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

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

Thursday, November 03, 2016
WELL WORK PERMIT
Coal Bed Methane Well / Plugging - 2

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

Re: Permit approval for WVC 510557
47-047-02170-00-00

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: WVC 510557
Farm Name: POCAHONTAS LAND CORP.
U.S. WELL NUMBER: 47-047-02170-00-00
Coal Bed Methane Well / Plugging - 2
Date Issued: 11/3/2016

4702170P

PERMIT CONDITIONS

West Virginia Code § 22-6-11 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. All pits must be lined with a minimum of 20 mil thickness synthetic liner.

2. In the event of an accident or explosion causing loss of life or serious personal injury in or about the well or while working on the well, the well operator or its contractor shall give notice, stating the particulars of the accident or explosion, to the oil and gas inspector and the Chief within twenty-four (24) hours.

3. Well work activities shall not constitute a hazard to the safety of persons.

4. This well is under a consent order and must be plugged within two years of the date of issuance of this permit.

Agreed Order 4702170P

Form WW-4 (B)
Permit Copy
(Rev 2/01)

Date: July 12, 2016
Operator's Well
Well No. 510557 (Pocahontas Land Corp. WVC 510557
API Well No.: 47 047 - 02170

CK# 206662
400.00
(4)

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

APPLICATION FOR A PERMIT TO PLUG AND ABANDON

4)
Well Type: Oil ____ Gas X Liquid Injection ____ Waste Disposal: ____
If Gas, Production X Or Underground storage ____ Deep ____ Shallow X

5) Elevation: 1678 ft. Watershed: Panther Creek
Location: Sandy River County: McDowell Quadrangle: Patterson
District:

6) Well Operator: EQT Production Company
Address: 120 Professional Place
Bridgeport, WV 26330

7) Designated Agent: Rex C. Ray
Address: 120 Professional Place
Bridgeport, WV 26330

8) Oil & Gas Inspector Name: Brian Ferguson BKF
Address: 708 Manor Drive
Beckley, WV 25801

9) Plugging Contractor:
Name: HydroCarbon Well Service
Address: PO BOX 995
Buckhannon, WV 26201

10) Work Order: The work order for the manner of plugging this well is as follows:

See Attachment for details and procedures.

SEE ATTACHED

Received
Office of Oil & Gas
JUL 13 2016

OFFICE USE ONLY

Notification must be given to the district oil and gas inspector 24 hours before permitted work can commence.

Work order approved by inspector Brian K. Ferguson Date 8/15/16

4702170P

PLUGGING PROGNOSIS

Pocahontas Land Co.
CBM Well
(510557)
District, Sandy River
McDowell Co. WV
API # 47-047-02170
BY: R. Green
DATE: 10/29/15

CURRENT STATUS:
Elevation @ 1672'
TD @ 1882'
13" csg at 37'
7" csg @ 550'
4 ½" csg @ 1849' (CTS)
Fresh Water @ 48', 50', & 123'
Coal, @ 20' to 21', 23'to 25', 63' to 65', 112' to 123', 794' to 797', 834' to 837', 867' to 870', 968' to 969', 1128' to 1132', 1248' to 1252', 1304' to 1308'.
Saltwater @ 350' &582'
Perforations @ 634' to 872' (36 holes), 936' to 1134' (37 holes), 1188' to 1268' (38 holes), 1304' to 1487' (32 holes), 1534' to 1651' (32 holes).

PULL 2 3/8".

1. Notify State Inspector, Brian Ferguson,@ 304-550-6265, 48 hrs. prior to commencing operations.
2. TIH check TD.
3. RIH tbg to 1750', set 480' expanding cement plug, 1750' to 1270'. WOC 4hrs. Tag TOC, add additional expanding cement if necessary.
4. TOOH tbg to 1270', set 390', expanding cement plug from 1270' to 880'.WOC 4 hrs. Tag TOC, add additional expanding cement if necessary.
5. TOOH tbg to 880', set 380'expanding cement plug 880' to 500', WOC 4 hrs. Tag TOC of cement, add additional expanding cement if necessary.
6. TOOH tbg to 500', gel hole 500' to 200'.
7. TOOH tbg to 200', set 200' C1A cement plug 200' to surface.
8. Erect monument with API#, company name, company 6 digit ID #, and date plugged.
9. Reclaim location and road to WV-DEP specifications.

