

## west virginia department of environmental protection

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

Jim Justice , Governor Austin Caperton , Cabinet Secretary www.dep.wv.gov

Wednesday, March 15, 2017 WELL WORK PERMIT Horizontal 6A / New Drill

EQT PRODUCTION COMPANY (A) 120 PROFESSIONAL PLACE BUILDING II BRIDGEPORT, WV 26330

Re:

Permit approval for 516737 47-049-02429-00-00

This well work permit 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 any additional specific 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 of 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.

Per 35 CSR 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) 926-0450.

James A. Martin Chief

Operator's Well Number: 516737

Farm Name: PATRICK, WALTER & BEULAH U.S. WELL NUMBER: 47-049-02429-00-00

Horizontal 6A / New Drill

Date Issued: 3/15/2017

Promoting a healthy environment.

API Number: 49-02429

## PERMIT CONDITIONS

West Virginia Code § 22-6A-8(d) allows the Office of Oil and Gas to place specific conditions upon this permit. Permit conditions have the same effect as law. <u>Failure to adhere to the specified permit conditions may result</u> 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. 24 hours prior to the initiation of the completion process the operator shall notify the Chief or his designee.
- 8. During the completion process the operator shall monitor annular pressures and report any anomaly noticed to the chief or his designee immediately.
- 9. 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.
- 10. 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.

API Number: 49-02429

## **PERMIT CONDITIONS**

11. 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-6B (04/15) API NO. 47-295 - 0 2429

OPERATOR WELL NO. 516737

Well Pad Name: GRT28

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

1) Well Opera	tor: EQT Pro	oduction Company	306686	Marion	Lincoln	Grant Town
			Operator ID	County	District	Quadrangle
2) Operator's	Well Number:	516737	Well P	ad Name: GR	RT28	
3) Farm Name	/Surface Own	er: Walter & Beulah P	Patrick Public Ro	oad Access: C	R91	
4) Elevation, c	urrent ground	: 1191 El	evation, propose	d post-constru	ction: 1207	
5) Well Type	(a) Gas $\geq$ Other	Oil	Un	derground Sto	rage	
	(b)If Gas	Shallow X	Deep			
		Horizontal X				SDW
6) Existing Pag	d: Yes or No	No				12/12/2016
	arget Formatio 612', 101', 259	on(s), Depth(s), Antici 3 PSI	pated Thickness	and Expected	Pressure(s):	1250
8) Proposed To	otal Vertical D	Depth: 7612'				
9) Formation a	t Total Vertica	al Depth: Marcellus				
10) Proposed T	Total Measure	d Depth: 11842'				
11) Proposed I	Iorizontal Leg	Length: 3739'				
12) Approxima	ate Fresh Wate	er Strata Depths:	700'			
13) Method to	Determine Fre	esh Water Depths: B	y offset wells			
14) Approxima	ate Saltwater I	Depths: 1308, 1326,	1471'			
15) Approxima	ate Coal Seam	Depths: 29, 101, 15	55, 229, 394, 46	4, 486, 507,	545'	
16) Approxima	ate Depth to Po	ossible Void (coal mir	ne, karst, other):	507'		
		tion contain coal sean t to an active mine?	Yes X	N	No	
(a) If Yes, pro	ovide Mine In	fo: Name:				
		Depth:				
		Seam:				
		Owner:				

WW-6B (04/15) API NO. 47- 095 -

OPERATOR WELL NO. 516737
Well Pad Name: GRT28

18)

## CASING AND TUBING PROGRAM

TYPE	Size (in)	New or Used	<u>Grade</u>	Weight per ft. (lb/ft)	FOOTAGE: For Drilling (ft)	INTERVALS: Left in Well (ft)	CEMENT: Fill-up (Cu. Ft.)/CTS
Conductor	26	New	A-500	85.6	80	80	98 ft^3 / CTS
Fresh Water	18 5/8	New	J-55	87.5	579	579	940 ft^3 / CTS
Coal	13 3/8"	New	J-55	54.5	800	800	650 ft^3 / CTS
Intermediate	9 5/8	New	A-500	40	2297	2297	900 ft^3 / CTS
Production	5 1/2	New	P-110	20	11842	11842	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° inclination	
Liners						The state of the s	

SDW 12(12/2016

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	26	30	.312	884	707	Class A	1.18
Fresh Water	18 5/8	24	.435	2250	1800	See Variance	1.19
Coal	13 3/8	17 1/2	.38	2700	2160	See Variance	1.19
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 A/H	1.123/2.098
Tubing	2 3/8	NA	.19	7700			
Liners							

## **PACKERS**

Kind:		
Sizes:		
Depths Set:		

WW-6B (10/14)

## 4704902429 APINO.47-095

OPERATOR WELL NO. 516737 Well Pad Name: GRT28

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 6032'. Kick off and drill curve. Drill the 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, 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 250,000 gallons of water per stage. Sand sizes vary from 100 mesh to 20/40 mesh. Average approximately 250,000 pounds of sand per stage.

- 21) Total Area to be disturbed, including roads, stockpile area, pits, etc., (acres): 15.04
- 22) Area to be disturbed for well pad only, less access road (acres): 13.02
- 23) Describe centralizer placement for each easing string:
- Mine Protection: Bow spring centralizers One centralizer at the shoe and one spaced every 500'.
- Surface: Bow spring centralizers One centralizer at the shoe and one spaced every 500'.
- Intermediate: Bow spring centralizers- One centralizer 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 Mine Protection (Type 1 Cement) 0-3% Calcium Chlonde. Used to speed the setting of cement sturnes Surface (Type 1 Cement): 0-3% Calcium Chlonde. Used to speed the setting of cement sturnes. Intermediate (Type 1 Cement): 0-3% Calcium Chlonde. Used to speed the setting of cement slurnes.

Lead (Class A 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 (Class 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 % Calcum Carbonate. Acid solubility

## 25) Proposed borehole conditioning procedures:

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



west virginia department of environmental protection

Office of Oil and Gas 601 57th Street, SE Charleston, WV 25304 (304) 926-0450 (304) 926-0452 fax Earl Ray Tomblin, Governor Randy C. Huffman, Cabinet Secretary dep.wv.gov

March 18, 2014

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

Re: Cement Variance Request

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.

Office of Oil and Gas

WV Department of
Environmental Protection
03/17/2017



#### 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	í	
REGULATIONS OF CEMENTING OIL	í	
AND GAS WELLS	í	

## 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.

Promoting a healthy environment.

Office of Oil and Gas

DEC 0 2 2016

WV Department of Environmental Protection 03/17/2017

## CONCLUSIONS OF LAW

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

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

## ORDER

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

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

IN THE NAME OF THE STATE OF WEST VIRGINIA

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

James Martin, Chief Office of Oil and Gas Well 516737(GRT28H3) **EQT Production** Grant Town Quad Marion County, WV

335 Azimuth 2297 Vertical Section

Note: Diagram is not to scale

	Top Base			Casing and Cementing				Deepest Fresh Water	er; 700° 0
Formations	TVD TVD			Туре	Conductor	Mine Protection	Surface	Intermediate	III OProduction
Conductor	80			Hole Size, In.	30	24	17 1/2	12 3/8	rr 0 8 1/2
Pittsburgh	507 515	- a 111111		Casing Size, OD In.	26	18.625	13 3/8	9 5/8	0 51/2 <
Mine Protection	579	4		Casing Wall Thickness, In.	0.312	0.435	0.380	0.395	₩ 0.361
Base Fresh Water	700			Depth, MD	80'	579'	800'	2,297'	O 11,842'
Surface Casing	800	4		Weight	85.6#	87.5#	54.5#	40#	20#
				Grade	A-500	J-55	J-55	A-500	P-110
Base Red Rock	1328			New or Used	New	New	New	New	New
Maxton	1508 - 1607	1111		Burst (psi)	1378	2,250	2,700	3,950	12,640
Big Lime	1820 - 1940			Cement Class	A	A / Type 1	A / Type 1	A / Type 1	A/H
Big Injun	1940 - 2049	11111		Cement Yield	1.18	1.19	1,19	1.19	1.123 / 2.098
Weir	2130 - 2247	1111		Ten of Comment (Discount)					
Intermediate Casing	2297		<b>.</b>	Top of Cement (Planned)	Surface	Surface	Surface	Surface	500' above top Producing Zor
Gantz	2434 - 2465			Method	Displacement	Balanced/1" Grout	Displacement	Displacement	Displacement
Fifty foot	2478 - 2563			Est. Volume (cu ft)	98	940	650	900	2,396
Thirty foot	2592 - 2638						1	000	Calcium Carbonate, Fluid Los
Gordon	2667 - 2733						2020		Extender, Dispersent, Viscosif
Forth Sand	2746 - 2831			Possible Additives	N/A	Calcium Chloride,	Calcium	Calcium Chloride	Defoamer, POZ, Bonding Age
Bayard	3121 - 3189				6.00	LCM	Chloride	outdidn't official	Retarder, Anti-Settling/Suspen
							1 2 2 2 2 2 2		Agent
Warren	3308 - 3343								7.50
Speechley	3444 - 3558								
Balltown A	3576 - 3819								
Riley	4177 - 4243								
Benson	4832 - 5042								
Alexander	5130 - 5326		KOP @ 6,032						
Sonyea	6982 - 7177	100	141021						
Middlesex	7177 - 7238								
Genesee	7238 - 7375	4.4							
Geneseo	7375 - 7403	1.1							
Tully	7403 - 7458	11							
Hamilton	7458 - 7560	11							
Marcellus	7560 - 7660	11							1.4
Production Casing	11842 MD	ALCOHOL: NO WAY TO SERVICE AND ADDRESS OF THE PARTY OF TH		THE RESERVE THE PROPERTY OF THE PARTY OF THE	emilia la composición de	CONTRACTOR DESCRIPTION	WHEN THE PARTY OF	A STATE OF THE PARTY OF THE PAR	
Onondaga	7660	NOT THE OWNER OF THE PARTY.	Go alexander and a second	Lights Section and the section of th	District Control				
	1000					COLUMN TIME OF THE PARTY OF THE	All the second	A STATE OF THE PARTY OF THE PAR	
		Land suns @	7.040L TVD						
		Land curve @	7,612' TVD				Est. TD @	7,612'	TVD
			8,103' MD					11,842	2' MD
osed Well Work:									
and complete a new har	and the second second				~				

3,739

Lateral

2 2016

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Drill and complete a new horizontal well in the Marcellus formation.

Drill the vertical to an approximate depth of 6032'.

Kick off and drill curve. Drill lateral in the Marcellus. Cement casing.



July 14, 2016

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

Re: Casing on GRT28

Dear Mr. Smith,

EQT is requesting the 18 5/8" casing be set at 579' KB, 64' below the mined Pittsburgh coal seam and 30' below a workable coal seam. EQT is requesting the 13-3/8" casing be set at 800' KB, 100' below the deepest fresh water.

For the 9 5/8" casing string, EQT is requesting that the first well set the 9 5/8" casing at 3239' KB, 50' below the Bayard formation. Prior to cementing the 9 5/8" casing, a test will be performed to determine if the 9 5/8" casing string may be shortened. If the test is successful, the remaining wells on the pad will have 9 5/8" casing set at a shallower depth of 2297' KB, 50' below the Weir formation. If the test is unsuccessful, the remaining wells on the pad will have 9 5/8" casing set at the original set depth of 3239' KB. Upon completion of the test, the WV DEP inspector will be notified of the test results and the casing depth for the remaining wells on the pad will be discussed.

