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

December 22, 2015

WELL WORK PERMIT

Horizontal 6A Well

This permit, API Well Number: 47-1706762, 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: 515876
Farm Name: DAVIES PIERCE, RUTH R. & DAV
API Well Number: 47-1706762
Permit Type: Horizontal 6A Well
Date Issued: 12/22/2015

Promoting a healthy environment.

API Number: 4701706762

PERMIT CONDITIONS

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

CONDITIONS

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

2. If the operator encounters an unanticipated void, or an anticipated void at an unanticipated depth, the operator shall notify the inspector within 24 hours. Modifications to the casing program may be necessary to comply with W. Va. Code § 22-6A-5a (12), which requires drilling to a minimum depth of thirty feet below the bottom of the void, and installing a minimum of twenty (20) feet of casing. Under no circumstance should the operator drill more than one hundred (100) feet below the bottom of the void or install less than twenty (20) feet of casing below the bottom of the void.

3. When compacting fills, each lift before compaction shall not be more than 12 inches in height, and the moisture content of the fill material shall be within limits as determined by the Standard Proctor Density test of the actual soils used in specific engineered fill, ASTM D698, Standard Test Method for Laboratory Compaction Characteristics of Soil Using Standard Effort, to achieve 95 % compaction of the optimum density. Each lift shall be tested for compaction, with a minimum of two tests per lift per acre of fill. All test results shall be maintained on site and available for review.

4. Operator shall install signage per § 22-6A-8g (6) (B) at all source water locations included in their approved water management plan within 24 hours of water management plan activation.

5. Oil and gas water supply wells will be registered with the Office of Oil and Gas and all such wells will be constructed and plugged in accordance with the standards of the Bureau for Public Health set forth in its Legislative rule entitled *Water Well Regulations,* 64 C.S.R. 19. Operator is to contact the Bureau of Public Health regarding permit requirements. In lieu of plugging, the operator may transfer the well to the surface owner upon agreement of the parties. All drinking water wells within fifteen hundred feet of the water supply well shall be flow tested by the operator upon request of the drinking well owner prior to operating the water supply well.

6. Pursuant to the requirements pertaining to the sampling of domestic water supply wells/springs the operator shall, no later than thirty (30) days after receipt of analytical data provide a written copy to the Chief and any of the users who may have requested such analyses.

7. If any explosion or other accident causing loss of life or serious personal injury occurs in or about a well or well work on a well, the well operator or its contractor shall give notice, stating the particulars of the explosion or accident, to the oil and gas inspector and the Chief, within 24 hours of said accident.

8. During the casing and cementing process, in the event cement does not return to the surface, the oil and gas inspector shall be notified within 24 hours.

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

4701706762

WW - 6B
(9/13)

API NO. 47 - 017 -
OPERATOR WELL NO 515876
Well Pad Name: WEU2

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

1) Well Operator: EQT Production Company | 306686 (Operator ID) | 017 (County) | 8 (District) | 671 (Quadrangle)

2) Operator's Well Number: 515876 Well Pad Name: WEU2

3) Farm Name/Surface Owner: Ruth R Davies Pierce et al C/O Tom Davies Public Road Access: Rt 18/1

4) Elevation, current ground: 1,155.6 Elevation, proposed post-construction: 1,155.6

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

Other _____

(b) If Gas: Shallow • Deep _____

Horizontal •

Bryan O'Hern
11/30/15

6) Existing Pad? Yes or No: yes

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

Target formation is Marcellus at a depth of 6706 with the anticipated thickness to be 54 feet and anticipated target pressure of 2951 PSI

Top of Marcellus 6686

8) Proposed Total Vertical Depth: 6706

9) Formation at Total Vertical Depth: Marcellus

10) Proposed Total Measured Depth: 13,765

11) Proposed Horizontal Leg Length 3,404

12) Approximate Fresh Water Strata Depths: 164, 272, 536, 833, 953

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

14) Approximate Saltwater Depths: 2,053

15) Approximate Coal Seam Depths: 246, 466, 548

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

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

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

WW - 6B
(3/13)

4701706762

API NO. 47 - 17 -
OPERATOR WELL NO. 515876
Well Pad Name: WEU2

CASING AND TUBING PROGRAM

18)

TYPE	Size (in)	New or Used	Grade	Weight per ft. (lb/ft)	FOOTAGE: For Drilling (ft)	INTERVALS: Left in Well (ft)	CEMENT: Fill- up (Cu.Ft.)
Conductor	20	New	MC-50	81	40	40	38 C.T.S.
Fresh Water	13 3/8	New	J-55	54.5	1,103	1,103	954 C.T.S.
Coal	–	–	–	–	–	–	–
Intermediate	9 5/8	New	A-500	40	3,053	3,053	1,189 C.T.S.
Production	5 1/2	New	P-110	20	13,765	13,765	See Note 1
Tubing	2 3/8		J-55	4.6			May not be run, if run will be set 100 less than TD
Liners							

Bryan O'Hara 11-30 15

TYPE	Size (in)	Wellbore Diameter (in)	Wall Thickness (in)	Burst Pressure (psi)	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	2,730	* See Note 2	1.21
Coal						
Intermediate	9 5/8	12 3/8	0.395	3,950	* See Note 2	1.21
Production	5 1/2	8 1/2	0.361	12,640	-	1.27/1.86
Tubing						
Liners						

Packers

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

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

WW - 6B
(3/13)

API NO. 47 - 17 -
OPERATOR WELL NO. 515876
Well Pad Name: WEU2

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

Drill and complete a new horizontal well in the Marcellus formation. The vertical drill to go down to an approximate depth of 4474 then kick off the horizontal leg into the marcellus using a slick water frac.

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

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

21) Total area to be disturbed, including roads, stockpile area, pits, etc, (acres): No additional disturbance

22) Area to be disturbed for well pad only, less access road (acres): No additional disturbance

23) Describe centralizer placement for each casing string.

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

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

Production:

Lead (Type 1 Cement): 0.2-0.7% Lignosulfonate (Retarder). Lengthens thickening time. 0.3% CFR (dispersant). Makes cement easier to mix.

4701706702

Tail (Type H Cement): 0.25-0.40% Lignosulfonate (Retarder). Lengthens thickening time. 0.2-0.3% CFR (dispersant). This is to make the cement easier to mix. 60 % Calcuim Carbonate. Acid solubility. 0.4-0.6% Halad (fluid loss). Reduces amount of water lost to formation.

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

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

Production: Pump marker sweep with nut plug to determine actual hole washout. Calculate a gauge holes bottoms up volume. Perform a cleanup cycle by pumping 3-5 bottoms up or until the shakers are clean. Check volume of cuttings coming across the shakers every 15 minutes.

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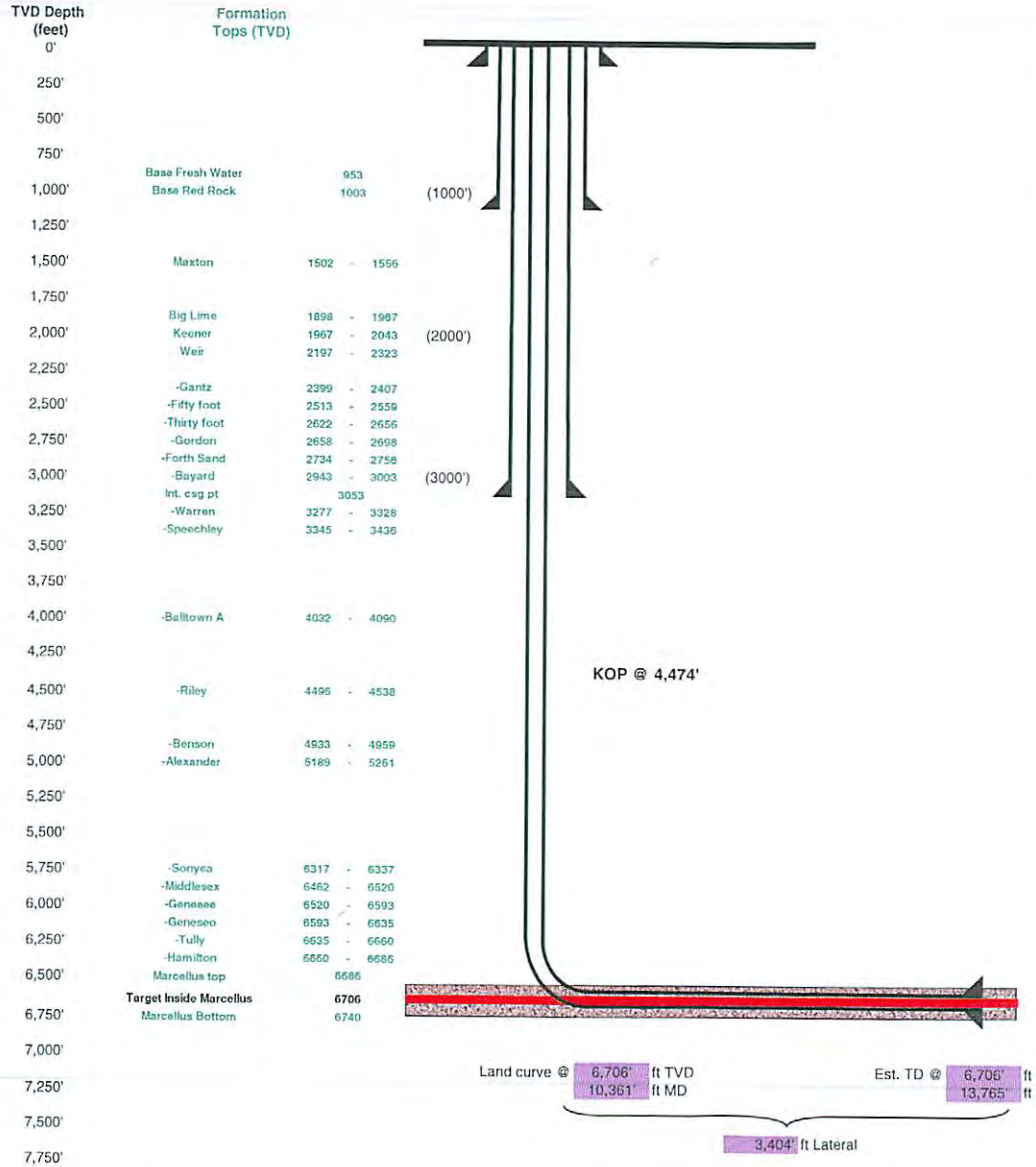
*Note: Attach additional sheets as needed.

