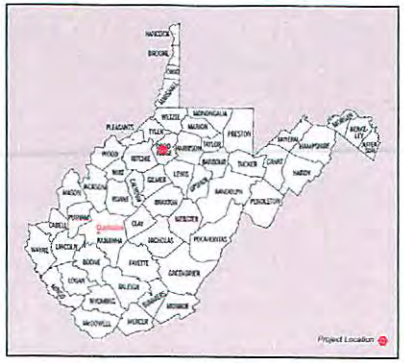
FINAL DESIGN PLAN
OXF 155
WELL PAD SITE
SOUTHWEST & WEST UNION DISTRICTS
DODDRIDGE COUNTY, WV

OXF 155

FINAL SITE DESIGN , CONSTRUCTION PLANS, & EROSION & SEDIMENT CONTROL PLANS

EQT PRODUCTION COMPANY



FLOODPLAIN CONDITIONS	
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PERMIT NEEDED FROM COUNTY FLOODPLAIN COORDINATOR:	NO
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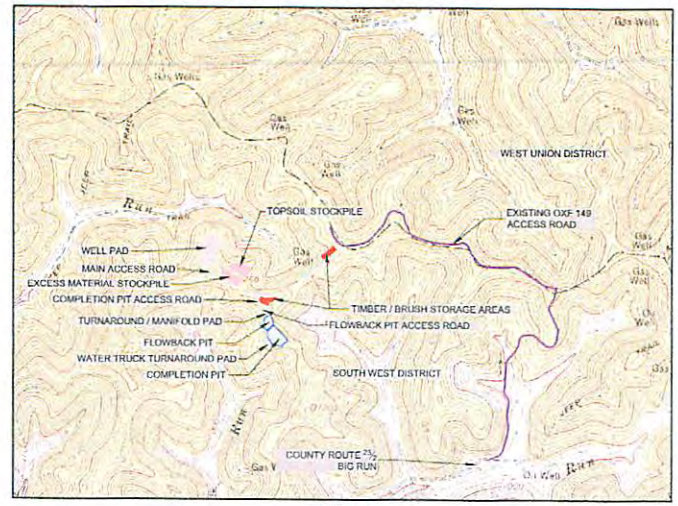
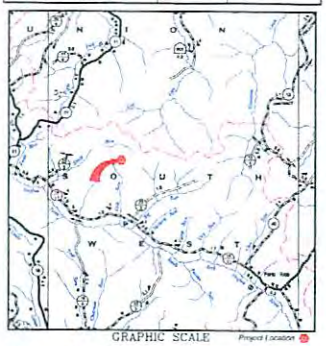


SITE LOCATIONS NAD 83	LATITUDE	LONGITUDE
Beginning Main Access Road (0+00)	39.214031	-80.801464
Center of Completion Pit	39.209542	-80.805553
Center of Flowback Pit	39.210235	-80.809013
Center of Well Pad	39.213727	-80.809737
Beginning of OXF 149 access road at county road 25/2	39.203497	-80.792680



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Surveyor & Engineer

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

Thomas D. Corathers - PE., PS- Horner Brothers Engineers
304-624-6445 Office

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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. The information reflects a temporary frac pit pond. The computed above grade storage volume is less than 15 acre feet. filling method pumped, frac. pond is lined.

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OCT 01 2015

WEST VIRGINIA COORDINATE SYSTEM OF 1983, STATE PLANE GRID NORTH
ELEVATIONS NAVD88
ESTABLISHED BY SURVEY GRADE GPS

AFFECTED PROPERTIES
WEST UNION DISTRICT
DODDRIDGE COUNTY, WV

TM 21 / PCL 3
LUCY E. HARPER
142.50 ACRES
SITE DISTURBANCE

MAIN ACCESS ROAD = 0.78 ACRES
COMPLETION PIT ACCESS ROAD = 0.11 ACRES
TIMBER REMOVAL = 0.81 ACRES

AFFECTED PROPERTIES
SOUTHWEST DISTRICT
DODDRIDGE COUNTY, WV

HAESSLY LAND & TIMBER LLC
615 ACRES
SITE DISTURBANCE

MAIN ACCESS ROAD = 8.48 ACRES
COMPLETION PIT ACCESS ROAD = 0.11 ACRES
TOPSOIL STOCKPILE = 2.53 ACRES
EXCESS MATERIAL STOCKPILE = 2.33 ACRES
TIMBER & BRUSH STORAGE = 1.31 ACRES
WELL PAD 7.83 ACRES
TOTAL DISTURBANCE = 23.53 ACRES
TIMBER REMOVAL = 23.53 ACRES

T.L. MORRIS
8,603.75 ACRES
SITE DISTURBANCE

COMPLETION PIT ACCESS & TURNAROUND = 1.67 ACRES
COMPLETION PIT = 3.41 ACRES
FLOWBACK ACCESS & MANIFOLD/TURNAROUND = 0.65 ACRES
FLOWBACK PIT = 1.20 ACRES
TIMBER & BRUSH STORAGE = 0.32 ACRES
TOTAL DISTURBANCE = 7.25 ACRES
TIMBER REMOVAL = 11.16 ACRES
EXISTING WELLS ACCESS ROAD = 10.26 ACRES

