



west virginia department of environmental protection

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

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

October 19, 2015

WELL WORK PLUGGING PERMIT

Plugging

This permit, API Well Number: 47-8101299, issued to ARP MOUNTAINEER PRODUCTION, LLC, is evidence of permission granted to perform the specified well work at the location described on the attached pages and located on the attached plat, subject to the provisions of Chapter 22 of the West Virginia Code of 1931, as amended, and all rules and regulations promulgated thereunder, and to all conditions and provisions outlined in the pages attached hereto. Notification shall be given by the operator to the Oil and Gas Inspector at least 24 hours prior to the construction of roads, locations, and/or pits for any permitted work. In addition, the well operator shall notify the same inspector 24 hours before any actual well work is commenced and prior to running and cementing casing. Spills or emergency discharges must be promptly reported by the operator to 1-800-642-3074 and to the Oil and Gas inspector.

Upon completion of the plugging well work, the above named operator will reclaim the site according to the provisions of WV Code 22-6-30. The above named operator will also file, as required in WV Code 22-6-23, an affidavit on form WR-38 by two experienced persons in the operator's employment and the Oil and Gas inspector that the work authorized under this permit was performed and a description given. Failure to abide by all statutory and regulatory provisions governing all duties and operations here under may result in suspensions or revocation of this permit and in addition may result in civil and/or criminal penalties being imposed upon the operator.

This permit will expire in two (2) years from date of issue. If there are any questions, please free to contact me at (304) 926-0499 ext. 1654.

James Martin
Chief


Operator's Well No: MM-5

Farm Name: HATCHER, KENNETH P.

API Well Number: 47-8101299

Permit Type: Plugging

Date Issued: 10/19/2015

Promoting a healthy environment.

10/23/2015

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 under the terms of that agreement.

WW-4B
Rev. 2/01

1) Date September 16th, 2015
2) Operator's
Well No. MM-5
3) API Well No. 47-81 - 01299

STATE OF WEST VIRGINIA
DEPARTMENT 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 ___ or Underground storage ___) Deep ___/ Shallow ___

5) Location: Elevation 2,070.68 Watershed Marsh Fork
District Trap Hill County Raleigh Quadrangle Eccles

6) Well Operator ARP Mountaineer Production, LLC 7) Designated Agent CT Corporation System
Address Park Place Corporate Centre One Address 5400 D Big Tyler Road
1000 Commerce Drive 4th Floor, Pittsburg, PA 15275 Charleston West Virginia 25313

8) Oil and Gas Inspector to be notified Name Gary Kennedy
Address Box 268
Nimitz WV, 25978
9) Plugging Contractor Name Universal Well Services
Address 14 Sewer Plant Road
Buckhannon, WV 26201

10) Work Order: The work order for the manner of plugging this well is as follows:
Move in rig up workover rig, Lower tubing and tag bottom, TD 1480'
If fill is encountered, clean to as deep as reasonably achievable below lowermost coal.
RIH w/2-3/8 tubing set off of bottom +or- two feet. Spot balanced plug using 30% excess in cement, totaling 50cu.ft. of expanding cement
Cement blend (50/50 PozMix wit 10% Salt, 2% Bentonite)
TOOH w/tubing, WOC for 4hrs minimum
RIH w/tubing, tag cement at or near 1080', finish circulating cement to the surface, using 20% excess tota
Install permanent marker and reclaim location to WVDEP specifications

