



west virginia department of environmental protection

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

Jim Justice , Governor
Austin Caperton , Cabinet Secretary
www.dep.wv.gov

Friday, January 19, 2018
WELL WORK PERMIT
Vertical / Plugging

K. PETROLEUM, INC.
81 MILL STREET, SUITE 205

GAHANNA, OH 432306510

Re: Permit approval for WB 10
47-109-01047-00-00

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

Please be advised that form WR-35, Well Operators Report of Well Work is to be submitted to this office within 90 days of completion of permitted well work, as should form WR-34 Discharge Monitoring Report within 30 days of discharge of pits, if applicable. Failure to abide by all statutory and regulatory provisions governing all duties and operations hereunder may result in suspension or revocation of this permit and, in addition, may result in civil and/or criminal penalties being imposed upon the operators.

Per 35 CSR 4-5.2.g this permit will expire in two (2) years from the issue date unless permitted well work is commenced. If there are any questions, please feel free to contact me at (304) 926- 0450.

James A. Martin
Chief

Operator's Well Number: WB 10
Farm Name: POCAHONTAS LAND CORP.
U.S. WELL NUMBER: 47-109-01047-00-00
Vertical / Plugging
Date Issued: 1/19/2018

Promoting a healthy environment.

I

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.

10901047P

WW-4B
Rev. 2/01

1) Date DECEMBER 13TH, 2017
2) Operator's
Well No. WB #10 (POC #5)
3) API Well No. 47-109 - 01047

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 XX / Liquid injection ___ / Waste disposal ___ /
(If "Gas, Production ___ or Underground storage ___) Deep ___ / Shallow XX

5) Location: Elevation 1297' Watershed INDIAN CREEK
District CENTER County WYOMING Quadrangle PINEVILLE 7.5

6) Well Operator K. PETROLEUM, INC 7) Designated Agent JAM KHORRAMI
Address 81 MILL STREET, SUITE 205 Address 81 MILL STREET, SUITE 205
GAHANNA, OH 43230-6510 GAHANNA, OH 43230-6510

8) Oil and Gas Inspector to be notified
Name Brian Ferguson *BF*
Address 708 Manor Drive
Beckley WV 25801

9) Plugging Contractor
Name PATCHWORK OIL & GAS, LLC
Address PO BOX 168
DAVISVILLE, WV 26142

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

SEE
WORK ORDER ATTACHED. *FOR SOLID PLUG METHOD.*
AND
MSHA 101 C
EXEMPTION FOR
MINE- THROUGH

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

Work order approved by inspector *Brian K Ferguson* Date 12/18/17
BRIAN K FERGUSON

[Search Page](#)

Click on an Operator Name link to get the Operator's Agent address information

1 rows returned							
ID	Name	Address	City	State	Zip Code	Phone Number	Attention
306574	K. PETROLEUM, INC.	81 MILL STREET, SUITE 205	GAHANNA	OH	43230-6510	614-532-5420	KHORRAMI, JAM

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WW-4B Work Order Attachment

47-109-01047 WB #10 (POC #5)

1. Prepare plugging permit application.
2. Certify to surface and coal owners.
3. Certify or email to designated state inspector
4. Once all signatures are obtained, copy for our records and certify to Jeff at the Office of Oil & Gas for approval.
5. Receive plugging permit good for 2 years.
6. Notify the designated inspector 24 hours prior to commencing operations.
7. Take equipment to location and begin prepping for plug.
8. Rig up
9. Verify total depth of 1420'.
10. Run tubing to TD. Set first plug with 21 sacks of Class A cement with no more than 3% CaCl₂ and no other additives from TD up to 1130'. Pull tubing back (bottom plug & perfs)
11. Wait 8 hours, run in and tag plug. , *ADD CEMENT IF NEEDED.*
12. Begin looking for free point.
13. Run 1 sack of 6% Bentonite gel from 1130' up to 820'.
14. Based on cement fill up per records the 4 1/2 free point should be around 770'. ✓
WHICH IS BELOW 2 5/8" CASING POINT.
15. Rip and remove 770' of 4 1/2, run tubing back in to 820', run 33 sacks for second plug of ~~Class A~~ ^{EXPANING} cement with no more than 3% CaCl₂ and no other additives from 820' up to 667'.

