



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

June 30, 2016

WELL WORK PLUGGING PERMIT

Plugging

This permit, API Well Number: 47-7301337, 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-1291
Farm Name: KEARSE, G. WARREN
API Well Number: 47-7301337
Permit Type: Plugging
Date Issued: 06/30/2016

Promoting a healthy environment.

07/01/2016

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.

WW-1B
Rev. 2/01

1) Date March 9, 20 16
2) Operator's Well No. H-1291
3) API Well No. 47-073 - 01337

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 961' Watershed Left Fork French Creek
District McKim 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 PBTD

Gel hole with 6% bentonite

Pull tubing up to 50 ft below perforations, pump in adequate cement to fill
perforations and ²⁰⁰100 ft above.

PERFORATIONS
4582' - 4982'

If 4 1/2" casing is CTS, place minimum 100 ft plugs at 4000 ft, 3000 ft, 2000 ft and 1000 ft. ²⁰⁰ Pull tubing to 100 ft from surface and put in surface cement plug. CSG' - 559' (4 5/8" casing SENS)

Place a standing well monument with API number and reclaim site

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

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

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

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07/07/2016

7301337P

PCRM 14-35
(Obverse)
108-78

STATE OF WEST VIRGINIA
DEPARTMENT OF MINES, OIL AND GAS DIVISION

Date February 1, 1982

WELL IDENTIFICATION NUMBER

Well No. 1201

File No. 073 - 1337

WELL TYPE: Oil Gas Steam Water
LOCATION: 961 Left Fork - French Creek
McKim Pleasants Schultz
WELL OPERATOR: Hought, Inc. Warren R. Hought
Address: Route #3, Box 14 Smithville, W. Va. 26178
Smithville, W. Va. 26178

PERMITTED AKA Fracture or stimulate
Flow off is permitted Perforate new formation
State of West Virginia Dec. 15 1981

PERMIT ISSUED Oct. 16 81
IF APPLICABLE TO THIS PERMIT, THE FOLLOWING INFORMATION IS REQUIRED:
PERFORATION DEPTH (FEET) 5400
Geological Formations Shale
Depth of Perforation 5276
Water Control Method none
Date of Perforation Dec. 4 81

CASING AND TUBING SCHEDULE

CASING OR TUBING TYPE	SIZE	WALL THICKNESS	DEPTH	LOGS	PACKERS
Production	8 5/8 K-55	X	609	609	100 sacks
Coal					
Intermediate					
Production	4 1/2 J-55	X	5032	400 sacks	
Tubing					
Loggers					

Perforations:
Top Belton
4582 - 4982

DEEP FLOW DATA
Perforation Depth Shale
4582 - 4982
Perforation Length 240
Perforation Diameter 680
Perforation Angle feet

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FORM IV-35
(Reverse)
[08-78]

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

Nitrogen Fraced by B. J. Hughs

500 gallons acid

Perforations: 20 holes (4582 - 4982)

WELL LOG

FORMATION	Color	Hard or Soft	Top Foot	Bottom Foot	Remarks
Red Rock & Shale			0	540	
Sand			540	653	
Shale & Red Rock			653	1150	
Sand			1150	1153	
Shale			1153	1201	
Sand & Shale			1201	1565	
Lime			1565	1599	
Shale			1599	1604	
Sand			1604	1633	
Shale			1633	1655	
Sand			1655	1870	
Big Lime			1870	1931	
Injun Sand			1931	2119	
Shale			2119	2480	
Sand			2480	2502	
Shale			2502	2654	
Sand			2654	2685	
Shale			2685	2694	
Sand			2694	2720	
Shale			2720	2815	
Sand			2815	2830	
Shale			2830	2905	
Sand			2905	2940	
Shale			2940	3845	
Sand			3845	3910	
Shale			3910	4050	
Sand			4050	4100	
Shale			4100	4557	
Sand			4557	4565	
Shale			4565	4880	
Sand			4880	4789	
Shale			4789	4801	
Sand			4801	4820	
Shale			4820	5275	