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

Sincerely,

Vicki Roark

Permitting Supervisor - WV

Enc.

REGEIVED Office of Oil and Gas DEC 0 2 2016

49-02429

625 Liberty Ave, Suite 1700 Pittsburgh PA 15222 www.eqt.com

TEL: (412) 395-3305 FAX: (412) 395-2156

John Centofanti Corporate Director, Environmental Affairs



(date)

[Conventional Well Operator] [address] [state]

RE: Marion County Hydraulic Fracturing Notice

Dear Sir/Madam,

EQT has developed a Marcellus pad (Granttown 28 pad) located in Marion County, WV. As an owner or operator of conventional natural gas wells in this area, we are requesting your assistance in this matter.

Due to the apparent presence of unique geological conditions, the potential for communication between deep geologic zones exists in this area. This potential communication, via natural gas, water, or both, may occur between hydraulically fractured wells in the Marcellus formation (approximately 7,500' TVD) and existing conventional natural gas wells in the partially-depleted, relatively high permeability, Alexander formation (approximately 5,200' TVD).

EQT anticipates conducting hydraulic fracturing at the Granttown 28 pad during the [first,second, third,fourth] quarter of [year]. We have identified conventional natural gas wells operated by your company within 500' (lateral distance) of our new/planned laterals. Plats for each well on this pad are attached.

We recommend that conventional well operators conduct the following activities before, during, and after fracturing operations:

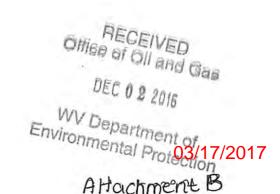
- Inspect surface equipment, prior to fracturing, to establish integrity and establish well conditions.
- Observe wells closely during and after fracturing and monitor for abnormal increases in water, gas, or pressure.
- 3. Inspect or install master valves rated to 3,000 psi or other necessary equipment for wellhead integrity.
- 4. Notify the OOG and EQT if any changes in water, gas production, pressure, or other anomalies are identified.

Please feel free to contact me at 412-395-3305 with any questions or comments. You may also contact the West Virginia Office of Oil and Gas at 304-926-0440.

Sincerely, EQT Production

John Centofanti Corporate Director, Environmental Affairs

cc: James Martin, WV Office of Oil and Gas



## **EQT Production**

**Hydraulic Fracturing Monitoring Plan** 

PAD ID: GRT28

Marion County, WV

8/26/16

PECEIVED
Office of Oil and Gas
DEC 0 2 2016

WV Department of Page 1 of 2
Environmental Protection 03/17/2017

## **Purpose**

The purpose of this pad-specific Hydraulic Fracturing Monitoring Plan is to identify and notify conventional well operators near EQT hydraulic fracturing in Marion County, WV prior to hydraulic fracturing at the following EQT wells on the GRT28 pad: 516734, 516735, 516736, 516737

Due to the apparent presence of unique geological conditions, the potential for communication between deep geologic zones exists in this area. This potential communication, via natural gas, water, or both, may occur between hydraulically fractured wells in the Marcellus formation (approximately 7,500' TVD) and existing conventional natural gas wells in the partially-depleted, relatively high permeability Alexander formation (approximately 5,200' TVD).

The plan is being implemented as an additional safety measure to be utilized in conjunction with existing best management practices and emergency action plans for the site. These additional measures include pre-notification of conventional well operators of the timing and location of the hydraulic fracturing, establishment of measures conventional well operators should implement, and assurance that the OOG is notified of the timeline, as well as any issues that may arise during fracturing.

## 1. Communications with Conventional Well Operators

EQT, using available data (WV Geological Survey, WVDEP website, and IHS data service), has identified all known conventional wells and well operators within 500 feet of this pad and the lateral sections. A map showing these wells along with a list of the wells and operators is included in **Attachment A**.

Upon approval of this plan, EQT will notify these operators, via letter, of the hydraulic fracturing schedule for these wells. A copy of this letter is included in **Attachment B**.

The letter provides recommendations to these conventional operators to 1) increase their monitoring of their wells during that time period, 2) ensure that their well head equipment is sound, and 3) provide immediate notification to EQT and the OOG in the event of any changes in their well conditions.

Specifically, the letter recommends that conventional well operators conduct the following activities during and after fracturing operations:

- Inspect their surface equipment prior to fracturing to establish integrity and establish pre-frac well conditions
- 2. Observe wells closely during and after fracturing and monitor for abnormal increases in water, gas or pressure
- 3. Inspect or install master valves rated to 3,000 psi or other necessary equipment for wellhead integrity
- 4. Notify the OOG and EQT if any changes in water, gas production, pressure, or other anomalies are identified

## 2. Reporting

EQT will provide information relating to the hydraulic fracturing schedule, communication with conventional operators, and ongoing monitoring of the work upon request of OOG or immediately in the event of any noted abnormalities.

49-02429 00318 米 30867 米 00092 米 70742 \* 70743 \* GR/128 00402 EQT Corporation 625 Liberty Avenue Pittsburgh, PA 15222 EQT 1:1,575,004 **PA** 550 275 GRT28 Vertical Offsets 550 GRT28 1:7,005 Utica Geneseo Disclaimer Vertical Offsets and Marcellus This map is confidential and is to be used only for the express informational purposes for which it was created. Unauthorized use, copying, or dissemination is strictly prohibited. EQT does not warrant the accuracy of the location of any items shown on this map, including, but not limited to, any structures, well or pipeline facilities, property boundaries, topography, roadways, or waterways. The items shown on the map may not have been placed on the map using survey lines or GPS coordinates. The specific location of any of the map items should be determined by a field survey performed by a licensed surveyor upon consultation with EQT. Foreign Laterals WV within 500' Marcellus Spud Middlesex Spud Utica Spud 03/17/2017

Total Depth 2975 5363 2900 1321
SPUD_DATE TD Form Name 9/23/1912 FIFTH SAND 3/22/1976 DEVONIAN /SD/ 11/1/1941 FIFTH SAND 7/23/1917 ALLEGHENY /SERIES/
Datum Ele         Datum Type         Siatus         LATITUDE         LONGITUDE         OPER_LNAME           1275         GR         39.5614         -80.2372         CONSOLIDATED GAS SUPPLY CORPORATION           1388         KB         DG         39.5704         -80.2465         CONSOLIDATED GAS SUPPLY CORPORATION           1187         GR         D         39.5637         -80.2462         UNKNOWN           1429         GR         D         39.5645         -80.2469         UNKNOWN           GR         U         39.5629         -80.2409         UNKNOWN           GR         U         39.5619         -80.2409         UNKNOWN
1971TUDE LO 39.5614 39.5704 39.5637 39.5645 39.5629
pe Status DG DG D D U
Datum Ele Datum Ty 1275 GR 1388 KB 1187 GR 1429 GR GR GR
Abandon Date Comp Date Operator 11/15/1912 ROSS & WHARTON 4/20/1976 EQT PRODUCTION COMPANY 3/23/1942 12/1/1941 UNKNOWN 1/30/1960 8/14/1917 UNKNOWN 18010101 UNKNOWN 18010101 UNKNOWN
API Aba 47049004020000 47049003180000 47049308670000 47049707420000 47049707420000

Office of Oil and Gas

PEG 9 2 2016

WV Department 03/17/2017
Environmental Protection A (2)

UWI	Name	Depth Top	Base Depth
47049003180000	LITTLE LIME	1900	1913
47049003180000	BIG LIME	1940	
47049003180000	FIFTY FOOT SD	2605	2715
47049003180000	GORDON STRAY /SD/	2752	
47049003180000	FOURTH SAND	2922	2978
47049003180000	FIFTY FOOT SD	3074	3096
47049003180000	BALLTOWN /SD/	3886	4090
47049003180000	RILEY /SD/	4924	5009
47049003180000	BENSON /SD/	5178	5188
47049003180000	BIG INJUN /SD/		2132
47049003180000	GORDON /SD/		2906
	47049003180000 47049003180000 47049003180000 47049003180000 47049003180000 47049003180000 47049003180000 47049003180000 47049003180000 47049003180000	47049003180000 LITTLE LIME 47049003180000 BIG LIME 47049003180000 FIFTY FOOT SD 47049003180000 FOURTH SAND 47049003180000 FIFTY FOOT SD 47049003180000 BALLTOWN /SD/ 47049003180000 RILEY /SD/ 47049003180000 BENSON /SD/ 47049003180000 BIG INJUN /SD/	47049003180000 LITTLE LIME 1900 47049003180000 BIG LIME 1940 47049003180000 FIFTY FOOT SD 2605 47049003180000 GORDON STRAY /SD/ 2752 47049003180000 FOURTH SAND 2922 47049003180000 FIFTY FOOT SD 3074 47049003180000 BALLTOWN /SD/ 3886 47049003180000 RILEY /SD/ 4924 47049003180000 BENSON /SD/ 5178 47049003180000 BIG INJUN /SD/

Perforated Formations

Office of Oil and Gas

DEC 0 2 2016

WV Department of Environmental Protection

03/17/2017

Attochment Acz)

API Number 47 - 163

Operator's Well No. 516737

## 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) Bethel Run	Quadrangle Grant Town
Do you anticipate using more than 5,000 bbls of water to c	complete the proposed well work? Yes V No
Will a pit be used? Yes No V	
If so, please describe anticipated pit waste:	
Will a synthetic liner be used in the pit? Yes	No ✓ If so, what ml.?
Proposed Disposal Method For Treated Pit Waste	
Land Application	
Underground Injection ( UIC P	ermit Number 0014, 8462, 4037
Reuse (at API Number Various  Off Site Disposal (Supply form	WW-9 for disposal location
Other (Explain_	ww-y for disposal location)
Will closed loop system be used? If so, describe:  Yes, The drill cutting	e closed loop system will remove drill cuttings from the drilling fluid. The ngs are then prepared for transportation to an off-site disposal facility.
Drilling medium anticipated for this well (vertical and horizonal)	zontal)? Air, freshwater, oil based, etc. See Attached
-If oil based, what type? Synthetic, petroleum, etc	
Additives to be used in drilling medium? See Attached	✓
Drill cuttings disposal method? Leave in pit, landfill, remo	eved offsite, etc. Landfill
-If left in pit and plan to solidify what medium wil	
-Landfill or offsite name/permit number? See Atta	
I certify that I understand and agree to the terms a on August 1, 2005, by the Office of Oil and Gas of the Wes provisions of the permit are enforceable by law. Violation 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, b	ided within 24 hours of rejection and the permittee shall also disclose and conditions of the GENERAL WATER POLLUTION PERMIT issued to Virginia Department of Environmental Protection. I understand that the instance of any term or condition of the general permit and/or other applicable hally examined and am familiar with the information submitted on this based on my inquiry of those individuals immediately responsible for its true, accurate, and complete. I am aware that there are significant is stibility of fine or imprisonment.
Company Official Signature	- Jh
Company Official (Typed Name) Victoria J. Roark	
Company Official Title Permitting Supervisor	
Subscribed and sworn before me this day of day of My commission expires 8.24	OFFICIAL SEAL OFFICIAL SEAL

#### WW-9 Attachment

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.

