



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, May 17, 2017
WELL WORK PERMIT
Horizontal 6A / New Drill

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

Re: Permit approval for GLO76H6
47-049-02452-00-00

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: GLO76H6
Farm Name: TONKERY, ROBERT E. & MAXINE P.
U.S. WELL NUMBER: 47-049-02452-00-00
Horizontal 6A / New Drill
Date Issued: 5/17/2017

Promoting a healthy environment.

05/19/2017

PERMIT CONDITIONS

\$7 0 4 9 0 2 4 5 2

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

CONDITIONS

1. This proposed activity may require permit coverage from the United States Army Corps of Engineers (USACE). Through this permit, you are hereby being advised to consult with USACE regarding this proposed activity.
2. If the operator encounters an unanticipated void, or an anticipated void at an unanticipated depth, the operator shall notify the inspector within 24 hours. Modifications to the casing program may be necessary to comply with W. Va. Code § 22-6A-5a (12), which requires drilling to a minimum depth of thirty feet below the bottom of the void, and installing a minimum of twenty (20) feet of casing. Under no circumstance should the operator drill more than one hundred (100) feet below the bottom of the void or install less than twenty (20) feet of casing below the bottom of the void.
3. When compacting fills, each lift before compaction shall not be more than 12 inches in height, and the moisture content of the fill material shall be within limits as determined by the Standard Proctor Density test of the actual soils used in specific engineered fill, ASTM D698, Standard Test Method for Laboratory Compaction Characteristics of Soil Using Standard Effort, to achieve 95 % compaction of the optimum density. Each lift shall be tested for compaction, with a minimum of two tests per lift per acre of fill. All test results shall be maintained on site and available for review.
4. Operator shall install signage per § 22-6A-8g (6) (B) at all source water locations included in their approved water management plan within 24 hours of water management plan activation.
5. Oil and gas water supply wells will be registered with the Office of Oil and Gas and all such wells will be constructed and plugged in accordance with the standards of the Bureau for Public Health set forth in its Legislative rule entitled *Water Well Regulations*, 64 C.S.R. 19. Operator is to contact the Bureau of Public Health regarding permit requirements. In lieu of plugging, the operator may transfer the well to the surface owner upon agreement of the parties. All drinking water wells within fifteen hundred feet of the water supply well shall be flow tested by the operator upon request of the drinking well owner prior to operating the water supply well.
6. Pursuant to the requirements pertaining to the sampling of domestic water supply wells/springs the operator shall, no later than thirty (30) days after receipt of analytical data provide a written copy to the Chief and any of the users who may have requested such analyses.
7. 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: _____
4704902452

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.

05/19/2017

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

1) Well Operator: EQT Production Company 306686 Marion Mannington Glover Gap
Operator ID County District Quadrangle

2) Operator's Well Number: GLO76H6 Well Pad Name: GLO76

3) Farm Name/Surface Owner: Robert E & Maxine P Tonkery Public Road Access: Co Rt 64/4

4) Elevation, current ground: 1424 Elevation, proposed post-construction: 1424

5) Well Type (a) Gas Oil Underground Storage

Other

(b) If Gas Shallow Deep

Horizontal

6) Existing Pad: Yes or No Yes

7) Proposed Target Formation(s), Depth(s), Anticipated Thickness and Expected Pressure(s): Marcellus, 7708', 56', 2593 PSI *SPW 5/11/2017*

8) Proposed Total Vertical Depth: 7708

9) Formation at Total Vertical Depth: Marcellus

10) Proposed Total Measured Depth: 11345

11) Proposed Horizontal Leg Length: 3190

12) Approximate Fresh Water Strata Depths: 263

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

14) Approximate Saltwater Depths: None reported

15) Approximate Coal Seam Depths: 652,808,1067,1166

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

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

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

WW-6B
(04/15)

API NO. 47- 049
OPERATOR WELL NO. GLO76H5
Well Pad Name: GLO76

18)

CASING AND TUBING PROGRAM

4701000215

TYPE	Size (in)	New or Used	Grade	Weight per ft. (lb/ft)	FOOTAGE: For Drilling (ft)	INTERVALS: Left in Well (ft)	CEMENT: Fill-up (Cu. Ft.)/CTS
Conductor	20	New	A-500	78.6	40	40	60 ft ³ / CTS
Fresh Water	13 3/8	New	J-55	54.5	413	413	387 ft ³ / CTS
Coal							
Intermediate	9 5/8	New	A-500	40	3051	3051	1211 ft ³ / CTS
Production	5 1/2	New	P-110	20	11345	11345	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							

SDW
5/11/2017

TYPE	Size (in)	Wellbore Diameter (in)	Wall Thickness (in)	Burst Pressure (psi)	Anticipated Max. Internal Pressure (psi)	Cement Type	Cement Yield (cu. ft./k)
Conductor	20	26	.375	1378	1102	Class A	1.18
Fresh Water	13 3/8	17 1/2	.38	2700	2160	See Variance	1.19
Coal							
Intermediate	9 5/8	12 3/8	.395	3950	3160	See Variance	1.19
Production	5 1/2	8 1/2	.361	12640	10112	Class A/H	1.123/2.098
Tubing	2 3/8	NA	.19	7700			
Liners							

PACKERS

Kind:				
Sizes:				
Depths Set:				

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 6810'. Kick off and drill curve. Drill the lateral in the Marcellus. Cement casing.

4704904107

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): No Additional Disturbance

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

23) Describe centralizer placement for each casing string:

- Surface: Bow spring centralizers – One 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
Surface (Type 1 Cement): 0-3% Calcium Chloride. Used to speed the setting of cement slurries
Intermediate (Type 1 Cement): 0-3% Calcium Chloride. Used to speed the setting of cement slurries.
Production:
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 % Calcuim Carbonate. Acid solubility.

25) Proposed borehole conditioning procedures:

Surface: Circulate hole clean while rotating & reciprocating the drill string until cuttings diminish at surface.
Intermediate: Circulate hole clean while rotating & reciprocating the drill string until cuttings diminish at surface.
Production: Pump marker sweep with nut plug to determine actual hole washout. Calculate a gauge holes bottoms up volume. Perform a cleanup cycle by pumping 3-5 bottoms up or until the shakers are clean. Check volume of cuttings coming across the shakers every 15 minutes.

Received
Office of Oil & Gas

*Note: Attach additional sheets as needed.

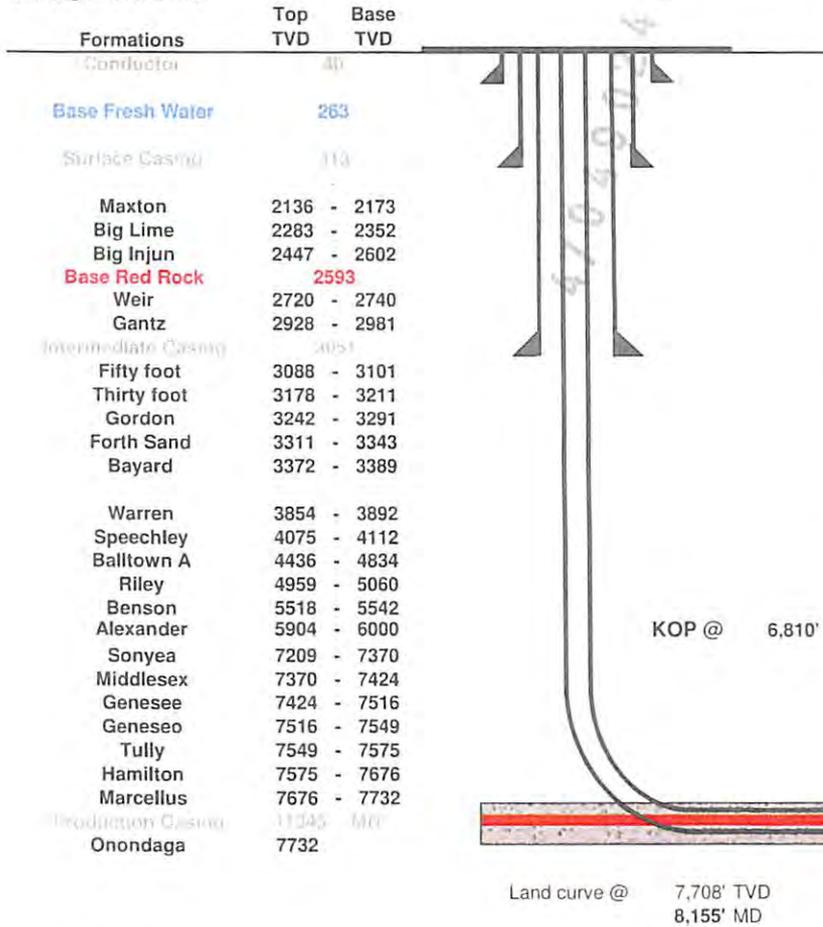
MAR 22 2017
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Well **GLO76H6**
 EQT Production
 Glover Gap Quad
 Marion County, WV

Azimuth 337
 Vertical Section 3746

Note: Diagram is not to scale



Casing and Cementing		Deepest Fresh Water: 263'		
Type	Conductor	Surface	Intermediate	Production
Hole Size, In.	26	17 1/2	12 3/8	8 1/2
Casing Size, OD In.	20	13 3/8	9 5/8	5 1/2
Casing Wall Thickness, In.	0.375	0.380	0.395	0.361
Depth, MD	40'	413'	3,051'	11,345'
Weight	78.6#	54.5#	40#	20#
Grade	A-500	J-55	A-500	P-110
New or Used	New	New	New	New
Burst (psi)	1378	2,700	3,950	12,640
Cement Class	A	A / Type 1	A / Type 1	A / H
Cement Yield	1.18	1.19	1.19	1.123 / 2.098
Top of Cement (Planned)	Surface	Surface	Surface	500' above top Producing Zone
Method	Displacement	Displacement	Displacement	Displacement
Est. Volume (cu ft)	60	387	1,211	2,162
Possible Additives	N/A	Calcium Chloride	Calcium Chloride	Calcium Carbonate, Fluid Loss, Extender, Dispersant, Viscosifier, Defoamer, POZ, Bonding Agent, Retarder, Anti-Settling/Suspension Agent

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Proposed Well Work:
 Drill and complete a new horizontal well in the Marcellus formation.
 Drill the vertical to an approximate depth of 6810'.
 Kick off and drill curve. Drill lateral in the Marcellus. Cement casing.