FINAL REVIEW
NOT FOR CONSTRUCTION
Michael Duff
9-30-15

SHEET INDEX

COVER SHEET / LOCATION MAP	1
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EXISTING ACCESS ROAD CROSS SECTIONS	28-35
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RECLAMATION PLANS	39-46

DATE	REVISIONS

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

Horner Bros. Engineers
Since 1906
Civil, Mining, Environmental and Consulting Engineering

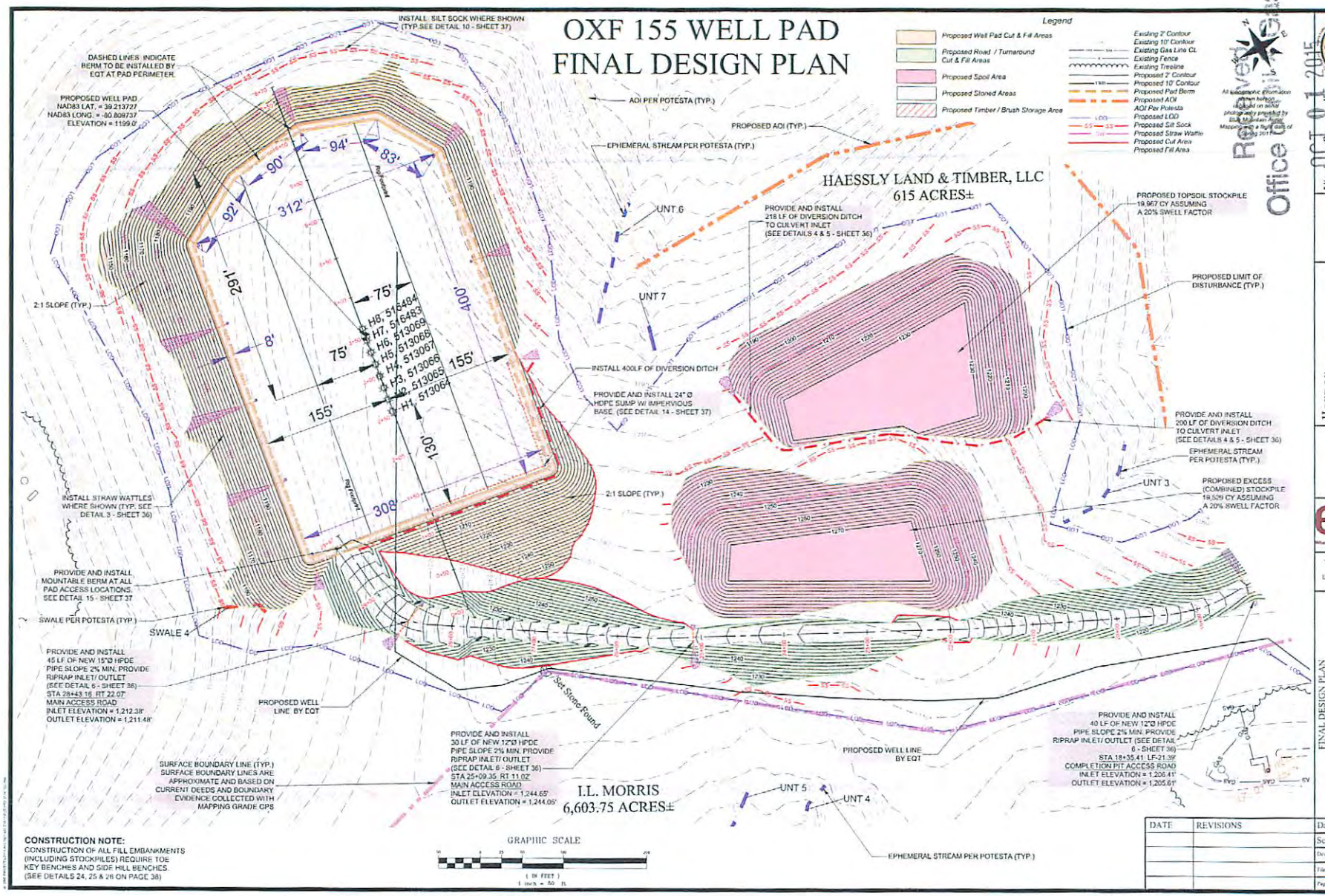
EQT
Where energy meets innovation.

THIS DOCUMENT PREPARED FOR EQT PRODUCTION COMPANY

FINAL SITE DESIGN COVER SHEET
OXF 155
WELL PAD SITE
SOUTHWEST & WEST UNION DISTRICTS
DODDRIDGE COUNTY, WV

Date: 8/12/2015
Scale: N.A.
Designed By: TDC & JLF
File No.
Page 1 of 46

OXF 155 WELL PAD
FINAL DESIGN PLAN



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GRAPHIC SCALE
(IN FEET)
1 inch = 50 ft.

DATE	REVISIONS

Date: 8/12/2015
Scale: 1"=50'
Designed By: TSL & JDI
File No.
Page 13 of 46

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

Hornor Bros. Engineers
Civil, Mining, Environmental and Consulting Engineering

EQT

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FINAL DESIGN PLAN
OXF 155
WELL PAD SITE
SOUTHWEST & WEST UNION DISTRICTS
DODDRIDGE COUNTY, WV

Received
OCT 01 2015
Office of Oil & Gas

MDG
9-30-15