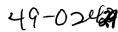
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Office of Oil and Gas

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WV Department of
Environmental Protection
03/17/2017

## **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

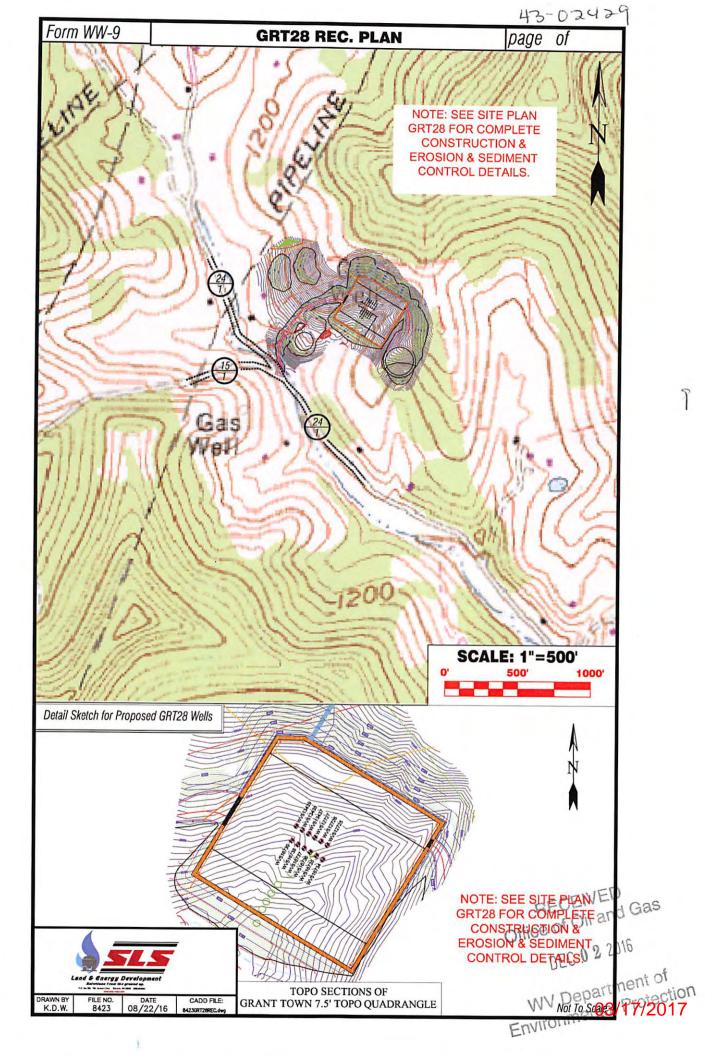
#### TRIAD ENERGY

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.

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

Proposed Revegetation Tre	atment: Acres Disturbed 18	5.04 Prevegetation pl	4 5.8
Lime 3	Tons/acre or to correc		•
	anular 10-20-20		
Fertilizer amount	1/3	lbs/acre	
Mulch 2		Tons/acre	
		Seed Mixtures	
T	emporary	Perma	nent
Seed Type	lbs/acre	Seed Type	lbs/acre
KY-31	40	Orchard Grass	15
Alsike Clover	5	Alsike Clover	5
Annual Rye	15		
Attach: Maps(s) of road, location, pi provided). If water from the acreage, of the land applicati Photocopied section of invol	ion area.	application (unless engineered plans includude dimensions (L $x \ W \ x \ D$ ) of the pit, and	ing this info have been dimensions (L x W), and
Maps(s) of road, location, pi provided). If water from the acreage, of the land applicati Photocopied section of invol	ion area.	ide dimensions (L x W x D) of the pit, and	dimensions (L x W), and
Maps(s) of road, location, piperovided). If water from the acreage, of the land application of involved section of involved by:  Comments:   Comments:	ion area.  Ved 7.5' topographic sheet.  O Warroll  Jurulch & 5	Soon as reason ably	essible per
Maps(s) of road, location, piperovided). If water from the acreage, of the land application of involutional Plan Approved by:  Comments: Pe-Seed	on area.  Ived 7.5' topographic sheet.  Description  I pulch as  Togetlation.	Soon as reason ably Upgreale EAS if need	essible per
Maps(s) of road, location, piperovided). If water from the acreage, of the land application of involutional Plan Approved by:  Comments: Pe-Seed	on area.  Ived 7.5' topographic sheet.  Description  I pulch as  Togetlation.	Soon as reason ably	essible per
Maps(s) of road, location, piperovided). If water from the acreage, of the land application of involutional Plan Approved by:  Comments: Pe-See World DRP E	on area.  Ived 7.5' topographic sheet.  Description  I pulch as  Togetlation.	Soon as reason ably Upgreale EAS if need	essible per
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Maps(s) of road, location, piperovided). If water from the acreage, of the land application of involved section of involved by:  Comments: Pre-Seed  DEP EHS	on area.  Ved 7.5' topographic sheet.  Devocate  I mulch as  regulation. I	Soon as reason ably Upgreale EAS if need	possible per leel per Wil



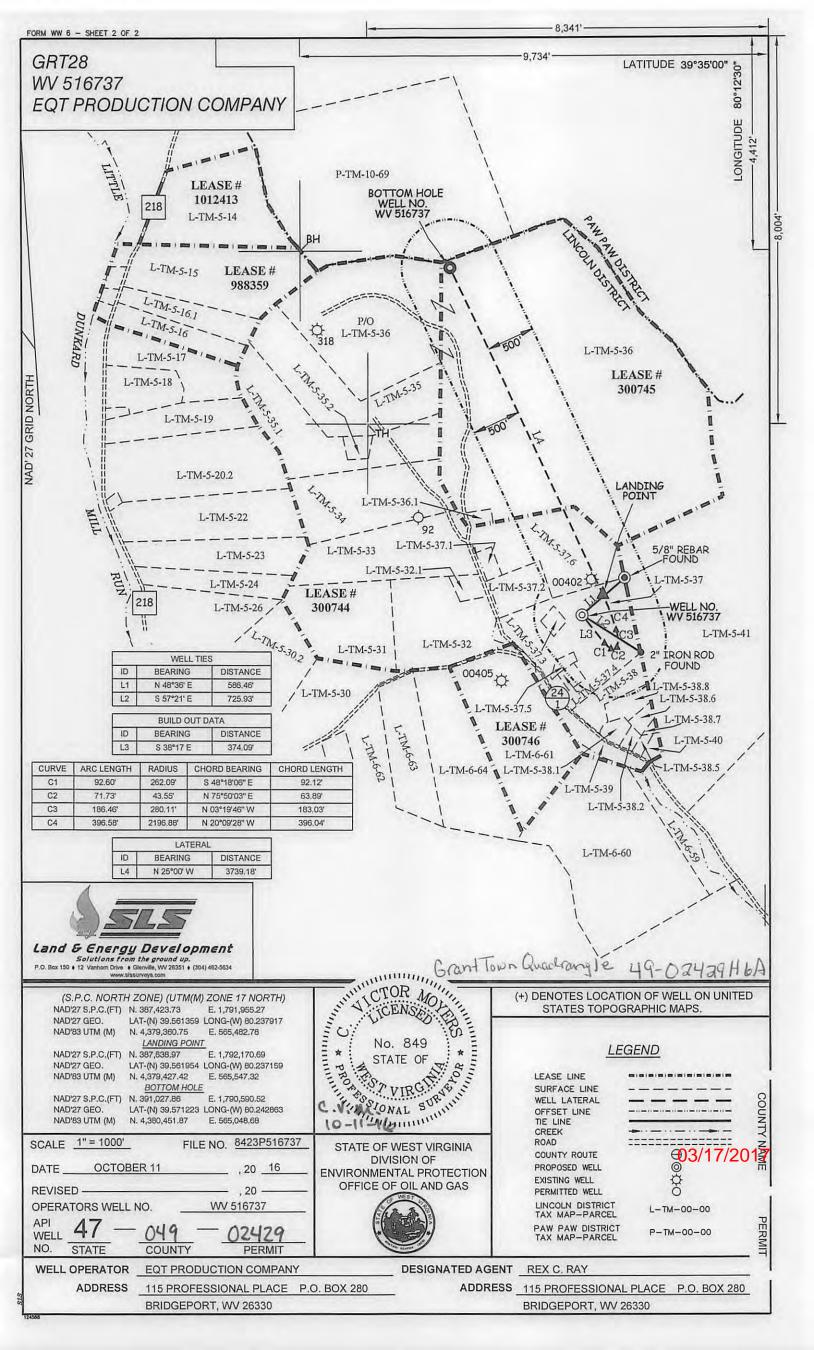


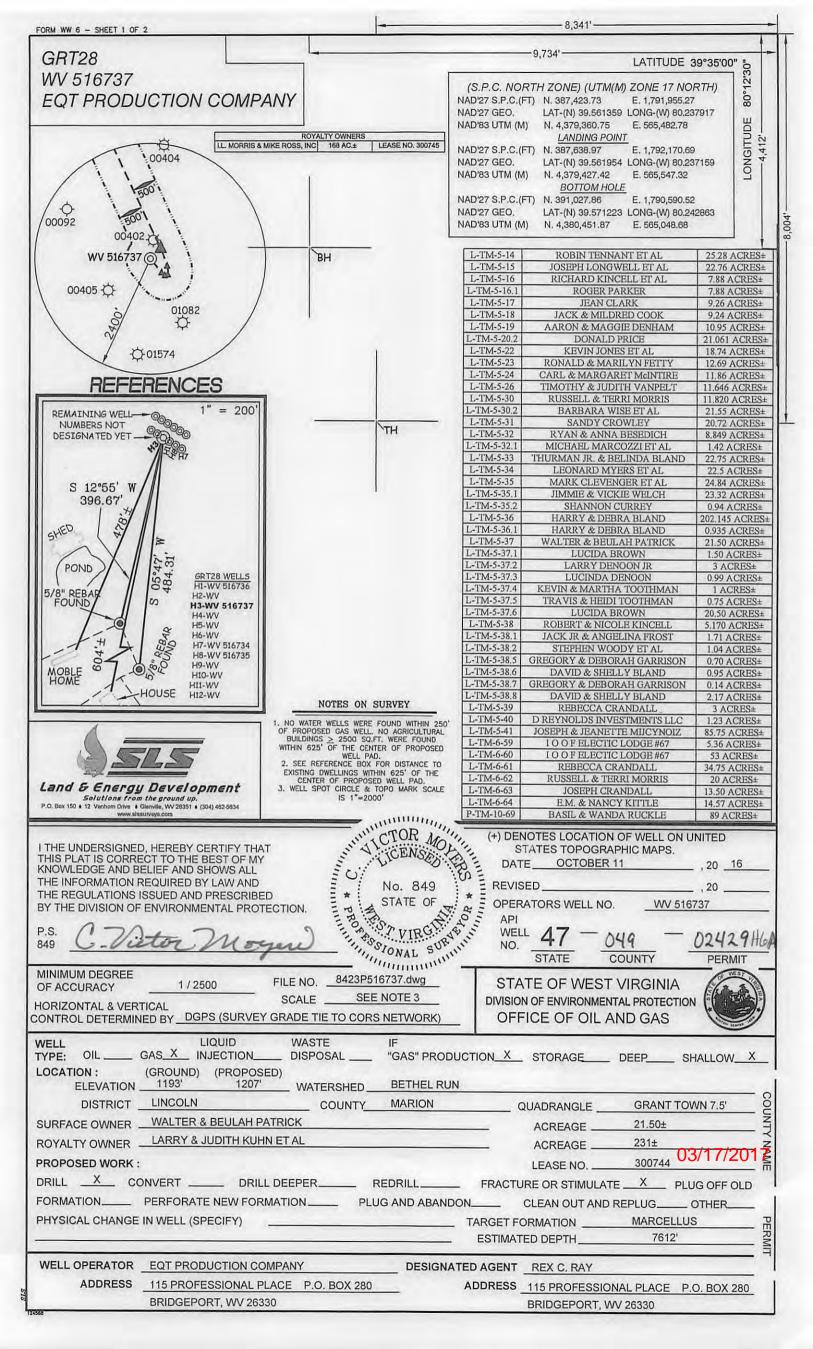
# Site Specific Safety Plan

# EQT GRT 28 Pad

# Grant Town Quadrant Marion County, WV

_516737	For Well	S:
EQT Production  Enon. Here Spenusor  Title	Date Prepared:	August 18, 2016  SD WIZ/IZ/ZOIG  WV Oil and Gas Inspector  Title
/2-5-/6 Date		Date





Operator's	Well	No.	516737
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## 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, 1 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

## 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

Environmental Protection 03/17/2017

Operator's Well No.