Well 515876 (WEU2H9)
EQT Production
West Union
Doddridge West Virgina

Azimuth 155
Vertical Section 7988



Hole Size (inches)	Casing Type	Size (inches)	Wt/ppf)/Grade
24	Conductor	20	94#/MC-50
17 1/2	Surface	13 3/8	54.5#/J-55
12 3/8	Intermediate	9 5/8	40#/A-500
8 1/2	Production Casing	5 1/2	20#/P-110

Proposed Well Work:
Drill and complete a new horizontal well in the Marcellus formation.
The vertical drill to go down to an approximate depth of 4474'.
Then kick off the horizontal leg into the Marcellus using a slick water frac.

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Earl Ray Tomblin, Governor
Randy C. Huffman, Cabinet Secretary
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March 18, 2014

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

Re: Cement Variance Request

Dear Sir or Madam,

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

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

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

Sincerely,

James Peterson

James Peterson
Environmental Resources Specialist / Permitting

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west virginia department of environmental protection

Office of Oil and Gas
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Charleston, WV 25304
(304) 926-0450
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Earl Ray Tomblin, Governor
Randy C. Huffman, Cabinet Secretary
dep.wv.gov

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

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

REPORT OF THE OFFICE

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

FINDINGS OF FACT

1.) Nabors Completion & Production Services Co. proposes the following cement blend:

- 2% Calcium Chloride (Accelerator)
- 0.25 % Super Flake (Lost Circulation)
- 94% Type "1" Cement
- 5.20 % Water

2.) Laboratory testing results indicate that the blend listed in Fact No.1 will achieve a 500 psi compressive strength within 6 hours and a 2,435 psi compressive strength within 24 hours.

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Environmental Protection

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CONCLUSIONS OF LAW

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

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

ORDER

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

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

IN THE NAME OF THE STATE OF WEST VIRGINIA

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

James Martin, Chief
Office of Oil and Gas

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WV Department of
Environmental Protection

4701706762

WW-9
(5/13)

API No. 47 - 017 - 0
Operator's Well No 515876

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

Fluids/Cuttings Disposal & Reclamation Plan

Operator Name EQT Production Company OP Code 306686

Watershed (HUC10) Bluestone Creek Quadrangle West Union 7.5

Elevation 1155.6 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 ? Yes: X No: ___

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

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

B.O.H. 11-30-15

Proposed Disposal Method For Treated Pit Wastes:

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

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

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

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

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

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

Oil based mud – synthetic base oil, emulsifier, salt, lime, viscosifier, alkalinity control, filtration control, deflocculates, biodegradable oil lubricant , defoaming, carbonates

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

- If left in pit and plan to solidify what medium will be used? (Cement, Lime, sawdust) n/a
- Landfill or offsite name/permit number? See Attached List

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

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

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

Subscribed and sworn before me this 29 day of Oct , 20 15

Notary Public

My commission expires 8-24-22

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

WW-9

4701706762

Operator's Well No. 515876

Proposed Revegetation Treatment: Acres Disturbed no additional disturbance Prevegetation pH 6.4

Lime 3 Tons/acre or to correct to pH 6.5

Fertilize type Granular 10-20-20

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

Mulch 2 Tons/acre

Seed Mixtures

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

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

Photocopied section of involved 7.5' topographic sheet.

Plan Approved by: Bryan O'Hern

Comments:

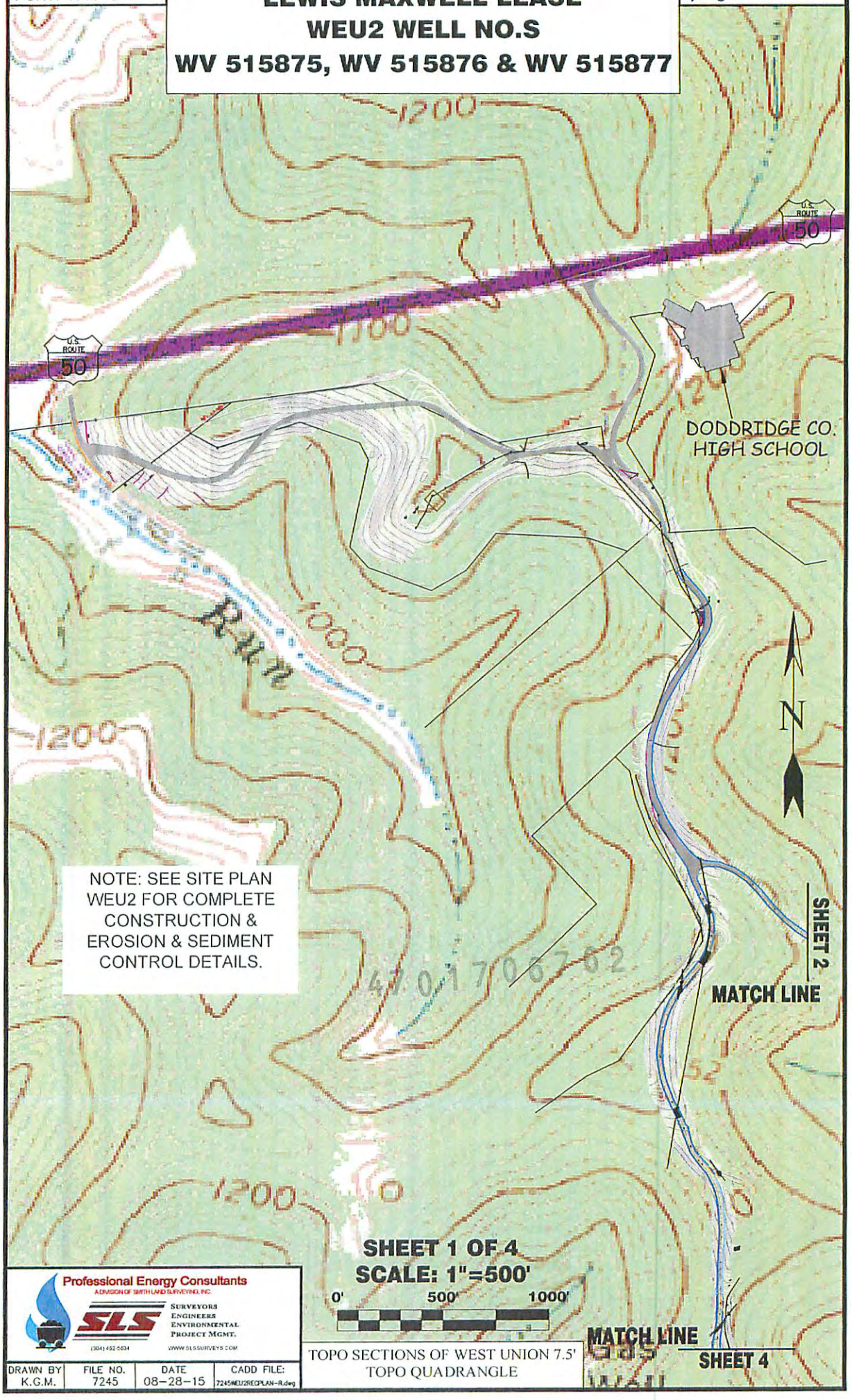
Title: Inspector Date: 11-30-15

Field Reviewed? ( ) Yes (X) No

Form WW-9

page of

LEWIS MAXWELL LEASE
WEU2 WELL NO.S
WV 515875, WV 515876 & WV 515877



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(304) 462-5634
WWW.SLSSURVEYS.COM