EQT Production
Hydraulic Fracturing Monitoring Plan
Pad ID: GLO76
Marion County, WV

4704902452

3/8/17

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MAR 22 2017

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05/19/2017

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 GLO76 pad: GLO76H5, GLO76H6

Due to the requirements under 35CSR8 5.11, the permittee is required to review the area surrounding the proposed well pad so as to identify and evaluate potential conduits for unintended fracture propagation. A report is required to be submitted along with a well work permit application.

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 coordination with well operators of the timing and location of the hydraulic fracturing, establishment of measures 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 Well Operators

EQT, using available data (WV Geological Survey, WVDEP website, and IHS data service), has identified all known wells and well operators within 500 feet of this pad and the lateral sections that are known or could reasonably be expected to be within range of the fracture propagation. A map showing these wells along with a list of the wells and operators is included in **Attachment A**.

EQT will notify these operators of the hydraulic fracturing schedule for these wells, and coordinate with them throughout the fracturing process.

EQT will recommend to these operators at a minimum to:

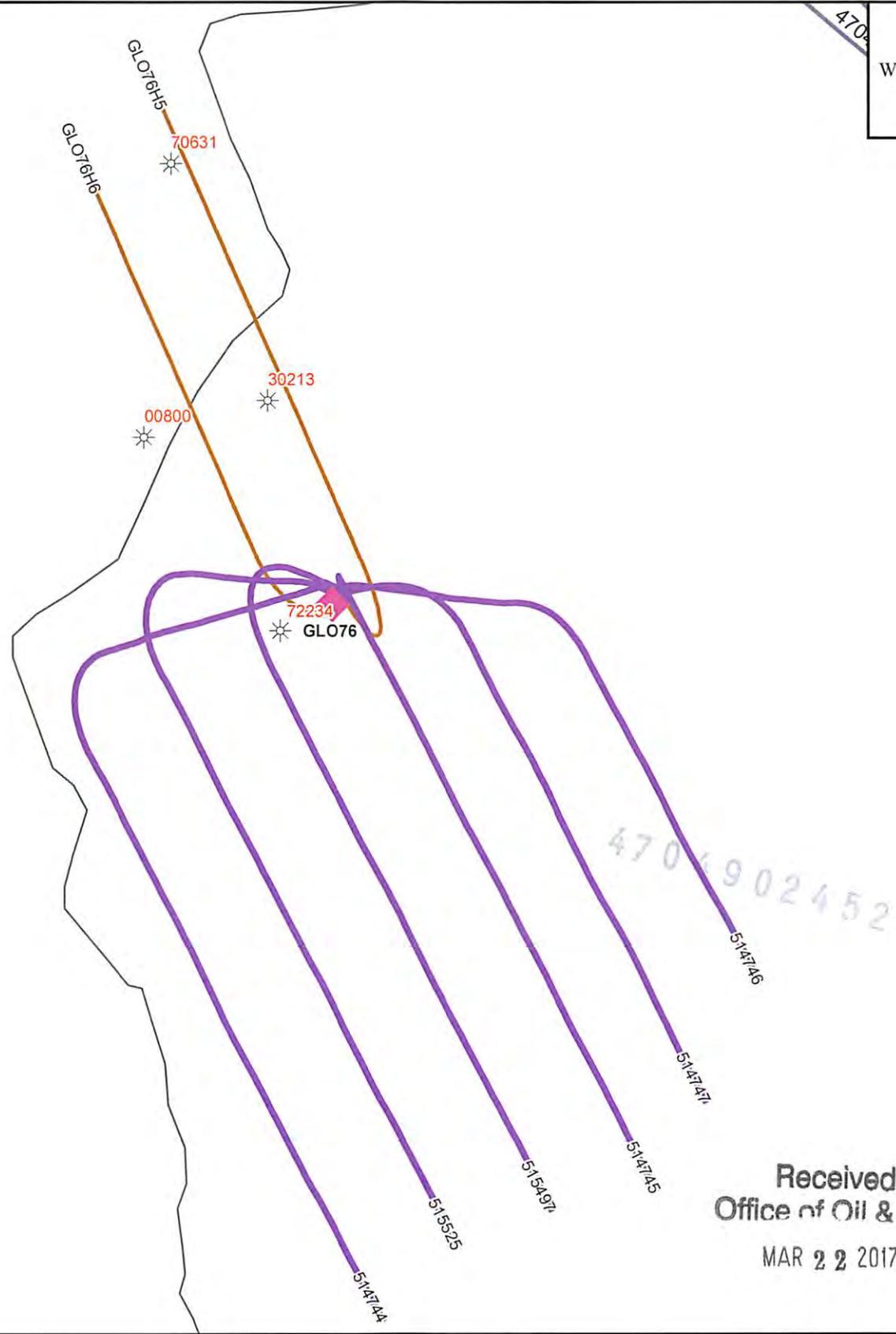
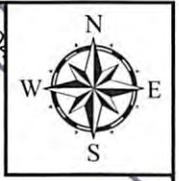
1. Inspect their surface equipment prior to fracturing to establish integrity and establish pre-frac well conditions
2. Observe wells closely during and after fracturing and monitor for abnormal increases in water, gas or pressure
3. Inspect or install master valves or other necessary equipment for wellhead integrity capable of a pressure recommended by EQT
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 other operators, and ongoing monitoring of the work upon request of OOG or immediately in the event of any noted abnormalities.

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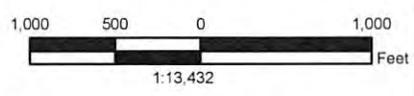
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MAR 22 2017

EQT
EQT Corporation
625 Liberty Avenue
Pittsburgh, PA 15222

GLO76 Pad

Vertical Offsets and Foreign Laterals within 500'

- Legend**
- GLO76 Vertical Offsets
 - Genesee Spud
 - Middlesex Spud
 - Marcellus Spud
 - Point Pleasant Spud
 - GENESIO
 - MARCELLUS
 - MIDDLESEX
 - POINT PLEASANT
 - UTICA
 - Prospect Wells



Disclaimer:

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.



UWI	ABAND_DATE	COMP_DATE	COUNTY_NM	CURR_OPER	ELEVATION	ELEV_REF_CD	FNL_STAT	LATITUDE	LONGITUDE	OPER_NAME	PERMIT_DT	SECTION_NO	SPUD_DATE	TD_FORM_NM	TOT_DEPTH	Permit	
4704930213000C	4/8/1939	9/19/1911	MARION	HOPE NATURAL GAS	1349.0000000000000000	GR	ABD-GW	39.5679490000000000	-80.4916020000000000	HOPE NATURAL GAS	7/20/1911		8/4/1911	POCONO	2425.0000000000000000	30213	
470497234000C			MARION	UNKNOWN		GR	UNKWN	39.5633040000000000	-80.4913050000000000	UNKNOWN							7234
47103008000000C			WETZEL	EQT PRODUCTION COMPANY		GR	PSEUDO	39.5672230000000000	-80.4948640000000000	CARNEGIE NATURAL GAS CORPORATION							00800
4710370631000C			WETZEL	UNKNOWN		GR	UNKWN	39.5727380000000000	-80.4941150000000000	UNKNOWN							70631

*No Perforation Data on IHS

4704902152

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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

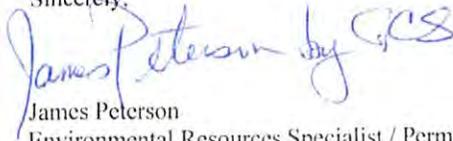
Dear Sir or Madam,

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

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Office of Oil & Gas
MAR 22 2017

05/19/2017



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)
REGULATIONS OF CEMENTING OIL)
AND GAS WELLS)

REPORT OF THE OFFICE

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

FINDINGS OF FACT

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

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

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

Promoting a healthy environment

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Office of Oil & Gas**

MAR 22 2017

05/19/2017

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

Received
Office of Oil & Gas

MAR 22 2017

05/19/2017

WW-9
(4/16)

API Number 47 - 049 - _____
Operator's Well No. _____

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 308886

Watershed (HUC 10) Starkay Run & Wiley Fork Quadrangle Glover Gap

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

Will a pit be used? Yes No

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

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

Proposed Disposal Method For Treated Pit Wastes:

- Land Application
- Underground Injection (UIC Permit Number 0014, 8482, 4037)
- Reuse (at API Number Various)
- Off Site Disposal (Supply form WW-9 for disposal location)
- Other (Explain _____)

*SDW
5/11/2017*

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

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

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

Additives to be used in drilling medium? See Attached

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

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

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

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

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

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

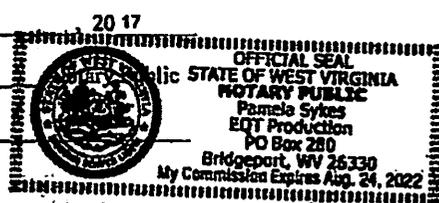
Company Official Signature *Victoria J. Roark*

Company Official (Typed Name) Victoria J. Roark

Company Official Title Permitting Supervisor

Subscribed and sworn before me this 15 day of March

Paula...
My commission expires 8-24-22



05/19/2017

EQT Production Company

Proposed Revegetation Treatment: Acres Disturbed No additional disturbance Prevegetation pH 6.5

Lime 3 Tons/acre or to correct to pH 6.5

Fertilizer type Granular 10-20-20

Fertilizer amount 1/3 lbs/acre

Mulch 2 Tons/acre

Seed Mixtures

Temporary

Permanent

Seed Type	lbs/acre
KY-31	40
Alsike Clover	5
Annual Rye	15

Seed Type	lbs/acre
Orchard Grass	15
Alsike Clover	5

Attach:

Maps(s) of road, location, pit and proposed area for land application (unless engineered plans including this info have been provided). If water from the pit will be land applied, include dimensions (L x W x D) of the pit, and dimensions (L x W), and area in acreage, of the land application area

Photocopied section of involved 7.5' topographic sheet.

