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

April 28, 2016

WELL WORK PERMIT

Horizontal 6A Well

This permit, API Well Number: 47-6101747, 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: 512706
Farm Name: PRATT, BERNARD D.
API Well Number: 47-6101747
Permit Type: Horizontal 6A Well
Date Issued: 04/28/2016

API Number: _____

PERMIT CONDITIONS 4706101747

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.

WW-6AW
(1-12)

4706101747

API NO. _____
OPERATOR WELL NO. GRT27 512706
Well Pad Name: GRT27

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
VOLUNTARY STATEMENT OF NO OBJECTION

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

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

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

4706101747

VOLUNTARY STATEMENT OF NO OBJECTION

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

State:	West Virginia	WVSPN NAD 27	Easting:	1,823,162.782
County:	Monongalia		Northing:	404,508.781
District:	Grant	Public Road Access:		
Quadrangle:	GRANT TOWN	Generally used farm name:		
Watershed:				

I further state that I have no objection to the planned work described in these materials, and I have no objection to a permit being issued on those materials, **provided that EQT Production Company drills the well on WV North NAD27 coordinates of North 404,508.781, East 1,823,162.782. This statement does not serve as notice that CONSOL Mining Company LLC has waived its rights to mine all the coal or accept any responsibility for any damage to the well or surface facilities associated with the well by CONSOL Mining Company LLC mining activity. This Voluntary Statement of No Objection does not waive CONSOL Mining Company LLC's Common Law Property Rights in the State of West Virginia.**

*Please check the box that applies	FOR EXECUTION BY A NATURAL PERSON
☐ SURFACE OWNER	Signature:
☐ SURFACE OWNER (Road and/or Other Disturbance)	Print Name:
☐ SURFACE OWNER (Impoundments/Pits)	Date:
☒ COAL OWNER OR LESSEE	FOR EXECUTION BY A CORPORATION, ETC.
☒ COAL OPERATOR	Company: CONSOL Mining Company LLC
☐ WATER PURVEYOR	By: Casey V. Saunders
☐ OPERATOR OF ANY NATURAL GAS STORAGE FIELD	Its: Senior Project Engineer
	Signature: Casey V. Saunders
	Date: 3/1/2016

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Office of Oil and Gas
MAR 04 2016
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.

4706101747

WW-6B
(04/15)

API NO. 47- 061 -
OPERATOR WELL NO. 512706
Well Pad Name: GRT27

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

1) Well Operator:	EQT Production Company	306686	Monongalia	Grant	Grant Town
		Operator ID	County	District	Quadrangle

2) Operator's Well Number: 512706 Well Pad Name: GRT27

3) Farm Name/Surface Owner: Bernard D. Pratt Public Road Access: RT 250

4) Elevation, current ground: 1229 Elevation, proposed post-construction: 1216

5) Well Type (a) Gas x Oil _____ Underground Storage _____
Other _____
(b)If Gas Shallow x Deep _____
Horizontal x

6) Existing Pad: Yes or No No MJK 3/11/2016

7) Proposed Target Formation(s), Depth(s), Anticipated Thickness and Expected Pressure(s):
Marcellus, 7620', 136', 2593 PSI, Top of Marcellus 7524

8) Proposed Total Vertical Depth: 7759

9) Formation at Total Vertical Depth: Onondaga

10) Proposed Total Measured Depth: 13216 4706101747

11) Proposed Horizontal Leg Length: 5110

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Office of Oil & Gas
MAR 15 2016

12) Approximate Fresh Water Strata Depths: 63, 195, 255, 522

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

14) Approximate Saltwater Depths: 1485, 1539, 1569

15) Approximate Coal Seam Depths: 7, 127, 184, 278, 468, 508, 553

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

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

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

4706101747

API NO. 47- 061 -
OPERATOR WELL NO. 512706
Well Pad Name: GRT27

18) **CASING AND TUBING PROGRAM**

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.)/CTS
Conductor	20	New	A-500	78.6	40	40	60 ft^3 / CTS
Fresh Water	13 3/8	New	J-55	54.5	672	672	637 ft^3 / CTS
Coal							
Intermediate	9 5/8	New	A-500	40	2944	2944	1160 ft^3 / CTS
Production	5 1/2	New	P-110	20	13216	13216	500' above top producing zone
Tubing	2 3/8		J-55	4.7		May not be run, if run set 40' above top perf or 80° inclinatn	
Liners							

MgK 3/11/2016

TYPE	Size (in)	Wellbore Diameter (in)	Wall Thickness (in)	Burst Pressure (psi)	Anticipated Max. Internal Pressure (psi)	Cement Type	Cement Yield (cu. ft./k)
Conductor	20	26	.375	1378	1102	Class A	1.18
Fresh Water	13 3/8	17 1/2	.38	2700	2160	See Variance	1.19
Coal							
Intermediate	9 5/8	12 3/8	.395	3950	3160	See Variance	1.19
Production	5 1/2	8 1/2	.361	12640	10112	Class H	1.07/1.86
Tubing	2 3/8	NA	.19	7700			
Liners							

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MAR 15 2016

PACKERS

Kind:			4706101747	
Sizes:				
Depths Set:				

API NO. 47- 061 -
OPERATOR WELL NO. 512706
Well Pad Name: GRT27

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. Drill the vertical to an approximate depth of 7759'. Tag the Onondaga not more than 100', run logs, then plug back with a solid cement plug to approximately 6008'. Kick off and drill curve. Drill lateral in the Marcellus. Cement casing.

4706101747

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 be approximately 10000 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): 26.83

22) Area to be disturbed for well pad only, less access road (acres): 19.39

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 solid body cent spaced every joint from production casing shoe to KOP

24) Describe all cement additives associated with each cement type:

Conductor: Class A no additives
Surface (Type 1 Cement): 0-3% Calcium Chloride. Used to speed the setting of cement slurries, .25% Flake. Loss Circulation Material (LCM)
Intermediate (Type 1 Cement): 0-3% Calcium Chloride. Used to speed the setting of cement slurries. 0.25% flake. Loss Circulation Material (LCM)
Production:
Lead (Type H Cement): 0.2% CD-20 (dispersant makes cement easier to mix). .15% SuperFL-300 (fluid loss/lengthens thickening time) .15% SEC-10 (fluid loss) 50:50 POZ (extender)
Tail (Type H Cement): 0.2% Super CR-1 (Retarder). Lengthens thickening time. .3% Super FL-200 (fluid loss) .2% SEC-10 (Fluid loss). .2% SuperFL-350 (fluid loss) Reduces amount of water lost to formation. 60 % Calcuim Carbonate. Acid solubility.

25) Proposed borehole conditioning procedures:

Surface: Circulate hole clean while rotating & reciprocating the drill string until cuttings diminish at surface.
Intermediate: Circulate hole clean while rotating & reciprocating the drill string until cuttings diminish at surface.
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.

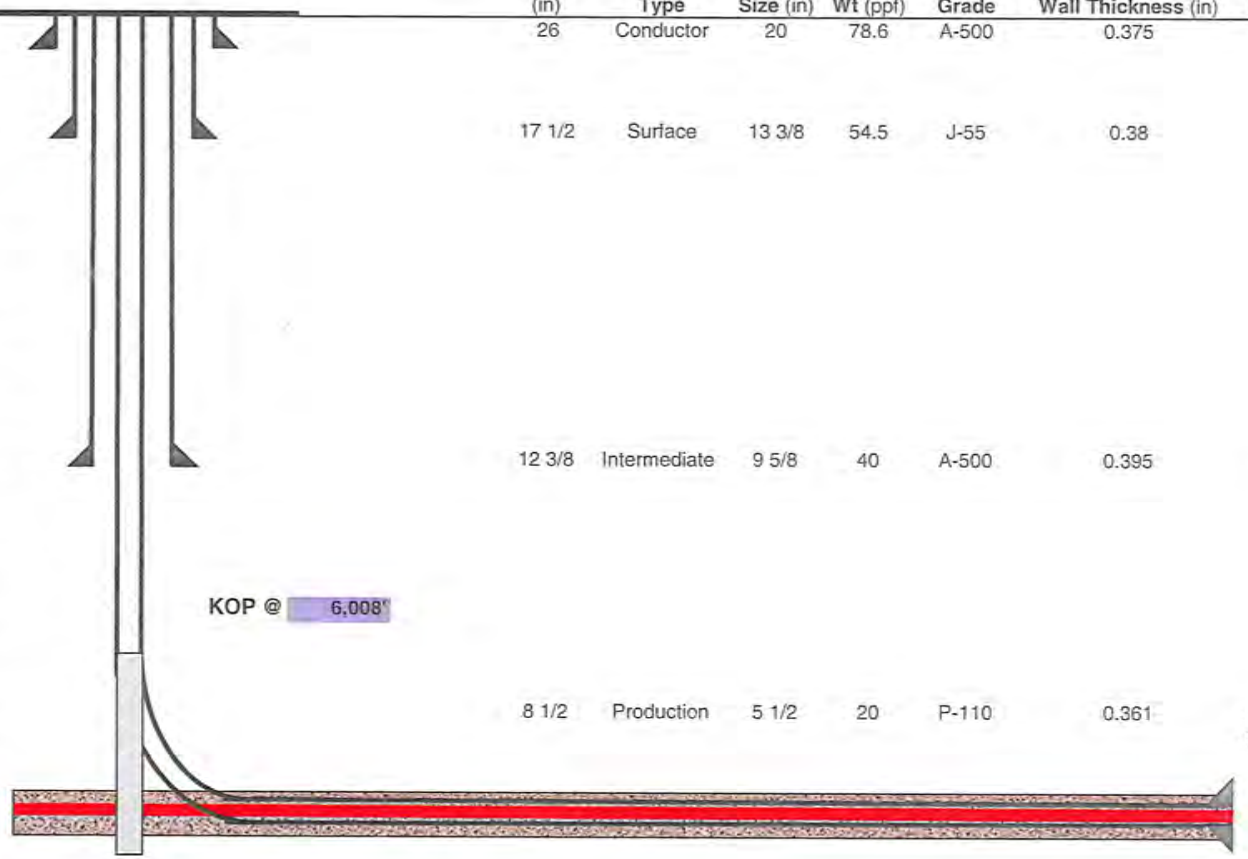
Well 512706(GRT27H1)
EQT Production
Grant Town **Quad**
Monongalia **County, WV**

Azimuth 156
Vertical Section 5088

Note: Diagram is not to scale

47061017

Formations	Top TVD	Base TVD
Conductor	40	
Base Fresh Water	522	
Surface Casing	672	
Base Red Rock	1740	
Maxton	1405	1481
Big Lime	1722	1815
Big Injun	1804	1957
Weir	2035	2056
Gantz	2343	2373
Fifty foot	2393	2447
Thirty foot	2509	2553
Gordon	2593	2619
Forth Sand	2635	2666
Bayard	2858	2894
Intermediate Casing	2944	
Warren	3222	3247
Speechley	3359	3460
Balltown A	3494	4179
Riley	4121	4198
Benson	4784	4904
Alexander	5345	5380
Sonyea	6973	7160
Middlesex	7160	7227
Genesee	7227	7363
Geneseo	7363	7394
Tully	7394	7453
Hamilton	7453	7524
Marcellus	7524	7659
Production Casing	13216	MD
Onondaga	7659	



Hole Size (in)	Casing Type	Size (in)	Wt (ppf)	Grade	Wall Thickness (in)	Top of Cement	Method
26	Conductor	20	78.6	A-500	0.375	Surface	Displacement
17 1/2	Surface	13 3/8	54.5	J-55	0.38	Surface	Displacement
12 3/8	Intermediate	9 5/8	40	A-500	0.395	Surface	Displacement
8 1/2	Production	5 1/2	20	P-110	0.361	500' above top Producing Zone	Displacement

Proposed Well Work:
Drill and complete a new horizontal well in the Marcellus formation.
Drill the vertical to an approximate depth of 7759'.
Tag the Onondaga not more than 100', run logs, then plug back with a solid cement plug to approximately 6008'.
Kick off and drill curve. Drill lateral in the Marcellus. Cement casing.

west virginia department of environmental protection

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

March 18, 2014

4706101747

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 by SCS

James Peterson
Environmental Resources Specialist / Permitting

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Office of Oil and Gas
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Environmental Protection

061017

west virginia department of environmental protection

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

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

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

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

REPORT OF THE OFFICE

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

FINDINGS OF FACT

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

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

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

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Office of Oil and Gas
FEB 29 2016
WV Department of
Environmental Protection

CONCLUSIONS OF LAW

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

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

4706101747

ORDER

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

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

IN THE NAME OF THE STATE OF WEST VIRGINIA

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

James Martin, Chief
Office of Oil and Gas

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Office of Oil and Gas
FEB 2 9 2016
WV Department of
Environmental Protection

February 18, 2016

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

Re: Casing Plan on Well (GRT27)

Dear Mr. Smith,

EQT is requesting the 13-3/8" surface casing be set at 672' KB, 150' below the deepest fresh water. We will set the 9-5/8" intermediate string at 2944' KB, 50' below the base of the Bayard formation.

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

Sincerely,

4706101747

Vicki Roark
Permitting Supervisor

Enc.

