



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

July 14, 2016

WELL WORK PLUGGING PERMIT

Plugging

This permit, API Well Number: 47-7301338, issued to LOGUE, CATHY, 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: H-1290
Farm Name: KEARSE, G. WARREN
API Well Number: 47- 7301338
Permit Type: Plugging
Date Issued: 07/14/2016

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.

1) Date March 9, 2016
2) Operator's
Well No. H-1290
3) API Well No. 47-073 - 01328

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 X or Underground storage ___) Deep ___ / Shallow ___
- 5) Location: Elevation 1140' Watershed Right Fork French Creek
District Jefferson County Pleasants Quadrangle Schultz 7-1/2 quad
- 6) Well Operator Cathy Logue 7) Designated Agent _____
Address 1664 Hardy Hill Road Address _____
St. Marys WV 26170
- 8) Oil and Gas Inspector to be notified 9) Plugging Contractor
Name Derek Haught Name Chisler Brothers Contracting
Address PO Box 85 Address PO Box 101
Smithville WV 26178 Pentress WV 26544

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

Ensure all necessary E&S controls are installed

Perform necessary earth work to establish access and work area for rig
Perform Cement Bond Log to confirm 4 1/2" casing is CTS. Remove any free pipe.
RIH with open ended tubing to determine PBTB

Gel hole with 6% bentonite

Pull tubing up to 50 ft below perforations, pump in adequate cement to fill

perforations and ²⁰⁰100 ft above.

If 4 1/2" casing is CTS, place minimum 100 ft plugs at 4000 ft, 3000 ft, 2000 ft and 1000 ft. * 786' to 686' "

Pull tubing to ²⁰⁰100 ft from surface and put in surface cement plug.

Place a standing well monument with API number and reclaim site

Tag all plugs to confirm placement as required. Top off as needed.

PERFORATIONS
4290 - 4554

gwm

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

Work order approved by inspector Derek W. Haught Date 4/25/2016

★ IT IS LIKELY THAT THE 4 1/2" CASING IS NOT CTS, AND THE CEMENT TOP IS BELOW THE 8 5/8" CASING. THEREFORE, A MINIMUM OF 100' CEMENT PLUG MUST BE PLACED AT 4 1/2" CASING CUT.

★ 8 5/8" MAY NOT BE CTS, THEREFORE FREEPOINT, CUT & PULL 8 5/8" FROM FREEPOINT & 100'. SET 100' CIA PLUG ACROSS 8 5/8" CTS

07/15/2016

7301338P

STATE OF WEST VIRGINIA
 DEPARTMENT OF MINES, OIL AND GAS DIVISION
 FORM 10-75 (Revised) 108-75
 DATE: Jan. 20 1982
 WELL IDENTIFICATION NO. H-1230
 COUNTY: Boone
 DISTRICT: 073 - 1338

WELL TYPE: Oil Gas Steam Water
 Location: Elevation: 1140' Watershed: Right Fork-French Crddk
 District: Jefferson State: Pleasants County: Schulta, 7 1/2'
 WELL OPERATOR: Haught, Inc. Operator: Warren H. Haught
 Address: Route 3, Box 14 Smithville, W. Va. 26178

PERMITTED WORK: Fracture or stimulate
 File off old permit: Expired old permit:
 Other: Other:

PERMIT ISSUED ON: Oct. 21 81
 (IF APPLICABLE) CONTINUING WORK: Phillip Lee Tracy
 Address: Route 23 Alma, W. Va. 26320
 GEOLOGICAL FORMATION: Shale
 Depth of formation: 5100 feet
 Water depth: none
 Coal seam depth: none
 Work was completed: December 15, 1981 and suspended: December 21, 1981

CASING AND TUBING PROGRAM

CASING OR TUBING TYPE	SIZES AND WEIGHTS				SCHEDULED INTERVALS			PACKERS
	Flow	Depth	Conn Wt	Wt	Top	Bottom	Length	
Conductor								
Fresh water	8 5/8	K-55		X	736	736	125 sacks	Winds
Coal								
Intermediate								
Production	4 1/2	J-55		X		5030	635 sacks	
casing								
liners								
								Perforations:
								Top: Belton
								4290 - 4554

SEEN FLOW DATA
 Formation: Shale
 Depth: 4290 - 4554
 Flow rate: 220
 Pressure: 750#
 Date: 12

7301338A

FORM IV-35
(Reverse)
[05-78]