Plan Approved by: S. P. O'Wanette

Comments: Existing Rd

Title: OOG Inspector Date: 5/11/2017

Field Reviewed? Yes No

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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MAR 22 2017

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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

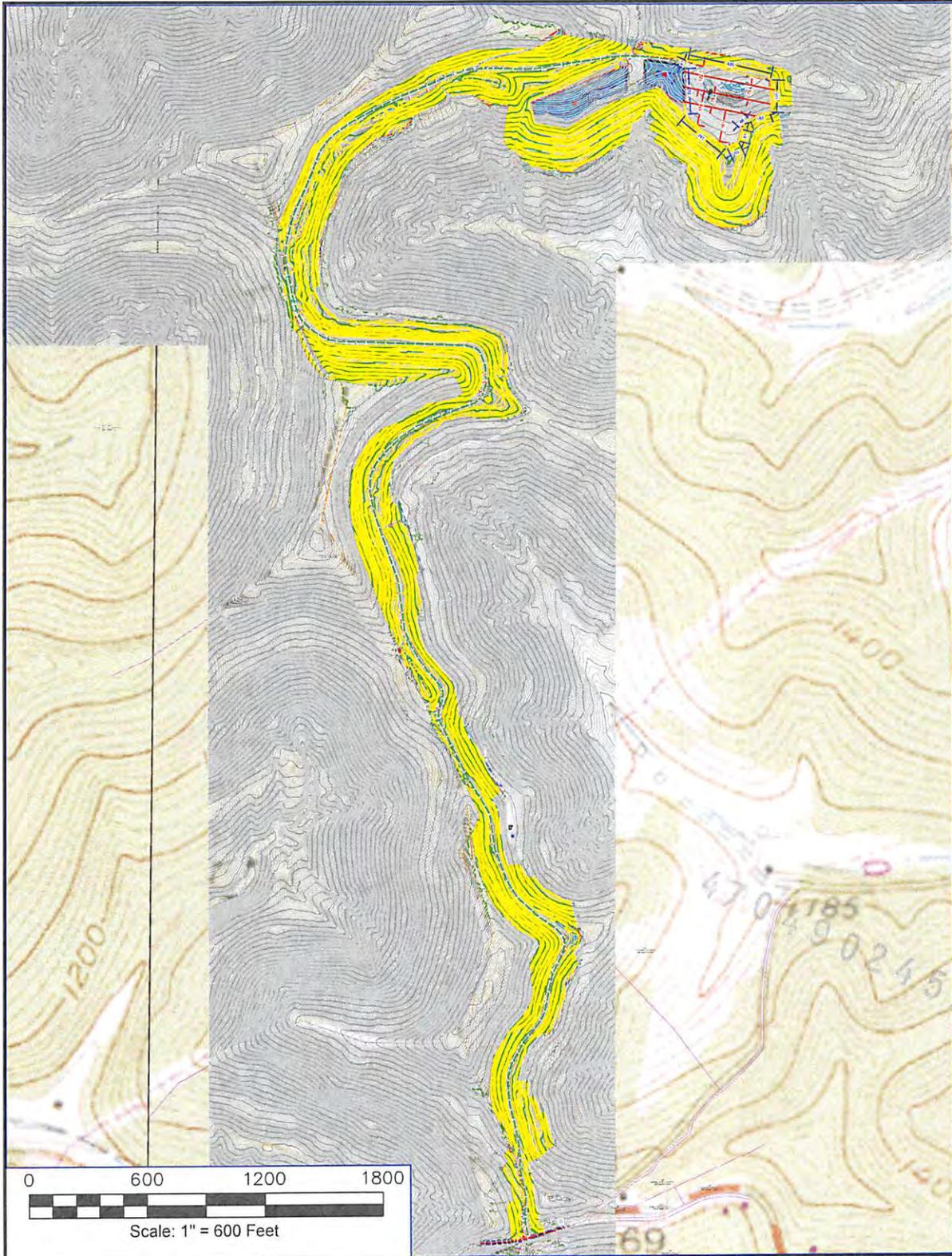
P.O. Box 430
Reno, OH 45773
740-516-6021 Well
740-374-2940 Reno Office Jennifer
Nobel County/Jackson Township
Permit # 4037

KING EXCAVATING CO.

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

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Office of Oil & Gas
MAR 22 2017

05/19/2017



Glover Gap 7.5' USGS QUADRANGLE		Proposed Disturbance Area	
Projected culvert inventory. (for bid purposes only)		Well Site Location	See Site Plan
15" minimum diameter culverts	See Site Plan	Proposed Access Road	See Site Plan
24" minimum diameter culverts	See Site Plan	Approximate Total Disturbance	See Site Plan
DRAWN BY: Scott Brown	DATE: September 13, 2016	FILE NO: 341-14	DRAWING FILE NO: GLO 76 Rec Plan

Note: SEE SITE PLAN OF GLO 76 FOR COMPLETE GRADING & DRAINAGE CONSTRUCTION INCLUDING EROSION & SEDIMENT CONTROL DETAILS, ETC.

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MAR 22 2017



SURVEYING AND MAPPING SERVICES PERFORMED BY:
ALLEGHENY SURVEYS, INC.
 1-800-482-8606
 Birch River Office 237 Birch River Road
 Phone: (304) 649-8606 P.O. Box 438
 Fax: (304) 649-8608 Birch River, WV 26610

05/19/2017



Where energy meets innovation.™

1704001

Site Specific Safety Plan

EQT GLO 76 Pad

Mannington

Marion County, WV

GLO76H6

For Wells:

[Signature]
EQT Production
Permitting Supervisor
Title
3-14-17
Date

Date Prepared: November 7, 2016

SDW
5/11/2017

WV Oil and Gas Inspector

Title

Date

**GLO76H6
GLO 76
EQT Production Company**

TH: 8854'

BH: 10751'

LATITUDE 39 - 35 - 00

LONGITUDE 80 - 27 - 30
BH: 3812'

TH: 7041'

GRID NORTH

GLO76H6
Bottom Hole

Lease No.
705480

Lease No.
993310

Lease No.
991935

GLO76H6
Landing Point

GLO76H6

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

(⊙) Denotes Location of Well on United States Topographic Maps



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

Ben R. Singleton
P.S. 2092



SEAL

FILE NO: 341-14
DRAWING NO: 341-14 GLO 76 H6
SCALE: 1" = 1000'
MINIMUM DEGREE OF ACCURACY: 1:2500
PROVEN SOURCE OF ELEVATION: NGS CORS Station

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

DATE: May 9 20 17
OPERATOR'S WELL NO.: GLO76H6
API WELL NO
47 - 49 - 02452
STATE COUNTY PERMIT

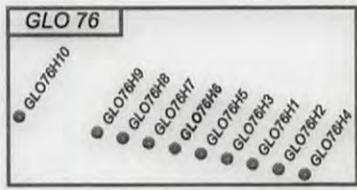
WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL
(IF GAS) PRODUCTION: STORAGE DEEP SHALLOW
LOCATION: ELEVATION: 1424' (As-built) WATERSHED Starkey Run and Wiley Fork QUADRANGLE: Glover Gap
DISTRICT: Mannington COUNTY: Marion
SURFACE OWNER: Robert E. & Maxine P. Tonkery ACREAGE: 05/19/2017
ROYALTY OWNER: Lynn Ann Brower, et al. LEASE NO: 991935 ACREAGE: 111.0
PROPOSED WORK: DRILL CONVERT DRILL DEEPER FRACTURE OR STIMULATE PLUG OFF OLD FORMATION
 PERFORATE NEW FORMATION OTHER PHYSICAL CHANGE IN WELL (SPECIFY)
 PLUG AND ABANDON CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus ESTIMATED DEPTH: 7,708'

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

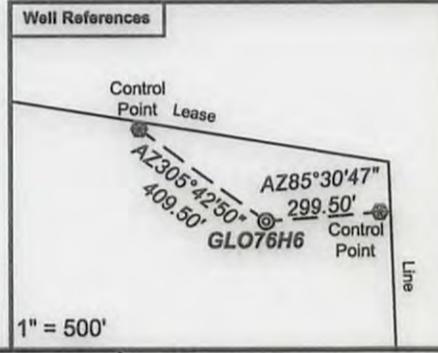
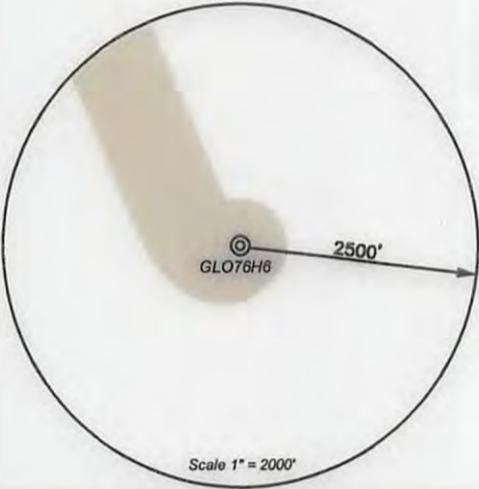
GLO76H6
GLO 76
EQT Production Company

Notes:
GLO76H6 coordinates are
NAD 27 N: 389,069.61 E: 1,720,971.25
NAD 27 Lat: 39.564003 Long: -80.489738
NAD 83 UTM N: 4,379,501.43 E: 543,847.96
GLO76H6 Landing Point coordinates are
NAD 27 N: 389,382.63 E: 1,720,354.75
NAD 27 Lat: 39.564844 Long: -80.491937
NAD 83 UTM N: 4,379,593.66 E: 543,658.54
GLO76H6 Bottom Hole coordinates are
NAD 27 N: 392,319.17 E: 1,719,108.26
NAD 27 Lat: 39.572868 Long: -80.496474
NAD 83 UTM N: 4,380,481.99 E: 543,263.89
West Virginia Coordinate system of 1927 (North Zone)
based upon Differential GPS Measurements.
Plat orientation, corner and well ties are based upon
the grid north meridian.
Well location references are based upon the grid north
meridian.
UTM coordinates are NAD83, Zone 17, Meters.