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(ADDITIONAL PLUG IF NEEDED)

A MINIMUM OF 100' CLASS A CEMENT PLUG WITH NO MORE THAN 3% CaCl₂ AND NO OTHER ADDITIVES MUST BE PLACED ACROSS THE 4 1/2" CASING CUT IF THE CUT IS BELOW 870'

16. Pull tubing back, wait 8 hours.
17. Run in and tag plug.
18. SET AN EXPANDING CEMENT PLUG FROM THIS POINT TO 100' ABOVE THE SHALLOWEST MINABLE COAL, WHICH IS \approx 140'. THEREFORE, CEMENT TO W/IN 10' OF SURFACE.
19. MONUMENT MUST BE PLACED FROM 10' BELOW SURFACE TO 30" ABOVE SURFACE.
20. Set 6" x 12.5' steel pipe with concrete with 1/2" API identification.
21. Rig down and move equipment off location.
22. Reclaim
23. Prepare WR-34 & WR-38 for permit release.

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U. S. Department of Labor

Mine Safety and Health Administration
4015 Wilson Boulevard
Arlington, Virginia 22203-1984



April 08, 1994

**MSHA 101 C EXEMPTION
FOR MINE-THROUGH**

APR 15 1994
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DISTRICT 4

MEMORANDUM FOR MICHAEL J. LAWLESS

FROM: ALLYN DAVIS
Chief, Division of Safety

SUBJECT: Finalized Cases, Petitions for Modification

The cases listed below have become final pursuant to 30 CFR 44.13. More than 30 days have elapsed since the issuance of the proposed decisions and orders or the proposed orders of dismissal. No requests for hearing or appeals that would prohibit implementation of the modification have been received. Cases shown with an asterisk, however, have been partially appealed pursuant to 30 CFR 44.14(c); the proposed decisions and orders may be implemented for these cases during the appeal of one or more terms and conditions.

<u>Docket No.</u>	<u>Mine ID</u>	<u>Date Final</u>	<u>Decision</u>
M-93-051-C	4601816	04/02/94	Granted

Gary No. 50 mine
U.S. Steel Mining Company, Inc.
ID 46-01816
Section 75.1700

CC: D. S. Mandeville
C. E. Thomas
T. E. Gunter
Ventilation Files

MSHA
MOUNT HOPE, W. VA.

MAR - 7 1994

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DISTRICT 4

MAR 7 1994

In the matter of
U.S. Steel Mining
Company, Inc.
Gary No. 50 Mine
I.D. No. 46-01816

Petition for Modification

Docket No. M-93-51-C

PROPOSED DECISION AND ORDER

On March 26, 1993, a petition was filed seeking a modification of the application of 30 CFR 75.1700 to Petitioner's Gary No. 50 Mine, located in Wyoming 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 and MSHA's investigative report and recommendation, a Proposed Decision and Order was issued on October 14, 1993. On November 3, 1993, the Petitioner filed a request for a hearing objecting to certain terms and conditions set forth in Item II. (a) and (b) of the Proposed Decision and Order.

Following a request from the Administrator, the petition was remanded to Coal Mine Safety and Health for reconsideration on December 21, 1993. After further evaluation of the entire record, including the petition, the Mine Safety and Health Administrations's investigative report and recommendations, and comments from the Petitioner, this new Proposed Decision and Order is issued which supersedes the Proposed Decision and Order issued on October 14, 1993.

Finding of Fact and Conclusion of Law

The alternative method proposed by the Petitioner 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, U.S. Steel Mining Company, Inc., is granted a modification of the application of 30 CFR 75.1700 to its Gary No. 50 Mine.

CC: D. S. Mandeville
C. E. Thomas
T. E. Gunter
Ventilation Files

*File
JTB
3/8/94*

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 U.S. Steel Mining Company, Inc.'s Petition for Modification of the application of 30 CFR 75.1700 in the Gary No. 50 Mine is hereby:

GRANTED, conditioned upon compliance with the following terms and conditions:

- ★ I. The wellbore shall be plugged using the following technique and procedures:
- (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.

★
SOLID PLUG

(b) Plugging oil and gas wells to the surface. The following procedures shall be utilized when plugging oil and gas 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, if a steel surface casing is not present.

(c) Plugging oil and 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 and 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, shut-in valves, sampling ports, flame arrestor equipment, and security fencing.