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

Nitrogen Fraced by B. J. Hughs
1000 Gal. Acid

WELL LOG

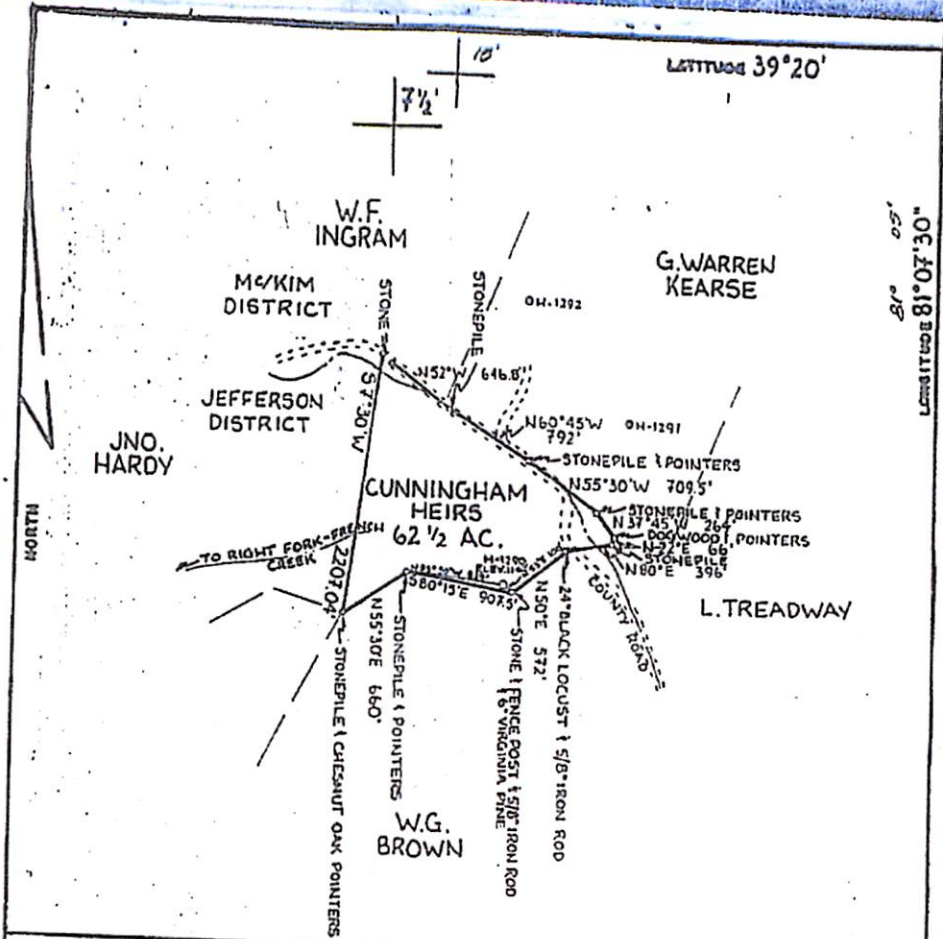
FORMATION	Color	Hard or Soft	Top Foot	Bottom Foot	Remarks
Red Rock			0	65	
Sandstone			65	90	
Shale			90	145	
Red Rock			145	173	
Shale & Red Rock			173	835	
Sand			835	837	
Shale & Red Rock			837	985	
Sand			985	990	
Shale			990	1011	
Red Rock			1011	1020	
Shale			1020	1025	
Red Rock			1025	1030	
Shale			1030	1047	
Sand			1047	1050	
Shale & Sand			1050	1891	
Lime			1891	1932	
Sand & Shale			1932	2106	
Shale			2106	2152	
Sand			2152	2171	
Shale			2171	2220	
Sand			2220	2230	
Shale			2230	3378	
Sand			3378	3410	
Shale			3410	3972	
Sand			3972	4012	
Shale			4012	5100	TD

Attach separate sheets to complete as necessary.

Haight, Inc.
Well Operator
By William R. Haight
In _____

NOTE: Regulation 2.0116 provides as follows:
"The term 'log' or 'well log' shall mean a systematic, detailed geological record of all formations, including shale, encountered in the interior of a well."