OK
gwm

BKF

Received
Office of Oil & Gas
JUL 13 2016

4702170P

State of West Virginia
Division of Environmental Protection
Section of Oil and Gas
Well Operator's Report of Well Work

API # 4704702170

Farm Name Pocahontas Land Corp. Well Number 510557

Location Elevation 1,672 Quadrangle Patterson

District Sandy River County Mc Dowell, WV

			Degree	Minute	Second
Latitude	2440	FSL	37.00	22.00	30.00
Longitude	2000	FWL	81.00	52.00	30.00

Company Equitable Production Company
1710 Pennsylvania Avenue Charleston, WV 25328

Agent Todd Tetrick

Inspector Barry Stollings

Permit Issued 06/13/2006

Well Work Commenced 11/15/2006

Well Work Completed 01/10/2007

Verbal Plugging

Permission granted or

Rotary Rig X Cable Rig

Total Depth 1,882

Casing & Tubing Size	Used in Drilling	Left in Well	Cement Fill Up Cubic Ft
13 3/8	37	37	
7	550	550	119.20
4 1/2	1,849	1,849	266.00
2 3/8		1,736	

Water Encountered

Type	From
Fresh water	damp @ 48'
Fresh water	3" @ 50'
Fresh water	2" @ 123'
Salt Water	1-1/2" @ 350'
Salt Water	3"-4" @ 582',damp@1670'

Coal & Open Mines

Type	From
Coal	20'-21', 23'-25', 63'-65'
Coal	112'-118',118'-123', 794'-797'
Coal	834'-837', 867'-870',968'-969'
Coal	1128'-32',1248'-52',1304'-08'

Open Flow Data

Producing Formation

Poca # 3,4,5, Leader ; Poca #7,9 ; Little fire creek/no name ; Beckley/Welch ; Sewell A&B/No Name ;

Pay Zone Depth (ft): See attached for details

Gas: Initial Open Flow 0 MCF 12/17/06 Date Oil: Initial Open Flow Bbl/d

Final Open Flow 60 MCF 01/10/2007 Date Final Open Flow

Time of open flow between initial and final tests 0 hours

Static Rock Pressure 200 after 0 hours

Second Producing Formation Pay Zone Depth (ft)

Gas: Initial Open Flow MCF Date Oil: Initial Open Flow Bbl/d

Final Open Flow MCF Date Final Open Flow

Time of open flow between initial and final tests hours

Static Rock Pressure after hours

NOTE: On back of this form put the following
1) Details of Perforated intervals, fracturing or stimulating, physical change,etc.
2) The well log, a systematic detailed geological record of all formations including coal encountered in the well bore

For Equitable Production Company

By

Date 5/29/07

Received
Office of Oil & Gas
JUL 13 2016

4702170P

Well Number 510557

Equitable Production Company
WR-35 Completion Report - Attachment
Well Treatment Summary

API # 4704702170

	Stage1	Stage2	Stage3	Stage4	Stage5
Date	12/30/2006	12/30/2006	12/30/2006	12/30/2006	12/30/2006
FracTyp	70Q Foam	70Q Foam	70Q Foam	70Q Foam	70Q Foam
Zone	Poca # 3,4,5, Leader	Poca #7,9	Little fire creek/no name.	Beckley/Welch	Sewell A&B/No Name A&B
# of Perfs	32	32	38	37	36
From/To	1,534— 1,651	1,304— 1,487	1,188— 1,268	936— 1,134	634— 872
BD Press	2,300	3,800	2,410	2,994	2,759
ATP Psi	2,653	0	3,397	2,469	2,518
Avg Rate	10	0	40	39	28
Max Press Psi	2,899	0	3,634	2,986	2,878
ISIP Psi	1,559	0	0	0	1,554
10min SIP	1,539 5 min.	0 5 min.	0 5 min.	0 5 min.	759 5 min.
Frac Gradient	0.00	0.00	0.00	0.00	0.00
Sand Proppant	0.57	0.00	47.00	66.00	42.00
Water-bbl	203	0	172	233	190
SCF N2	339,000	0	320,000	354,000	270,000
Acid-gal	700 gal 10%MSA	0 gal	700 gal 10%MSA	700 gal 10%MSA	400 gal 10%MSA

Formation Name	Depth To	Depth Bottom	Formation Thick
Sand & Shale	0.00	20	20.00
Coal	20.00	21	1.00
Sand & Shale	21.00	23	2.00
Coal	23.00	25	2.00
Sand & Shale	25.00	63	38.00
Coal	63.00	65	2.00
Sand & Shale	65.00	118	53.00
Coal	118.00	123	5.00
Sand & Shale	123.00	363	240.00
Open Mine	363.00	368	5.00
Lost Circulation	368.00	547	179.00
Sand & Shale	547.00	794	247.00
Coal	794.00	797	3.00
Sand & Shale	797.00	834	37.00
Coal	834.00	837	3.00
Sand & Shale	837.00	867	30.00
Coal	867.00	870	3.00
Sand & Shale	870.00	934	64.00
Welch	934.00	940	6.00
Sand & Shale	940.00	964	24.00
Coal	964.00	968	4.00
Sand & Shale	968.00	1,128	160.00
Beckley	1,128.00	1,132	4.00
Sand & Shale	1,132.00	1,248	116.00
Fire Creek	1,248.00	1,252	4.00
Sand & Shale	1,252.00	1,304	52.00
Lower Fire Creek	1,304.00	1,308	4.00
Sand & Shale	1,308.00	1,484	176.00
Poca #6	1,484.00	1,488	4.00
Sand & Shale	1,488.00	1,533	45.00
Poca #4	1,533.00	1,537	4.00
Sand & Shale	1,537.00	1,593	56.00
Poca #3	1,593.00	1,596	3.00
Sand & Shale	1,596.00	1,633	37.00
Poca #2	1,633.00	1,636	3.00
Sand & Shale	1,636.00	1,664	28.00
Poca #1	1,664.00	1,666	2.00
Sand	1,666.00	1,713	47.00
Squire Jim	1,713.00	1,715	2.00
Sand & Shale & Red Ro	1,715.00	1,880	165.00