516737

Lease No.	Grantor, Lessor, etc.	Grantee, Lessee, etc.	Royalty	Book/Page
	/		<u> </u>	
<u>300744</u> \	Larry & Judith Kuhn, et al (current royalty owner)		***	
	D. D. Hawkins (original lessor)	W. Hunter Atha		DB 111/219
	W. Hunter Atha	E. H. Jennings & Bros		DB 112/252
	E. H. Jennings & Bros	Fairmont Gas and Light Company		DB 112/286
	Fairmont Gas and Light Company	Fairmont Gas Company		DB 194/33
	Fairmont Gas Company	Monongahela Valley Traction Company		DB 207/314
	Monongahela Valley Traction Company	Hope Natural Gas Company		DB 497/163
	Hope Natural Gas Company	Consolidated Gas Supply Corporation		DB 680/35
	Consolidated Gas Supply Corporation	Conolidated Gas Transmission Company		DB 9/912
	Conolidated Gas Transmission Company	CNG Transmission Corporation		DB 46/654
	CNG Transmission Corporation	Eastern States Oil and Gas, Inc.		DB 16/993
	Eastern States Oil and Gas, Inc.	Blazer Energy		CB12/253
	Blazer Energy	Eastern States Oil and Gas, Inc.		CB 12/259
	Eastern States Oil and 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
300745 J	/ Arlyce E. Bogard, et al (current royalty owner)	***		
	Sevilie Cross, et vir (original lessor)	The Fairmont Gas and Light Company		DB 140/40
	Fairmont Gas and Light Company	Fairmont Gas Company		DB 194/33
	Fairmont Gas Company	Monongahela Valley Traction Company		DB 207/314
	Monongahela Valley Traction Company	Hope Natural Gas Company		DB 497/163
	Hope Natural Gas Company	Consolidated Gas Supply Corporation		DB 680/35
	Consolidated Gas Supply Corporation	Conolidated Gas Transmission Company		DB 9/912
	Conolidated Gas Transmission Company	CNG Transmission Corporation		DB 46/654
	CNG Transmission Corporation	Eastern States Oil and Gas, Inc.		DB 16/993
	Eastern States Oil and Gas, Inc.	Blazer Energy		CB12/253
	Blazer Energy	Eastern States Oil and Gas, Inc.		CB 12/259
	Eastern States Oil and 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

<sup>\*\*\*</sup> We will pay one-eighth of the total amount paid to or received by or allowed to the owner of the working interest at the wellhead for the oil or gas so extracted, produced, or marketed before deducting the amount to be paid to or set aside for the owner of the oil or gas in place, on all such oil or gas to be extracted, produced, or marketed from the well.

HEGEIVED Office of Oil and Gas

DEC 0 2 2016

WV Department of Environmental Protection



September 6, 2016

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

Re: GRT28 well pad, well number 516737 Lincoln District, Marion 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

Office of Oil and Gas

DEC 0 2 2016

WV Department of Environmental Protection 03/17/2017

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

	ce Certification: _//- 30-/6	API	No. 47- 16-9 -	02429	
	The second secon		rator's Well No. 51		
			Well Pad Name: GRT28		
Notice has	been given:				
Pursuant to t	ne provisions in West Virginia Code	§ 22-6A, the Operator has provided	the required parties	with the Notice Forms listed	
below for the	tract of faild as follows:				
State:	W	UTM NAD 83 East			
County: District:	Marion	Nort	hing: 4379360.75		
Quadrangle:	Lincoln Grant Town	Public Road Access:	CR91		
Watershed:	Bethel Run	Generally used farm na	ame: Walter and Bei	ılah Patrick	
watersned,	Demoi Nuti				
prescribed by it has provid information r of giving the requirements Virginia Cod	West Virginia Code § 22-6A-7(b), the secretary, shall be verified and sed the owners of the surface described the owners of the surface described and (c), so surface owner notice of entry to surface owner notice of entry to surface owner notice of subsection (b), section sixteen of e § 22-6A-11(b), the applicant shall have been completed by the applicant	hall contain the following informati bed in subdivisions (1), (2) and (4 ection sixteen of this article; (ii) that arvey pursuant to subsection (a), se if this article were waived in writing ender proof of and certify to the sec	ion: (14) A certifica ), subsection (b), s the requirement was ection ten of this ar	tion from the operator that (in ection ten of this article, the side deemed satisfied as a resulticle six-a; or (iii) the notice owner; and Pursuant to West	
Pursuant to	West Virginia Code § 22-6A, the Op	perator has attached proof to this No	otice Certification		
that the Ope	rator has properly served the require ECK ALL THAT APPLY	d parties with the following:	succe confinement	OOG OFFICE USE	
*PLEASE CHI	ECK ALL THAT APPLY	d parties with the following:		OOG OFFICE USE ONLY	
*PLEASE CHI		d parties with the following:	BECAUSE NO		
*PLEASE CHI	ECK ALL THAT APPLY	Departies with the following:  NOTICE NOT REQUIRED E SEISMIC ACTIVITY WAS CON	BECAUSE NO	ONLY  RECEIVED/	
*PLEASE CHI	ECK ALL THAT APPLY FICE OF SEISMIC ACTIVITY or	Departies with the following:  NOTICE NOT REQUIRED E SEISMIC ACTIVITY WAS CON	BECAUSE NO NDUCTED AS CONDUCTED BECAUSE	ONLY  RECEIVED/ NOT REQUIRED	
*PLEASE CHI	ECK ALL THAT APPLY FICE OF SEISMIC ACTIVITY or FICE OF ENTRY FOR PLAT SURV	d parties with the following:  ■ NOTICE NOT REQUIRED E SEISMIC ACTIVITY WAS CONVEY OF ■ NO PLAT SURVEY W  □ NOTICE NOT REQUIRED E NOTICE OF ENTRY FOR PLAT	BECAUSE NO NDUCTED AS CONDUCTED BECAUSE SURVEY	ONLY  RECEIVED/ NOT REQUIRED  RECEIVED  RECEIVED/	
that the Ope *PLEASE CHI  1. NO*  2. NO*  3. NO*	ECK ALL THAT APPLY FICE OF SEISMIC ACTIVITY or FICE OF ENTRY FOR PLAT SURV	d parties with the following:  ■ NOTICE NOT REQUIRED E SEISMIC ACTIVITY WAS CON YEY OF ■ NO PLAT SURVEY W  □ NOTICE NOT REQUIRED E NOTICE OF ENTRY FOR PLAT WAS CONDUCTED OF  □ WRITTEN WAIVER BY SU	BECAUSE NO NDUCTED AS CONDUCTED BECAUSE SURVEY	ONLY  RECEIVED/ NOT REQUIRED  RECEIVED  RECEIVED/	
that the Ope  *PLEASE CHI  1. NO'  2. NO'  3. NO'  4. NO'	ECK ALL THAT APPLY FICE OF SEISMIC ACTIVITY OF FICE OF ENTRY FOR PLAT SURV FICE OF INTENT TO DRILL OF	d parties with the following:  ■ NOTICE NOT REQUIRED E SEISMIC ACTIVITY WAS CON YEY OF ■ NO PLAT SURVEY W  □ NOTICE NOT REQUIRED E NOTICE OF ENTRY FOR PLAT WAS CONDUCTED OF  □ WRITTEN WAIVER BY SU	BECAUSE NO NDUCTED AS CONDUCTED BECAUSE SURVEY	ONLY  RECEIVED/ NOT REQUIRED  RECEIVED  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. 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.

\*\*DEC 0.2 20/6\*\*

Environmental Protection\*\*

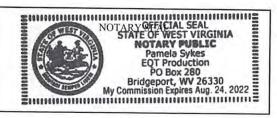
03/17/2017

Certification of Notice is hereby given;

49-02429

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

Well Operator:EQT Production CompanyAddress:115 Professional Place PO Box 280By:Victoria J RoarkBridgeport WV 26330Its:Permitting SupervisorFacsimile:304-848-0041Telephone:304-848-0076Email:vroark@eqt.com



Subscribed and sworn before methis 29 day of 100 2016

Notary Public

My Commission Expires

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 <a href="mailto:deprivacyofficer@wv.gov">deprivacyofficer@wv.gov</a>.

Office of Oil and Gas

DEC 0 2 2016

Environmental Protection 17/2017

API NO. 47- 497 - 0 2429

OPERATOR WELL NO. 516737

Well Pad Name: GRT28

## 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: 11-30-16 Date Permit Application Filed: 11-30-16 Notice of: PERMIT FOR ANY ☐ CERTIFICATE OF APPROVAL FOR THE WELL WORK CONSTRUCTION OF AN IMPOUNDMENT OR PIT Delivery method pursuant to West Virginia Code § 22-6A-10(b) ☐ PERSONAL REGISTERED ☑ METHOD OF DELIVERY THAT REQUIRES A SERVICE MAIL 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) COAL OWNER OR LESSEE Name: See Attached Name: See Attached Address: Address: ☐ COAL OPERATOR Name: Address: Name: Address: SURFACE OWNER(s) (Road and/or Other Disturbance) SURFACE OWNER OF WATER WELL Name: See Attached D/OR w.
ne: See Attacheu
dress:

OPERATOR OF ANY NATURAL
Name:
Address:

\*Please attach additional forms if necessary

\*\*DEC 03 2016

\*\*DEC 03 2016

\*\*O3/17/2017 Address: AND/OR WATER PURVEYOR(s) Name: Address: SURFACE OWNER(s) (Impoundments or Pits) Name: See Attached Address:

## Surface Owners:

Walter R. Patrick and Beulah J. Patrick 159 Horse Shoe Road Farmington, WV 26571

-	U.S. Postal Service™ CERTIFIED MAIL® RECEIPT
	Domestic Mail Only
= -	For delivery information, visit our website at www.usps.com®.
:  \$	Sertified Mail Fee
3	xtra Services & Fees (check box, add fee as approducts)   Return Receipt (inardcopy) \$ (D)     Return Receipt (electronic) \$ (D)     Certified Mail Restricted Delivery \$ (D)     Adult Signature Required \$ (D)     Adult Signature Restricted Delivery \$ (
	ostage  ota Walter R Patrick & Beulah J Patrick
4	159 Horse Shoe Road
Si	Farmington WV 26571
100	iy, GRT28 Permit Ap & Planned Op

Office of Oll and Gas

DEC 0 2 2016

Environmental Protection

## Surface Owners (road or other disturbance):

Walter R. Patrick and Beulah J. Patrick 159 Horse Shoe Road Farmington, WV 26571

Lucida Darlene Denoon a/k/a Lucida Darlene Brown 100 Bland Hollow Road Fairview, WV 26578