73-01338



FILE NO. _____
 DRAWING NO. _____
 SCALE 1"=1000'
 MINIMUM DEGREE OF ACCURACY 1:200
 PROVEN SOURCE OF ELEVATION HIGH PT. 1165'

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.
 (SIGNED) *William R. Mosson*
 R.P.E. _____ L.L.S. 551



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS
 FORM IV-6
 (8-78)



DATE 29 SEPTEMBER, 19 81
 OPERATOR'S WELL NO. H-1290
 API WELL NO. 47-073-1338
 STATE COUNTY PERMIT
 FRAC CANCELLED

STATE OF WEST VIRGINIA
 DEPARTMENT OF MINES
 OIL AND GAS DIVISION

WELL TYPE: OIL GAS LIQUID INJECTION _____ WASTE DISPOSAL _____
 (IF GAS, PRODUCTION STORAGE _____ DEEP _____ SHALLOW

LOCATION: ELEVATION 1140' WATER SHED RIGHT FORK-FRENCH CREEK
 DISTRICT JEFFERSON COUNTY PLEASANTS

QUADRANGLE SCHULTZ 7 1/2' QUAD.

SURFACE OWNER G. WARREN KEARSE ACREAGE 62 1/2
 OIL & GAS ROYALTY OWNER E. CUNNINGHAM HEIRS LEASE ACREAGE 62 1/2
 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 SHALE ESTIMATED DEPTH 5400'

WELL OPERATOR HAUGHT, INC. DESIGNATED AGENT WARREN HAUGHT
 ADDRESS SMITHVILLE, W.VA. 26178 ADDRESS SMITHVILLE, W.VA. 26178

WW-4A
Revised 6-07

1) Date: March 9, 2016
2) Operator's Well Number H-1290
3) API Well No.: 47 - 073 - 01338

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>Cathy Logue</u>	Name _____
Address <u>1664 Hardy Hill Road</u>	Address _____
<u>St. Marys WV 26170</u>	
(b) Name _____	(b) Coal Owner(s) with Declaration
Address _____	Name _____
	Address _____
(c) Name _____	Name _____
Address _____	Address _____
6) Inspector <u>Derek Haught</u>	(c) Coal Lessee with Declaration
Address <u>PO Box 85</u>	Name _____
<u>Smithville WV 26178</u>	Address _____
Telephone <u>304-206-7613</u>	

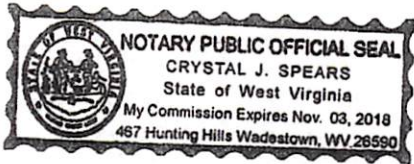
TO THE PERSONS NAMED ABOVE: You should have received this Form and the following documents:

- (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 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 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 Cathy Logue
 By: Cathy Logue
 Its: owner
 Address 1664 Hardy Hill Road
St. Marys WV 26170
 Telephone _____



Subscribed and sworn before me this 11th day of March 2016
Crystal J. Spears Notary Public
My Commission Expires Nov 3 2018

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 denprivacyofficer@wv.gov.

SURFACE OWNER WAIVER

Operator's Well
Number

H-1290

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.

VOLUNTARY STATEMENT OF NO OBJECTION

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,

<u>Cathy Leguel</u>	Date	<u>3-11-16</u>	Name	
Signature			By	
			Its	Date
			Signature	Date

WW-9
(2/15)

API Number 47 - 073 - 01338
Operator's Well No. H-1290

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

FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN

Operator Name Cathy Logue OP Code _____
Watershed (HUC 10) Right Fork French Creek Quadrangle Schultz 7-1/2

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 - TANKS WILL BE USED

If so, please describe anticipated pit waste: _____

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

- Proposed Disposal Method For Treated Pit Wastes:
- Land Application
 - Underground Injection (UIC Permit Number _____)
 - Reuse (at API Number _____)
 - Off Site Disposal (Supply form WW-9 for disposal location)
 - Other (Explain _____)

Will closed loop system be used? If so, describe: yes - see attachment

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

-If oil based, what type? Synthetic, petroleum, etc. N/A

Additives to be used in drilling medium? Bentonite

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

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

-Landfill or offsite name/permit number? see attachment

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 Bruce A. Chisler

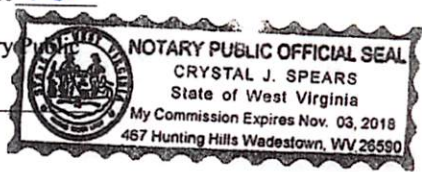
Company Official (Typed Name) Bruce A Chisler

Company Official Title Operating Manager

Subscribed and sworn before me this 11th day of March, 20 16

Crystal J Spears

Notary Public



My commission expires Nov 3 2018

Attachment A to WW-9

Cathy Logue plans to utilize a closed loop process for the drilling of the H-1290 well. Return flow from the well will be separated into its liquid and solid form. Liquids will be held in steel tanks and reused in the drilling and completions process or disposed of at an approved facility listed below. Solids removed from the stream will be diverted to steel half-round tanks where they will be solidified on site and taken to disposal as they are accumulated.

