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

April 26, 2016

WELL WORK PLUGGING PERMIT

Plugging

This permit, API Well Number: 47-5100197, issued to CONSOLIDATION COAL COMPANY, 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 penalities 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: 4-4014
Farm Name: ELDER, MAY
API Well Number: 47-5100197
Permit Type: Plugging
Date Issued: 04/26/2016

Promoting a healthy environment.

FORM WW-4(B)
Rev. 2/01

4705100197

1.) Date: March 18, 20 16
2.) Operator's Well No. SGW-112
3.) API Well No. 47 - 51 - 00197
State County Permit

STATE OF WEST VIRGINIA
DIVISION OF ENVIRONMENTAL PROTECTION
OFFICE OF OIL & GAS
APPLICATION FOR A PERMIT TO PLUG & ABANDON

4.) WELL TYPE: Oil ____ / Gas X / Liquid injection ____ / Waste disposal ____ /
(IF "Gas", Production ____ / Underground storage ____ / Deep ____ / Shallow X

5.) LOCATION: Elevation: 1286.70' Watershed: Dunkard Fork of Wheeling Creek

District: Webster County: Marshall Quadrangle: Majorsville, WV-PA 7.5'

6.) WELL OPERATOR Consolidation Coal Co.
Address 1 Bridge St.
Monongah, WV 26554

7.) DESIGNATED AGENT Ronnie Harsh
Address 1 Bridge St.
Monongah, WV 26554

8.) OIL & GAS INSPECTOR TO BE NOTIFIED
Name Eric Blend
Address PO BOX 2115
Wheeling, WV 26003

9.) PLUGGING CONTRACTOR
Name
Address

10.) WORK ORDER: The work order for the manner of plugging this well is as follows:

Mine Permit # U-1025-91 Revision 27 and 31

SEE EXHIBIT NO. 1

Solid cement plug from attainable bottom to 939' then 101C exemption

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

Work order approved by inspector _____ Date _____

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Office of Oil and Gas
APR 13 2016
WV Department of
Environmental Protection

RECEIVED
OCT 22 1990
W. J. SCHELLER

U. S. Department of Labor
Mine Safety and Health Administration
4015 Wilson Boulevard
Arlington, Virginia 22203-1984

4705100497

OCT 17 1990

In the matter of
Consolidation Coal Company
Shoemaker Mine
I.D. No. 46-01436
Ireland Mine
I.D. No. 46-01438

Petition for Modification

Docket No. M-90-066-C

PROPOSED DECISION AND ORDER

On April 24, 1990, a petition was filed seeking a modification of the application of 30 CFR 75.1700 to Petitioner's Shoemaker Mine and Ireland Mine, both located in Marshall County, West Virginia. The Petitioner alleges that the alternative method outlined in the petition will at all times guarantee no less than the same measure of protection afforded by the standard.

MSHA personnel conducted an investigation of the petition and filed a report of their findings and recommendations with the Administrator for Coal Mine Safety and Health. After a careful review of the entire record, including the petition, comments, and MSHA's investigative report and recommendation, this Proposed Decision and Order is issued.

Finding of Fact and Conclusion of Law

The alternative method proposed by the Petitioner (as amended by the recommendations of MSHA investigators) will at all times guarantee no less than the same measure of protection afforded the miners under 30 CFR 75.1700.

On the basis of the petition and the findings of MSHA's investigation, Consolidation Coal Company is granted a modification of the application of 30 CFR 75.1700 to its Shoemaker Mine and Ireland Mine.

ORDER

Wherefore, pursuant to the authority delegated by the Secretary of Labor to the Administrator for Coal Mine Safety and Health, and pursuant to Section 101(c) of the Federal Mine Safety and Health Act of 1977, 30 U.S.C., sec. 811(c), it is ordered that Consolidation Coal Company's Petition for Modification of the application of 30 CFR 75.1700 in the Shoemaker Mine and Ireland Mine is hereby:

GRANTED, conditioned upon compliance with all provisions of the Petitioner's alternative method and the following terms and conditions:

I. Procedures to be utilized when plugging gas or oil wells.

(a) Cleaning out and preparing oil and gas wells. Prior to plugging an oil or gas well, the following procedure shall be followed:

(1) A diligent effort shall be made to clean the borehole to the original total depth. If this depth cannot be reached, the borehole shall be cleaned out to a depth which would permit the placement of at least 200 feet of expanding cement below the base of the lowest mineable coalbed.

(2) When cleaning the borehole, a diligent effort shall be made to remove all the casing in the borehole. If it is not possible to remove all casing, the casing which remains shall be perforated, or ripped, at intervals spaced close enough to permit expanding cement slurry to infiltrate the annulus between the casing and the borehole wall for a distance of at least 200 feet below the base of the lowest mineable coalbed.

(3) If the cleaned-out borehole produces gas, a mechanical bridge plug shall be placed in the borehole in a competent stratum at least 200 feet below the base of the lowest mineable coalbed, but above the top of the uppermost hydrocarbon-producing stratum. If it is not possible to set a mechanical bridge plug, a substantial brush plug may be used in place of the mechanical bridge plug.

(4) A suite of logs shall be made consisting of a caliper survey directional deviation survey, and log(s) suitable for determining the top and bottom of the lowest mineable coalbed and potential hydrocarbon producing strata and the location for the bridge plug.

(5) If the uppermost hydrocarbon-producing stratum is within 200 feet of the base of the lowest mineable coalbed, properly placed mechanical bridge plugs or a suitable brush

plug described in subparagraph (a)(3) shall be used to isolate the hydrocarbon producing stratum from the expanding cement plug. Nevertheless, a minimum of 200 feet of expanding cement shall be placed below the lowest mineable coalbed.

(6) The wellbore shall be completely filled and circulated with a gel that inhibits any flow of gas, supports the walls of the borehole, and densifies the expanding cement. This gel shall be pumped through open-end tubing run to a point approximately 20 feet above the bottom of the cleaned out area of the borehole or bridge plug.

(b) Plugging oil or gas wells to the surface. The following procedures shall be utilized when plugging gas or oil wells to the surface:

(1) A cement plug shall be set in the wellbore by pumping an expanding cement slurry down the tubing to displace the gel and fill the borehole to the surface. (As an alternative, the cement slurry may be pumped down the tubing so that the borehole is filled with Portland cement or a Portland cement-fly ash mixture from a point approximately 100 feet above the top of the lowest mineable coalbed to the surface with an expanding cement plug extending from at least 200 feet below the lowest mineable coalbed to the bottom of the Portland cement.) There shall be at least 200 feet of expanding cement below the base of the lowest mineable coalbed.

