

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: 47-6101748, 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.

Operator's Well No: 512707

Farm Name: PRATT, BERNARD D.

API Well Number: 47-6101748

Permit Type: Horizontal 6A Well

Date Issued: 04/28/2016

API Number:	

PERMIT CONDITIONS 706101748

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, 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-6B (04/15)

API NO. 47-061 -	
OPERATOR WELL NO. 512707	
Well Pad Name: GRT27	

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

1) Well Operat	or: EQT Pro	oduction C	ompany	306686	Monongalia	Grant	Grant Town
				Operator ID	County	District	Quadrangle
2) Operator's V	Well Number:	512707		Well Pa	d Name: GRT2	27	
3) Farm Name	Surface Own	er: Bernard	d D. Prat	t Public Roa	ad Access: RT	250	
4) Elevation, c	urrent ground	1229	El	evation, proposed	post-constructi	on: 1216	
5) Well Type	(a) Gas X	(Oil _	Und	erground Storag	ge	
	(b)If Gas	Shallow	X	Deep			
		Horizontal	X		MAK 3	Lulzait	
6) Existing Pac					_		
	rget Formatio 620', 136', 259			ipated Thickness and 1524	and Expected P	ressure(s):	
8) Proposed To	otal Vertical D	epth: 762	0				
9) Formation a	t Total Vertica	al Depth:	Marcellus	3			
10) Proposed T	Total Measure	d Depth:	11602				
11) Proposed I	Horizontal Leg	Length:	3386			Om	Receive
12) Approxima	ate Fresh Wate	er Strata De	pths:	63, 195, 255, 5	22	OHI	Received Cent nii & Sas MAR 1 5 2016
13) Method to	Determine Fr	esh Water D	Depths:	By offset wells		N	MAR 15 2016
14) Approxima	ate Saltwater I	Depths: 14	85, 1539,	, 1569			
15) Approxima	ate Coal Seam	Depths: 7	, 127, 18	4, 278, 468, 508	553		
16) Approxima	ate Depth to P	ossible Voi	d (coal m	ine, karst, other):	None reported		
17) Does Propo directly overly				ms Yes	No	x	
(a) If Yes, pro	ovide Mine In	fo: Name					
		Depth	:				
		Seam:					
		Owne	r:				

WW-6B (04/15) API NO. 47- 061 OPERATOR WELL NO. 512707
Well Pad Name: GRT27

18)

CASING AND TUBING PROGRAM

ТҮРЕ	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				470			
Intermediate	9 5/8	New	A-500	40	2944	2944	1160 ft^3 / CTS
Production	5 1/2	New	P-110	20	11602	11602	500° above top producing zone
Tubing	2 3/8		J-55	4.7	8 -	May not be run, if run set 40' above top perf or 80° inclination	
Liners					0		

MAK 311/2016

ТҮРЕ	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					(Rec.	#I west

MAR 1 5 2016

PACKERS

Kind:		
Sizes:		
Depths Set:		

WW-6B
(10/14)

API NO. 47- <u>061</u>	
OPERATOR WELL NO. 512707	
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 5945'. Kick off and drill curve. Drill lateral in the Marcellus. Cement casing.

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 centralizer 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:

Hoduction:
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.

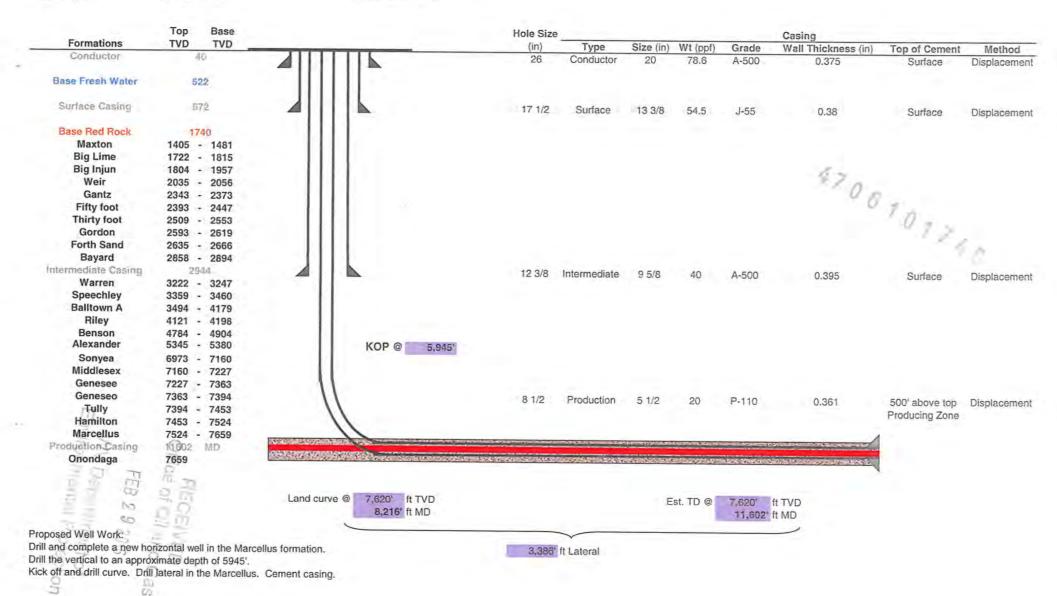
Well

512707(GRT27H2)

EQT Production

Grant Town Monongalia

Quad County, WV Azimuth 156 Vertical Section 3458 Note: Diagram is not to scale





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

4706101745

March 18, 2014

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

Re: Cement Variance Request

Dear Sir or Madam,

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

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

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

Sincerely

James Peterson

Environmental Resources Specialist / Permitting

Promoting a healthy environment.

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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)	2 2 6 7 1
THE OPERATIONAL)	- A A A
REGULATIONS OF CEMENTING OIL)	V. C.
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
- Laboratory testing results indicate that the blend listed in Fact No.1 will achieve a 500
 psi compressive strength within 6 hours and a 2,435 psi compressive strength within 24
 hours.

RECEIVED
Office of Oil and Gas
FEB 2 9 2016

Promoting a healthy environment.

WV Department of Environmental Protection

CONCLUSIONS OF LAW

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

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

ORDER

4706101748

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



February 18, 2016

Mr. Gene Smith West Virginia Department of Environmental Protection Office of Oil and Gas 601 57th Street SE Charleston, WV 25304 4706109748

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,

Vicki Roark

Permitting Supervisor

Enc.

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Employmental 04/20/2016

API NO.	
OPERATOR WELL NO.	GRT27 512707
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.

VOLUNTARY STATEMENT OF NO OBJECTION 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 Easting: 1,823,174.373 WVSPN NAD 27 County: Monongalia Northing: 404,499.265 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 404,499.265, East 1,823,174.373. 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 ☐ SURFACE OWNER (Road and/or Other Disturbance) Print Name: SURFACE OWNER (Impoundments/Pits) FOR EXECUTION BY A CORPORATION, ETC. Company: CONSOL Mining Company LLC **⊠COAL OWNER OR LESSEE** By: Casey V. Saunders Its: Senior Project Engineer Signature: ☐WATER PURVEYOR Date:

Oil and Gas Privacy Notice:

OPERATOR OF ANY NATURAL GAS STORAGE FIELD

MAR 0 4 2016

and Gas

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 complexith out to 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 MINOTE CONTROLL OF CONTROL

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А	ы	Num	ber	47	. 061	

Operator's Well No. 512707

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 V	
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 Wast	tes:
Land Application	
	Permit Number_0014, 8462, 4037)
Reuse (at API Number Various Off Site Disposal (Supply for	
Other (Explain	m WW-9 for disposal location)
Will closed loop system be used? If so, describe: Yes, The operated to	closed loop system will remove drill cuttings from the drilling fluid. The drill cuttings are then for transportation to an off-site disposal facility.
Drilling medium anticipated for this well (vertical and hor	rizontal)? Air, freshwater, oil based, etc. See Attached
-If oil based, what type? Synthetic, petroleum, e	tc. Synthetic Mud
Additives to be used in drilling medium? See Attached	
Drill cuttings disposal method? Leave in pit, landfill, rem	noved offsite, etc. Landfill
-If left in pit and plan to solidify what medium w	
-Landfill or offsite name/permit number? See At	
Permittee shall provide written notice to the Office of Oil West Virginia solid waste facility. The notice shall be prowhere it was properly disposed.	and Gas of any load of drill cuttings or associated waste rejected at any vided within 24 hours of rejection and the permittee shall also disclose
on August 1, 2005, by the Office of Oil and Gas of the We provisions of the permit are enforceable by law. Violatic law or regulation can lead to enforcement action. I certify under penalty of law that I have person application form and all attachments thereto and that,	and conditions of the GENERAL WATER POLLUTION PERMIT issued est Virginia Department of Environmental Protection. I understand that the ons of any term or condition of the general permit and/or other applicable onally examined and am familiar with the information submitted on this based on my inquiry of those individuals immediately responsible for nois true, accurate, and complete. I am aware that there are significant ossibility of fine or imprisonment.
Company Official (Typed Name) Victoria J. Roark	1
Company Official Title Permitting Supervisor	//
Company Official Trice - 2	Rine
	C/Processive D
	Col-
	of February, 20 16
Subscribed and sworn before me this 24 day	
	FED N. W.

