



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

January 21, 2014

WELL WORK PERMIT

Horizontal 6A Well

This permit, API Well Number: 47-1706392, 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: 512478
Farm Name: HARPER, LUCY E.
API Well Number: 47-1706392
Permit Type: Horizontal 6A Well
Date Issued: 01/21/2014

Promoting a healthy environment.

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 (USACOE). Through this permit, you are hereby being advised to consult with USACOE 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 fifty (50) feet below the bottom of the void or install less than twenty (20) feet of casing below the bottom of the void.
3. When compacting fills, each lift before compaction shall not be more than 12 inches in height, and the moisture content of the fill material shall be within limits as determined by the Standard Proctor Density test of the actual soils used in specific engineered fill, ASTM D698, Standard Test Method for Laboratory Compaction Characteristics of Soil Using Standard Effort, to achieve 95 % compaction of the optimum density. Each lift shall be tested for compaction, with a minimum of two tests per lift per acre of fill. All test results shall be maintained on site and available for review.
4. Operator shall install signage per § 22-6A-8g (6) (B) at all source water locations included in their approved water management plan within 24 hours of water management plan activation.
5. Oil and gas water supply wells will be registered with the Office of Oil and Gas and all such wells will be constructed and plugged in accordance with the standards of the Bureau for Public Health set forth in its Legislative rule entitled *Water Well Regulations*, 64 C.S.R. 19. Operator is to contact the Bureau of Public Health regarding permit requirements. In lieu of plugging, the operator may transfer the well to the surface owner upon agreement of the parties. All drinking water wells within fifteen hundred feet of the water supply well shall be flow tested by the operator upon request of the drinking well owner prior to operating the water supply well.
6. Pursuant to the requirements pertaining to the sampling of domestic water supply wells/springs the operator shall, no later than thirty (30) days after receipt of analytical data provide a written copy to the Chief and any of the users who may have requested such analyses.
7. If any explosion or other accident causing loss of life or serious personal injury occurs in or about a well or well work on a well, the well operator or its contractor shall give notice, stating the particulars of the explosion or accident, to the oil and gas inspector and the Chief, within 24 hours of said accident.
8. During the casing and cementing process, in the event cement does not return to the surface, the oil and gas inspector shall be notified within 24 hours.



017 06392

west virginia department of environmental protection

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

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

January 17, 2014

Mr. Matthew Hamblet
Xmatthewhambletx86@gmail.com

Re: Permit for EQT Production Company 512482, 512478, 512479 and 513136
API number: 1706391 1706392 1706393 and 1705951

Mr. Hamblet:

The Office of Oil and Gas (OOG) has reviewed your comments concerning EQT's permits for the above referenced well. 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 permit today. For your information and convenience, I am including with this letter a copy of the permit 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 1495 if you have any questions.

Sincerely,

Ashley E. LeMasters
WV DEP Office of Oil and Gas
Permitting Section



017 06392

October 9, 2013

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

Re: Hamblet Objection, API#'s 47-017-05951(513136), 017-06392(512478), 017-06393(512479), 017-06391(512482), 017-06389(512483), 017-06388(512484), and 017-06390(512476).

Dear Mr. Martin,

This letter is in response to a surface objection email filed by Mr. Matthew Lewis Hamblet, on September 29, 2013 for the above wells on the OXF-149 and OXF-150 well pads located in the West Union District, Doddridge County, WV. EQT wishes to respond to concerns raised by Mr. Hamblet.

Mr. Hamblet has insisted that we do a full survey of his property boundaries. The contracted surveyor has used the deed descriptions and field evidence to identify the property boundaries. The boundary line has also been identified on the site maps that were sent with the permit application. Disturbance will happen on both sides of the property boundary; on property owned by Mr. Hamblet et al and on property owned by Ms. Lucy Harper.

Mr. Hamblet mentions verbal promises that were made prior to Tim Groves, Landman, working in that area. Mr. Groves was not made aware of prior promises until he spoke with Mr. Hamblet and did not find any documentation in the previous Landman's file. If Mr. Matthew Hamblet would like for EQT to meet with him or his representative, we could discuss the earlier promises to find out what Mr. Hamblet expected and what he believes wasn't completed in order to resolve his concerns. Tim Groves has met with Mr. Gary Stevenson and Mr. Randall Hamblet, additional owners on the property, to discuss the activities and reclamation that will take place.

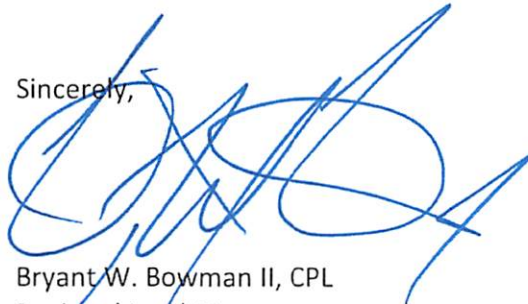
In response to securing his property EQT has installed a gate with combination lock for Mr. Hamblet to secure his property boundary.

EQT's permit applications meet the technical requirement of W.Va. Code 22-6A-8(d) and the accompanying regulations. The remaining review is limited by statute to a

Mr. James A. Martin
October 11, 2013
Page 2

determination as to the following: (1) whether the proposed work will constitute a hazard to the safety of persons; (2) whether the soil and erosion control is 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 made by Mr. Matthew Hamblet do not concern those explicitly designated topics. As such, the permitting process is not the appropriate forum to deal with concerns and issues raised. EQT has met all the requirements under the relevant statutes, W.Va. Code 22-6A-8(d) and 22-6-11, and requests that the permits be granted.

Sincerely,



Bryant W. Bowman II, CPL
Regional Land Manager

RECEIVED
Office of Oil and Gas
OCT 1 2013
West Virginia Department of
Environmental Protection

Nottingham, Justin E

Subject: FW: Well permits

API #'s :

17-06390

.. 92

.. 93

.. 91

.. 88

.. 89

From: matthew hamblet [mailto:xmatthewhambletx86@gmail.com]
Sent: Sunday, September 29, 2013 10:52 PM
To: Martin, James A
Cc: Cynthia J. T. Loomis; Gary L. Stephenson; srogers@wrmills.com; vroark@eqt.com
Subject: Well permits

Mr. Martin ,

I Matthew Lewis Hamblet am in receipt of permits for wells # 513136. 512478. 512479.512482. 512483. 512484, & 512476. As the surface owner. I own 50% of 50% of a parcel located in Doddridge County. These permits-- in part requested for wells on property owned by myself and Gary Stephenson(undivided interest as joint tenants with with right of ownership) and my brother(the other 1/2 undivided interest)include permits on property which we do not own .

As before stated on papers relating to these wells , I must insist that EQT perform a full survey on these boundaries "for line, right -of-way, and pad sights"many of which I believe to have been placed on others property .

Further, as I had stated in my earlier objection EQT's failure to this date to stand up to any of their verbal promises as to work to be done on the surface during the last drilling phase, their failure to maintain any type what so ever of a secure boundary on my property line, complete lack of regard to keeping their pad sites and roads trash and feces free . I refer back to my letter of Aug. 23 2013 for further detail. For these and others I object most strenuously to EQT entering onto my property for any reason but for those of maintaining their present wells.

Matthew Lewis Hamblet

From: [Smith, Gene C](#)
To: [Paynter, Natalie G](#); [Nottingham, Justin E](#)
Subject: FW: Permits - Maxwell/ Doddridge wells
Date: Tuesday, August 27, 2013 9:27:14 AM
Attachments: [image9b3c6c.jpg@c723aa32.870d4eb2](#)

From: Martin, James A
Sent: Monday, August 26, 2013 6:00 PM
To: Smith, Gene C; Cooper, Laura K
Subject: Fwd: Permits - Maxwell/ Doddridge wells

Sent from my iPhone

Begin forwarded message:

From: "Roark, Vicki" <VRoark@eqt.com>
Date: August 26, 2013 4:18:13 PM EDT
To: "james.a.martin@wv.gov" <james.a.martin@wv.gov>
Cc: "natalie.g.paynter@wv.gov" <natalie.g.paynter@wv.gov>
Subject: FW: Permits - Maxwell/ Doddridge wells

His response is to a "Intent to Drill" notice. No permits have been applied for yet.

From: matthew hamblet [<mailto:xmatthewhambletx86@gmail.com>]
Sent: Friday, August 23, 2013 4:45 PM
To: James.A.Martin@wv.gov; Roark, Vicki; Cynthia Loomis; Gary L. Stephenson; rhamblet@truckenterprises.com; wshamblet@verizon.net; rogers@wrmills.com
Subject: Fwd: Permits - Maxwell/ Doddridge wells

Dear Sirs,

I can not, in good conscience, sign off on any and or all of the permit requests made by EQT Production, received by me August 19, 2013, at this time. These permits are for Wells 513136; 512478; 512479; 512482; 512483; 512484; and, 512476 in Doddridge County, WV.

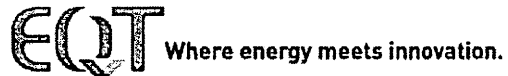
These permits--in part requested for proposed wells on property owned by myself and Gary Lee Stephenson (1/2 undivided interest as joint tenants with right of survivorship) and my brother (the other 1/2 undivided interest)-- include permits for wells on adjoining property which we do not own. Furthermore, I am no longer acting as legal power of attorney for the owner of the adjoining property. Please note that service for any well permits located on adjoining property is specifically not accepted by me on behalf of Lucy Harper.

I must insist that EQT perform a full survey on these boundaries "for

line, right-of-way and pad sights", many of which I believe to have been placed on other properties. Prior sloppiness has resulted in well pads which spill over onto the adjoining lands and which constitute statutory trespass as the correct owner was not served with proper notice under the law.

Further, EQT's failure to stand up to its verbal promises as to work to be done on the property during the last drilling phase, failure to secure a secure boundary of my property, and many other lapses in their conduct while operating on my property cause me to wish to have nothing further to do with EQT and their way of conducting business.

Matthew L. Hamblet



www.eqt.com

WW - 6B
(3/13)

CASING AND TUBING PROGRAM

18)

TYPE	Size	New or Used	Grade	Weight per ft.	FOOTAGE: for Drilling	INTERVALS: Left in Well	CEMENT: Fill-up (Cu.Ft.)
Conductor	20	New	MC-50	81	40	40	38 CTS
Fresh Water	13 3/8	New	MC-50	54	905	905	789 CTS
Coal							
Intermediate	9 5/8	New	MC-50	40	3,103	3,103	1,215 CTS
Production	5 1/2	New	P-110	20	10,630	10,630	See Note 1
Tubing	2 3/8		J-55	4.6			May not be run if run wld be set 100' less than TD
Liners							

*DCW
7-14-2014*

TYPE	Size	Wellbore Diameter	Wall Thickness	Burst Pressure	Cement Type	Cement Yield (cu. ft./k)
Conductor	20	24	0.375	-	Construction	1.18
Fresh Water	13 3/8	17 1/2	0.38	2,480	1	1.21
Coal						
Intermediate	9 5/8	12 3/8	0.395	3,590	1	1.21
Production	5 1/2	8 1/2	0.361	12,640	-	1.27/1.86
Tubing						
Liners						

Packers

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

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.



017 06392

January 10, 2014

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 OXF149 (512478) 017-06392

Dear Mr. Smith,

Attached is a modification to the casing program for the above well. EQT is requesting the 13 3/8" surface casing to be set 50' below the deepest red rock show to cover potential red rock issues. The proposed casing set depth is above ground elevation. The reason for this is the red rock swells during drilling of the intermediate section causing many drilling problems such as but not limited to lost drilling assemblies and casing running issues.

After reviewing the OXF149, we would like to request to set the surface casing deeper on each well. The 13 3/8" casing will be set at a depth of approximately 905' KB (50' below the anticipated red rock show).

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

Sincerely,

A handwritten signature in blue ink, appearing to read 'Vicki Roark', is written over a light blue horizontal line.

Vicki Roark
Permitting Supervisor-WV

Enc.

cc: Douglas Newlon
4060 Dutchman Road
Macfarlan, WV 26148

21) 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

22) 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.

23) Proposed borehole conditioning procedures. Surface: Circulate hole clean (Approximately 30-45 minutes) rotating & reciprocating one full joint until cuttings diminish at surface. When cuttings returning to surface diminish, continue to circulate an additional 5 minutes. To ensure that there is no fill, short trip two stands with no circulation. If there is fill, bring compressors back on and circulate hole clean. A constant rate of higher than expected cuttings volume likely indicates washouts that will not clean up.

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

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

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

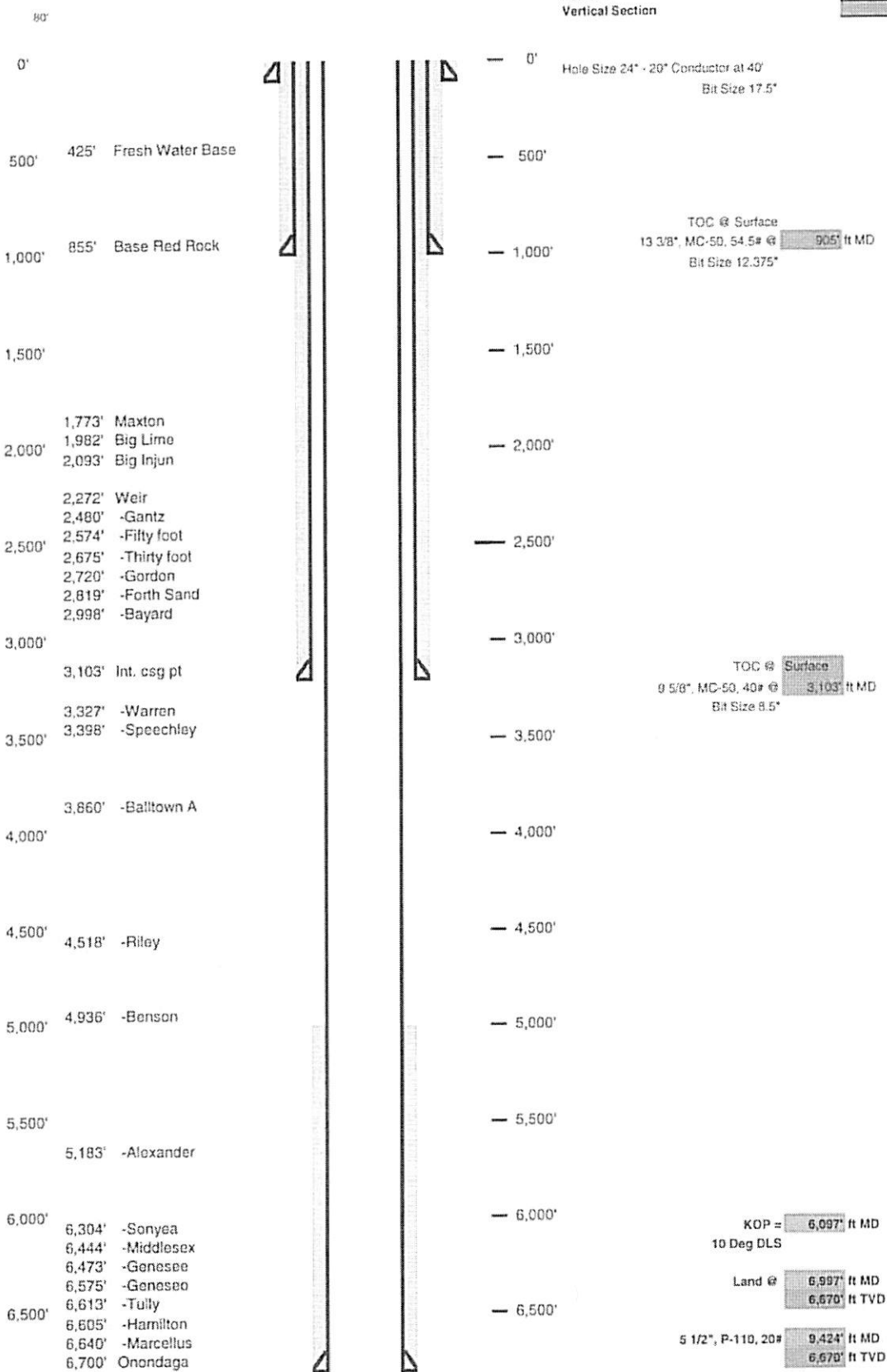
*Note: Attach additional sheets as needed.

RECEIVED
Office of Oil and Gas
SEP 23 2013
WV Department of
Environmental Protection

Well Schematic
EQT Production

Well Name 512478 (OXF149H1)
County Doddridge
State West Virginia

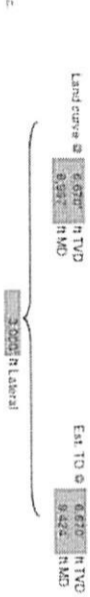
Elevation KB: 1250
Target Marcellus
Prospect
Azimuth 335
Vertical Section 3000



Well 512478 (OXF149H1)
 EOI Production
 Oxford
 Doddridge West Virginia
 Vertical Section Interval Section
 Altitude 315
 Elevation 3000

TVD Depth (feet)	Formation Top (TVD)	Formation	Altitude	Interval	Well Size (Inches)	Casing Type	Casing Size (Inches)	WT (ppg)/Grade
0								
250		Dave Fresh Water	421					
500								
750		Essex Red Rock	415	(1000)	17 1/2	Surface	13.315	54#MC-50
1,000								
1,250								
1,500								
1,750		Martins	1773					
2,000		Osage	1682	(2000)				
2,250		Big Horn	2021					
2,500		Wick	2272					
2,750		Clair	2480					
3,000		Frog Foot	2514					
3,250		Thru Foot	2514					
3,500		Clinton	2512					
3,750		Clinton	2270					
4,000		Frog Band	2818					
4,250		Shinarump	2913					
4,500		Shinarump	2913					
4,750		Shinarump	2913					
5,000		Shinarump	2913					
5,250		Shinarump	2913					
5,500		Shinarump	2913					
5,750		Shinarump	2913					
6,000		Shinarump	2913					
6,250		Shinarump	2913					
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6,750		Shinarump	2913					
7,000		Shinarump	2913					
7,250		Shinarump	2913					
7,500		Shinarump	2913					
7,750		Shinarump	2913					
8,000		Shinarump	2913					
8,250		Shinarump	2913					
8,500		Shinarump	2913					
8,750		Shinarump	2913					
9,000		Shinarump	2913					
9,250		Shinarump	2913					
9,500		Shinarump	2913					
9,750		Shinarump	2913					
10,000		Shinarump	2913					

Proposed Well Work
 Drill and complete a new horizontal well in the Marcellus formation.
 The vertical well to go down to an approximate depth of 6097'.
 Then kick off the horizontal leg into the Marcellus using a slick water frac.