(2) A small quantity of steel turnings, or other small magnetic particles, shall be embedded in the top of the cement near the surface to serve as a permanent magnetic monument of the borehole.

(c) Plugging oil or gas wells using the vent pipe method. The following procedures shall be utilized when using the vent pipe method for plugging oil and gas wells:

(1) A 4 1/2-inch or larger vent pipe shall be run into the wellbore to a depth of 100 feet below the lowest mineable coalbed and swedged to a smaller diameter pipe, if desired, which will extend to a point approximately 20 feet

above the bottom of the cleaned out area of the borehole or bridge plug.

(2) A cement plug shall be set in the wellbore by pumping an expanding cement slurry, Portland cement, or a Portland cement-fly ash mixture down the tubing to displace the gel so that the borehole is filled with cement. The borehole and the vent pipe shall be filled with expanding cement for a minimum of 200 feet below the base of the lowest mineable coalbed. The top of the expanding cement shall extend upward to a point approximately 100 feet above the top of the lowest mineable coalbed.

(3) All fluid shall be evacuated from the vent pipe to facilitate testing for gases. During the evacuation of fluid, the expanding cement shall not be disturbed.

(4) The top of the vent pipe shall be protected to prevent liquids or solids from entering the wellbore, but permit ready access to the full internal diameter of the vent pipe when necessary.

(d) Plugging oil and gas wells for use as degasification boreholes. The following procedures shall be utilized when plugging oil or gas wells for subsequent use as degasification boreholes:

(1) A cement plug shall be set in the wellbore by pumping an expanding cement slurry down the tubing to displace the gel and provide at least 200 feet of expanding cement below the lowest mineable coalbed. The top of the expanding cement shall extend upward to a point above the top of the coalbed being mined. This distance shall be based on the average height of the roof strata breakage for the mine.

(2) To facilitate methane drainage, degasification casing of suitable diameter, slotted or perforated throughout its lower 150 to 200 feet, shall be set in the borehole to a point 10 to 30 feet above the top of the expanding cement.

(3) The annulus between the degasification casing and the borehole wall shall be cemented from

a point immediately above the slots or perforations to the surface.

(4) The degasification casing shall be cleaned out for its total length.

(5) The top of the degasification casing shall be fitted with a wellhead equipped as required by the District Manager. Such equipment may include check valves, shutin valves, sampling ports, flame arrestor equipment, and security fencing.

II. The following procedures shall apply to mining through a plugged oil or gas well:

(a) The operator shall notify the District Manager or designee:

(1) Prior to mining within 300 feet of the well; and

(2) When a specific plan is developed for mining through each well.

(b) The MSHA District Manager or designee shall conduct a conference prior to mining through any plugged well to review and approve the specific procedures for mining through the well. Representatives of the operator, the representative of the miners, and the appropriate State agency shall be informed, within a reasonable time prior to the conference, and be given an opportunity to attend and participate. This meeting may be called by the operator.

(c) Mining through a plugged well shall be done on a shift approved by the District Manager or designee.

(d) The District Manager or designee, representative of the miners, and the appropriate State agency shall be notified by the operator in sufficient time prior to the mining through operation in order to have an opportunity to have representatives present.

(e) When using continuous or conventional mining methods, drivage sights shall be installed at the last open crosscut near the place to be mined to ensure intersection of the well, and again if

necessary to ensure that the sight line is not more than 50 feet from the well.

(f) Firefighting equipment, including fire extinguishers, rock dust, and sufficient fire hose to reach the working face area of the mining through shall be available when either the conventional or continuous mining method is used. The fire hose shall be located in the last open crosscut of the entry or room. When the longwall mining method is implemented, the fire hose shall be extended to the face area of the mine through. All fire hoses shall be ready for operation during the mining through.

(g) Sufficient supplies of roof support and ventilation materials shall be available and located at the last open crosscut. In addition, an emergency plug and/or plugs, shall be available within the immediate area of the mine through.

(h) The quantity of air required by the approved ventilation system and methane and dust control plan, but not less than 9,000 cubic feet of air per minute shall be used to ventilate the working face during the mining through operation. On longwall sections, a minimum of 20,000 cfm shall be used to ventilate the working face during the mining through operation.

(i) Equipment shall be checked for permissibility and serviced on the shift prior to mining through the well.

(j) The methane monitor on the longwall, continuous mining machine, or cutting machine and loading machine shall be calibrated on the shift prior to mining through the well.

(k) When mining is in progress, tests for methane shall be made with a hand-held methane detector at least every 10 minutes from the time that mining with the continuous mining machine, cutting machine, or loading machine is within 30 feet of the well until the well is intersected and immediately prior to mining through. When mining with longwall mining equipment, the tests for methane shall be made at least every 10 minutes when the longwall face is within 10 feet of the well. During the actual cutting through process, no individual shall be allowed on the return side

until mining through has been completed and the area has been examined and declared safe.

(l) When using continuous or conventional mining methods, the working place shall be free from accumulations of coal dust and coal spillages, and rock dust shall be placed on the roof, rib, and floor to within 20 feet of the face when mining through the well. On longwall sections, rock dusting shall be conducted and placed on the roof, rib, and floor up to both the headgate and tail-gate gob.

(m) When the wellbore is intersected, all equipment shall be deenergized and the place thoroughly examined and determined safe before mining is resumed. Any well casing shall be removed and no open flame shall be permitted in the area until adequate ventilation has been established around the wellbore.

(n) After a well has been intersected and the working place determined safe, mining shall continue inby the well a sufficient distance to permit adequate ventilation around the area of the wellbore.

(o) No person shall be permitted in the area of the mining through operation except those actually engaged in the operation, company personnel, representatives of the miners, personnel from MSHA, and personnel from the appropriate State agency.

(p) The mining through operation shall be under the direct supervision of a certified official. Instructions concerning the mining through operation shall be issued only by the certified official in charge.

(q) MSHA personnel may interrupt or halt the mining through operation when it is necessary for the safety of the miners.

(r) A copy of the petition shall be maintained at the mine and be available to the miners.

(s) The Petitioner shall file a plugging affidavit setting forth the persons who participated in the work, a description of the plugging work, and a certification by the Petitioner that the well has been plugged as described.

(t) Within 60 days after this Proposed Decision and Order becomes final, the Petitioner shall submit proposed revisions for their approved 30 CFR Part 48 training plan to the Coal Mine Safety and Health District Manager. These proposed revisions shall include initial and refresher training regarding compliance with the alternative method stated in the petition and the special terms and conditions stated in the Proposed Decision and Order.