Gas Tests

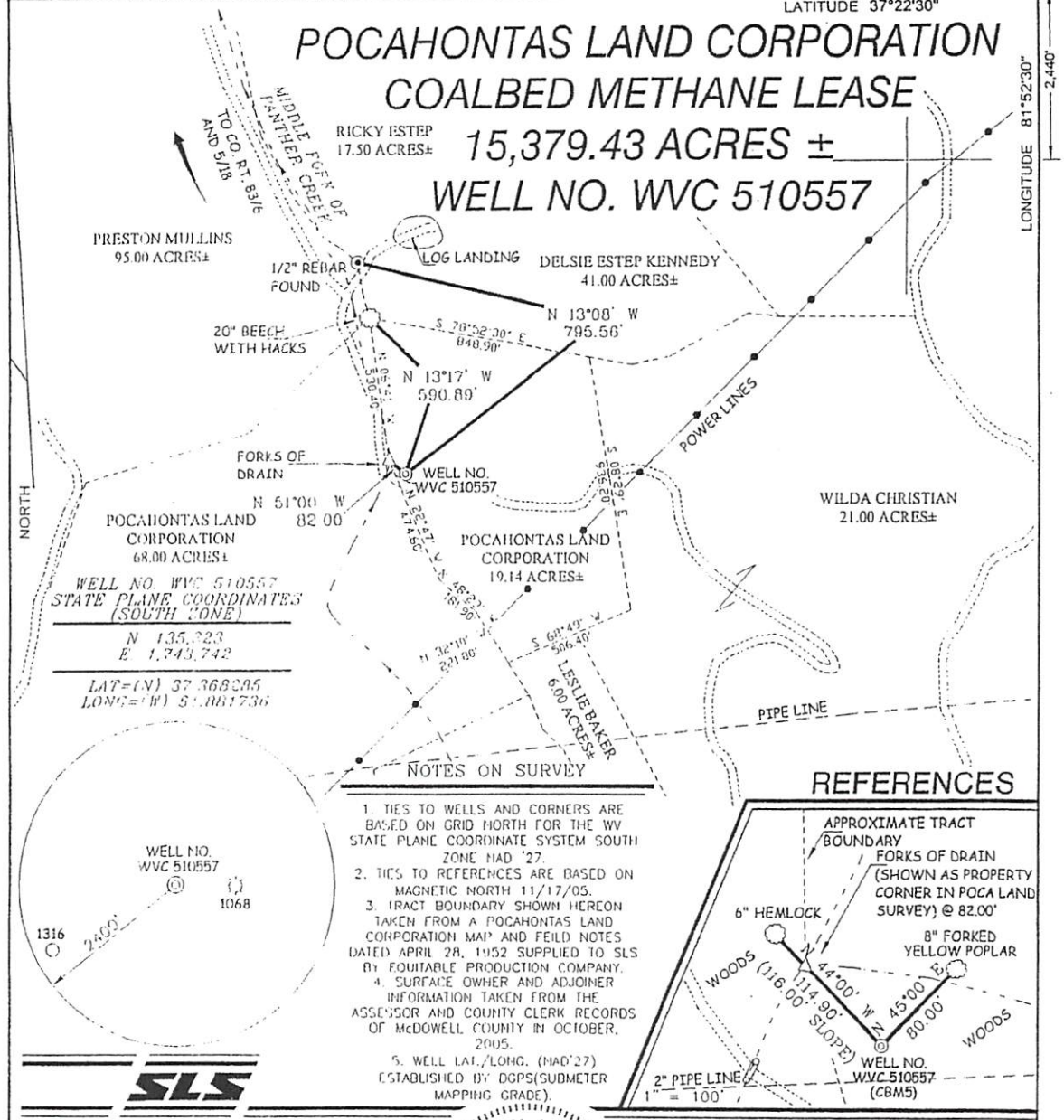
Depth	Remarks

Received
Office of Oil & Gas
JUL 13 2016

FORM WW-6

4702170P

POCAHONTAS LAND CORPORATION
COALBED METHANE LEASE
15,379.43 ACRES ±
WELL NO. WVC 510557



NOTES ON SURVEY

1. TIES TO WELLS AND CORNERS ARE BASED ON GRID NORTH FOR THE WV STATE PLANE COORDINATE SYSTEM SOUTH ZONE NAD '27.
2. TIES TO REFERENCES ARE BASED ON MAGNETIC NORTH 11/17/05.
3. TRACT BOUNDARY SHOWN HEREON TAKEN FROM A POCAHONTAS LAND CORPORATION MAP AND FEILD NOTES DATED APRIL 28, 1952 SUPPLIED TO SLS BY EQUITABLE PRODUCTION COMPANY.
4. SURFACE OWNER AND ADJOINER INFORMATION TAKEN FROM THE ASSESSOR AND COUNTY CLERK RECORDS OF McDOWELL COUNTY IN OCTOBER, 2005.
5. WELL LAT./LONG. (NAD'27) ESTABLISHED BY DGPS(SUBMETER MAPPING GRADE).