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FEB 29 2016
WV Department of
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WW-9
(2/15)

API Number 47 - 061 -
Operator's Well No. 512706

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 (HUC 10) Indian Creek Quadrangle Grant Town

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

Will a pit be used? Yes ☐ No ☑

If so, please describe anticipated pit waste: N/A

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

Proposed Disposal Method For Treated Pit Wastes:

4706101747

_____ 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? If so, describe: Yes, The closed loop system will remove drill cuttings from the drilling fluid. The drill cuttings are then prepared for transportation to an off-site disposal facility.

Drilling medium anticipated for this well (vertical and horizontal)? Air, freshwater, oil based, etc. See Attached

-If oil based, what type? Synthetic, petroleum, etc. Synthetic Mud

Additives to be used in drilling medium? See Attached

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

-If left in pit and plan to solidify what medium will be used? (cement, lime, sawdust) N/A

-Landfill or offsite name/permit number? See Attached List

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

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

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

Company Official Signature

Company Official (Typed Name) Victoria J. Roark

Company Official Title Permitting Supervisor

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Office of Oil and Gas
FEB 29 2016
WV Department of Environmental Protection

Subscribed and sworn before me this 24 day of February, 20 16

Rebecca L Wanstreet Notary Public

My commission expires 4-7-20

OFFICIAL SEAL
NOTARY PUBLIC
STATE OF WEST VIRGINIA
REBECCA L. WANSTREET
EQT PRODUCTION COMPANY
PO BOX 280
BRIDGEPORT, WV 26330
My commission expires April 07, 2020

4706101747

Form WW-9

Operator's Well No. 512706

Proposed Revegetation Treatment: Acres Disturbed 26.83 Prevegetation pH 6.3

Lime 3 Tons/acre or to correct to pH 6.5

Fertilizer type Granular 10-20-20

Fertilizer amount 1/3 lbs/acre

Mulch 2 Tons/acre

4706101747

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 (unless engineered plans including this info have been provided)

Photocopied section of involved 7.5' topographic sheet.

Plan Approved by: Gary J. Kuhn

Comments:

Received
Office of Oil & Gas
MAR 15 2016

Title: Inspector Date: 3/11/2016

Field Reviewed? (X) Yes ( ) No

WW-9

Drilling medium anticipated for this well (vertical and horizontal)? Air, freshwater, oil based, etc.

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

Additives to be used in drilling medium?

- Air - biodegradable oil lubricant, detergent, defoaming, water. Water based mud – Barite, viscosifer, alkalinity control, lime, filtration control, deflocculates, biodegradable oil lubricant, defoaming, walnut shell, salt, x-cide, carbonates. Oil based mud – synthetic base oil, emulsifier, salt, lime, viscosifer, alkalinity control, filtration control, deflocculates, biodegradable oil lubricant, defoaming, carbonates.

4706101747

EQT Production Water plan
Offsite disposals for Marcellus wells

4706101747

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

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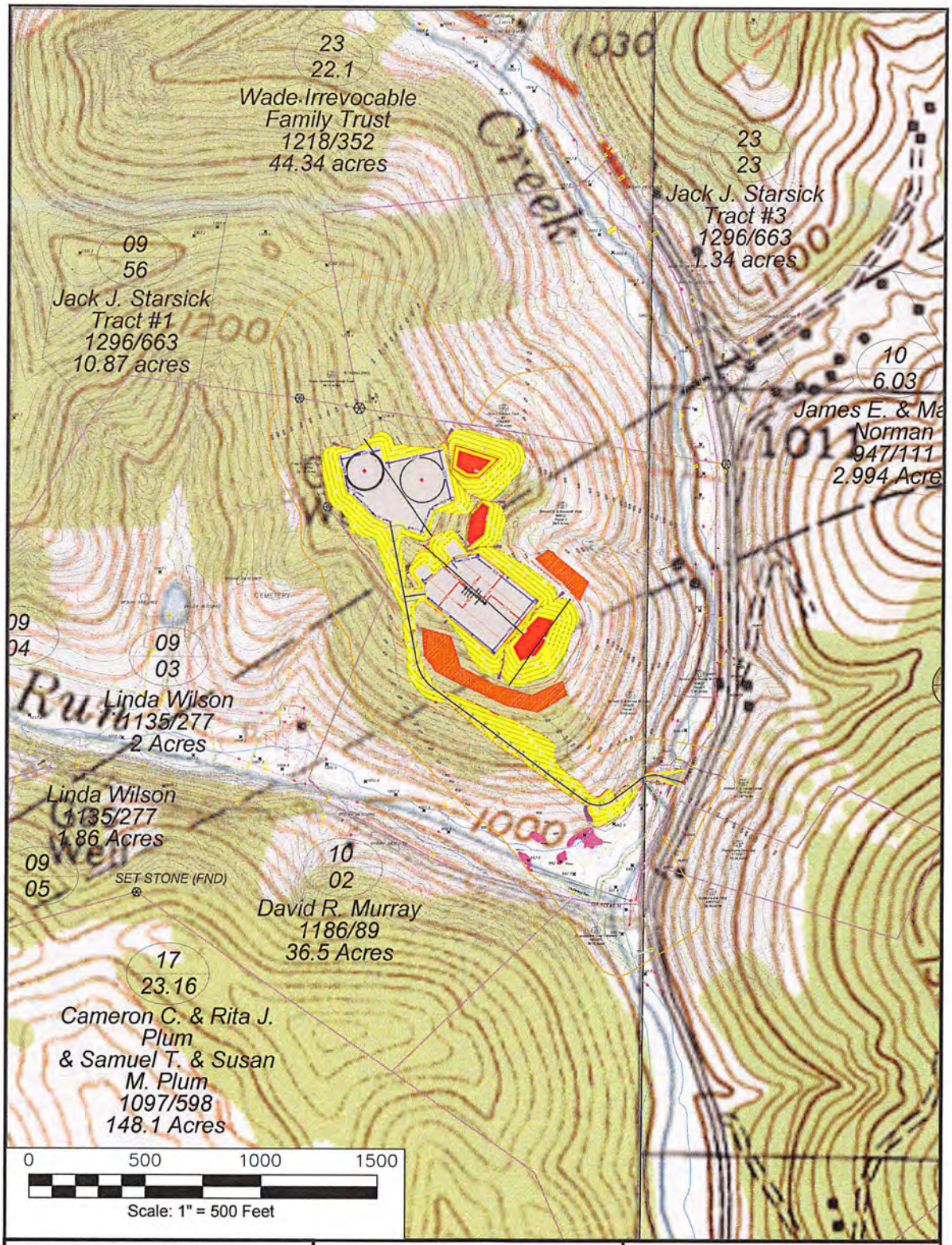
FEB 29 2016
WV Department of
Environmental Protection

WW-9

GRT 27 H1-512706, 512707, 512708, 513693

PAGE 1 OF



Grant Town 7.5' USGS QUADRANGLE		Proposed Disturbance Area	
Projected culvert inventory. (for bid purposes only)		Well Site Location	See Site Plan
15" minimum diameter culverts	See Site Plan	Proposed Access Road	See Site Plan
24" minimum diameter culverts	See Site Plan	Approximate Total Disturbance	See Site Plan
DRAWN BY: Dale Tomlin PS	DATE: January 06, 2015	FILE NO. 138-14	DRAWING FILE NO. 13814 Rec Plan

Note: SEE SITE PLAN OF GRANT TOWN 27 FOR COMPLETE GRADING & DRAINAGE CONSTRUCTION INCLUDING EROSION & SEDIMENT CONTROL DETAILS, ETC.

SURVEYING AND MAPPING SERVICES PERFORMED BY:

ALLEGHENY SURVEYS, INC.

1-800-482-8606

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

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

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WV Department of
Environmental Protection
4706 1

4706101747

Where energy meets innovation.™

Site Specific Safety Plan

EQT GRT 27 Pad

Core

Monongalia County, WV

Received
Office of Oil & Gas
MAR 15 2016

For Wells:

512706 512707 512708 513693

4706101747

Date Prepared: **February 17, 2016**

EQT Production

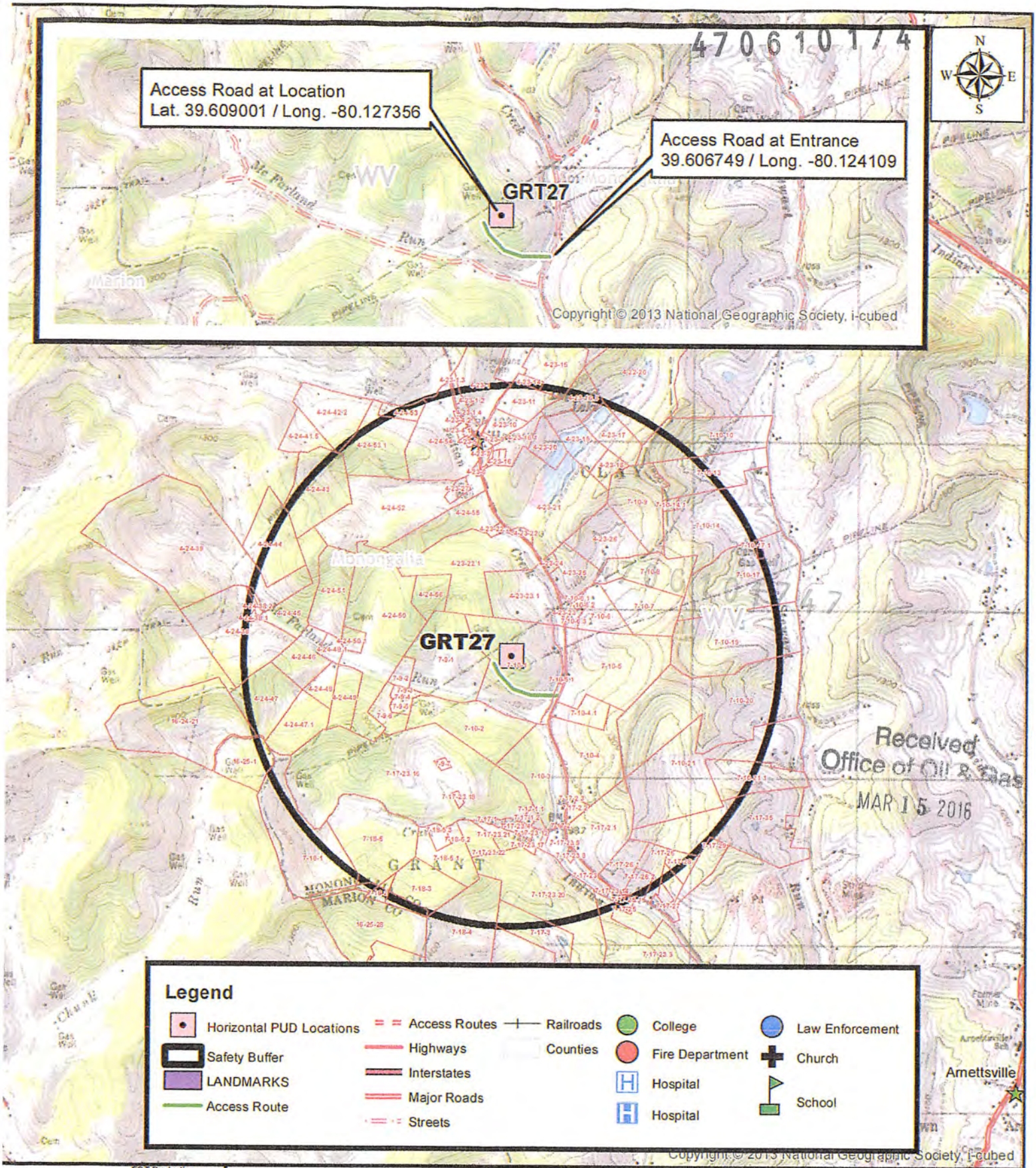
Permitting Supervisor
Title

2-22-16
Date

WV Oil and Gas Inspector

Inspector
Title

3/11/2016
Date



EQT

EQT Production
White Oaks Office
120 Professional Place
Bridgeport, WV 26330

Site Safety Plan

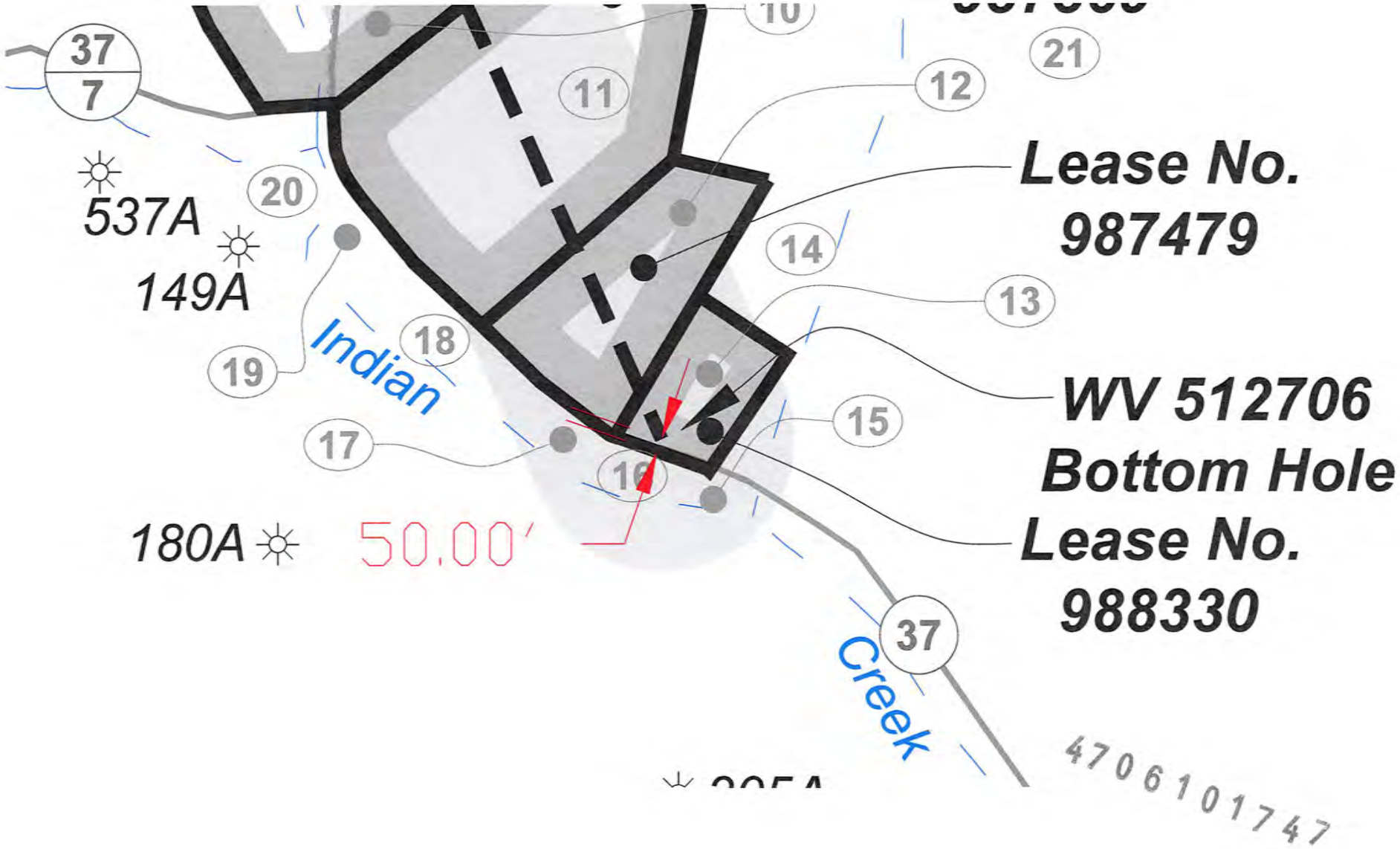
GRT27
One Mile Safety Buffer
Monongalia & Marion County, WV

Created By SSarros | Printed By sarros on 3/9/2016
Map Date | Dept: Land/GIS- White Oak Office

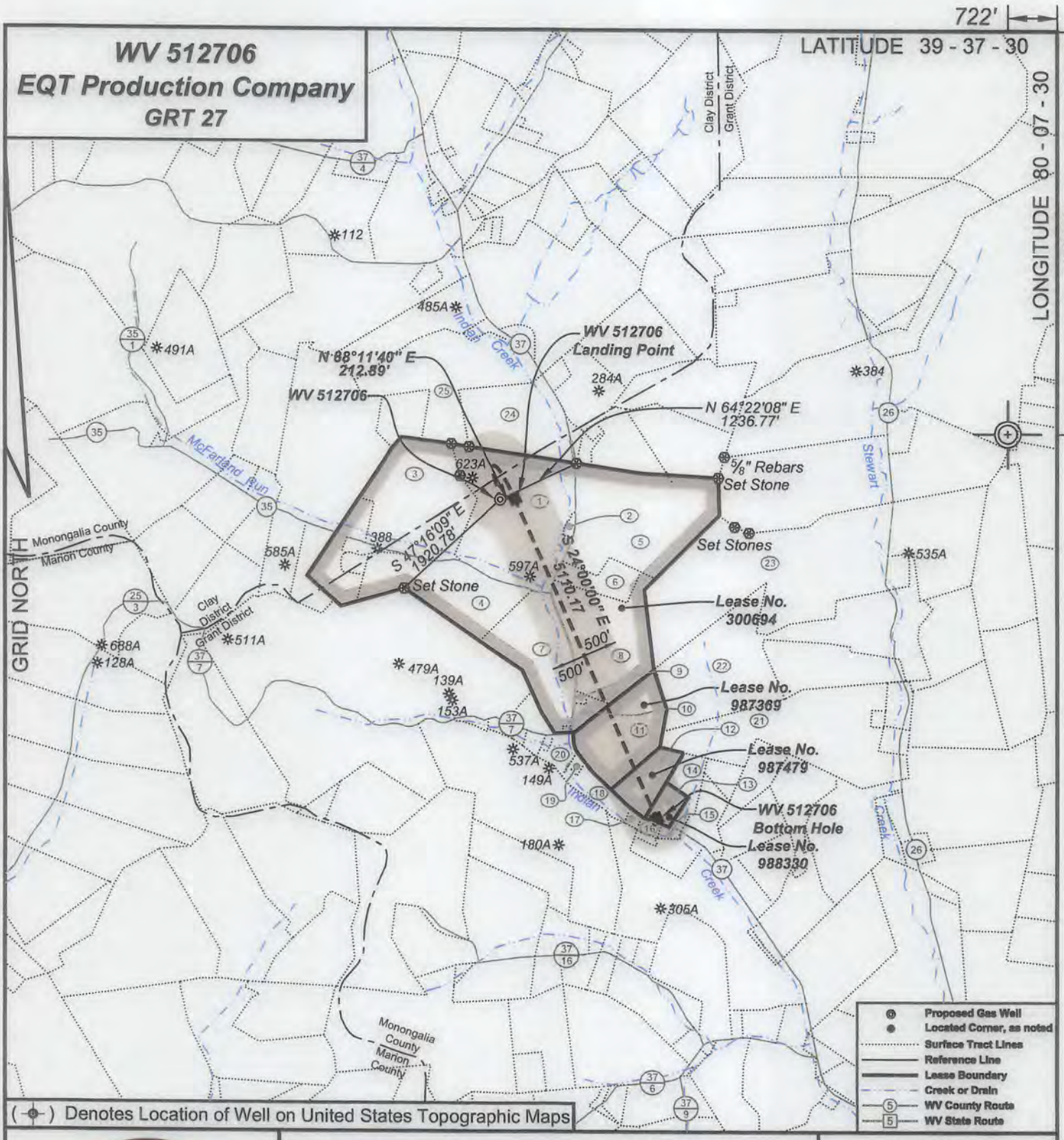
MJK 3/11/2016

DISCLAIMER
ALL INFORMATION DEPICTED ON THIS MAP PROVIDED BY EQT (SAID TERM SHALL MEAN EQT PRODUCTION OR EQT MIDSTREAM, DEPENDING ON WHICH EQT ENTITY PROVIDED THE MAP) IS FOR INFORMATION PURPOSES ONLY AND SHALL BE TREATED AS CONFIDENTIAL INFORMATION AND SHALL ONLY BE USED FOR THE SOLE PURPOSE FOR WHICH IT WAS PROVIDED. ANY OTHER USE OF THIS MAP, OR THE INFORMATION INCLUDED THEREON, IS STRICTLY PROHIBITED. THE EXACT LOCATION OF THE FACILITIES (INCLUDING BUT NOT LIMITED TO WELLS, PIPELINES, STRUCTURES, FACILITIES, LEASE BOUNDARIES OR ANY OTHER INFORMATION SHOWN ON THIS MAP SHALL NOT BE RELIED UPON FOR THE SPECIFIC LOCATION OF THE FACILITIES, AND THE PARTIES AGREE THAT THE INFORMATION SHOWN ON THE MAP MAY NOT HAVE BEEN PLACED ON THE MAP USING SURVEY LINES OR GPS COORDINATES. EQT MAKES NO EXPRESS OR IMPLIED REPRESENTATION OR WARRANTY AS TO THE ACCURACY OF THE MAP, OR THE INFORMATION SHOWN THEREON. THE SPECIFIC LOCATION OF ANY OF THE INFORMATION, INCLUDING ANY WELL, PIPELINE, STRUCTURE, FACILITY OR LEASE BOUNDARY, SHOULD BE DETERMINED BY A FIELD SURVEY PERFORMED BY A LICENSED SURVEYOR UPON CONSULTATION WITH EQT. THIS MAP MAY NOT BE COPIED OR OTHERWISE MADE AVAILABLE TO ANY OTHER PARTY IN PAPER OR ELECTRONIC FORMAT WITHOUT WRITTEN CONSENT FROM EQT. RECIPIENT EXPRESSLY AGREES THAT ITS USE AND OR RETAINER OF THIS MAP SHALL BE DEEMED ITS AGREEMENT TO THE TERMS SET FORTH ABOVE.

path: \\MDCFCS2\gisdept\GIS_Department\Projects\Production\WV\PERMITTING\MXD\Site_Safety_Plans\GRT27\SITE_SAFETY_BASE_MAP_GRT27.mxd



37
7
537A
149A
20
19
18
Indian
17
16
180A
50.00'
11
10
12
21
Lease No.
987479
14
13
WV 512706
Bottom Hole
15
Lease No.
988330
37
Creek
4706101747



ALLEGHENY SURVEYS, INC.

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

Ben R. Singleton
P.S. 2092

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

FILE NO: 138-20-C-14
DRAWING NO: 138-14 GRT27 H1.dwg
SCALE: 1" = 2000'
MINIMUM DEGREE OF ACCURACY: 1:2500
PROVEN SOURCE OF ELEVATION: NGS CORS Station

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

DATE: February 17 20 16
OPERATOR'S WELL NO. WV 512706 H6A

API WELL NO
47 - 061 - 01747
STATE COUNTY PERMIT

WELL TYPE: ☐ OIL ☒ GAS ☐ LIQUID INJECTION ☐ WASTE DISPOSAL
(IF GAS) PRODUCTION : ☐ STORAGE ☐ DEEP ☒ SHALLOW
LOCATION: ELEVATION: Existing 1229' Proposed 1216' WATERSHED Indian Creek QUADRANGLE: Grant Town
DISTRICT: Grant COUNTY: Monongalia
SURFACE OWNER: Bernard D. Pratt ACREAGE: 68.384
ROYALTY OWNER: Wilma Ruth Goodwin, et al. LEASE NO: 300694 ACREAGE: 335
PROPOSED WORK: ☒ DRILL ☐ CONVERT ☐ DRILL DEEPER ☒ FRACTURE OR STIMULATE ☐ PLUG OFF OLD FORMATION
☐ PERFORATE NEW FORMATION ☐ OTHER PHYSICAL CHANGE IN WELL (SPECIFY) _____
☐ PLUG AND ABANDON ☐ CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus ESTIMATED DEPTH: 7,524'

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

WV 512706
EQT Production Company
335 Acre Lease

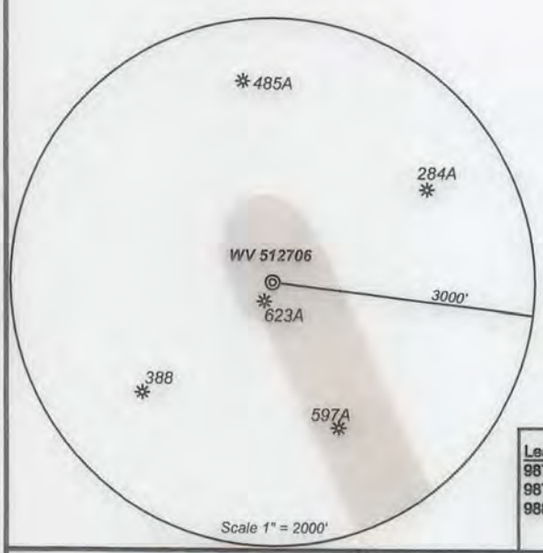
GRT 27

H1, 512706
H2, 512707
H3, 512708

WV 512706 coordinates:
NAD 27 N: 404,508.77 E: 1,823,182.78
NAD 27 Lat: 39.608916 Long: -80.127654
NAD 83 UTM N: 4,384,724.85 E: 574,904.34
WV 512706 Landing Point coordinates:
NAD 27 N: 404,515.48 E: 1,823,375.57
NAD 27 Lat: 39.608938 Long: -80.126899
NAD 83UTM N: 4,384,727.97 E: 574,969.14
WV 512706 Bottom Hole coordinates:
NAD 27 N: 399,847.14 E: 1,825,454.15
NAD 27 Lat: 39.596161 Long: -80.119407
NAD 83 UTM N: 4,383,316.23 E: 575,626.15

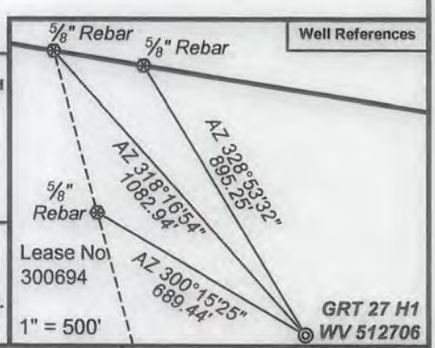
West Virginia Coordinate System of 1927 (North Zone) based upon Differential GPS Measurements.
Plat orientation, corner and well ties are based upon the grid north meridian.
Well location references are based upon the grid north meridian.
UTM coordinates are NAD83, Zone 17, Meters.