The terms and conditions of this Proposed Decision and Order shall supersede conflicting provisions in the Petitioner's proposed alternative method.

Any party to this action desiring a hearing on this matter must file in accordance with 30 CFR 44.14, within 30 days, a request with the Administrator for Coal Mine Safety and Health, 4015 Wilson Boulevard, Arlington, Virginia 22203.

If a hearing is requested, the request shall contain a concise summary of position on the issues of fact or law desired to be raised by the party requesting the hearing, including specific objections to the proposed decision. A party other than Petitioner who has requested a hearing shall also comment upon all issues of fact or law presented in the petition, and any party to this action requesting a hearing may indicate a desired hearing site. If no request for a hearing is filed within 30 days after service thereof, the Decision and Order will become final and must be posted by the operator on the mine bulletin board at the mine.

Edward C. Hugler

Edward C. Hugler
Deputy Administrator
for Coal Mine Safety and Health

Certificate of Service

I hereby certify that a copy of this proposed decision was served personally or mailed, postage prepaid, this 17th day of October, 1990, to:

Walter J. Scheller III, Esq.
Consolidation Coal Company
Consol Plaza
Pittsburgh, Pennsylvania 15241

Robert Stropp, Esq.
United Mine Workers of America
900 Fifteenth Street, NW.
Washington, DC 20005

Ms. Linda Raisovich-Parsons
Special Assistant
United Mine Workers of America
900 Fifteenth Street, NW.

Mr. David Shreve
International Safety
Representative
District 6
United Mine Workers of America
56000 Dilles Bottom
Shadyside, Ohio 43947

Mary Ann Griffin

MARY ANN GRIFFIN
Mine Safety Clerk

4705100197

MURRAY AMERICAN ENERGY, INC.
& CONSOLIDATION COAL COMPANY

MURRAY AMERICAN ENERGY, INC. & CONSOLIDATION COAL COMPANY
46226 National Road
St. Clairsville, OH 43950

phone: 304.843.3565
fax: 304.843.3546
e-mail: MasonSmith@coalsource.com

MASON SMITH
Project Engineer

April 1, 2016

Department of Environmental Protection
Office of Oil and Gas
601-57th Street
Charleston, WV 25320

To Whom It May Concern,

As per the Division of Environmental Protection, Office of Oil and Gas request, Consolidation Coal Company submits the following procedures utilizing pit waste.

Upon submitting a well work application (without a general permit for Oil & Gas Pit Waste Discharge Application), Consolidation Coal Company will construct no pits, but instead will use mud tanks to contain all drilling muds.

Once the well is completed, that material (minus the cave material) will be trucked to the next well to be plugged or to DEP facilities number U-0033-83, O-1001-00, U-1035-91U-46-84, U-78-83, O-1044-9, or U-100-83.

Sincerely,

Mason Smith
Project Engineer

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EXHIBIT NO.1

From the experience and technology developed since 1970 in plugging oil and gas wells for mining through, Consolidation Coal's Northern West Virginia Operations will utilize one of the following two methods to plug all future wells.

4 ½ VENT PIPE METHOD

(a) If active well: clean out to total depth and plug back according to state regulations to a minimum of 200 feet below the lowest minable coal seam.
(b) If abandoned well: clean out to first plug 200 feet below lowest minable coal seam.
(c) Run 4 ½ casing from surface to a minimum of 200 feet below lowest minable coal seam and circulate 50/50 poz mix cement followed by expanding cement to surface. The expanding cement shall extend from a minimum of 200 feet below minable coal seam to a point 100 feet above.

The 4 ½ will remain open from surface to a minimum of 80 feet below that minable coal seam.

SOLID PLUG METHOD

(a) If active well: clean out to total depth and plug back according to state regulations to a minimum of 200 feet below lowest minable coal seam.
(b) If abandoned well: clean out to first plug 200 feet below lowest minable coal seam.
(c) Circulate through tubing or drill steel an expanding cement plug from a minimum of 200 feet below minable coal seam to a point 100 feet above minable coal.

Circulate through tubing or drill steel 50/50 poz mix from 100 feet above coal seam to surface.

A monument will be installed with API No. and stating "solid plug".

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WEST VIRGINIA DEPARTMENT OF MINES
OIL & GAS DIVISION
WELL RECORD

4705100197

Permit No. Mars 197
Cameron Quad.
Company The Manf. Light & Heat Co.
Address
Farm May Elder Acres 96
Location
District Webster Marshall County
Well No. 4014
Commenced Feb. 3,1949
Completed Feb. 21,1949
Volume 36/10 M 2" - 694,000 C.F. 2-25-49 -Gas Sand
Rock Pressure 125# 48 hrs.

Gas Well
CASING & TUBING

10	765	765
8¼	1486	1486
4		1501

Anchor Packer
8¼ x 4
Depth 1483

Clay	0	15
Shale	15	120
Sand	120	140
Shale	140	230
Lime	230	280
Shale & Lime	280	440
Waynesburg Coal	440	444
Lime	444	640
Mapletown Coal	640	643
Lime	643	725
Slate	725	733
Coal Pittsburgh	733	739
Lime	739	840
Red Rock	840	848
Slate Shells	848	890
Red Rock	890	915
Lime	915	970
Slate & Shells	970	1030
Sand	1030	1050
Slate & Shells	1050	1100
Lime	1100	1127
Little Dunkard	1127	1140
Shale	1140	1200
Sand	1200	1225
Slate	1225	1236
Red Rock	1236	1250
Slate & Shells	1250	1325
Sand	1325	1345
Coal	1345	1347
Shale	1347	1352
Coal	1352	1354
Sand	1354	1368
Shale	1368	1374
Sand	1374	1415
Slate	1415	1467
Freeport Coal ?	1467	1475
Salt Sand 1st	1475	
Gas at	1483	
Total Depth	1487	

S.L. run at 739'
Test 110/10 W 2½"- 513,718 C.F.
S.L. 1487'
Tubed Feb. 25,1949
4" tubing record

Perf.	4'	0"
8¼ x 4 Packer		
Tubing 66 jts.	1481'	9"
	1485'	9"
Add for thds.	15'	3"
Total	1501'	0"

PRESSURE IN MINUTES

1	5	10	30	60	24hr	48hr
50	105	109	115	116	123	125 Max.