REFERENCES

SLS

THIS PLAT IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AND SHOWS ALL THE INFORMATION REQUIRED BY LAW AND THE REGULATIONS ISSUED AND PRESCRIBED BY THE DIVISION OF ENVIRONMENTAL PROTECTION.

P.S. 677 Gregory A. Smith

GREGORY A. SMITH LICENSED No. 677 STATE OF WEST VIRGINIA PROFESSIONAL SURVEYOR

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

DATE NOVEMBER 28, 20 05

OPERATORS WELL NO. WVC 510557

API WELL NO. 47 — 047 — 02170C
STATE COUNTY PERMIT

MINIMUM DEGREE OF ACCURACY 1/2500 FILE NO. 5905P510557 (202-6)

SCALE 1"=500'

PROVEN SOURCE OF ELEVATION DGPS (SUBMETER MAPPING GRADE)

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

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

LOCATION:
ELEVATION 1,672' WATERSHED MIDDLE FORK OF PANTHER CREEK
DISTRICT SANDY RIVER COUNTY McDOWELL QUADRANGLE PATTERSON 7.5'
SURFACE OWNER POCAHONTAS LAND CORPORATION ACREAGE 19.14±
ROYALTY OWNER PENN VIRGINIA OIL & GAS CORPORATION LEASE ACREAGE 15,379.43±
PROPOSED WORK: LEASE NO. WV 497880-01
DRILL X CONVERT ___ DRILL DEEPER ___ REDRILL ___ FRACTURE OR STIMULATE X PLUG OFF OLD FORMATION ___ PERFORATE NEW FORMATION ___ PLUG AND ABANDON ___ CLEAN OUT AND REPLUG ___ OTHER ___
PHYSICAL CHANGE IN WELL (SPECIFY) ___ TARGET FORMATION POCAHONTAS #1
ESTIMATED DEPTH 2,150'

COUNTY NAME

PERMIT

WELL OPERATOR EQUITABLE PRODUCTION COMPANY DESIGNATED AGENT STEPHEN G. PERDUE
ADDRESS 1710 PENNSYLVANIA AVENUE ADDRESS 1710 PENNSYLVANIA AVENUE
CHARLESTON, WV 25302 CHARLESTON, WV 25302

Received Office of Oil & Gas JUL 13 2016

4702170 P

WW-4-A
Revised 6/07

1) Date: July 12, 2016
2) Operator's Well Number
510557 (Pocahontas Land Corp. WVC 510557
3) API Well No.: 47 047 - 02170
State County Permit

STATE OF WEST VIRGINIA - BUREAU OF ENVIRONMENT
DIVISION OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL & GAS
NOTICE AND APPLICATION TO PLUG AND ABANDON WELL

4) Surface Owner(s) to be served:
(a) Name Pocahontas Land Corp.
Address P. O. Box 1517
Bluefield, WV 24701

(b) Name
Address

(c) Name
Address

6) Inspector Brian Ferguson
Address 708 Manor Drive
Beckley, WV 25801
Telephone (304) 550-6265

5) (a) Coal Operator:
Name None
Address

(b) Coal Owner(s) with Declaration
Name Pocahontas Land Corp.
P. O. Box 1517
Address Bluefield, WV 24701

Name
Address

(c) Coal Lessee with Declaration
Name Alpha Natural Resources, LI
Address 208 Business Street
Beckley, WV 25801

TO THE PERSONS NAMED ABOVE: You should have received this Form and the following documents:

(1) The application to Plug and Abandon a Well on Form WW-4B, which sets out the parties involved in the work and describes the well its and the plugging work order; and
(2) The plat (surveyor's map) showing the well location on Form WW-6.

The reason you received these documents is that you have rights regarding the application which are summarized in the instructions on the reverses side. However, you are not required to take any action at all.

Take notice that under Chapter 22-6 of the West Virginia Code, the undersigned well operator proposes to file or has filed this Notice and Application and accompanying documents for a permit to plug and abandon a well with the Chief of the Office of Oil and Gas, West Virginia Division of Environmental Protection, with respect to the well at the location described on the attached Application and depicted on the attached Form WW-6. Copies of this Notice, the Application, and the plat have been mailed by registered or certified mail or delivered by hand to the person(s) named above (or by publication in certain circumstances) on or before the day of mailing or delivery to the Chief.

Well Operator: **EQT Production Company**
By: **Victoria J.Roark**
Its: **Permitting Supervisor**
Address: **PO Box 280**
Bridgeport, WV 26330
Telephone: **(304) 848-0076**

Subscribed and sworn before me this 12th day of July, 2016
Misty S. Christie Notary Public
My Commission Expires: 2/20/18

The Office of Oil & Gas processes your personal information, such as name, address and phone 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 of your personal information, please contact DEP's Chief Privacy Officer at depprivacyofficer@wv.gov.