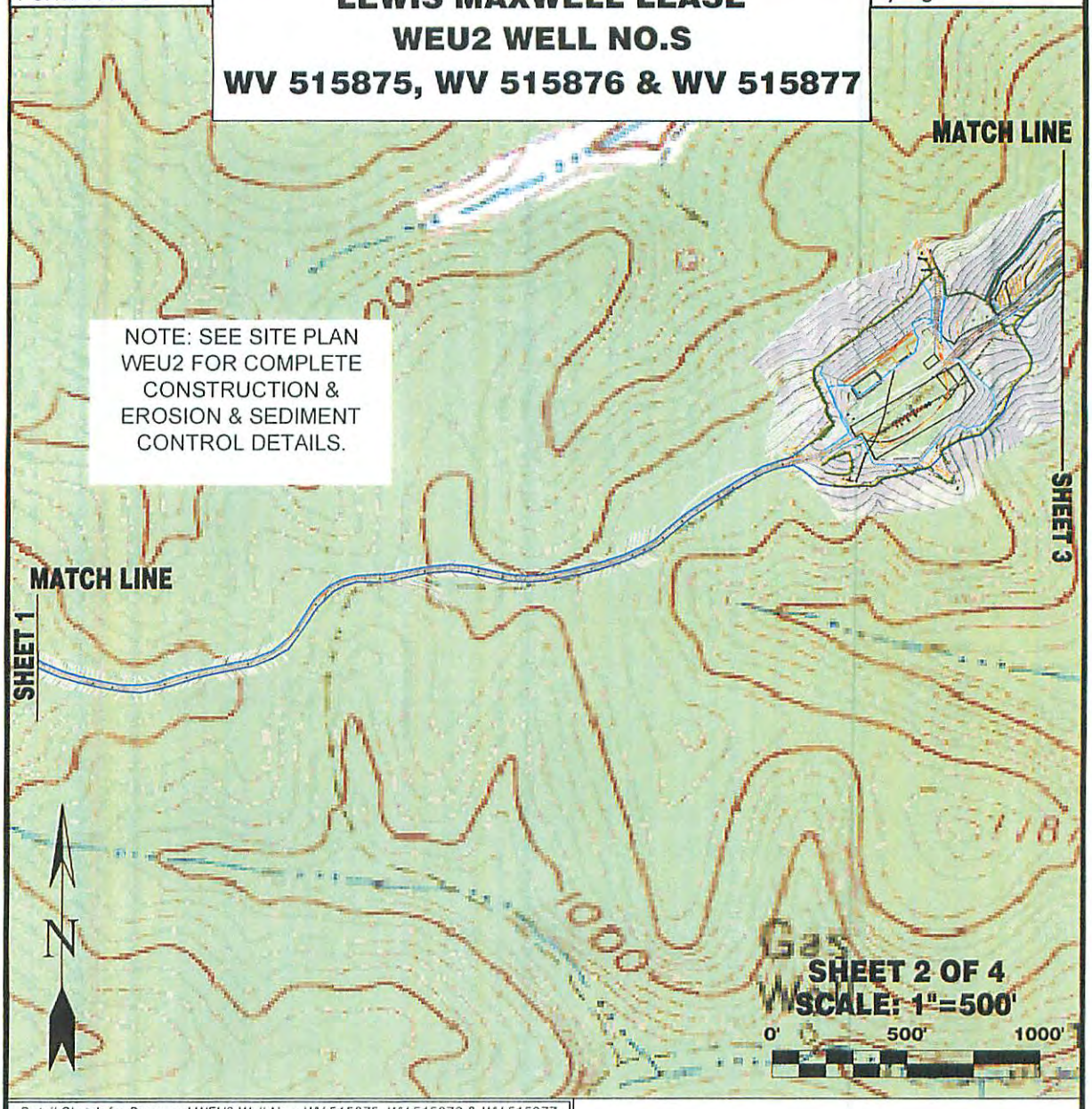
DRAWN BY	FILE NO.	DATE	CADD FILE:
K.G.M.	7245	08-28-15	7245WEU2RECPLAN-R.dwg

TOPO SECTIONS OF WEST UNION 7.5' TOPO QUADRANGLE

Form WW-9

LEWIS MAXWELL LEASE
WEU2 WELL NO.S
WV 515875, WV 515876 & WV 515877

page of



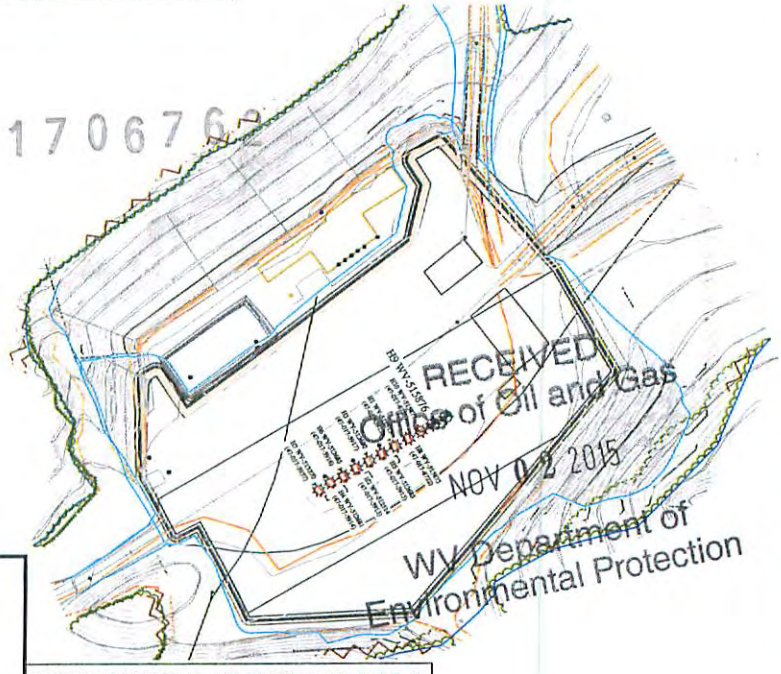
Detail Sketch for Proposed WEU2 Well No.s WV 515875, WV 515876 & WV 515877

N

Not To Scale

4701706762

NOTE: SEE SITE PLAN WEU2 FOR COMPLETE CONSTRUCTION & EROSION & SEDIMENT CONTROL DETAILS.



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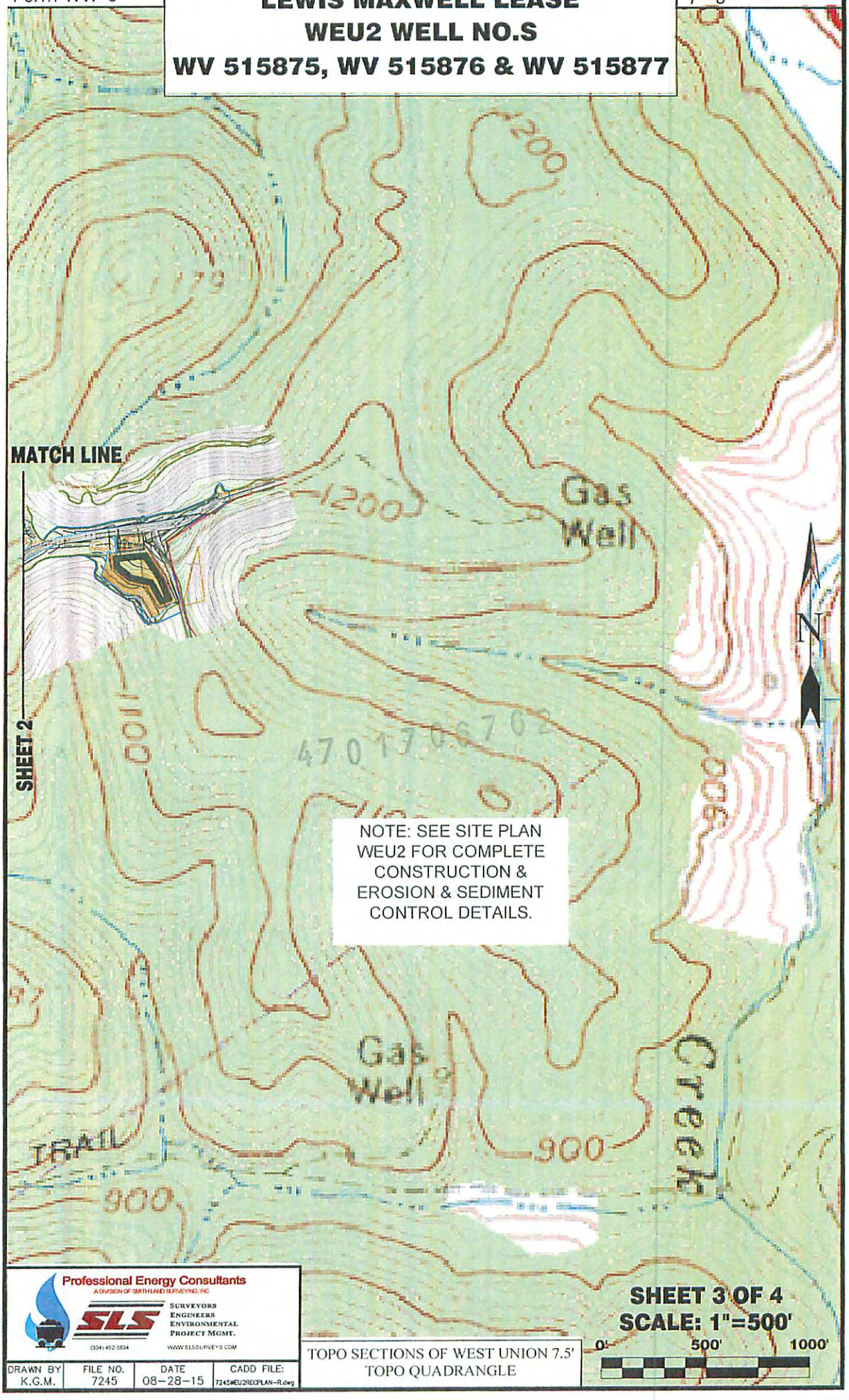