Form WW-9			Operator's W	Vell No. 512707
1.N-				
Proposed Revegetation Trea	tment: Acres Disturbe	d 26.83	Prevegetation pl	H 6.3
Lime 3	Tons/acre or to c	correct to pH 6.5		
Fertilizer type G	ranular 10-20-20			
Fertilizer amount_1	/3	lbs/acre		
Mulch 2		Tons/acre	470	6101741
		Seed Mixtures		
Т	emporary		Perma	nent
Seed Type	lbs/acre		Seed Type	lbs/acre
KY-31	40	Orchar	d Grass	15
Alsike Clover	5	Alsike (Clover	5
Annual Rye	15			
Attach: Drawing(s) of road, location provided) Photocopied section of invol	, pit and proposed area	heet.	engineered plans in	Cluding this info have bee Peceir Office of Oi MAR 1 5 2

Date:

X) Yes

Field Reviewed?

WW-9

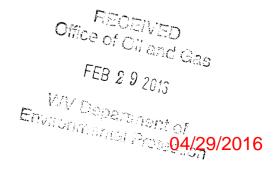
Drilling medium anticipated for this well (vertical and horizontal)? Air, freshwater, oil based, etc.

• 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.

4706101762



EQT Production Water plan Offsite disposals for Marcellus wells

CWS TRUCKING INC.

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

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

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

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

BROAD STREET ENERGY LLC

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

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

KING EXCAVATING CO.