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

Fluids/Cuttings Disposal & Reclamation Plan

Operator Name OXF149 OP Code _____

Watershed (HUC10) Left Fork Arnolds Creek Quadrangle Oxford 7.5

Elevation 1242.5 County Doddridge District West Union

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 for drill cuttings: Yes: _____ No: X

If so please describe anticipated pit waste: _____

Will a synthetic liner be used in the pit? Yes _____ No X 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 _____)
- Off Site Disposal (Supply form WW-9 for disposal location)
- _____ Other (Explain _____)

DCW
10-4-2013

Will closed loop system be used? YES

Drilling medium anticipated for this well? Air, freshwater, oil based, etc. Air and water based mud

If oil based, what type? Synthetic, petroleum, etc _____

Additives to be used in drilling medium? MILBAR, Viscosifer, Alkalinity Control, Lime, Chloride Salts, Rate Filtration Control,

Deflocculant, Lubricant, Detergent, Defoaming, Walnut Shell, X-Cide, SOLTEX Terra

Drill cuttings disposal method? Leave in pit, landfill, removed offsite, etc. Landfill

If left in pit and plan to solidify what medium will be used? (Cement, Lime, sawdust) n/a

Landfill or offsite name/permit number? See Attached List

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

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

Company Official Signature *Victoria J Roark*

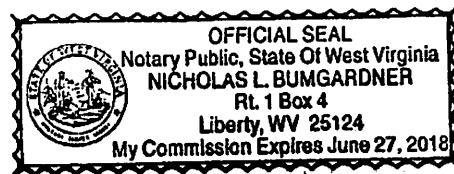
Company Official (Typed Name) Victoria J Roark

Company Official Title Permitting Supervisor

Subscribed and sworn before me this 17 day of SEPTEMBER, 20 13

[Signature] Notary Public

My commission expires 6/27/2018



RECEIVED
Office of Oil and Gas

OCT 11 2013

WV Department of
Environmental Protection

Operator's Well No. 512478

Proposed Revegetation Treatment: Acres Disturbed 15.4 Prevegetation pH 6.8

Lime 3 Tons/acre or to correct to pH 6.5

Fertilizer (10-20-20 or equivalent) 13 lbs/acre (500 lbs minimum)

Mulch 2 Tons/acre

Seed Mixtures

Area I		Area II	
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: Doug Newlon

Comments: Maintain ETS Preseed + Mulch any disturbed areas to WV Dep regulations

Title: ~~Mining~~ Oil & Gas Inspector Date: 10-4-2013

Field Reviewed? (/) Yes () No

RECEIVED Office of Oil and Gas OCT 11 2013 WV Department of Environmental Protection

EQT Production Water plan
Offsite disposals for Marcellus wells

017 06392

CWS TRUCKING INC.

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

BROAD STREET ENERGY LLC

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

LAD LIQUID ASSETS DISPOSAL INC.

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

TRIAD ENERGY

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

TRI COUNTY WASTE WATER MANAGEMENT, INC.

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

KING EXCAVATING CO.

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

Waste Management - Meadowfill Landfill

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

Waste Management - Northwestern Landfill

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

RECEIVED
Office of Oil and Gas

SEP 23 2013

WV Department of
Environmental Protection



Where energy meets innovation.™

Site Specific Safety and Environmental Plan For

EQT OXF 149 Pad

Doddridge County, WV

For Wells:

512482 512478 512479 513136 _____

Date Prepared:

July 31, 2013

[Signature]
EQT Production
Permitting Supervisor
Title

[Signature]
WV Oil and Gas Inspector
Title

9-20-13
Date

10-11-2013
Date

RECEIVED
Office of Oil and Gas
OCT 11 2013
WV Department of
Environmental Protection



Water Management Plan: Primary Water Sources



WMP- 01607

API/ID Number:

047-017-06392

Operator:

EQT Production Company

512478 (OXF149H1)

Important:

For each proposed primary water source (including source intakes for purchased water sources) identified in your water management plan, and summarized herein, DEP has made an evaluation concerning water availability over the specified date range. DEP's assessment is based on the following considerations:

- Statistical analysis of historical USGS stream gauge data (transferred to un-gauged locations as necessary);
- Identification of sensitive aquatic life (endangered species, mussels, etc.);
- Quantification of known existing demands on the water supply (Large Quantity Users);
- Minimum flows required by the Army Corps of Engineers; and
- Designated stream uses.

Based on these factors, DEP has provided, for each intake location (and origination point for purchased water), a reference gauge location and discharge flow reading which must be surpassed prior to withdrawals. Additionally, DEP has established a minimum passby flow at the withdrawal location which must also be surpassed prior to withdrawals. These thresholds are considered terms of the permit and are enforceable as such.

DEP is aware that some intake points will be used for mutiple wells and well sites. In these cases, the thresholds set by the Water Management Plan are to be interepreted as total withdrawal limits for each location over the specified date range regardless of how many wells are supported by that intake.

For all purchased water intakes, determinations of water availability are made at the original source intake location. It is the responsibility of the Oil and Gas Operator, not the seller, to cease withdrawal of water from the seller when flows are less than the minimum gauge reading at the stream gauge referenced by the Water Management Plan in order to protect stream uses.

Note that the determinations made herein are based on the best available data, but it is impossible to predict water availability in the future. While the DEP has carefully established these minimum withdrawal thresholds, it remains the operator's responsibility to protect aquatic life at all times. Approval to withdrawal is contingent upon permission from the land owner. It is the responsibility of the operator to secure and maintain permission prior to any withdrawals.

The operator is reminded that 24-48 hours prior to withdrawing (or purchasing) water, DEP must be notified by email at DEP.water.use@wv.gov.

APPROVED DEC 03 2013

Source Summary

017 06392

WMP-01607

API Number: 047-017-06392

Operator: EQT Production Company

512478 (OXF149H1)

Stream/River

Source Ohio River @ Westbrook Trucking Site Pleasants Owner: Stephen R. and Janet Sue Westbrook

Start Date End Date Total Volume (gal) Max. daily purchase (gal) Intake Latitude: Intake Longitude:
11/1/2013 11/1/2014 5,100,000 39.384455 -81.25645

Regulated Stream? Ohio River Min. Flow Ref. Gauge ID: 9999999 Ohio River Station: Willow Island Lock & Dam

Max. Pump rate (gpm): 1,260 Min. Gauge Reading (cfs): 6,468.00 Min. Passby (cfs)

DEP Comments: Refer to the specified station on the National Weather Service's Ohio River forecast website: http://www.erh.noaa.gov/ohrfc//flows.shtml

Source Ohio River @ Select Energy Pleasants Owner: Select Energy

Start Date End Date Total Volume (gal) Max. daily purchase (gal) Intake Latitude: Intake Longitude:
11/1/2013 11/1/2014 5,100,000 39.346473 -81.338727

Regulated Stream? Ohio River Min. Flow Ref. Gauge ID: 9999998 Ohio River Station: Racine Dam

Max. Pump rate (gpm): 1,500 Min. Gauge Reading (cfs): 7,216.00 Min. Passby (cfs)

DEP Comments: Refer to the specified station on the National Weather Service's Ohio River forecast website: http://www.erh.noaa.gov/ohrfc//flows.shtml

Source Middle Island Creek @ Travis Truck Pad Doddridge Owner: Michael J. Travis

Start Date End Date Total Volume (gal) Max. daily purchase (gal) Intake Latitude: Intake Longitude:
11/1/2013 11/1/2014 5,100,000 39.308545 -80.781102

Regulated Stream? Ref. Gauge ID: 3114500 MIDDLE ISLAND CREEK AT LITTLE, WV

Max. Pump rate (gpm): 4,200 Min. Gauge Reading (cfs): 72.16 Min. Passby (cfs) 28.33

DEP Comments:

Source **Middle Island Creek @ Rock Run**

Doddridge

Owner: **017**

06392
William Whitehill

Start Date	End Date	Total Volume (gal)	Max. daily purchase (gal)	Intake Latitude:	Intake Longitude:
11/1/2013	11/1/2014	5,100,000		39.298763	-80.760682

Regulated Stream? Ref. Gauge ID: **3114500** MIDDLE ISLAND CREEK AT LITTLE, WV

Max. Pump rate (gpm): **1,680** Min. Gauge Reading (cfs): **62.89** Min. Passby (cfs) **26.43**

DEP Comments:

Source **Middle Island Creek @ Barnes Withdrawal Site**

Doddridge

Owner:

Ellen L. Barnes

Start Date	End Date	Total Volume (gal)	Max. daily purchase (gal)	Intake Latitude:	Intake Longitude:
11/1/2013	11/1/2014	5,100,000		39.29958	-80.75694

Regulated Stream? Ref. Gauge ID: **3114500** MIDDLE ISLAND CREEK AT LITTLE, WV

Max. Pump rate (gpm): **1,260** Min. Gauge Reading (cfs): **59.06** Min. Passby (cfs) **26.39**

DEP Comments:

Source **Meathouse Fork @ Spiker Withdrawal Site**

Doddridge

Owner:

John & Sue Spiker

Start Date	End Date	Total Volume (gal)	Max. daily purchase (gal)	Intake Latitude:	Intake Longitude:
11/1/2013	11/1/2014	5,100,000		39.2591	-80.72489

Regulated Stream? Ref. Gauge ID: **3114500** MIDDLE ISLAND CREEK AT LITTLE, WV

Max. Pump rate (gpm): **1,260** Min. Gauge Reading (cfs): **74.77** Min. Passby (cfs) **9.26**

DEP Comments:

● Source **South Fork of Hughes River @ Upper Wizard Run** Doddridge **017** **063.92** Owner: **I.L. Morris**

Start Date End Date Total Volume (gal) Max. daily purchase (gal) Intake Latitude: Intake Longitude:
11/1/2013 11/1/2014 5,100,000 39.189998 -80.79511

Regulated Stream? Ref. Gauge ID: **3155220** SOUTH FORK HUGHES RIVER BELOW MACFARLAN, WA

Max. Pump rate (gpm): 1,260 Min. Gauge Reading (cfs): 33.12 Min. Passby (cfs) 0.64

DEP Comments:

● Source **South Fork of Hughes River @ Harmony Road** Doddridge Owner: **I.L. Morris**

Start Date End Date Total Volume (gal) Max. daily purchase (gal) Intake Latitude: Intake Longitude:
11/1/2013 11/1/2014 5,100,000 39.1962 -80.81442

Regulated Stream? Ref. Gauge ID: **3155220** SOUTH FORK HUGHES RIVER BELOW MACFARLAN, WA

Max. Pump rate (gpm): 1,260 Min. Gauge Reading (cfs): 33.12 Min. Passby (cfs) 0.98

DEP Comments:

● Source **Straight Fork @ Maxson Withdrawal Site** Ritchie Owner: **Douglas L. Maxson**

Start Date End Date Total Volume (gal) Max. daily purchase (gal) Intake Latitude: Intake Longitude:
11/1/2013 11/1/2014 5,100,000 39.144317 -80.848587

Regulated Stream? Ref. Gauge ID: **3155220** SOUTH FORK HUGHES RIVER BELOW MACFARLAN, WA

Max. Pump rate (gpm): 1,680 Min. Gauge Reading (cfs): 36.74 Min. Passby (cfs) 2.45

DEP Comments:

Source **Middle Fork @ Janscheck Withdrawal Site**

Doddridge

Overhead **017**

06302

Start Date	End Date	Total Volume (gal)	Max. daily purchase (gal)	Intake Latitude:	Intake Longitude:
11/1/2013	11/1/2014	5,100,000		39.151388	-80.812222

Regulated Stream?

Ref. Gauge ID: **3155220** SOUTH FORK HUGHES RIVER BELOW MACFARLAN, WA

Max. Pump rate (gpm):	840	Min. Gauge Reading (cfs):	35.81	Min. Passby (cfs)	0.86
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DEP Comments:

Source Detail

WMP-01607

API/ID Number: 047-017-06392

Operator: EQT Production Company

512478 (OXF149H1)

Source ID: 30305 Source Name: Ohio River @ Westbrook Trucking Site
 Stephen R. and Janet Sue Westbrook Source Latitude: 39.384455
 Source Longitude: -81.25645

HUC-8 Code: 5030201

Drainage Area (sq. mi.): 25000 County: Pleasants

Anticipated withdrawal start date: 11/1/2013

Anticipated withdrawal end date: 11/1/2014

Endangered Species? Mussel Stream?

Total Volume from Source (gal): 5,100,000

Trout Stream? Tier 3?

Max. Pump rate (gpm): 1,260

Regulated Stream? Ohio River Min. Flow

Max. Simultaneous Trucks: 0

Proximate PSD?

Max. Truck pump rate (gpm): 0

Gauged Stream?

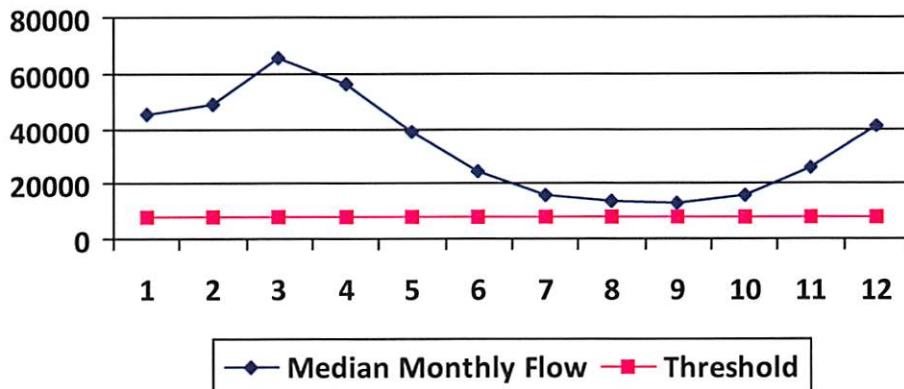
Reference Gaug 9999999 Ohio River Station: Willow Island Lock & Dam

Drainage Area (sq. mi.) 25,000.00

Gauge Threshold (cfs): 6468

Month	Median monthly flow (cfs)	Threshold (+ pump)	Estimated Available water (cfs)
1	45,700.00	-	-
2	49,200.00	-	-
3	65,700.00	-	-
4	56,100.00	-	-
5	38,700.00	-	-
6	24,300.00	-	-
7	16,000.00	-	-
8	13,400.00	-	-
9	12,800.00	-	-
10	15,500.00	-	-
11	26,300.00	-	-
12	41,300.00	-	-

Water Availability Profile



Water Availability Assessment of Location

Base Threshold (cfs): -
 Upstream Demand (cfs): 0.00
 Downstream Demand (cfs): 0.00
 Pump rate (cfs): 2.81
 Headwater Safety (cfs): 0.00
 Ungauged Stream Safety (cfs): 1,617.00

Min. Gauge Reading (cfs): -
 Passby at Location (cfs): -

"Threshold", as depicted in the chart above is meant only to indicate the calculated base threshold at the proposed withdrawal location. This value does not include the proposed pump rate or existing demand on the stream. Refer to the monthly breakdown above for a more complete estimation of water availability by month.

Source Detail

017 06392

WMP-01607

API/ID Number: 047-017-06392

Operator: EQT Production Company

512478 (OXF149H1)

Source ID: 30306 Source Name: Ohio River @ Select Energy Source Latitude: 39.346473
 Select Energy Source Longitude: -81.338727
 HUC-8 Code: 5030201
 Drainage Area (sq. mi.): 25000 County: Pleasants
 Anticipated withdrawal start date: 11/1/2013
 Anticipated withdrawal end date: 11/1/2014
 Total Volume from Source (gal): 5,100,000
 Max. Pump rate (gpm): 1,500
 Max. Simultaneous Trucks: 0
 Max. Truck pump rate (gpm): 0

Endangered Species? Mussel Stream?
 Trout Stream? Tier 3?
 Regulated Stream? Ohio River Min. Flow
 Proximate PSD?
 Gauged Stream?

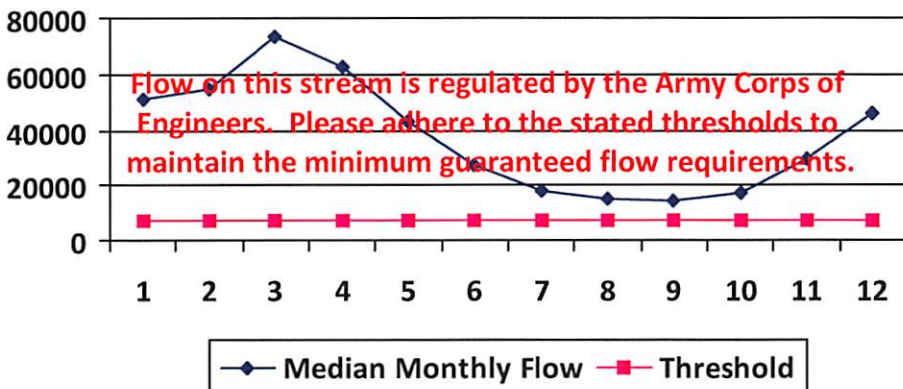
Reference Gaug: 9999998 Ohio River Station: Racine Dam

Drainage Area (sq. mi.): 25,000.00

Gauge Threshold (cfs): 7216

Month	Median monthly flow (cfs)	Threshold (+ pump)	Estimated Available water (cfs)
1	50,956.00	-	-
2	54,858.00	-	-
3	73,256.00	-	-
4	62,552.00	-	-
5	43,151.00	-	-
6	27,095.00	-	-
7	17,840.00	-	-
8	14,941.00	-	-
9	14,272.00	-	-
10	17,283.00	-	-
11	29,325.00	-	-
12	46,050.00	-	-

Water Availability Profile



Water Availability Assessment of Location

Base Threshold (cfs): -
 Upstream Demand (cfs): 0.00
 Downstream Demand (cfs): 0.00
 Pump rate (cfs): 3.34
 Headwater Safety (cfs): 0.00
 Ungauged Stream Safety (cfs): 0.00

Min. Gauge Reading (cfs): -
 Passby at Location (cfs): -

"Threshold", as depicted in the chart above is meant only to indicate the calculated base threshold at the proposed withdrawal location. This value does not include the proposed pump rate or existing demand on the stream. Refer to the monthly breakdown above for a more complete estimation of water availability by month.