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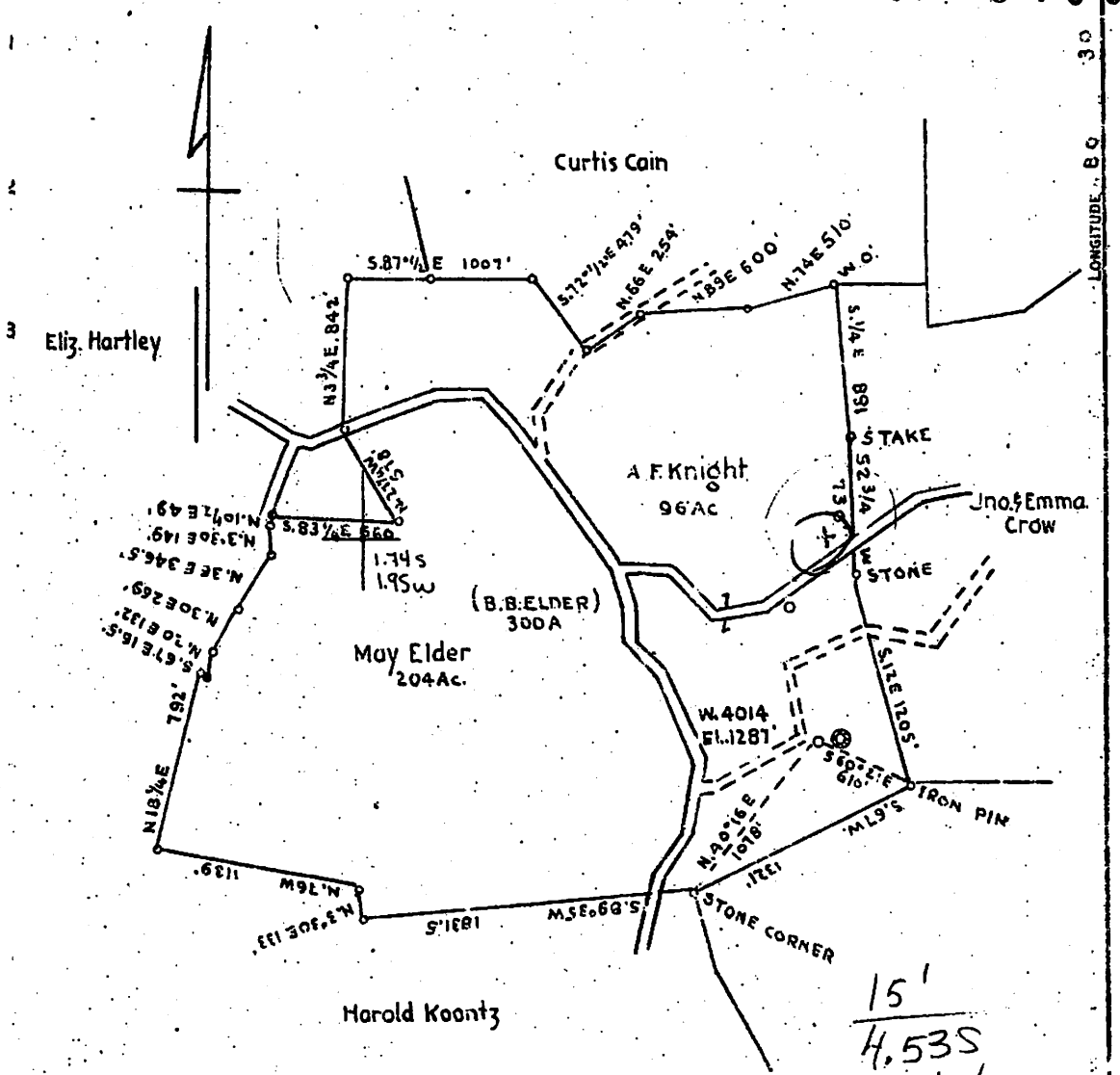
M 39°57'30"

LATITUDE 40 00

4705100197



15'
4.53S
1.94W

4.6
W-1.9

COAL OWNED BY EVERETT F. MOORE

NEW LOCATION ☒
DRILL DEEPER ☐
ABANDONMENT ☐

COMPANY THE MANUFACTURERS LIGHT AND HEAT CO.
ADDRESS 800 UNION TRUST BUILDING, PITTSBURGH PA.
FARM MAY ELDER & A.F. KNIGHT (B.B. ELDER)
TRACT ACRES 300 LEASE NO. 19447
WELL (FARM) NO. M.L.&H.CO. NO. 4 SERIAL NO. 4014
ELEVATION (SPIRIT LEVEL) 1287'
QUADRANGLE CAMERON
COUNTY MARSHALL DISTRICT WEBSTER
ENGINEER A C Streator & J C Mercer
ENGINEER'S REGISTRATION NO.
FILE NO. DRAWING NO. Y-13-114
DATE OCT. 14 - 1948 SCALE 1" = 800'

STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
OIL AND GAS DIVISION
CHARLESTON.

WELL LOCATION MAP

FILE NO. MARS-197

DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS, SCALE 1 TO 62,500, LATITUDE AND LONGITUDE LINES BEING REPRESENTED BY BORDER LINES AS SHOWN.

DENOTES ONE INCH SPACES ON BORDER LINE OF ORIGINAL TRACING.

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APR 13 2016
WV Department of
Environmental Protection

6-6 22

9113

The Manufacturers Light & Heat Co.
Company

Division 5

Record of well No. 4014 on May Elder Farm 96 Acres

Majorsville Storage Field Webster District Marshall County W. Va. State

Rig Commenced 19 , Completed 19

Drilling Commenced February 3, 1949, Completed February 21, 1949

Contractor - J. G. Devine & Co. Address Waynesburg, Penna.

Driller's Name - Burdette Parry, Loy McCracken

Tool Dressers - Burdette Parry, Jr., Fred Whipkey

CASING AND TUBING RECORD

	Conductor	13"	10"	8 1/4"	7"	6 5/8"	5 3/16"	4"	3"		
Used in Drlg.			765'	1486'							
Left in well			765'	1486'				1501'			

PACKER RECORD

Size	Depth Set	Type Packer
8 1/2"x4"	1483	Anchor

SHOOTING RECORD

Date	Type Explosive	Amount	Depth Top	Depth Bottom	Volume Before Cu. Ft.	Volume After Cu. Ft.