Tract I.D.	Tax Map No.	Parcel No.	County	District	Surface Tract Owner	Acres
1	43	11	Marion	Mannington	Robert E. & Maxine P. Tonkery	111.00
2	43	22	Marion	Mannington	Paul Able Trustee, et al.	83.00
3	15	26	Wetzel	Grant	William Jack Barr, et al.	76.22
4	15	36	Wetzel	Grant	Barry L. Long	7.00
5	43	10	Marion	Mannington	Robert S. & Gloria L. Thorn	25.33
6	45	28	Marion	Mannington	Delbert C. Teagarden, Jr.	40.80
7	45	29	Marion	Mannington	Raymond C. Teagarden	61.02
8	43	11.1	Marion	Mannington	David A. & Diane E. Floyd	30.00
9	20	1	Wetzel	Grant	Alan D. & Diana L. Barr	13.00
10	15	34	Wetzel	Grant	Karen R. Dennison, et al.	111.40
11	15	35	Wetzel	Grant	Thomas E. Wyatt, et al.	174.68
12	43	21	Marion	Mannington	Raymond & Lois E. Joy	66.50
13	43	20	Marion	Mannington	Raymond & Lois E. Joy	23.50
14	43	15	Marion	Mannington	Thomas W. Neer	46.75
15	43	12	Marion	Mannington	Thomas A. & Betty L. Heldreth	16.75
16	43	9	Marion	Mannington	Robert S. & Gloria L. Thorn	46.79
17	15	33	Wetzel	Grant	William Jack Barr, et al.	10.75
18	15	25	Wetzel	Grant	William Jack Barr, et al.	4.20
19	15	24	Wetzel	Grant	William Jack Barr, et al.	4.75
20	15	23	Wetzel	Grant	William Jack Barr, et al.	3.88
21	15	22	Wetzel	Grant	Donald W. & Dianna White	3.63
22	15	13	Wetzel	Grant	Donald W. & Dianna White	40.00
23	15	7.1	Wetzel	Grant	Donald W. & Dianna White	7.80
24	15	37	Wetzel	Grant	Coastal Forest Resources Co.	1.45
25	43	28	Marion	Mannington	Ernest W. & Nancy A. Michael	15.38
26	43	25	Marion	Mannington	Ernest W. & Nancy A. Michael	40.14



Lease No.	Acres	Owner
993310	83	ET Blue Grass LLC, et al.
705480	83.22	Jeffrey Scott Cozart, et al.



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



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

Ben R. Singleton
P.S. 2092



FILE NO: 341-14
DRAWING NO: 341-14 GLO 76 H6
SCALE: 1" = 1000'
MINIMUM DEGREE OF ACCURACY: 1:2500
PROVEN SOURCE OF ELEVATION: NGS CORS Station



DATE: May 9 20 17
OPERATOR'S WELL NO.: 515496
API WELL NO
47 - 49 - 02452
STATE COUNTY PERMIT

WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL
(IF GAS) PRODUCTION: STORAGE DEEP SHALLOW
LOCATION: ELEVATION: 1424' (As-built) WATERSHED Starkey Run and Wiley Fork QUADRANGLE: Glover Gap
DISTRICT: Mannington COUNTY: Marion
SURFACE OWNER: Robert E. & Maxine P. Tonkery ACREAGE: 85/119/2017
ROYALTY OWNER: Lynn Ann Brower, et al. LEASE NO: 991935 ACREAGE: 111.00
PROPOSED WORK: DRILL CONVERT DRILL DEEPER FRACTURE OR STIMULATE PLUG OFF OLD FORMATION
 PERFORATE NEW FORMATION OTHER PHYSICAL CHANGE IN WELL (SPECIFY)
 PLUG AND ABANDON CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus ESTIMATED DEPTH: 7,708'

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

**INFORMATION SUPPLIED UNDER WEST VIRGINIA CODE
Chapter 22, Article 6A, Section 5(a)(5)
IN LIEU OF FILING LEASE(S) AND OTHER CONTINUING CONTRACT(S)**

Under the oath required to make the verification on page 1 of this Notice and Application, I depose and say that I am the person who signed the Notice and Application for the Applicant, and that –

- (1) the tract of land is the same tract described in this Application, partly or wholly depicted in the accompanying plat, and described in the Construction and Reclamation Plan;
- (2) the parties and recordation data (if recorded) for lease(s) or other continuing contract(s) by which the Applicant claims the right to extract, produce or market the oil or gas are as follows:

Lease Name or Number	Grantor, Lessor, etc.	Grantee, Lessee, etc.	Royalty	Book/Page
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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

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Office of Oil & Gas
MAR 22 2017**

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 Roark
 Its: Permitting Supervisor

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MAR 22 2017**

Lease No.	Grantor, Lessor, etc.	Grantee, Lessee, etc.	Royalty	Book/Page
<u>991935</u>	Lynn Ann Brower, et al.	EQT Production Company	**	DB 1134/110
<u>993310</u>	Dennis Ice, et al.	EQT Production Company	**	DB 1134/632
	<u>Will E. Morris Heirs Trust 92, et al. (Current Royalty Owner)</u>		**	
<u>705480</u>	Seymour McIntire, et al.	C.V. Smith/Carnegie Natural Gas Company		DB 96/385
	Carnegie Natural Gas Company	Carnegie Production Company		LB 228/859
	Carnegie Production Company	Equitable Production-Eastern States, Inc.		see attached
	Equitable Production-Eastern States, Inc.	Equitable Production Company		see attached
	Equitable Production Company	EQT Production Company		CB 281/346 Doddridge

**We certify that we will pay a minimum 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 well.

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Office of Oil & Gas
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February 21, 2017

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

Re: GLO76H6
Mannington 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,

A handwritten signature in blue ink, appearing to read 'Vicki L'.

Vicki Roark
Permitting Supervisor-WV

4704902752

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Office of Oil & Gas
MAR 22 2017

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

Date of Notice Certification: 3-17-17

API No. 47- 049 -
Operator's Well No. GLO76H6
Well Pad Name: GLO76

Notice has been given:

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

State: <u>WV</u>	UTM NAD 83	Easting: <u>543,847.96</u>
County: <u>Marion</u>		Northing: <u>4,379,501.43</u>
District: <u>Mannington</u>	Public Road Access: <u>Co Rt 64/4</u>	
Quadrangle: <u>Glover Gap</u>	Generally used farm name: <u>Robert E & Maxine P Tonkery</u>	
Watershed: <u>Starkey Run & Wiley Fork</u>		

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

<p>Pursuant to West Virginia Code § 22-6A, the Operator has attached proof to this Notice Certification that the Operator has properly served the required parties with the following:</p> <p>*PLEASE CHECK ALL THAT APPLY</p> <p><input type="checkbox"/> 1. NOTICE OF SEISMIC ACTIVITY or <input checked="" type="checkbox"/> NOTICE NOT REQUIRED BECAUSE NO SEISMIC ACTIVITY WAS CONDUCTED</p> <p><input type="checkbox"/> 2. NOTICE OF ENTRY FOR PLAT SURVEY or <input checked="" type="checkbox"/> NO PLAT SURVEY WAS CONDUCTED</p> <p><input checked="" type="checkbox"/> 3. NOTICE OF INTENT TO DRILL or <input type="checkbox"/> NOTICE NOT REQUIRED BECAUSE NOTICE OF ENTRY FOR PLAT SURVEY WAS CONDUCTED or</p> <p style="padding-left: 100px;"><input type="checkbox"/> WRITTEN WAIVER BY SURFACE OWNER (PLEASE ATTACH)</p> <p><input checked="" type="checkbox"/> 4. NOTICE OF PLANNED OPERATION</p> <p><input checked="" type="checkbox"/> 5. PUBLIC NOTICE</p> <p><input checked="" type="checkbox"/> 6. NOTICE OF APPLICATION</p>	<p>OOG OFFICE USE ONLY</p> <p><input type="checkbox"/> RECEIVED/ NOT REQUIRED</p> <p><input type="checkbox"/> RECEIVED</p> <p><input type="checkbox"/> RECEIVED/ NOT REQUIRED</p> <p><input type="checkbox"/> RECEIVED</p> <p><input type="checkbox"/> RECEIVED</p> <p><input type="checkbox"/> RECEIVED</p>
--	---

Required Attachments:

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

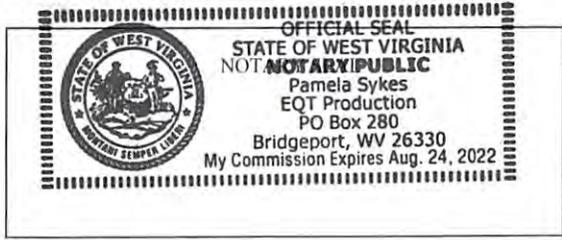
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MAR 22 2017

Certification of Notice is hereby given:

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

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

Address: 115 Professional Place PO Box 280
Bridgeport WV 26330
Facsimile: 304-848-0041
Email: vroark@eqt.com



Subscribed and sworn before me this 15 day of March 2017.
Pamela Sykes Notary Public
My Commission Expires 8-24-22

Oil and Gas Privacy Notice:

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

470490245

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Office of Oil & Gas
MAR 22 2017

**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: 3-16-17 **Date Permit Application Filed:** 3-17-17

Notice of:

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

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

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

Pursuant to W. Va. Code § 22-6A-10(b) no later than the filing date of the application, the applicant for a permit for any well work or for a certificate of approval for the construction of an impoundment or pit as required by this article shall deliver, by personal service or by registered mail or by any method of delivery that requires a receipt or signature confirmation, copies of the application, the erosion and sediment control plan required by section seven of this article, and the well plat to each of the following persons: (1) The owners of record of the surface of the tract on which the well is or is proposed to be located; (2) The owners of record of the surface tract or tracts overlying the oil and gas leasehold being developed by the proposed well work, if the surface tract is to be used for roads or other land disturbance as described in the erosion and sediment control plan submitted pursuant to subsection (c), section seven of this article; (3) The coal owner, operator or lessee, in the event the tract of land on which the well proposed to be drilled is located [sic] is known to be underlain by one or more coal seams; (4) The owners of record of the surface tract or tracts overlying the oil and gas leasehold being developed by the proposed well work, if the surface tract is to be used for the placement, construction, enlargement, alteration, repair, removal or abandonment of any impoundment or pit as described in section nine of this article; (5) Any surface owner or water purveyor who is known to the applicant to have a water well, spring or water supply source located within one thousand five hundred feet of the center of the well pad which is used to provide water for consumption by humans or domestic animals; and (6) The operator of any natural gas storage field within which the proposed well work activity is to take place. (c)(1) If more than three tenants in common or other co-owners of interests described in subsection (b) of this section hold interests in the lands, the applicant may serve the documents required upon the person described in the records of the sheriff required to be maintained pursuant to section eight, article one, chapter eleven-a of this code. (2) Notwithstanding any provision of this article to the contrary, notice to a lien holder is not notice to a landowner, unless the lien holder is the landowner. W. Va. Code R. § 35-8-5.7.a requires, in part, that the operator shall also provide the Well Site Safety Plan ("WSSP") to the surface owner and any water purveyor or surface owner subject to notice and water testing as provided in section 15 of this rule.

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

SURFACE OWNER(s)

Name: See Attached
Address: _____

Name: _____
Address: _____

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

Name: See Attached
Address: _____

Name: _____
Address: _____

SURFACE OWNER(s) (Impoundments or Pits)

Name: See Attached
Address: _____

COAL OWNER OR LESSEE

Name: See Attached
Address: _____

COAL OPERATOR

Name: _____
Address: _____

SURFACE OWNER OF WATER WELL AND/OR WATER PURVEYOR(s)

Name: _____
Address: _____

OPERATOR OF ANY NATURAL GAS STORAGE FIELD

Name: _____
Address: _____

*Please attach additional forms if necessary

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MAR 22 2017

Surface Owners:

Robert E Tonkery
33 Tonkery Drive
Fairmont WV 26554

Surface Owners: Access Road

Robert E Tonkery
33 Tonkery Drive
Fairmont WV 26554

Beverly Hickman
132 Joes Run Road
Morgantown WV 26508

Paul W Glover
15861 Rt 301
LaGrange OH 44050

Raymond C Teagarden
718 Evans Run Road
Mannington WV 26582

David A Floyd & Diane E Floyd
12 Emily Ct
Fairmont WV 26554

Keith A & Rita G Powell
3898 Buffalo Brink Road
Mannington WV 26554

Surface Owner Pit/Impoundments

Robert E Tonkery
33 Tonkery Drive
Fairmont WV 26554

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05/19/2017

Coal Owner:

Consol Mining Company
Engineering Operations Support Dept. Coal
1000 Consol Energy Drive
Canonsburg, PA 15317

4704902450

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Office of Oil & Gas
MAR 22 2017

05/19/2017

Notice is hereby given:

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

This Notice Shall Include:

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

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

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

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

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

Well Location Restrictions

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

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

Water Well Testing:

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

Water Testing Laboratories:

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

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

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

Written Comment:

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

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

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

Time Limits and Methods for Filing Comments.

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

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

Comment Requirements

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

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

Permit Denial or Condition

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

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

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

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

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WW-6A
(8-13)

API NO. 47- 049 - _____
OPERATOR WELL NO. GLO76H6 _____
Well Pad Name: GLO76 _____

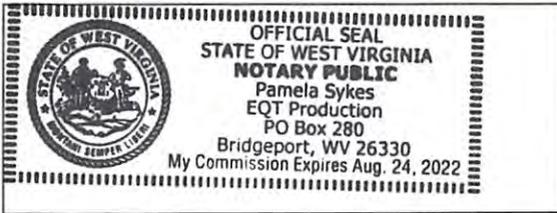
Notice is hereby given by:

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.



[Handwritten signature]

Subscribed and sworn before me this 15 day of March 2017.

[Handwritten signature] Notary Public

My Commission Expires 8-24-22

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Topo Quad: Glover Gap Scale: 1" = 2000'

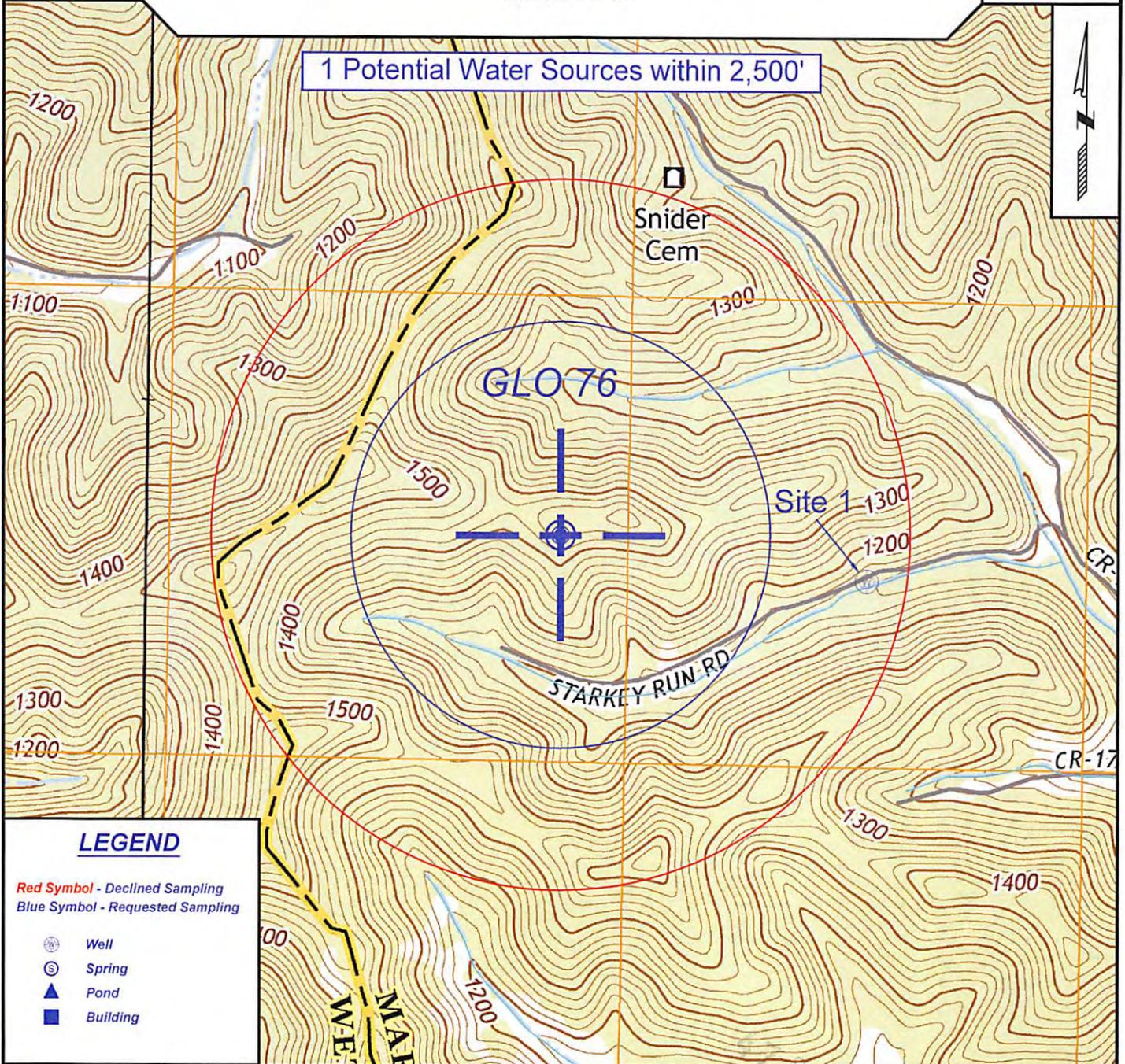
County: Marion Date: September 13, 2016

District: Mannington Project No: 341-14

Water

GLO 76

1 Potential Water Sources within 2,500'



LEGEND

Red Symbol - Declined Sampling
Blue Symbol - Requested Sampling

-  Well
-  Spring
-  Pond
-  Building



SURVEYING AND MAPPING SERVICES PERFORMED BY:

ALLEGHENY SURVEYS, INC.

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

PREPARED FOR:

EQT Production Company

P.O. Box 280
Bridgeport, WV 26330

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

Pursuant to W. Va. Code § 22-6A-16(b), the Notice of Intent to Drill is only required if the notice requirements of W. Va. Code § 22-6A-10(a) have NOT been met or if the Notice of Intent to Drill requirement has NOT been waived in writing by the surface owner.

Notice Time Requirement: Notice shall be provided at least **TEN (10)** days prior to filing a permit application.

Date of Notice: 02/17/2017 **Date Permit Application Filed:** 02/17/2017

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

HAND DELIVERY CERTIFIED MAIL
RETURN RECEIPT REQUESTED

4704902

Pursuant to W. Va. Code § 22-6A-16(b), at least ten days prior to filing a permit application, an operator shall, by certified mail return receipt requested or hand delivery, give the surface owner notice of its intent to enter upon the surface owner's land for the purpose of drilling a horizontal well: *Provided*, That notice given pursuant to subsection (a), section ten of this article satisfies the requirements of this subsection as of the date the notice was provided to the surface owner: *Provided, however*, That the notice requirements of this subsection may be waived in writing by the surface owner. The notice, if required, shall include the name, address, telephone number, and if available, facsimile number and electronic mail address of the operator and the operator's authorized representative.