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TOPO SECTIONS OF WEST UNION 7.5' TOPO QUADRANGLE

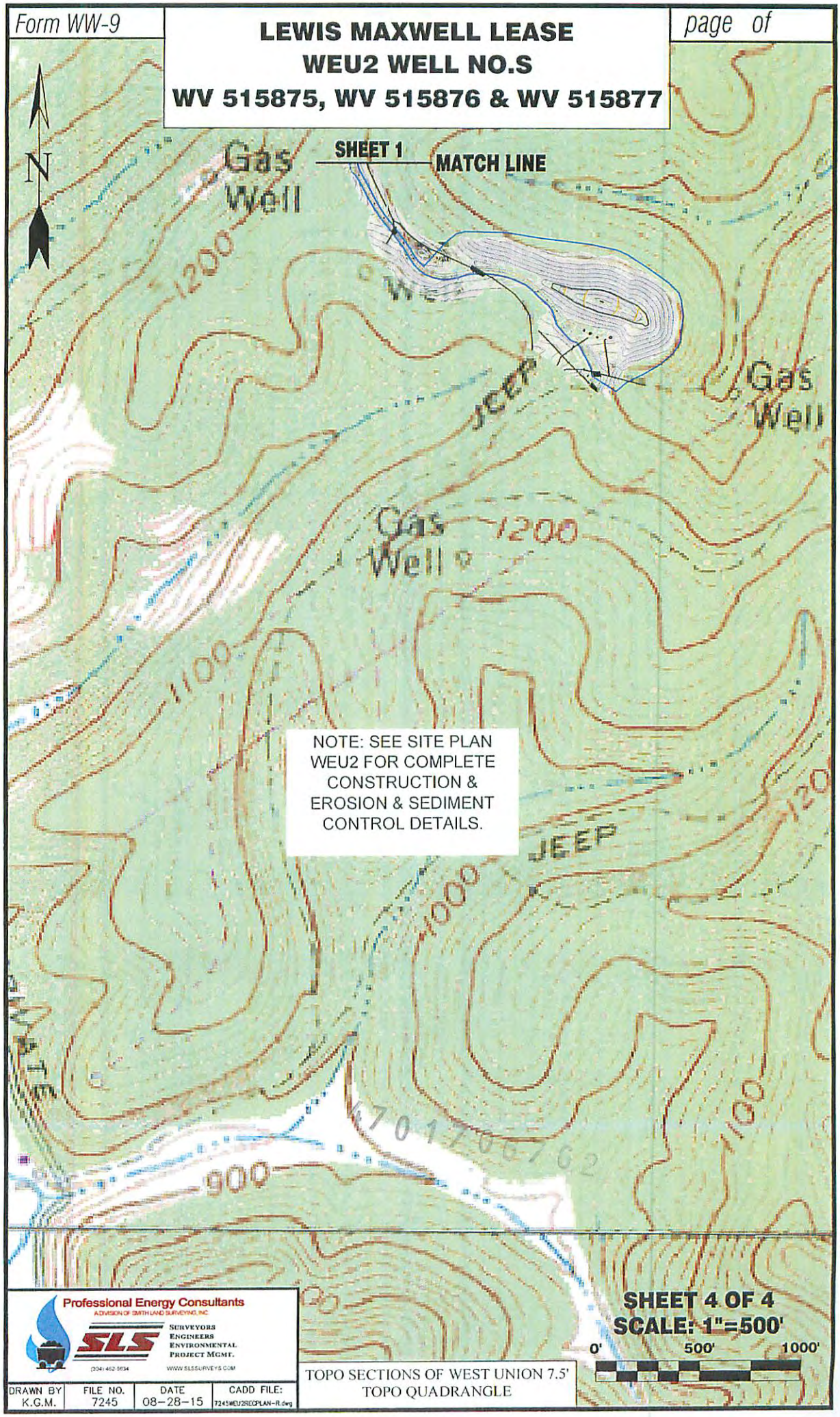
SHEET 3 OF 4
SCALE: 1"=500'

0' 500' 1000'

Form WW-9

page of

LEWIS MAXWELL LEASE
WEU2 WELL NO.S
WV 515875, WV 515876 & WV 515877



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(304) 462-5634 WWW.SLSSURVEYS.COM

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TOPO SECTIONS OF WEST UNION 7.5' TOPO QUADRANGLE

SHEET 4 OF 4
SCALE: 1"=500'

0' 500' 1000'

EQT Production Water plan
Offsite disposals for Marcellus wells

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

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

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

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

47017067 62

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

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NOV 02 2015
WV Department of
Environmental Protection

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EQT

Where energy meets innovation.™

Site Specific Safety Plan

EQT WEU 2 Pad

West Union
Doddridge County, WV

For Wells:

515876

Date Prepared: March 26, 2015

EQT Production

Permitting Supervisor
Title

10-28-15
Date

Bryan O'Haver
WV Oil and Gas Inspector

Inspector
Title

11-30-15
Date

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WELL SITE SAFETY PLAN RECEIPT ACKNOWLEDGMENT

This form letter is to be signed by the LEPC or CES representative to indicate they have received the Site Safety Plan for the following well site location and understand its use.

Site Location (Copied from Section III):

WV- Doddridge County – West Union
Site State, County and Municipality

EQT WEU 2 Pad
Site Location Designation

68 Bulldog Drive West Union,WV 26456
Site Address assigned by County 9-1-1

US Route 50
Nearest cross road(s)

NAD 83: 39.275845 / -80.794761
Access Road Coordinates

NAD 83: 39.272499 / -80.771408
Pad Site Coordinates

I have received my copy of the *Well Site Safety Plan* for the above described location. I understand that this is a reference tool for emergency response and it is my responsibility to read and understand the Plan.

LCEP or CES Representative (printed)

EQT Representative (printed)

Representative Affiliation and Title

EQT Environmental and Safety title

Representative Signature

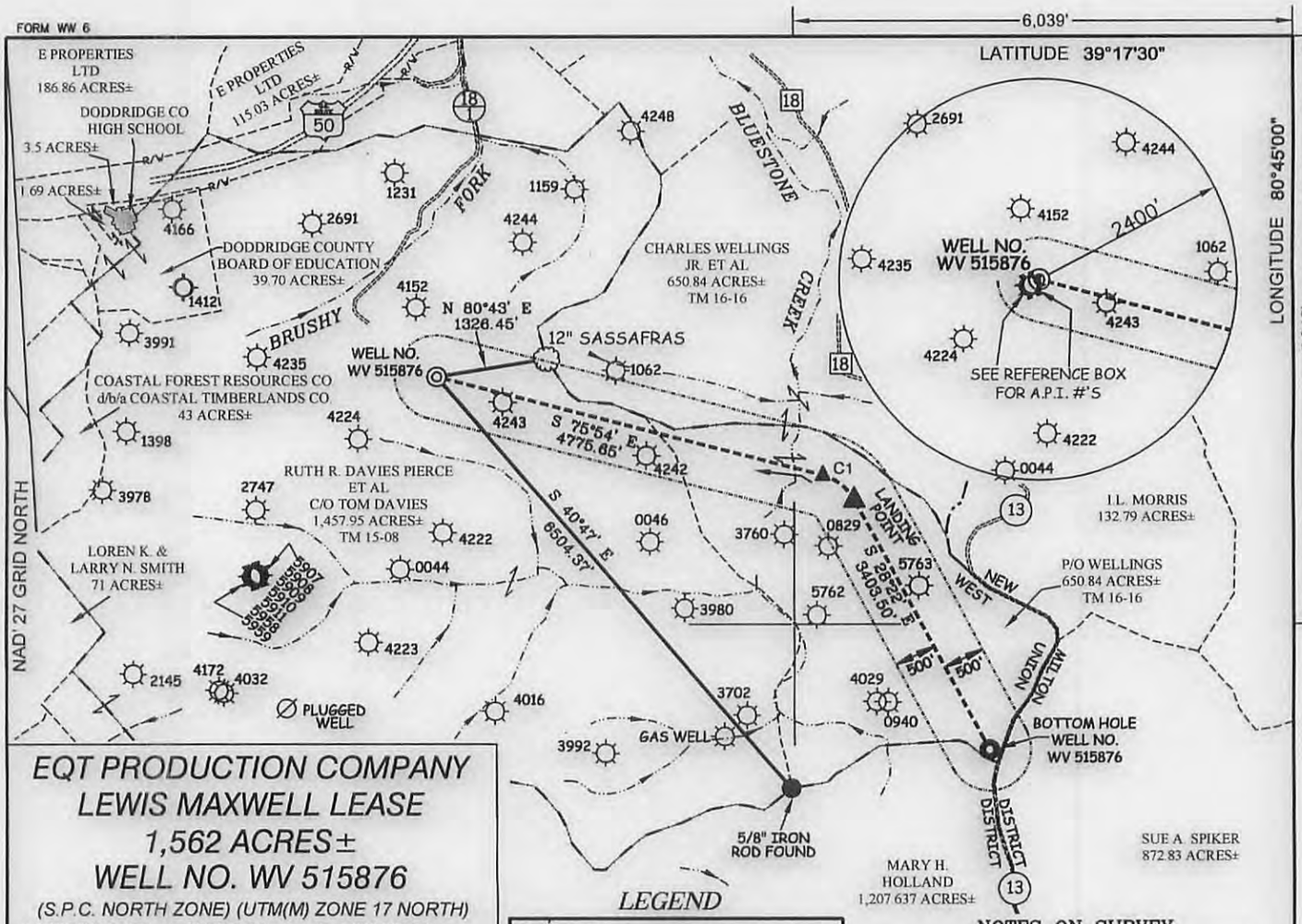
EQT Environmental and Safety Signature

Date

Date

B.O.H.
11-30-15

FORM WW 6



EQT PRODUCTION COMPANY
LEWIS MAXWELL LEASE
1,562 ACRES±
WELL NO. WV 515876

(S.P.C. NORTH ZONE) (UTM(M) ZONE 17 NORTH)