VOLUME AND PRESSURE

Date	Reading in Inches	Liquid	Size Orifice	Volume	Sand	Pressure in Min. 1	5	10	30	60	24 Hour R. P.	Max. R. P.	Hours
2/25/49	36/10	Mercury	2"	685.966	Gas	50	105	109	115	116	123	125	48
				694.000									

TOTAL INITIAL OPEN FLOW CUBIC FEET PER 24 HOURS

FORMATION	TOP	BOTTOM	THICKNESS	REMARKS
Clay	0	15		
Shale	15	120	105	
Sand	120	140	20	
Shale	140	230	90	
Lime	230	280	50	
Shale & Lime	280	440	160	
Waynesburg Coal	440	444	4	
Lime	444	640	196	
Mapletown Coal	640	643	3	
Lime	643	725	82	
Slate	725	733	8	
Coal PITTSBURGH	733	739	6	S. L. run at 739'
Lime	739	840	101	
Red Rock	840	848	8	
Slate Shells	848	890	42	
Red Rock	890	915	25	
Lime	915	970	55	
Slate & Shells	970	1030	60	
Sand	1030	1060	30	
Slate & Shells	1060	1100	40	
Lime	1100	1127	27	
Little Dunkard	1127	1140	13	
Shale	1140	1200	60	
Sand	1200	1225	25	
Slate	1225	1236	11	
Red Rock	1236	1250	14	
Slate & Shells -	1250	1325	75	
Sand	1325	1345	20	

Examined above information and measurements and found to be correct by J. G. Devine & Co. Contractor

Examined and Approved by [illegible] Field Superintendent

NOTE--The above blank must be filled out carefully by the contractor, with a complete and accurate record of the well, and accompany, when presented for payment of the bill for drilling. All formations and known sands must be given by their proper name, with steel line measurements, and under the head of "Remarks" must be recorded in

109 CSP

The Manufacturers Light & Heat Co.
Company

Division 5

Record of well No. 4014 on May Elder Farm 96 Acres

Majorsville Storage Field Township District Marshall County W. Va. State

Rig Commenced 19 , Completed 19

Drilling Commenced 19 , Completed 19

Contractor Address

Driller's Name

CASING AND TUBING RECORD

	Conductor	13"	10"	8 1/4"	7"	6 5/8"	5 3/16"	4"	3"		
Used in Drlg											
Left in well											

PACKER RECORD

Size	Depth Set	Type Packer

SHOOTING RECORD

Date	Type Explosive	Amount	DEPTH Top	DEPTH Bottom	Volume Before Cu. Ft.	Volume After Cu. Ft.

VOLUME AND PRESSURE

Date	Reading In Inches	Liquid	Size Orifice	Volume	Sand	PRESSURE IN MIN. 1	5	10	30	60	24 Hour R. P.	Max. R. P.	Hours

TOTAL INITIAL OPEN FLOW CUBIC FEET PER 24 HOURS

FORMATION	TOP	BOTTOM	THICKNESS	REMARKS
Coal	1345	1347	2	
Shale	1347	1352	5	
Coal	1352	1354	2	
Sand	1354	1368	14	
Shale	1368	1374	6	
Sand	1374	1415	41	
Slate	1415	1467	52	
Freeport Coal	1467	1475	8	
Salt Sand	1475			Test 110/10 Water 2½=513,718 Cu. ft.
Gas at	1483			S. L. 1487'
Total depth	1487			Tubed February 25, 1949
				4" TUBING RECORD
				Perforation 4' 0"
				8½"x4" Packer
				Tubing 66 jts. 1481' 9"
				1485' 9"
				Add for thds. 15' 3"
				Total 1501' 0"

Examined above information and measurements and found to be correct by

[illegible] Contractor

Examined and Approved by

[illegible] Field Superintendent

NOTE—The above blank must be filled out carefully by the contractor, with a complete and accurate record of the well, and accompany, when presented for payment of the bill for drilling. All formations and known sands must be given by their proper name, with steel line measurements, and under the head of "Remarks" must be recorded in what sand and at what depth Oil, Gas or water was found, the quantity of same, the quality of the sand, and thickness of sand.

Form PD-8

[illegible] GAS SYSTEM - PITTSBURGH GROUP COMPANIES

WELL ABANDONMENT RECORD

[illegible] Majorsville

[illegible] Marshall

4705100197

[illegible] 6-18-62

WORK PERFORMED (Cleaning Out, Plugging, Cutting or Pulling Pipe, etc.)

DETAILS OF CLEANING OUT AND PLUGGING OPERATIONS

Pulled all of original 4½" tubing including packer - 1486'.

Killed well by Well Service with 6% aquagel.

Run 2" tubing and set cement plug - 1290 to 1486'

Cement plug set by Well Service.

80 bags cement used and 5 gal. K.S. 55

Old 8 5/8" cut @ 1348'10" and pulled.

137' of old 8 5/8" left in hole from 1349' to 1486'.

Hole filled with 6% aquagel from 889' to 1290'.

Set cement plug from 789' to 889' by Well Service. Used 50 bags cement.

Hole filled from 0' to 789' with 6% aquagel.

765' of original 10 3/4" left in well through Pittsburgh Coal for [illegible]

CASING AND TUBING

SIZE - Inches O. D.		10 3/4"	8 5/8"	4½"
ORIGINAL - Feet		765'	1486'	1486'
LEFT IN HOLE	Feet	765'	137'	0'
	Depth (From - To)	0-765'	1349-1486'	

VENT PIPE AND MONUMENT

Size (Inches O. D.) 10 3/4" Vent Pipe at 765 feet thru Pittsburgh Coal

PLUGGING RECORD

FROM (Feet)	TO (Feet)	PLUGGING MATERIAL AND PROCEDURE USED
1290	1485	80 bags cement
889	1290	6% Aquagel
789	889	50 bags cement
0	789	6% Aquagel
		17 bags aquagel used

COMPILED BY

REVIEWED BY [signature]

APPROVED BY (Div. Supt.) [signature]

RECEIVED
Office of Oil and Gas
APR 13 2016
WV Department of
Environmental Protection

FORM WW-4(A)
Revised 6-07

4705100197

1) Date: March 18, 2016
2) Operator's Well No. SGW-112
3) API Well No. 47 - 51 - 00197
State County Permit

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
(a) Name Brian K. Milliken
Address 1018 Chinaberry Rd
Clearwater FL 33764

(b) Name
Address

(c) Name
Address

(6) INSPECTOR Eric Blend
Address PO BOX 2115
Wheeling, WV 26003
Telephone (304) 552-1179

5)a) COAL OPERATOR
Name CONSOLIDATION COAL CO.
Address 1 Bridge Street
Monongah, WV 26554

(b) COAL OWNER(S) WITH DECLARATION:
Name
Address

(c) COAL LESSEE WITH DECLARATION:
Name
Address

TO THE PERSON(S) 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 and its location 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 OF THE COPY OF THE APPLICATION (FORM WW-4(B) DESIGNATED FOR YOU. HOWEVER, YOU ARE NOT REQUIRED TO TAKE ANY ACTION AT ALL.