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

- (a) The operator shall notify the District Manager or designee prior to mining within 300 feet of the well.
- (b) A representative of the operator; a representative of the miners; and State Inspection Agency; or the MSHA District Manager or designee may request that a conference be conducted prior to mining through any plugged well to review, evaluate and accommodate any abnormal or unusual circumstance(s) related to the condition of the well or surrounding strata when such conditions are encountered. The party requesting the conference shall notify all other parties listed above within a reasonable time prior to the conference to provide adequate opportunity for participation.
- (c) Mining through a plugged well shall be done on a shift approved by the District Manager or designee. The District Manager or designee and the miners' representative shall be notified as to which shift mining will be done in close proximity to or through a plugged well.
- (d) The District Manager or designee, representatives of the miners, the miners on the section, and the appropriate State agency shall be notified by the

operator in sufficient time in order to provide 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. The drivage sights shall not be more than 50 feet from the well. When using longwall mining methods, drivage sights shall be installed on 10-foot centers for a distance of 50 feet in advance of the wellbore. The drivage sights shall be installed in the headgate and tailgate.
- (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) During the mine-through operation, the quantity of air required by the ventilation plan, but not less than 9,000 cubic feet per minute (cfm) of air, shall reach each working face where coal is being cut, mined, drilled for blasting, or loaded. The quantity of air required by the ventilation plan, but not less than 30,000 cfm, shall reach the working face of each longwall during the mine-through operation.
- (i) Equipment shall be checked for permissibility and serviced on the shift prior to mining through the well and the water line maintained up to the tail piece with a sufficient amount of fire hose to reach the farthest point of penetration on the section.
- (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 30 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 tailgate 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 in by 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 individual. Instructions concerning the mining-through operation shall be issued only by the certified individual 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 decision approving this petition shall be maintained at the office of Gary No. 50 Mine and be available to the Secretary's representatives, miners' representatives and 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 terms and conditions stated in the Proposed Decision and Order.

III. This petition for modification applies to all types of mining such as continuous miner sections, continuous mining utilizing mobile bridge, and longwall.

Any party to this action desiring a hearing on this matter must file in accordance with 30 CFR 44.14, within 30 days. The request for hearing must be filed 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.

Signed: Robert A. Elam

Robert A. Elam
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 3rd day of March, 1994, to:

Billy M. Tennant, Esq.
U.S. Steel Mining Company, Inc.
600 Grant Street, Room 1580
Pittsburgh, Pennsylvania 15219

Ms. Linda Raisovich-Parsons
Special Assistant
United Mine Workers of America
900 Fifteenth Street, NW.
Washington, DC 20005

1-51 Mary Ann Griffin
MARY ANN GRIFFIN
Mine Safety Clerk

cc: Mr. Stephen Weber
bcc: ~~L.~~ Phillips D. White
L. Smith E. Fitch
P. Silvey
Case File

MCS:MAGriffin:mag: 02/15/94

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WR 38
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08-Jun-88
API # 47-109-01047

State of West Virginia
DEPARTMENT OF ENERGY
Division of Oil and Gas

DIVISION OF OIL & GAS
DEPARTMENT OF ENERGY
Well Operator's Report of Well Work

Farm name: POCAHONTAS LAND CORP. Operator Well No.: WB 10

LOCATION: Elevation: 1297.00 Quadrangle: PINEVILLE

District: CENTER County: WYOMING
Latitude: 5600 Feet South of 37 Deg. 32Min. 30 Sec.
Longitude 2640 Feet West of 91 Deg. 35 Min. 0 Sec.

Company: BOWIE, INC.
132 WALDECK STREET
CLARKSBURG, WV

Agent: WILLIAM H. BOWIE

Inspector: ARTHUR ST. CLAIR
Permit Issued: 06/08/88
Well work Commenced: 11/16/89
Well work Completed: 11/24/89
Verbal Plugging
Permission granted on:
Rotary Cable _____ Ris _____
Total Depth (feet) 1420
Fresh water depths (ft) 30, 57, 300
Salt water depths (ft) _____
Coal being mined in area (Y/N)? N
Coal Depths (ft): ~~140-44, 350-356, 470-472~~

Casings	Used in	Left	Cement
Size	Drillings	in Well	Fill Up
Size			Cu. Ft.
16"	20'		
11 3/4"	42'		
8 5/8"	717'	717'	CTS
4 1/2"	1402'	1402'	145 SKS