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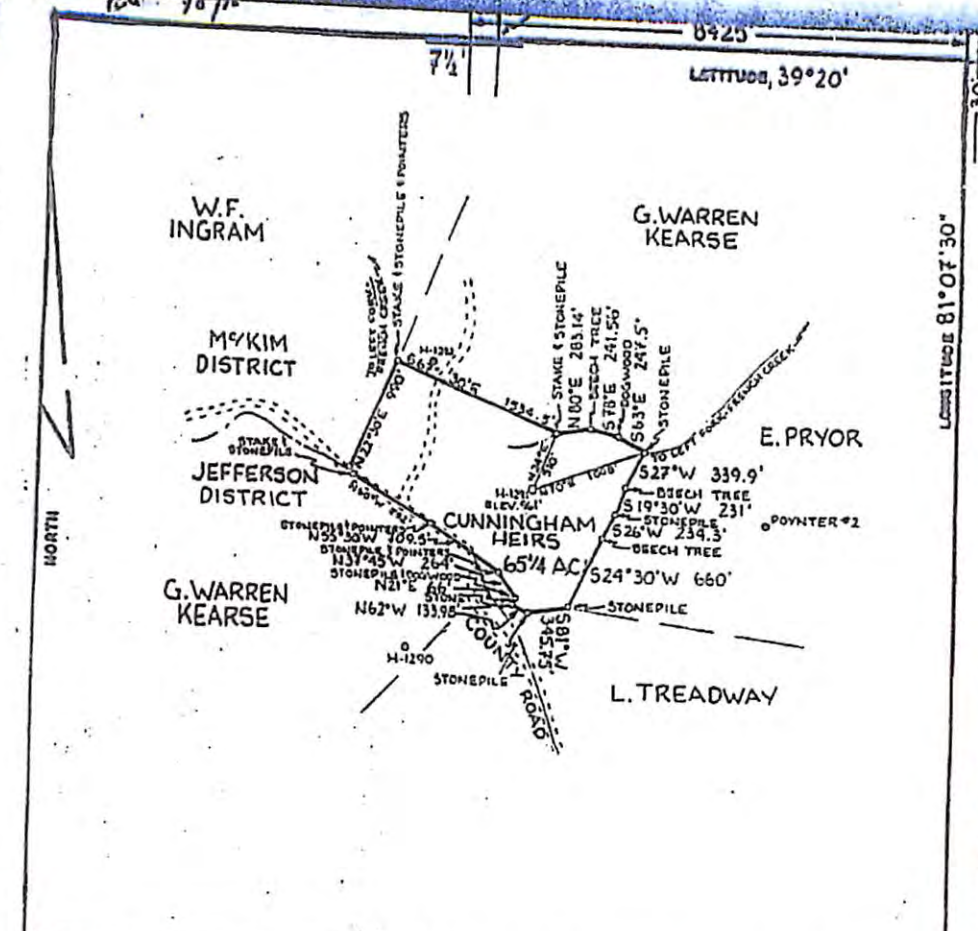
TD

Attach separate sheets to complete as necessary.

Haught, Inc.
Well Operator
By: William R. Haught
Date: _____

NOTE: Regulation 5.01.01 provides as follows:
The term "log" or "well log" shall mean a systematic, detailed geological record of all formations, including coal, encountered in the wellbore of a well.

73-01337



FILE NO. _____ DRAWING NO. _____ SCALE 1"=1000' MINIMUM DEGREE OF ACCURACY 1:200 PROVEN SOURCE OF ELEVATION HIGH PT. 1165'	I THE UNDERIGNED, HEREDY CERTIFY THAT THIS PLAN 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) <i>William R. Moosor</i> R.P.E. _____ L.L.S. 551	
(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS FORM IV-C (8-78)		DATE 29 SEPTEMBER, 19 81 OPERATOR'S WELL NO. H-1291 API WELL NO. 47-073-1337-Frac STATE COUNTY PERMIT FRACTION CANCELLED
STATE OF WEST VIRGINIA DEPARTMENT OF MINES OIL AND GAS DIVISION WELL TYPE: OIL <input checked="" type="checkbox"/> GAS <input checked="" type="checkbox"/> LIQUID INJECTION _____ WASTE DISPOSAL _____ (IP GAS, PRODUCTION <input checked="" type="checkbox"/> STORAGE _____ DEEP _____ SHALLOW <input checked="" type="checkbox"/> LOCATION: ELEVATION 961' WATER SHED LEFT FORK-FRENCH CREEK DISTRICT M/KIM COUNTY PLEASANTS QUADRANGLE SCHULTZ 7 1/2' QUAD. SURFACE OWNER G. WARREN KEARSE ACREAGE 65 1/4 OIL & GAS ROYALTY OWNER T.E. CUNNINGHAM HEIRS LEASE ACREAGE 65 1/4 LEASE NO. _____ PROPOSED WORK: DRILL <input checked="" type="checkbox"/> 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		