H-1290 drill cuttings will be taken to disposal at one or more of the following disposal/approved waste facilities, unless listed facilities are no longer approved to accept waste at time of disposal.

- Westmoreland Landfill (Tervita) – Belle Vernon, PA (Permit #100277)
- Meadowfill Landfill (Waste Management) – Bridgeport WV (Permit #SWF103298)
- Max Environmental – Yukon, PA (PAD004835146 and 301071)
- Max Environmental – Bulger, PA (PAD059087072 and 301359)
- Chestnut Valley Landfill (Advanced Disposal) – Export, PA (Permit #101421)

Cathy Logue plans to reuse and recycle all flow back fluid and/or reach out to other operators in the area who may be able to reuse and recycle such fluid. However, in the event that reuse is not obtainable the fluid will be disposed of at one, or multiple, of the following disposal/approved waste facilities unless listed facilities are no longer approved or accept waste at time of disposal:

- Fairmont Brine Processing (WV NPDES #0116408)
- Green Hunter M.E> Elder 1 Disposal Well (Permit #47-085-05151)
- Green Hunter Mason 1 Disposal Well (Permit #47-085-09721)
- Green Hunter Warren Disposal Well (Permit #34-121-2-3995)
- Green Hunter Travis Unit Disposal Well (Permit #34-121-2-4086)
- Viking Energy Corporation 20320 Disposal Well (Permit #47-039-02210)
- Ohio Oil Gathering Killbuck Disposal Well (Permit #34-075-24527)
- Ohio Oil Gathering Moran Disposal Well (Permit #34-089-24792)
- Ohio Oil Gathering Bells Run Disposal Well (Permit #34-167-29395)
- Ohio Oil Gathering Long Run Disposal Well (Permit #34-167-29658)
- Ohio Oil Gathering Newell Run Disposal Well (Permit #34-167-29658)
- Appalachian Oil Purchaser Greens Run Disposal Well (Permit #2D0732540)
- Appalachian Oil Purchaser BW#4 Disposal Well (Permit #2D0732523)

Cathy Logue

Proposed Revegetation Treatment: Acres Disturbed 2.2 Prevegetation pH TBD

Lime 2 Tons/acre or to correct to pH 7

Fertilizer type 19-19-19

Fertilizer amount 500 lbs/acre

Mulch 2 Tons/acre

Seed Mixtures

Temporary		Permanent	
Seed Type	lbs/acre	Seed Type	lbs/acre
orchard grass	46	orchard grass	46
red clover	8	red clover	8
tertapolid perennial rye	16	tertapolid perennial rye	16
timothy 15 annual rye	15	timothy 15 annual rye	15