NAD'27 S.P.C.(FT)	N. 283,842.92	E. 1,640,085.06
NAD'27 GEO.	LAT-(N) 39.272325	LONG-(W) 80.771332
NAD'83 UTM (M)	N. 4,347,031.70	E. 519,739.53
LANDING POINT		
NAD'27 S.P.C.(FT)	N. 282,378.60	E. 1,645,092.31
NAD'27 GEO.	LAT-(N) 39.268498	LONG-(W) 80.753575
NAD'83 UTM (M)	N. 4,346,611.08	E. 521,272.42
BOTTOM HOLE		
NAD'27 S.P.C.(FT)	N. 279,384.00	E. 1,646,709.77
NAD'27 GEO.	LAT-(N) 39.260338	LONG-(W) 80.747716
NAD'83 UTM (M)	N. 4,345,707.00	E. 521,780.40

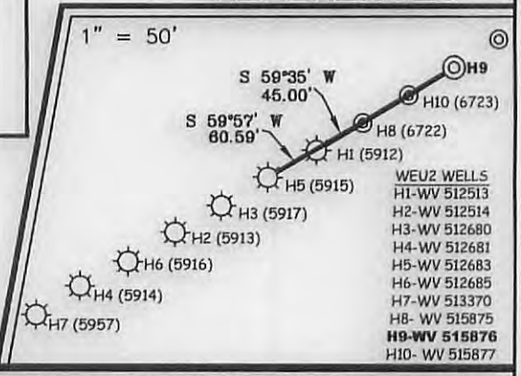
LEGEND

LEASE LINE	
SURFACE LINE	
WELL LATERAL	
OFFSET LINE	
TIE LINE	
CREEK	
ROAD	
COUNTY ROUTE	
STATE ROUTE	
U.S. ROUTE	
PROPOSED WELL	
EXISTING WELL	
PLUGGED WELL	
TAX MAP–PARCEL	TM 00–00

NOTES ON SURVEY

1. NO WATER WELLS WERE FOUND WITHIN 250' OF PROPOSED GAS WELL. NO AGRICULTURAL BUILDINGS ≥ 2500 SQ. FT. OR DWELLINGS WERE FOUND WITHIN 625' OF THE CENTER OF PROPOSED WELL PAD.

REFERENCES



CURVE	ARC LENGTH	RADIUS	CHORD BEARING	CHORD LENGTH
C1	494.84'	600.26'	S 51°21'00" E	480.95'

Professional Energy Consultants
A DIVISION OF SMITH LAND SURVEYING, INC.
SLS SURVEYORS ENGINEERS ENVIRONMENTAL PROJECT MGMT.
(304) 462-6634 WWW.SLSSURVEYS.COM

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. 849 C. Victor Moyers

C. VICTOR MOYERS LICENSED No. 849 STATE OF WEST VIRGINIA PROFESSIONAL SURVEYOR

(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS.

DATE OCTOBER 28 , 20 15

REVISED _____ , 20 _____

OPERATORS WELL NO. WV 515876

API WELL NO. 47 — 017 — 06762 WW-6A

STATE — COUNTY — PERMIT

MINIMUM DEGREE OF ACCURACY 1 / 200 FILE NO. 7245P515876R2

SCALE 1" = 2000'

HORIZONTAL & VERTICAL CONTROL DETERMINED BY DGPS (SURVEY GRADE TIE TO CORS NETWORK)

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

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

LOCATION :

ELEVATION 1,155.6' (PAD ELEVATION) WATERSHED BLUESTONE CREEK

DISTRICT WEST UNION COUNTY DODDRIDGE QUADRANGLE WEST UNION 7.5'

SURFACE OWNER RUTH R. DAVIES PIERCE ET AL C/O TOM DAVIES ACREAGE 1,457.95±

ROYALTY OWNER MARY FARR SECRIST ET AL ACREAGE 1,562±

PROPOSED WORK : LEASE NO. 080619

DRILL X CONVERT ____ DRILL DEEPER ____ REDRILL ____ FRACTURE OR STIMULATE X 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 6,683'

COUNTY NAME

PERMIT

WELL OPERATOR EQT PRODUCTION COMPANY DESIGNATED AGENT REX C. RAY

ADDRESS 115 PROFESSIONAL PLACE P.O. BOX 280 ADDRESS 115 PROFESSIONAL PLACE P.O. BOX 280

BRIDGEPORT, WV 26330 BRIDGEPORT, WV 26330

SLS

017-06762

WW-6A1
(5/13)

Operator's Well No. 515876

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
Lease 080619			Min 1/8 pd	
	Mary Farr Secrist et al	P. H. Gaffney, et al		LB11/479
	P. H. Gaffney, et al	Eastern Oil Co.		LB14/231
	Eastern Oil Co.	Mountain State Carbon Black Co.		LB22/199
	Mountain State Carbon Black Co.	Columbian Carbon Co.		LB33/431
	Columbian Carbon Co.	Cities Service Oil Co.		DB153/742
	Cities Service Oil Co.	Cities Service Co.		AB103/328
	Cities Service Oil & Gas Corp.	OXY USA, Inc. (Name Change)		DB205/615
	OXY USA, Inc.	Ashland Exploration Inc.		LB160/677
	OXY USA, Inc. (100 acre farm-out)	CNG Development Company		LB160/277
	OXY USA, Inc.	Ashland Exploration Inc.		LB160/677
	Ashland Exploration Inc.	Blazer Energy Corp.		LB181/421
	Blazer Energy Corp.	Eastern States Oil & Gas Inc		LB182/96
	Eastern States Oil & Gas Inc.	Equitable Production Company		CB281/346
	Equitable Production Company	EQT Production Company		CB281/346
	CNX Gas Company, LLC (fka CNG Development Co.) (200 acre farm-in)	EQT Production Company		LB390/585

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.

017-06762

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

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

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

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

Well Operator: EQT Production Company

By:

Its: Permitting Supervisor

WW-6AC
(1/12)

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

Date of Notice Certification: OCT 28 2015

API No. 47 - 017 - 0
Operator's Well No. 515876
Well Pad Name: WEU2

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:

4701706762

State:	WV	UTM NAD 83 Easting:	519,739.53
County:	Doddridge	UTM NAD 83 Northing:	4,347,031.70
District:	West Union	Public Road Access:	Rt 18/1
Quadrangle:	West Union 7.5	Generally used farm name:	Ruth R Davies Pierce et al C/O Tom Davies
Watershed:	Bluestone Creek		

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

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

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WV Department of Environmental Protection

Required Attachments:

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

WW-6AC
(1/12)

Certification of Notice is hereby given:

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

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

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

Subscribed and sworn before me this 28 day of Oct 2015

Pamela Sykes Notary Public

My Commission Expires 8-24-22

Oil and Gas Privacy Notice:

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

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WW-6A
(9-13)

API NO. 47 - 017 - 0
OPERATOR WELL NO. 515876
Well Pad Name: WEU2

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: OCT 28 2015 Date Permit Application Filed: OCT 28 2015

Notice of:

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

4701706762

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

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

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

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

☑ SURFACE OWNER(s)
Name: SEE ATTACHED
Address:

Name: 0
Address: 0
0
0

☑ SURFACE OWNERS(s) (Road and/or Other Disturbance)
Name: SEE ATTACHED
Address:

Name:
Address: 0
0
0

☑ SURFACE OWNER(s) (Impoundments/Pits)
Name: SEE ATTACHED
Address:

☑ COAL OWNER OR LESSEE
Name: SEE ATTACHED
Address:

☐ COAL OPERATOR
Name: 0
Address: 0
0
0

☐ SURFACE OWNER OF WATER WELL AND/OR WATER PURVEYOR(s)
Name: 0
Address: 0
0

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

*Please attach additional forms if necessary

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WW6-A

Surface Owner:

Thomas R Davies AIF for Ruth Maxwell Davies Pierce Herirs
1104 Greenmont Circle
Vienna WV 26105

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Access Road Owners:

Thomas R Davies AIF for Ruth Maxwell Davies Pierce Herirs
1104 Greenmont Circle
Vienna WV 26105

Doddridge County Board of Education
103 Sistersville Pike
West Union, WV 26456

Coastal Forest Resources Company
A Virginia Corp., d/b/a Coastal Timberlands Company
P.O. Box 709
Buckhannon, WV 26201

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Surface Owner Pits/Impoundments:

Thomas R Davies AIF for Ruth Maxwell Davies Pierce Herirs
1104 Greenmont Circle
Vienna WV 26105

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Coal Owners:

Lewis Maxwell Oil & Gas
C/O Quinn Financial Management LLC
PO Box 2253
Clarksburg WV 26301

Karen Henderson
190 Sapphire Lane
Meadowbrook WV 26404

Mary Maxine Welch
P.O. Box 4308
Parkersburg, WV 26104

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WW-6A
(8-13)

API NO. 47 - 017 - 0
OPERATOR WELL NO. 515876
Well Pad Name: WEU2

Notice is hereby given:

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

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

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

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

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

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

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Well Location Restrictions

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

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

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

Written Comment:

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

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

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Office of Oil and Gas
NOV 02 2015
WV Department of
Environmental Protection

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

WW-6A
(8-13)

API NO. 47 - 017 - 0
OPERATOR WELL NO. 515876
Well Pad Name: WEU2

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.

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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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NOV 02 2015

WV Department of
Environmental Protection

Notice is hereby given by:

Well Operator:	EQT Production Company	Address:	115 Professional Place P.O. Box 280
Telephone:	304-848-0082		Bridgeport, WV 26330
Email:	Vroark@eqt.com	Facsimile:	304-848-0041

Oil and Gas Privacy Notice:

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

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this application form and all attachments, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate and complete.