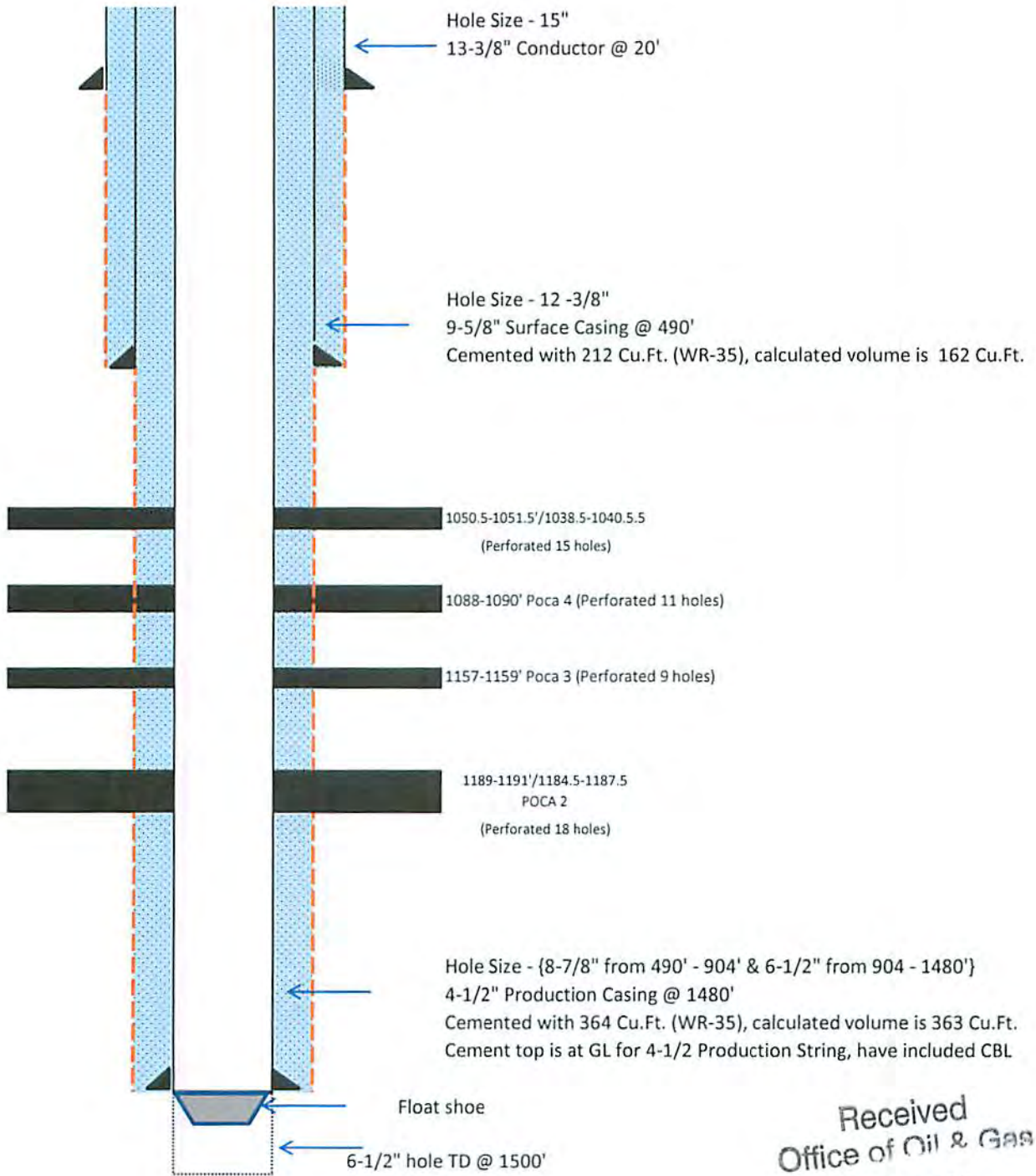
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Office of Oil & Gas
SEP 25 2015

6% Gel Between Plugs

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

Work order approved by inspector Gary Kennedy Date 9/24/15

MM-5
Plug and Abandon Schematic
API # 47-081-01299



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[Handwritten signature]

MM-5



10/23/2015

WR-35
Rev (5-01)

DATE: March 11, 2005
API #: 47-081-01299

State of West Virginia
Department of Environmental Protection
Office of Oil and Gas

Office of Oil & Gas
MAR 18 2005
WV Department of Environmental Protection

Well Operator's Report of Well Work

Farm name: Kenneth P. Hatcher Operator Well No.: MM-5

LOCATION: Elevation: 2070.68 Quadrangle: Eccles

District: Trap Hill County: Raleigh
Latitude: 0 Feet South of 37 Deg. 46 Min. 57.01 Sec.
Longitude 0 Feet West of 81 Deg. 21 Min. 25.68 Sec.

Company: AMVEST Oil and Gas, Inc.

	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
Address: <u>One Boar's Head Pointe</u>	<u>13 3/8"</u>	<u>20'</u>	<u>20'</u>	<u>N/A</u>
<u>Charlottesville, Virginia 22905</u>	<u>9 5/8"</u>	<u>490'</u>	<u>490'</u>	<u>212.4</u>
Agent: <u>Anthony A. Wilhoit</u>	<u>4 1/2"</u>	<u>1460'</u>	<u>1460'</u>	<u>364</u>
Inspector: <u>Richard Campbell</u>				
Date Permit Issued: <u>January 29, 2003</u>				
Date Well Work Commenced: <u>3/25/2003</u>				
Date Well Work Completed: <u>4/19/2003</u>				
Verbal Plugging:				
Date Permission granted on:				
Rotary x Cable Rig Horn # <u>609</u>				
Total Depth (feet): <u>1500</u>				
Fresh Water Depth (ft.): <u>100'</u>				
Salt Water Depth (ft.): <u>N/A</u>				
Is coal being mined in area (N/Y)? <u>N</u>				
Coal Depths (ft.): <u>608-410, 861-866, 1039-1041</u> <u>1088-1090, 1157-1159, 1185-1187</u>				

OPEN FLOW DATA

Producing formation Pocahontas #2 Seam Pay zone depth (ft) 998-1006

Gas: Initial open flow N/A MCF/d Oil: Initial open flow N/A Bbl/d

Final open flow N/A MCF/d Final open flow N/A Bbl/d

Time of open flow between initial and final tests N/A Hours

Static rock Pressure 280 psig (surface pressure) after 24 Hours

Second producing formation Pocahontas #3 Seam Pay zone depth (ft) 971-972

Gas: Initial open flow N/A MCF/d Oil: Initial open flow N/A Bbl/d

Final open flow N/A MCF/d Final open flow N/A Bbl/d

Time of open flow between initial and final tests N/A Hours

Static rock Pressure 280 psig (surface pressure) after 24 Hours

Third producing formation Pocahontas #6 Seam Pay zone depth (ft) 843-845

Gas: Initial open flow N/A MCF/d Oil: Initial open flow N/A Bbl/d

Final open flow N/A MCF/d Final open flow N/A Bbl/d

Time of open flow between initial and final tests N/A Hours

Static rock Pressure 280 psig (surface pressure) after 24 Hours

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Office of Oil & Gas

SEP 25 2005

NOTE: ON BACK OF THIS FORM PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