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: _____

Comments: _____

Title: _____ Date: _____

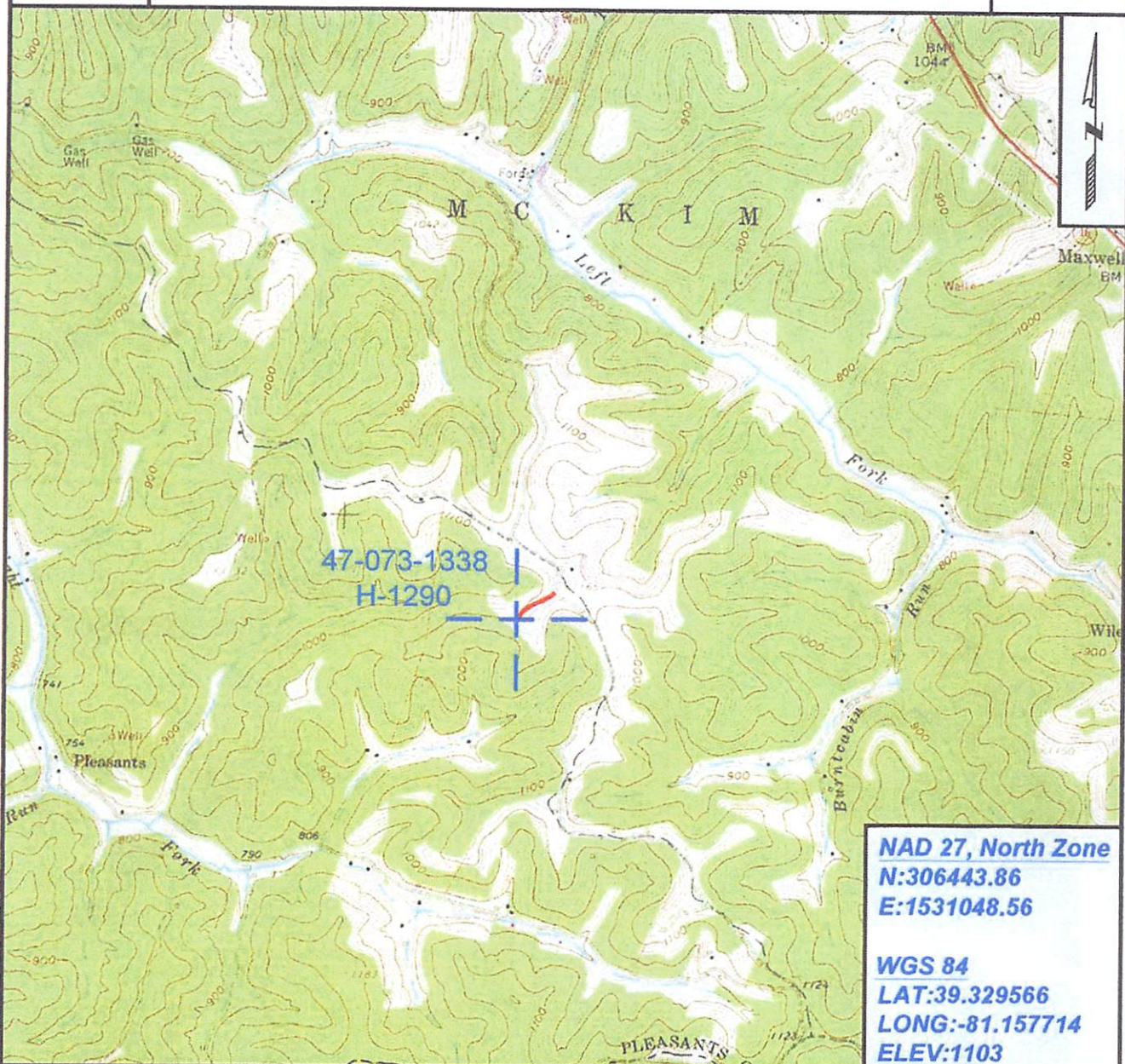
Field Reviewed? () Yes () No

7301338 P

Topo Quad: Schultz 7.5' Scale: 1" = 2000'
 County: Pleasants Date: June 27, 2016
 District: Jefferson Project No: 156-51-M-16

47-073-1338 H-1290

Topo



NAD 27, North Zone
N:306443.86
E:1531048.56

WGS 84
LAT:39.329566
LONG:-81.157714
ELEV:1103



SURVEYING AND MAPPING SERVICES PERFORMED BY:
ALLEGHENY SURVEYS, INC.
 1-800-482-8606
 172 Thompson Drive
 Bridgeport, WV 26330
 PH: (304) 848-5035
 FAX: (304) 848-5037

PREPARED FOR:
Cathy Logue
 1664 Hardy Hill Road
 St. Marys, WV 26170

RECEIVED
 Office of Oil and Gas

JUN 29 2016

WV Department of Environmental Protection 07/15/2016

7301338P

WW-7
8-30-06



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

API: 47-073-1338 WELL NO.: H-1290

FARM NAME: G. Warren Kears

RESPONSIBLE PARTY NAME: Cathy Logue

COUNTY: Pleasants DISTRICT: Jefferson

QUADRANGLE: Schultz 7.5'

SURFACE OWNER: Cathy Logue

ROYALTY OWNER: Cathy Logue

UTM GPS NORTHING: 4353361.7

UTM GPS EASTING: 486406.8 GPS ELEVATION: 336m (1103 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.

[Signature]
Signature

PS#2070
Title

6/29/2016
Date

RECEIVED
Office of Oil and Gas

JUN 29 2016