Tract I.D.	Tax Map No.	Parcel No.	District	Surface Tract Owner	Acres
1	10	01	Grant	Bernard D. Pratt	68.384
2	10	5.1	Grant	Bernard D. Pratt	0.91
3	9	01	Grant	Michael Scott Page	45.0
4	10	02	Grant	David R. Murray	36.5
5	10	05	Grant	William H. & Louise Leister	62.056
6	10	4.1	Grant	Frank M. & Jane B. Smith	10.04
7	9	03	Grant	Linda Wilson	2.0
8	10	04	Grant	Clifford & Earl King	43.51
9	17	2.3	Grant	Consolidation Coal Company	0.50
10	17	2.2	Grant	William B. Bright	2.91
11	17	2.1	Grant	Paul O. Eddy	32.61
12	17	26.1	Grant	Lary A. & Jenny S. Layne	12.00
13	17	26.2	Grant	James F. & Elaine McCardle	5.00
14	17	26	Grant	William A. & Connie E. McCray	6.64
15	17	24	Grant	Jimmy L. & Renita D. Shisler	1.08
16	17	25.1	Grant	Jimmy L. & Renita D. Shisler	1.47
17	17	23.14	Grant	Bryan K. & Loretta M. Hilling	1.00
18	17	23	Grant	Robert W. Knicely	6.45
19	17	23.8	Grant	Robert W. Knicely	0.75
20	17	23.9	Grant	James H. & Mary Ann Harmon	3.10
21	17	35	Grant	Jimmy L. & Renita D. Shisler	68.33
22	10	21	Grant	William C. & Rebecca R. Harris	85.64
23	10	20	Grant	Timothy P. Zaharko	102.19
24	23	23	Clay	Philip A. Starsick	38.00
25	23	22.1	Clay	Wade Irrevocable Family Trust	44.34



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

Lease No.	Acres	Owner
987369	37.66	Paul O. Eddy Estate
987479	12	Larry Layne, et ux.
988330	5	James F. McCardle, et ux.



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

Ben R. Singleton
P.S. 2092

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

FILE NO: 138-20-C-14
DRAWING NO: 138-14 GRT27 H1.dwg
SCALE: 1" = 2000'
MINIMUM DEGREE OF ACCURACY: 1:2500
PROVEN SOURCE OF ELEVATION: NGS CORS Station

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

DATE: February 17 20 15
OPERATOR'S WELL NO. WV 512706
API WELL NO
47 - 061 - 01747
STATE COUNTY PERMIT

WELL TYPE: ☐ OIL ☒ GAS ☐ LIQUID INJECTION ☐ WASTE DISPOSAL
(IF GAS) PRODUCTION : ☐ STORAGE ☐ DEEP ☒ SHALLOW
LOCATION: ELEVATION: Existing 1229' Proposed 1216' WATERSHED Indian Creek QUADRANGLE: Grant Town
DISTRICT: Grant COUNTY: Monongalia
SURFACE OWNER: Bernard D. Pratt ACREAGE: 68.384
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PROPOSED WORK: ☒ DRILL ☐ CONVERT ☐ DRILL DEEPER ☒ FRACTURE OR STIMULATE ☐ PLUG OFF OLD FORMATION
☐ PERFORATE NEW FORMATION ☐ OTHER PHYSICAL CHANGE IN WELL (SPECIFY)
☐ PLUG AND ABANDON ☐ CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus ESTIMATED DEPTH: 7,524'

WELL OPERATOR: EQT Production Company
ADDRESS: 115 Professional Place PO Box 280
Bridgeport, WV 26330

DESIGNATED AGENT: Rex C. Ray
ADDRESS: 115 Professional Place PO Box 280
Bridgeport, WV 26330

WW-6A1
(5/13)

Operator's Well No. 512706

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

See Attached

4706101747

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: Victoria J. Roark
Its: Permitting Supervisor

WW-6A1 attachment

Operator's Well No. 512706

Lease No.	Grantor, Lessor, etc.	Grantee, Lessee, etc.	Royalty	Book/Page
300694	**Wilma Ruth Goodwin, et al. (current royalty owner)**		1/8 Min Pd	
	John J. Musgrave, et al. (original Lessor)	Hope Natural Gas Company		DB141/84
	Hope Natural Gas Company	Consolidated Gas Supply Corporation		DB 633/144
	Consolidated Gas Supply Corporation	Consolidated Gas Transmission Corp.		LB 66A/69
	Consolidated Gas Transmission Corp.	CNG Transmission Corporation		CB 13/151 (Wetzel)
	CNG Transmission Corp.	Eastern States Oil & Gas, Inc.		LB 76A/232
	Eastern States Oil & Gas, Inc.	Blazer Energy		CB 12/253
	Blazer Energy	Eastern States Oil & Gas, Inc.		CB 12/259
	Eastern States Oil & Gas, Inc.	Equitable Production - Eastern States Oil & Gas		CB 13/14
	Equitable Production - Eastern States Oil & Gas	Equitable Production Company		CB 13/14
	Equitable Production Company	EQT Production Company		CB 13/14
987369	Paul O. Eddy Estate	EQT Production Company	1/8 Min Pd	DB 1529/416
987479	Larry A. Layne & Jenny Sundra Layne	EQT Production Company	1/8 Min Pd	DB 1434/487
988330	James F. McCardle & Elaine McCardle	EQT Production Company	1/8 Min Pd	DB 1436/372

4706101747

RECEIVED
Office of Oil and Gas
FEB 29 2016
WV Department of
Environmental Protection

February 22, 2016

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

Re: GRT27 well pad, well numbers 512706, 512707, 512708, 513693
Grant District, Monongalia County

Dear Mr. Martin,

EQT Production Company is submitting an application for a new well work permit for the above well number. 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.

Sincerely,

Vicki Roark
Permitting Supervisor-WV

4706101741

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

WW-6AC
(1/12)

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

Date of Notice Certification: _____

API No. 47- 061 -
Operator's Well No. 512706
Well Pad Name: GRT27

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

State:	WV	UTM NAD 83 Easting:	574,904.34
County:	Monongalia	Northing:	4,384,724.85
District:	Grant	Public Road Access:	RT 250
Quadrangle:	Grant Town	Generally used farm name:	Bernard D Pratt
Watershed:	Indian 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: *PLEASE CHECK ALL THAT APPLY	OOG OFFICE USE ONLY
☐ 1. NOTICE OF SEISMIC ACTIVITY or ☒ NOTICE NOT REQUIRED BECAUSE NO SEISMIC ACTIVITY WAS CONDUCTED	☐ RECEIVED/ NOT REQUIRED
☐ 2. NOTICE OF ENTRY FOR PLAT SURVEY or ☒ NO PLAT SURVEY WAS CONDUCTED	☐ RECEIVED
☒ 3. 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
☒ 4. NOTICE OF PLANNED OPERATION	☐ RECEIVED
☒ 5. PUBLIC NOTICE	☐ RECEIVED
☒ 6. NOTICE OF APPLICATION	☐ RECEIVED

4706101767

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

WW-6AC
(1/12)

Certification of Notice is hereby given:

THEREFORE, I Victoria J. Roark, 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:	115 Professional Place PO Box 280
By:	Victoria J. Roark		Bridgeport WV 26330
Its:	Permitting Supervisor	Facsimile:	304-848-0041
Telephone:	304-848-0076	Email:	vroark@eqt.com

NOTARY SEAL
NOTARY PUBLIC
STATE OF WEST VIRGINIA
REBECCA L. WANSTREET
EQT PRODUCTION COMPANY
PO BOX 280
BRIDGEPORT, WV 26330
My commission expires April 07, 2020

Subscribed and sworn before me this 24 day of February 2016.

Rebecca L Wanstreet Notary Public

My Commission Expires 4-7-20

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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RECEIVED
Office of Oil and Gas
FEB 29 2016
WV Department of
Environmental Protection

WW-6A
(9-13)

API NO. 47- 061 -
OPERATOR WELL NO. 512706
Well Pad Name: GRT27

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: 2/29/16 **Date Permit Application Filed:** 2/29/16

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: Bernard D Pratt
Address: 1245 Hagans Rd
Core WV 26541
Name:
Address:

☑ SURFACE OWNER(s) (Road and/or Other Disturbance)
Name: Bernard D Pratt
Address: 1245 Hagans Rd
Core WV 26541
Name:
Address:

☑ SURFACE OWNER(s) (Impoundments or Pits)
Name: Bernard D Pratt
Address: 1245 Hagans Rd
Core WV 26541

☑ COAL OWNER OR LESSEE
Name: See Attached
Address:

☐ COAL OPERATOR
Name:
Address:

☑ SURFACE OWNER OF WATER WELL AND/OR WATER PURVEYOR(s)
Name: See Attached
Address:

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

*Please attach additional forms if necessary

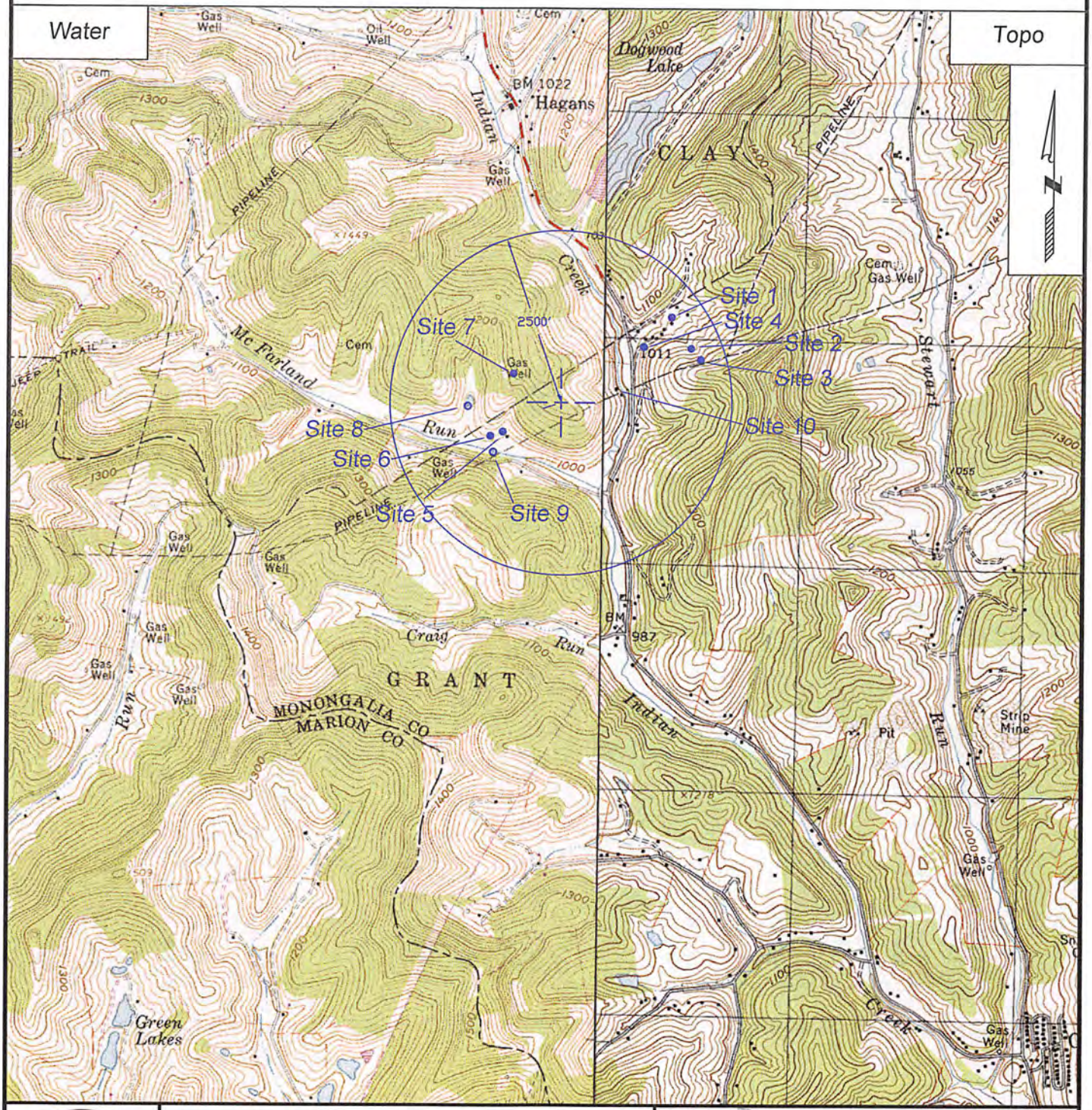
RECEIVED
Office of Oil and Gas
FEB 29 2016
WV Department of

Topo Quad:	Grant Town & Rivesville 7.5'	Scale:	1 " = 2000'
County:	Monongalia	Date:	February 23, 2016
District:	Clay & Grant	Project No:	GRT 27 Well Pad

4706101747

Water

Topo



SURVEYING AND MAPPING SERVICES PERFORMED BY:

ALLEGHENY SURVEYS, INC.