Office of Oil and Gas

JUN 16 2016

WV Department of Environmental Protection 07/01/2016

WW-4A
Revised 6-07

1) Date: March 9, 2016
2) Operator's Well Number H-1291
3) API Well No.: 47 - 073 - 01337

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:

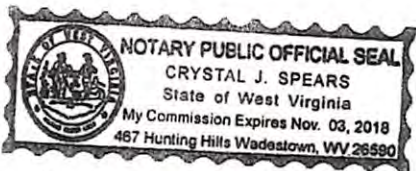
- (1) The application to Plug and Abandon a Well on Form WW-4B, which sets out the parties involved in the work and describes the well its and the plugging work order; and
- (2) The plat (surveyor's map) showing the well location on Form WW-6.

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 _____

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 JUN 16 2016



WV Department of
 Environmental Protection

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 depprivacyofficer@wv.gov.

WW-9
(2/15)

API Number 47 - 073 - 01337

Operator's Well No. H1291

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) Left Fork French Creek

Quadrangle Schultz 7.5

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: water

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 attached

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. NA

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

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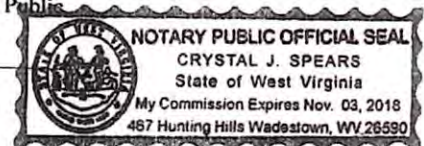
WV Department of
Environmental Protection

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

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)

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7301337P

Form WW-9

Operator's Well No. H1291

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
tertraploid perennial rye	16	tertraploid perennial rye	16
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