Signed: [Signature]
By: John F. Simlar VP Exploration
Date: 3/11/05

[Signature]
10/23/2015

Well: MM-5
Permit Number: 47-081-01299C
District: Trap Hill
County: Raleigh

DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC.

Date: 5/19/2003

MIRU Key Energy Services and HES to conduct 4-stage CBM completion. PU and RIH with 3 1/8" HSC and perforate Poca 2A and Poca 2B 1189' - 1191' (5 holes) and 1184.5' - 1187.5' (13 holes), respectively.

1st Stage - Poca 2A & 2B (1184.5' - 1191')

RU HES and pressure test lines to 4341 psi. Open frac valve and begin pumping treated water for breakdown. Formation broke 3018 psi. Pump 6 bbl 15% Hfe acid in pad. Foam frac interval with 70Q foam ramping sand from 1 ppg to 10 ppg at surface. ISIP 1659 psi. 2 min SIP 1374 psi. 5 min SIP 1309 psi. 10 min SIP 1264 psi. Shut well in. RD HES.

Materials used: 15600 LB sand, 184000 scf N2, 109 bbl water

2nd Stage - Poca 3 (1157' - 1159')

RU Key and RIH perforate Poca 3 interval under pressure with 3 1/8" HSC 1157' - 1159' with 9 holes. POOH with perforating gun. All shots fired. PU and RIH with HES frac plug.

RU HES and pressure test lines to 4240 psi. Open frac begin pumping HCl and treated water for breakdown. Formation broke 2828 psi. Foam frac interval with 70Q foam and sand at 1 ppg at surface. Treating pressures increasing continuously. Start 70Q flush after 1000 LB sand pumped. ATR 12 bpm. ATP 3790 psi. ISIP 3460 psi. 2 min SIP 2658 psi. 5 min SIP 2289 psi. Shut well in. RD HES.

Materials used: 1000 LB sand, 105000 scf N2, 51 bbl water

3rd Stage - Poca #4 (1088-1090)

RU Key and RIH perforate Poca 4 interval under pressure with 3 1/8" HSC 1088' - 1090' with 11 holes. POOH with perforating gun. All shots fired. PU and RIH with HES frac plug. Plug set @ 1125'. POOH with setting tool. RU HES. Open frac begin pumping HCl and treated water for breakdown. Formation broke 2347 psi. Foam frac interval with 70Q foam ramping sand from 1 ppg to 6.7 ppg at surface. Able to pump 5600 LB sand before pressure increased too high. Flush with 70Q foam. ATR 16 bpm. ATP 2900 psi. ISIP 2660 psi. 2 min SIP 1645 psi. 5 min SIP 1432 psi. Shut well in. RD HES.

Materials used: 5600 LB sand, 140000 scf N2, 92 bbl water

4th Stage - Poca 6 (1038.8' - 1051.5')

RU Key and RIH perforate Poca 6A and 6B intervals under pressure with 3 1/8" HSC 1050.5' - 1051.5' (4 holes), and 1038.8' - 1040.8' (11 holes), respectively. POOH with perforating gun. All shots fired. PU and RIH with HES frac plug. Plug set @ 1075'. POOH with setting tool. RU HES. Open frac begin pumping HCl and treated water for breakdown. Formation broke 3992 psi. Foam frac interval with 70Q foam ramping sand from 1 ppg to 10 ppg at surface. Flush with 70Q foam. ATR 16 bpm. ATP 3100 psi. ISIP 2934 psi. 2 min SIP 2069 psi. 5 min SIP 1806 psi. Shut well in. RD HES.

Materials used: 14000 LB sand, 228000 scf N2, 110 bbl water

Formation	Top	Bottom
Clay	0	31
Sand and Shale	31	200
Sand	200	340
Shale	340	408
Coal	408	410
Sand	410	664
Coal	664	670
Shale	670	760
Sand	760	843
Coal	843	845
Sand and Shale	845	971
Coal	971	972
Shale	972	998
Coal	998	1006
Sand and Shale	1006	1063
Red Rock	1063	TD 1500

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10/23/2015

SURFACE OWNER WAIVER

Operator's Well
Number

MM 5

INSTRUCTIONS TO SURFACE OWNERS NAMED ON PAGE WW4-A

The well operator named on page WW-4A is applying for a permit from the State to plug and abandon a well. (Note: If the surface tract is owned by more than three persons, then these materials were served on you because your name appeared on the Sheriff's tax ticket on the land or because you actually occupy the surface tract. In either case, you may be the only owner who will actually receive these materials.) See Chapter 22 of the West Virginia Code. Well work permits are valid for 24 months. If you do not own any interest in the surface tract, please forward these materials to the true owner immediately if you know who it is. Also, please notify the well operator and the Office of Oil and Gas.