OPEN FLOW DATA

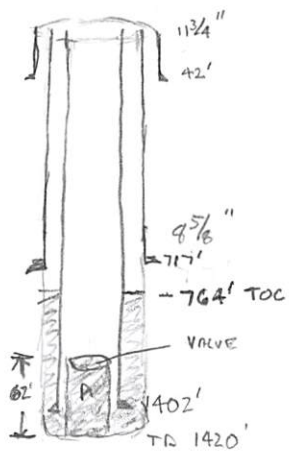
Producing formation RAVENEL FF Pay zone depth (ft) 1180-1280
 Gas: Initial open flow SNOW MCF/d Oil: Initial open flow _____ Bbl/d
 Final open flow 450 MCF/d Final open flow _____ Bbl/d
 Time of open flow between initial and final tests _____ Hours
 Static rock Pressure 320 psig (surface pressure) after _____ Hours

Second producing formation _____ Pay zone depth (ft) _____
 Gas: Initial open flow _____ MCF/d Oil: Initial open flow _____ Bbl/d
 Final open flow _____ MCF/d Final open flow _____ Bbl/d
 Time of open flow between initial and final tests _____ Hours
 Static rock Pressure _____ psig (surface pressure) after _____ Hours

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

For: BOWIE, INC.

By: Bradley W. Thomas
Date: 12-4-89



145 SKS CEMENT 8% SOL
 $\approx 1.24 \text{ CFT/SK} \times 145$
 $145 \times 1.24 = 179.80 \text{ CFT}$
 $\approx 180 \text{ CFT CEMENT}$

$V_{\text{C/A}} = \pi r^2 \times 62'$
 $= 3.14 \times (1/2)^2 \times 62$
 $= 3.14 \times 0.25 \times 62$
 $= 5.84 \text{ CFT}$

180 - 6 = 174 CFT LEFT TO FILL ANNULUS
 NAL. RED BOOK FOR 4 1/2" IN 7 7/8" HOLE $\Rightarrow 4.39 \text{ LBS. FT./CFT} \times 174 \text{ CFT} = 764' \text{ HEIGHT}$

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(REVISED)

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DETAILS OF PERFORATED INTERVALS, INTERVALS ON SPINDLERS, PHYSICAL CHANGE, ETC.

PERFORATIONS: 30 HOLEY (1198-1272), 5000KS SAND, 750 gal 15% HCl, 600 GAL 750 FORM

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	INTERVALS
					Including indication of oil, fresh and salt water, coal, oil and gas
FILL			0	10	
SAND			10	50	
SAND & shale			50	140	3" STREAM H ₂ O @ 30'
Coal			140	144	2" STREAM H ₂ O @ 57'
SAND & shale			144	190	
SAND			190	350	2" STREAM H ₂ O @ 300'
Coal			350	356	
SAND & shale			356	470	
SAND			470	740	
Shale			740	792	
SAND			792	834	
SHALE & Red Rock			834	1148	
SAND			1148	1272	GAS SHOW
LIME			1272	1318	
Shale & Red Rock			1318	1350	
SAND			1350	1420 DTB	

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DIVISION OF OIL & GAS
DEPARTMENT OF ENERGY

782

[Handwritten signature]