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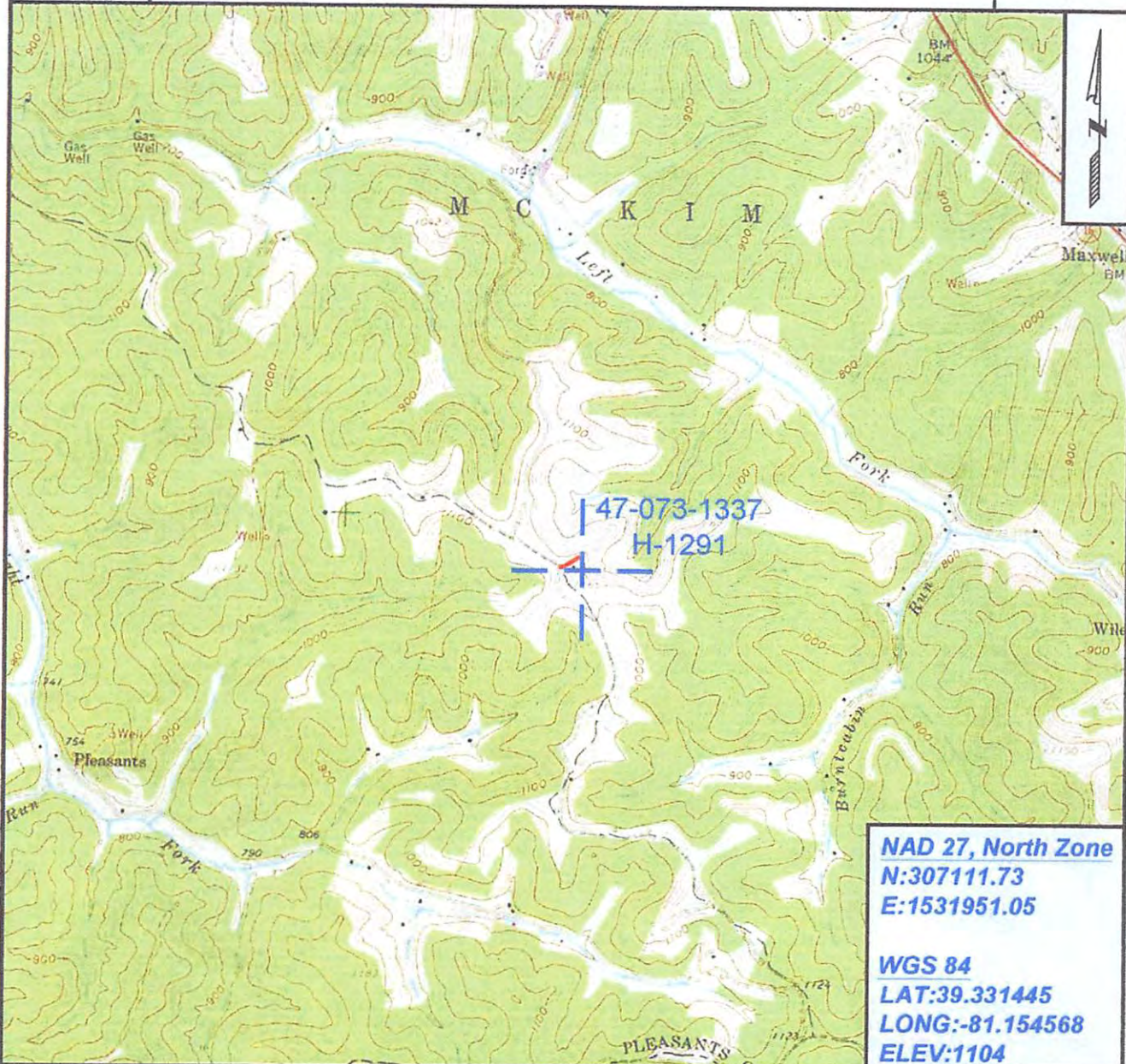
07/01/2016

7301337P

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

47-073-1337 H-1291

Topo



NAD 27, North Zone
N:307111.73
E:1531951.05

WGS 84
LAT:39.331445
LONG:-81.154568
ELEV:1104



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

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JUN 29 2016

WV Department of Environmental Protection

07/01/2016

7301337P

WW-7
8-30-06



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

API: 47-073-1337 WELL NO.: H-1291

FARM NAME: G. Warren Kears

RESPONSIBLE PARTY NAME: Cathy Logue

COUNTY: Pleasants DISTRICT: McKim

QUADRANGLE: Schultz 7.5'

SURFACE OWNER: Cathy Logue

ROYALTY OWNER: Cathy Logue

UTM GPS NORTHING: 4353569.8

UTM GPS EASTING: 486678.4 GPS ELEVATION: 337m (1104 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

PS # 2070

Title

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Office of Oil and Gas

6/29/2016

Date

JUN 29 2016

WV Department of
Environmental Protection

07/01/2016

I
6/29/16

Operator: LOGUE, CATHY
API: 7301337
WELL No: H-1291
Reviewed by: JWM Date: 6/29/16
15 Day End of Comment: Waiver

CHECKLIST FOR FILING A PERMIT

Plugging

- WW-4B
- Inspector signature on WW-4B
- Completion / Well Records of Previous Work
- WW-4A (Notarized)
- Certified Mail Receipts, Waivers, or Affidavits of Personal Service
- Surface Owner Waiver
- Coal Owner / Lessee / Operator Waiver
- WW-9 (Page 1) (Notarized)
- N/A Inspector Signature on WW-9 (Optional)
- Topographic Map of location of well
- WW-7

OR

- Mylar Plat (Surface owner on plat matches WW-4A)
- Bond
- Company is Registered with the SOS
- Worker's Compensation / Unemployment Insurance account is OK
- ~~\$100.00~~ check (\$0.00 if no pit)