Source Detail

017 06392

WMP-01607

API/ID Number: 047-017-06392

Operator: EQT Production Company

512478 (OXF149H1)

Source ID: 30307 Source Name: Middle Island Creek @ Travis Truck Pad
Michael J. Travis

Source Latitude: 39.308545
Source Longitude: -80.781102

HUC-8 Code: 5030201

Drainage Area (sq. mi.): 122.83 County: Doddridge

Anticipated withdrawal start date: 11/1/2013

Anticipated withdrawal end date: 11/1/2014

Endangered Species? Mussel Stream?

Total Volume from Source (gal): 5,100,000

Trout Stream?

Tier 3?

Max. Pump rate (gpm): 4,200

Regulated Stream?

Max. Simultaneous Trucks: 10

Proximate PSD?

West Union Municipal Water

Max. Truck pump rate (gpm): 420

Gauged Stream?

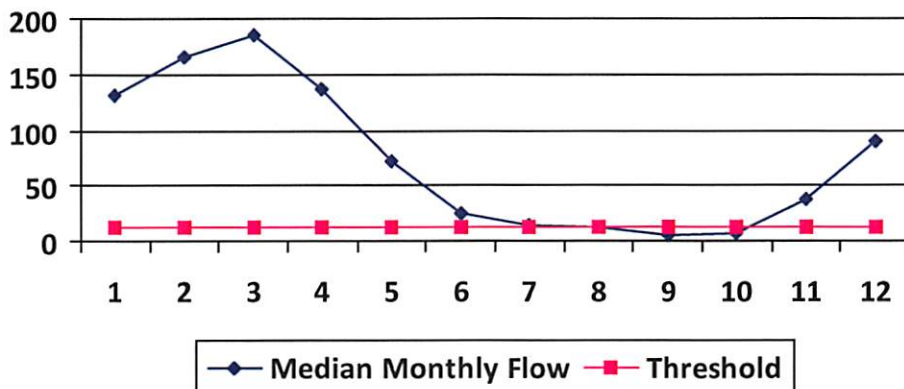
Reference Gaug: 3114500 MIDDLE ISLAND CREEK AT LITTLE, WV

Drainage Area (sq. mi.): 458.00

Gauge Threshold (cfs): 45

Month	Median monthly flow (cfs)	Threshold (+ pump)	Estimated Available water (cfs)
1	131.72	30.99	101.10
2	165.69	30.99	135.07
3	185.40	30.99	154.78
4	137.68	30.99	107.05
5	72.63	30.99	42.00
6	25.36	30.99	-5.26
7	14.35	30.99	-16.27
8	11.82	30.99	-18.81
9	6.05	30.99	-24.57
10	7.60	30.99	-23.02
11	37.14	30.99	6.51
12	90.73	30.99	60.11

Water Availability Profile



Water Availability Assessment of Location

Base Threshold (cfs): 12.07

Upstream Demand (cfs): 6.55

Downstream Demand (cfs): 13.24

Pump rate (cfs): 9.36

Headwater Safety (cfs): 3.02

Ungauged Stream Safety (cfs): 0.00

Min. Gauge Reading (cfs): 72.16

Passby at Location (cfs): 28.33

"Threshold", as depicted in the chart above is meant only to indicate the calculated base threshold at the proposed withdrawal location. This value does not include the proposed pump rate or existing demand on the stream. Refer to the monthly breakdown above for a more complete estimation of water availability by month.

Source Detail

017 06392

WMP-01607

API/ID Number: 047-017-06392

Operator: EQT Production Company

512478 (OXF149H1)

Source ID: 30308 Source Name: Middle Island Creek @ Rock Run Source Latitude: 39.298763
 William Whitehill Source Longitude: -80.760682

HUC-8 Code: 5030201

Drainage Area (sq. mi.): 107.35 County: Doddridge

Anticipated withdrawal start date: 11/1/2013

Anticipated withdrawal end date: 11/1/2014

Endangered Species? Mussel Stream?

Total Volume from Source (gal): 5,100,000

Trout Stream? Tier 3?

Max. Pump rate (gpm): 1,680

Regulated Stream?

Max. Simultaneous Trucks: 4

Proximate PSD? West Union Municipal Water

Max. Truck pump rate (gpm): 420

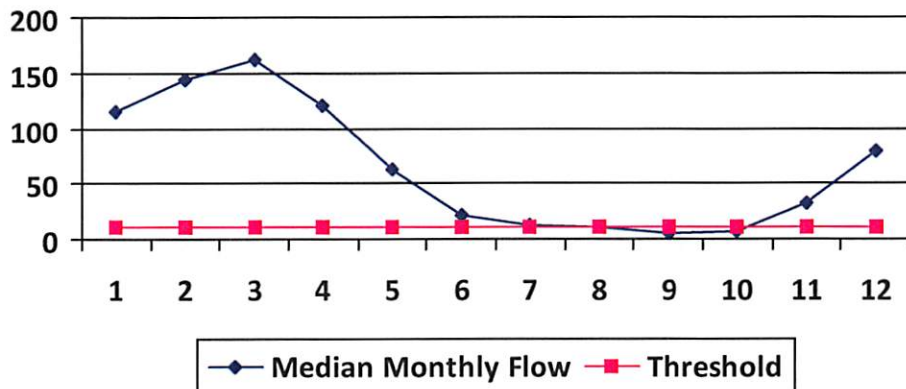
Gauged Stream?

Reference Gaug: 3114500 MIDDLE ISLAND CREEK AT LITTLE, WV

Drainage Area (sq. mi.): 458.00 Gauge Threshold (cfs): 45

Month	Median monthly flow (cfs)	Threshold (+ pump)	Estimated Available water (cfs)
1	115.12	19.74	95.58
2	144.81	19.74	125.27
3	162.04	19.74	142.50
4	120.33	19.74	100.79
5	63.47	19.74	43.93
6	22.17	19.74	2.63
7	12.54	19.74	-7.00
8	10.33	19.74	-9.21
9	5.29	19.74	-14.25
10	6.65	19.74	-12.89
11	32.46	19.74	12.91
12	79.30	19.74	59.76

Water Availability Profile



Water Availability Assessment of Location

Base Threshold (cfs): 10.55

Upstream Demand (cfs): 2.81

Downstream Demand (cfs): 13.24

Pump rate (cfs): 3.74

Headwater Safety (cfs): 2.64

Ungauged Stream Safety (cfs): 0.00

Min. Gauge Reading (cfs): 62.80

Passby at Location (cfs): 26.42

"Threshold", as depicted in the chart above is meant only to indicate the calculated base threshold at the proposed withdrawal location. This value does not include the proposed pump rate or existing demand on the stream. Refer to the monthly breakdown above for a more complete estimation of water availability by month.

Source Detail

017 06392

WMP-01607 API/ID Number: 047-017-06392 Operator: EQT Production Company
512478 (OXF149H1)

Source ID: 30309 Source Name: Middle Island Creek @ Barnes Withdrawal Site Source Latitude: 39.29958
Ellen L. Barnes Source Longitude: -80.75694

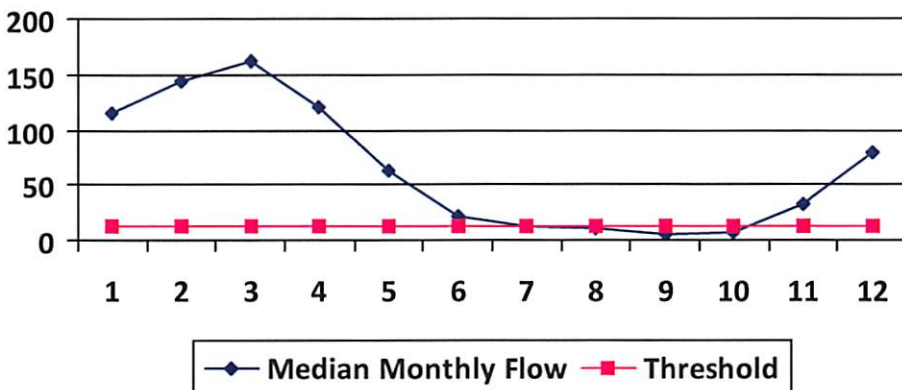
HUC-8 Code: 5030201 Drainage Area (sq. mi.): 107.08 County: Doddridge Anticipated withdrawal start date: 11/1/2013
Anticipated withdrawal end date: 11/1/2014

Endangered Species? Mussel Stream? Total Volume from Source (gal): 5,100,000
 Trout Stream? Tier 3? Max. Pump rate (gpm): 1,260
 Regulated Stream? Max. Simultaneous Trucks: 0
 Proximate PSD? West Union Max. Truck pump rate (gpm): 0
 Gauged Stream?

Reference Gaug: 3114500 MIDDLE ISLAND CREEK AT LITTLE, WV
Drainage Area (sq. mi.): 458.00 Gauge Threshold (cfs): 45

Month	Median monthly flow (cfs)	Threshold (+ pump)	Estimated Available water (cfs)
1	114.83	18.59	96.42
2	144.45	18.59	126.03
3	161.63	18.59	143.21
4	120.02	18.59	101.61
5	63.31	18.59	44.90
6	22.11	18.59	3.69
7	12.51	18.59	-5.91
8	10.30	18.59	-8.12
9	5.28	18.59	-13.14
10	6.63	18.59	-11.79
11	32.37	18.59	13.96
12	79.10	18.59	60.68

Water Availability Profile



Water Availability Assessment of Location

Base Threshold (cfs): 10.52
Upstream Demand (cfs): 0.00
Downstream Demand (cfs): 13.24
Pump rate (cfs): 2.81
Headwater Safety (cfs): 2.63
Ungauged Stream Safety (cfs): 2.63
Min. Gauge Reading (cfs): 70.31
Passby at Location (cfs): 29.02

"Threshold", as depicted in the chart above is meant only to indicate the calculated base threshold at the proposed withdrawal location. This value does not include the proposed pump rate or existing demand on the stream. Refer to the monthly breakdown above for a more complete estimation of water availability by month.

Source Detail

017 06392

WMP- 01607

API/ID Number: 047-017-06392

Operator: EQT Production Company

512478 (OXF149H1)

Source ID: 30310 Source Name Meathouse Fork @ Spiker Withdrawal Site
John & Sue Spiker

Source Latitude: 39.2591
Source Longitude: -80.72489

HUC-8 Code: 5030201

Drainage Area (sq. mi.): 62.75 County: Doddridge

Anticipated withdrawal start date: 11/1/2013

Anticipated withdrawal end date: 11/1/2014

Endangered Species? Mussel Stream?

Total Volume from Source (gal): 5,100,000

Trout Stream? Tier 3?

Max. Pump rate (gpm): 1,260

Regulated Stream?

Max. Simultaneous Trucks: 0

Proximate PSD?

Max. Truck pump rate (gpm) 0

Gauged Stream?

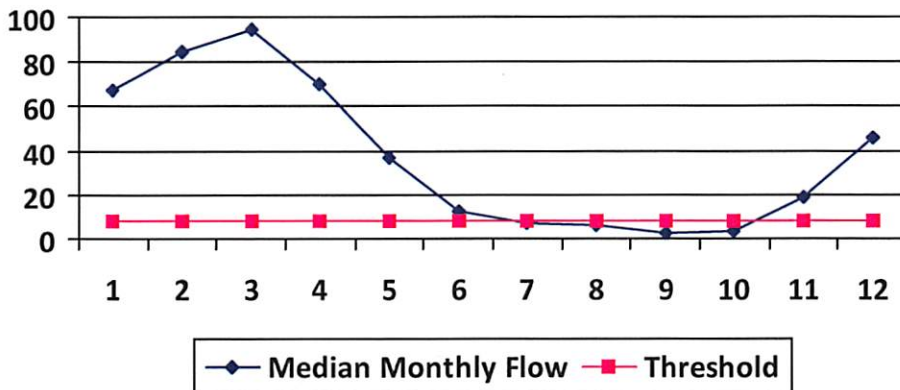
Reference Gaug 3114500 MIDDLE ISLAND CREEK AT LITTLE, WV

Drainage Area (sq. mi.) 458.00

Gauge Threshold (cfs): 45

Month	Median monthly flow (cfs)	Threshold (+ pump)	Estimated Available water (cfs)
1	67.29	16.52	51.09
2	84.65	16.52	68.45
3	94.72	16.52	78.52
4	70.34	16.52	54.14
5	37.10	16.52	20.90
6	12.96	16.52	-3.24
7	7.33	16.52	-8.87
8	6.04	16.52	-10.16
9	3.09	16.52	-13.11
10	3.88	16.52	-12.32
11	18.97	16.52	2.77
12	46.35	16.52	30.15

Water Availability Profile



Water Availability Assessment of Location

Base Threshold (cfs): 6.17

Upstream Demand (cfs): 4.46

Downstream Demand (cfs): 0.00

Pump rate (cfs): 2.81

Headwater Safety (cfs): 1.54

Ungauged Stream Safety (cfs): 1.54

Min. Gauge Reading (cfs): 74.77

Passby at Location (cfs): 9.25

"Threshold", as depicted in the chart above is meant only to indicate the calculated base threshold at the proposed withdrawal location. This value does not include the proposed pump rate or existing demand on the stream. Refer to the monthly breakdown above for a more complete estimation of water availability by month.

Source Detail

017 06392

WMP-01607

API/ID Number: 047-017-06392

Operator: EQT Production Company

512478 (OXF149H1)

Source ID: 30311 Source Name: South Fork of Hughes River @ Upper Wizard Run I.L. Morris Source Latitude: 39.189998 Source Longitude: -80.79511

HUC-8 Code: 5030203

Drainage Area (sq. mi.): 5.33 County: Doddridge

Anticipated withdrawal start date: 11/1/2013

Anticipated withdrawal end date: 11/1/2014

Endangered Species? Mussel Stream?

Total Volume from Source (gal): 5,100,000

Trout Stream? Tier 3?

Max. Pump rate (gpm): 1,260

Regulated Stream?

Max. Simultaneous Trucks: 0

Proximate PSD?

Max. Truck pump rate (gpm): 0

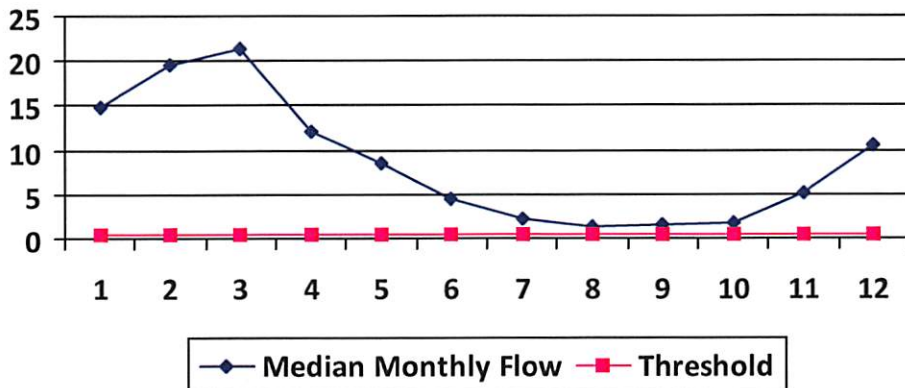
Gauged Stream?

Reference Gaug: 3155220 SOUTH FORK HUGHES RIVER BELOW MACFARLAN, WV

Drainage Area (sq. mi.): 229.00 Gauge Threshold (cfs): 22

Month	Median monthly flow (cfs)	Threshold (+ pump)	Estimated Available water (cfs)
1	14.97	6.26	8.79
2	19.52	6.26	13.33
3	21.37	6.26	15.19
4	12.08	6.26	5.90
5	8.48	6.26	2.29
6	4.56	6.26	-1.63
7	2.26	6.26	-3.93
8	1.31	6.26	-4.88
9	1.57	6.26	-4.62
10	1.70	6.26	-4.48
11	5.09	6.26	-1.09
12	10.51	6.26	4.32

Water Availability Profile



Water Availability Assessment of Location

Base Threshold (cfs): 0.51
 Upstream Demand (cfs): 2.81
 Downstream Demand (cfs): 0.00
 Pump rate (cfs): 2.81
 Headwater Safety (cfs): 0.13
 Ungauged Stream Safety (cfs): 0.00
 Min. Gauge Reading (cfs): 33.12
 Passby at Location (cfs): 0.64

"Threshold", as depicted in the chart above is meant only to indicate the calculated base threshold at the proposed withdrawal location. This value does not include the proposed pump rate or existing demand on the stream. Refer to the monthly breakdown above for a more complete estimation of water availability by month.

Source Detail

017 06392

WMP-01607

API/ID Number: 047-017-06392

Operator: EQT Production Company

512478 (OXF149H1)

Source ID: 30312 Source Name: South Fork of Hughes River @ Harmony Road
I.L. Morris

Source Latitude: 39.1962
Source Longitude: -80.81442

HUC-8 Code: 5030203

Drainage Area (sq. mi.): 8.1 County: Doddridge

Anticipated withdrawal start date: 11/1/2013

Anticipated withdrawal end date: 11/1/2014

Endangered Species? Mussel Stream?

Total Volume from Source (gal): 5,100,000

Trout Stream?

Tier 3?

Max. Pump rate (gpm): 1,260

Regulated Stream?

Max. Simultaneous Trucks: 0

Proximate PSD?

Max. Truck pump rate (gpm): 0

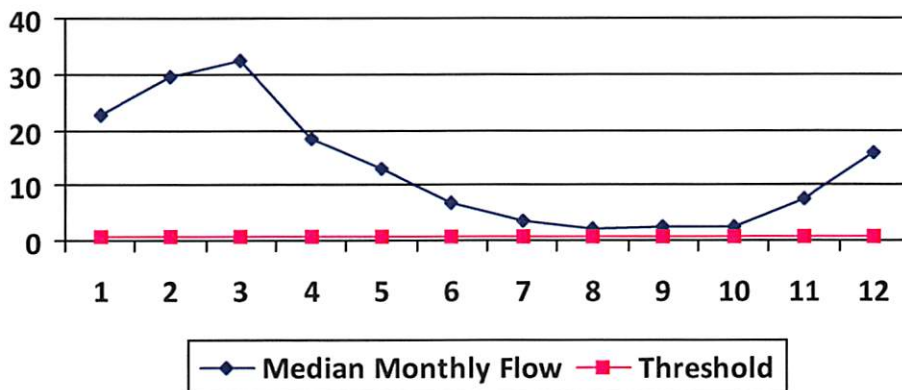
Gauged Stream?