**NOTE: YOU ARE NOT REQUIRED TO FILE ANY COMMENT.
WHERE TO FILE COMMENTS AND OBTAIN ADDITIONAL INFORMATION:**

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

Time Limits and methods for filing comments. The law requires these materials to be served on or before the date the operator files his Application. You have **FIVE (5) 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.

Comments must be in writing. Your comments must 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.

The Chief has the power to deny or condition a well work permit based on comments on the following grounds:

- 1) The proposed well work will constitute a hazard to the safety of persons.
- 2) The soil erosion and sediment control plan is not adequate or effective;
- 3) Damage would occur to publicly owned lands or resources;
- 4) The proposed well work fails to protect fresh water sources or supplies;
- 5) The applicant has committed a substantial violation of a previous permit or a substantial violation of one or more of the rules promulgated under Chapter 22, and has failed to abate or seek review of the violation..."

If you want a copy of the permit as it is issued or a copy of the order denying the permit, you should request a copy from the Chief.

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Office of Oil & Gas

VOLUNTARY STATEMENT OF NO OBJECTION

SEP 25 2015

I hereby state that I have read the instructions to surface owners and that I have received copies of a Notice and Application For A Permit To Plug And Abandon on Forms WW-4A and WW-4B, and a survey plat.

I further state that I have no objection to the planned work described in these materials, and I have no objection to a permit being issued on those materials.

FOR EXECUTION BY A NATURAL PERSON
ETC.

FOR EXECUTION BY A CORPORATION,
ETC.

_____	Date _____	Name _____
Signature		By _____
		Its _____
		Date _____

Signature

Date
10/23/2015

WW-4B

API No.	<u>081-01299</u>
Farm Name	<u>HATCHER, KENNETH P.</u>
Well No.	<u>MM 5</u>

**INSTRUCTIONS TO COAL OPERATORS
OWNERS AND LESSEE**

The well operator named on the obverse side of WW-4 (B) is about to abandon the well described in the enclosed materials and will commence the work of plugging and abandoning said well on the date the inspector is notified. Which date shall not be less than five days after the day on which this notice and application so mailed is received, or in due course should be received by the Department of Environmental Protection Office of Oil & Gas.

This notice and application is given to you in order that your respective representatives may be present at the plugging and filling of said well. You are further notified that whether you are represented or not the operator will proceed to plug and fill said well in the manner required by Section 24, Article 6, Chapter 22 of the Code and given in detail on obverse side of this application.

NOTE: If you wish this well to be plugged according to 22-6-24(d) then as per Regulation 35CSR4-13.9 you must complete and return to this office on form OB-16 "Request by Coal Operator, Owner, or Lessee for plugging" prior to the issuance of this plugging permit.

WAIVER

The undersigned coal operator ____ / owner ____ / lessee ____ / of the coal under this well location has examined this proposed plugging work order. The undersigned has no objection to the work proposed to be done at this location, provided, the well operator has complied with all applicable requirements of the West Virginia Code and the governing regulations.

Date: _____

By: _____

Its _____

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Office of Oil & Gas
SEP 25 2015

WW-4A
Revised 6-07

1) Date: September 16, 2015
2) Operator's Well Number MM 5
3) API Well No.: 47 - B1 - 01299

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
NOTICE OF APPLICATION TO PLUG AND ABANDON A WELL

4) Surface Owner(s) to be served:		5) (a) Coal Operator	
(a) Name	<u>Kenneth P. & Cora L. Hatcher</u>	Name	<u>No Coal Operator</u>
Address	<u>728 Logan TPKE</u> <u>PO Box 295 Fairdale, WV</u>	Address	<u></u>
(b) Name	<u></u>	(b) Coal Owner(s) with Declaration	
Address	<u></u>	Name	<u>Maple Meadows Mining Company</u>
		Address	<u>899 Corporate Blvd, Linthicum Heights, MD 21091</u>
(c) Name	<u></u>	Name	<u></u>
Address	<u></u>	Address	<u></u>
6) Inspector	<u>Garry Kennedy</u>	(c) Coal Lessee with Declaration	
Address	<u>PO Box 263</u> <u>Nimitz WV 25078</u>	Name	<u>Maple Meadow Mining Company</u>
Telephone	<u>304-382-8402</u>	Address	<u>899 Corporate Blvd, Linthicum Heights, MD 21091</u>

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 reverse 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 Department 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.

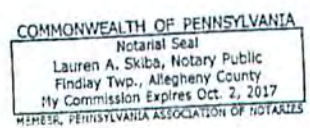
Well Operator ARP MOUNTAINEER PRODUCTION, LLC
 By: John W. Crook
 Its: VP, Environmental Health & Safety
 Address: Atlas Resource Partners, LP Park Place Corporate Center One
1000 Commerce Drive 4th Floor Pittsburgh, PA 15275
 Telephone: 412-200-7575

Subscribed and sworn before me this 21 day of September 2015
Lauren A Skiba Notary Public

My Commission Expires October 2, 2017

Oil and Gas Privacy Notice

The Office of Oil and Gas processes your personal information, such as name, address and phone number, as a 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.