By: Victoria Roark

Its: Permitting Supervisor

Subscribed and sworn before n 29 day of Oct 2015

Notary Public

My Commission Expi 8-24-22

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

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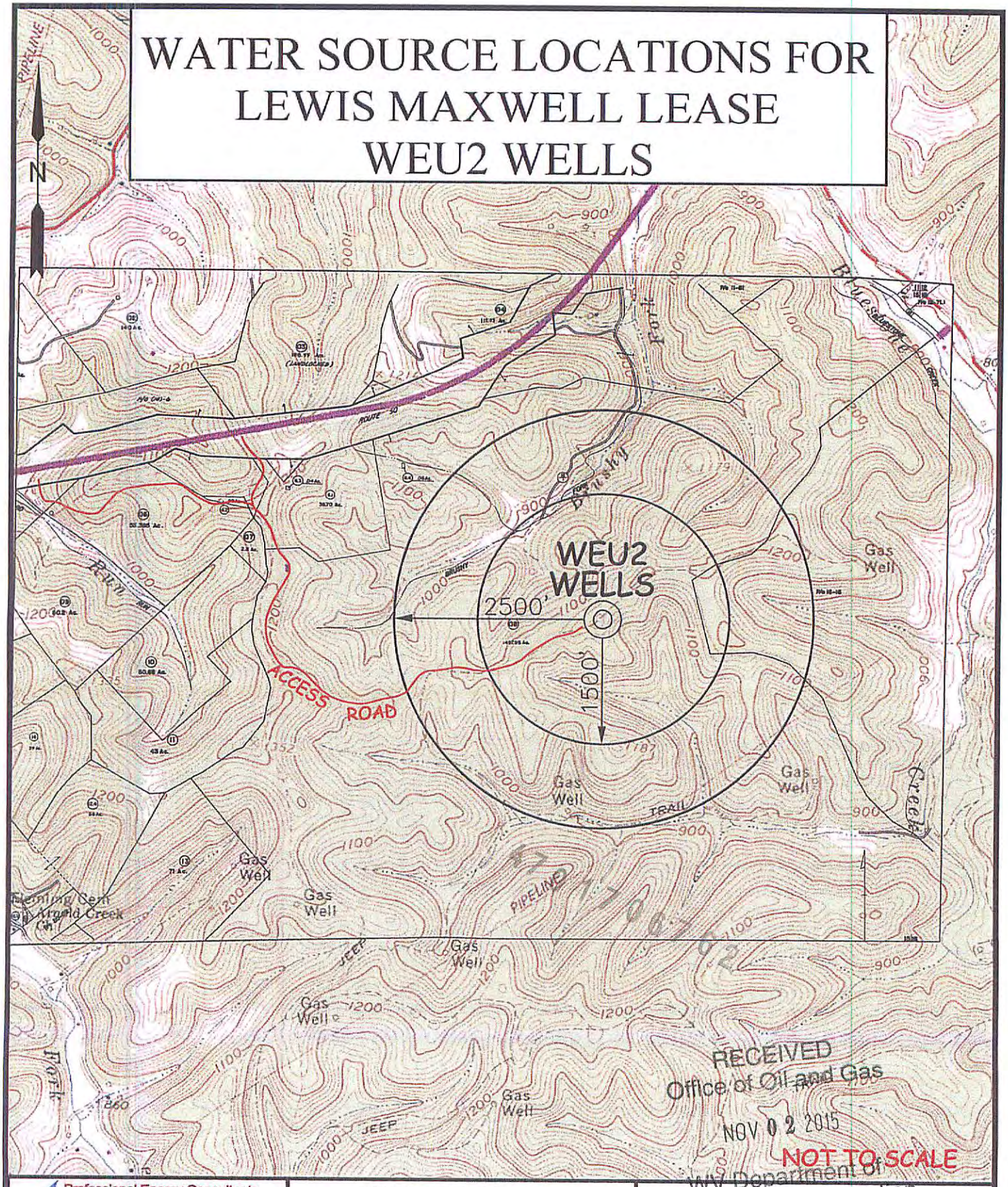
NOV 02 2015

WV Department of
Environmental Protection

WATER SOURCE LOCATIONS FOR LEWIS MAXWELL LEASE WEU2 WELLS



NOT TO SCALE

Professional Energy Consultants
A DIVISION OF SMITH LAND SURVEYING, INC
SLS Surveyors Engineers Environmental Project Mgmt.
(304) 462-5634 WWW.SLSSURVEYS.COM

DRAWN BY	FILE NO.	DATE	CADD FILE:
K.D.W.	7245	03/10/15	7245WEU2WS.dwg

TOPO SECTION OF:
WEST UNION, WV 7.5' QUAD

DISTRICT	COUNTY	TAX MAP-PARCEL NO.
WEST UNION	DODDRIDGE	15-08

OPERATOR:
EQT PRODUCTION COMPANY
115 PROFESIONAL PLACE
P.O. BOX 280
BRIDGEPORT, WV 26330

WW-6A4
(1/12)

Operator Well No. 515876

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: 8/21/2015 **Date Permit Application Filed:** 8/31/15

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: Coastal Forest Resources Company
Address: A Virginia Corp., DBA Coastal Timberlands Company
1772 Brushy Fork Rd
Buckhannon, WV 26201

Name:
Address:

4701706762

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

State:	WV	UTM NAD 83	Easting	519,735.60
County:	Doddridge		Northing	4,347,029.30
District:	West Union		Public Road Access:	Rt.18/1
Quadrangle:	West Union 7.5		Generally used farm name:	John R. Davies et al
Watershed:	Bluestone Creek			

This Notice Shall Include:
Pursuant to West Virginia Code § 22-6A-16(b), this notice shall include the name, address, telephone number, and if available, facsimile number and electronic mail address of the operator and the operator's authorized representative. Additional information related to horizontal drilling may be obtained from the Secretary, at the WV Department of Environmental Protection headquarters, located at 601 57th Street, SE, Charleston, WV 25304 (304-926-0450) or by visiting www.dep.wv.gov/oil-and-gas/pages/default.aspx

Notice is hereby given by:

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

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Office of Oil and Gas
NOV 02 2015
WV Department of
Environmental Protection

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

WW-6A4
(1/12)

Operator Well No. 515876

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: 8/21/2015 **Date Permit Application Filed:** 8/31/15

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: Thomas R. Davies, Agent/AIF
Address: For Ruth Maxwell Davies Pierce Heirs
1104 Greenmont Circle
Vienna, WV 26105

Name: Doddridge County Board of Education
Address: 103 Sistersville Pike
West Union, WV 26456

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:

4701706702

State:	WV	UTM NAD 83 Easting	519,739.53
County:	Doddridge	Northing	4,347,031.70
District:	West Union	Public Road Access:	Rt 18/1
Quadrangle:	West Union 7.5	Generally used farm name:	Ruth R Davies Pierce et al C/O Tom Davies
Watershed:	Bluestone Creek		

This Notice Shall Include:

Pursuant to West Virginia Code § 22-6A-16(b), this notice shall include the name, address, telephone number, and if available, facsimile number and electronic mail address of the operator and the operator's authorized representative. Additional information related to horizontal drilling may be obtained from the Secretary, at the WV Department of Environmental Protection headquarters, located at 601 57th Street, SE, Charleston, WV 25304 (304-926-0450) or by visiting www.dep.wv.gov/oil-and-gas/pages/default.aspx

Notice is hereby given by:

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

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WV Department of Environmental Protection

Oil and Gas Privacy Notice:

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

WW-6A5
(1/12)

Operator Well No. 515876

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: OCT 28 2015 **Date Permit Application Filed:** OCT 28 2015

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

☑ CERTIFIED MAIL RETURN RECEIPT REQUESTED ☐ HAND DELIVERY

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

Notice is hereby provided to the SURFACE OWNER(s)
(at the address listed in the records of the sheriff at the time of notice):

Name: Thomas R. Davies, Agent/AIF
Address: For Ruth Maxwell Davies Pierce Heirs
1104 Greenmont Circle
Vienna, WV 26105

Name: Doddridge County Board of Education
Address: 103 Sistersville Pike
West Union WV 26456

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:	519,739.530000
County:	Doddridge		Northing:	4,347,031.700000
District:	West Union	Public Road Access:		Rt 18/1
Quadrangle:	West Union 7.5	Generally used farm name:		Ruth R Davies Pierce et al C/O Tom Davies
Watershed:	Bluestone 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.

4701706762

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

Oil and Gas Privacy Notice:
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NOV 02 2015
WV Department of
Environmental Protection

WW-6A5
(1/12)

Operator Well No. 515876

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: OCT 28 2015 **Date Permit Application Filed:** OCT 28 2015

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

☑ CERTIFIED MAIL RETURN RECEIPT REQUESTED ☐ HAND DELIVERY

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

Notice is hereby provided to the SURFACE OWNER(s)
(at the address listed in the records of the sheriff at the time of notice):

Name: Coastal Forest Resources Co
Address: dba Coastal Timberlands
PO Box 709
Buckhannon WV 26201

Name:
Address:

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

State:	WV	UTM NAD 83	Easting:	519,739.530000
County:	Doddridge		Northing:	4,347,031.700000
District:	West Union	Public Road Access:		Rt 18/1
Quadrangle:	West Union 7.5	Generally used farm name:		Ruth R Davies Pierce et al C/O Tom Davies
Watershed:	Bluestone Creek			

47017067 62

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

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

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WV Department of
Environmental Protection

WEST VIRGINIA DEPARTMENT OF TRANSPORTATION
Division of Highways
1900 Kanawha Boulevard East • Building Five • Room 110
Charleston, West Virginia 25305-0430 • (304) 558-3505

Earl Ray Tomblin
Governor

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

February 19, 2015

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

Subject: DOH Permit for the WEU 2 Well Site, Doddridge County

WEU2H1 #512513	WEU2H2 #512514	WEU2H3 #512680
WEU2H4 #512681	WEU2H5 #512683	WEU2H6 #512685
WEU2H7 #513370	WEU2H8 #515875	WEU2H9 #515876
WEU2H10 #515877	WEU2H11 #515878	

Dear Mr. Martin,

This well site will be accessed from Permit #04-2013-0433 which has been issued to EQT Production Company for access to the State Road for a well pad located off of County Rt. 50/41 SLS in Doddridge County.