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DEC 23 2017

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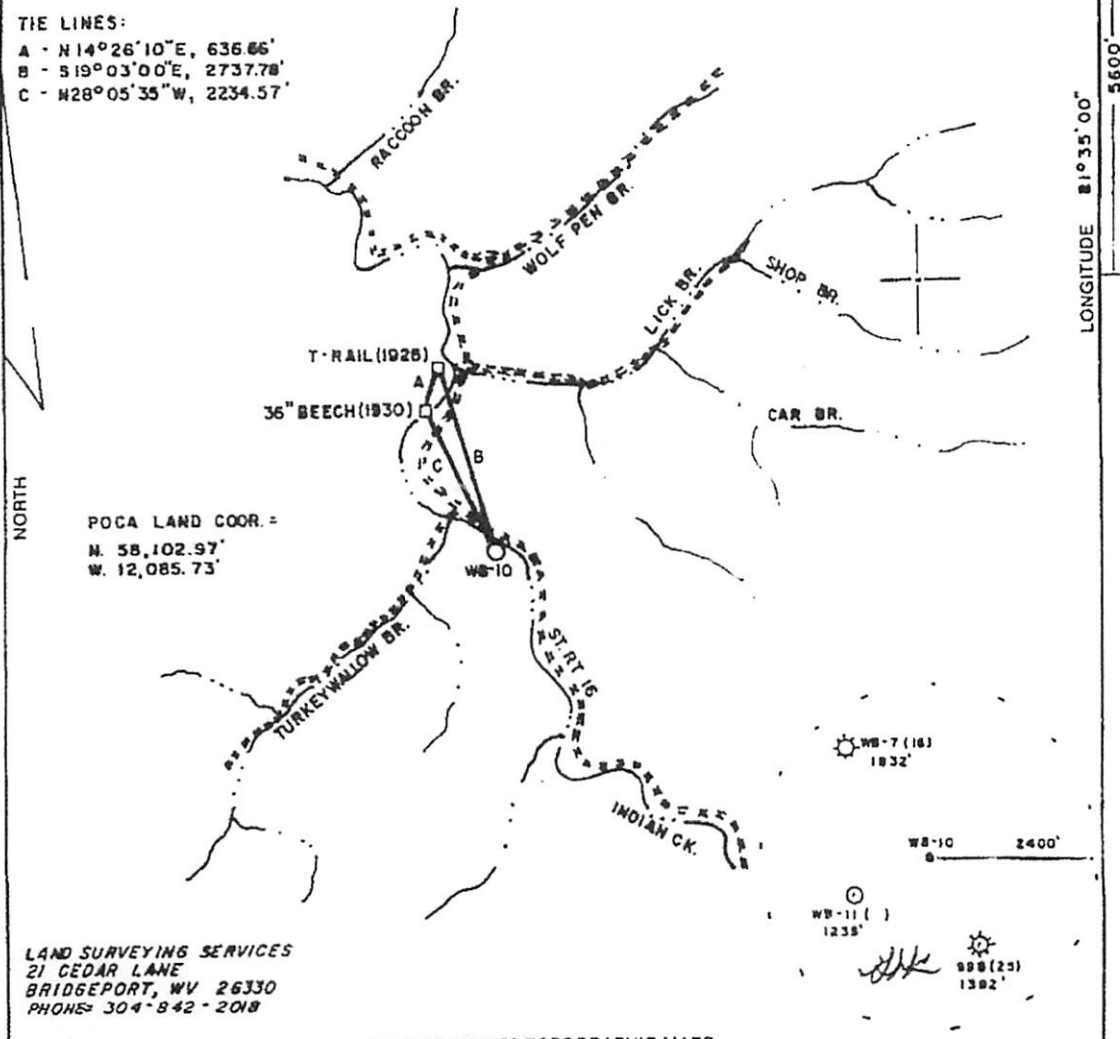
Amie 5/24/00

WELL REFERENCES:
N05°E, 95.50' TO POWER POLE
S16°30'E, 119' TO 10" POPLAR

LATITUDE 37°32'30"

2640'

THE LINES:
A - N14°26'10"E, 636.66'
B - S19°03'00"E, 2737.78'
C - N28°05'35"W, 2234.57'



LAND SURVEYING SERVICES
21 CEDAR LANE
BRIDGEPORT, WV 26330
PHONE 304-842-2018

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

FILE NO. _____
 DRAWING NO. _____
 SCALE 1" = 2000'
 MINIMUM DEGREE OF ACCURACY 1 in 2500
 PROVEN SOURCE OF ELEVATION BM 2600' N OF LOCATION ELEV - 1281'

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 ENERGY.

(SIGNED) *Stephen D. Losh*



R.P.E. _____ I.L.S. 874
STEPHEN D. LOSH

STATE OF WEST VIRGINIA
DEPARTMENT OF ENERGY
OIL AND GAS DIVISION



DATE JANUARY 02 19 88
OPERATOR'S WELL NO. WB - 10
API WELL NO. 47-109-1047

WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL
 (IF "GAS,") PRODUCTION STORAGE DEEP SHALLOW
 LOCATION: ELEVATION 1297' WATER SHED INDIAN CREEK
 DISTRICT CENTER COUNTY WYOMING
 QUADRANGLE PINEVILLE 7.5 min.
 SURFACE OWNER POCAHONTAS LAND CORP. ACREAGE 24,980.40
 OIL & GAS ROYALTY OWNER POCAHONTAS LAND CORP. LEASE ACREAGE 10,050.85
 LEASE NO. 58244
 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 BIG LIME ESTIMATED DEPTH 2900'
 WELL OPERATOR BOWIE, INC. DESIGNATED AGENT WILLIAM BOWE
 ADDRESS 132 WALDECK ST ADDRESS 132 WALDECK ST
 CLARKSBURG, WV 26301 CLARKSBURG, WV 26301