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

PREPARED FOR:

EQT Production Company

P.O. Box 280
Bridgeport, WV 26330

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FEB 29 2016
WV Department of
Environmental Protection

Surface Owners:

Bernard D. Pratt
1245 Hagans Rd.
Core, WV 26541

Surface Owners (Road or other Disturbance):

Bernard D. Pratt
1245 Hagans Rd.
Core, WV 26541

Surface Owners (Pits or Impoundments):

Bernard D. Pratt
1245 Hagans Rd.
Core, WV 26541

*****Bernard D. Pratt's receipt was lost in transit to the post office. Attached you will find a receipt from the post office to prove maili**

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BRIDGEPORT
205 S VIRGINIA AVE
BRIDGEPORT
WV
263309998
5510560098
02/26/2016 (800)275-8777 12:57 PM
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Product Description	Sale Qty	Final Price
Prepaid Mail	1	
(Weight:0 lbs. 8.30 oz.)		
(Destination:MAIDSVILLE, WV 26541)		
(Acceptance Date:02/26/2016 12:57 :21)		
(Label #:70150640000334738603)		
Total		$0.00

****
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Order stamps at usps.com/shop or call 1-800-Stamp24. Go to usps.com/clicknship to print shipping labels with postage. For other information call 1-800-ASK-USPS.

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Get your mail when and where you want it with a secure Post Office Box. Sign up for a box online at usps.com/poboxes.
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or call 1-800-410-7420.

YOUR OPINION COUNTS

Bill #: 840-52500594-1-404052-2

Coal Owner(s):

Bernard D. Pratt
1245 Hagans Rd.
Core, WV 26541

*****Bernard D. Pratt's receipt was lost in transit to the post office. Attached you will find a receipt from the post office to prove mailir**

CONSOL Mining Company, LLC
Engineering Operations and Support Dept.
Coal, CNX Center
1000 CONSOL Energy Dr.
Canonsburg, PA 15317-6506
ATTN: Ryan Arp

CNX Gas Co., LLC
Engineering Operations and Support Dept.
Coal, CNX Center
1000 CONSOL Energy Dr.
Canonsburg, PA 15317-6506
ATTN: Ryan Arp

Murray American Energy, INC OH
c/o Murray Energy Corporation
46226 National Rd.
St. Clairsville, OH 43950
ATTN: Alex O'Neill

Murray American Energy, INC WV
c/o Murray Energy Corporation
1 Bridge Street
Monongah, WV 26554
ATTN: Troy Freels

BRIDGEPORT
205 S VIRGINIA AVE
BRIDGEPORT
WV
263309998
5510560098
02/26/2016 (800)275-8777 12:57 PM

Product Description	Sale Qty	Final Price
Prepaid Mail	1	
(Weight:0 lbs. 8.30 oz.)		
(Destination:MAIDSVILLE, WV 26541)		
(Acceptance Date:02/26/2016 12:57 :21)		
(Label #:70150640000334738603)		
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Get your mail when and where you want it with a secure Post Office Box. Sign up for a box online at usps.com/poboxes.

All sales final on stamps and postage
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Thank you for your business

HELP US SERVE YOU BETTER

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YOUR OPINION COUNTS

Bill #: 840-52500594-1-404052-2
Clerk:

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Office of Oil and Gas
FEB 29 2016
WV Department of Environmental Protection

WW-6A
(8-13)

API NO. 47- 061 -
OPERATOR WELL NO. 512706
Well Pad Name: GRT27

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

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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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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- 061 -
OPERATOR WELL NO. 512706
Well Pad Name: GRT27

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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WW-6A
(8-13)

API NO. 47- 061 -
OPERATOR WELL NO. 512706
Well Pad Name: GRT27

Notice is hereby given by:

Well Operator: EQT Production Company
Telephone: 304-848-0076
Email: vroark@eqt.com

Address: 115 Professional Place PO 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.

OFFICIAL SEAL
NOTARY PUBLIC
STATE OF WEST VIRGINIA
REBECCA L. WANSTREET
EQT PRODUCTION COMPANY
PO BOX 280
BRIDGEPORT, WV 26330
My commission expires April 07, 2020

Subscribed and sworn before me this 22 day of February, 2016.

Rebecca L Wanstreet Notary Public

My Commission Expires 4-7-20

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Environmental Protection

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(1/12)

Operator Well No. 512706

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: 02/04/2016 **Date Permit Application Filed:** 02/14/2016

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: Bernard D. Pratt
Address: 1245 Hagans Rd.
Core WV 26541

Name:
Address:

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

State: WV
County: Monongalia
District: Grant
Quadrangle: Grant Town
Watershed: Indian Creek

UTM NAD 83 Easting: 574,904.34
Northing: 4,384,724.85
Public Road Access: RT 250
Generally used farm name: Bernard D Pratt

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

Notice is hereby given by:

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

Authorized Representative: Victoria Roark
Address: 115 Professional Place PO Box 280
Bridgeport WV 26330
Telephone: 304-848-0076
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.

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Environmental Protection

Surface Owners:

Bernard D. Pratt
1245 Hagans Rd.
Core, WV 26541

Surface Owners (Road or other Disturbance):

Bernard D. Pratt
1245 Hagans Rd.
Core, WV 26541

Surface Owners (Pits or Impoundments):

Bernard D. Pratt
1245 Hagans Rd.
Core, WV 26541

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WV Department of
Environmental Protection

WW-6A5
(1/12)

Operator Well No. 512706

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: 2/29/16 **Date Permit Application Filed:** 2/29/16

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.

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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: Bernard D Pratt
Address: 1245 Hagans Rd.
Core WV 26541

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
County: Monongalia
District: Grant
Quadrangle: Grant Town
Watershed: Indian Creek

UTM NAD 83 Easting: 574,904.34
Northing: 4,384,724.85
Public Road Access: RT 250
Generally used farm name: Bernard D Pratt

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: 304-848-0076
Email: vroark@eqt.com

Address: 115 Professional Place PO 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.

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Environmental Protection

Surface Owners:

Bernard D. Pratt
1245 Hagans Rd.
Core, WV 26541

Surface Owners (Road or other Disturbance):

Bernard D. Pratt
1245 Hagans Rd.
Core, WV 26541

Surface Owners (Pits or Impoundments):

Bernard D. Pratt
1245 Hagans Rd.
Core, WV 26541

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205 S VIRGINIA AVE
BRIDGEPORT
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Product Description	Sale Qty	Final Price
Prepaid Mail	1	
(Weight:0 lbs. 8.30 oz.)		
(Destination:MAIDSVILLE, WV 26541)		
(Acceptance Date:02/26/2016 12:57 :21)		
(Label #:70150640000334738603)		
Total		$0.00

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or call 1-800-410-7420.

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MAR 29 2016
WV Dept. 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

Reissued February 2, 2016

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

4706101747

Subject: DOH Permit for the GRT 27 Pad Site, Monongalia County

512706 GRT 27 H1	512707 GRT 27 H2	512708 GRT 27 H3
513693 GRT 27 H4	513694 GRT 27 H5	513695 GRT 27 H6

Dear Mr. Martin,

This well site will be accessed from Permit #04-2015-0366 issued to EQT Production Company for access to the State Road. The well site is located off of Monongalia County Route 37 SLS. The approved DOH permit must be received before construction of or any use of this access to the roadway.

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

Very Truly Yours,

Gary K. Clayton

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

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

RECEIVED
Office of Oil & Gas
FEB 29 2016
WV Department of

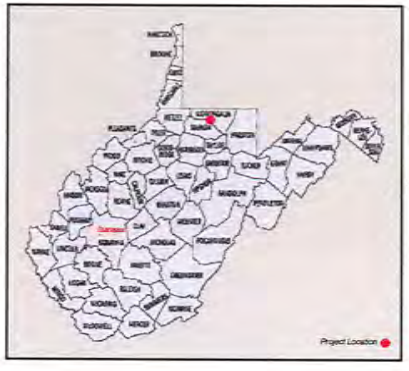
Anticipated Frac Additives
Chemical Names and CAS numbers

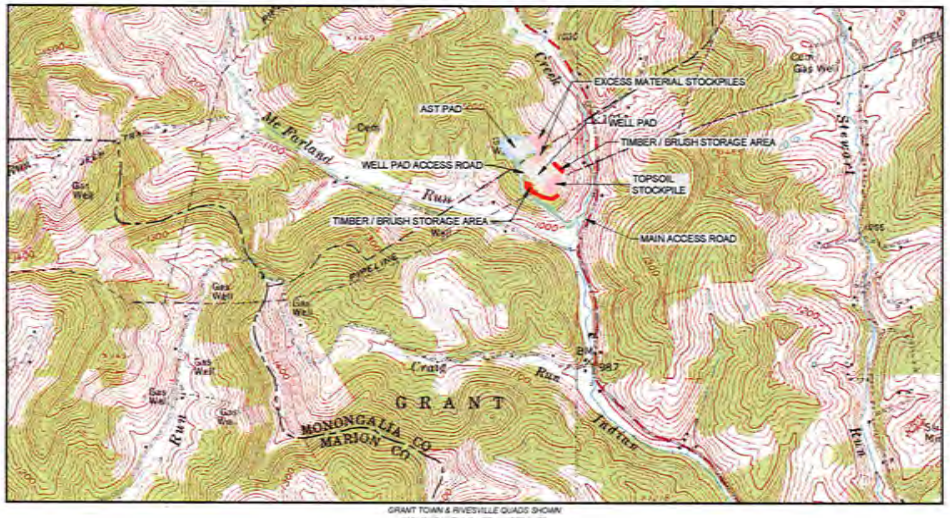
Material	Ingredient	CAS Number
Water		
Sand	Hydrotreated light petroleum distillate	14808-60-7
Friction Reducer	Tributyl tetradecyl phosphonium chloride	64742-47-8
Biocide	Ammonium chloride	81741-28-8
Scale Inhibitor	Hydrochloric Acid	12125-02-9
15% Hydrochloric Acid	Propargyl Alcohol	7647-01-0
Corrosion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

4706107745

GRT 27

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

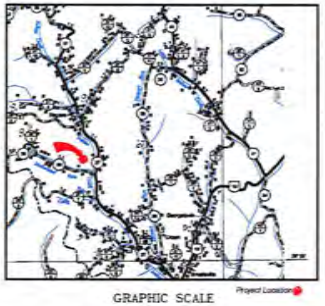




GRANT TOWN & RIVESVILLE QUADS SHOWN
MONONGAHELA RIVER WATERSHED

0 1000 2000 3000

SITE LOCATIONS NAD 83	LATITUDE	LONGITUDE
Center of Well Pad	39.608864	-80.127233
Center of 60,000 AST Pad	39.610264	-80.126137
Center of 40,000 AST Pad	39.610360	-80.129018
30a S+00 Main Access	39.606749	-80.124159



GRAPHIC SCALE

1 INCH = 1 MILE

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

AFFECTED TAX PARCEL

CLAY & GRANT DISTRICTS
MONONGALIA COUNTY, WV

Bernard D. & Bonnie M. Pratt
68.5 Acres±

AFFECTED PROPERTIES:

WVDOH R/W
SITE DISTURBANCE

MAIN ACCESS ROAD = 0.12 ACRES
TOTAL DISTURBANCE = 0.12

Bernard D. & Bonnie M. Pratt
TM 10 PCL 01
DB 909 PG 32
PARCEL 2
68.5 Acres±
SITE DISTURBANCE

MAIN ACCESS ROAD = 7.44 ACRES
WELL PAD = 5.58 ACRES
AST PAD = 5.89 ACRES
WELL PAD ACCESS ROAD = 0.21 ACRES
TOP SOIL STOCKPILE = 2.39 ACRES
EXCESS MATERIAL STOCKPILES = 3.23 ACRES
TIMBER AND BRUSH STORAGE = 2.20 ACRES
TOTAL DISTURBANCE = 26.83 ACRES
TOTAL WOODED AREA = 22.77 ACRES

FLOODPLAIN CONDITIONS	
DO SITE CONSTRUCTON ACTIVITIES TAKE PLACE IN FLOODPLAIN:	YES
PERMIT NEEDED FROM COUNTY FLOODPLAIN COORDINATOR:	YES
HEC-RAS STUDY COMPLETED:	YES
FLOODPLAIN SHOWN ON DRAWINGS:	YES
FIRM MAP NUMBER(S) FOR SITE:	54017C0225C
ACREAGES OF CONSTRUCTION IN FLOODPLAIN:	0.64

WELL LEGEND

512706- LAT: 39.608997 / LONG. -80.127449
512707- LAT: 39.608971 / LONG. -80.127407
512708- LAT: 39.608945 / LONG. -80.127366
513693- LAT: 39.608920 / LONG. -80.127324
513694- LAT: 39.608894 / LONG. -80.127283
513695- LAT: 39.608868 / LONG. -80.127242
516665- LAT: 39.608842 / LONG. -80.127200
516666- LAT: 39.608816 / LONG. -80.127159

APPROVED
WVDEP OOG
4 / 20 / 2016

Design Certification

The drawings, construction notes, and reference diagrams attached hereto have been prepared in accordance with the West Virginia Code of State Rules, Division of Environmental Protection, Office of Oil and Gas §35-4-21.
The information reflects two AST pads. The computed above grade storage volume is less than 15 acre feet, filling method pumped, tanks will be contained.

Horror Brothers Engineers make no certifications relating to the design, construction or materials associated with the Above Ground Storage Tanks (AST's).

Project Contacts

Keeley Cunningham - EQT Production Company
304-848-0095 Off.