Reference Gaug: 3155220 SOUTH FORK HUGHES RIVER BELOW MACFARLAN, WV

Drainage Area (sq. mi.): 229.00 Gauge Threshold (cfs): 22

Month	Median monthly flow (cfs)	Threshold (+ pump)	Estimated Available water (cfs)
1	22.75	6.59	16.28
2	29.66	6.59	23.19
3	32.48	6.59	26.01
4	18.36	6.59	11.89
5	12.88	6.59	6.41
6	6.92	6.59	0.45
7	3.43	6.59	-3.04
8	1.98	6.59	-4.49
9	2.38	6.59	-4.09
10	2.59	6.59	-3.88
11	7.74	6.59	1.27
12	15.97	6.59	9.50

Water Availability Profile



Water Availability Assessment of Location

Base Threshold (cfs): 0.78

Upstream Demand (cfs): 2.81

Downstream Demand (cfs): 0.00

Pump rate (cfs): 2.81

Headwater Safety (cfs): 0.19

Ungauged Stream Safety (cfs): 0.00

Min. Gauge Reading (cfs): 33.12

Passby at Location (cfs): 0.97

"Threshold", as depicted in the chart above is meant only to indicate the calculated base threshold at the proposed withdrawal location. This value does not include the proposed pump rate or existing demand on the stream. Refer to the monthly breakdown above for a more complete estimation of water availability by month.

Source Detail

WMP- 01607

API/ID Number: 047-017-06392

Operator: EQT Production Company

512478 (OXF149H1)

Source ID: 30313 Source Name: Straight Fork @ Maxson Withdrawal Site
Douglas L. Maxson

Source Latitude: 39.144317

Source Longitude: -80.848587

HUC-8 Code: 5030203

Drainage Area (sq. mi.): 16.99 County: Ritchie

Anticipated withdrawal start date: 11/1/2013

Anticipated withdrawal end date: 11/1/2014

Endangered Species? Mussel Stream?

Trout Stream? Tier 3?

Total Volume from Source (gal): 5,100,000

Regulated Stream?

Max. Pump rate (gpm): 1,680

Proximate PSD?

Max. Simultaneous Trucks: 4

Gauged Stream?

Max. Truck pump rate (gpm): 420

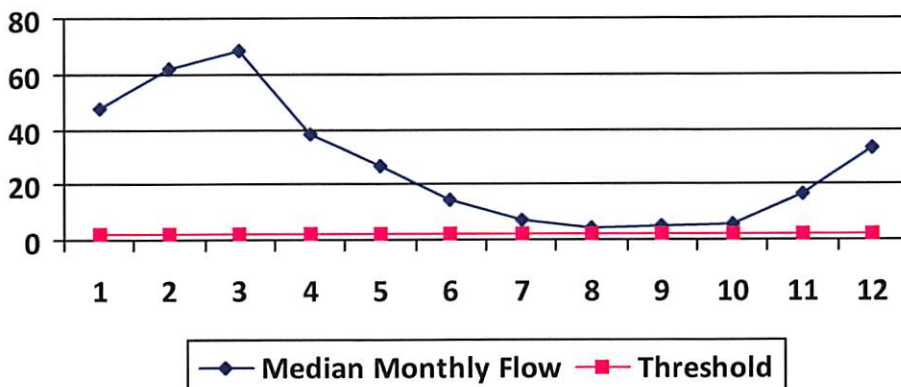
Reference Gaug: 3155220 SOUTH FORK HUGHES RIVER BELOW MACFARLAN, WV

Drainage Area (sq. mi.): 229.00

Gauge Threshold (cfs): 22

Month	Median monthly flow (cfs)	Threshold (+ pump)	Estimated Available water (cfs)
1	47.72	6.19	41.62
2	62.22	6.19	56.12
3	68.13	6.19	62.04
4	38.52	6.19	32.42
5	27.03	6.19	20.93
6	14.52	6.19	8.42
7	7.20	6.19	1.10
8	4.16	6.19	-1.94
9	5.00	6.19	-1.10
10	5.43	6.19	-0.67
11	16.23	6.19	10.13
12	33.50	6.19	27.40

Water Availability Profile



Water Availability Assessment of Location

Base Threshold (cfs): 1.63

Upstream Demand (cfs): 0.00

Downstream Demand (cfs): 0.00

Pump rate (cfs): 3.74

Headwater Safety (cfs): 0.41

Ungauged Stream Safety (cfs): 0.41

Min. Gauge Reading (cfs): 36.74

Passby at Location (cfs): 2.45

"Threshold", as depicted in the chart above is meant only to indicate the calculated base threshold at the proposed withdrawal location. This value does not include the proposed pump rate or existing demand on the stream. Refer to the monthly breakdown above for a more complete estimation of water availability by month.

Source Detail

017 06392

WMP-01607

API/ID Number: 047-017-06392

Operator: EQT Production Company

512478 (OXF149H1)

Source ID: 30314 Source Name: Middle Fork @ Janscheck Withdrawal Site
Mary Jo Janscheck

Source Latitude: 39.151388
Source Longitude: -80.812222

HUC-8 Code: 5030203

Drainage Area (sq. mi.): 5.92 County: Doddridge

Anticipated withdrawal start date: 11/1/2013

Anticipated withdrawal end date: 11/1/2014

Endangered Species? Mussel Stream?

Total Volume from Source (gal): 5,100,000

Trout Stream?

Tier 3?

Max. Pump rate (gpm): 840

Regulated Stream?

Max. Simultaneous Trucks:

Proximate PSD?

Max. Truck pump rate (gpm):

Gauged Stream?

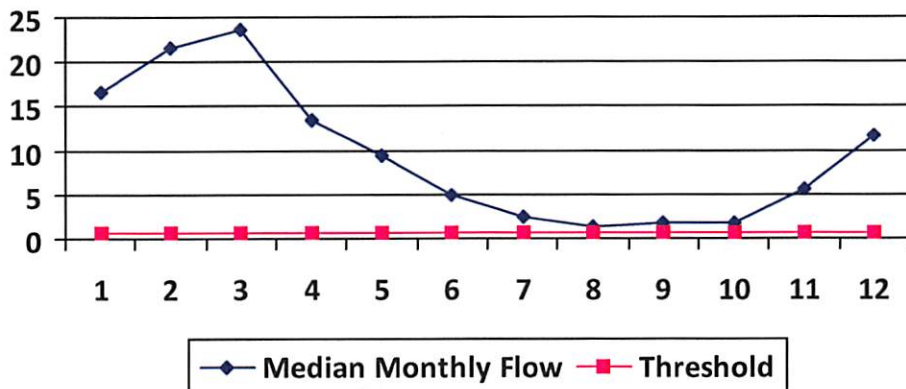
Reference Gaug: 3155220 SOUTH FORK HUGHES RIVER BELOW MACFARLAN, WV

Drainage Area (sq. mi.): 229.00

Gauge Threshold (cfs): 22

Month	Median monthly flow (cfs)	Threshold (+ pump)	Estimated Available water (cfs)
1	16.63	2.72	14.03
2	21.68	2.72	19.08
3	23.74	2.72	21.14
4	13.42	2.72	10.83
5	9.42	2.72	6.82
6	5.06	2.72	2.46
7	2.51	2.72	-0.09
8	1.45	2.72	-1.15
9	1.74	2.72	-0.85
10	1.89	2.72	-0.70
11	5.66	2.72	3.06
12	11.67	2.72	9.08

Water Availability Profile



Water Availability Assessment of Location

Base Threshold (cfs): 0.57
 Upstream Demand (cfs): 0.00
 Downstream Demand (cfs): 0.00
 Pump rate (cfs): 1.87
 Headwater Safety (cfs): 0.14
 Ungauged Stream Safety (cfs): 0.14
 Min. Gauge Reading (cfs): 34.87
 Passby at Location (cfs): 0.85

"Threshold", as depicted in the chart above is meant only to indicate the calculated base threshold at the proposed withdrawal location. This value does not include the proposed pump rate or existing demand on the stream. Refer to the monthly breakdown above for a more complete estimation of water availability by month.



Water Management Plan: Secondary Water Sources



WMP- 01607	API/ID Number	047-017-06392	Operator:	EQT Production Company
		512478 (OXF149H1)		

Important:

For each proposed secondary water source identified in your water management plan (i.e., groundwater well, lake/reservoir, recycled frac water, multi-site impoundment, out-of-state source), DEP makes no estimation of the availability of water. These sources may prove to be unsuitable water supplies. Please review the following notes:

- For groundwater supply wells, DEP recommends that the operator contact the local health department prior to drilling any new well; and reminds the operator that all drinking water wells within 1,500 feet of a water supply well shall be flow- and quality-tested by the operator at the request of the drinking well owner prior to operation of the water supply well.
- For each proposed multi-site impoundment water source identified in your water management plan (if applicable), DEP will review the withdrawal limits established in the referenced Water Management Plan for current suitability and provide to the operator these limits for each identified intake. Note that withdrawal limits may be modified as necessary based on changing demands upon that water supply.

Ground Water

Source ID:	30315	Source Name	Groundwater Well TW#1		Source start date:	11/1/2013
					Source end date:	11/1/2014
	Source Lat:	39.56059	Source Long:	-80.56027	County	Wetzel
	Max. Daily Purchase (gal)		Total Volume from Source (gal):			5,100,000
DEP Comments:						

WMP- 01607

API/ID Number: 047-017-06392

Operator: EQT Production Company

512478 (OXF149H1)

Important:

For each proposed secondary water source identified in your water management plan (i.e., groundwater well, lake/reservoir, recycled frac water, multi-site impoundment, out-of-state source), DEP makes no estimation of the availability of water. These sources may prove to be unsuitable water supplies. Please review the following notes:

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- For each proposed multi-site impoundment water source identified in your water management plan (if applicable), DEP will review the withdrawal limits established in the referenced Water Management Plan for current suitability and provide to the operator these limits for each identified intake. Note that withdrawal limits may be modified as necessary based on changing demands upon that water supply.

Lake/Reservoir

Source ID:	30316	Source Name	Pennsboro Lake		Source start date:	11/1/2013
					Source end date:	11/1/2014
Source Lat:	39.281689	Source Long:	-80.925526	County	Ritchie	
Max. Daily Purchase (gal)		Total Volume from Source (gal):	5,100,000			
DEP Comments:						

WMP-01607

API/ID Number 047-017-06392

Operator: EQT Production Company

512478 (OXF149H1)

Important:

For each proposed secondary water source identified in your water management plan (i.e., groundwater well, lake/reservoir, recycled frac water, multi-site impoundment, out-of-state source), DEP makes no estimation of the availability of water. These sources may prove to be unsuitable water supplies. Please review the following notes:

- For groundwater supply wells, DEP recommends that the operator contact the local health department prior to drilling any new well; and reminds the operator that all drinking water wells within 1,500 feet of a water supply well shall be flow- and quality-tested by the operator at the request of the drinking well owner prior to operation of the water supply well.
- For each proposed multi-site impoundment water source identified in your water management plan (if applicable), DEP will review the withdrawal limits established in the referenced Water Management Plan for current suitability and provide to the operator these limits for each identified intake. Note that withdrawal limits may be modified as necessary based on changing demands upon that water supply.

Multi-site impoundment

Source ID: 30317	Source Name	Davies Centralized Freshwater Impoundment	Source start date:	11/1/2013	
			Source end date:	11/1/2014	
Source Lat:	39.269635	Source Long:	-80.77711	County	Doddridge
Max. Daily Purchase (gal)		Total Volume from Source (gal):		5,100,000	

DEP Comments:

The intake identified above has been defined in a previous water management plan. The thresholds established in that plan govern this water management plan unless otherwise noted.

Reference: WMP-1083

Source ID: 30318	Source Name	OXF149 Tank Pad A	Source start date:	11/1/2013	
			Source end date:	11/1/2014	
Source Lat:	39.221932	Source Long:	-80.799873	County	Doddridge
Max. Daily Purchase (gal)		Total Volume from Source (gal):		5,100,000	

DEP Comments:

The intake identified above has been defined in a previous water management plan. The thresholds established in that plan govern this water management plan unless otherwise noted.

Reference: WMP-1532

WMP- 01607

API/ID Number

047-017-06392

Operator:

EQT Production Company

512478 (OXF149H1)

Important:

For each proposed secondary water source identified in your water management plan (i.e., groundwater well, lake/reservoir, recycled frac water, multi-site impoundment, out-of-state source), DEP makes no estimation of the availability of water. These sources may prove to be unsuitable water supplies. Please review the following notes:

- For groundwater supply wells, DEP recommends that the operator contact the local health department prior to drilling any new well; and reminds the operator that all drinking water wells within 1,500 feet of a water supply well shall be flow- and quality-tested by the operator at the request of the drinking well owner prior to operation of the water supply well.
- For each proposed multi-site impoundment water source identified in your water management plan (if applicable), DEP will review the withdrawal limits established in the referenced Water Management Plan for current suitability and provide to the operator these limits for each identified intake. Note that withdrawal limits may be modified as necessary based on changing demands upon that water supply.

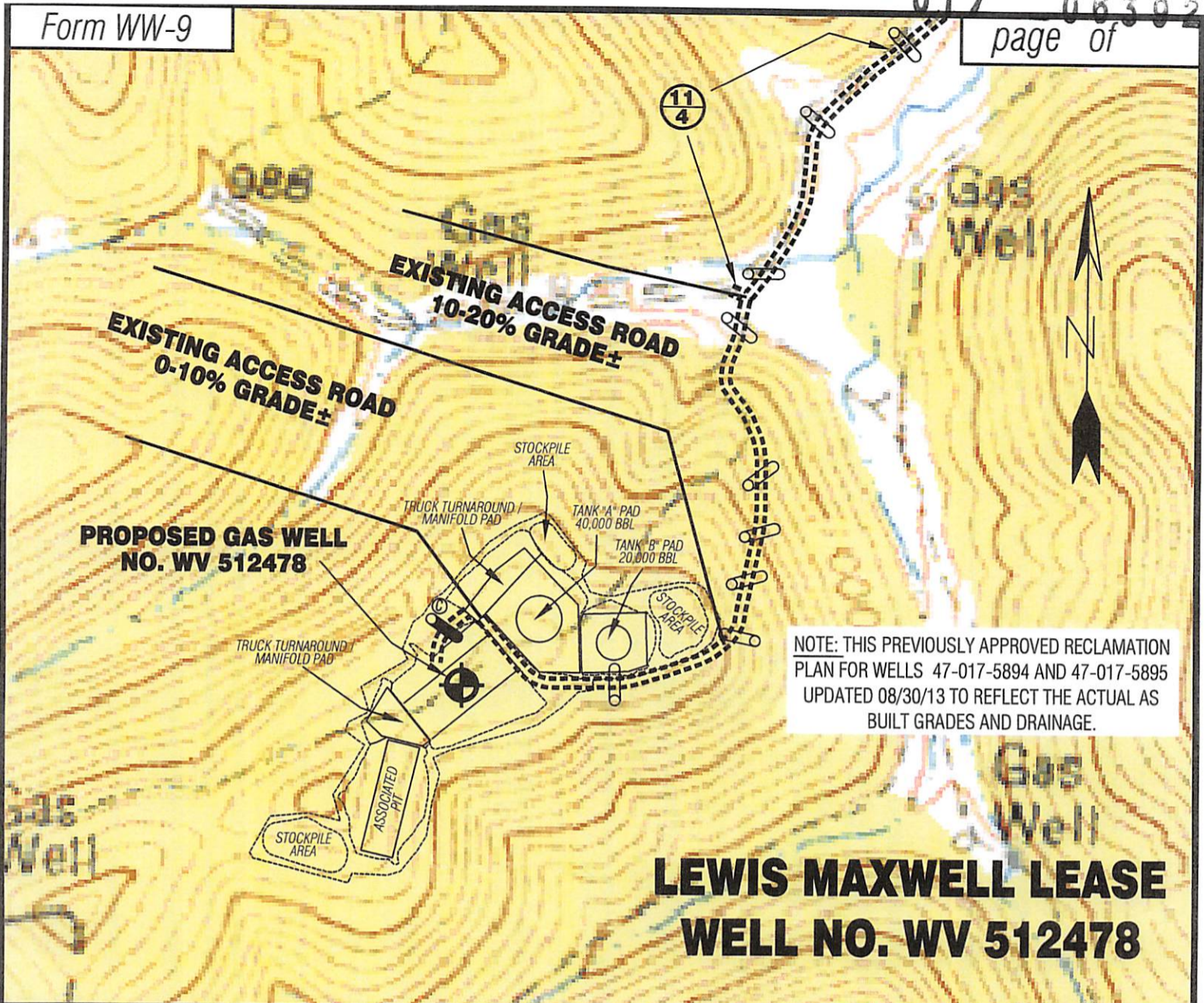
Source ID:	30319	Source Name	OXF149 Tank Pad B		Source start date:	11/1/2013
					Source end date:	11/1/2014
Source Lat:	39.221733	Source Long:	-80.798991	County	Doddridge	
Max. Daily Purchase (gal)		Total Volume from Source (gal):	5,100,000			
DEP Comments:						

The intake identified above has been defined in a previous water management plan. The thresholds established in that plan govern this water management plan unless otherwise noted.