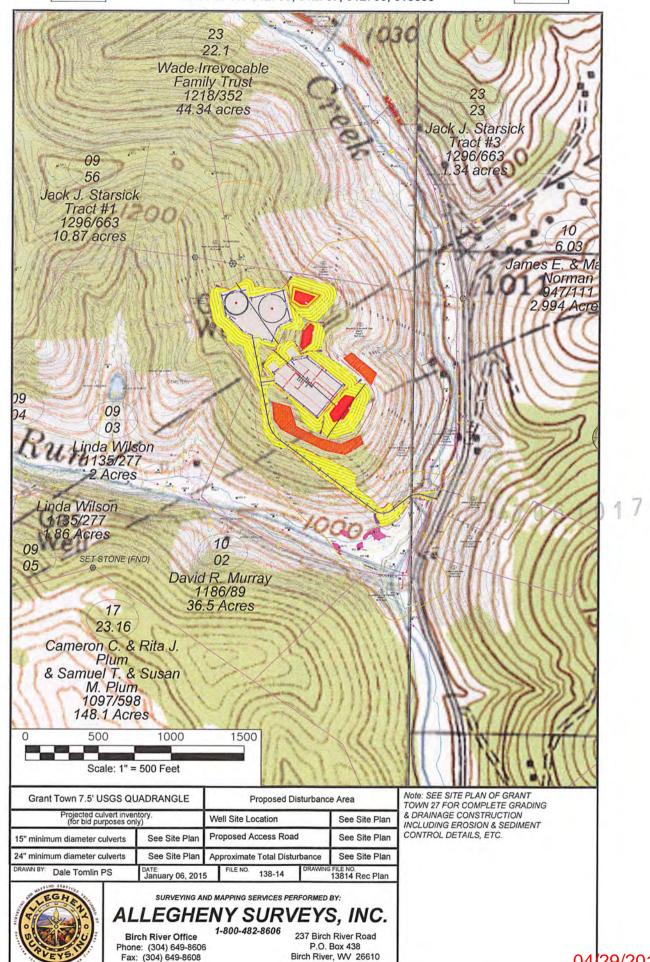
47061011

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

Office of Oil and Gas

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04/29/2016



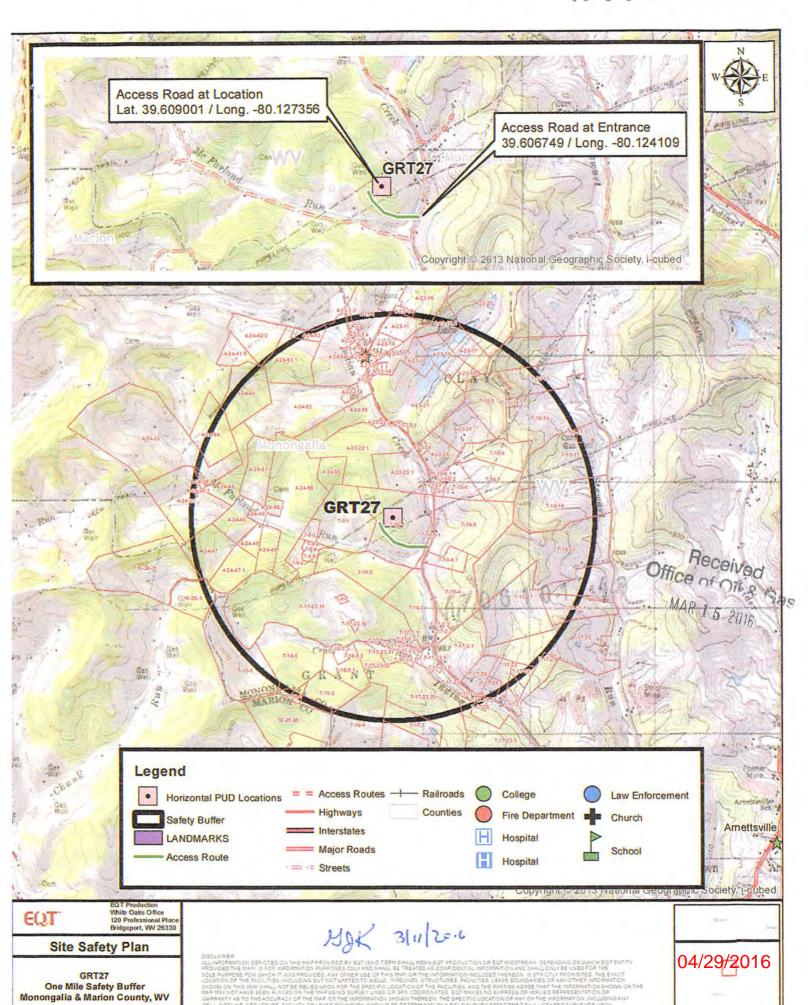
Site Specific Safety Plan

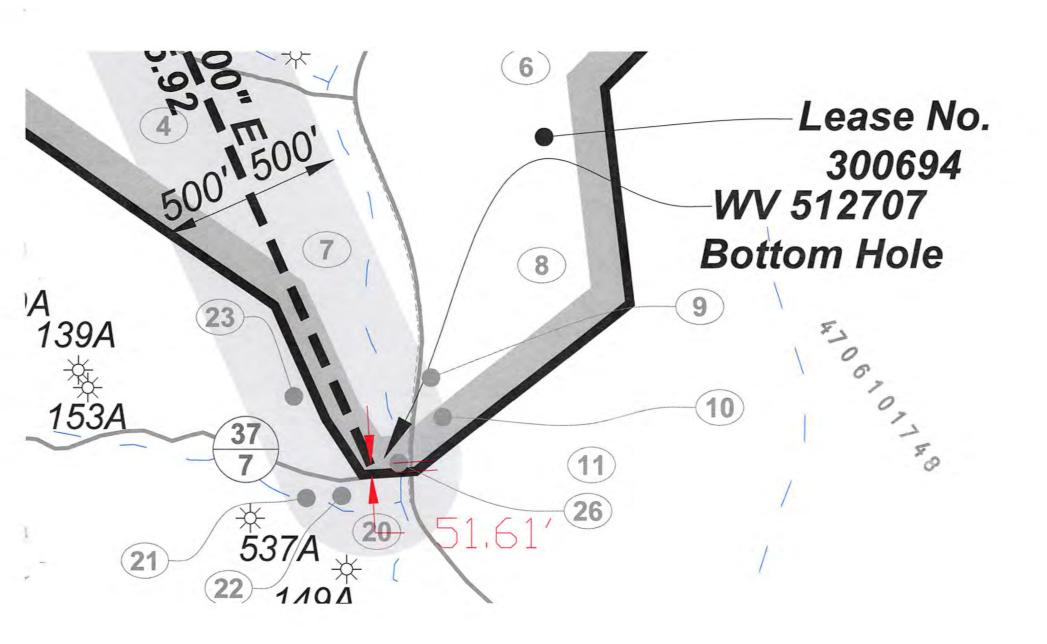
EQT GRT 27 Pad

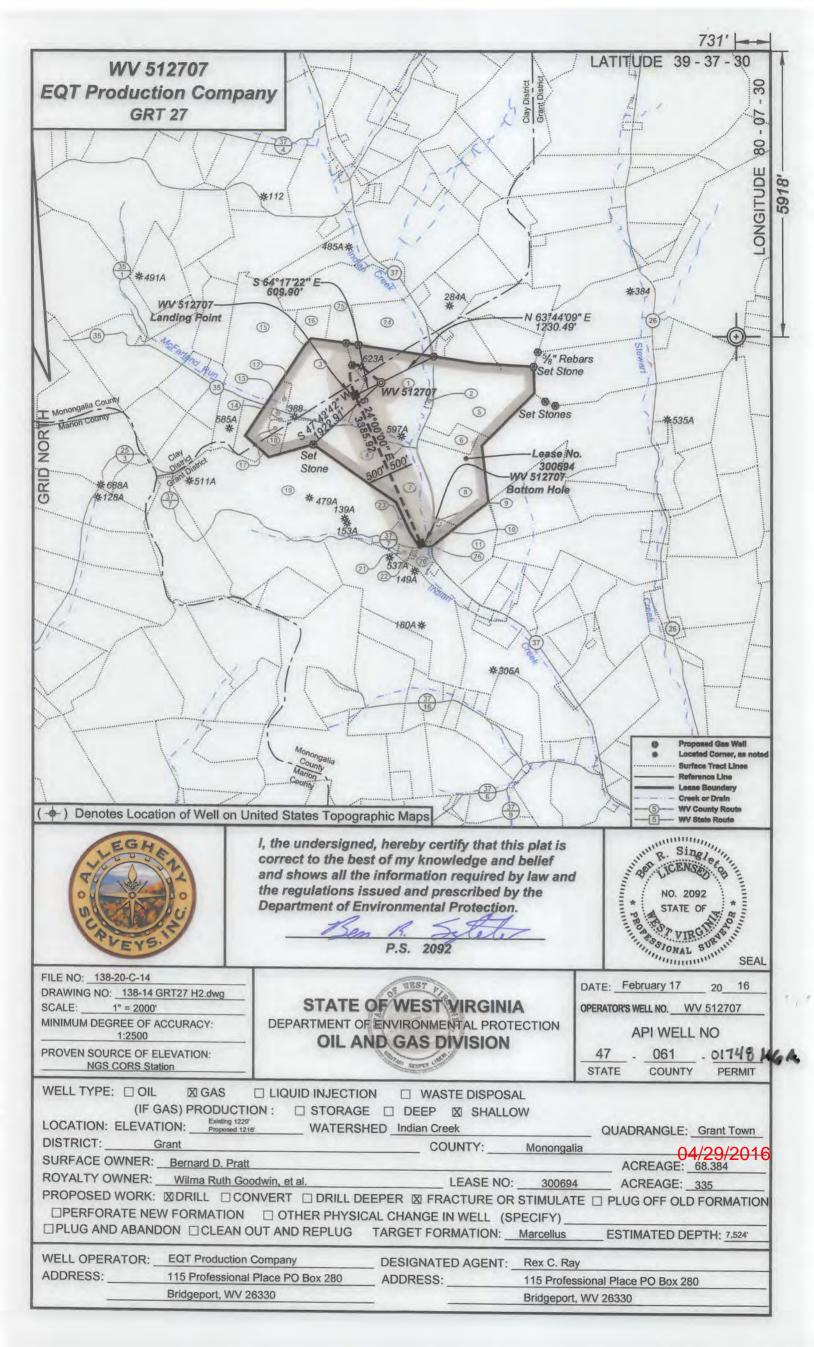
Core

Monongalia County, WV

<u>512706</u>	512707	For Wells: 512708	513693	Office of Oil & Gas
DOT	Date Pre		ary 17, 2016 Wy Oil and Gas Inspe	Ctor
Dennitteng Title 2-24-	16	Ī	THIS POUTOS Title 3/11/2016 Date	







WV 512707 EQT Production Company GRT 27

GRT 27

H1, 512706⊚ **H2, 512707**⊚ H3, 512708⊚

WV 512707 coordinates:

NAD 27 N: 404,499.26 E: 1,823,174.39

NAD 27 N: 404,499.26 E: 1,823,174.39

NAD 83 UTM N: 4,384,722.01 E: 574,907.93

WV 512707 Landing Point coordinates:

NAD 27 N: 404,234.67 E: 1,822,624.87

NAD 27 L: 39,008153 Long: 49,129558

NAD 83 UTM N: 4,384,383.06 E: 574,741.84

WV 512707 Bottom Hole coordinates:

NAD 27 N: 401,141.52 E: 1,824,002.14

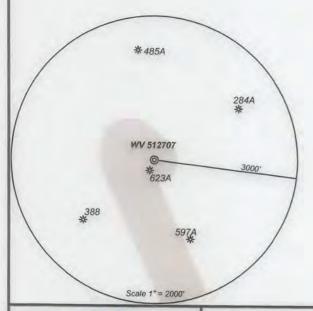
NAD 27 N: 401,141.52 E: 1,824,002.14

NAD 27 Let: 39,599887 Long: 49,124592

NAD 83 UTM N: 4,383,703.21 E: 575,177.17

West Virginia Coordinate System of 1927 (North Zone) based upon Differential GPS Measurements.
Plat orientation, comer and well ties are based upon the grid north meridian.
Well location references are based upon the grid north meridiar.
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	9	02	Grant	Michael Scott Page	5.00
13	9	03	Grant	Linda Wilson	2.00
14	9	04	Grant	Linda Wilson	0.04
15	24	50	Clay	Roy D. & Judith Kay Murray	85.50
16	24	56	Clay	Jack J. Starsick	10.81
17	9	05	Grant	Linda Wilson	1.86
18	9	06	Grant	Virginia M. H	16.00
19	17	23.16	Grant	Cameron C. Plum, et al.	148.10
20	17	23.9	Grant	James H. & Mary Ann Harmon	3.10
21	17	23.10	Grant	Robert D. Tomago Jr.	1.26
22	17	23.13	Grant	Robert A & Myrtle R. Forquer	0.808
23	17	1.1	Grant	Rickey C. & Donna J. Adkins	3.13
24	23	23	Clay	Philip A. Starsick	38.00
25	23	22.1	Clay	Wade Irrevocable Family Trust	44.34
26	17	02	Grant	Gary R. & Heather S. Vangilder	0.125



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

Well References

The state Route

Well References

Well References

The state Route

Well References

The state Route

The state Route

Well References

The state Route

Well References

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The state Route

Well References

The state Route

Well References

The state Route

The



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.

P.S. 2092

NO. 2092
STATE OF STATE OF SEAL

FILE NO: _138-20-C-14

DRAWING NO: _138-14 GRT27 H2.dwg

SCALE: _____1" = 2000'

MINIMUM DEGREE OF ACCURACY: ______1:2500

PROVEN SOURCE OF ELEVATION:

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

NGS CORS Station	_	Wa Serven US	-	STATE CO	UNTY	PERMIT
WELL TYPE: □ OIL ☑ GAS	☐ LIQUID INJECTION	N □ WASTE DISPOS	AL			
(IF GAS) PROD		☐ DEEP ☒ SHALLO	WC			
	ing 1229' WATERSHI	ED Indian Creek		QUADRANG	GLE: C	Grant Town
DISTRICT: Grant		COUNTY:	Monongalia		04	10010040
SURFACE OWNER: Bernard D.	Pratt			ACREA	GE: 6	29/2016
ROYALTY OWNER: Wilma Ru	th Goodwin, et al.	LEASE NO:	300694	ACREA		
PROPOSED WORK: INDRILL				□ PLUG OFF	OLDI	FORMATION
□PERFORATE NEW FORMAT						
□ PLUG AND ABANDON □ CLE	AN OUT AND REPLUG	TARGET FORMATION:	Marcellus	ESTIMATE	D DEP	TH: 7,524'
WELL OPERATOR: EQT Produ	ction Company	DESIGNATED AGENT:	Rex C. Ray			
ADDRESS: 115 Profes	sional Place PO Box 280	ADDRESS:	115 Professio	115 Professional Place PO Box 280		
Bridgeport,	WV 26330		Bridgeport, W	V 26330		

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

\$700101740

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

WV Department of 21
Environmental Protoctor

Lease No.	Grantor, Lessor, etc.	Grantee, Lessee, etc. Royalt	y 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 (Wetze
	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

4706701740

RECEIVED
Office of Oil and Gas

FEB 2 9 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 5130. 4706101748 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