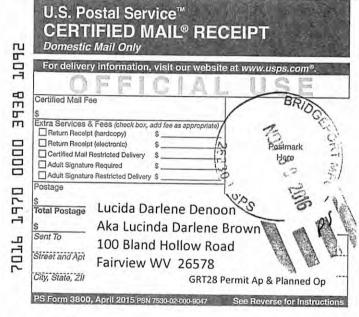
Larry E. Denoon Jr. 76 Bland Hollow Road Fairview, WV 26578



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#### U.S. Postal Service™ CERTIFIED MAIL® RECEIPT Domestic Mail Only 107 BRI 38 Certified Mail Fee 34 Extra Services & Fees (check box, add fee Return Receipt (electronic) Postmark 000 Certified Mail Restricted Delivery Adult Signature Required Adult Signature Restricted Delivery \$ 1970 Walter R Patrick & Beulah J Patric Tota 159 Horse Shoe Road Seni 7016 Farmington WV 26571 Stree GRT28 Permit Ap & Planned Op City, PS Form 3800, April 2015 PSN 7530-02-000-9047





7/2017

## Surface Owners (Pits or impoundments):

Walter R. Patrick and Beulah J. Patrick 159 Horse Shoe Road Farmington, WV 26571

U.S. Postal Service <sup>™</sup> CERTIFIED MAIL <sup>®</sup> RECEIPT			
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City,	GIVI 20 1 CIVI		

Environmental Protection03/17/2017

## Owners of Water Wells

Harry "Wayne" Bland 148 Bland Hollow Rd. Fairview WV 26570



Office of Oil and Gas

DEC 0 2 2016

Environmental Protection

## **Coal Owner**

Consolidation Coal Company Engineering Operations Support Dept. Coal 1000 Consol Energy Drive Canonsburg PA 15317 Attn: Casey Saunders

Lucinda Darlene Brown 100 Bland Hollow Rd Fairview, WV 26570

Consolidation Coal Company OH c/o Murray American Energy, Inc. 46226 National Rd St. Clairsville, OH 43950 Attn: Alex O'Neill

Consolidation Coal Company WV c/o Murray American Energy, Inc. 1 Bridge St Monongah, WV 26554 Attn: Troy Freels

CNX Gas Co., LLC Engineering Operations Support Dept. Coal 1000 Consol Energy Dr. Canonsburg, PA 15317-6506 Attn: Casey Saunders





API NO. 47-16-19-0	2429
OPERATOR WELL NO.	516737
Well Pad Name: GRT28	

# 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: (I) 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/oiland-gas/pages/default.aspx.

## **Well Location Restrictions**

Pursuant to W. Va. Code § 22-6A-12, Wells may not be drilled within two hundred fifty feet measured horizontally from any existing water well or developed spring used for human or domestic animal consumption. The center of well pads may not be located within six hundred twenty-five feet of an occupied dwelling structure, or a building two thousand five hundred square feet or larger used to house or shelter dairy cattle or poultry husbandry. This limitation is applicable to those wells, developed springs, dwellings or agricultural buildings that existed on the date a notice to the surface owner of planned entry for surveying or staking as provided in section ten of this article or a notice of intent to drill a horizontal well as provided in subsection (b), section sixteen of this article was provided, whichever occurs first, and to any dwelling under construction prior to that date. This limitation may be waived by written consent of the surface owner transmitted to the department and recorded in the real property records maintained by the clerk of the county commission for the county in which such property is located. Furthermore, the well operator may be granted a variance by the secretary from these distance restrictions upon submission of a plan which identifies the sufficient measures, facilities or practices to be employed during well site construction, drilling and operations. The variance, if granted, shall include terms and conditions the department requires to ensure the safety and protection of affected persons and property. The terms and conditions may include insurance, bonding and indemnification, as well as technical requirements. (b) No well pad may be prepared or well drilled within one hundred feet measured horizontally from any perennial stream, natural or artificial lake, pond or reservoir, or a wetland, or within three hundred feet of a naturally reproducing trout stream. No well pad may be located within one thousand feet of a surface or ground water intake of a public water supply. The distance from the public water supply as identified by the department shall be measured as follows: (1) For a surface water intake on a lake or reservoir, the distance shall be measured from the boundary of the lake or reservoir. (2) For a surface water intake on a flowing stream, the distance shall be measured from a semicircular radius extending upstream of the surface water intake. (3) For a groundwater source, the distance shall be measured from the wellhead or spring. The department may, in its discretion, waive these distance restrictions upon submission of a plan identifying sufficient measures, facilities or practices to be employed during well site construction, drilling and operations to protect the waters of the state. A waiver, if granted, shall impose any permit conditions as the secretary considers necessary. (c) Notwithstanding the foregoing provisions of this section, nothing contained permit conditions as the secretary considers necessary. (c) inclination 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 station will in the Astricted areas referenced in this section. (d) The well location restrictions set forth in this section shall not apply to any well of any litting 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 91 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, than, by the secretary that the well location restrictions regarding occupied dwelling structures are inadequate or otherwise require alteration to address the items of the well location restrictions regarding occupied dwelling structures are inadequate or otherwise require alteration to address the items of the well location restrictions regarding occupied dwelling structures are inadequate or otherwise require alteration to address the items of the well location restrictions regarding occupied dwelling structures are inadequate or otherwise require alteration to address the items of the well location restrictions regarding occupied dwelling structures are inadequate or otherwise require alteration to address the items of the well location restrictions regarding occupied dwelling structures are inadequate or otherwise require alteration to address the items of the well location restrictions regarding occupied dwelling structures are inadequate or otherwise required by the secretary that the well location restrictions regarding occupied dwelling structures are inadequate or otherwise required by the secretary that the well location restrictions regarding occupied d

03/17/2017

API NO. 47-499-02429

OPERATOR WELL NO. 516737

Well Pad Name: GRT28

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

## Water Well Testing:

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

# Water Testing Laboratories:

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

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

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

### Written Comment:

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

Chief, Office of Oil and Gas Department of Environmental Protection 601 57<sup>th</sup> St. SE

Charleston, WV 25304

RECEIVED

(304) 926-0450

Office of Oil and Gas

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- 1899 - () > 4 2-9
OPERATOR WELL NO. 516737
Well Pad Name: GRT28

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

# **Permit Denial or Condition**

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

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

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

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

DEC 0 2 2016

WV Department of Environmental Protection

WW-6A (8-13)

APINO. 47-1019 - 0242 OPERATOR WELL NO. 516737 Well Pad Name: GRT28

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

Subscribed and swon before me this 30 day of 00

Notary Public

My Commission Expires

01600007204

WW-6RW

API NO. 47- 49L 02430 OPERATOR WELL NO. 41-02429 Well Pad Name: GRT 28

# STATE OF WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS WELL LOCATION RESTRICTION WAIVER

The well operator, EQT Production Company is applying for a permit from the State of West Virginia to conduct oil or gas well work. Please be advised that well work permits are valid for twenty-four (24) months.

### **Well Location Restrictions**

Pursuant to West Virginia Code § 22-6A-12(a), 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.

# WAIVER

I Totaldo C Touthann and Maldid A Touthann b				
I, Travis E. Toothman and Heidi A. Toothman , hereby si	tate that I have read the Instruc	tions to Persons Na	med on Page WW-6A a	nd the associated
provisions listed above, and that I have re	eceived copies of a Notice of A	pplication, an App	lication for a Well Work	Permit on Form
WW-6A and attachments consisting of p required, and the well plat, all for propos	ages one (1) through	, including the	erosion and sediment co	ntrol plan, if
State: West Virginia				
County: Marion		AD 83 Easting: AD 83 Northing:	565486.727 4379358.447	
District: Lincoln		oad Access:		
Quadrangle: Fairmont West		y used farm name:	CR 24/1	
Watershed: Dunkerd Mill Run	General	y useu iaim name:	Toomman	
I further state that I have no objection to	the planned work described in	these materials and	I I bassa na abiaction to .	is b!
issued on those materials and I therefore	waive all well site restrictions	listed under West V	i i nave no objection to a Jirginia Code & 22-64-1	i permit being
WELL SITE RESTRICTIONS BEING	WAIVED	FOR EXECUT	ION BY A NATURAL	PERSON
*Please check all that apply		Signature:	The Duard	
	•	Print Name: Trav	vis E. Toothman and Heidi A. Too	Uman
☐ EXISTING WATER WELLS		Date: April 26, 2016	5	
☐ DEVELOPED SPRINGS		FOR EXECUT	ION BY A CORPORA	ATION, ETC.
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Well Operator: EQT Production Company	Sign	ature:	har	tw
By: John W. Damato	Tele	phone:		
Its: Allomey in Faci				
OFFICIAL OF ALL	<del>~</del> {			
OFFICIAL SEAL Notary Public, State Of West Virginia	Subscribed and swo	rn before me this 26	day of April, 2016	
JOSEPH D OLIVERIO	ß [	/	~	
13 Millbrook Rd Bridgeport, WV 26330	Joseph D. Oliverio	100gh D.	Oh	Notary Public
My Commission Expires May 06, 2024		•		
	My Commission Ex	pires May 06, 2024		
Oil and Gas Privacy Notice: The Office of Oil and Gas processes your pers	and information and a sure	44		
THE OTHER OF OH OH AND ONS DIOCESSES YOUR DETS	onai mionnauon, such as name, a	uuress and leienhone	number as part of our rec	anistory 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.

STATE OF WEST VIRGINIA, County of Marion, To-Wit:

I, Janice Cosco, Clerk of the County Commission of said County, do hereby certify that the foregoing writing, with certificate thereto annexed, was this day produced to me in my office and duly admitted to record.

Witness my hand.

Janue Goses Clerk

201600007204
Filed for Record in MARION COUNTY, MV
JANICE COSCO, COUNTY CLERK 06-07-2016 At 02:50 pm. WAIVER DEED 16.00 16.00 STATE TAX COUNTY TAX Book 1174 Page 104 -

Received Office of Oil & Gas

DEC **0.2** 2016

# STATE OF WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS WELL LOCATION RESTRICTION WAIVER

The well operator, EQT Production Company is applying for a permit from the State of West Virginia to conduct oil or gas well work. Please be advised that well work permits are valid for twenty-four (24) months.

### **Well Location Restrictions**

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## WAIVER

strictions listed under West V FOR EXECUT	I have no objection to a permit being Virginia Code § 22-6A-12(a).
FOR EXECUT	
	TON BY A NATURAL PERSON
Print Name: Kov	in E. Toolhman and Martha J. Toolhman
FOR EXECUT	ION BY A CORPORATION, ETC.
By:	
Its: Signature: Date:	LBT LBT
Signature:	al_
Telephone:	
•	
	day of April, 2016 Notary Public
	Print Name: Kov Date: April 13, 2016 FOR EXECUT Company: By: Its: Signature: Date: Telephone:  d and sworn before me this 13

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 <a href="mailto:depprivacyofficer@wv.gov">depprivacyofficer@wv.gov</a>.

STATE OF WEST VIRGINIA, County of Marion, To-Wit:

I, Janice Cosco, Clerk of the County Commission of said County, do hereby certify that the foregoing writing, with certificate thereto annexed, was this day produced to me in my office and duly admitted to record.