Reference: WMP-1533

Recycled Frac Water

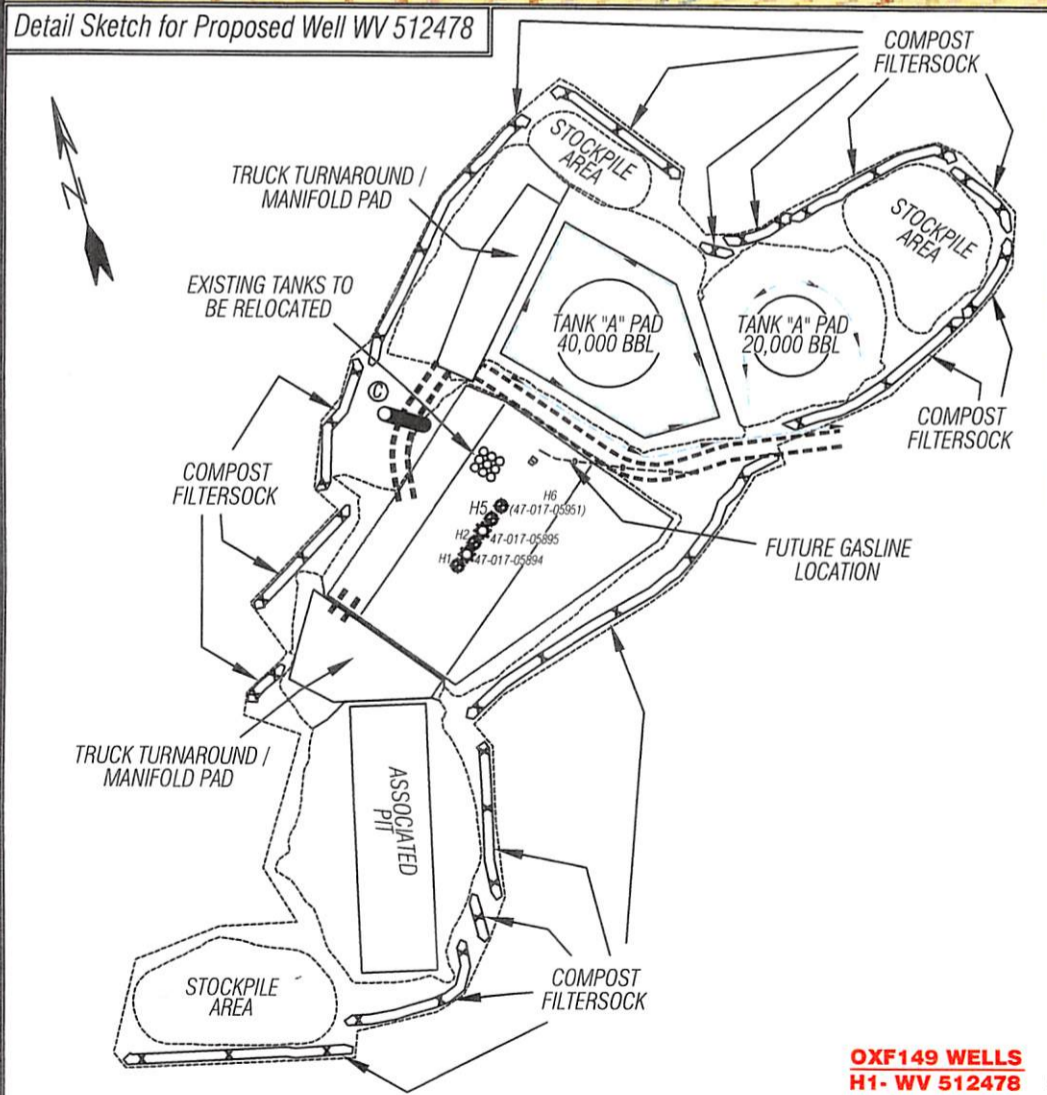
Source ID:	30320	Source Name	Various		Source start date:	11/1/2013
					Source end date:	11/1/2014
Source Lat:		Source Long:		County		
Max. Daily Purchase (gal)		Total Volume from Source (gal):	5,100,000			
DEP Comments:						



NOTE: THIS PREVIOUSLY APPROVED RECLAMATION PLAN FOR WELLS 47-017-5894 AND 47-017-5895 UPDATED 08/30/13 TO REFLECT THE ACTUAL AS BUILT GRADES AND DRAINAGE.

LEWIS MAXWELL LEASE WELL NO. WV 512478

Detail Sketch for Proposed Well WV 512478



SCALE: 1" = 500'



ALL ROADS SHOWN HEREON ARE EXISTING UNLESS OTHERWISE NOTED AND SHALL BE MAINTAINED IN ACCORDANCE WITH WV D.E.P. OIL AND GAS BMP MANUAL ENTRANCES AT COUNTY/STATE ROADS SHALL BE MAINTAINED IN ACCORDANCE WITH WV D.O.T. REGULATION. SEPARATE PERMITS MAY BE REQUIRED BY THE D.O.T.

SEDIMENT BASINS (TRAPS) AND APPROPRIATE EROSION CONTROL BARRIERS ARE TO BE CONSTRUCTED AT ALL CULVERT AND CROSS DRAIN INLETS AND OUTLETS AS REQUIRED IN THE WV D.E.P. OIL AND GAS BMP MANUAL. FIELD CONDITIONS (ROCK OUTCROPS AND BEDROCK) MAY PROHIBIT INLET TRAPS BEING INSTALLED. WHEN THESE CONDITIONS EXIST ADDITIONAL EROSION CONTROL MEASURES SHALL BE EVALUATED AND UTILIZED AS NEEDED.

EARTHWORK CONTRACTORS ARE RESPONSIBLE FOR NOTIFICATION TO THE OPERATOR AND INSPECTOR PRIOR TO ANY DEVIATION FROM THIS PLAN.

TEMPORARY SEED & MULCH ALL SLOPES AFTER CONSTRUCTION OF LOCATION.

CUT & STACK ALL MARKETABLE TIMBER.

STACKED BRUSH MAY BE USED FOR SEDIMENT CONTROL.

APPLICATIONS FOR SEPARATE PLC PERMITS ON THE ACCESS ROAD STREAM CROSSINGS HAVE BEEN PREPARED (IF APPLIES).

SEP 09 2013
 (X) = PROPOSED STREAM
 (C) = EXISTING CULVERT TO BE UPGRADED TO A 12" MIN. UNLESS OTHERWISE NOTED
 (S) = EXISTING BROAD BASED DIP

WV Department of Environmental Protection
 *SEE TABLE FOR CULVERT DETAIL

- OXF149 WELLS**
 H1- WV 512478
 H2- WV 512479
 H3- WV 512480
 H4- WV 512481
 H5- WV 512482
 H6- WV 513136

NOT TO SCALE

TOPO SECTION OF USGS
 OXFORD 7.5' QUADRANGLE

Professional Energy Consultants
 A DIVISION OF SMITH LAND SURVEYING

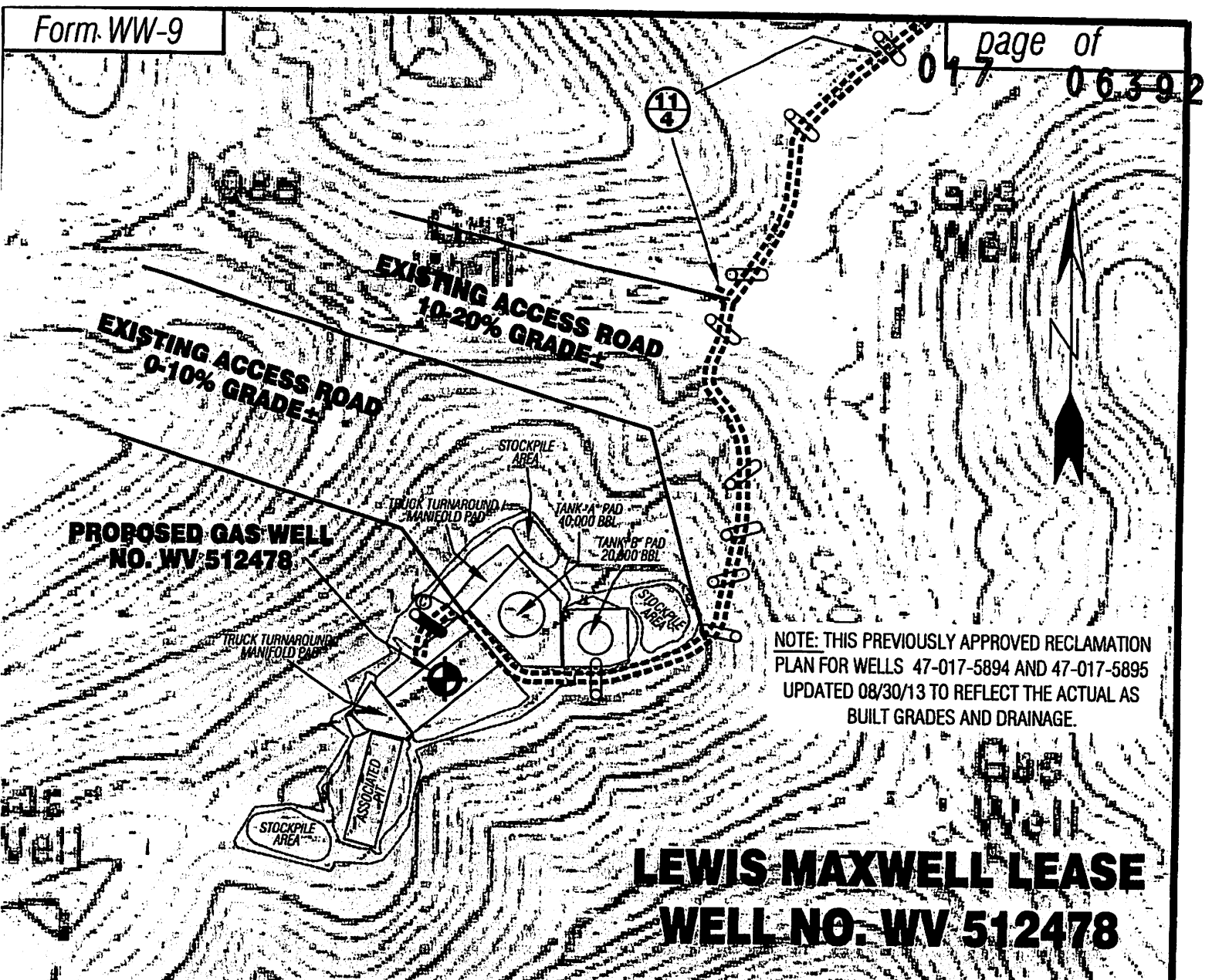
SURVEYORS PROJECT MGMT. **SLS** ENGINEERS ENVIRONMENTAL

228 West Main St. P.O. Box 150 Glenville, WV 26351 (304) 462-5534

5605 Dilles Bottom Road Shady Side, OH 43047 (740) 971-9911

HONESTY. INTEGRITY. QUALITY

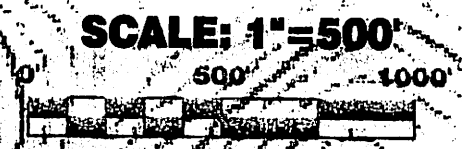
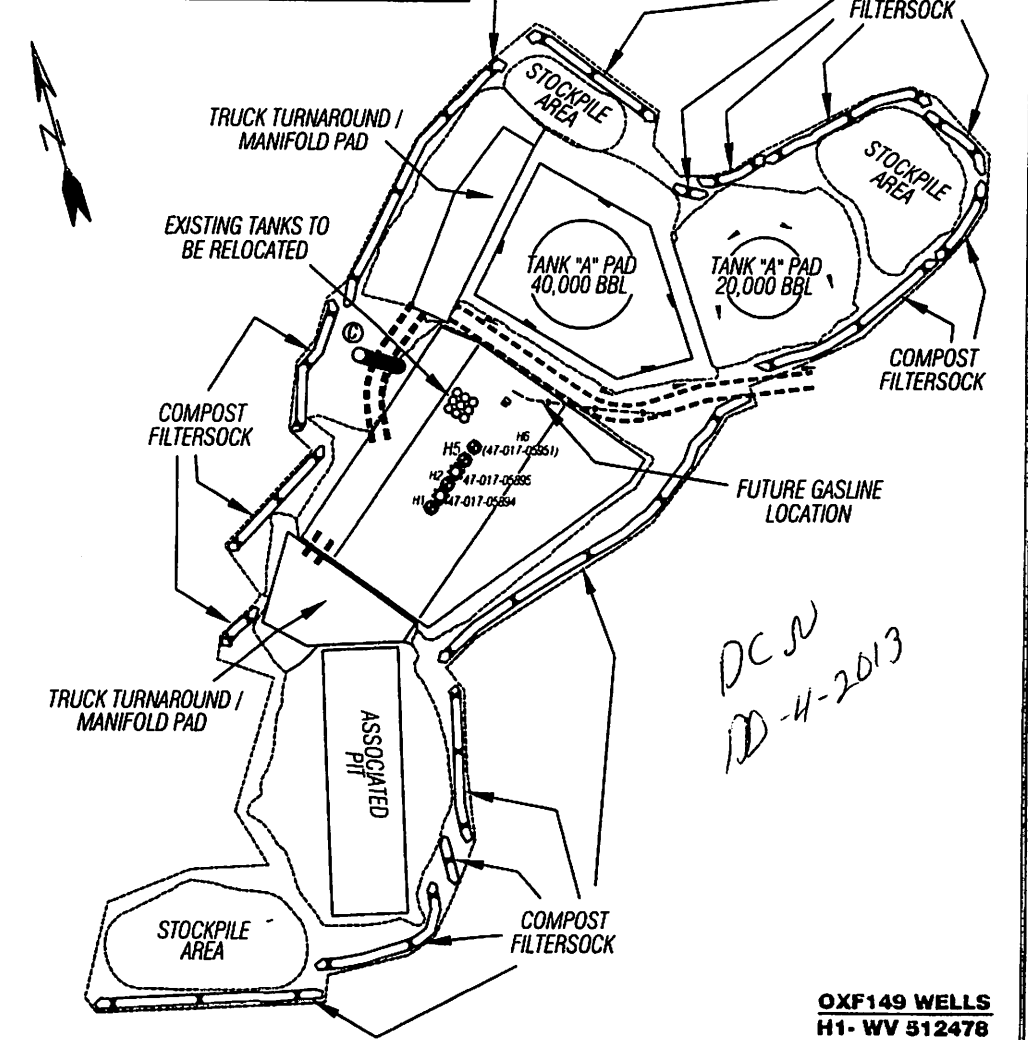
DRAWN BY K.D.W.	FILE NO. 6980	DATE 08/30/13	CADD FILE: 6980RECWW512478R3.DWG
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NOTE: THIS PREVIOUSLY APPROVED RECLAMATION PLAN FOR WELLS 47-017-5894 AND 47-017-5895 UPDATED 08/30/13 TO REFLECT THE ACTUAL AS BUILT GRADES AND DRAINAGE.

LEWIS MAXWELL LEASE WELL NO. WV 512478

Detail Sketch for Proposed Well WV 512478



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APPLICATIONS FOR SEPARATE PLC PERMITS ON THE ACCESS ROAD STREAM CROSSINGS HAVE BEEN PREPARED (IF APPLIES).

- = EXISTING CULVERT
- = EXISTING CULVERT TO BE UPGRADED TO A 12" MIN. UNLESS OTHERWISE NOTED
- = PROPOSED STREAM CROSSING (IF APPLIES) *SEE TABLE FOR CULVERT DETAIL
- = EXISTING BROAD BASED DIP

- OXF149 WELLS**
 H1- WV 512478
 H2- WV 512479
 H3- WV 512480
 H4- WV 512481
 H5- WV 512482
 H6- WV 513136

NOT TO SCALE

TOPO SECTION OF USGS
OXFORD 7.5' QUADRANGLE

Professional Energy Consultants
A DIVISION OF SEARTH LAND SURVEYING

SURVEYORS PROJECT MGMT. **SLS** ENGINEERS ENVIRONMENTAL

228 West Main St.
P.O. Box 180
Charmelle, WV 26331
(304) 463-4634

24264 Oliver Bottom Road
Sharysmin, OH 43947
(740) 671-8911

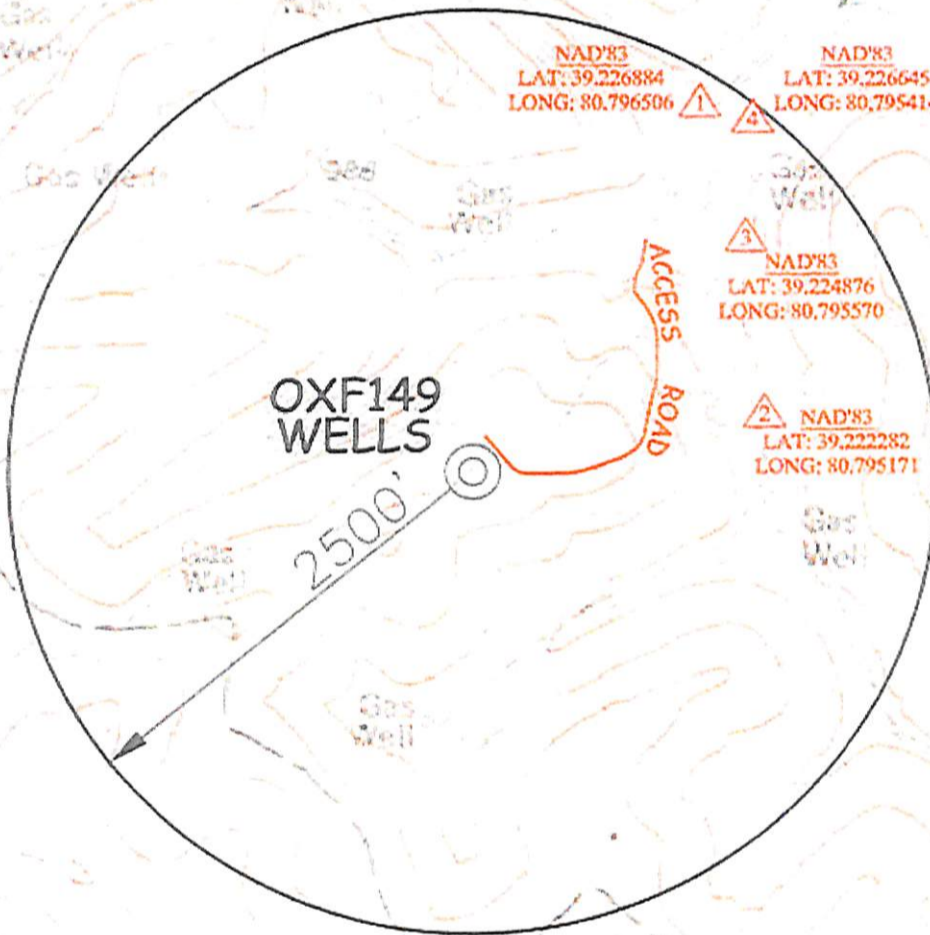
No. 0117, Intz001 - 04/11/17

OWN BY C.D.W.	FILE NO. 6980	DATE 08/30/13	CADD FILE: 6980RECWN512478R1.DWG
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LEWIS MAXWELL LEASE
OXF149 WELLS



WEST UNION



NAD83
LAT: 39.226884
LONG: 80.796506

NAD83
LAT: 39.226645
LONG: 80.795414

NAD83
LAT: 39.224876
LONG: 80.795570

NAD83
LAT: 39.222282
LONG: 80.795171

OXF149
WELLS

2500'

ACCESS ROAD

SCALE: 1-INCH=1000-FEET



RECEIVED
Office of Oil and Gas



TOPO SECTION OF:
OXFORD, WV 7.5' QUAD.