Notice is hereby provided to the SURFACE OWNER(s):

Name: See Attached
Address: _____

Name: See Attached
Address: _____

Notice is hereby given:

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

State: <u>WV</u>	UTM NAD 83	Easting: <u>543,847.96</u>
County: <u>Marion</u>		Northing: <u>4,379,501.43</u>
District: <u>Mannington</u>	Public Road Access: <u>Co RI 64/4</u>	
Quadrangle: <u>Glover Gap</u>	Generally used farm name: <u>Robert E & Maxine P Tonkery</u>	
Watershed: <u>Starkey Run & Wiley Fork</u>		

This Notice Shall Include:

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

Notice is hereby given by:

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

Authorized Representative: Victoria Roark
Address: 115 Professional Place PO Box 280
Bridgeport WV 26330
Telephone: 304-848-0076
Email: vroark@eqt.com
Facsimile: 304-848-0041

Oil and Gas Privacy Notice:

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

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Surface Owners:

Robert E Tonkery
33 Tonkery Drive
Fairmont WV 26554

✓

Surface Owners: Access Road

Robert E Tonkery
33 Tonkery Drive
Fairmont WV 26554

Beverly Hickman
132 Joes Run Road
Morgantown WV 26508

Paul W Glover
15861 Rt 301
LaGrange OH 44050

✓

Raymond C Teagarden
718 Evans Run Road
Mannington WV 26582

David A Floyd & Diane E Floyd
12 Emily Ct
Fairmont WV 26554

Keith A & Rita G Powell
3898 Buffalo Brink Road
Mannington WV 26554

070490215

Surface Owner Pit/Impoundments

✓

Robert E Tonkery
33 Tonkery Drive
Fairmont WV 26554

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

Notice Time Requirement: notice shall be provided no later than the **filing date of permit application.**

Date of Notice: 3-16-17 **Date Permit Application Filed:** 3-17-17

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

- CERTIFIED MAIL HAND
RETURN RECEIPT REQUESTED DELIVERY

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

Notice is hereby provided to the SURFACE OWNER(s)

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

Name: See Attached
Address: _____

Name: See Attached
Address: _____

4704902452

Notice is hereby given:

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

State: <u>WV</u>	UTM NAD 83	Easting: <u>543,847.96</u>
County: <u>Marion</u>		Northing: <u>4,379,501.43</u>
District: <u>Mannington</u>	Public Road Access: <u>Co Rt 64/4</u>	
Quadrangle: <u>Glover Gap</u>	Generally used farm name: <u>Robert E & Maxine P Tonkery</u>	
Watershed: <u>Starkey Run & Wiley Fork</u>		

This Notice Shall Include:

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

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

Address: 115 Professional Place PO Box 280
Bridgeport WV 26330
Facsimile: 304-848-0041

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Surface Owners:

Robert E Tonkery
33 Tonkery Drive
Fairmont WV 26554

✓

Surface Owners: Access Road

Robert E Tonkery
33 Tonkery Drive
Fairmont WV 26554

Beverly Hickman
132 Joes Run Road
Morgantown WV 26508

Paul W Glover
15861 Rt 301
LaGrange OH 44050

✓

Raymond C Teagarden
718 Evans Run Road
Mannington WV 26582

David A Floyd & Diane E Floyd
12 Emily Ct
Fairmont WV 26554

Keith A & Rita G Powell
3898 Buffalo Brink Road
Mannington WV 26554

4704902403

Surface Owner Pit/Impoundments

Robert E Tonkery
33 Tonkery Drive
Fairmont WV 26554

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WEST VIRGINIA DEPARTMENT OF TRANSPORTATION

Division of Highways

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

Jim Justice
Governor

Thomas J. Smith, P. E.
Secretary of Transportation/
Commissioner of Highways

February 17, 2017

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

Subject: DOH Permit for the GLO 76 Pad Site, Marion County

GLO76H1	GLO76H2	GLO76H3	GLO76H4
GLO76H5	GLO76H6 95-02452	GLO76H7	GLO76H8
GLO76H9	GLO76H10	GLO76H11	GLO76H12
GLO76H13			

Dear Dr. Martin,

This well site will be accessed from Permit # 04-2014-0722 issued to EQT Production Company for access to the State Road. The well site is located off of Marion County Route 1 SLS.

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

Very Truly Yours,

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

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

E.E.O./AFFIRMATIVE ACTION EMPLOYER

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Anticipated Frac Additives
Chemical Names and CAS numbers

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

47075017

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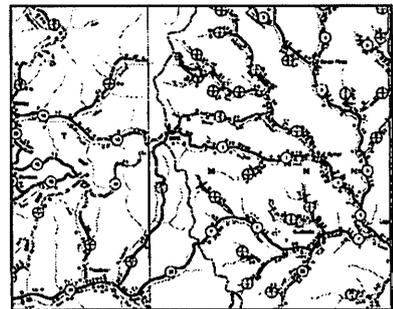
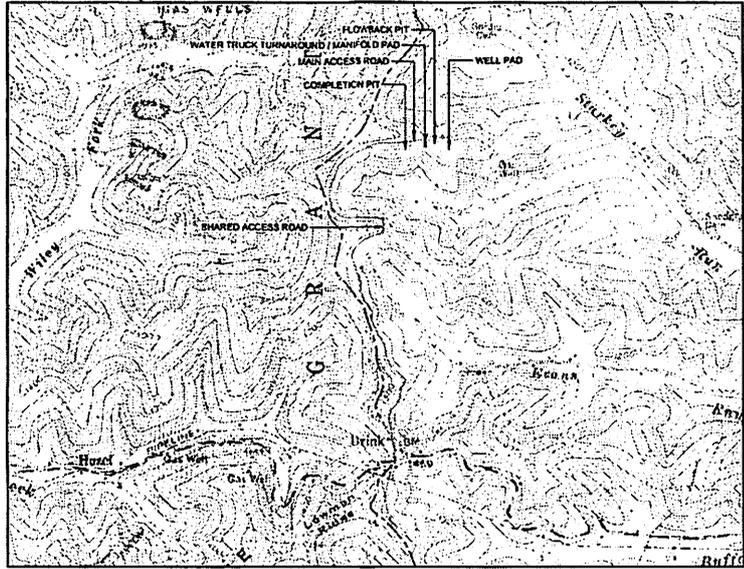
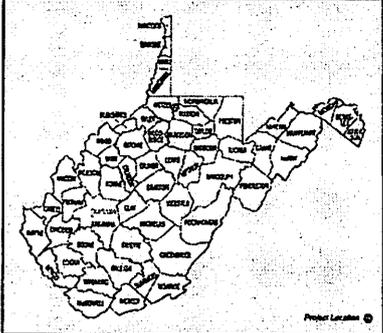
05/19/2017

GLO-76 AS-BUILT PLANS EQT PRODUCTION COMPANY

SDC
5/15/2017



All drawings, reports and other documents prepared by or for the undersigned are governed by the provisions of the contract between the undersigned and the client.



ELEV	FLOWBACK PIT STORAGE				Unfilled	
	CF	CY	BARRELS	GALLONS		
1400	0	0	0	0.000	0	
1410	1,152	117	31,579	0.072	0	
1411	7,355	772	1,110	51,019	0.269	0
1412	12,542	464	2,730	93,671	0.282	0
1413	18,751	694	1,199	140,267	0.430	0
1414	26,142	468	4,658	195,553	0.600	0.000
1415	34,822	1,293	6,702	160,483	0.799	0.199
1416	44,823	1,664	8,001	134,046	1.001	0.811
1417	56,118	2,093	10,065	472,768	1.797	0.937
1418	69,672	1,582	12,428	571,181	1.599	0.929
1419	84,658	2,179	15,041	631,867	1.819	1.239
1420	100,981	2,760	17,581	753,288	2.118	1.318
1421	119,511	4,419	21,249	892,503	2.793	1.719
1422	139,550	5,249	24,825	1,041,978	3.204	1.624
1423	161,191	5,992	28,814	1,210,777	3.714	1.314
1424	184,064	6,891	33,117	1,391,825	4.271	1.671
1425	212,777	7,281	37,834	1,593,677	4.885	4.285

AS-BUILT VOLUME AT CAPACITY = 29,814 CBL'S
DESIGN VOLUME AT CAPACITY = 27,899 CBL'S
DIFFERENCE = +1,915 CBL'S

ELEV	COMPLETION PIT STORAGE				Unfilled	
	CF	CY	BARRELS	GALLONS		
1400	0	0	0	0.000	0	
1409	14,661	544	2,616	10,986	0.117	0
1410	57,461	1,292	5,781	24,239	0.245	0
1411	54,170	1,965	9,659	39,773	1.221	0
1412	74,587	2,817	11,640	57,908	1.758	0
1413	102,804	3,828	18,329	76,925	2.360	0
1414	131,892	4,885	23,491	95,692	3.026	0
1415	161,758	6,073	29,200	127,687	3.761	0
1416	192,514	7,371	35,447	145,879	4.560	0.000
1417	224,176	8,791	42,342	178,816	5.445	0.276
1418	257,849	10,315	50,799	208,110	6.391	1.324
1419	303,217	12,054	59,728	241,037	7.415	2.804
1420	350,218	13,794	69,691	277,992	8.319	3.804
1421	407,987	15,629	75,154	316,671	9.687	5.118
1422	476,609	17,652	84,811	356,271	10.861	6.372
1423	544,718	19,825	93,234	400,105	12,276	7.707
1424	626,474	22,290	106,220	448,154	13,892	9.121
1425	622,124	24,821	121,791	495,015	15,200	10.831

AS-BUILT VOLUME AT CAPACITY = 25,234 CBL'S
DESIGN VOLUME AT CAPACITY = 25,234 CBL'S
DIFFERENCE = -0.000 CBL'S

SITE LOCATION		WELL LEGEND	
WELL NO. (WELL IDENTIFICATION)		WELL TYPE	
1417-234E	234E	1417-234E	234E
1418-234E	234E	1418-234E	234E
1419-234E	234E	1419-234E	234E
1420-234E	234E	1420-234E	234E
1421-234E	234E	1421-234E	234E
1422-234E	234E	1422-234E	234E
1423-234E	234E	1423-234E	234E
1424-234E	234E	1424-234E	234E
1425-234E	234E	1425-234E	234E