Take notice 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 From WW-6. Copies of this Notice, the Application, and the plat have been mailed by registered or certified mail or delivery by hand to the person(s) named above (or by publication in certain circumstances) on or before the day of mailing or delivery by the Chief.

WELL OPERATOR Consolidation Coal Company
By Mason Smith 3-29-16
Its Project Engineer
Address 6126 Energy Road
Moundsville, WV 26041
Telephone (304) – 843 – 3565

Subscribed and sworn before me this 30th day of March, 2016
Joseph E. Williams Notary Public
Marshall County, State of West Virginia
My commission expires June 5th, 2024

OFFICIAL SEAL
STATE OF WEST VIRGINIA
NOTARY PUBLIC
Joseph E Williams
1512 Fifth Street
Moundsville, WV 26041
My Commission Expires June 5, 2024

RECEIVED
Office of Oil and Gas
APR 13 2016
WV Department of
Environmental Protection

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
Rev. 5/08

4705100197

Page _____ of _____
API Number 47 - 051 - 00197
Operator's Well No. SGW-112

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

CONSTRUCTION AND RECLAMATION PLAN AND SITE REGISTRATION APPLICATION FORM
GENERAL PERMIT FOR OIL AND GAS PIT WASTE DISCHARGE

Operator Name **Consolidation Coal Company** OP Code _____

Watershed **Dunkard Fork of Wheeling Creek** Quadrangle **Majorsville, WV-PA**

Elevation **1286.70'** County **Marshall** District **Webster**

Description of anticipated Pit Waste: **N/A**

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

Will a synthetic liner be used in the pit? **N/A**. If so, what mil.? _____

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)
X Other (Explain **Tanks, see attached letter**

Drilling medium anticipated for this well? Air, freshwater, oil based, etc. **Freshwater**
If oil based, what type? Synthetic, petroleum, etc.? _____
Additives to be used? **Bentonite, Bicarbonate of Soda**

Drill cuttings disposal method? Leave in pit, landfill, removed offsite, etc. **Reused or Disposed (see attached letter)**
-If left in pit and plan to solidify what medium will be used? Cement, lime, sawdust _____
-Landfill or offsite name/permit number? _____

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 Mason Smith 3-29-16

Company Official (Typed Name) **Mason Smith**

Company Official Title **Project Engineer**

Subscribed and sworn before me this 30th day of March, 2016

Joseph E Williams Notary Public

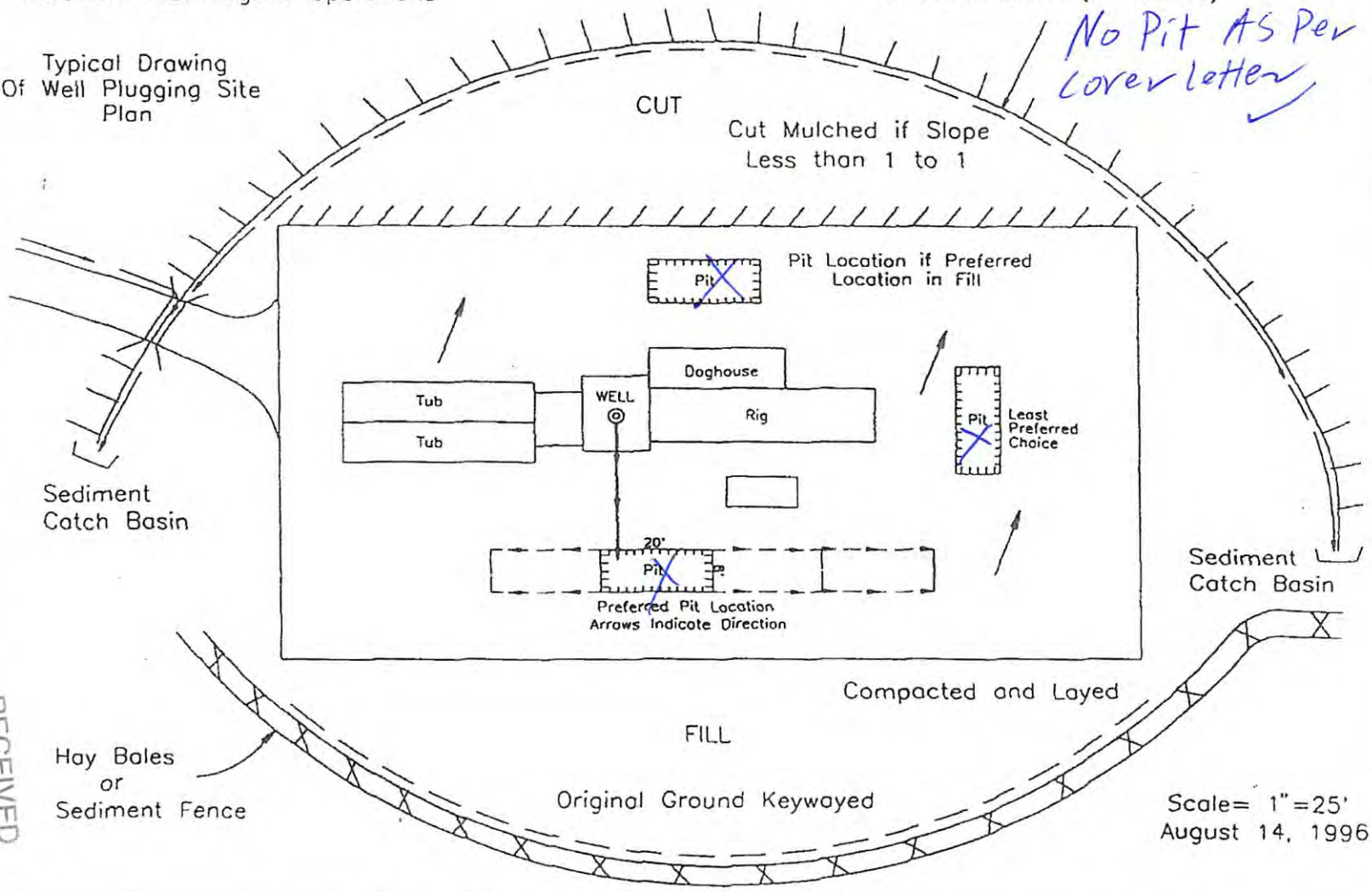
My commission expires June 5th, 2024

RECEIVED
Office of Oil and Gas
APR 18 2016
WV Department of
Environmental Protection

OFFICIAL SEAL
STATE OF WEST VIRGINIA
NOTARY PUBLIC
Joseph E Williams
1512 Fifth Street
Moundsville, WV 26041
My Commission Expires June 5, 2024