OFFICIAL SEAL
STATE OF WEST VIRGINIA
NOTARY PUBLIC
Misty S Christie
1207 Briercliff Rd
Bridgeport, WV 26330
My Commission Expires February 20, 2018

Received
Office of Oil & Gas
JUL 13 2016

WW-9
Revised 5/16

2) Operator's Well Number
510557 (Pocahontas Land Corp. WVC)

3) API Well No.: 47 047 - 02170

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF OIL & GAS
FLUIDS / CUTTINGS DISPOSAL & RECLAMATION PLAN

Operator Name: EQT PRODUCTION COMPANY OP CODE: 306686

Watershed (HUC 10): Panther Creek Quadrangle: Patterson

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

Will a pit be used? Yes x No___

If so, please describe anticipated pit waste: **Formation Fluids**

Will a synthetic liner be used in the pit? Yes X No ___ Is so, what ml.? 20 ml. ~~10 ml~~

Proposed Disposal Method for Treated Pit Wastes:

___ Land Application (if selected provide a completed form WW-9-GPP)
___ Underground Injection (UIC Permit Number ___)
X Reuse (at API Number -- Various)
X Off Site Disposal Permit (Supply form WW-9 for disposal location. See attachment)
___ Other: (Explain ___

Will closed loop system be used ? If so, describe: ___

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

If oil based, what type? Synthetic, petroleum, etc. ___

Additives to be used in drilling medium? ___

Drill cuttings disposal method? Leave in pit, landfill, remove offsite, etc. ___

If left in pit and plan to solidify what medium will be used? (cement, Lime, sawdust) ___

Landfill or offsite name/permit number? ___

Permittee shall provide written notice to the Office of the 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 April 1, 2016, by the Office of Oil and Gas of the West Virginia Division 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.

Received
Office of Oil & Gas
AUG 19 2016

Company Official Signature ___

Company Official (Typed Name) Victoria J Roark

Company Official Title Permitting Supervisor - WV

Subscribed and sworn before me this 11th day of August, 2016

Rebecca L. Wanstreet Notary Public

My Commission Expires 4-7-2020

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

OPERATOR'S WELL NO.:
510557 (Pocahontas Land Corp. WVC)

LEGEND

Property Boundary

Diversion

Road

Spring

Wet Spot

Planned Fence

Drain Pipe with size in inches

Water Way

Existing Fence

Stream

Cross Drain

Open Ditch

Artificial Filter Strip

Rock

North

N

Building

Water well

W

Drill site

Pit with Cut Walls

Pit with Compacted Walls

Area of Land Application of Pit Waste

Proposed Revegetation Treatment: Acres Disturbed: 1± Prevegetation pH _____

Lime 3 Tons/acre or to correct to pH 6.5

Fertilizer (10-20-20) or equivalent 1/3 ton lbs/acre (500 lbs minimum)

Mulch 2 Tons/acre or hydroseed.

SEED MIXTURES

Area I

Seed Type	lbs/acre
Red Fescue	40
Alsike Clover	5
Annual Rye	15

Area II

Seed Type	lbs/acre
Red Fescue	15
Alsike Clover	5

ATTACH:

Drawing(s) of road, location, pit and proposed area for land application.
Photocopies section of involved 7.5' topographic sheet.