OPERATOR:
EQT PRODUCTION COMPANY
115 PROFESSIONAL PLACE
P.O. BOX 200
BRIDGEPORT, WV 26330

DRAWN BY K.D.W.	FILE NO. 6980	DATE 09/12/13	CADD FILE: 6980W5512478R2
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DISTRICT	COUNTY	TAX MAP-PARCEL NO.
WEST UNION	DODDRIDGE	23-3.1

Department of
Environmental Protection

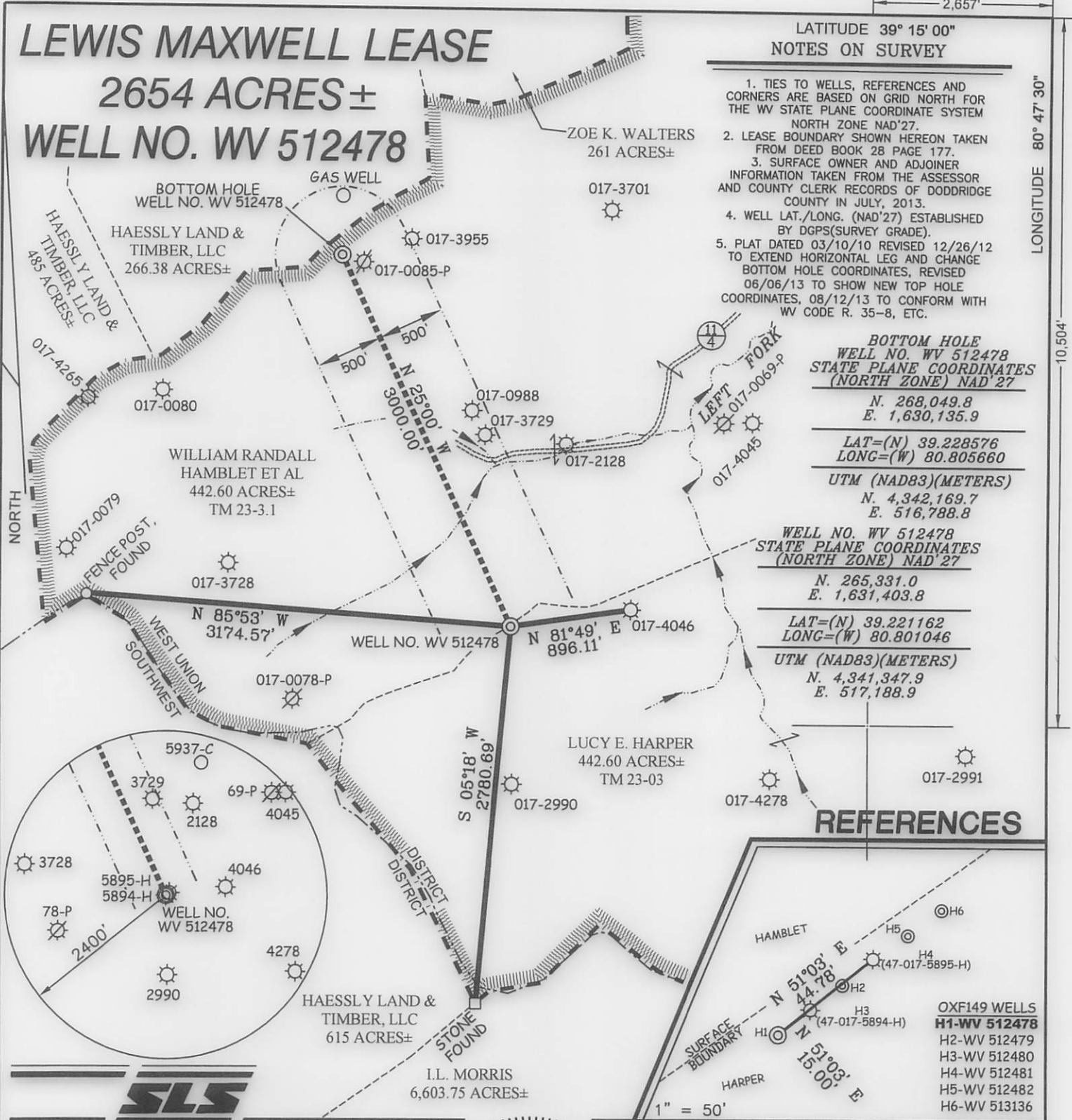
LEWIS MAXWELL LEASE

2654 ACRES±

WELL NO. WV 512478

LATITUDE 39° 15' 00"
 NOTES ON SURVEY

1. TIES TO WELLS, REFERENCES AND CORNERS ARE BASED ON GRID NORTH FOR THE WV STATE PLANE COORDINATE SYSTEM NORTH ZONE NAD'27.
2. LEASE BOUNDARY SHOWN HEREON TAKEN FROM DEED BOOK 28 PAGE 177.
3. SURFACE OWNER AND ADJOINER INFORMATION TAKEN FROM THE ASSESSOR AND COUNTY CLERK RECORDS OF DODDRIDGE COUNTY IN JULY, 2013.
4. WELL LAT./LONG. (NAD'27) ESTABLISHED BY DGPS(SURVEY GRADE).
5. PLAT DATED 03/10/10 REVISED 12/26/12 TO EXTEND HORIZONTAL LEG AND CHANGE BOTTOM HOLE COORDINATES, REVISED 06/06/13 TO SHOW NEW TOP HOLE COORDINATES, 08/12/13 TO CONFORM WITH WV CODE R. 35-8, ETC.



BOTTOM HOLE
 WELL NO. WV 512478
 STATE PLANE COORDINATES
 (NORTH ZONE) NAD'27

N. 268,049.8
 E. 1,630,135.9

LAT=(N) 39.228576
 LONG=(W) 80.805660

UTM (NAD83)(METERS)
 N. 4,342,169.7
 E. 516,788.8

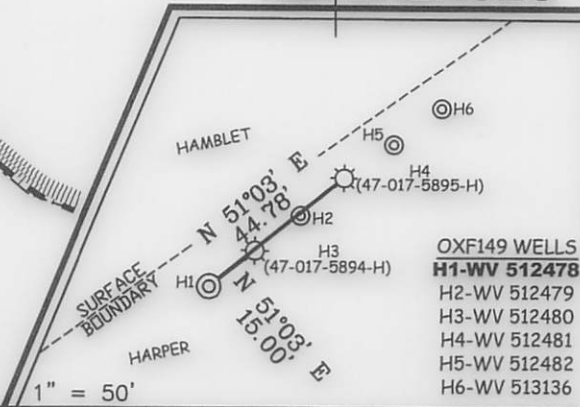
WELL NO. WV 512478
 STATE PLANE COORDINATES
 (NORTH ZONE) NAD'27

N. 265,331.0
 E. 1,631,403.8

LAT=(N) 39.221162
 LONG=(W) 80.801046

UTM (NAD83)(METERS)
 N. 4,341,347.9
 E. 517,188.9

REFERENCES

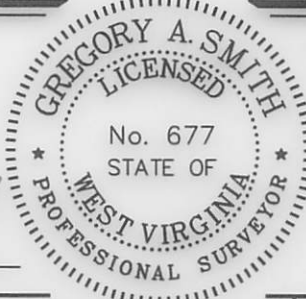


- OXF149 WELLS
 H1-WV 512478
 H2-WV 512479
 H3-WV 512480
 H4-WV 512481
 H5-WV 512482
 H6-WV 513136



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 DIVISION OF ENVIRONMENTAL PROTECTION.

P.S. 677
 Gregory A. Smith



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS.
 DATE AUGUST 29, 20 13
 OPERATORS WELL NO. WV 512478
 API WELL NO. 47-017-0639246A
 STATE COUNTY PERMIT

MINIMUM DEGREE OF ACCURACY 1/200
 FILE NO. 6980P512478R7 (280-67)
 PROVEN SOURCE OF ELEVATION DGPS (SURVEY GRADE TIE TO CORS NETWORK)
 SCALE 1" = 1,000'

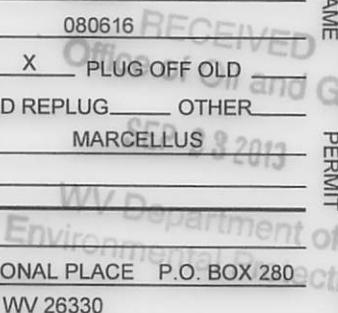
STATE OF WEST VIRGINIA
 DIVISION OF ENVIRONMENTAL PROTECTION
 OFFICE OF OIL AND GAS



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

LOCATION: ELEVATION 1,240' (GROUND) 1,242.5' (PROPOSED) WATERSHED LEFT FORK
 DISTRICT WEST UNION COUNTY DODDRIDGE QUADRANGLE OXFORD 7.5'
 SURFACE OWNER LUCY E. HARPER ACREAGE 442.6±
 ROYALTY OWNER LEWIS MAXWELL HEIRS LEASE ACREAGE 2,654±
 PROPOSED WORK: LEASE NO. 080616
 DRILL CONVERT DRILL DEEPER REDRILL FRACTURE OR STIMULATE PLUG OFF OLD
 FORMATION PERFORATE NEW FORMATION PLUG AND ABANDON CLEAN OUT AND REPLUG OTHER
 PHYSICAL CHANGE IN WELL (SPECIFY) TARGET FORMATION MARCELLUS ESTIMATED DEPTH

WELL OPERATOR EQT PRODUCTION COMPANY DESIGNATED AGENT REX C. RAY
 ADDRESS 115 PROFESSIONAL PLACE P.O. BOX 280 BRIDGEPORT, WV 26330
 ADDRESS 115 PROFESSIONAL PLACE P.O. BOX 280 BRIDGEPORT, WV 26330



LONGITUDE 80° 47' 30"

COUNTY NAME

PERMIT

LEWIS MAXWELL LEASE

2654 ACRES±

WELL NO. WV 512478

LATITUDE 39° 15' 00"
NOTES ON SURVEY

1. TIES TO WELLS, REFERENCES AND CORNERS ARE BASED ON GRID NORTH FOR THE WV STATE PLANE COORDINATE SYSTEM NORTH ZONE NAD'27.
2. LEASE BOUNDARY SHOWN HEREON TAKEN FROM DEED BOOK 28 PAGE 177.
3. SURFACE OWNER AND ADJOINER INFORMATION TAKEN FROM THE ASSESSOR AND COUNTY CLERK RECORDS OF DODDRIDGE COUNTY IN JULY, 2013.
4. WELL LAT./LONG. (NAD'27) ESTABLISHED BY DGPS(SURVEY GRADE).
5. PLAT DATED 03/10/10 REVISED 12/26/12 TO EXTEND HORIZONTAL LEG AND CHANGE BOTTOM HOLE COORDINATES, REVISED 06/06/13 TO SHOW NEW TOP HOLE COORDINATES, 08/12/13 TO CONFORM WITH WV CODE R. 35-8, ETC.

BOTTOM HOLE WELL NO. WV 512478 STATE PLANE COORDINATES (NORTH ZONE) NAD'27

N. 268,049.8
E. 1,630,135.9

LAT=(N) 39.228576
LONG=(W) 80.805660

UTM (NAD83)(METERS)
N. 4,342,169.7
E. 516,788.8

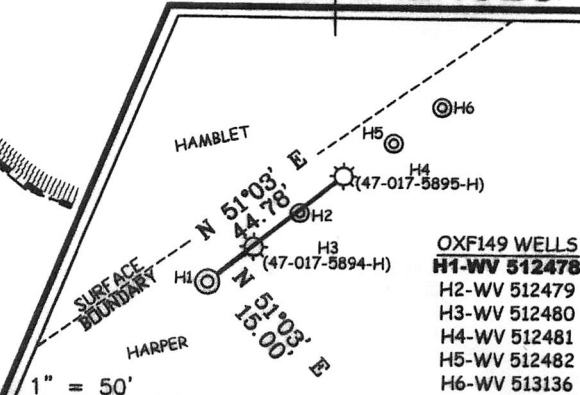
WELL NO. WV 512478 STATE PLANE COORDINATES (NORTH ZONE) NAD'27

N. 265,331.0
E. 1,631,403.8

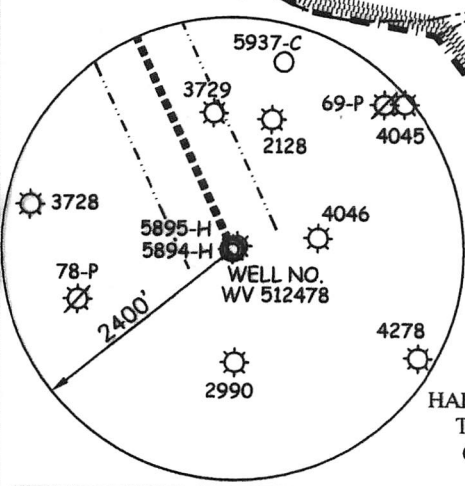
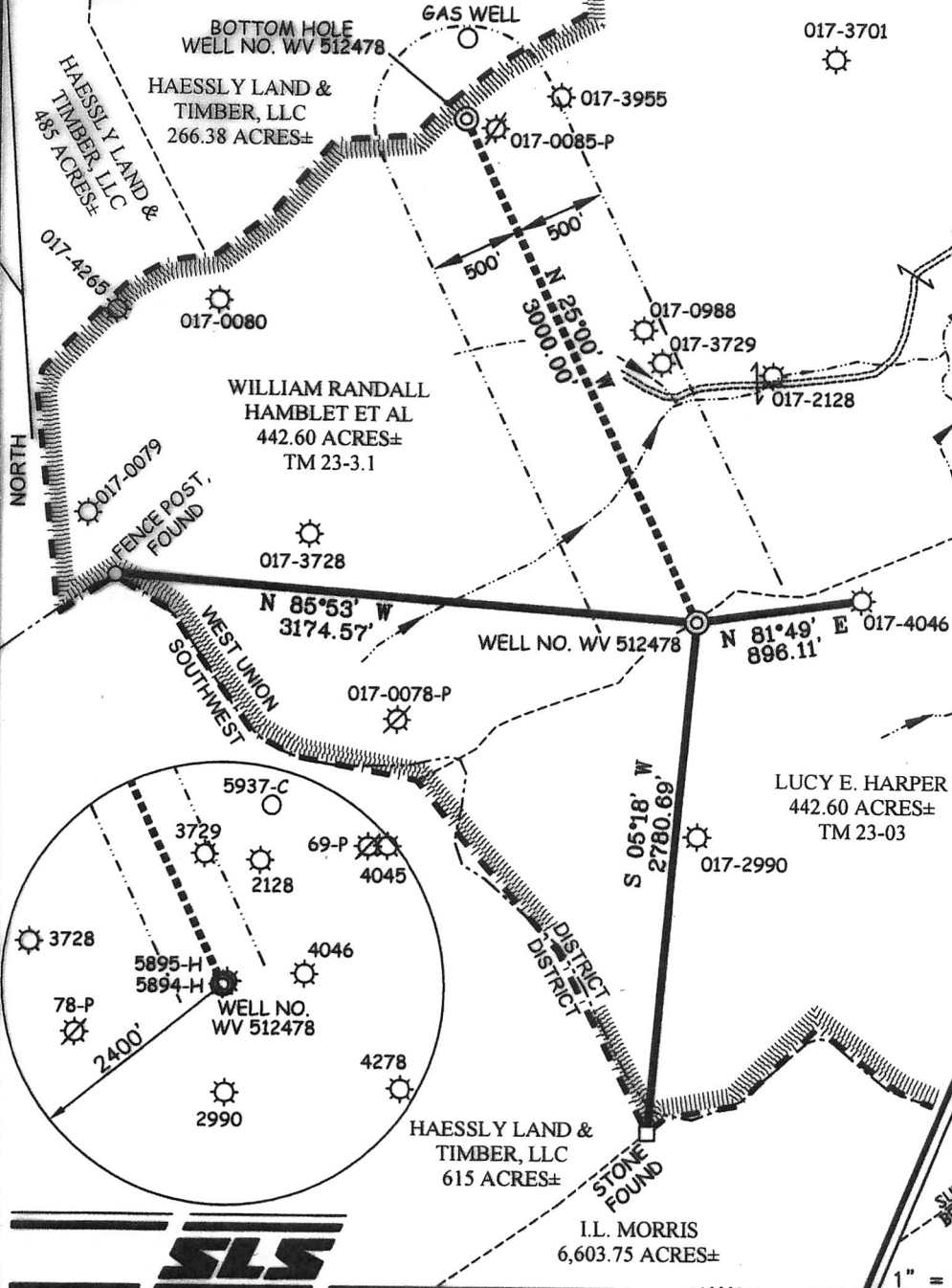
LAT=(N) 39.221162
LONG=(W) 80.801046

UTM (NAD83)(METERS)
N. 4,341,347.9
E. 517,188.9

REFERENCES

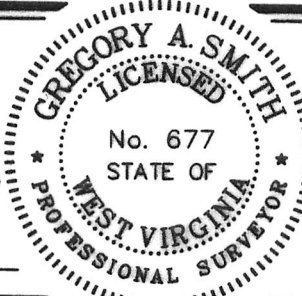


- OXF149 WELLS
- H1-WV 512478
 - H2-WV 512479
 - H3-WV 512480
 - H4-WV 512481
 - H5-WV 512482
 - H6-WV 513136



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 DIVISION OF ENVIRONMENTAL PROTECTION.