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

Date of Notice Certification:			API No. 47		133
				Well No. 512	
Notice has	been given		wen Pad r	Name: GRT27	
Pursuant to tl	he provisions in West Virginia Code	§ 22-6A, the Operator has prov	ided the rec	juired parties	with the Notice Forms list
below for the	tract of land as follows:				
State: County:	WV Monongalia		Easting:	574,907.92	
District:	Grant		Northing:	4,384,722.01	
Quadrangle:	Grant Town		Public Road Access: RT 250 Generally used farm name: Bernard D Pratt		
Watershed:	Indian Creek	Generally used fai	im name:	Bernard D Pratt	
it has provide information roof giving the requirements Virginia Code	the secretary, shall be verified and ed the owners of the surface described the owners of the surface described the owner of the surface owner notice of entry to sof subsection (b), section sixteen to a \$22-6A-11(b), the applicant shall have been completed by the applica	ibed in subdivisions (1), (2) an ection sixteen of this article; (ii) urvey pursuant to subsection (a of this article were waived in valued to the tender proof of and certify to the	d (4), subs that the red a), section to writing by	ection (b), sequirement was quirement was en of this arti the surface ov	ction ten of this article, to deemed satisfied as a resicle six-a; or (iii) the notion
Durguent to	West Vincinia Cada 6 22 CA d. O.		110000	4017	4.9
that the One	West Virginia Code § 22-6A, the Or rator has properly served the require	perator has attached proof to thi	is Notice Co	ertification	
	ECK ALL THAT APPLY	ed parties with the following:			OOG OFFICE USE
PELASE CHE	CRALL HIATAFILT				ONLY
	TICE OF SEISMIC ACTIVITY or	NOTICE NOT REQUIRE SEISMIC ACTIVITY WAS			
☐ 1. NOT		SEISMIC ACTIVITY WAS	CONDUCT	TED	ONLY RECEIVED/
☐ 1. NOT☐ 2. NOT☐	FICE OF SEISMIC ACTIVITY or	SEISMIC ACTIVITY WAS	CONDUCT Y WAS CO ED BECAU	TED ONDUCTED USE	ONLY RECEIVED/ NOT REQUIRED
☐ 1. NOT☐ 2. NOT☐	FICE OF SEISMIC ACTIVITY or	SEISMIC ACTIVITY WAS A VEY or I NO PLAT SURVE NOTICE NOT REQUIRE NOTICE OF ENTRY FOR PI	CONDUCT Y WAS CO ED BECAU LAT SURV	PED ONDUCTED USE EY	ONLY RECEIVED/ NOT REQUIRED RECEIVED/
☐ 1. NOT☐ 2. NOT☐ 3. NOT☐	FICE OF SEISMIC ACTIVITY or	SEISMIC ACTIVITY WAS A VEY OF NO PLAT SURVED NOTICE NOT REQUIRE NOTICE OF ENTRY FOR PI WAS CONDUCTED OF WRITTEN WAIVER BY	CONDUCT Y WAS CO ED BECAU LAT SURV	PED ONDUCTED USE EY	ONLY RECEIVED/ NOT REQUIRED RECEIVED/
☐ 1. NOT☐ ☐ 2. NOT☐ ☐ 3. NOT☐ ☐ 4. NOT☐	FICE OF SEISMIC ACTIVITY or	SEISMIC ACTIVITY WAS A VEY OF NO PLAT SURVED NOTICE NOT REQUIRE NOTICE OF ENTRY FOR PI WAS CONDUCTED OF WRITTEN WAIVER BY	CONDUCT Y WAS CO ED BECAU LAT SURV	PED ONDUCTED USE EY	ONLY RECEIVED/ NOT REQUIRED RECEIVED/ NOT REQUIRED

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.

Certification of Notice is hereby given:

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 PUBLIC
STATE OF WEST VIIGINIA
RESECCA L. WANSTREET
EAT PRODUCTION COMPANY
PO BOX 280
BIILDGEPORT, MV 26230
My connission expires 2 art 07, 2020

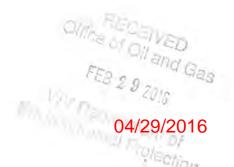
Subscribed and sworn before me this 24 day of February 2016

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 deepprivacyofficer@wv.gov.

4706101748



API NO. 47- 061 -	
OPERATOR WELL NO.	512707
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: 2/39/10/Date Permit Application Filed:	2/29/10
	APPROVAL FOR THE OF AN IMPOUNDMENT OR PIT
Delivery method pursuant to West Virginia Code § 22-6A	s-10(b)
	THOD OF DELIVERY THAT REQUIRES A CEIPT OR SIGNATURE CONFIRMATION
certificate of approval for the construction of an impoundment of registered mail or by any method of delivery that requires a recessediment control plan required by section seven of this article, at the surface of the tract on which the well is or is proposed to be oil and gas leasehold being developed by the proposed well wor described in the erosion and sediment control plan submitted purpoperator or lessee, in the event the tract of land on which the well work, if the surface tract is to be used for the placement, continuously in the impoundment or pit as described in section nine of this article; (have a water well, spring or water supply source located within a provide water for consumption by humans or domestic animals; proposed well work activity is to take place. (c)(1) If more than the subsection (b) of this section hold interests in the lands, the applantation of this article to the contrary, notice to a lien holder is	date of the application, the applicant for a permit for any well work or for a prit as required by this article shall deliver, by personal service or by ipt or signature confirmation, copies of the application, the erosion and not the well plat to each of the following persons: (1) The owners of record of located; (2) The owners of record of the surface tract or tracts overlying the k, if the surface tract is to be used for roads or other land disturbance as resuant to subsection (c), section seven of this article; (3) The coal owner, ll proposed to be drilled is located [sic] is known to be underlain by one or reference tracts overlying the oil and gas leasehold being developed by the proposed instruction, enlargement, alteration, repair, removal or abandonment of any 5) Any surface owner or water purveyor who is known to the applicant to one thousand five hundred feet of the center of the well pad which is used to and (6) The operator of any natural gas storage field within which the three tenants in common or other co-owners of interests described in icant may serve the documents required upon the person described in the on eight, article one, chapter eleven-a of this code. (2) Notwithstanding any not notice to a landowner, unless the lien holder is the landowner. W. Va. to provide the Well Site Safety Plan ("WSSP") to the surface owner and any ing as provided in section 15 of this rule.
☐ Application Notice ☐ WSSP Notice ☐ E&S Plan Not	ice Well Plat Notice is hereby provided to:
SURFACE OWNER(s) Name: Bernard D Pratt Address: 1245 Hagans Rd	☐ COAL OWNER OR LESSEE Name: See Attached
Core WV 26541	Address:
Name:Address:	COAL OPERATOR
☑ SURFACE OWNER(s) (Road and/or Other Disturbance)	Name: PECEIVED
Name: Bernard D Pratt	Address: OF WATER WELL SURFACE OWNER OF WATER WELL
Address: 1245 Hagans Rd	Address: SURFACE OWNER OF WATER WELL AND/OR WATER PURVEYOR(s) FES 2 9
Address: 1245 Hagans Rd Core WV 26541	Address: SURFACE OWNER OF WATER WELL AND/OR WATER PURVEYOR(s) Name: See Attached
Address: 1245 Hagans Rd Core WV 26541 Name:	Address: SURFACE OWNER OF WATER WELL AND/OR WATER PURVEYOR(s) Name: See Attached Address:
Address: 1245 Hagans Rd Core WV 26541	Address: SURFACE OWNER OF WATER WELL AND/OR WATER PURVEYOR(s) Name: See Attached Address:
Address: 1245 Hagans Rd Core WV 28541 Name: Address: SURFACE OWNER(s) (Impoundments or Pits) Name: Bernard D Pratt	Address: SURFACE OWNER OF WATER WELL AND/OR WATER PURVEYOR(s) Name: See Attached Address: OPERATOR OF ANY NATURAL GAS STORAGE FIELD Name:
Address: 1245 Hagans Rd Core WV 26541 Name: Address: SURFACE OWNER(s) (Impoundments or Pits)	Address: SURFACE OWNER OF WATER WELL AND/OR WATER PURVEYOR(s) Name: See Attached Address: OPERATOR OF ANY NATURAL GAS STORAGE FIELD

API NO. 47-061 OPERATOR WELL NO. 512707
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.wy.gov/oil-and-gas/pages/default.aspx.