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SEP 25 2015

WW-9
(2/15)

API Number 47 - 81 - 01299
Operator's Well No. MM-6

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

FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN

Operator Name ARP Mountaineer Production, LLC OP Code _____

Watershed (HUC 10) Marsh Fork Quadrangle Ecotas

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

*No pit will be used
TPW*

If so, please describe anticipated pit waste: Water and cement to be collected into a skidded 80bbl open top tank

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

Proposed Disposal Method For Treated Pit Wastes: TPW

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

*All pits must be lined with a
minimum of 20 mil thickness
synthetic liner.*

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, removed 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 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 *John W. Crook*

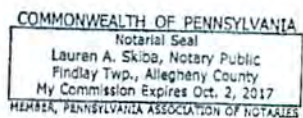
Company Official (Typed Name) John W Crook

Company Official Title VP EHS

Subscribed and sworn before me this 21 day of September, 2015

Lauren A. Skiba Notary Public

My commission expires October 2 2017



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SEP 25 2015

10/23/2015

ARP Mountaineer Production, LLC

Proposed Revegetation Treatment: Acres Disturbed 0.5 Prevegetation pH 5-6.5

Lime 2 Tons/acre or to correct to pH 6

Fertilizer type 10-20-20 or equivalent

Fertilizer amount 500 lbs/acre

Mulch Hay / Straw Tons/acre

Seed Mixtures

Temporary

Permanent

Seed Type	lbs/acre	Seed Type	lbs/acre
Tall Fescue or Orchard Grass	40		
Annual Rye Grass	5		

Attach:

Drawing(s) of road, location, pit and proposed area for land application (unless engineered plans including this info have been provided)

Photocopied section of involved 7.5' topographic sheet.

Plan Approved by: *Greg K...*

Comments: _____

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Office of Oil & Gas
SEP 25 2015