Surveyor & Engineer

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

Tom Corathers - PE, PS - Horror Brothers Engineers
304-624-6445 Office

SHEET INDEX

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

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

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

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

EQT
Where energy meets innovation

THIS DOCUMENT PREPARED FOR EQT PRODUCTION COMPANY

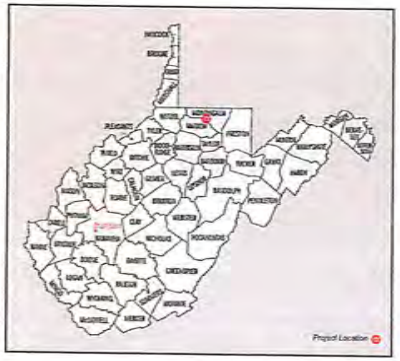
COVER SHEET / LOCATION MAP
EQT GRT 27
WELL PAD SITE
CLAY & GRANT DISTRICTS
MONONGALIA COUNTY, WV

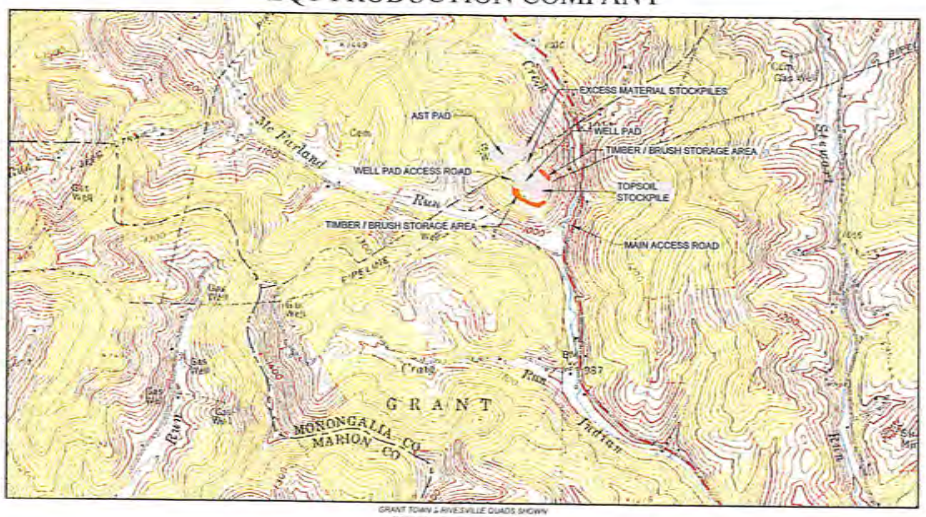
DATE	REVISIONS
01/05/2016	ADDED TWO WELL NUMBERS
3/7/2016	ADDED HOUSE TO STARSICK PROPERTY

Date: 12/17/2015
Scale: AS SHOWN
Designed By: TBC
File No.
Page 1 of 26

47061017 47

GRT 27
FINAL SITE DESIGN, CONSTRUCTION PLANS, & EROSION & SEDIMENT CONTROL PLANS
EQT PRODUCTION COMPANY





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MONONGAHELA RIVER WATERSHED

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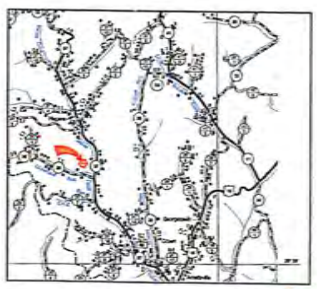

GRAPHIC SCALE

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Surveyor & Engineer

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

Tom Corathers - PE, PS - Homer Brothers Engineers
304-624-6445 Office

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DATE	REVISIONS
01/05/2016	ADDED TWO WELL NUMBERS
3/7/2016	ADDED HOUSE TO STARSICK PROPERTY

YJK 3/8/2016

Received
Office of Oil & Gas
MAR 15 2016

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

Homer Laughlin Engineers
Civil, Mining, Environmental and Consulting Engineering

EQT

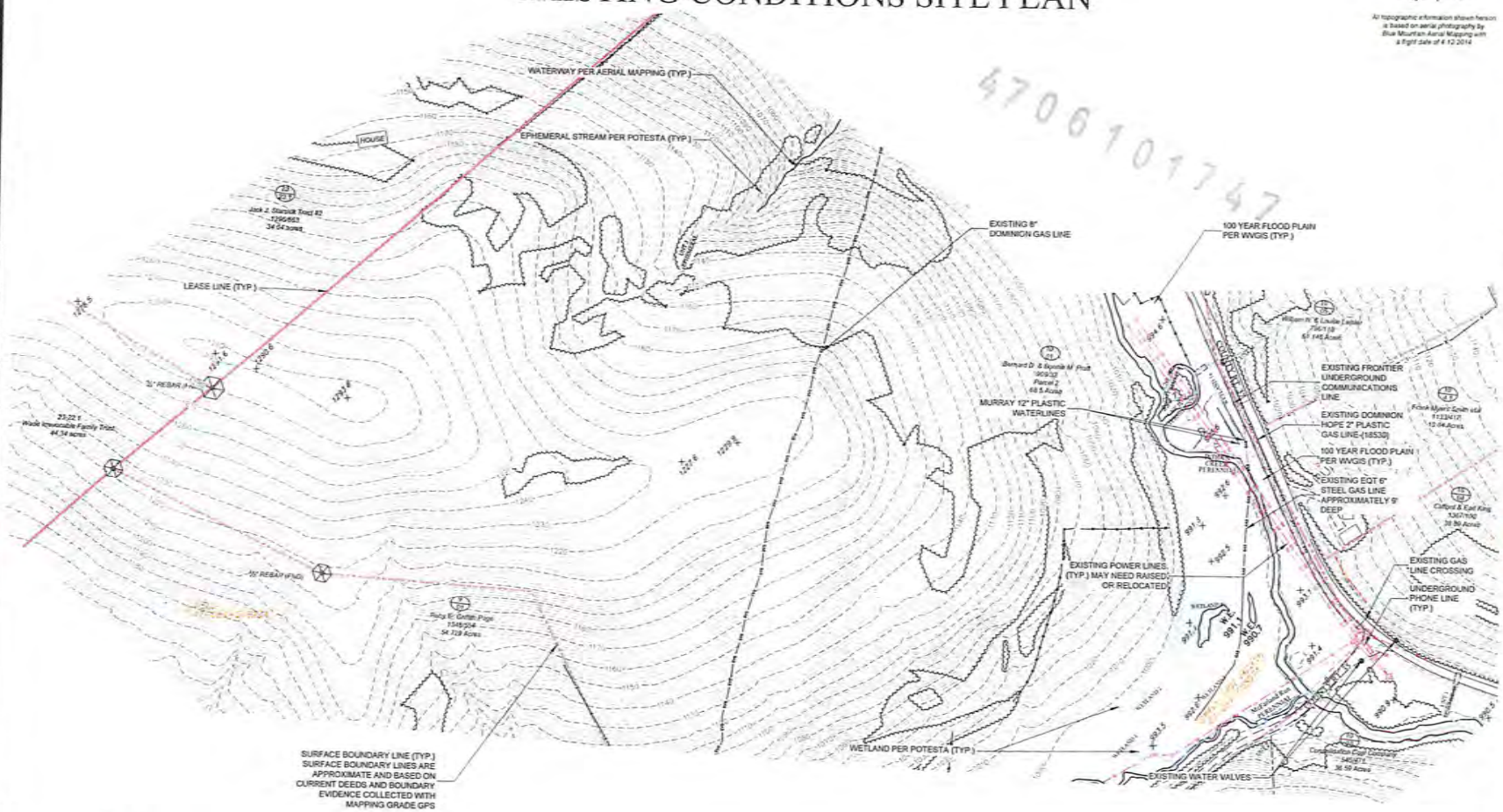
THIS DOCUMENT PREPARED FOR EQT PRODUCTION COMPANY

COVER SHEET / LOCATION MAP
EQT GRT 27
WELL PAD SITE
CLAY & GRANT DISTRICTS
MONONGALIA COUNTY, WV

Date: 12/17/2015
Scale: AS SHOWN
Designed By: TBC
File No.
Page 1 of 26

4706101747

GRT 27 WELL PAD
EXISTING CONDITIONS SITE PLAN



Legend

- Existing 2' Contour
- Existing 10' Contour
- Existing Utility Pole
- Existing Overhead Utility
- Existing Underground Phone Line
- Existing Gas Line CL
- Existing Fence

GRAPHIC SCALE

(IN FEET)
1 inch = 100 ft.

MJK 3/8/2016

DATE	REVISIONS
3/7/2016	ADDED HOUSE TO STARSICK PROPERTY

Date: 12/17/2015
Scale: 1"=100'
Designed By: TBC
File No.
Page 2 of 26

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

Hornor Bros. Engineers
Since 1902
Civil, Mining, Environmental and Consulting Engineering

EQT

THIS DOCUMENT PREPARED FOR EQT PRODUCTION COMPANY

EXISTING CONDITIONS PLAN
EQT GRT 27
WELL PAD SITE
CLAY & GRANT DISTRICTS
MONONGALIA COUNTY, WV

4706101747

Schedule of Quantities EQT GRT-27 WELL PAD		
Item Description	UNIT	QUANTITY
1. Clearing, Grubbing E & S Controls		
A. Clearing & Grubbing	AC	23.77
B. 24" Silt Sock or Silt Fence	LF	4,097
C. Super Silt Fence	LF	75
D. Straw Wattle	LF	4,010
E. Slope Erosion Control Matting	SY	29,488
F. Perimeter berm	LF	1,365
2. Excavation (Cut Only)		
A. Construction Entrance	EA	1
B. Well Pad	TONS	45,879
C. Well Pad Access Road	CY	429
D. Flow Back Pit	CY	0
E. Above Ground Storage Tank (AST) Pad (40K x 60K BBL)	CY	48,138
F. Main Access Road	CY	23,312
G. Topsoil	CY	17,053
H. Spoil	CY	38,702
I. Diversion Ditch (S)	LF	2,002
J. Roadside Ditch	LF	1,896
K. Ditch Lining (Access Road)		
1. Rip Rap	TONS	378
2. Synthetic Matting (TRM)	SY	0
3. Jute Matting	SY	0
L. Drill Pad Sump		
1. 6" HDPE Sump Drain	LF	812
2. 24" Diameter HDPE Sump	EA	11
3. Stone		
A. 6"-8" Rip Rap (Inlets/Outlets)	TONS	301
B. #3 Stone (Ditch Checks)	TONS	14
C. #3 Stone (Rock Drains)	TONS	0
4. Aggregate Surfacing		
A. Drill Pad Geotextile Fabric (Terra Tex HPG-37)	SY	14,534
B. Drill Pad 1" Minus Crusher Run Aggregate (2")	TONS	1,445
C. Drill Pad 6" Minus Crusher Run Aggregate (8")	TONS	5,779
D. Access Roads 1" Minus Crusher Run Aggregate (2")	TONS	578
E. Access Roads 6" Minus Crusher Run Aggregate (8")	TONS	2,311
F. Access Roads Geotextile Fabric (Terra Tex HPG-37)	SY	444
G. AST Pad 1" Minus Crusher Run Aggregate (2")	TONS	1,467
H. AST Pad 6" Minus Crusher Run Aggregate (8")	TONS	5,870
I. AST Pit Pad Geotextile Fabric (Terra Tex HPG-37)	SY	13,976
5. Flow Back Pit Liner - 60 mil.		
A. (One) 60 mil Layer	SY	0
B. 10 oz. Felt Under Layment	SY	0
6. Completion Back Pit Liner - 60 mil		
A. (One) 60 mil Layer	SY	0
B. 10 oz. Felt Under Layment	SY	0
7. Road Culverts (4 Total)		
A. 12" CMP OR HDPE (0)	LF	0
B. 15" CMP OR HDPE (3)	LF	105
C. 18" CMP OR HDPE (0)	LF	0
C. 24" CMP OR HDPE (1)	LF	35
8. A. Hydro Seeding	AC	11.17
9. Fence and Gates		
A. 6' Woven Wire Fence @ UNT -A	LF	0
B. 48" Entry Swing Gate	EA	0
10. Reclamation	AC	5.28
TOTAL		

GRADING VOLUMES			
DESCRIPTION	CUT (CY)	FILL (CY)	NET (CY)
MAIN ACCESS ROAD	23,312	18,433	4,879
WELL PAD	45,879	20,758	25,121
ABOVEGROUND STORAGE TANK (AST) PAD (40k & 60k BBL)	48,138	39,801	8,337
WELL PAD ACCESS ROAD	429	64	365
EXCESS MATERIAL STOCKPILES	0	38,702	-38,702
TOPSOIL STOCKPILE	17,053	0	17,053
TOTAL	134,811	117,758	17,053

The earthwork quantities provided are an estimate for consideration. The quantities shown may be greater or less than actually excavated. The engineer is not responsible for variances from the estimated quantities and does not certify to their accuracy.