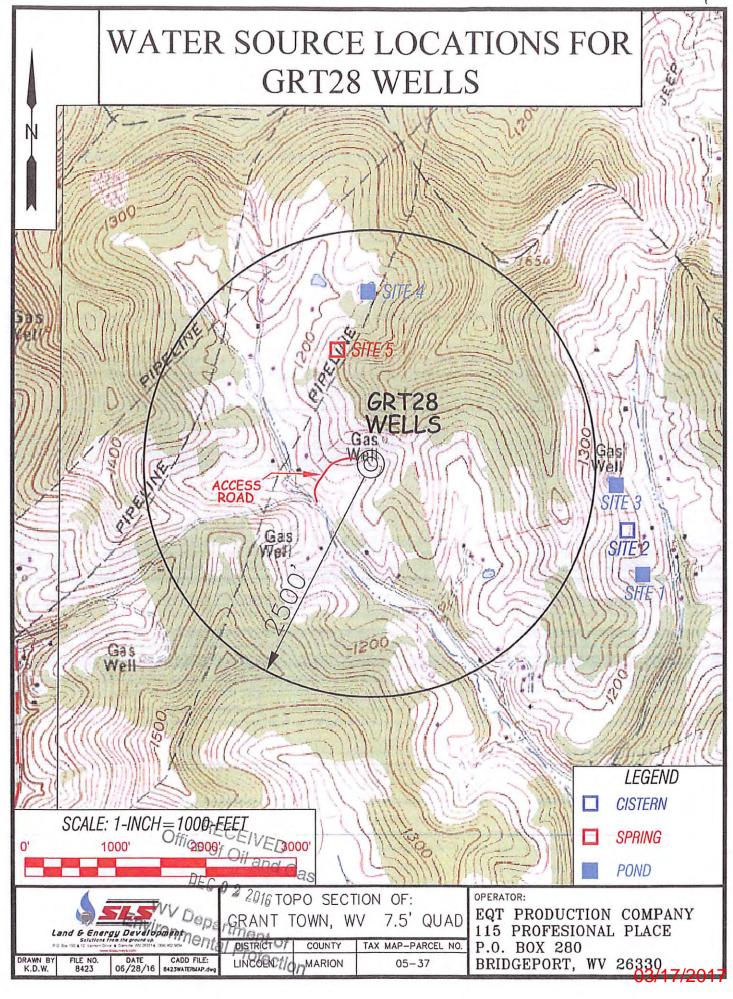
Witness my hand.

Janue Goses Clerk

201800007216
Filed for Record in
MARION COUNTY, WV
JANICE COSCO, COUNTY CLERK
06-07-2016 At 02:50 pm.
WATVER DEED 16.00
STATE TAX .00
COUNTY TAX .00
Book 1194 Page 116 - 116

Received
Office of Oil & Gas

DEC 0.2 2016

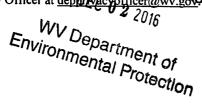


# STATE OF WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS **NOTICE OF INTENT TO DRILL**

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.

Date of Noti	Requirement: ce: 08/19/2016	Notice shall be provided  Date P	at least TEN (10) days prior to filing a termit Application Filed: 08/29/2016	permit application.
Delivery me	thod pursuant	to West Virginia Code {	§ 22-6A-16(b)	
☐ HAND		CERTIFIED MAIL		
DELIVE		RETURN RECEIPT RI	EQUESTED	
drilling a hor of this subsection ma	izontal well: Pi tion as of the da ay be waived in	rovided, That notice give ate the notice was provided writing by the surface or	wher notice of its intent to enter upon the pursuant to subsection (a), section to the surface owner: Provided how	, an operator shall, by certified mail return he surface owner's land for the purpose of en of this article satisfies the requirements vever, That the notice requirements of this lude the name, address, telephone number, or's authorized representative.
Notice is he	reby provided	i to the SURFACE O	WNER(s):	
Name: See atta	ched.		Name: See attached.	
Address:			Address:	
State: County: District: Quadrangle: Watershed:	WV Marion Lincoln Grant Town Bethel Run	ne purpose of drilling a n	orizontal well on the tract of land as fo  UTM NAD 83 Easting: Northing: Public Road Access: Generally used farm name:	## STATE
Pursuant to V facsimile num related to hor	nber and electro izontal drilling	Code § 22-6A-16(b), this onic mail address of the may be obtained from the	operator and the operator's authorize	ess, telephone number, and if available, and representative. Additional information f Environmental Protection headquarters, p.wv.gov/oil-and-gas/pages/default.aspx.
	reby given by:		4 4 1 15	
Wen Operator Address:			Authorized Representative:	Victoria Roark
Address. Bridgeport WV 26		I Place PO Box 280	Address:	115 Professional Place PO Box 280
Telephone:	304-848-0076		Bridgeport WV 26330	
Email:			Telephone: Email:	304-848-0076
	vroark@eqt.com	•		
Facsimile:	304-848-0041		Facsimile:	vroark@eqt.com 304-848-0041

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 informations may be disclosed to other State agencies or third parties in the normal course of business or as needed to comply with statutory of Regulatory requirements, including Freedom of Information Act requests. Our office will appropriately secure your personal information. If Now have any questions about our use or your personal information, please contact DEP's Chief Privacy Officer at deph Exacyofficer@wv.g8\$



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4937

7016 0910 0000

Walter R. Patrick and Beulah J. Patrick 159 Horse Shoe Road Farmington, WV 26571

Office of Oil and Gas

DEC 0 8 2016

Environmental Protect

## Surface Owners (road or other disturbance):

Walter R. Patrick and Beulah J. Patrick 159 Horse Shoe Road Farmington, WV 26571

Lucida Darlene Denoon a/k/a Lucida Darlene Brown 100 Bland Hollow Road Fairview, WV 26578

Larry E. Denoon Jr. 76 Bland Hollow Road Fairview, WV 26578







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Office of Oil and Gas

DEC 0 2 2016

Surface Owners (Pits or impoundments): (AST)

Walter R. Patrick and Beulah J. Patrick 159 Horse Shoe Road Farmington, WV 26571

3880	U.S. Postal Service™ CERTIFIED MAIL® RECEIPT  Domestic Mail Only	
38	For delivery information, visit our website at www.usps.com®.	1
4937	OFFICIAL FOUSE Certified Mail Fee	2810
<u>_</u>	s / C	
0000	Extra Services & Fees (check box, add fee as appropriate)   Return Receipt (hardcopy) \$     Return Receipt (electronic) \$     Certified Mail Restricted Delivery \$     Adult Signature Restricted Delivery \$     Adult Signature Restricted Delivery \$	
	Postage	
0460	Total Posta Walter R. Patrick and Beulah J. Patrick	_
믹	Sent To 159 Horse Shoe Road	
7076	Street and Farmington, WV 26571	
	City, State, GRT 28 Notice of Intent	****
	PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Inst	ructions

Office of Oil and Gas DEC 0 2 2016

WW-6A5 (1/12)

Operator Well No. 516737

49-02429

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

Delivery me	thod pursuant to West Virginia Code §	22-6A-16(c)		
-	FIED MAIL			
	RN RECEIPT REQUESTED	DELIVERY		
			-70	
turn receipt the planned of equired to be crilling of a amages to the d) The notice	prequested or hand delivery, give the sur- operation. The notice required by this exprovided by subsection (b), section ten horizontal well; and (3) A proposed sur- ne surface affected by oil and gas operation es required by this section shall be given	face owner whose land will subsection shall include: (I of this article to a surface ow face use and compensation ons to the extent the damage to the surface owner at the a	be used for ) A copy o wner whose agreement es are compe	ation, an operator shall, by certified mail the drilling of a horizontal well notice of f this code section; (2) The information land will be used in conjunction with the containing an offer of compensation for ensable under article six-b of this chapter. and in the records of the sheriff at the time
otice is ner	eby provided to the SURFACE OWNE s listed in the records of the sheriff at the	time of notice):		
	distent in the records of the shelling at the	time of notice).		
lame: See Atta	ched	Name: See Atta	ched	
Jame: See Alta Address:	eby given: /est Virginia Code § 22-6A-16(c), notice	Name: See Atta Address:  is hereby given that the und of drilling a horizontal well	lersigned we	ell operator has developed a planned
dame: See Alta ddress:  otice is her ursuant to W peration on tate: ounty: bistrict:	eby given:	is hereby given that the und of drilling a horizontal well  UTM NAD 83  Public Road Access	lersigned we on the tract Easting:	of land as follows: 565482.78 4379360.75 CR91
Jame: See Alta Address:	eby given: /est Virginia Code § 22-6A-16(c), notice the surface owner's land for the purpose www.  Marion Lincoln	is hereby given that the und of drilling a horizontal well  UTM NAD 83	lersigned we on the tract Easting:	of land as follows: 565482.78 4379360.75
Jame: See Alta Address:  Jotice is her ursuant to W peration on tate: Jounty: Judrangle: Vatershed: This Notice S ursuant to W Jobe provide orizontal we urface affect	rest Virginia Code § 22-6A-16(c), notice the surface owner's land for the purpose www.  Marion  Lincoln  Grant Town  Bethel Run  Shall Include:  Vest Virginia Code § 22-6A-16(c), this need by W. Va. Code § 22-6A-10(b) to a ll; and (3) A proposed surface use and ceed by oil and gas operations to the exteelated to horizontal drilling may be obtolocated at 601 57th Street, SE, Char	is hereby given that the und of drilling a horizontal well  UTM NAD 83  Public Road Access Generally used farm  otice shall include: (1)A copsurface owner whose land ompensation agreement contributed in the damages are compensationed from the Secretary, as	dersigned we on the tract Easting: 4 Sorthing: 4 Sorthing: 5 Sorthing: 6 Sorthing: 6 Sorthing: 7 Sorth	of land as follows: 565482.78 4379360.75 CR91
Jame: See Alta Address:  Jotice is her ursuant to W peration on tate: Jounty: Justrict: Juadrangle: Vatershed:  This Notice S ursuant to W Justin be provide orizontal we urface affect afformation r eadquarters,	eby given:  /est Virginia Code § 22-6A-16(c), notice the surface owner's land for the purpose wv  Marion Lincoln Grant Town Bethel Run  Shall Include:  /est Virginia Code § 22-6A-16(c), this not displayed by W. Va. Code § 22-6A-10(b) to a ll; and (3) A proposed surface use and code by oil and gas operations to the exterelated to horizontal drilling may be obtolocated at 601 57th Street, SE, Characult.aspx.	is hereby given that the und of drilling a horizontal well  UTM NAD 83  Public Road Access Generally used farm  otice shall include: (1)A copsurface owner whose land ompensation agreement compute the damages are compensation the damages are compensation the Secretary, at leston, WV 25304 (304-9)	dersigned we on the tract Easting: 4 Sorthing: 4 Sorthing: 5 Sorthing: 6 Sorthing: 6 Sorthing: 7 Sorth	of land as follows:  565482.78  4379360.75  CR91  Walter and Beulah Patrick  de section; (2) The information required ed in conjunction with the drilling of a affer of compensation for damages to the article six-b of this chapter. Additional Department of Environmental Protection by visiting <a href="https://www.dep.wv.gov/oil-and-www.gov/oil-and-www.dep.wv.gov/oil-and-www.dep.wv.gov/oil-and-www.dep.wv.gov/oil-and-www.dep.wv.gov/oil-and-www.gov/o&lt;/td&gt;&lt;/tr&gt;&lt;tr&gt;&lt;td&gt;Jame: See Alta Address: Jotice is her ursuant to W peration on tate: Jounty: Jostrict: Jouadrangle: Vatershed:  This Notice S ursuant to W o be provide orizontal we urface affect afformation r eadquarters, as/pages/def&lt;/td&gt;&lt;td&gt;eby given:  /est Virginia Code § 22-6A-16(c), notice the surface owner's land for the purpose wv  Marion Lincoln Grant Town Bethel Run  Shall Include:  /est Virginia Code § 22-6A-16(c), this not displayed by W. Va. Code § 22-6A-10(b) to a ll; and (3) A proposed surface use and code by oil and gas operations to the exterelated to horizontal drilling may be obtolocated at 601 57th Street, SE, Characult.aspx.&lt;/td&gt;&lt;td&gt;is hereby given that the und of drilling a horizontal well  UTM NAD 83  Public Road Access Generally used farm  otice shall include: (1)A copsurface owner whose land ompensation agreement content the damages are compensatined from the Secretary, at leston, WV 25304 (304-9)  Address: 115 Pro&lt;/td&gt;&lt;td&gt;dersigned we on the tract casting: 4 Sorthing: 4 Sorthing: 5 Sorthing: 5 Sorthing: 6 Sorthing: 6 Sorthing: 7 Sorth&lt;/td&gt;&lt;td&gt;of land as follows:  565482.78  4379360.75  CR91  Walter and Beulah Patrick  de section; (2) The information required ed in conjunction with the drilling of a affer of compensation for damages to the article six-b of this chapter. Additional Department of Environmental Protection by visiting &lt;a href=" https:="" o<="" oil-and-www.dep.wv.gov="" oil-and-www.gov="" td="" www.dep.wv.gov=""></a>

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.