Title: Inspector

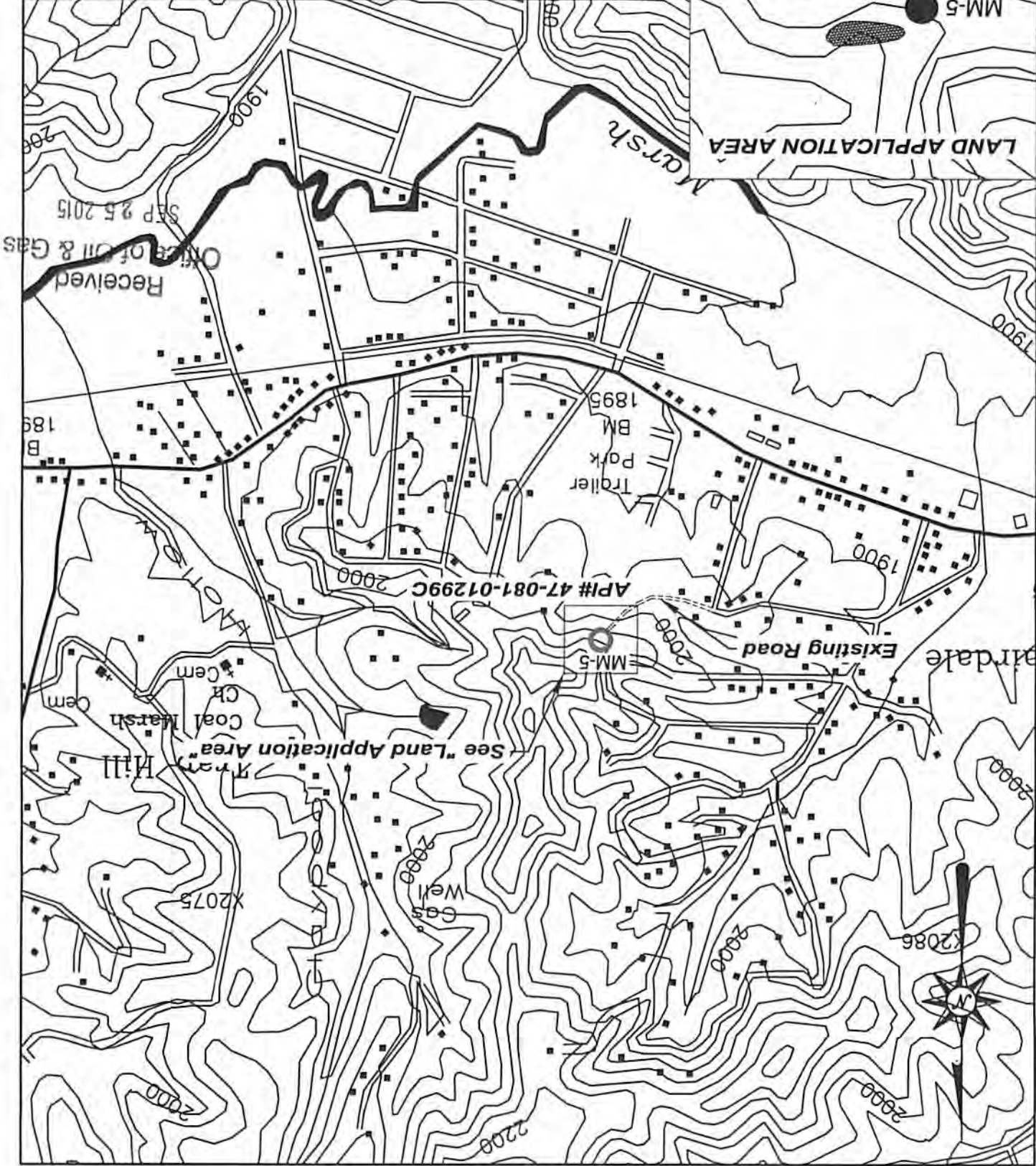
Date: 9/24/15

Field Reviewed? () Yes () No

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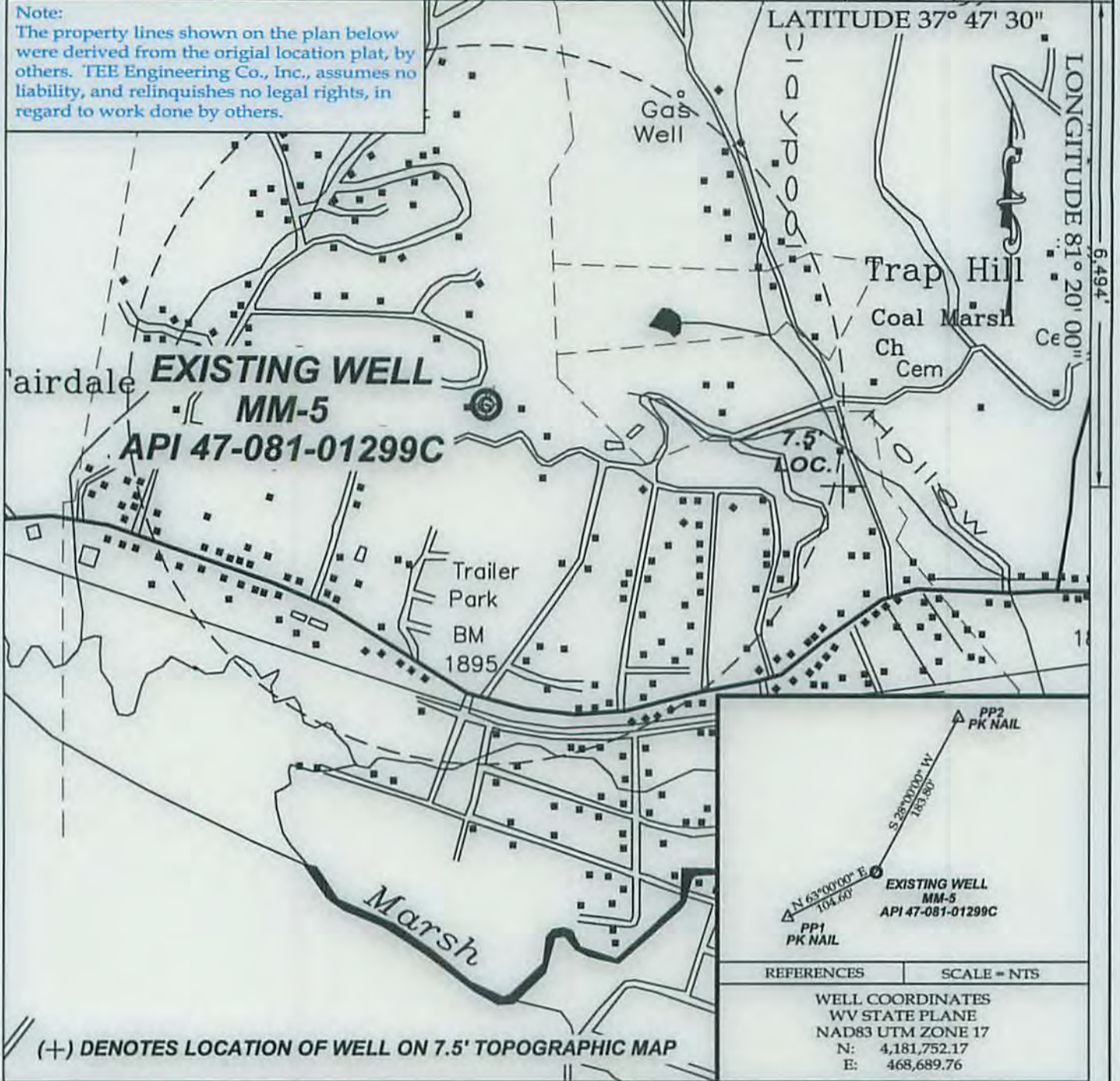
320 CUTTERS HILL COURT, LEXINGTON, KY, 40509 PHONE: (859) 263-5350 Engineering Company, Inc. 		SCALE: 1" = 1000' DATE: 9/9/15
PARK PLACE CORPORATE CENTER ONE 1000 COMMERCE DRIVE 4th FLOOR, PITTSBURGH, PA 15275 ARP Mountaineer Production, LLC		SCALE = NTS EXISTING ROAD MM-5
WELL NO. MM-5 API #47-081-1299C		SITE PLAN MAP



10/23/2015

81012997

Note:
The property lines shown on the plan below were derived from the original location plat, by others. TEE Engineering Co., Inc., assumes no liability, and relinquishes no legal rights, in regard to work done by others.