Plan approved by: _____

Comments: _____

Title: _____ Date: _____

Field Reviewed? _____ Yes _____ No

Received
Office of Oil & Gas
AUG 19 2016

EQT Production Water plan
Offsite disposals

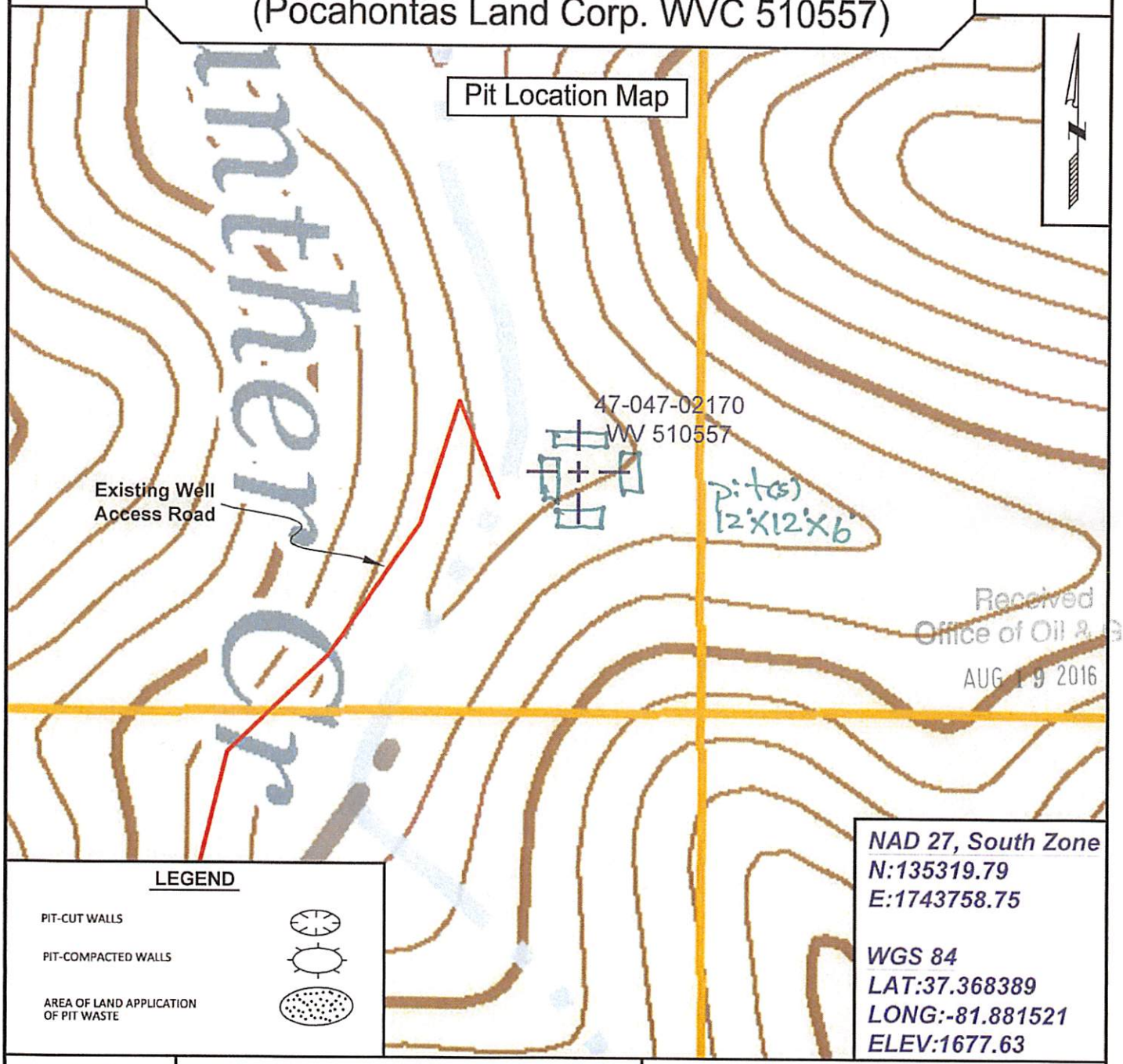
Waste Management - Meadowfill Landfill
Rt. 2, Box 68 Dawson Drive
Bridgeport, WV 26330
304-326-6027
Permit #SWF-1032-98
Approval #100785WV

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

Received
Office of Oil & Gas
AUG 19 2016

Topo Quad:	Patterson 7.5'	**Scale:**	1" = 200'
County:	McDowell	**Date:**	August 12, 2016
District:	Sandy River	**Project No:**	20-37-00-08

47-047-02170 WV 510557
(Pocahontas Land Corp. WVC 510557)