Well Location Restrictions

Pursuant to W. Va. Code § 22-6A-12, Wells may not be drilled within two hundred fifty feet measured horizontally from any existing water well or developed spring used for human or domestic animal consumption. The center of well pads may not be located within six hundred twenty-five feet of an occupied dwelling structure, or a building two thousand five hundred square feet or larger used to house or shelter dairy cattle or poultry husbandry. This limitation is applicable to those wells, developed springs, dwellings or agricultural buildings that existed on the date a notice to the surface owner of planned entry for surveying or staking as provided in section ten of this article or a notice of intent to drill a horizontal well as provided in subsection (b), section sixteen of this article was provided, whichever occurs first, and to any dwelling under construction prior to that date. This limitation may be waived by written consent of the surface owner transmitted to the department and recorded in the real property records maintained by the clerk of the county commission for the county in which such property is located. Furthermore, the well operator may be granted a variance by the secretary from these distance restrictions upon submission of a plan which identifies the sufficient measures, facilities or practices to be employed during well site construction, drilling and operations. The variance, if granted, shall include terms and conditions the department requires to ensure the safety and protection of affected persons and property. The terms and conditions may include insurance, bonding and indemnification, as well as technical requirements. (b) No well pad may be prepared or well drilled within one hundred feet measured horizontally from any perennial stream, natural or artificial lake, pond or reservoir, or a wetland, or within three hundred feet of a naturally reproducing trout stream. No well pad may be located within one thousand feet of a surface or ground water intake of a public water supply. The distance from the public water supply as identified by the department shall be measured as follows: (1) For a surface water intake on a lake or reservoir, the distance shall be measured from the boundary of the lake or reservoir. (2) For a surface water intake on a flowing stream, the distance shall be measured from a semicircular radius extending upstream of the surface water intake. (3) For a groundwater source, the distance shall be measured from the wellhead or spring. The department may in its discretion, waive these distance restrictions upon submission of a plan identifying sufficient measures, facilities or practices to be employed during well site construction, drilling and operations to protect the waters of the state. A waiver, if granted, shalf 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 permitter of 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

API NO. 47-061

OPERATOR WELL NO. 512707

Well Pad Name: GRT27

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

Water Well Testing:

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

Water Testing Laboratories:

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

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

W. Va. Code § 22-6A-18 requires that (b) unless rebutted by one of the defenses established in subsection (c) of this section, in any action for contamination or deprivation of a fresh water source or supply within one thousand five hundred feet of the center of the well pad for horizontal well, there is a rebuttable presumption that the drilling and the oil or gas well or either was the proximate cause of the contamination or deprivation of the fresh water source or supply. (c) In order to rebut the presumption of liability established in subsection (b) of this section, the operator must prove by a preponderance of the evidence one of the following defenses: (1) The pollution existed prior to the drilling or alteration activity as determined by a predrilling or prealteration water well test. (2) The landowner or water purveyor refused to allow the operator access to the property to conduct a predrilling or prealteration water well test. (3) The water supply is not within one thousand five hundred feet of the well. (4) The pollution occurred more than six months after completion of drilling or alteration activities. (5) The pollution occurred as the result of some cause other than the drilling or alteration activity. (d) Any operator electing to preserve its defenses under subdivision (1), subsection (c) of this section shall retain the services of an independent certified laboratory to conduct the predrilling or prealteration water well test. A copy of the results of the test shall be submitted to the department and the surface owner or water purveyor in a manner prescribed by the secretary. (e) Any operator shall replace the water supply of an owner of interest in real property who obtains all or part of that owner's supply of water for domestic, agricultural, industrial or other legitimate use from an underground or surface source with a comparable water supply where the secretary determines that the water supply has been affected by contamination, diminution or interruption proximately caused by the oil or gas operation, unless waived in writing by that owner. (f) The secretary may order the operator conducting the oil or gas operation to: (1) Provide an emergency drinking water supply within twenty-four hours; (2) Provide temporary water supply within seventy-two hours; (3) Within thirty days begin activities to establish a permanent water supply or submit a proposal to the secretary outlining the measures and timetables to be used in establishing a permanent supply. The total time in providing a permanent water supply may not exceed two years. If the operator demonstrates that providing a permanent replacement water supply cannot be completed within two years, the secretary may extend the time frame on case-by-case basis; and (4) Pay all reasonable costs incurred by the real property owner in securing a water supply. (g) A person as described in subsection (b) of this section aggrieved under the provisions of subsections (b), (e) or (f) of this section may seek relief in court... (i) Notwithstanding the denial of the operator of responsibility for the damage to the real property owner's water supply or the status of any appeal on determination of liability for the damage to the real property owner's water supply, the operator may not discontinue providing the required water service until authorized to do so by the secretary or a court of competent jurisdiction. 4706101740

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

FEB 2 9 2016

MAY Department of Environment of

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.

API NO. 47-061 -	
OPERATOR WELL NO. 512707	
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;

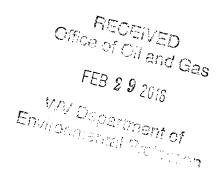
(3) Damage would occur to publicly owned lands or resources; or

4706101760

(4) The proposed well work fails to protect fresh water sources or supplies.

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

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



API NO. 47-061 OPERATOR WELL NO. 512707 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.

Subscribed and sworn before me this 22 day of February

Janotreet

Notary Public

My Commission Expires

4706101748

Office of Gill and Gas FEB 2 9 2016

1 " = 2000' Topo Quad: Grant Town & Rivesville 7.5' Scale: County: Monongalia Date: February 23, 2016 Clay & Grant District: Project No: GRT 27 Well Pad Water Торо BM 1022 A Hagans Site 7200 Farland Site 8 PIPELISITE 5 Site 9 Graig Run GRANT MONONGALIA MARION SURVEYING AND MAPPING SERVICES PERFORMED BY: ALLEGHENY SURVEYS, INC. **EQT Production Company** 1-800-482-8606 237 Birch River Road Birch River, WV 26610 PH: (304) 649-8606 FAX: (304) 649-8608 P.O. Box 280 Bridgeport, WV 26330

Surface Owners:

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

4706101

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 mailing BRIGHTEN SOMEONE'S MAILBOX. Greeting

Bernard Prett

************************ BRIDGEPORT 205 S VIRGINIA AVE BRIDGEPORT WV

263309998 5510560098

02/26/2016 (800)275-8777 12:57 PM *************************

Product Sale Qty Description

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

Final

Price

cards available for purchase at select Post Offices, ************

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.

************* 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 Refunds for guaranteed services only Thank you for your business

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840-5250-0594-001-00004-04052-02

or scan this code with your mobile device:



or call 1-800-410-7420.

YOUR OPINION COUNTS

04/29/2016

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

8708101716

BRIDGEPORT 205 S VIRGINIA AVE BRIDGEPORT WV 263309998

5510560098 02/26/2016

(800)275-8777

************************* Product Description

Sale Final Qty Price

Prepaid Mail (Weight: 0 1bs. 8.30 oz.) (Destination: MAIDSVILLE, WV 26541) (Acceptance Date: 02/26/2016 12:57

(Label #:70150640000334738603)

Total

\$0.00

************** BRIGHTEN SOMEONE'S MAILBOX. Greeting cards available for purchase at select Post Offices. *************

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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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HELP US SERVE YOU BETTER

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> or scan this code with your mobile device:



or call 1-800-410-7420. YOUR OPINION COUNTS

Bill #: 840-52500594-1-404062429/2016 Clerk:

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 Date of Notic	Requirement: Notice shall be provided at lease: 02/04/2016 Date Permit	st TEN (10) days prior to filing a Application Filed: 02/14/2016	a permit application.	
Delivery met	hod pursuant to West Virginia Code § 22-6.	A-16(b)		
☐ HAND DELIVE	CERTIFIED MAIL RY RETURN RECEIPT REQUE	STED		
drilling a hori of this subsect subsection ma	ted or hand delivery, give the surface owner n zontal well: <i>Provided</i> , That notice given pursion as of the date the notice was provided to to be waived in writing by the surface owner. e, facsimile number and electronic mail addre	rior to filing a permit application to tice of its intent to enter upon to suant to subsection (a), section to the surface owner: <i>Provided</i> , how The notice, if required, shall inc	he surface owner's land for the purpose of en of this article satisfies the requirements wever, That the notice requirements of this lude the name, address, telephone number	
Name: Bemard I	/	R(s): Name:		
Address: 1245 Core WV 26541	Hagans Rd.	Address:	010177	
State: County:	est Virginia Code § 22-6A-16(b), notice is he ner's land for the purpose of drilling a horizor www.	ereby given that the undersigned ntal well on the tract of land as for the UTM NAD 83 Easting: Northing:	well operator has an intent to enter upon sllows: 574,907.92 4,384,722.01	
District:	Grant	Public Road Access: Generally used farm name:	RT 250	
Quadrangle: Watershed:	Grant Town Indian Creek		Bernard D Pratt	
Pursuant to W facsimile num related to hori	Shall Include: Vest Virginia Code § 22-6A-16(b), this notice the ber and electronic mail address of the operation and drilling may be obtained from the Section of Street, SE, Charleston, WV 25304 (304-5)	itor and the operator's authorize retary, at the WV Department of	ed representative. Additional information	
Notice is her	eby given by:			
	EQT Production Company	Authorized Representative:	Victoria Roark	
Address:	115 Professional Place PO Box 280	Address:	115 Professional Place PO Box 280	
Bridgeport WV 263	330	Bridgeport WV 26330		
Telephone:	304-848-0076	Telephone:	304-848-0076	
Email:	vroark@eqt.com	Email:	vroark@eqt.com	
Facsimile:	304-848-0041	Facsimile:	304-848-0041	
and the latest	56 F. Vic. 2 C		She Wild Divers	

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 deprivacyofficer@wv.gov.