REFERENCES	SCALE = NTS
WELL COORDINATES WV STATE PLANE NAD83 UTM ZONE 17 N: 4,181,752.17 E: 468,689.76	

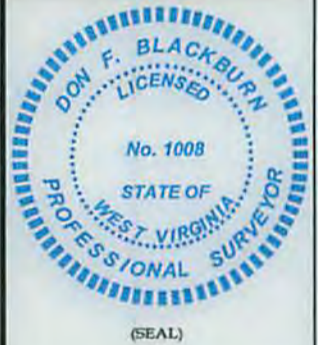
(+) DENOTES LOCATION OF WELL ON 7.5' TOPOGRAPHIC MAP

TEE Engineering Company, Inc.
P.O. BOX 219, STANVILLE, KY. 41659 PHONE: (606) 478-9024
320 CUTTERS HILL COURT, LEXINGTON, KY. 40509 PHONE: (859) 263-3350
ARP Mountaineer Production, LLC
Well No. MM-5
FILE NO. 1883-00
DRAWING NO. MM-5 PLUGGING PLAT
SCALE: 1" = 1,000'
MIN. DEGREE OF ACCURACY 1 : 2,500
PROVEN SOURCE OF ELEVATION
GPS STATION TEC-1 (ELEV. 2406.60)

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 MINES.

Don F. Blackburn
(SIGNATURE)

R.P.E. _____ R.P.S. 1008



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

DATE SEPTEMBER 9, 2015
OPERATOR'S WELL NO. MM-5
API WELL NO. 47 - 081 - 01299C P
STATE COUNTY PERMIT

WELL TYPE: OIL _____ GAS CBM _____ LIQUID INJECTION _____ WASTE DISPOSAL _____
(IF "GAS") PRODUCTION _____ STORAGE _____ DEEP _____ SHALLOW _____
LOCATION: ELEVATION 2,092.77' NORTHING 4181752.17 EASTING 468689.76 ZONE 17 NAD83 UTM
DISTRICT TRAP HILL WATER SHED MARSH FORK
QUADRANGLE ECCLES COUNTY RALEIGH

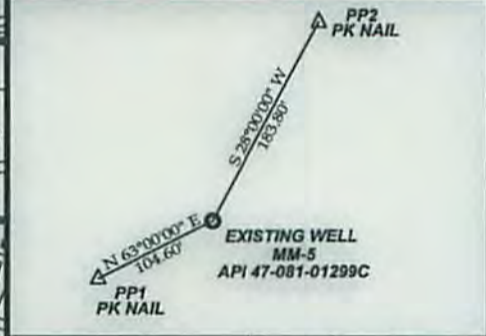
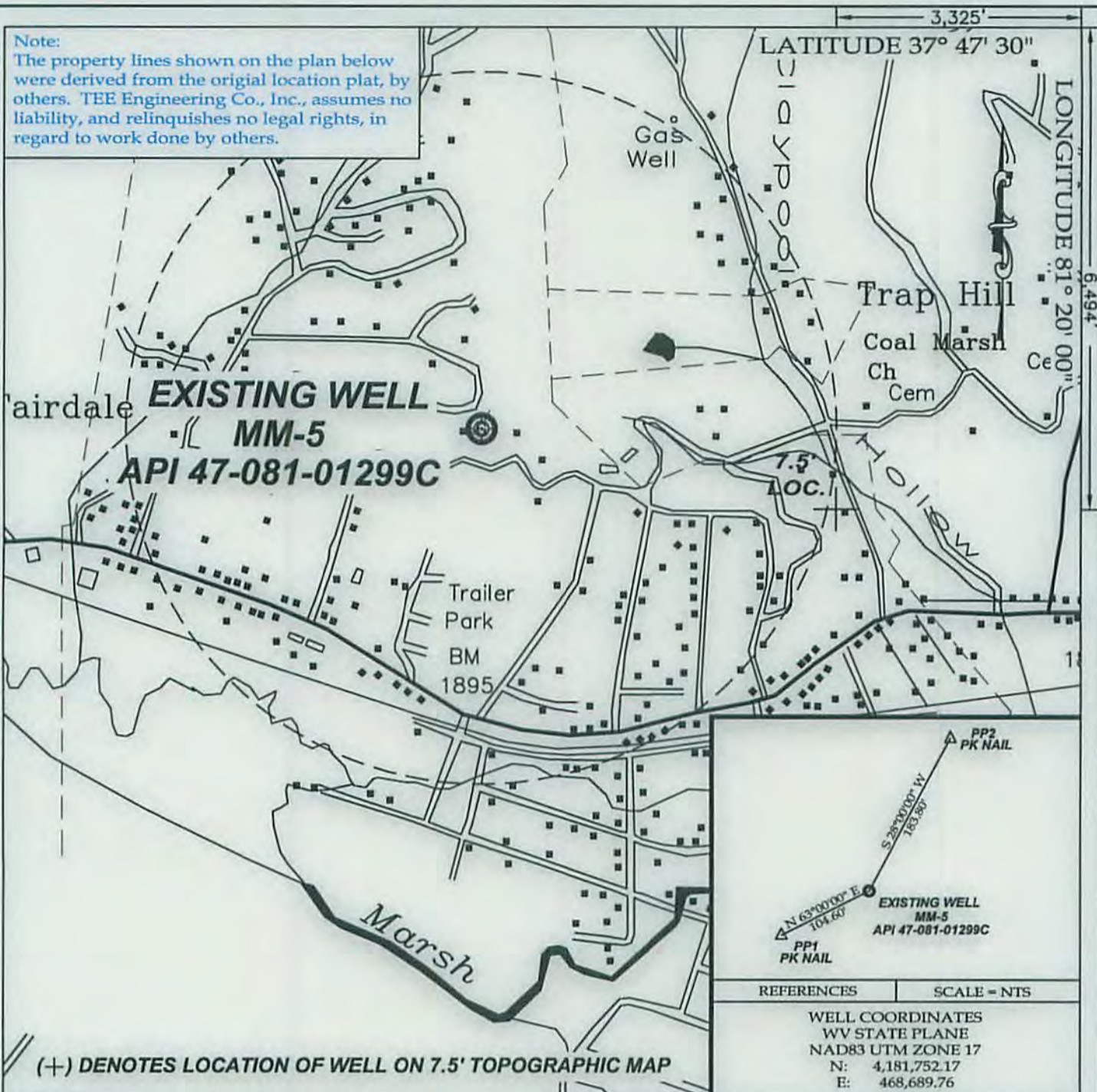
SURFACE OWNER KENNETH P. HATCHER ACREAGE 4.08
CBM ROYALTY OWNER RAG AMERICAN COAL LEASE ACREAGE 1045.7
LEASE NO. _____