Consolidation Coal Company
Northern West Virginia Operations

Typical Drawing
Of Well Plugging Site
Plan



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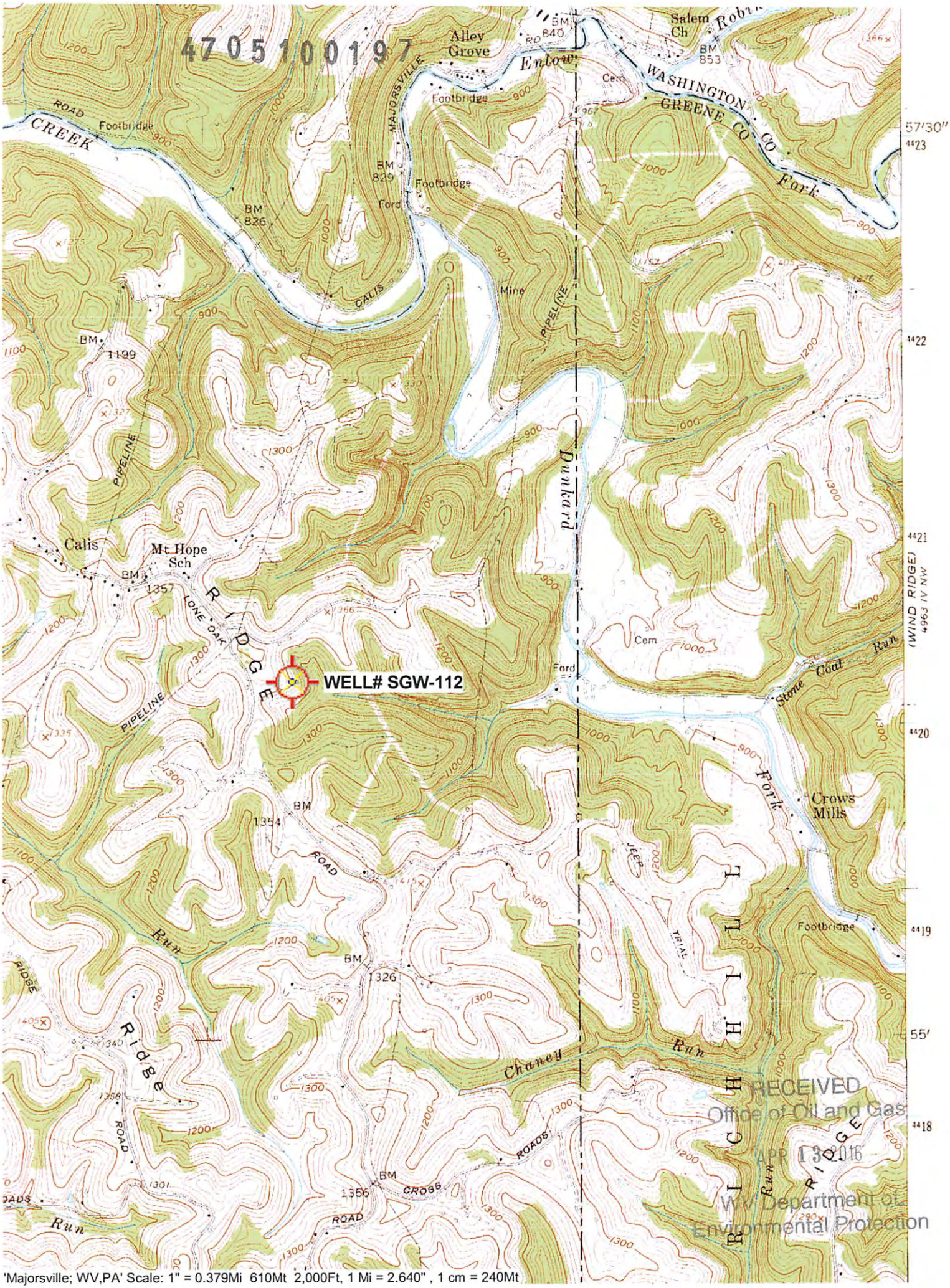


'Majorsville; WV,PA' Scale: 1" = 0.379Mi 610Mt 2,000Ft, 1 Mi = 2.640" , 1 cm = 240Mt

WW-7
8-30-06

4705100197

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

API: 47-051-00197 **WELL NO.:** SGW-112

FARM NAME: May Elder

RESPONSIBLE PARTY NAME: Consolidation Coal Company

COUNTY: Marshall **DISTRICT:** Webster

QUADRANGLE: Majorsville, WV PA

SURFACE OWNER: Brian K Milliken

ROYALTY OWNER: _____

UTM GPS NORTHING: 4,420,437 m

UTM GPS EASTING: 539,628 m **GPS ELEVATION:** 392 m

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.

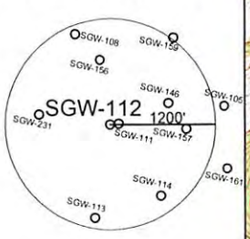
RECEIVED
Office of Oil and Gas
APR 13 2016
WV Department of Environmental Protection

Signature — Professional Surveyor
Title

March 18, 2016
Date

FORM WW 6

SURROUNDING WELLS WITHIN 1200' RADIUS



UTM ZONE 17N NAD83 CONUS			LAT/LONG NAD27 CONUS
NORTHING	4,420,437	METERS	39° 55' 59.0" N
EASTING	539,629	METERS	80° 32' 11.0" W

I THE UNDERSIGNED, HEREBY CERTIFY THAT THIS PLAT IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AND SHOWS ALL THE INFORMATION REQUIRED BY LAW AND THE REGULATIONS ISSUED AND PRESCRIBED BY THE DEPARTMENT OF ENVIRONMENTAL PROTECTION.

P.S. 2002

TROY B. FREELS LICENSED No. 2002 STATE OF WEST VIRGINIA PROFESSIONAL SURVEYOR

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

DATE MARCH 18 , 20 16

OPERATORS WELL NO. SGW-112

API WELL NO. 47 — 51 — 00197P
STATE COUNTY PERMIT

MINIMUM DEGREE OF ACCURACY: 1 / 2500 FILE NO.: MAJORSVILLE6.DWG

SCALE: 1"=2000'

PROVEN SOURCE OF ELEVATION: GPS METADATA OR COMPANY NETWORK TIED INTO U.S.G.S.