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

Very Truly Yours,

Gary K. Clayton

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

4701706762

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

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WV Department of
Environmental Protection

Anticipated Frac Additives
Chemical Names and CAS numbers

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

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NOV 02 2015
WV Department of
Environmental Protection

WVDEP OOG
ACCEPTED AS-BUILT
12-15-2015

WEU-2 SITE AS-BUILT
EQT PRODUCTION COMPANY

EXISTING WELLS: **API** 47-017-5957, 47-017-5916,47-017-5913, 47-017-5917, 47-017-5915 47-017-5912, 47-017-05914, WV515875, and WV515877.

PROPOSED WELLS: WV515876 and H 11.

SITUATE ON THE WATERS OF BRUSHY FORK
IN WEST UNION DISTRICT, DODDRIDGE COUNTY, WEST VIRGINIA.

SHEET INDEX

1 - COVER SHEET
2 - CONSTRUCTION NOTES
3 - INDEX SHEET
4 - ACCESS ROAD
5- ACCESS ROAD
6 - ACCESS ROAD
7 - ACCESS ROAD
8 - ACCESS ROAD
9 - ACCESS ROAD
10 - ACCESS ROAD
11 - WELL PAD
12 - PIT AND IMPOUNDMENT
13 - ROAD PROFILE
14 - ROAD PROFILE
15 - ROAD PROFILE
16 - ROAD PROFILE
17 - ROAD PROFILE
18 - ROAD PROFILE
19 - CONSTRUCTION DETAILS
20 - CONSTRUCTION DETAILS
21 - CONSTRUCTION DETAILS
22- CONSTRUCTION DETAILS

PROJECT INFORMATION

PROJECT NAME: WEU-2 AS-BUILT
TAX PARCELS
WEST UNION DISTRICT
MAP 15-9

SURFACE OWNER:

JOHN R. DAVIES, ET AL
WEST UNION DISTRICT
DODDRIDGE COUNTY, WV
PROPERTY AREA: 1,457.95± ACRES

OIL AND GAS ROYALTY OWNERS:

MANY FARR SECRIST, ET AL
WEST UNION DISTRICT
DODDRIDGE COUNTY, WV
PROPERTY AREA: (1,562±) ACRES

SITE LOCATION:

THE WEU-2 SITE IS LOCATED ON A RIDGE SOUTH OF RT. 50, APPROXIMATELY 0.09 MILES

WEU-2 LOCATION COORDINATES

WELL PAD
LATITUDE 39.27893 LONGITUDE -80.68392 (NAD 83)

ACCESS ROAD ENTRANCE
LATITUDE 39.27317 LONGITUDE -80.68034 (NAD 83)

ASSOCIATED PIT
LATITUDE 39.27373 LONGITUDE -80.70798 (NAD 83)

SITE DISTURBANCE COMPUTATIONS

LOD ACREAGE- 31.6± ACRES

PEN-15 AS-BUILT DISTURBANCE

SURFACE OWNER	TAX MAP/PARCEL	AS-BUILT DISTURBANCE (AC.)	AS-BUILT DISTURBANCE (SQ.-FT.)
John R. Davies	TM 15 -9	31.3	31.3

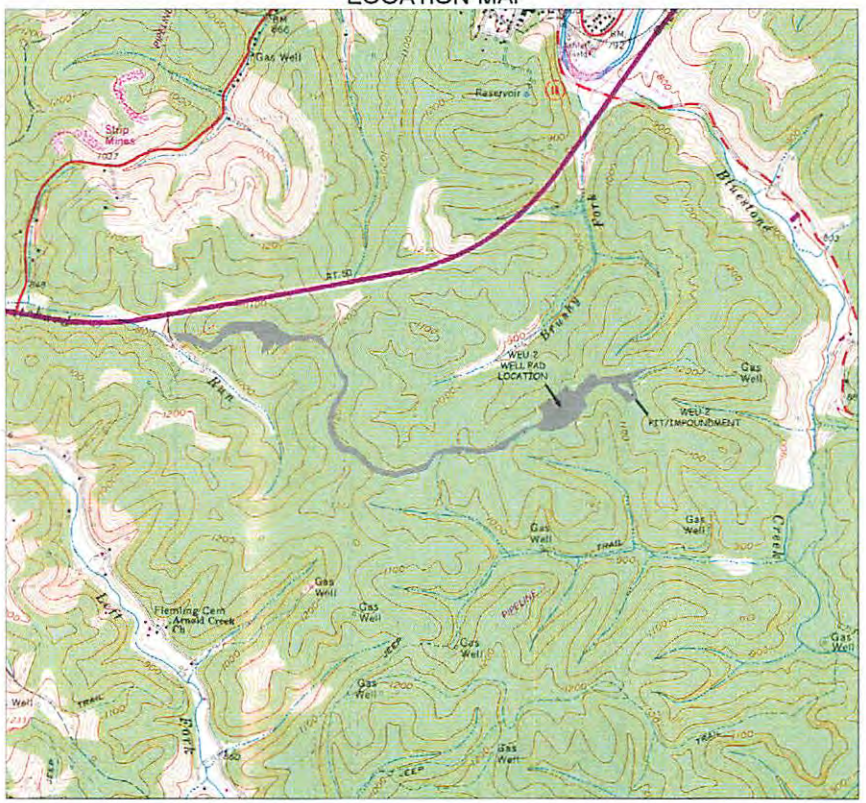
GENERAL DESCRIPTION

THE WEU-2 WELL SITE WILL 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 SHOWN HEREON WERE ESTABLISHED BY SURVEY GRADE GPS

LOCATION MAP



SCALE
0' 1000' 2000' 3000'
SCALE: 1"=1000'

LEGEND

EX. INDEX CONTOUR	EDGE OF GRAVEL PAD
EX. INTERMEDIATE CONTOUR	EDGE OF BERM
EX. BOUNDARY LINE	WOODEN PRIVACY FENCE
EX. ROAD EDGE OF GRAVEL/DIRT	EX. SUPER SILT FENCE
EX. ROAD EDGE OF PAVEMENT	PX. REINFORCED SILT FENCE
EX. ROAD CENTERLINE	BERM
EX. DITCHLINE	GRAVEL
EX. CULVERT	EXISTING GROUND 2' CONTOURS
EX. FENCELINE	AS BUILT 2' CONTOURS
EX. GATE	PHOTO NUMBER & LOCATION
EX. OVERHEAD UTILITY	PROPOSED WELL LOCATIONS
EX. OVERHEAD UTILITY R/W	SPOT ELEVATIONS
EX. POWER POLE	
EX. GUY WIRE	
EX. TELEPHONE LINE	
EX. GASLINE	PROP. ROCK CONSTRUCTION ENTRANCE
EX. GASLINE R/W	LIMITS OF DISTURBANCE
EX. WATERLINE	MATCHLINE
EX. MONITORING WELL	EXISTING CULVERT
EX. GAS WELL	
EX. TREELINE	
EX. REFERENCE TREE	
EX. DELINEATED STREAM	
EX. DELINEATED WETLAND	
EX. STRUCTURE	
EX. EARTHEN DIVERSION PERM	
SPOT ELEVATION	
EX. PIPELINE MARKER	
EX. RIP RAP	

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WEU-2 SITE AS-BUILT

THIS DOCUMENT WAS PREPARED BY SMITH LAND SURVEYING, INC FOR: EQT

DATE: 05/27/2015
SCALE: 1"=1000'
DESIGNED BY: K.E.S.
FILE NO: 6265
SHEET: 1 OF 22

WEU-2 SITE AS-BUILT
EQT PRODUCTION COMPANY

GRID NORTH AND SURVEYED ELEVATIONS SHOWN HEREON WERE ESTABLISHED BY DGPS SURVEY GRADE

WVDEP OOG
ACCEPTED AS-BUILT
12-15-2015

TOM DAVIES, ETAL
1457.95 ACRES +/-

LIMITS OF DISTURBANCE

MATCHLINE SHEET 10

MATCHLINE SHEET 12

PAD FOOTPRINT

ACCESS ROAD

TOM DAVIES, ETAL
1457.95 ACRES +/-

SCALE
1 INCH = 40 FEET
0 40 80 120

NO.	DESCRIPTION	DATE	BY

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WEU-2
AS-BUILT SITE PLAN

THIS DOCUMENT WAS PREPARED BY SMITH LAND SURVEYING, INC. FOR EQT

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DESIGNED BY: K.F.S.
FILE NO: 0805
SHEET 9 OF 22

4701706762

WEU-2 SITE AS-BUILT
EQT PRODUCTION COMPANY

EXISTING WELLS: *API 47-017-5957, 47-017-5916,47-017-5913, 47-017-5917, 47-017-5915 47-017-5912, 47-017-05914, WV515875, and WV515877.*

PROPOSED WELLS: *WV515876 and H 11.*

Bryan O'Hara
11-30-15

SITUATE ON THE WATERS OF BRUSHY FORK
IN WEST UNION DISTRICT, DODDRIDGE COUNTY, WEST VIRGINIA.