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





WW-6A5 (1/12)

Operator Well No. 512707

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

Notice Time Date of Noti	Requirement: notice shall be provide: 2 29 110 Date Pern	ded no later than the filing it Application Filed:	g date of permi	t application.
Delivery me	thod pursuant to West Virginia Co	de § 22-6A-16(c)		
E CERTI	FIED MAIL	☐ HAND		
	RN RECEIPT REQUESTED	DELIVERY		
Pursuant to Nettern receipt the planned or required to be drilling of a damages to the (d) The notice of notice.	W. Va. Code § 22-6A-16(c), no later requested or hand delivery, give the operation. The notice required by the provided by subsection (b), section horizontal well; and (3) A proposed he surface affected by oil and gas ope es required by this section shall be given by provided to the SURFACE OW is listed in the records of the sheriff at D Pratt	r than the date for filing surface owner whose lar his subsection shall inclu- ten of this article to a sur- surface use and comper- rations to the extent the o- yen to the surface owner	d will be used f ide: (1) A copy face owner who sation agreemed amages are com at the address li	ication, an operator shall, by certified mail for the drilling of a horizontal well notice of of this code section; (2) The information se land will be used in conjunction with the nt containing an offer of compensation for appensable under article six-b of this chapter, sted in the records of the sheriff at the time
operation on State:	est Virginia Code § 22-6A-16(c), no the surface owner's land for the purp	tice is hereby given that toose of drilling a horizont	al well on the tra Easting:	well operator has developed a planned act of land as follows: 574,907.92
County: District:	Monongalia		Northing:	4,384,722.01
Quadrangle:	Grant Town	Public Road		RT 250
Watershed:	Indian Creek	Generally us	ed farm name:	Bernard D Pratt
Pursuant to Wato be provide horizontal we surface affect information re	old by W. Va. Code § 22-6A-10(b) to ll; and (3) A proposed surface use an ed by oil and gas operations to the celated to horizontal drilling may be located at 601 57th Street, SE,	o a surface owner whos nd compensation agreeme extent the damages are c obtained from the Secre	e land will be un nt containing ar compensable und tary, at the WV	code section; (2) The information required used in conjunction with the drilling of a offer of compensation for damages to the der article six-b of this chapter. Additional Department of Environmental Protection or by visiting www.dep.wv.gov/oil-and-drilling-number-10">www.dep.wv.gov/oil-and-drilling-number-10">www.dep.wv.gov/oil-and-drilling-number-10">www.dep.wv.gov/oil-and-drilling-number-10">www.dep.wv.gov/oil-and-drilling-number-10">www.dep.wv.gov/oil-and-drilling-number-10">www.dep.wv.gov/oil-and-drilling-number-10">www.dep.wv.gov/oil-and-drilling-number-10">www.dep.wv.gov/oil-and-drilling-number-10"
Well Operator	EQT Production Company	Address:	115 Professional Pla	are PO Roy 280
Telephone:	304-848-0076		Bridgeport WV 2633	
Email:	vroark@eqt.com	Facsimile:	304-848-0041	7
			201312 5001	

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 deprivacyofficer@wv.gov.

Surface Owners:

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

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

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1700101-

************************* BRIDGEPORT 205 S VIRGINIA AVE BRIDGEPORT WV

263309998 5510560098

02/26/2016 (800) 275-8777 12:57 PM

Product Description

Sale Qty Price

Prepaid Mail

(Weight:O 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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*************** 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

04/29/2016



WEST VIRGINIA DEPARTMENT OF TRANSPORTATION

Division of Highways

Earl Ray Tomblin Governor

1900 Kanawha Boulevard East • Building Five • Room 110 Charleston, West Virginia 25305-0430 • (304) 558-3505

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

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, P.E.

Regional Maintenance Engineer Central Office O&G Coordinator

Cc:

Nick Bumgardner

EQT Production Company

CH, OM, D-4, File

Anticipated Frac Additives Chemical Names and CAS numbers 000007740

<u>Material</u>	<u>Ingredient</u>	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

WW-6A7 (6-12)OPERATOR: EQT Production WELL NO: 512706, 512707, 512708, 513693 PAD NAME: GRT27 REVIEWED BY: WELL RESTRICTIONS CHECKLIST HORIZONTAL 6A WELL 4700101748 Well Restrictions At Least 100 Feet from Pad and LOD (including any E&S Control Feature) to any Perennial Stream, Lake, Pond, Reservoir or Wetland; OR **DEP Waiver and Permit Conditions** At Least 300 Feet from Pad and LOD (including any E&S Control Feature) to any Naturally Producing Trout Stream: OR DEP Waiver and Permit Conditions At Least 1000 Feet from Pad and LOD (including any E&S Control Feature) to any Groundwater Intake or Public Water Supply; OR **DEP Waiver and Permit Conditions** At Least 250 Feet from an Existing Water Well or Developed Spring to Well Being Drilled; OR Surface Owner Waiver and Recorded with County Clerk, OR **DEP Variance and Permit Conditions** At Least 625 Feet from an Occupied Dwelling Structure to Center of the Pad; OR Surface Owner Waiver and Recorded with County Clerk, OR **DEP Variance and Permit Conditions**

At Least 625 Feet from Agricultural Buildings Larger than 2500 Square Feet to the Center

Surface Owner Waiver and Recorded with County Clerk, OR

DEP Variance and Permit Conditions

of the Pad; OR

FLOODPLAIN	N COND	ITIONS	,
DO SITE CONSTRUCTON ACTIVITIES	TAKE PLACE IN F	LOCOPLAIN	YES
PERMIT NEEDED FROM COUNTY FL	OODPLAIN COORD	DINATOR:	YES
HEC RAS STUDY COMPLETED:			YES
FLOODPLAIN SHOWN ON DRAWINGS:			YES
FIRM MAP NUMBER(S) FOR SITE: 54017C0225C			
ACREAGES OF CONSTRUCTION IN F	LOODPLAIN:	0.64	

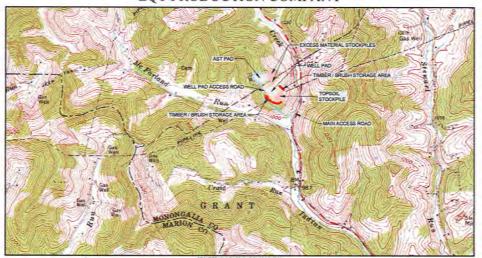
WELL LEGEND 512706- LAT: 39.608997 / LONG. -80.127449 512707- LAT: 39.608971 / LONG. -80.127407 512708- LAT: 39.608945 / LONG. -80.127366 513693- LAT: 39.608920 / LONG. -80.127324 513694- LAT: 39.608894 / LONG. -80.127283 513695- LAT: 39.608868 / LONG. -80.127242 516665- LAT: 39.608842 / LONG. -80.127200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

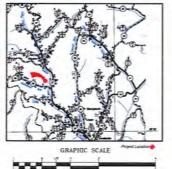
APPROVED WVDEP OOG 2/ 1 4/20/2016



GRT 27

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





on reflects two AST pads. The compute above grade storage volume is less than 15 acre filling method pumped, tanks will be contained.

Homor Brothers Engineers make no certifications reli to the design, construction or materials associated with the Above Ground Storage Tanks (AST's). West Virginia Coordinate System of 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 RW 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 Acrest 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

Project Contacts

Keeley Cunningham - EOT Production Comp. 304848-0095 Off.

Surveyor & Engineer

BQT PRODUCTIO COMPANY

SITE WAY PAD S WELI CLAY &

237

Engineers

SHEET INDEX

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SCHEDULE OF Q	UANTITIES3
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MAIN ACCESS RO	DAD PROFILE & CROSS SECTIONS15-19
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RECLAMATION P	LANS25-26

DATE	REVISIONS	Date: 12/17/2015	
01/05/2016	ADDED TWO WELL NUMBERS	Scale: AS SHOWN	
3/7/2016	ADDED HOUSE TO STARSICK PROPERTY	Designal By TBC	
		Fig. No. of the last of the	
		Page 1 of 26	

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.

MISS Utility of West Virginia

IT'S THE LAW!!