WV DEP
OFFICE OF OIL AND GAS
601 57TH ST., CHARLESTON, WV 25304

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

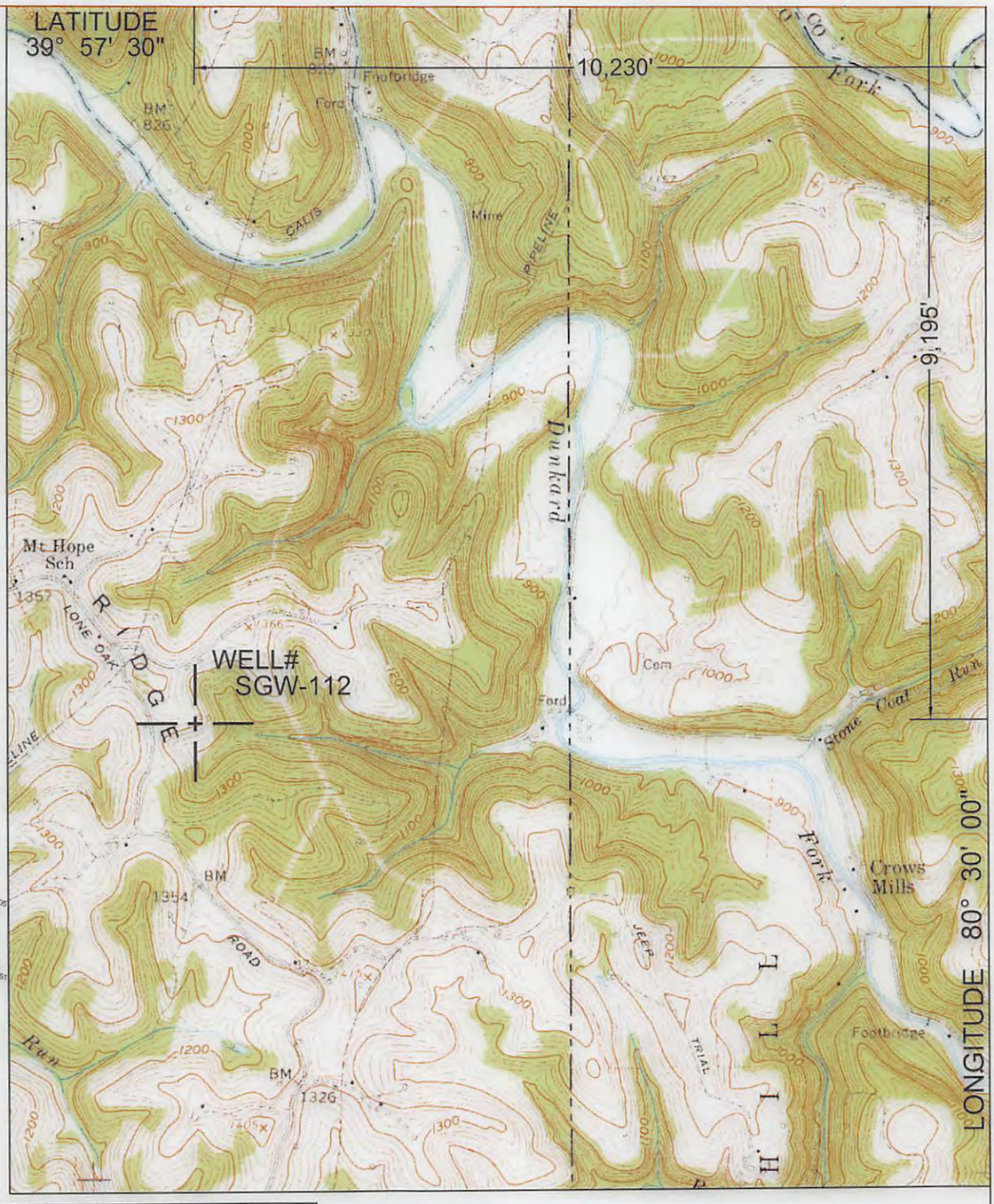
LOCATION:
ELEVATION: 1286.70' WATERSHED: DUNKARD FORK OF WHEELING CREEK
DISTRICT: WEBSTER COUNTY: MARSHALL QUADRANGLE: MAJORSVILLE WV-PA 7.5'
SURFACE OWNER: BRIAN K. MILLIKEN ACREAGE: 96± ACRES
ROYALTY OWNER: ____ LEASE ACREAGE: ____
PROPOSED WORK: ____ LEASE NO.: ____
DRILL: ____ CONVERT: ____ DRILL DEEPER: ____ REDRILL: ____ FRACTURE OR STIMULATE: ____ PLUG OFF OLD FORMATION: ____
FORMATION: ____ PERFORATE NEW FORMATION: ____ PLUG AND ABANDON: X CLEAN OUT AND REPLUG: ____ OTHER: ____
PHYSICAL CHANGE IN WELL (SPECIFY): ____ TARGET FORMATION: NONE
ESTIMATED DEPTH: ____

COUNTY NAME
PERMIT

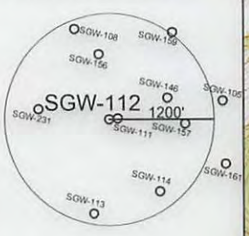
RECEIVED
Office of Oil and Gas
APR 13 2016
WV Department of Environmental Protection

WELL OPERATOR: CONSOLIDATION COAL COMPANY DESIGNATED AGENT: RONNIE HARSH
ADDRESS: 6126 ENERGY DRIVE, MOUNDSVILLE WV 26041 ADDRESS: 6126 ENERGY DRIVE, MOUNDSVILLE WV 26041

FORM WW 6



SURROUNDING WELLS WITHIN 1200' RADIUS



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STATE COUNTY PERMIT

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WV DEP
OFFICE OF OIL AND GAS
601 57TH ST., CHARLESTON, WV 25304

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ROYALTY OWNER: ____ LEASE ACREAGE: ____
PROPOSED WORK: ____ LEASE NO.: ____

DRILL: ____ CONVERT: ____ DRILL DEEPER: ____ REDRILL: ____ FRACTURE OR STIMULATE: ____ PLUG OFF OLD: ____
FORMATION: ____ PERFORATE NEW FORMATION: ____ PLUG AND ABANDON: X CLEAN OUT AND REPLUG: ____ OTHER: ____
PHYSICAL CHANGE IN WELL (SPECIFY): ____ TARGET FORMATION: NONE
ESTIMATED DEPTH: ____

COUNTY NAME

PERMIT

WELL OPERATOR: CONSOLIDATION COAL COMPANY DESIGNATED AGENT: RONNIE HARSH
ADDRESS: 6126 ENERGY DRIVE, MOUNDSVILLE WV 26041 ADDRESS: 6126 ENERGY DRIVE, MOUNDSVILLE WV 26041