PROJECT INFORMATION

PROJECT NAME: WEU-2 AS-BUILT
TAX PARCELS
WEST UNION DISTRICT
MAP 15-8

SURFACE OWNER

JOHN H. DAVIES, ET AL
WEST UNION DISTRICT
DODDRIDGE COUNTY, WV
PROPERTY AREA: 1,457.95± ACRES

OIL AND GAS ROYALTY OWNERS

MARY FARR SECRIST, ET AL
WEST UNION DISTRICT
DODDRIDGE COUNTY, WV
PROPERTY AREA: (1,562±) ACRES

SITE LOCATION

THE WEU-2 SITE IS LOCATED ON A RIDGE SOUTH OF RT. 50 APPROXIMATELY 0.09 MILES

GRID NORTH AND ELEVATIONS SHOWN HEREON WERE ESTABLISHED BY SURVEY GRADE GPS

WEU-2 LOCATION COORDINATES

ACCESS ROAD ENTRANCE

SITE DISTURBANCE COMPUTATIONS

LOD ACREAGE - 21.84 ACRES

PEN-15 AS-BUILT DISTURBANCE

SURFACE OWNER	TAX MAP/PARCEL	AS-BUILT DISTURBANCE (AC.)	AS-BUILT DISTURBANCE (SQ. FT.)
John R. Davies	TM 15-8	31.8	31.8

GENERAL DESCRIPTION

THE WEU-2 WELL SITE WILL AID IN THE DEVELOPMENT OF INDIVIDUAL MARCELLUS SHALE GAS WELLS.

MISS Utility of West Virginia
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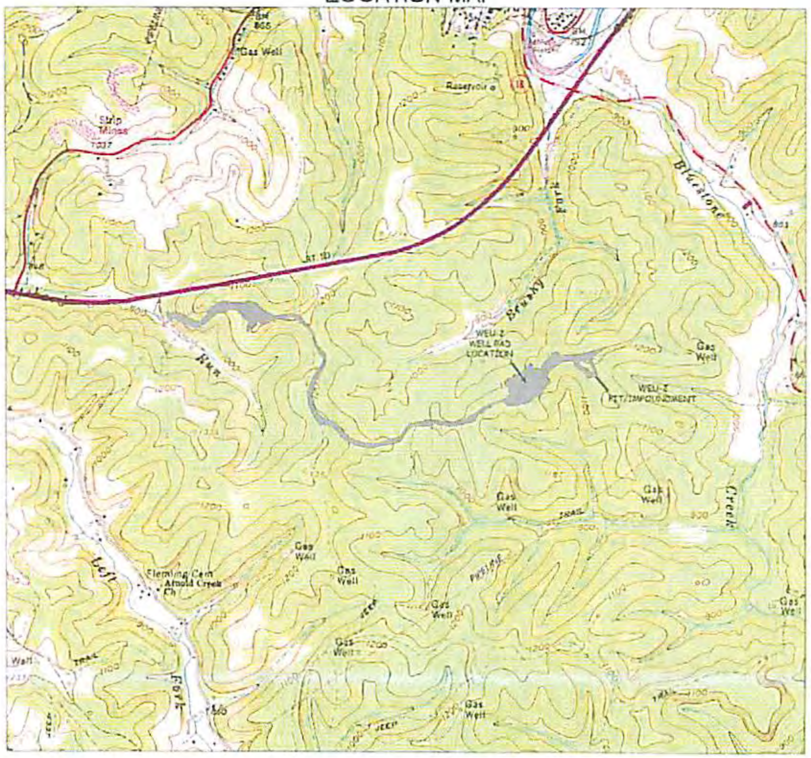
LOCATION MAP



SCALE
0' 1000' 2000' 3000'
SCALE 1"=1000'

SHEET INDEX

1 - COVER SHEET
2 - CONSTRUCTION NOTES
3 - INDEX SHEET
4 - ACCESS ROAD
5 - ACCESS ROAD
6 - ACCESS ROAD
7 - ACCESS ROAD
8 - ACCESS ROAD
9 - ACCESS ROAD
10 - ACCESS ROAD
11 - WELL PAD
12 - PIT AND IMPOUNDMENT
13 - ROAD PROFILE
14 - ROAD PROFILE
15 - ROAD PROFILE
16 - ROAD PROFILE
17 - ROAD PROFILE
18 - ROAD PROFILE
19 - CONSTRUCTION DETAILS
20 - CONSTRUCTION DETAILS
21 - CONSTRUCTION DETAILS
22 - CONSTRUCTION DETAILS

LEGEND

EX. INDEX CONTOUR
EX. INTERMEDIATE CONTOUR
EX. BOUNDARY LINE
EX. ROAD EDGE OF GRAVEL/DIRT
EX. ROAD EDGE OF PAVEMENT
EX. ROAD CENTERLINE
EX. DITCHLINE
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LIMITS OF DISTURBANCE
MATCHLINE
EXISTING CULVERT

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KIP R. HALL

WEU-2 SITE AS-BUILT

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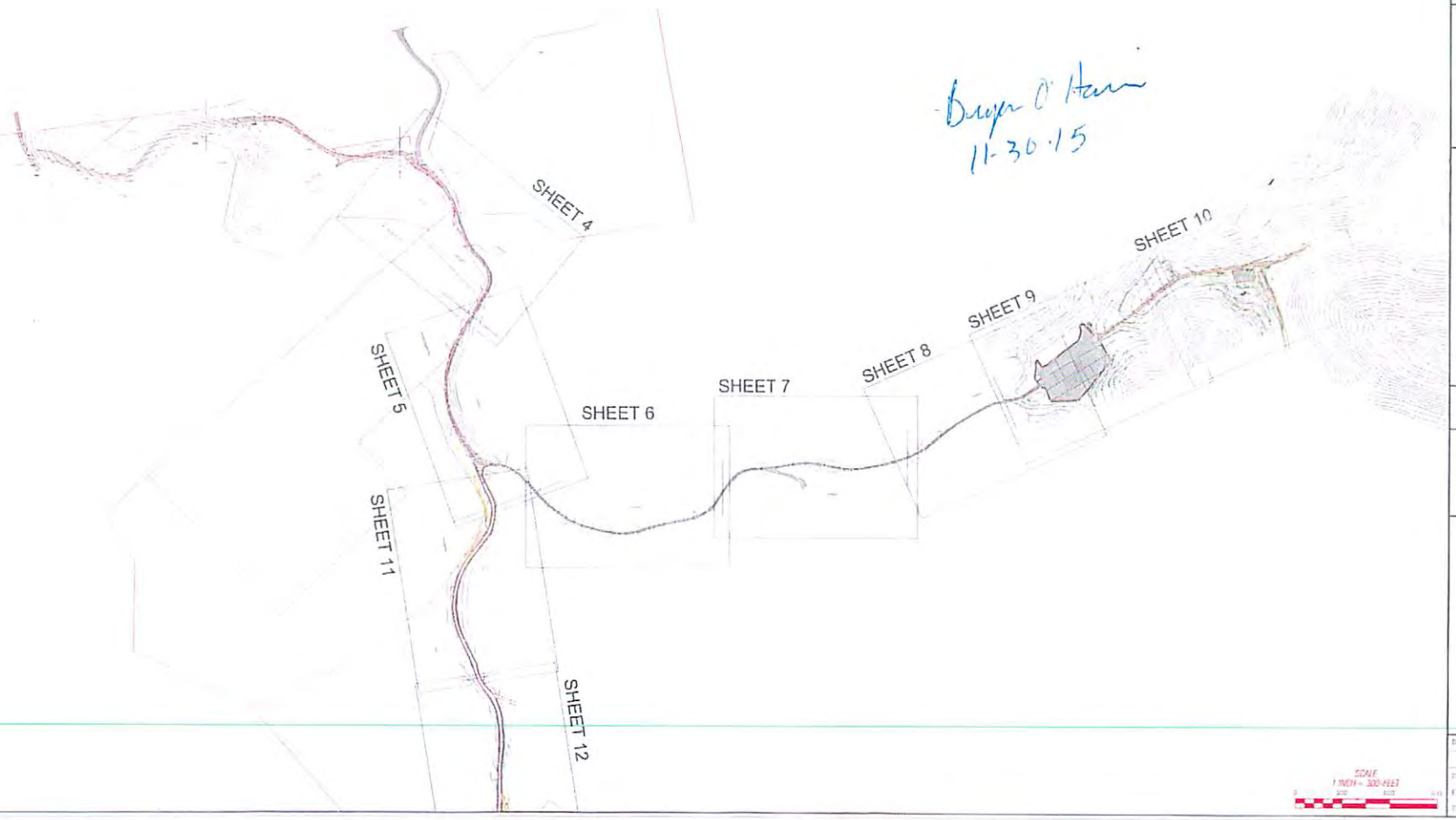
FILE NO.: 8265
SHEET 1 OF 22

GRID NORTH AND SURFACES ELEVATIONS SHOWN HEREON WERE ESTABLISHED BY DGPS SURVEY GRADE

WEU-2 SITE AS-BUILT
EQT PRODUCTION COMPANY

EXISTING WELL API#. 47-017-5957, 47-017-5916,47-017-5913, 47-017-5917, 47-017-5915& 47-017-5912

4701706762



Bryan O'Hara
11-30-15

SCALE
1 INCH = 300 FEET

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WEU-2
AS-BUILT SITE PLAN

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