L.O.D. AREAS	
DESCRIPTION	AREAS (ACRES)
MAIN ACCESS ROAD	7.44
WELL PAD	5.58
ABOVEGROUND STORAGE TANKS (AST) PAD	5.89
WELL PAD ACCESS ROAD	0.21
TOP SOIL STOCKPILE	2.39
EXCESS MATERIAL STOCKPILES	3.23
TIMBER & BRUSH STORAGE	2.20
TOTAL	26.95
TOTAL WOODED AREA	22.77

GRADING FACTORS	
CUT SLOPE	2:1
FILL SLOPE	2:1
CUT SWELL FACTOR	1.05
TOP SOIL SWELL FACTOR	1.20
FILL SHRINK FACTOR	1.00
WELL PAD ELEVATION:	1216.00'

NOTES:

1. TOPSOIL QUANTITY FOR THIS SITE IS ESTIMATED AT A UNIFORM THICKNESS OF 10" OVER THE ENTIRE EXCAVATED AREA. ACTUAL QUANTITY MAY VARY.
2. AREAS RECEIVING JUTE MATTING AND SYNTHETIC MATTING (TRM) ARE TO BE SEEDED, LIMED AND FERTILIZED PRIOR TO INSTALLATION OF MATERIALS.
3. SITE (ACCESS ROAD) IS WITHIN THE 100 YEAR FLOOD PER FIRM PANEL 54017C0225C.
4. ALL PROPOSED SLOPES TO BE 2:1 EXCEPT WHERE NOTED.

Received
Office of Oil & Gas
MAR 15 2016

Master Legend

Proposed Well Pad Cut & Fill Areas
Proposed Road / Turnaround Cut & Fill Areas
Proposed Pit / AST Pad Areas
Proposed Spoil Areas
Proposed Stoned Areas
Proposed Timber / Brush Storage Area
Proposed Fill Bench, as noted
Proposed Pit Berm
Reclaim Area
Level Spreader / Rip Rap / Outlet Protection, as noted
Wetland per Polesta
Stabilized Construction Entrance

Existing 2' Contour
Existing 10' Contour
Existing Utility Pole
Existing Overhead Utility
Existing Underground Phone Line
Existing Gas Line CL
Existing Waterline
Existing Fence
Existing Treeline
Property Line
Stream per Aerial Mapping
Stream per Polesta, as noted
FEMA 100 Year Flood Plain
Unpaved Road/Driveway
Paved Road
Approximate WVDOH R/W
Existing Guardrail
Cemetery Boundary
Monument Found, as noted
Existing Power Pole
Existing Culvert per Aerial Mapping
House / Building
Water Meter
Gas Well

Alignment
Proposed 2' Contour
Proposed 10' Contour
ADI By Polesta
Proposed ADI
LOD
Proposed Silt Sock
Proposed Silt Fence
Proposed Super Silt Fence
Proposed Straw Wattle
Proposed Cut Areas
Proposed Fill Areas
Proposed Culvert
Proposed Diversion Ditch
Proposed 8' Chain Link Fence with 48" Man Gate
Proposed Rig Footprint
Proposed Pad Sump
Proposed Rock Check Dam
Proposed Toe Bench
Coordinate Marker
Proposed Wells
Dimension, Well Pad & Rig Footprint
Dimension, Well Pad Perimeter

CONSTRUCTION NOTES:

CONSTRUCTION OF ALL FILL EMBANKMENTS (INCLUDING SPOIL STOCKPILES) REQUIRE TOE KEY BENCHES AND SIDEHILL BENCHES. (SEE DETAILS 24, 25 & 26 - SHEET 22)

ROAD SIDE DITCHES SHALL HAVE REQUIRED EROSION CONTROL MATTING APPLIED AS FOLLOWS:
GRADES >10% RIP-RAP
GRADES 4%-10% SYNTHETIC TRM
GRADES 0%-4% JUTE MATTING

AREAS RECEIVING JUTE MATTING AND SYNTHETIC MATTING (TRM) ARE TO BE SEEDED, LIMED AND FERTILIZED PRIOR TO INSTALLATION OF MATERIALS.

ADK 3/8/2016

Allegheny Surveys, Inc.
172 Thompson Drive
Bridgeport, WV 26330
(304) 848-5035

Hornor Bros. Engineers
Since 1902
Civil, Mining, Environmental and Consulting Engineering

EQT

THIS DOCUMENT PREPARED FOR EQT GATHERING LLC

SCHEDULE OF QUANTITIES / GRADING
EQT GRT 27
WELL PAD SITE
CLAY & GRANT DISTRICTS
MONONGALIA COUNTY, WV

DATE	REVISIONS	Date: 12/17/2015
		Scale: N/A
		Designed by: TBK
		File No.
		Page: 3 of 20

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Office of Oil & Gas
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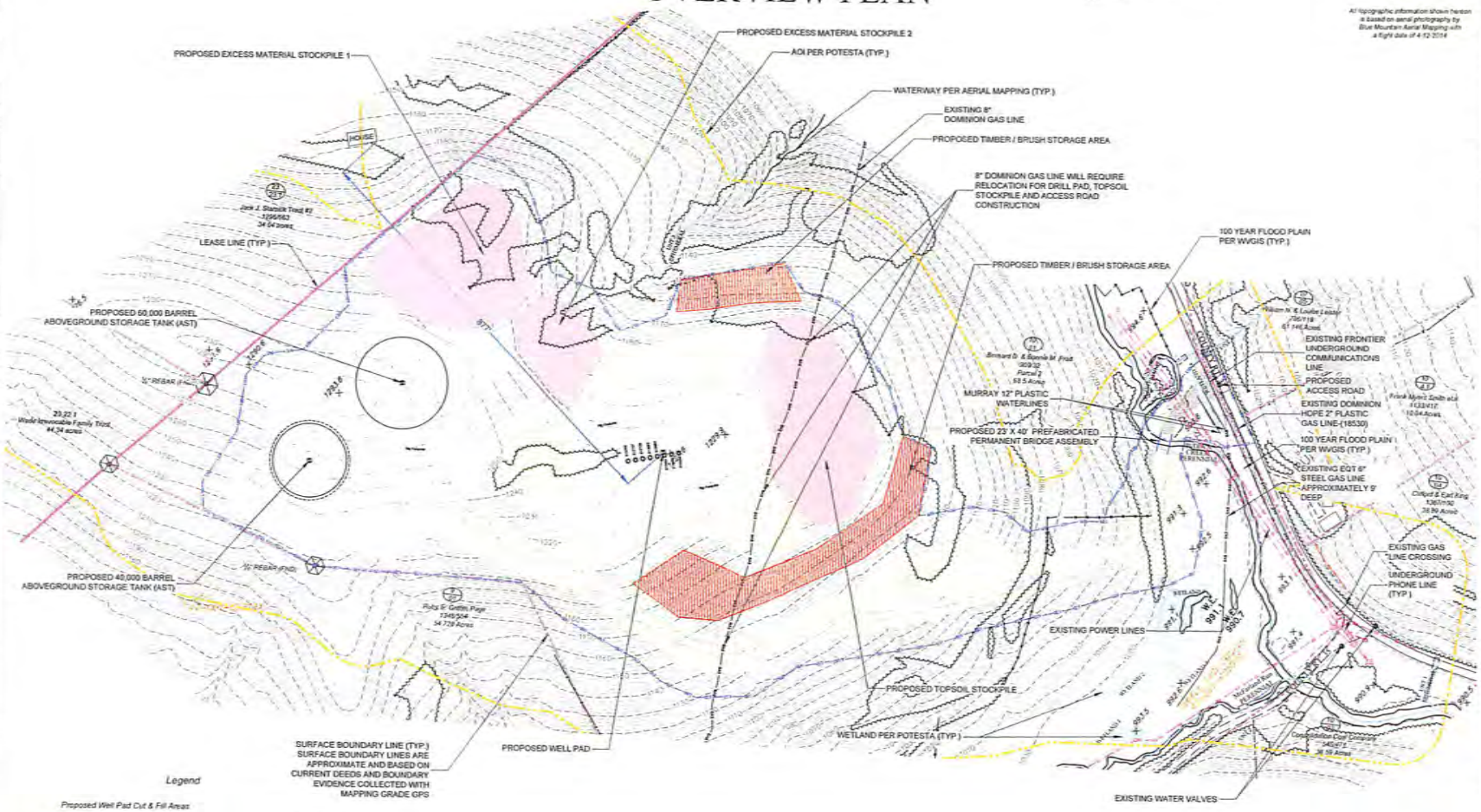
GRT 27 WELL PAD
OVERVIEW PLAN



All topographic information shown hereon is based on aerial photography by Blue Mountain Aerial Mapping with a flight date of 4/12/2014

Legend

- Proposed Well Pad Cut & Fill Areas
- Proposed Road / Turnaround Cut & Fill Areas
- Proposed Pit Areas
- Proposed Spoil Area
- Proposed Stored Areas
- Proposed Timber / Brush Storage Area
- Existing 2' Contour
- Existing 10' Contour
- Existing Utility Pole
- Existing Overhead Utility
- Existing Underground Phone Line
- Existing Gas Line CL
- Existing Fence
- AOI Per Potesta
- Proposed LOD
- Monument Found, as noted

GRAPHIC SCALE
(IN FEET)
1 inch = 100 ft.

YDK 3/8/2016

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140 Sixth Ave. East, P.O. Box 1138
Clarksburg, West Virginia, 26301 (304) 624-4495

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Where energy meets innovation

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OVERVIEW PLAN
EQT GRT 27
WELL PAD SITE
CLAY & GRANT DISTRICTS
MONONGALIA COUNTY, WV

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GRT 27 WELL PAD
FINAL DESIGN PLAN

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Office of Oil & Gas
MAR 15 2016

GRAPHIC SCALE
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- AOI Per Postesta
- Proposed LOD
- Proposed Pad Berm
- Proposed Silt Sock
- Proposed Straw Wattle
- Proposed Pad Sump
- Monument Found as noted
- Proposed Culvert
- Proposed Diversion Ditch

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

All topographic information shown hereon is based on aerial photography by Blue Mountain Aerial Mapping with a flight date of 4-12-2014

10/01 Bernard D. & Bonnie M. Pratt 909/32 Parcel 2 68.5 Acres

100 YEAR FLOOD PLAIN PER WVGIS (TYP.)

AOI PER POTESTA (TYP.)

EXISTING POWER LINES (TYP.) MAY NEED RAISED OR RELOCATED

COUNTY RT. 37

UNT 1 TO INTERMITTENT

INSTALL STABILIZED CONSTRUCTION ENTRANCE (SEE DETAIL 23 - SHEET 22)

PROPOSED ACCESS ROAD @ STATION 0+00 NAD83 LAT. = 39.606749 NAD83 LONG. = -80.124109

EXISTING DOMINION HOPE 2" PLASTIC GAS LINE-(185309)

EXISTING FRONTIER UNDERGROUND COMMUNICATIONS LINE

EXISTING EQT 6" STEEL GAS LINE APPROXIMATELY 9' DEEP AT CROSSING MAY NEED RELOCATED

MURRAY 12" PLASTIC WATERLINES

PROPOSED 22' X 40' PREFABRICATED PERMANENT BRIDGE ASSEMBLY (SEE DETAILS - SHEET 23 & 24)
BEGIN STA - 1+58.58 (-7.93)
FG ELEVATION = 994.00'
END STA - 1+99.45 (-5.70)
FG ELEVATION = 996.00'

PERENNIAL INDIAN CREEK

PROVIDE RIP-RAP PROTECTION ALONG BRIDGE EMBANKMENTS

INSTALL LEVEL SPREADER SEE DETAIL 5 SHEET 20

PROPOSED TIMBER / BRUSH STORAGE AREAS

PROVIDE AND INSTALL 30 LF OF NEW 15"Ø HPDE PIPE SLOPE 4% MIN. PROVIDE RIPRAP INLET/OUTLET PROTECTION (SEE DETAIL 6 - SHEET 20)
STA 15+33.06 (+) 12.49'
INLET ELEVATION = 1186.69'
OUTLET ELEVATION = 1180.49'

2:1 SLOPE (TYP.)

PROVIDE AND INSTALL ROCK CHECK DAMS ALONG DITCH AS REQUIRED (SEE DETAIL 1 - SHEET 20)

PROPOSED MAIN ACCESS ROAD 30' WIDE TRAVELWAY

PROVIDE AND INSTALL 35 LF OF NEW 24"Ø HPDE PIPE SLOPE 2% MIN. PROVIDE RIPRAP INLET/OUTLET PROTECTION (SEE DETAIL 6 - SHEET 20)
STA 4+51.24 (+) 12.21'
INLET ELEVATION = 1024.85'
OUTLET ELEVATION = 1024.15'

INSTALL EARTHEN SAFETY BERM (SEE DETAIL 27 - SHEET 22)

8" DOMINION GAS LINE WILL REQUIRE RELOCATION FOR DRILL PAD, TOPSOIL STOCKPILE AND ACCESS ROAD CONSTRUCTION

PROPOSED LIMIT OF DISTURBANCE (TYP.)