Received
Office of Oil & Gas
AUG 19 2016

LEGEND

PIT-CUT WALLS

PIT-COMPACTED WALLS

AREA OF LAND APPLICATION OF PIT WASTE

NAD 27, South Zone
N:135319.79
E:1743758.75

WGS 84
LAT:37.368389
LONG:-81.881521
ELEV:1677.63

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

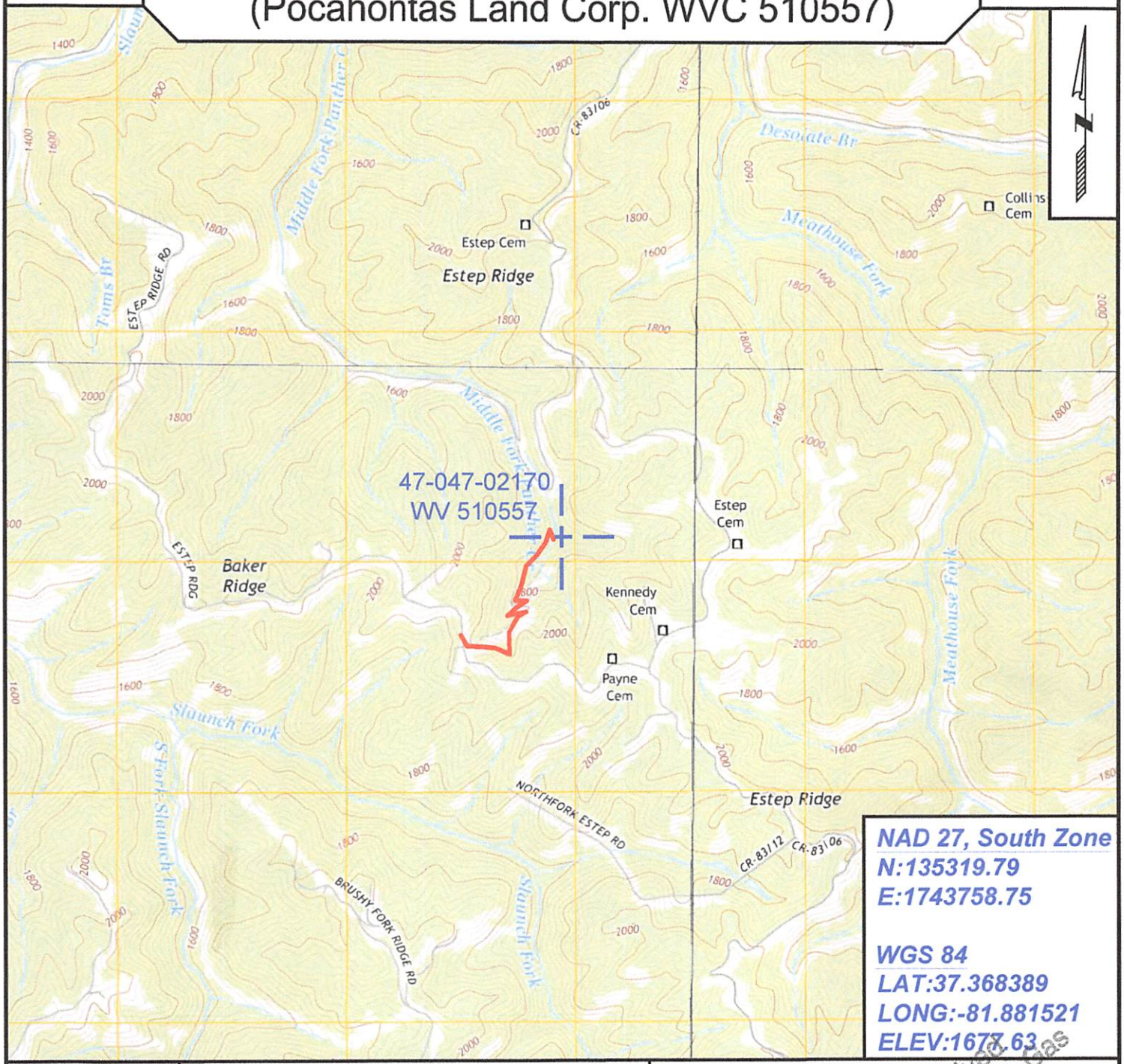
P.O. Box 280
Bridgeport, WV 26330

4702170P

Topo Quad:	Patterson 7.5'	**Scale:**	1" = 2000'
County:	McDowell	**Date:**	June 16, 2016
District:	Sandy River	**Project No:**	20-37-00-08

47-047-02170 WV 510557
(Pocahontas Land Corp. WVC 510557)

Topo



NAD 27, South Zone
N:135319.79
E:1743758.75

WGS 84
LAT:37.368389
LONG:-81.881521
ELEV:1677.63

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

Received
Office of Oil & Gas
JUL 13 2016

4702170P

WW-7
8-30-06

West Virginia Department of Environmental Protection
Office of Oil and Gas
WELL LOCATION FORM: GPS

API: 47-047-02170 **WELL NO.:** WV 510557 (Pocahontas Land Corp. WVC 510557)

FARM NAME: Pocahontas Land Corporation

RESPONSIBLE PARTY NAME: EQT Production Company

COUNTY: McDowell **DISTRICT:** Sandy River

QUADRANGLE: Patterson 7.5'

SURFACE OWNER: Pocahontas Land Corporation

ROYALTY OWNER: Pardee Minerals, LLC (now Pardee Resources Company), et al.

UTM GPS NORTHING: 4136105

UTM GPS EASTING: 421945 **GPS ELEVATION:** 511m (1678 ft)

The Responsible Party named above has chosen to submit GPS coordinates in lieu of preparing a new well location plat for a plugging permit or assigned API number on the above well. The Office of Oil and Gas will not accept GPS coordinates that do not meet the following requirements:

1. Datum: NAD 1983, Zone: 17 North, Coordinate Units: meters, Altitude: height above mean sea level (MSL) – meters.
2. Accuracy to Datum – 3.05 meters
3. Data Collection Method:

Survey grade GPS _____: Post Processed Differential _____
Real-Time Differential _____
Mapping Grade GPS X: Post Processed Differential X
Real-Time Differential _____

4. **Letter size copy of the topography map showing the well location.**

I the undersigned, hereby certify this data 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 Office of Oil and Gas.

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Office of Oil & Gas
JUL 13 2016

Stacy O'Brien — Signature
PS# 2180 — Title
6/15/2016 — Date

4702170P

POTENTIAL WATER SAMPLE DATA SHEET

CLIENT: EQT PRODUCTION COMPANY
LEASE NAME AND WELL No. Pocahontas Land Corp. WVC 510557 - WV 510557 –
API No. 47-047-02170

POTENTIAL SAMPLE LOCATIONS

There appears to be no known water samples within the required 1000' of the existing well WV 510557.