AREA	GRAZING VOLUMES PER DESIGN					ASBUILT VOLUMES					
	CUT (CY)	STONE (CY)	FILL (CY)	COMPACTION (CY)	NET (CY)	Topsoil (CY)	Topsoil / Bonding (CY)	Asphalt (CY)	Asphalt (CY)	Asphalt (CY)	Spall (CY)
SHARED ACCESS DRIVE	43,309	4,113	50,729	5,733	1,711	4,703	0	43,309	53,716	4,282	12,499
GLO-76 ACCESS DRIVE	44,000	1,855	11,972	1,787	30,756	1,311	0	42,932	54,317	2,696	1,722
COMPLETION PIT	64,812	0	0%	5,649	6,477	1,560	31,500	41,882	65,761	1,655	7,967
FLOWBACK PIT	4,250	342	53,610	1,161	31,379	154	0	1,183	6,194	306	303
GLO-76 WELL PAD	32,239	3,852	36,917	3,862	35,482	1,733	76,667	78,583	64,848	1,831	3,034
SOIL STOCKPILE	0	0	36,208	3,621	39,829	814	0	0	48,184	0	0
TOTAL	154,610	9,964	236,922	23,693	41	10,175	68,167	273,962	294,333	12,250	29,812

- VOLUME NOTES**
- TOPSOIL DEPTH USED IN THE AS-BUILT TAKEOFF PERFORMED FOR THE GLO-76 WELL PAD ARE ESTIMATED AT 17" AS INDICATED IN THE DESIGN DRAWINGS. VERIFICATION OF ACTUAL DEPTH OF TOPSOIL OR FINISHED VOLUMES WERE NOT AVAILABLE.
 - STONE QUANTITIES INDICATED HAVE BEEN APPLIED TO AS-BUILT CUT/FILL VOLUMES AS REQUIRED.
 - DESIGN PARAMETERS A & B DEVICE QUANTITIES MAY BE DUE TO INCOMPLETE INSTALLATION AT THE TIME OF AS-BUILT CREATION.

OWNER'S CERTIFICATION
TO THE BEST OF MY KNOWLEDGE AND BELIEF, THE AS-BUILT INFORMATION CONTAINED IN THESE PLANS INDICATE THE TRUE COMPLETION OF THE PROJECT. THE INFORMATION CONTAINED HEREIN IS TO BE USED FOR THE CONSTRUCTION OF THE PROJECT AND IS NOT TO BE USED FOR ANY OTHER PURPOSE. I, THE UNDERSIGNED, ACCEPT FULL RESPONSIBILITY FOR THE ACCURACY OF THE INFORMATION CONTAINED HEREIN.

REVISIONS
THE CERTIFICATION OF THIS INFORMATION CONTAINED IN THESE AS-BUILT DRAWINGS APPLIES ONLY TO THE TOPOGRAPHY AND VOLUMES GENERATED FROM THE SURVEY FIELD DATA COLLECTED AT THE TIME OF THE FIELD SURVEY PERFORMED BY HORNOR BROS. ENGINEERS, INC. DATED 8/18/2015. HORNOR BROS. ENGINEERS, INC. HAS NO KNOWLEDGE OF ANY OTHER REVISIONS FOR ANY CHANGES, REVISIONS, OR CONSTRUCTION CORRECTIONS BEYOND THE AS-BUILT DATED DATE THAT MAY ALTER THE TOPOGRAPHY OR PIT VOLUMES.

FLOODPLAIN CONDITIONS	
DO SITE CONSTRUCTION ACTIVITIES TAKE PLACE IN FLOODPLAIN	NO
PERMIT REQUIRED FROM COUNTY FLOODPLAIN COORDINATOR	NO
HEC-RAS STUDY COMPILED	N/A
FLOODPLAIN SHOWN ON DRAWINGS	N/A
FIRM MAP NUMBER(S) FOR SITE	54042C0085D - 54102C0250C
ACREAGES OF CONSTRUCTION IN FLOODPLAIN	N/A

SHEET INDEX	
COVER SHEET / LOCATION MAP	1
AS-BUILT PLAN	2-7
AS-BUILT ACCESS ROAD PROFILE	8

ASBUILT MATERIAL QUANTITIES			
ITEM DESCRIPTION	DESIGN QTY	UNIT	ASBUILT QTY
Clearing and Grubbing	60.2	AC	60.2
10" 50' Soa	0.0	LF	293
12" 54' Soa	N/A	LF	3,339
18" 54' Soa	N/A	LF	172
24" 54' Soa	N/A	LF	5,618
30" 54' Soa	N/A	LF	5,056
18" Dia. HDPE Curved Pipe	776	LF	1,066
24" Dia. HDPE Curved Pipe	186	LF	83
Emerson Control Manifold	147.200	SV	711.010
5/8" Waste	N/A	LF	N/A

DATE	REVISIONS	DATE
11.07.2015	REVISE VOLUME & QUANTITIES	Scale: As Shown
11.12.2015	ADD THE KEY VOLUMES	Drawn by: TSP
1.17.2016	UPDATED ASBUILT MATERIAL QTY'S	File No.: 15-00000000
3.08.2017	REVISE WELL LEG PAD PER EGT	Page: 6 of 8

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**GLO-76
WELL PAD SITE**
MANNINGTON DISTRICT
BARBOUR COUNTY, WV

AS-BUILT PLAN (COVER PAGE)

Hornor Bros. Engineers
Civil, Mining, Environmental and
Surveying Engineers
227 Birch River Road
Birch River, WV 26610
304-669-8905

Allegheny Surveys Inc.
P.O. Box 438
227 Birch River Road
Birch River, WV 26610
304-669-8905

Date: 10/18/2015

GLO-76 AS-BUILT PLANS EQT PRODUCTION COMPANY

**WVDEP OOG
ACCEPTED AS-BUILT**
[Signature] 5-15-17



All geographic information shown herein is based on scanned data as provided by Allegheny Survey, Inc. dated 8/18/2015



Allegheny Surveys Inc.
 P.O. Box 438
 237 Birch River Road
 Birch River, WV 26610
 304-649-6606

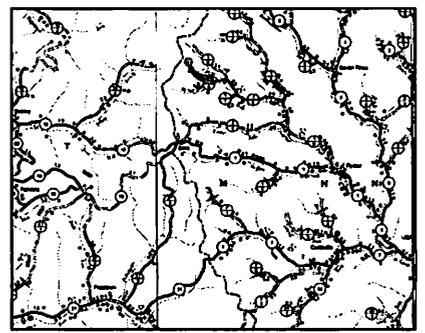
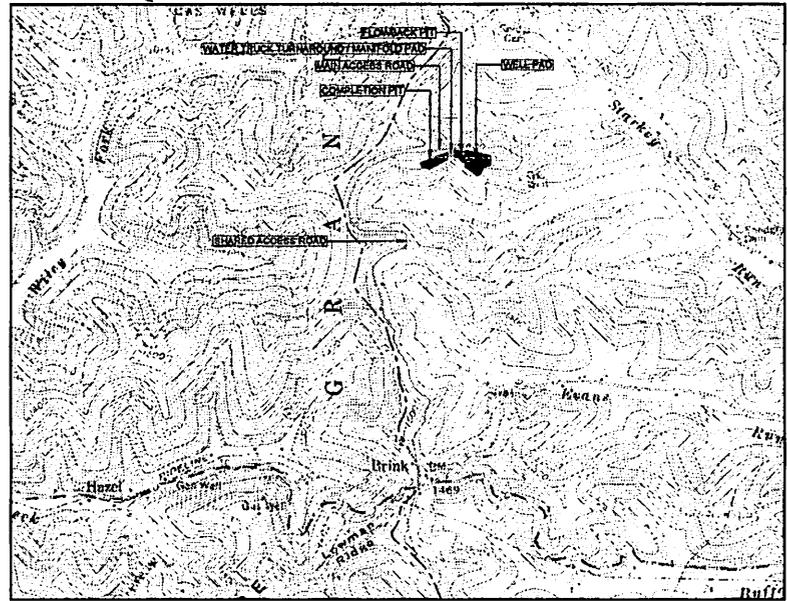
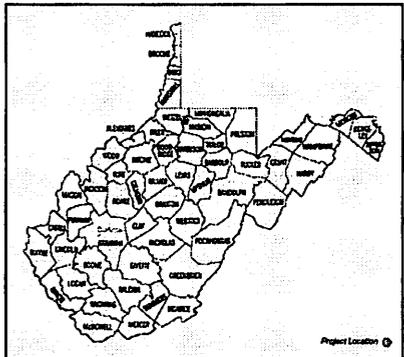


Horner Bros Engineers
 1000 State Street
 Charleston, WV 25302
 304-763-1111



THIS DOCUMENT
 PREPARED FOR
**EQT PRODUCTION
 COMPANY**

AS-BUILT PLAN COVER PAGE
**GLO-76
 WELL PAD SITE**
 MANASSAS DISTRICT
 MARSH COUNTY, WV



GRAPHIC SCALE
1 INCH = 1 MILE

FLOODPLAIN CONDITIONS	
DO SITE CONSTRUCTION ACTIVITIES TAKE PLACE IN FLOODPLAIN	NO
PERMIT NEEDED FROM COUNTY FLOODPLAIN COORDINATOR:	NO
REG-RAS STUDY COMPLETED:	N/A
FLOODPLAIN SHOWN ON DRAWINGS:	N/A
FIRM MAP NUMBER(S) FOR SITE:	5404C0065D - 5410C0250C
ACREAGES OF CONSTRUCTION IN FLOODPLAIN	N/A

SHEET INDEX	
COVER SHEET / LOCATION MAP:	1
AS BUILT PLAN:	2-7
AS BUILT ACCESS ROAD PROFILE:	8

AS-BUILT MATERIAL QUANTITIES			
ITEM DESCRIPTION	DESIGN QTY	UNIT	AS-BUILT QTY
Clearing and Grubbing		AC	60.2
10" Silt Sor		LF	281
12" Silt Sor		LF	3,319
18" Silt Sor		LF	377
24" Silt Sor		LF	5,618
32" Silt Sor		LF	5,056
18" Dia. HDPE Culvert/ Pipe	776	LF	1,066
24" Dia. HDPE Culvert/ Pipe	186	LF	83
Erosion Control Matting	147,700	SF	233,010
Straw Wattle		LF	N.A.