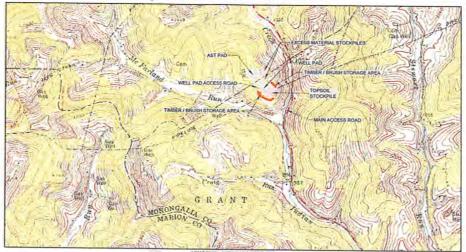
FLOODPLAIN	N CONE	DITIONS	;
DO SITE CONSTRUCTON ACTIVITIES	S TAKE PLACE IN	FLOODPLAIN	YES
PERMIT NEEDED FROM COUNTY FU	CODPLAIN COOF	DINATOR	YES
HEC RAS STUDY COMPLETED			YES
FLOODPLAIN SHOWN ON DRAWINGS.			YES
FIRM MAP NUMBER(S) FOR SITE	54017C02250		
ACREAGES OF CONSTRUCTION IN F	PLOCOPLAIN	0.64	

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

GRT 27

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



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

The inflamation reflects two AST pacts. The computer above grade storage volume is less than 15 acre feet. Alling method pumped, tanks will be contained.

Homor Brothers Engineers make no certifications relating to the design, construction or materials associated with the Above Ground Storage Tanks (AST₂).

Wirst Virginia Coordinate System of 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 Acrest

AFFECTED PROPERTIES

WYDOH RAW 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 Acrest 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

Frond Contacts

Surveyor & Engineer

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

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



237



Engineers



THIS DOCUMENT PREPARED FOR EQT PRODUCTION COMPANY

T GRT 27
PAD SITE WELL PA

SHEET INDEX

COVER SHEET / LOCATION MAP EXISTING CONDITIONS PLAN SCHEDULE OF QUANTITIES CONSTRUCTION, GENERAL AND EBS NOTES OVERVIEW PLAN FINAL DESIGN FLANS

WELL FAD PROPILE & CROSS SECTIONS

AST FAD PROPILE & CROSS SECTIONS

TOPOGL, STOCHLE PROPILE & CROSS SECTIONS

TOPOGL STOCHLE PROPILE & CROSS SECTIONS

WELL FAD ACCESS ROLD PROPILE & CROSS SECTIONS

WELL FAD ACCESS ROLD PROPILE & CROSS SECTIONS

CONSTRUCTION DETAILS

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RECLAMATION FLANS FINAL TIESIGN PLANS

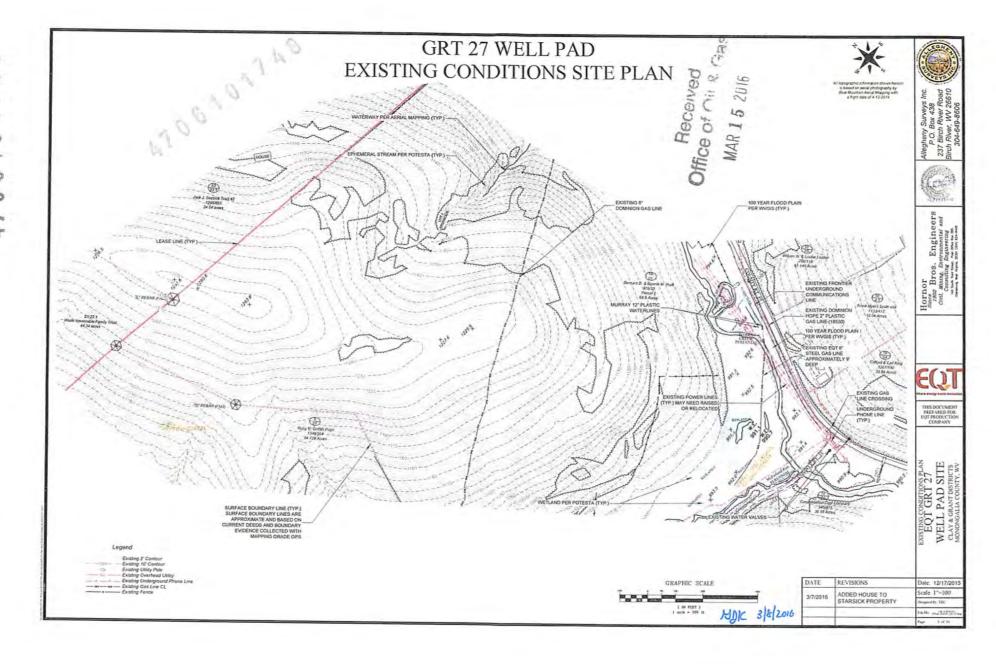
ATE	REVISIONS	Date 12/17/201
1/05/2016	ADDED TWO WELL NUMBERS	Scale: AS SHOW
3/7/2016	ADDED HOUSE TO STARSICK PROPERTY	Diregard By THE
		Fig. No. of Street, St
		Tup 1 of 26

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!!



Call before you dig.



item Description	UMT	QUANTITY
1. Cleaning, Grubbing E& S Controls		
A. Clearing & Grubbing	'AC	22.77
B 24" Sift Sock or Sift Fence	UF	4,097
C. Super Silt Fence	UF	75
D. Straw Wattle	.15	4,630
E. Slope Erosion Control Matting	5Y	28,488
F. Perimeter berm	1F	1,365
2. Excavation (Cut Only)		
A. Construction Entrance	EA .	1
5. Well Pad	TONS	45,879
C. Well Pad Access Road	CY	429
D. Flow Back Pit.	CY	0
E Allowe Ground Storage Tank (AST) Pad (40% + 60% BEL)	EY	48,138
F. Main Access Road	CY	23,312
6. Topsoil	CY	17,053
H. Spoil	CY	38,702
L Diversion Datch (9)	1F	2,002
J. Roadside Ditch	1F	1,896
€. Ditch Linky (Access Road)		
1. Rip Rap.	TONS	578
2. Synthetic Matting (TRM)	5¥	0
3 MeMatting	51	0
L. Drift Pad Sump		
1. 6" HDPE Sump Drain.	LF .	312
2 24" Diameter HDPE Sump	EA	11.
1 Stone	-	
A 5"-8" Rip Rap (infets/Outlets)	TONS	-801
B #3 Stone (Ditch Checks)	TONS	14
C #3 Stone (Rock Drams)	TONS	. 0
4 Amount disco		
4. Aggregate Surfacing	-	
A Criti Pad Geotestile Fabric (Terra Tea HPG-37)	29	14,534
Briti Pad 1" Minus Crusher Buts Aggregate (2") C Drill Pad 6" Minus Crusher Buts Aggregate (8")	TONS	1,445
Access Roads 1' Minus Crusher Run Aggregate (2')	TONS	
Access Roads 6* Minus Crusher Run Aggregate (2') I Access Roads 6* Minus Crusher Run Aggregate (8')	TONS	578 2,311
Access Roads Geotestile Falling (Terra Tex HPG-37)	1000	2,311
6. AST Pad 1" Minut Crusher Run Aggregate (2")	TONS	1,467
H. AST Pad 5" Minut Crusher Run Aggregate (8")	TONS	
AST Pag S Minus Channel mun Aggingate (8") AST Pig Pad Grichestife Fabric (Terra Tex HPG 37)	59	5,870
F. No. 149 AND GROSERUSE REGISC (1672 16K HPTD-37)	31	18,976
5. Flow Eack Fit Liner - 60 mil.		
A. (Dee) 50 mil Layer	51	.0
3: 10 oz. Felt Under Layment	24	-0
6. Completion Back Pit Liner - 60 mil.		
A. (Dee) 60 mil Layer	172	.0
8. 10 az Felt Under Layment	- 54	
7. Road Culverts (4 Total)	-	
A. 12° CMP OR HOPE (D)	15	0
B 15" CMP OR HOPE (3)	LF .	105
C. 18" CMP OR HOPE (I)	LF .	105
C 24" ONP OR HOPE (II)	15	35
	1	74
S. A. Hydro Seeding	AC .	11.17
9. Fence and Gates	1	-
A. & Woven Wire Fenze @ UNT -4	LF.	0
8 45" Entry Swing Gate	EA.	0
S Reclimation	AC	5.28
PAROTAL		

GRADING VO	LUMES		
DESCRIPTION	CUT (CY)	FILL (CY)	NET (CY
MAIN ACCESS ROAD	23,312	18,433	4,879
WELL PAD	45,879	20,758	25,171
ABOVEGROUND STORAGE TANK (AST) FAD (NIK & GOK BBL)	48,138	39,80%	8,337
WELL PAD ACCESS ROAD	429	54	365
EXCESS MATERIAL STOCKPLES		38,702	-38,702
TOPSOIL STOCKPILE	17,053	0	17,053
TOTAL	134,811	117,758	17,053

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

NOTES

- 1 TOPSON, QUANTITY FOR THIS SITE IS ESTIMATED AT A UNIFORM THICKNESS OF 10" OVER THE ENTIRE EXCAVATED AREA. ACTUAL QUANTITY MAY WARY
- AREAS RECEIVING JUTE MATTING AND SYNTHETIC MATTING (TRM) ARE TO BE SEEDED, LIMED AND PERTILIZED PRIOR TO INSTALLATION OF MATERIALS.
- 3 SITE (ACCESS ROAD) IS WITHIN THE 100 YEAR FLOOD PER FIRM PANEL 54017002250
- 4 ALL PROPOSED SLOPES TO BE 2 1 EXCEPT WHERE NOTED

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.