> RECEIVED Office of Oil and Gas

> > DEC 0 2 2016

# Surface Owners:

Walter R. Patrick and Beulah J. Patrick 159 Horse Shoe Road Farmington, WV 26571



RECEIVED Office of Oil and Gas

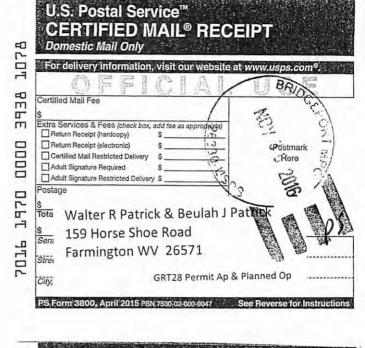
DEC 0 2 2016

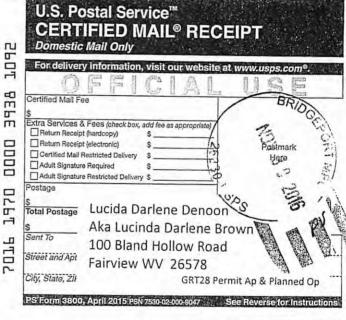
# Surface Owners (road or other disturbance):

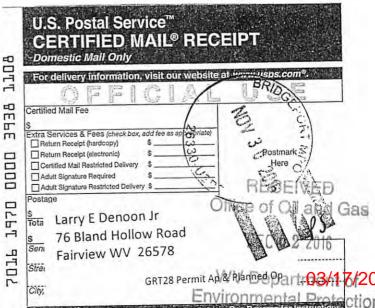
Walter R. Patrick and Beulah J. Patrick 159 Horse Shoe Road Farmington, WV 26571

Lucida Darlene Denoon a/k/a Lucida Darlene Brown 100 Bland Hollow Road Fairview, WV 26578

Larry E. Denoon Jr. 76 Bland Hollow Road Fairview, WV 26578









# Surface Owners (Pits or impoundments):

Walter R. Patrick and Beulah J. Patrick 159 Horse Shoe Road Farmington, WV 26571

U	S. Postal Service™
C	ERTIFIED MAIL® RECEIPT
	mestic Mail Only
For	delivery information, visit our website at www.usps.com®.
	OFFICIAL USSO
Certifie	ed Mail Fee
	Services & Fees (check box, add fee as approfitate)
	turn Receipt (hardcopy) \$ 1735 turn Receipt (electronic) \$ 1735 turn Receipt (electronic) \$ 1735
	rtified Mail Restricted Delivery \$
□ Ad	ult Signature Restricted Delivery \$
Posta	
\$ Tota	Walter R Patrick & Beulah J Patrick
\$ Seni	159 Horse Shoe Road
E.	Farmington WV 26571
Stree	GRT28 Permit Ap & Planned Op
City,	GR128 Permit Ap & Flattice op

PECEIVED Office of Oil and Gas

DEC 0 2 2016

703± 105
300k 1194

API NO. 47-40 -	02429
OPERATOR WELL NO.	516737
Well Pad Name: GRT 2	8

# STATE OF WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS WELL LOCATION RESTRICTION WAIVER

The well operator, EQT Production Company is applying for a permit from the State of West Virginia to conduct oil or gas well work. Please be advised that well work permits are valid for twenty-four (24) months.

### Well Location Restrictions

Pursuant to West Virginia Code § 22-6A-12(a), 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.

# WAIVER

		AA WI A ITIK	
, Travis E. Toothn	nan and Heidi A. Toothman , hereby state that I have	read the Instructions to Persons !	Named on Page WW-6A and the associated
provisions lis	sted above, and that I have received copies	of a Notice of Application, an Ap	oplication for a Well Work Permit on Form
WW-6A and	attachments consisting of pages one (1) th	rough , including th	e erosion and sediment control plan, if
required, and	the well plat, all for proposed well work of	on the tract of land as follows:	• ,
State:	West Virginia	UTM NAD 83 Easting:	565482.778
County:	Marion	UTM NAD 83 Northing:	4379360.749
District:	Lincoln	Public Road Access:	CR 24/1
Quadrangle:		Generally used farm name	: Toothman
Watershed:			
I further state	that I have no objection to the planned wo	ork described in these materials, a	nd I have no objection to a permit being
issued on tho	se materials and I therefore waive all well:	site restrictions listed under West	Virginia Code § 22-6A-12(a).
	RESTRICTIONS BEING WAIVED		JIJON BY A NATURAL PERSON
Please check	call that apply	Signature:	-676/10 duricion
T FYISTIN	NG WATER WELLS	Print Name: 1	ravis E. Toothman and Heidi A. Toothman
_ LXISIII	10 WATER WEEES	Date: April 26, 2	
□ DEVEL	OPED SPRINGS		JTION BY A CORPORATION, ETC.
		Company:	
DWELL	LINGS	By:	
T ACDICE	H THE AL DIN DINCE	Its:	
J AGRICU	ILTURAL BUILDINGS	Signature:	
		Date:	
Vell Operator	EQT Production Company	Signature:	ale sm
y: John W. Dama		Telephone:	
Is: Attorney in Fa		·	
	OFFICIAL SEAL		
A . 3	Notary Public, State Of West Virginia   Sub:	scribed and sworn before me this	
NO SECTION OF THE PROPERTY.	13 Millbrook Rd	ph D. Oliverio	Your Notary Public
<b>₩</b>	Diragebott MA 50000 D	pri D. Caverito	Notary Public
)	My Commission Expires May 06, 2024	Commission Expires May 06, 2024	
il and Gas Pr		Commission Expires may 00, 2024	
		n such as name address and talanha	ne number as part of our regulatory dutice. V

personal information may be disclosed to other State agencies or third parties in 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.

STATE OF WEST VIRGINIA, County of Marion, To-Wit:

I, Janice Cosco, Clerk of the County Commission of said County, do hereby certify that the foregoing writing, with certificate thereto annexed, was this day produced to me in my office and duly admitted to record.

Witness my hand.

Janue Esses Clerk

201600007205
Filed for Record in MARION COUNTY, WV (JANICE COSCO: COUNTY CLERK 06-07-2016 At 02:50 pm. WAIVER DEED 16.00 STATE TAX .00 COUNTY TAX .00 Book 1194 Page 105 - 105

Office of Oil and Gas

DEC 0 2 2016

WV Departmer 13/17/2017 Environmental Protection

# API NO. 47- 49-OPERATOR WELL NO. 516737 Well Pad Name: GRT 28

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

# WELL LOCATION RESTRICTION WAIVER

The well operator, EQT Production Company is applying for a permit from the State of West Virginia to conduct oil or gas well work. Please be advised that well work permits are valid for twenty-four (24) months.

### **Well Location Restrictions**

Pursuant to West Virginia Code § 22-6A-12(a), 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 constructions the department requires to ensure the safety include insurance, bonding and indemnification, as we	tion, drilling and operations. The variance, if granted, shall include terms and and protection of affected persons and property. The terms and conditions may II as technical requirements.
<u>-</u>	WAIVER
provisions listed above, and that I have received copie WW-6A and attachments consisting of pages one (1) trequired, and the well plat, all for proposed well work State:  County:  District:  Quadrangle: Watershed:  Universal Pairmont West  Dunkard Mā! Run  I further state that I have no objection to the planned well was provided and the planned well.	UTM NAD 83 Easting: 565492.778 UTM NAD 83 Northing: 4379360.749 Public Road Access: CR 24/1 Generally used farm name: Toothman  ork described in these materials, and I have no objection to a permit being
WELL SITE RESTRICTIONS BEING WAIVED  *Please check all that apply	site restrictions listed under West Virginia Code § 22-6A-12(a).  FOR EXECUTION BY A NATURAL PERSON Signature: According to Marting Touth
☐ EXISTING WATER WELLS ☐ DEVELOPED SPRINGS	Print Name: Kovin E. Toothman and Martha J. Toothman Date: April 13, 2016 FOR EXECUTION BY A CORPORATION, ETC.
DWELLINGS	Company:By:
AGRICULTURAL BUILDINGS	Signature Date:
Well Operator: EOT Production Company  By: John W. Damato	Signature: Telephone:
Its: Attorney in Fact	
Notary Public, State Of West Virginia JOSEPH D OLIVERIO 13 Millbrook Rd Bridgeport, WV 26330 My Commission Expires May 06, 2024  Oil and Gas Privacy Notice: The Office of Oil and Gas processes your personal information may be disclosed to other State agencie or regulatory requirements, including Freedom of Information	oph D. Oliverio  Commission Expires May 06, 2024  On, such as name, address and telephone number, as part of our regulatory duties. Your or third parties in the normal course of business or as needed to comply with statutory in Act requests. Our office will appropriately secure your personal information. If you appears on the property of the Person Office will appropriately secure your personal information. If you
TE OF WEST VIRGINIA, County of Marion, Vit: I, Janice Cosco, Clerk of the County Commiss nty, do hereby certify that the foregoing writi	ng, with DCC V & 844,0 1194 Page 117 - 117
ificate thereto annexed, was this day produce	WW Danartmant of

STA To-V

Cou

Witness my hand.