PROPOSED MAIN ACCESS ROAD 20' WIDE TRAVELWAY (SEE DETAIL 21 - SHEET 22)

PROVIDE AND INSTALL 30 LF OF NEW 15"Ø HPDE PIPE SLOPE 2% MIN. PROVIDE RIPRAP INLET/OUTLET PROTECTION (SEE DETAIL 6 - SHEET 20)
STA 12+32.89 (+) 11.74'
INLET ELEVATION = 1142.04'
OUTLET ELEVATION = 1141.44'

PROPOSED RELOCATION ROUTE OF 8" DOMINION GAS LINE. LOCATION WILL NEED VERIFIED ON AS-BUILT DRAWING

HDIC 3/8/2016

ALL WOOD WASTE SHALL BE USED AS A SEDIMENT BARRIER (SEE DETAIL 2 - SHEET 20), CHIPPED, LEGALLY HAULED OFF, OR DISPOSED OF AS PER EQT REPRESENTATIVE

DATE	REVISIONS
12/23/2015	REVISED LEGEND
2/17/2016	REVISED LEGEND

Date: 12/17/2015
Scale: 1"=50'
Designed By: CBC
File No:
Page: 6 of 20

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

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

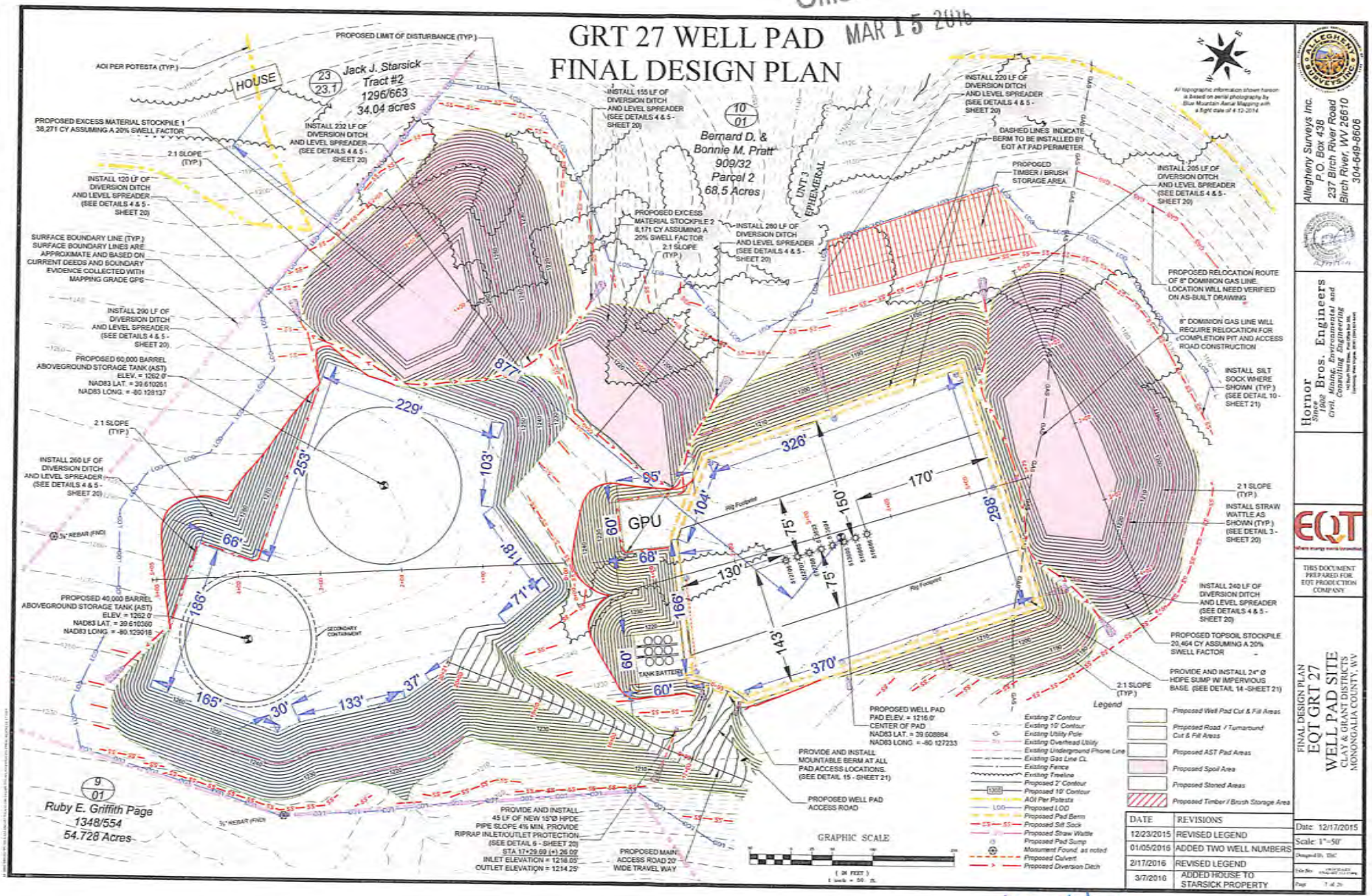
THIS DOCUMENT PREPARED FOR: EQT PRODUCTION COMPANY

FINAL DESIGN PLAN
EQT GRT 27
WELL PAD SITE
CLAY & GRANT DISTRICTS
MONONGALIA COUNTY, WV

4706101747

Receive
Office of Oil
MAR 15 2016

GRT 27 WELL PAD
FINAL DESIGN PLAN



DATE	REVISIONS
12/23/2015	REVISED LEGEND
01/05/2016	ADDED TWO WELL NUMBERS
2/17/2016	REVISED LEGEND
3/7/2016	ADDED HOUSE TO STARSICK PROPERTY

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EQT GRT 27
WELL PAD SITE
CLAY & GRANT DISTRICTS
MONONGALIA COUNTY, WV

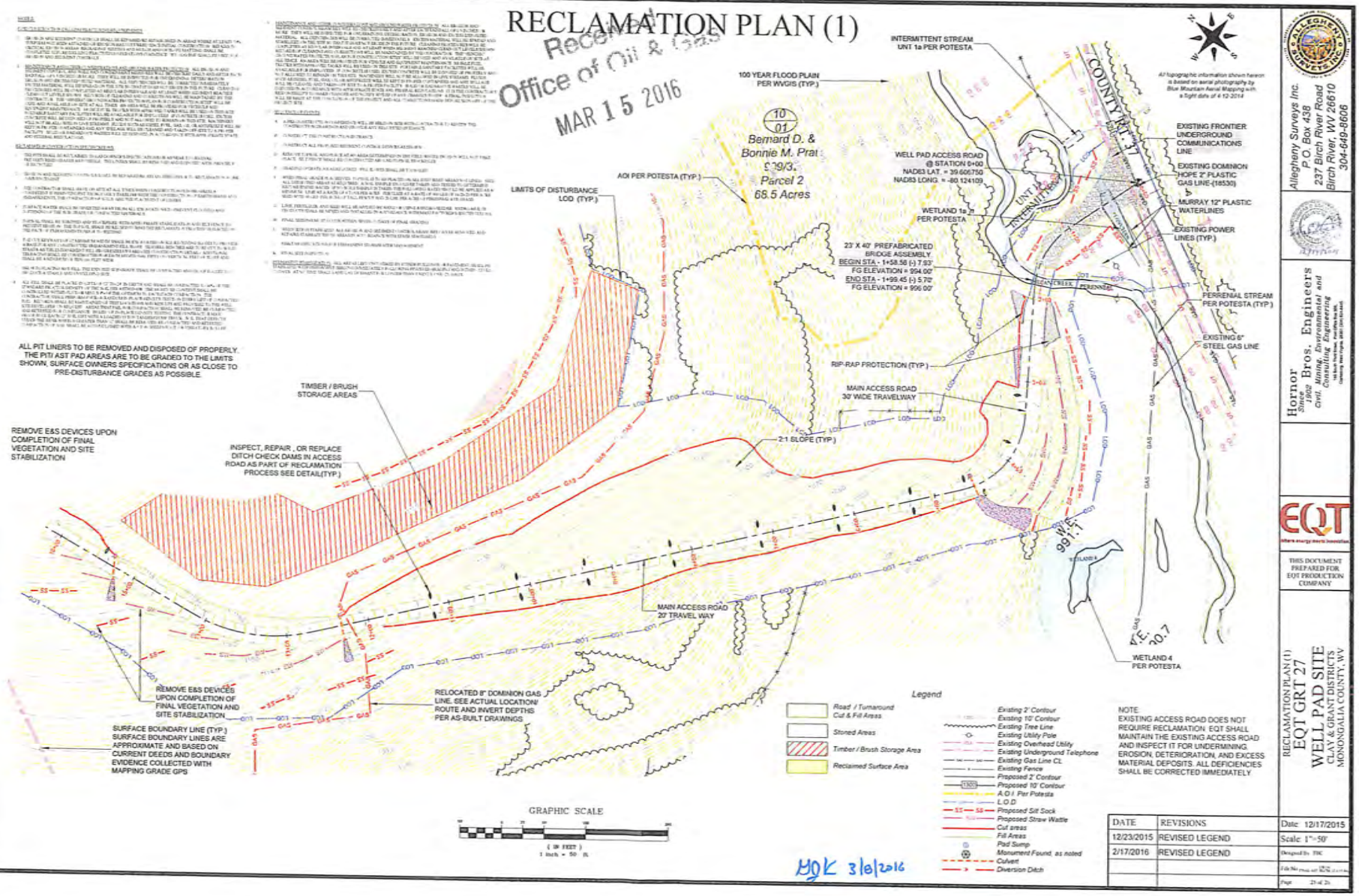
Date: 12/17/2015
Scale: 1"=50'
Designed By: TSC
Title Box: GRT27FDP-1.dwg
Page: 1 of 21

MJK 3/8/2016

4706101747

RECLAMATION PLAN (1)

Received
Office of Oil & Gas
MAR 15 2016



DATE	REVISIONS
12/23/2015	REVISED LEGEND
2/17/2016	REVISED LEGEND

Date: 12/17/2015
Scale: 1"=50'
Designed By: THC
Page: 23 of 25

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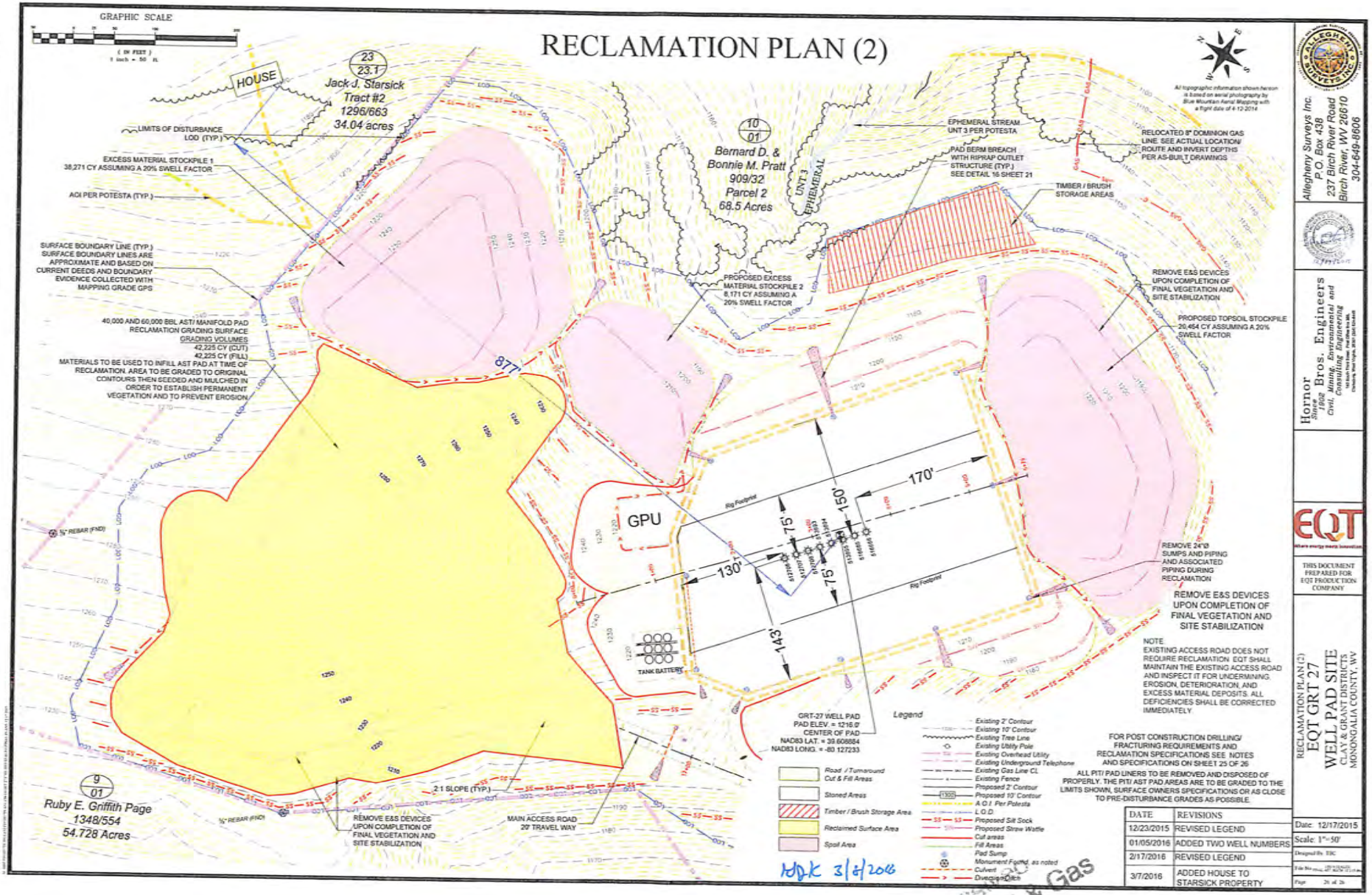
RECLAMATION PLAN (1)
EQT GRT 27
WELL PAD SITE
CLAY & GRANT DISTRICTS
MONONGALIA COUNTY, WV

4706101747

RECLAMATION PLAN (2)



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Office of Oil & Gas
MAR 15 2016