ELEV	FLOWBACK PIT STORAGE					Unshaded	
	CF	CY	BARRELS	GALLONS	AC-FT	AC-FT	
1409	0	0	0	0	23,579	0.072	0
1410	3,151	117	561	2,310	55,019	0.169	0
1411	12,512	464	2,230	9,171	0.287	0	
1412	18,751	694	3,339	13,017	0.430	0	
1413*	26,247	967	4,836	18,515	0.600	0	
1415	34,822	1,290	6,203	24,046	0.799	0.199	
1416	44,923	1,664	8,201	31,046	1.011	0.431	
1417	56,516	2,093	10,263	41,764	1.297	0.697	
1418	69,672	2,580	12,408	51,131	1.599	0.999	
1419	84,468	3,128	15,043	63,862	1.939	1.339	
1420	100,981	3,740	17,984	75,388	2.318	1.718	
1421	119,311	4,419	21,249	89,505	2.739	2.139	
1422	139,560	5,169	24,851	1,043,978	3.204	2.604	
1423*	161,791	5,997	28,814	1,210,277	3.754	3.154	
1424	186,064	6,891	33,137	1,391,451	4.271	3.671	
1425	212,777	7,881	37,894	1,591,677	4.835	4.235	

AS-BUILT VOLUME AT CAPACITY = 28,814 BBL'S
 DESIGN VOLUME AT CAPACITY = 27,899 BBL'S
 DIFFERENCE = +915 BBL'S

ELEV	COMPLETION PIT STORAGE					Unshaded	
	CF	CY	BARRELS	GALLONS	AC-FT	AC-FT	
1408	0	0	0	0	0.000	0	0
1409	16,671	544	2,616	10,956	0.337	0	
1410	32,463	1,202	5,781	24,239	0.745	0	
1411	53,170	1,969	9,669	39,713	1.221	0	
1412	76,587	2,817	13,640	57,209	1.758	0	
1413	102,404	3,808	18,209	76,015	2.360	0	
1414	131,902	4,855	23,491	93,692	3.019	0	
1415	163,954	6,071	29,220	122,487	3.764	0	
1416*	199,034	7,377	35,487	148,875	4.595	0.000	
1417	237,195	8,785	42,281	177,836	5.445	0.875	
1418	278,499	10,315	49,599	208,330	6.393	1.824	
1419	323,017	11,964	57,528	241,637	7.415	2.846	
1420	370,814	13,794	66,041	277,902	8.513	3.944	
1421	421,947	15,629	75,154	315,667	9.687	5.118	
1422	476,609	17,612	84,881	356,273	10.943	6.372	
1423*	534,728	19,805	95,234	400,005	12.276	7.707	
1424	596,424	22,090	106,220	446,147	13.692	9.123	
1425	662,124	24,523	117,921	493,015	15.200	10.631	

AS-BUILT VOLUME AT CAPACITY = 95,234 BBL'S
 DESIGN VOLUME AT CAPACITY = 95,558 BBL'S
 DIFFERENCE = -324 BBL'S

SITE LOCATIONS WGS 84 (NAD 83) (NAD 2011) ZONE			
Center of Proposed Well Pad	E	N	COMPLETION
Center of Proposed Completion Pit	27 561 438	-40 48 250	
Center of Proposed Access Road	27 561 161	-40 27 111	
Proposed Access Road Sta 0+00	27 561 150	-40 26 666	
Proposed Access Road Sta 0+05	27 561 27	-40 22 950	

WELL LEGEND			
470460234	LAT: 39 564841 / LONG: -80 483351	(BUILT)	
470460239	LAT: 39 564056 / LONG: -80 48339	(BUILT)	
470460237	LAT: 39 564073 / LONG: -80 48343	(BUILT)	
470460261	LAT: 39 564988 / LONG: -80 48307	(BUILT)	
GLO 76 H	LAT: 39 564840 / LONG: -80 48348		
GLO 76 W	LAT: 39 564848 / LONG: -80 48354		
470460232	LAT: 39 564037 / LONG: -80 48300	(BUILT)	
GLO 76 W	LAT: 39 564103 / LONG: -80 48332		
470460234	LAT: 39 564111 / LONG: -80 48370	(BUILT)	
(MRC)	LAT: 39 564118 / LONG: -80 48373		
GLO 76 H10 51852	UTICA LAT: 39 564134 / LONG: -80 48361		

AREA	GRADING VOLUMES PER DESIGN						AS-BUILT VOLUMES					
	CUT (CY)	STONE (CY)	FILL (CY)	COMPACTION (CY)	NET (CY)	TOPSOIL (CY)	AS-BUILT CUT (CY)	AS-BUILT FILL (CY)	Top Soil (CY)	AS-BUILT Stone (CY)	Spill (CY)	
SHARED ACCESS DRIVE	63,309	4,315	59,729	5,973	1,722	4,303	67,377	55,716	4,763	15,499	4,916	11,641
GLO-76 ACCESS DRIVE	44,000	1,655	11,972	1,397	30,286	1,511	82,932	54,312	2,696	6,176	1,722	28,620
COMPLETION PIT	66,812	0	56,436	5,649	4,677	1,560	41,820	65,261	1,455	2,967	0	-23,381
FLOWBACK PIT	4,150	342	33,610	3,361	-32,379	854	0	2,193	8,194	306	136	303
GLO-76 WELL PAD	72,239	3,852	16,917	3,692	15,432	1,233	26,667	78,540	64,686	1,631	5,034	1,893
SOIL STOCKPILE	0	0	16,708	1,621	-39,819	814	0	46,164	0	0	0	-46,164
TOTAL	250,610	9,964	236,932	23,693	-41	10,275	48,167	271,962	294,313	10,850	29,812	10,842

VOLUME NOTES

- TOPSOIL DEPTH USED IN THE AS-BUILT TAKEOFF PERFORMED FOR THE GLO-76 WELL PAD ARE ESTIMATED AT 17 AS INDICATED IN THE DESIGN DRAWINGS. VERIFICATION OF ACTUAL DEPTH OF TOP SOIL OR SHALED VOLUMES WERE NOT AVAILABLE.
- STONE QUANTITIES INDICATED HAVE BEEN APPLIED TO AS-BUILT CUT / FILL VOLUMES AS REQUIRED.
- DISCREPANCIES IN E & S DEVICE QUANTITIES MAY BE DUE TO INCOMPLETE INSTALLATION AT THE TIME OF AS-BUILT CREATION.

ENGINEER'S CERTIFICATION

TO THE BEST OF MY KNOWLEDGE AND BELIEF, THE AS-BUILT INFORMATION CONTAINED IN THESE PLANS INDICATE THE SITE COMPONENTS WERE GENERALLY CONSTRUCTED IN ACCORDANCE WITH THE CONSTRUCTION PLANS AND SPECIFICATIONS PREPARED BY RETTEVA ASSOCIATES DATED JUNE 3, 2014 FOR EQT PRODUCTION COMPANY.

SURVEY NOTE

THE CERTIFICATION OF THE INFORMATION CONTAINED IN THIS AS-BUILT DRAWING APPLIES ONLY TO THE TOPOGRAPHY AND VOLUMES AS DERIVED FROM THE SURVEY FIELD DATA COLLECTED AT THE TIME OF THE FIELD SURVEY PERFORMED BY ALLEGHENY SURVEYS INC. DATED 1/18/2015. HORNER BROS ENGINEERS HAS NO KNOWLEDGE OF AND IS NOT RESPONSIBLE FOR ANY CHANGES, REVISIONS, OR CONSTRUCTION DIRECTIVES BEYOND THE AFORESAID MENTIONED DATE THAT MAY ALTER THE TOPOGRAPHY OR PIT VOLUMES.

DATE	REVISIONS
11/07/2015	REVISE VOLUMES & QUANTITIES
11/12/2015	ADD TOE KEY VOLUMES
1/27/2016	UPDATED AS-BUILT MATERIAL QTY'S
3/08/2017	REVISE WELL LEGEND PER EQT

Date: 10/16/2015
 Scale: As Shown
 Designed By: JDF
 File No.: 14-04-0001-17-01
 Page: 1 of 8

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 Consulting Engineers
 1000 Main Street, Box 100
 Charleston, West Virginia, 25301-0100
 Phone: 304-763-1111
 Fax: 304-763-1112



THIS DOCUMENT
 PREPARED BY
 EQT PROJECT NO. 17-001-037

WELL PAD, COMPLETION PIT AND
 FLOWBACK PIT AS-BUILT
GLO-76
 WELL PAD SITE
 MANNINGTON DISTRICT, MORGAN COUNTY, WV

DATE: 10/16/2015
 Scale: 1" = 50'
 Drawn by: JBF
 File No.: 17-001-037
 Page: 1 of 8

GLO-76 AS-BUILT GRADING

**WVDEP 00G
 ACCEPTED AS-BUILT**
 5-15-17

SURVEY NOTE
 THE CERTIFICATION OF THE INFORMATION CONTAINED
 IN THIS AS-BUILT DRAWING APPLIES ONLY TO THE
 TOPOGRAPHY AND VOLUMES AS GENERATED FROM THE
 SURVEY FIELD DATA COLLECTED AT THE TIME OF THE
 FIELD SURVEY PERFORMED BY ALLEGHEENY SURVEYS,
 INC. DATED 9/16/2015. HORNOR BROTHERS ENGINEERS
 HAS NO KNOWLEDGE OF AND IS NOT RESPONSIBLE FOR
 ANY CHANGES, REVISIONS, OR CONSTRUCTION
 DIRECTIVES BEYOND THE AFORE MENTIONED DATE
 THAT MAY ALTER THE TOPOGRAPHY OR PIT VOLUMES.