P.S. 677
Gregory A. Smith



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS.
DATE AUGUST 29, 20 13
OPERATORS WELL NO. WV 512478
API WELL NO. 47-017-06392H6A
STATE COUNTY PERMIT

MINIMUM DEGREE OF ACCURACY 1/200 FILE NO. 6980P512478R7 (280-67)
PROVEN SOURCE OF ELEVATION DGPS (SURVEY GRADE TIE TO CORS NETWORK) SCALE 1" = 1,000'

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

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

LOCATION: ELEVATION 1,240' (GROUND) 1,242.5' (PROPOSED) WATERSHED LEFT FORK
DISTRICT WEST UNION COUNTY DODDRIDGE QUADRANGLE OXFORD 7.5'

SURFACE OWNER LUCY E. HARPER ACREAGE 442.6±
ROYALTY OWNER LEWIS MAXWELL HEIRS LEASE ACREAGE 2,654±

PROPOSED WORK: LEASE NO. 080616
DRILL CONVERT DRILL DEEPER REDRILL FRACTURE OR STIMULATE PLUG AND ABANDON CLEAN OUT AND REPLUG OTHER

FORMATION PERFORATE NEW FORMATION PLUG AND ABANDON CLEAN OUT AND REPLUG OTHER

PHYSICAL CHANGE IN WELL (SPECIFY) _____ TARGET FORMATION MARCELLUS
ESTIMATED DEPTH _____

WELL OPERATOR EQT PRODUCTION COMPANY DESIGNATED AGENT REX C. RAY
ADDRESS 115 PROFESSIONAL PLACE P.O. BOX 280 BRIDGEPORT, WV 26330 ADDRESS 115 PROFESSIONAL PLACE P.O. BOX 280 BRIDGEPORT, WV 26330

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Office of Oil and Gas
SEP 3 2013
WV Department of Environmental Protection

LONGITUDE 80° 47' 30" COUNTY NAME PERMIT

**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
			1/8 Min Pd	
80616	Lewis & Sarah Maxwell	D.P. Stout		23/69
80616	D.P. Stout	Acme Carbon Company		23/476
80616	Acme Carbon Company	Columbian Carbon Company		33/1
80616	CBN Coporation (fka Columbian Carbon Company)	Columbian Carbon Company (fka Cities Service Carbon Corporation)		74/17
80616	Columbian Carbon Company	Columbian Fuel Corporation		137/28
80616	Columbian Fuel Corporation	Cities Service Oil Company		153/742
80616	Cities Service Oil Company	Cities Service Company		103/328
80616	Cities Service Company	Cities Services Oil & Gas Corporation		132/177
80616	Cities Service Oil & Gas Corporation	OXY USA, Inc.		205/614
80616 (100ac square)	OXY USA, Inc.	CNG Development Company		158/530
80616 (100ac square)	OXY USA, Inc.	CNG Development Company		158/708
80616 (100ac square)	OXY USA, Inc.	CNG Development Company		160/271
80616	OXY USA, Inc.	Ashland Exploration, Inc.		160/644
80616	Ashland Exploration Holdings, Inc. f/k/a Ashland Exploration Inc.	Blazer Energy Corp.		181/421
80616	Blazer Energy Corp.	Eastern States Oil & Gas Inc.		244/149 & 244/154
80616	Eastern States Oil & Gas, Inc.	Equitable Production - Eastern States Oil & Gas Co. Inc.,		255/154
80616	Equitable Production - Eastern States Oil & Gas Co. Inc.	Equitable Production Company		Cert.Corp 557/56
80616	Equitable Production Company	EQT Production Company		281/346
80616 (3-100ac squares)	CNX Gas Company, LLC (fka CNG Development Company)	EQT Production Company		272/249

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: [Signature]
 Its: Permitting Supervisor

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

Date of Notice Certification: 9-21-13

API No. 47 - 017 - 0
Operator's Well No. 512478
Well Pad Name: OXF149

Notice has been given:

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

State: <u>WV</u>	UTM NAD 83 Easting: <u>517,188.80</u>
County: <u>Doddridge</u>	UTM NAD 83 Northing: <u>4,341,348.00</u>
District: <u>West Union</u>	Public Road Access: <u>Co Rt 11/4</u>
Quadrangle: <u>Oxford 7.5</u>	Generally used farm name: <u>Lewis Maxwell</u>
Watershed: <u>Left Fork Arnolds Creek</u>	

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

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

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

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

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



Subscribed and sworn before me this 17 day of SEPTEMBER 2013

[Signature] Notary Public
My Commission Expires 6/27/2018

Oil and Gas Privacy Notice:

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

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WW-6A
(8-13)

API NO. 47 - 017 - 0
OPERATOR WELL NO. 512478
Well Pad Name: OXF149

**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: 9-21-13 Date Permit Application Filed: 9-23-13

Notice of:

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

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

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

Pursuant to W. Va. Code § 22-6A-10(b) no later than the filing date of the application, the applicant for a permit for any well work or for a certificate of approval for the construction of an impoundment or pit as required by this article shall deliver, by personal service or by registered mail or by any method of delivery that requires a receipt or signature confirmation, copies of the application, the erosion and sediment control plan required by section seven of this article, and the well 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; (2) The owners of 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 be used for roads or other land disturbance as described in the erosion and sediment control plan submitted pursuant to subsection (c), section seven of this article; (3) The coal owner, operator or 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 seams; (4) The owners of 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 be used for the placement, construction, enlargement, alteration, repair, removal or abandonment of any impoundment or pit as described in section nine of this article; (5) Any surface owner or water purveyor who is known to the applicant to have a water well, spring or water supply source located within one thousand five hundred feet of the center of the well pad which is used to provide water for consumption by humans or domestic animals; and (6) The operator of any natural gas storage field within which the proposed well work activity is to take place. (c)(1) If more than three tenants in common or other co-owners of interests described in subsection (b) of this section hold interests in the lands, the applicant may serve the documents required upon the person described in the records of the sheriff required to be maintained pursuant to section eight, 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 notice to a landowner, 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 Safety Plan ("WSSP") to the surface owner and any water purveyor or surface owner subject to notice and water testing as provided in section 15 of this rule.

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

SURFACE OWNER(s)

Name: Lucy E Harper
Address: 511 Boca Ciega Point Blvd. North
St Petersburg, FL 33708-2731

Name: 0
Address: 0
0
0

SURFACE OWNERS(s) (Road and/or Other Disturbance)

Name: Lucy E Harper
Address: 511 Boca Ciega Point Blvd. North
St Petersburg, FL 33708-2731

Name: 0
Address: 0
0
0

SURFACE OWNER(s) (Impoundments/Pits)

Name: Lucy E Harper
Address: 511 Boca Ciega Point Blvd. North
St Petersburg, FL 33708-2731

0

COAL OWNER OR LESSEE

Name: Quinn Financial Mgmt. LLC
Address: C/O Meredith, Quinn & Stenger, A.C.
P.O. Box 2395
Buckhannon, WV 26201

COAL OPERATOR

Name: 0
Address: 0
0
0

WATER PURVEYOR(s)

Name: 0
Address: 0
0
0

OPERATOR OF ANY NATURAL GAS STORAGE FIELD

Name: 0
Address: 0

*Please attach additional forms if necessary

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WW-6A
(8-13)

API NO. 47 - 017 - 0
OPERATOR WELL NO. 512478
Well Pad Name: OXF149

Notice is hereby given:

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

This Notice Shall Include:

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

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

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

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

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

Well Location Restrictions

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

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(8-13)

API NO. 47 - 017 - 0
OPERATOR WELL NO. 512478
Well Pad Name: OXF149

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

Water Well Testing:

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

Water Testing Laboratories:

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

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

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

Written Comment:

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

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

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

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Time Limits and Methods for Filing Comments.

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

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

Comment Requirements

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

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

Permit Denial or Condition

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

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

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

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

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WV Department of
Environmental Protection

Notice is hereby given by:

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

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

Oil and Gas Privacy Notice:

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

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.



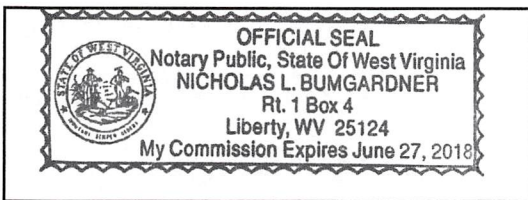
By: Victoria Roark

Its: Permitting Supervisor

Subscribed and sworn before me this 17 day of SEPTEMBER, 2013

 Notary Public

My Commission Expires 6/27/2018

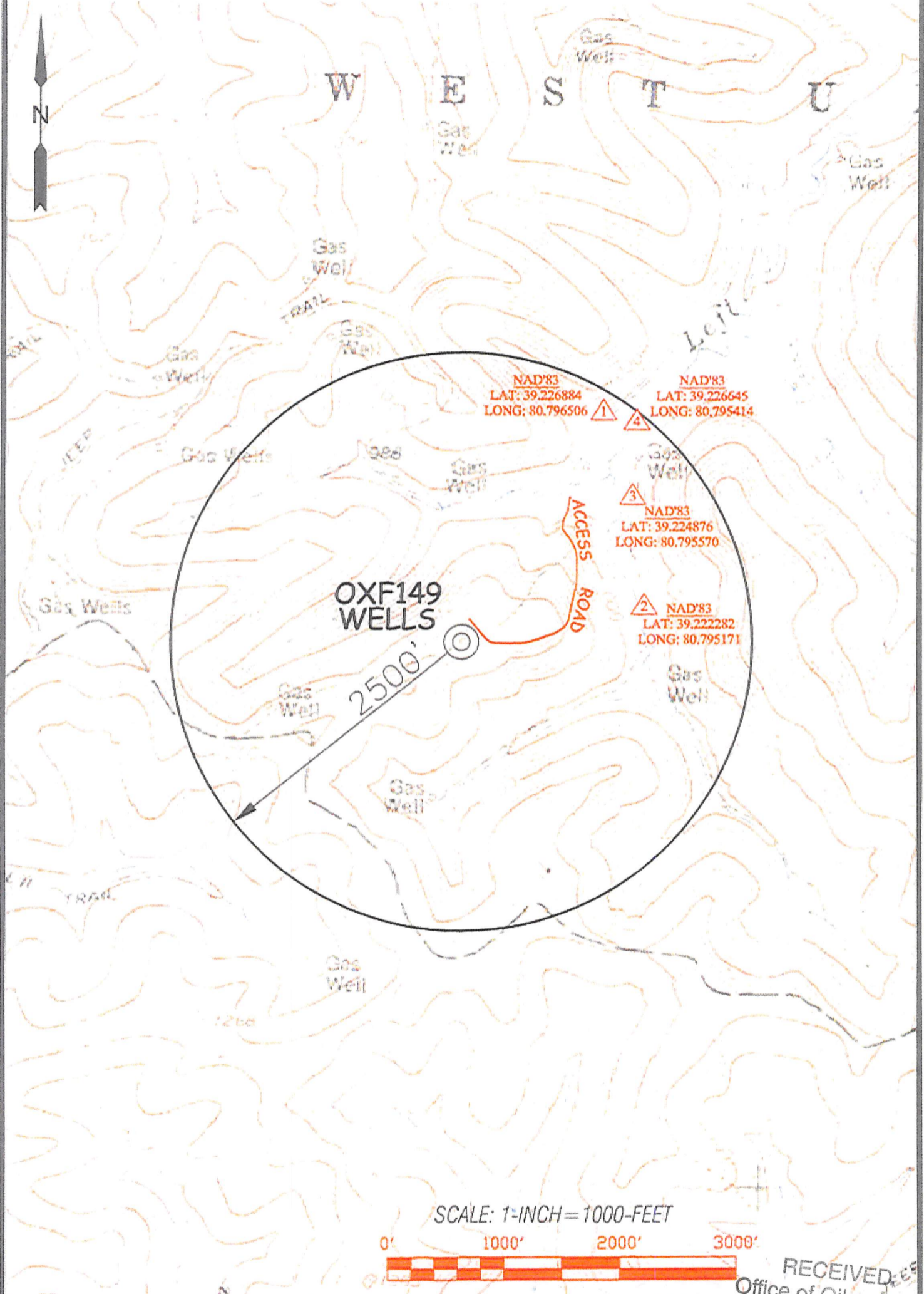


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WV Department of
Environmental Protection

LEWIS MAXWELL LEASE OXF149 WELLS



SCALE: 1-INCH=1000-FEET



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2/28/2013
Department of Environmental Protection

<p>Professional Energy Consultants SLS 1500 River Road SW P.O. Box 1000 Martinsburg, WV 26151 www.sls.com</p>	TOPO SECTION OF: OXFORD, WV 7.5' QUAD.		OPERATOR: EQT PRODUCTION COMPANY 115 PROFESSIONAL PLACE P.O. BOX 280 BRIDGEPORT, WV 26330
	DISTRICT WEST UNION	COUNTY DODDRIDGE	TAX MAP-PARCEL NO. 23-3.1
DRAWN BY K.D.W.	FILE NO. 6980	DATE 09/12/13	CADD FILE: 6980WS512478R2



SMITH LAND SURVEYING, INC.

P.O. BOX 150, GLENVILLE, WV 26031

(304) 462-6634 - FAX 462-6660

WELL INFORMATION AND FINAL WATER WELL SAMPLE DATA SHEET

OPERATOR: EQT Production Company

LEASE NAME AND NUMBER: OXF 149

COMMENTS

The initial field and/or mapping review of the area surrounding the proposed well site revealed the below listed surface owner(s) that were potentially utilizing groundwater (potable) for Human Consumption or other purposes within 2500' of the proposed well site. (For location of each site see attached area map.)

INDIVIDUAL CONTACTED OR NOTIFIED

Site: 1 Spacing 2400 Owner/Occupant: Gary Stephanson
 Address: P.o. Box 71 West Union, WV 26456 Ph: (304)-588-7612
 Field Contact Date: 9-12-13 Sampled: No Date Sampled: _____ Source: Water well
 If No, declined by who _____ Letter/Notice Date: 1st _____ 2nd _____ Certified (3rd) _____
 Comments: Northing: 39,226884
Easting: 80,796506

Site: 2 Spacing 1600 Owner/Occupant: EQT Production Company
 Address: 1710 Pennsylvania Ave. Chareleston, WV 25302 Ph: _____
 Field Contact Date: 9-12-13 Sampled: No Date Sampled: _____ Source: Creek
 If No, declined by who _____ Letter/Notice Date: 1st _____ 2nd _____ Certified (3rd) _____
 Comments: Eqt is not the land owner but would like water site sampled and results sent to them.
Northing: 39,222282
Easting: 80,795171

Site: 3 Spacing 1800 Owner/Occupant: Gary Stephanson
 Address: P.o. Box 71 West Union, WV 26456 Ph: (304)-588-7612
 Field Contact Date: 9-12-13 Sampled: No Date Sampled: _____ Source: Pond
 If No, declined by who _____ Letter/Notice Date: 1st _____ 2nd _____ Certified (3rd) _____
 Comments: Northing: 39,224876
Easting: 80,795570

Site: 4 Spacing 2450 Owner/Occupant: EQT Production Company
 Address: 1710 Pennsylvania Ave. Chareleston, WV 25302 Ph: _____
 Field Contact Date: 9-12-13 Sampled: No Date Sampled: _____ Source: Creek
 If No, declined by who _____ Letter/Notice Date: 1st _____ 2nd _____ Certified (3rd) _____
 Comments: Northing: 39,224876
Easting: 80,795570

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WW2-A

Additional Surface Owners

✓ Mathew Lewis Hamblet
Gary L. Stephenson (surv)
3351 Mar-Lu Ridge Road
Jefferson, MD 21755

✓ William Randall Hamblet
2413 Pinehill Circle
Staunton, VA 24401

Additional Surface Owners Access Road

✓ Mathew Lewis Hamblet
Gary L. Stephenson (surv)
3351 Mar-Lu Ridge Road
Jefferson, MD 21755

✓ William Randall Hamblet
2413 Pinehill Circle
Staunton, VA 24401

✓ Charles P Heaster et al
Rt.1 Box 57
West Union, WV 26456

Additional Surface Owners Pits or Impoundments

✓ Mathew Lewis Hamblet
Gary L. Stephenson (surv)
3351 Mar-Lu Ridge Road
Jefferson, MD 21755

✓ William Randall Hamblet
2413 Pinehill Circle
Staunton, VA 24401

Additional Coal Owners:

✓ Robert S. Rieley
19375 Cypress Ridge
Lansdowne, VA 20176

✓ Robert D. Hall
1455 Deervail Place
Sherman Oaks, CA 91403

✓ Richard M. Hall
105 W Kirkwood Avenue
Fairfield, IA 52556

✓ Bruce P. Hall
2015 Los Trancos Drive, Apt F
Irving, CA 92617

✓ Margaret Hall Dowling
3124 East Ruth Place
Orange, CA 92869

✓ Andrea T. Hall
240 N Thora
Orange, CA 92869

✓ John R. Davies Trust, c/o Thomas Rhys Davies TTEE
1006 43rd Street
Vienna, WV 26105

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Additional Coal Owners:

- ✓ Eleanor Maxwell Meyer
19 Heath Place
Garden City, NY 11530
- ✓ Mary Maxine Welch
P.O. Box 4308
Parkersburg, WV 26104
- ✓ Charles Jr. & Barbara Wellings
HC 68, Box 3
West Union, WV 26456
- ✓ Sara Lynn Bailey
11808 Clara Way
Fairfax Station, VA 22039
- ✓ Mary Farr Secrist
Route 1, Box 56A
West Union, WV 26456
- ✓ Mary Ann Lyford
735 Summit Lake Court
Knoxville, TN 37922
- ✓ Katherine M. Sisler
756 Shawnee Court
O'Fallon, IL 62269
- ✓ LMSKAS Trust
c/o Joe Fedeli CPA
2013 Sandy Drive, Suite 200
State College, PA 16803
- ✓ James Feldmeier
4500 Mary Ellen Avenue
Sherman Oaks, CA 91423
- ✓ John Feldmeier
c/o Joseph Feldmeier
1439 W Chapman #191
Orange, CA 92868
- ✓ Joseph C. Feldmeier
1439 W Chapman #191
Orange, CA 92868
- ✓ The Ellis Children's Fund
1048 Irving Avenue #761
Newport Beach, CA 92660
- ✓ Mary Jane O'Brien
1048 Irvine Avenue #761
Newport Beach, CA 92660
- ✓ Mary H. Holland Irrevocable Trust
c/o Jane H. Hardin, TTEE
225 Watchung Fork
Westfield, NJ 07090
- ✓ Susan Childers
753 Burchs Creek Road
Charlottesville, VA 22603
- ✓ Kathy L. Newberry
51 Whiteberry Hollow
Mineral Wells, WV 26150