GRADING FACTO	RS
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



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



Engine Hornor
Since Bros.
Cott. Mining. Engl



THIS DOCUMENT PREPARED FOR EQT GATHERING ELC

SITE EQT GRT 2
WELL PAD SI
CLAY & GRANT DISTRI

DATE	REVISIONS	Date: 12/17/2015
		Scale N/A
		Beigner'th, TRC
		Editor construction
		Page And St

CONSTRUCTION NOTES:

CONSTRUCTION OF ALL FILL EMBARMENTS (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

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

ROAD SIDE DITCHES SHALL HAVE

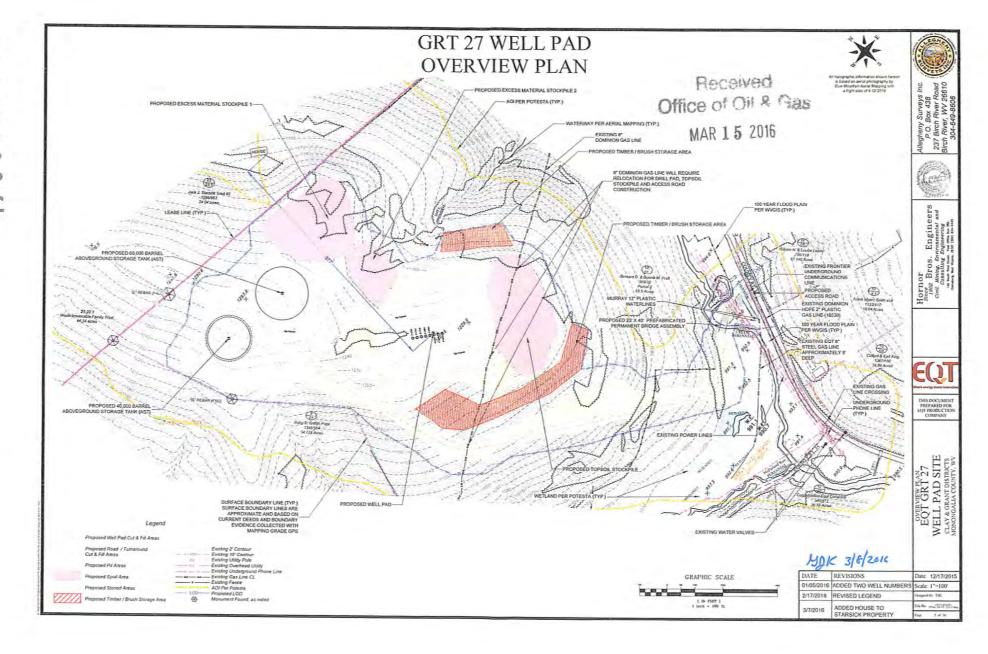
GRADES 0%-4% JUTE MATTING

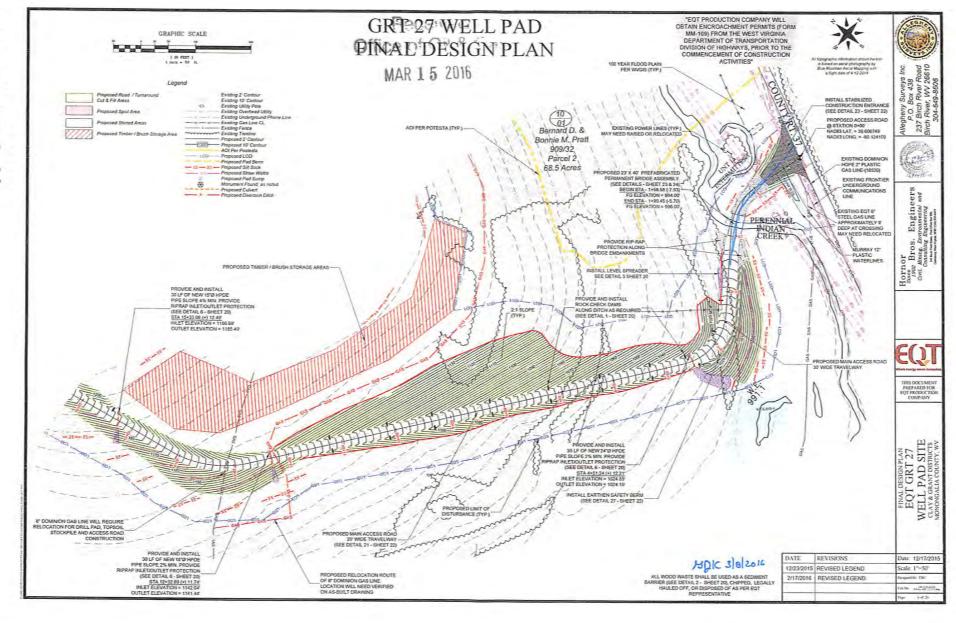
Master Legend Existing 27 Contrar
Existing 10 Contrar
Existing 10 Existing 10 Usiny
Existing Overhead Usiny
Existing Overhead Usiny
Existing Overhead Usiny
Existing Overhead Usiny
Existing France
Existing
Ex Proposed Well Pad Cut & Fill Amas Cut & Fill Areas Proposed Plat / AST Ped Areas Proposed Stoned Areas Proposed Timber / Brush Storage Area ... as mix.
... as Proposed Fill Bench, as noted Proposed Pit Berm Rectaire Area

Stabilized Construction Entrance

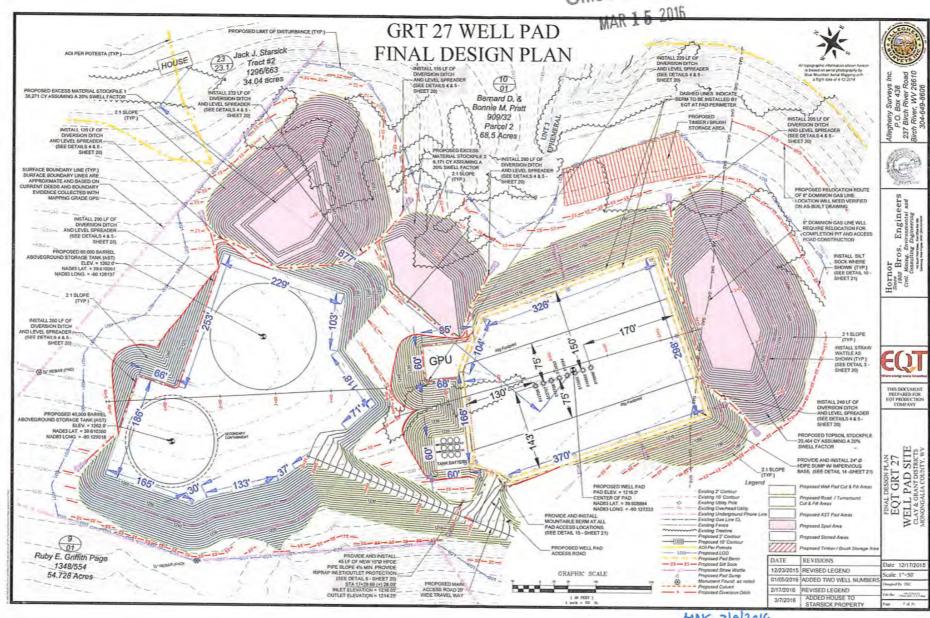
Alignment
Proposed 2' Contour
Proposed 10' Contour
AOI By Palesta
Proposed AOI
LOO LOD Proposed Sitt Sock Proposed Sitt Fence Proposed Super Sitt Fence Proposed Straw Wattle Proposed Cult Areas Proposed Fill Areas Proposed File Areas
Proposed Chien Dish
Proposed Chienten Dish
Proposed Chien Link Fence
with 42 Mars Gale
Proposed Rig Podepint
Proposed Rig Podepint
Proposed Rig Podepint
Proposed Rig Podepint
Proposed Right
Proposed Tot Breach
Chienten Chienten Chienten
Proposed Tot Breach
Chienten Chienten Chienten
Dimension, Werl Find 5. Rig Footport
Dimension, Werl Find 5. Right
Dimension Right
Dimension

MOK 3/8/2016





Received Office of Oil 2 Pas



MIK 3/8/2016