**Environmental Protection** 

Janier Goses Clerk



# WEST VIRGINIA DEPARTMENT OF TRANSPORTATION

# **Division of Highways**

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

November 23, 2016

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

Subject: DOH Permit for the GRT 28 Pad Site, Marion County

512725 GRT 28 H1	512726 GRT 28 H2	512727 GRT 28 H3
513437 GRT 28 H4	513438 GRT 28 H5	513439 GRT 28 H6
516734 GRT 28 H7	516735 GRT 28 H8	516736 GRT 28 H9
516737 GRT 28 H10	516738 GRT 28 H11	516739 GRT 28 H12

Dear Mr. Martin,

Cc:

**Earl Ray Tomblin** 

Governor

This well site will be accessed from Permit #04-2016-0588 applied for by EQT Production Company for access to the State Road. The well site is located off of Marion County Route 15/1 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

Day K. Clayton

DEC 0 2 2016

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

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

<u>Material</u>	<u>Ingredient</u>	<b>CAS Number</b>
Water		
Sand	Hydrotreated light petroleum distillate Tributyl tetradecyl phosphonium	14808-60-7
Friction Reducer	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

HEBEIVED Office of Oil and Gas

DEC 0 2 2016

### PROJECT INFORMATION

PROJECT NAME: GRT 28 TAX PARCEL

SURFACE OWNER:

LINCOLN DISTRICT MAP 5 PARCELS 37, 37.2, 37.3, & 37.6

WALTER R. & BEULAG J. PATRICK TW 5 PAR 37

LARRY E. DENOON JR TN 5 FAR 27.2 LINCOLN DISTRICT MARGON COUNTY, WY TOTAL PROPERTY AREA: 3 ACRES SEMPORED DISTURBANCE: 2.3 ACRES

LUCIDA D. DENDON TW 5 PAR 37.3 LINCOLN DESTROCT MARGON COUNTY, WF TOTAL PROPERTY AREA D 59 ACRES TOTAL PROPERTY AREA D 59 ACRES

OIL AND GAS EDVALTY DWNER

SITE LOCATION: THE CRY DE SITE IS LOCATED BELOW THE MIDDE EAST OF CO. BT. 24/)
APPRODUATELY 678 WIES BORTHWEST OF THE CO. BT. 24/) AND BETHAL BUN NUMBER TOWN

APPROVED

WVDEP OOG

7/9/1 1/24/2017

LOCATION COORDINATES
ONT 28 SITE ENTRANCE
LATTUDE 39 260227 LONGITUDE: -80 239671 (NAD BE)

CRT 28 TANK PAD 1 LATITUDE 39 560606 LONGITUDE -80 230943 (NAD 63)

CRT 28 TANK FAD 2 LATITUDE 39:560839 LONGITUDE -80.239040 (NAD 63)

- 2 97 1 ACRES (PAD & ACCESS ROAD) - 154 1 ACRES (PAD & ACCESS ROAD)

- 15.30 # ACRES TOTAL SITE DISTURBANCE

ENTRANCE PERMIT

MISS UTILITY STATEMENT
WISS UTILITY OF VIST TRICKE AND SOFTING FOR THE LOCATING OF UTILITIES PRIOR TO THES
PROBLET MESSES, BYEAR (15) EMBORY
SO ADDITION, MISS UTILITY WELL BY CONTACTED PRIOR TO START OF THE PROJECT

#### ENVIRONMENTAL NOTES

ENVIRONMENTAL NOTES A

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### GENERAL DESCRIPTION

THE CRIT-DE PAD AND TANK PADS ARE BEING CONSTRUCTED TO AM IN THE DEVELOPMENT OF INCOMPOUND, MARKETILES SHALE CAN WELLS.

#### RESTRICTIONS NOTES:

1 STIGLARS WITHIN 100 FEET OF THE PROJECT LOD UNT 4 - INTERMITIENT UNT 3 - EPHOMESAL (POTENTIALLY SOLATED) UNT 2 - EPHOMESAL BETTEL RUN - PIETNICAL

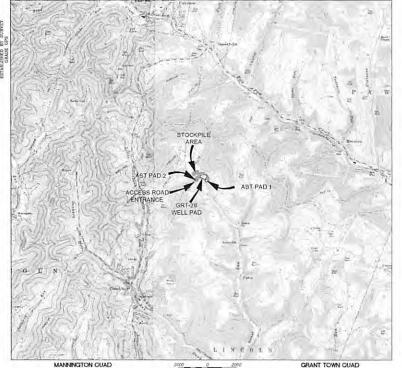
PONDS OR WETLANDS WITHIN 100 PERT OF THE PROJECT LOD

- 2. NO NATURALLY PRODUCING TROUT STREAMS WITHIN 300 FEET OF LDD OR PAD
- 3 NO CROUNDWATER INTAKES OR PUBLIC WATER SUPPLY FACILITIES WITHIN 1000 FEFT OF PAD OR LOD
- 4. NO KNOWN WELLS OR DEVELOPED SPRINGS WITHIN 250 FEET OF WELL HEADS
- 5. RESIDENCE 2 IS 771 FEET FROM THE CENTER OF THE PAD. EGISTING TRAILER OUTSIDE OF THE AGO IS SES FEET FROM THE CENTER OF THE PAD. ABANDONED HOUSE 1 IS AND FRET FROM THE CENTER OF THE PAD.
- A. SHIPD 1 IN TAX SOURCE PART AND IN 102 FEET FROM THE CENTER OF THE PAD
- 7. THE EXISTING TRAILER AND HOUSE WITHIN THE 625' RADIUS HAVE SIGNED AND RECORDED WAIVERS

# GRT-28 FINAL SITE PLAN **EQT PRODUCTION COMPANY**

PROPOSED WELL NO. WV512725, WV512726, WV512727, WV513437, WV513438, WV513439, WV516734, WV516735, WV516736, WV516737, WV516738, & WV516739.

> SITUATE ON THE WATERS OF BETHEL RUN IN LINCOLN DISTRICT, MARION COUNTY, WEST VIRGINIA,



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!!

LIST OF DRAWINGS

- 1 COVER SHEET
- 2 NOTES
- 3 OVERALL SHEET INDEX & VOLUMES
- 5 ACCESS ROAD PROFILES
- 7 TANK PAD CROSS SECTIONS
- 9 CONSTRUCTION DETAILS
- 11 CONSTRUCTION DETAILS



OPERATOR EQT PRODUCTION COMPANY OPERATOR ID 308688 115 PROFESSIONAL PLACE P.O. BOX 280 BRIDGEPORT, WY 26330 PHONE (304) 348-3870

ENGINEER/SURVEYOR

SMITH LAND SURVEYING, INC. 12 VANHORN DRIVE P.O. BOX 150 GLENVILLE, WV 26351 PHONE: (304) 462-5634





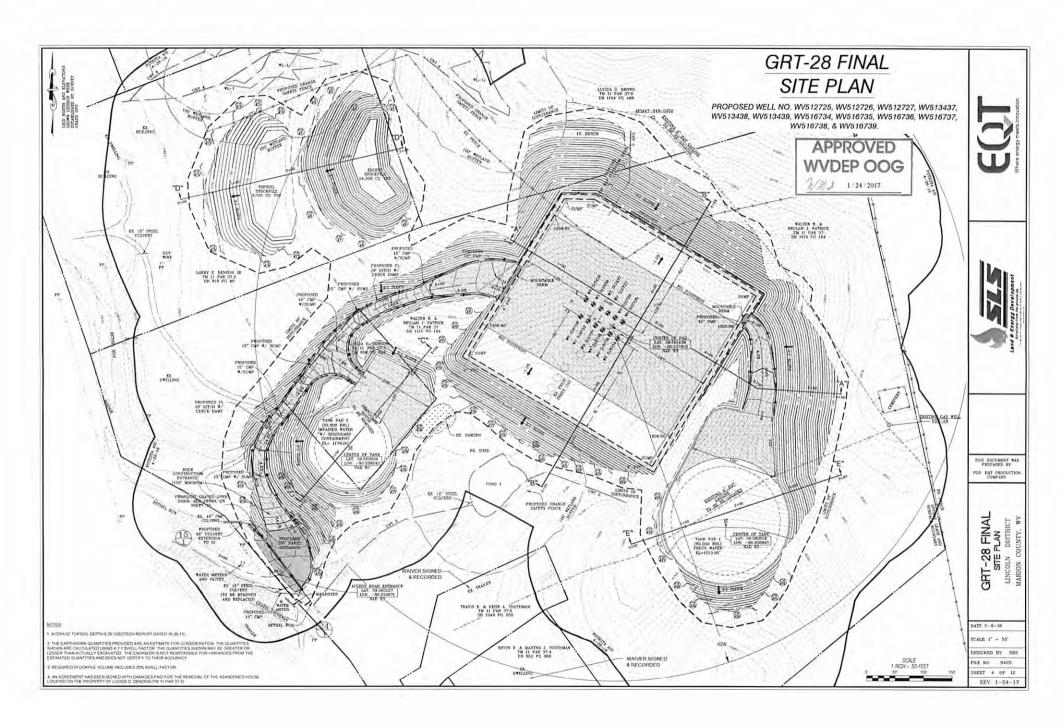


FOR EQT PRODUCTION

GRT-28 FINAL STE PLAN

DATE 5-9-16 SCALE: 1" - 2000" ESIGNED BY DBS SHEET 1 OF 12

REV: 1-04-2017





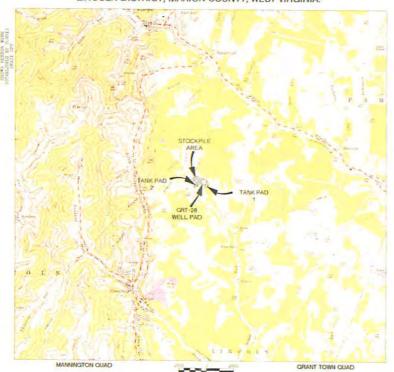
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# GRT-28 FINAL SITE PLAN **EQT PRODUCTION COMPANY**

PROPOSED WELL NO. WV512725, WV512726, WV512727, WV513437, WV513438, WV513439, WV516734, WV516735, WV516736, WV516737, WV516738, & WV516739,

### SITUATE ON THE WATERS OF BETHEL RUN IN LINCOLN DISTRICT, MARION COUNTY, WEST VIRGINIA.



MISS Utility of West Virginia 1-600-245-4948 West Virginia State Law (Section XIV. Chapter 24-C) Requires that you call two husiness days before you dig in the state of West Virginia IT'S THE LAW?

## LIST OF DRAWINGS

- 1 COVER SHEET
- Z NOTES
- I OVERALL SHEET INDEX & VOLUMES
- 4 PRELIMINARY SITE PLAN
- 5 ACCESS ROAD PROFILES
- 6 MAIN ACCESS CROSS SECTIONS 7 TANK PAR CHORN SECTIONS
- B PRELIMINARY RECLAMATION PLAN
- 9 CONSTRUCTION DEVAILS
- U CONSTRUCTION ESTARS
- IF CONSTRUCTION DOTAGE

LEGEND		
	PROP INDEX CONTROLS	
EX INTERMEDIATE CONTOUR	PROF INTERMEDIATE CONTOUR	
IN BUSINGARY LINE	PROP EXCLAMATION 2 CONTOUR	
IN BOAD TROP OF CRAVEL TIRET	PROP RECLAMATION 10' CONTROLS	
IN ROAD RACE OF PAREMENT	PROP GRADING LIMITS	
IN BUILD CENTERLINE	PROP LIMITS OF DISTERBANCE -	
X DITCHLINE	PROP WELL PAD	
N CLESENT	PROF WELL READ	
DI AREHAL	PROP. 4" PAY DRAIN PROF.	
N PROCEUSE	PROF STAY DEADY	
N CATE	PROP CENTAINMENT BEEST	
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N. CASSING H/W N. WATERLINE		
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	X - PECTION CRIB INTERMEDIATE	
	N-SECTION PROPOSED CRADE	
	N-SECTION EXISTING CRADE	
	N-DEUTION WATER SURFACE	
	CENTER OF PAD 1000°	
	PROPOSED WELL CRILAR	
	THE PERSON NAMED IN COLUMN	

S DW 12/12/2016

### OPERATOR

EQT PRODUCTION COMPANY OFFICATION ID 300086 115 PROFESSIONAL PLACE P G BOX 288 MENDICHIGAT, WY 28339 PRIOSE (304) 348-3870

ENGINEER/SURVEYOR

SMITH LAND SURVEYING INC 12 VANIORN DRIVE P 0 BOX 156 CLENVILE WV 26251 PHODE (204) 462-5634







GRT-28 FINAL SITE PLAN LINCOLN DISTRICT

DATE 5-9-16

CALE 1' - 2000 ESIGNED BY DIES FILE NO 8423

HEET 1 OF 12 REV 11-16-16