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BIRCH RIVER OFFICE
237 Birch River Road
Birch River, WV 26610
phone: 304-649-8606
fax: 304-649-8608

BRIDGEPORT OFFICE
172 Thompson Drive
Bridgeport, WV 26330
phone: 304-848-5035
fax: 304-848-5037

ALUM CREEK OFFICE
P.O. Box 108 • 1413 Childress Rd
Alum Creek, WV 25003
phone: 304-756-2949
fax: 304-756-2948

MARTINSBURG OFFICE
25 Lights Addition Drive
Martinsburg, WV 25404
phone: 304-901-2162
fax: 304-901-2182

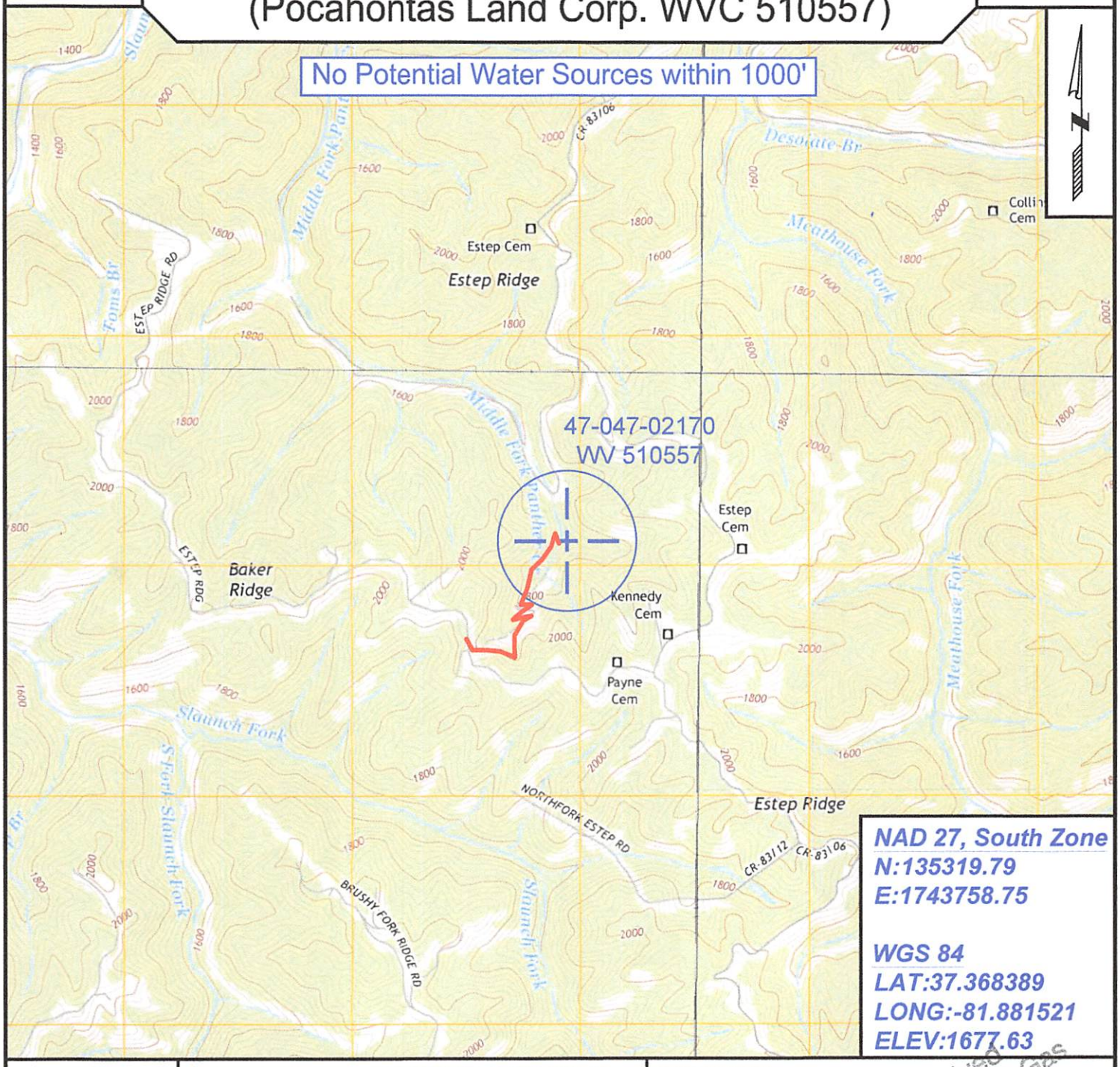
ALLEGHENYSURVEYS.COM

4702170P

Topo Quad:	Patterson 7.5'	**Scale:**	1" = 2000'
County:	McDowell	**Date:**	June 16, 2016
District:	Sandy River	**Project No:**	20-37-00-08

Water

47-047-02170 WV 510557
(Pocahontas Land Corp. WVC 510557)



NAD 27, South Zone
N:135319.79
E:1743758.75

WGS 84
LAT:37.368389
LONG:-81.881521
ELEV:1677.63

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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JUL 13 2016