PROPOSED WORK: DRILL _____ CONVERT _____ DRILL DEEPER _____ REDRILL _____ 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 POCAHONTAS 2 ESTIMATED DEPTH 1,500'
WELL OPERATOR ARP MOUNTAINEER PRODUCTION, LLC DESIGNATED AGENT CT CORPORATION SYSTEM
ADDRESS PARK PLACE CORPORATE CENTER ONE ADDRESS 5400 D BIG TYLER ROAD
1000 COMMERCE DRIVE 4th FLOOR, PITTSBURGH, PA 15275 CHARLESTON, WV 25313

10/23/2015

Note:
The property lines shown on the plan below were derived from the original location plat, by others. TEE Engineering Co., Inc., assumes no liability, and relinquishes no legal rights, in regard to work done by others.



REFERENCES	SCALE = NTS
WELL COORDINATES WV STATE PLANE NAD83 UTM ZONE 17 N: 4,181,752.17 E: 468,689.76	

(+) DENOTES LOCATION OF WELL ON 7.5' TOPOGRAPHIC MAP

TEE Engineering Company, Inc.
P.O. BOX 219, STANVILLE, KY. 41659 PHONE: (606)478-9024
320 CUTTERS HILL COURT, LEXINGTON, KY. 40509 PHONE: (859)263-5390
ARP Mountaineer Production, LLC
Well No. **MM-5**
FILE NO. 1883-00
DRAWING NO. MM-5 PLUGGING PLAT
SCALE: 1" = 1,000'
MIN. DEGREE OF ACCURACY 1 : 2,500
PROVEN SOURCE OF ELEVATION
GPS STATION TEC-1 (ELEV. 2406.60)

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 MINES.

Don F. Blackburn
(SIGNATURE)

R.P.E. _____ R.P.S. 1008



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

DATE SEPTEMBER 9, 2015
OPERATOR'S WELL NO. MM-5
API WELL NO. 47 - 081 - 01299C
STATE COUNTY PERMIT

WELL TYPE: OIL _____ GAS CBM _____ LIQUID INJECTION _____ WASTE DISPOSAL _____
(IF "GAS") PRODUCTION _____ STORAGE _____ DEEP _____ SHALLOW _____
LOCATION: ELEVATION 2,092.77' NORTHING 4181752.17 EASTING 468689.76 ZONE 17 NAD83 UTM
DISTRICT TRAP HILL WATER SHED MARSH FORK
QUADRANGLE ECCLES COUNTY RALEIGH

SURFACE OWNER KENNETH P. HATCHER ACREAGE 4.08
CBM ROYALTY OWNER RAG AMERICAN COAL LEASE ACREAGE 10457
LEASE NO. _____

PROPOSED WORK: DRILL _____ CONVERT _____ DRILL DEEPER _____ REDRILL _____ 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 POCAHONTAS 2 ESTIMATED DEPTH 1,500'
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