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Additional Coal Owners:

- ✓ Melissa A. Cross
98 Louise Avenue
West Union, WV 26456

- ✓ Lucy E. Harper
511 Boca Ciega Point Blvd N
St. Petersburg, FL 33708

- ✓ Susan Harper Hamblet
119 Davies Avenue SW
Leesburg, VA 20175

- ✓ Franklin Maxwell Heirs
Limited Partnership No. 1
P.O Box 2395
Buckhannon, WV 26201

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**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: 8-14-13 **Date Permit Application Filed:** 8-28-13

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: <u>Mathew Lewis Hamblet</u>	Name: <u>William Randall Hamblet</u>
Address: <u>Gary L Stephenson (surv)</u>	Address: <u>2413 Pinehill Circle</u>
<u>3351 Mar-Lu Ridge Rd.</u>	<u>Staunton, VA 24401</u>
<u>Jefferson, MD 21755</u>	

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: <u>WV</u>	UTM NAD 83	Easting <u>517,188.8</u>
County: <u>Doddridge</u>		Northing <u>4,341,348.0</u>
District: <u>West Union</u>		Public Road Access: <u>Co Rt 11/4</u>
Quadrangle: <u>Oxford 7.5</u>		Generally used farm name: <u>Lewis Maxwell</u>
Watershed: <u>Left Fork Arnolds Creek</u>		

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

Oil and Gas Privacy Notice:

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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: 8-14-13 **Date Permit Application Filed:** 8-28-13

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: Lucy E. Harper **Name:** _____
Address: 511 Boca Ciega Point Blvd. North **Address:** _____
St. Petersburg, FL 33708-2731 _____

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:	<u>WV</u>	UTM NAD 83	Easting	<u>517,188.8</u>
County:	<u>Doddridge</u>		Northing	<u>4,341,348.0</u>
District:	<u>West Union</u>		Public Road Access:	<u>Co Rt 11/4</u>
Quadrangle:	<u>Oxford 7.5</u>		Generally used farm name:	<u>Lewis Maxwell</u>
Watershed:	<u>Left Fork Arnolds Creek</u>			

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

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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: 9/11/2013 **Date Permit Application Filed:** 9/21/13

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: <u>Charles P Heaster et al</u>	Name: _____	<u>0</u>
Address: <u>Rt.1 Box 57</u>	Address: _____	<u>0</u>
<u>West Union, WV 26456</u>	_____	<u>0</u>

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: <u>WV</u>	UTM NAD 83	Easting <u>517,188.80</u>
County: <u>Doddridge</u>		Northing <u>4,341,348.00</u>
District: <u>West Union</u>		Public Road Access: <u>Co Rt 11/4</u>
Quadrangle: <u>Oxford 7.5</u>	Generally used farm name: <u>Lewis Maxwell</u>	
Watershed: <u>Left Fork Arnolds Creek</u>		

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

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WV Department of
Environmental Protection

WW-6A5
(1/12)

Operator Well No. 512478

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: 9/21/2013 **Date Permit Application Filed:** September 21, 2013

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

CERTIFIED MAIL **HAND**
RETURN RECEIPT REQUESTED **DELIVERY**

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

Notice is hereby provided to the SURFACE OWNER(s)

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

Name: Mathew Lewis Hamblet
Address: Gary L. Stephenson (surv)
3351 Mar-Lu Ridge Road
Jefferson, MD 21755

Name: William Randall Hamblet
Address: 2413 Pinehill Circle
Staunton, VA 24401

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:	<u>WV</u>	UTM NAD 83	Easting:	<u>517,188.80</u>
County:	<u>Doddridge</u>		Northing:	<u>4,341,348.00</u>
District:	<u>West Union</u>	Public Road Access:		<u>Co Rt 11/4</u>
Quadrangle:	<u>Oxford 7.5</u>	Generally used farm name:		<u>Lewis Maxwell</u>
Watershed:	<u>Left Fork Arnolds Creek</u>			

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
Telephone: 304-848-0082
Email: vroark@eqt.com

Address: 115 Professional Place, P.O. Box 280
Bridgeport, WV 26330
Facsimile: 304-848-0040

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WW-6A5
(1/12)

Operator Well No. 512478

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: 9/21/2013 Date Permit Application Filed: September 21, 2013

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: Charles P Heaster et al
Address: Rt.1 Box 57
West Union, WV 26456

Name: Lucy E Harper
Address: 511 Boca Ciega Point Blvd. North
St Petersburg, FL 33708-2731

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: 517,188.80
County: Doddridge Northing: 4,341,348.00
District: West Union Public Road Access: Co Rt 11/4
Quadrangle: Oxford 7.5 Generally used farm name: Lewis Maxwell
Watershed: Left Fork Arnolds Creek

This Notice Shall Include:

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

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

Address: 115 Professional Place, P.O. Box 280
Bridgeport, WV 26330
Facsimile: 304-848-0040

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WV Department of
Environmental Protection



470 170 6392

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

January 8, 2014

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

Subject: DOH Permit for the OXF149 Pad, Doddridge County
OXF149H1 Well #512478

Dear Mr. Martin,

This well site will be accessed from Permit # 04-2013-0940 applied for by EQT Production Company for access to the State Road for a well site located off of Doddridge County Route 11/4 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
Regional Maintenance Engineer
Central Office O&G Coordinator

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

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

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

RECEIVED
Office of Oil and Gas

SEP 23 2013

WV Department of
Environmental Protection

OXF 149 SITE PLAN EQT PRODUCTION COMPANY

PROPOSED WELL NO. H1 - WV 512478, H2 - WV512479, & H5 - WV512482
EXISTING WELL API NO. 47-017-05951, 47-017-05894, & 47-017-05895

SITUATE ON THE WATERS OF A TRIBUTARY OF LEFT FORK ARNOLDS CREEK IN
WEST UNION DISTRICT, DODDRIDGE COUNTY, WEST VIRGINIA.

PROJECT INFORMATION

PROJECT NAME: OXF 149 H1, H2 & H5
TAX PARCEL: WEST UNION DISTRICT MAP 23
SURFACE OWNER: LUCY E. HARPER WEST UNION DISTRICT DODDRIDGE COUNTY, WV TOTAL PROPERTY AREA: 442.80 ± ACRES (TM 23-03)
MATHEW HAMBLET ET AL WEST UNION DISTRICT DODDRIDGE COUNTY, WV TOTAL PROPERTY AREA: 442.80 ± ACRES (TM 23-01)
OIL AND GAS ROYALTY OWNER: LEWIS MAXWELL HERS WEST UNION DISTRICT DODDRIDGE COUNTY, WV TOTAL PROPERTY AREA: 2.854 ± ACRES

SITE LOCATION: THE OXF 149 SITE IS LOCATED ON A RIDGE SOUTH OF CO. RT. 11/4, APPROXIMATELY 4.3 MILES SOUTH OF THE CO. RT. 11 AND CO. RT. 11/4 INTERSECTION

LOCATION COORDINATES

OXF 149 H1, H2 & H5 WELL PAD ENTRANCE
LATITUDE: 39.224680 LONGITUDE: -80.797515 (NAD 83)
OXF 149 H1, H2 & H5 WELL PAD
LATITUDE: 39.221286 LONGITUDE: -80.800717 (NAD 83)
OXF 149 H1, H2 & H5 ASSOCIATED PIT
LATITUDE: 39.220301 LONGITUDE: -80.801578 (NAD 83)
OXF 149 H1, H2 & H5 TANK A PAD
LATITUDE: 39.221932 LONGITUDE: -80.799873 (NAD 83)
OXF 149 H1, H2 & H5 TANK B PAD
LATITUDE: 39.221733 LONGITUDE: -80.798991 (NAD 83)

SITE DISTURBANCE COMPUTATIONS

PAD/ASSOCIATED PIT & ACCESS ROAD AREA = 15.4 ± ACRES*
TOTAL SITE DISTURBANCE = 15.4 ± ACRES
*INCLUDES AREA OF THE WELL PAD, ASSOCIATED PIT, & STOCKPILES

ENTRANCE PERMIT

EQT PRODUCTION COMPANY WILL OBTAIN AN ENCROACHMENT PERMIT (FORM MM-109) FROM THE WEST VIRGINIA DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS, PRIOR TO COMMENCEMENT OF CONSTRUCTION ACTIVITIES

MISS UTILITY STATEMENT

MISS UTILITY OF WEST VIRGINIA WAS NOTIFIED FOR THE LOCATING OF UTILITIES PRIOR TO THIS PROJECT DESIGN, TICKET #1324866539. IN ADDITION, MISS UTILITY WILL BE CONTACTED PRIOR TO START OF THE PROJECT.

FLOODPLAIN NOTE

THE PROPOSED LIMITS OF DISTURBANCE FOR THIS PROJECT IS LOCATED IN FEMA FLOOD ZONE X PER THE FLOOD INSURANCE RATE MAP (FIRM) NUMBER 54017C0225C, DATED OCTOBER 04, 2011.

ENVIRONMENTAL NOTES

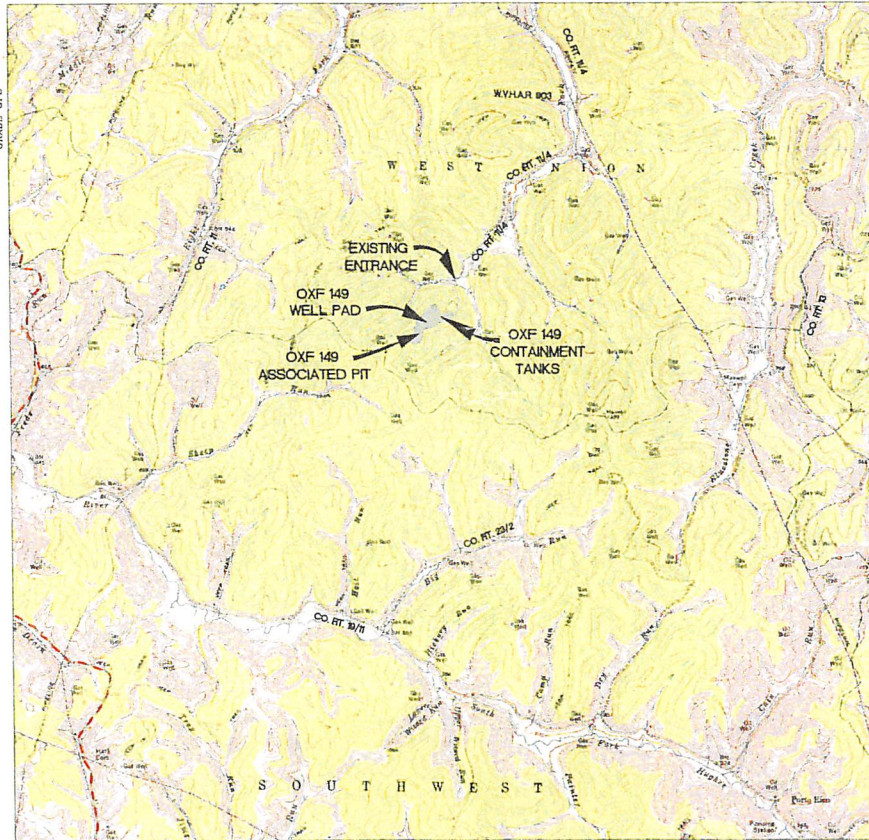
A WETLAND DELINEATION WAS PERFORMED ON AUGUST 13, 2013 BY POTESTA ENGINEERS AND ENVIRONMENTAL CONSULTANTS TO REVIEW THE SITE FOR WATERS AND WETLANDS THAT ARE MOST LIKELY WITHIN THE REGULATORY PURVIEW OF THE U.S. ARMY CORPS OF ENGINEERS (USACE) AND/OR THE WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION (WVDEP). THE AUGUST 13, 2013 EXHIBIT FIGURE # 2 WAS PREPARED BY POTESTA ENGINEERS AND ENVIRONMENTAL CONSULTANTS SUMMARIZES THE RESULTS OF THE FIELD DELINEATION. THE REPORT DOES NOT, IN ANY WAY, REPRESENT A JURISDICTIONAL DETERMINATION OF THE LANDWARD LIMITS OF WATERS AND WETLANDS WHICH MAY BE REGULATED BY THE USACE OR THE WVDEP. IT IS STRONGLY RECOMMENDED THAT THE AFOREMENTIONED AGENCIES BE CONSULTED IN AN EFFORT TO GAIN WRITTEN CONFIRMATION OF THE DELINEATION DESCRIBED BY THIS REPORT PRIOR TO ENGAGING CONSTRUCTION ON THE PROPERTY DESCRIBED HEREIN. THE DEVELOPER SHALL OBTAIN THE APPROPRIATE PERMITS FROM THE FEDERAL AND/OR STATE REGULATORY AGENCIES PRIOR TO ANY PROPOSED IMPACTS TO WATERS OF THE U.S., INCLUDING WETLAND FILLS AND STREAM CROSSINGS

GENERAL DESCRIPTION

THE WELL PAD & ASSOCIATED PIT IS BEING CONSTRUCTED TO AID IN THE DEVELOPMENT OF INDIVIDUAL MARCELLUS SHALE GAS WELLS

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!!

GRID NORTH AND ELEVATIONS ESTABLISHED BY SURVEY GRADE GPS

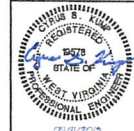
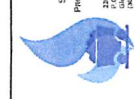


LIST OF DRAWINGS

- 1 - COVER SHEET
- 2 - NOTES
- 3 - OVERALL PLAN SHEET INDEX & VOLUMES
- 4 - WELL PAD & CONTAINMENT TANKS DETAILS
- 5 - ASSOCIATED PIT & EXISTING ROAD DETAILS
- 6 - WELL PAD & ASSOCIATED PIT SECTIONS
- 7 - ASSOCIATED PIT SECTIONS
- 8 - CONTAINMENT TANKS SECTIONS
- 9 - ROAD PROFILES AND CROSS-SECTIONS
- 10 - EXISTING ROAD PROFILE
- 11 - EXISTING ROAD SECTIONS
- 12 - PIT & CONTAINMENT TANKS RECLAMATION PLAN
- 13 - ASSOCIATED PIT RECLAMATION PLAN
- 14-18 CONSTRUCTION DETAILS

LEGEND			
EX INDEX CONTOUR	--- 700 ---	PROP INDEX CONTOUR	--- 700 ---
EX INTERMEDIATE CONTOUR	---	PROP INTERMEDIATE CONTOUR	---
EX BOUNDARY LINE	---	PROP GRADING LIMITS	---
EX ROAD EDGE OF GRAVEL/DIRT	---	PROP LIMITS OF DISTURBANCE	---
EX ROAD EDGE OF PAVEMENT	---	PROP WELL PAD	---
EX ROAD CENTERLINE	---	PROP WELL HEAD	---
EX DITCHLINE	---	PROP 4" PVC DRAIN PIPE	---
EX CULVERT	---	PROP SUMP DRAIN	---
EX GUARDRAIL	---	PROP CONTAINMENT BERM	---
EX FENCELINE	---	PROP PIT/IMPoundMENT CL	---
EX GATE	---	PROP PERIMETER SAFETY FENCE	---
EX OVERHEAD UTILITY	---	PROP ACCESS GATE WITH EMERGENCY LIFELINE	---
EX OVERHEAD UTILITY R/W	---		
EX POWER POLE	---		
EX GUY WIRE	---		
EX TELEPHONE LINE	---		
EX GASLINE	---	PROP ROCK CONSTRUCTION ENTRANCE	---
EX GASLINE R/W	---		
EX WATERLINE	---		
EX WATER WELL	---		
EX GAS WELL	---		
EX TREELINE	---	PROP ROAD EDGE OF GRAVEL	---
EX REFERENCE TREE	---	PROP ROAD CENTERLINE	---
EX DELINEATED STREAM	---	PROP COMPOST FILTER SOCK	---
EX DELINEATED WETLAND	---	PROP V-DITCH W/ CHECK DAMS	---
		PROP DITCH RELIEF CULVERT (DRS)	---
EX BUILDING	---	PROP RIP-RAP OUTLET PROTECTION	---
EX BRIDGE	---	PROP GUARDRAIL	---
100 WETLAND/STREAM BUFFER	---	PROP ROCK LEVEL SPREADER	---
		PROP EARTHEN DIVERSION BERM	---
		PROP ORANGE SAFETY FENCE	---
		PROP SUPER SILT FENCE	---
		PROP COMPOST FILTER SOCK	---
		PROP COMPOST SOCK DIVERSION	---
		PROP GROUNDWATER DEWATERING TRENCH	---
		PROP GROUNDWATER DEWATERING PIPE	---
		SECTION LINE	"A" "A"
		MATCHLINE	---
		X-SECTION GRID INDEX	---
		X-SECTION GRID INTERMEDIATE	---
		X-SECTION PROPOSED GRADE	---
		X-SECTION EXISTING GRADE	---
		X-SECTION WATER SURFACE	---
		SPOT ELEVATION	---
		CENTER OF PAD	---

Environmental Protection
WV Department of



THIS DOCUMENT WAS PREPARED BY NAVITUS ENGINEERING INC FOR EQT PRODUCTION COMPANY

COVER SHEET
OXF 149
WEST UNION DISTRICT
DODDRIDGE COUNTY, WV

DATE: 09/10/2013
SCALE: 1" = 2000'
DESIGNED BY: CSK
FILE NO: 6980
SHEET 1 OF 18
REV: 09/11/2013

OPERATOR
EQT PRODUCTION COMPANY
OPERATOR ID: 308686
115 PROFESSIONAL PLACE
P.O. BOX 280
BRIDGEPORT, WV 26330
PHONE: (304) 348-3870

ENGINEER
NAVITUS ENGINEERING, INC.
151 WINDY HILL LANE
WINCHESTER, VA 22602
PHONE: (888) 662-4185

SURVEYOR
SMITH LAND SURVEYING INC.
236 WEST MAIN STREET
P.O. BOX 150
GLENVILLE, WV 26031
PHONE: (304) 462-5634