COUNTY NAME PERMIT

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Office of Oil and Gas
DEC 26 2017
WV Department of Environmental Protection

FORM WW-6

WW-4A
Revised 6-07

1) Date: DECEMBER 13TH, 2017
2) Operator's Well Number
WB #10 (POC #5)

3) API Well No.: 47 - 109 - 01047

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>PINNACLE COAL COMPANY</u>	Name <u>PINNACLE MINING COMPANY, LLC & BLUESTONE COAL CORPORATION</u>
Address <u>PO BOX 338</u>	Address <u>PO BOX 338</u> <u>PO BOX 1085</u>
<u>PINEVILLE, WV 24874</u>	<u>PINEVILLE, WV 24874</u> <u>BECKLEY, WV 25802</u>
(b) Name _____	(b) Coal Owner(s) with Declaration
Address _____	Name <u>NATURAL RESOURCE PARTNERS</u>
(c) Name _____	Address <u>5260 IRWIN ROAD</u>
Address _____	<u>HUNTINGTON, WV 25705</u>
6) Inspector <u>Brian Ferguson</u>	(c) Coal Lessee with Declaration
Address <u>708 Manor Drive</u>	Name _____
<u>Beckley WV 25801</u>	Address _____
Telephone <u>304-550-6265</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.



TERESAM JONAS
 NOTARY PUBLIC Well Operator K. PETROLEUM, INC.
 STATE OF OHIO By: JAM KHORRAMI
 Comm. Expires Its: PRESIDENT
06-28-2021 Address 81 MILL STREET, SUITE 205
 Telephone GAHANNA, OH 43230-6510
614-532-5420

Subscribed and sworn before me this 13 day of December, 2017
Teresam Jonas Notary Public
My Commission Expires 6-28-21

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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7015 0640 0006 5071 8549

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HUNTINGTON, WV 25705

OFFICIAL USE

Certified Mail Fee	\$3.35	0767 02 Postmark Here 12/13/2017
Extra Services & Fees (check box, add fee as appropriate)	\$7.75	
<input type="checkbox"/> Return Receipt (hardcopy)	\$0.00	
<input type="checkbox"/> Return Receipt (electronic)	\$0.00	
<input type="checkbox"/> Certified Mail Restricted Delivery	\$0.00	
<input type="checkbox"/> Adult Signature Required	\$0.00	
<input type="checkbox"/> Adult Signature Restricted Delivery	\$0.00	
Postage	\$1.40	
Total Postage and Fees	\$7.50	

Sent To
 Natural Resource Partners
 Street and Apt. No., or PO Box No.
 5260 Irwin Rd.
 City, State, ZIP+4®
 Huntington WV 25705

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

7015 0640 0006 5071 8532

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BECKLEY, WV 25802

OFFICIAL USE

Certified Mail Fee	\$3.35	0767 02 Postmark Here 12/13/2017
Extra Services & Fees (check box, add fee as appropriate)	\$7.75	
<input type="checkbox"/> Return Receipt (hardcopy)	\$0.00	
<input type="checkbox"/> Return Receipt (electronic)	\$0.00	
<input type="checkbox"/> Certified Mail Restricted Delivery	\$0.00	
<input type="checkbox"/> Adult Signature Required	\$0.00	
<input type="checkbox"/> Adult Signature Restricted Delivery	\$0.00	
Postage	\$1.40	
Total Postage and Fees	\$7.50	

Sent To
 Bluestone Coal Corporation
 Street and Apt. No., or PO Box No.
 PO Box 1085
 City, State, ZIP+4®
 Beckley WV 25802

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

7015 0640 0001 4623 0982

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PINEVILLE, WV 24874

OFFICIAL USE

Certified Mail Fee	\$3.35	0767 02 Postmark Here 12/13/2017
Extra Services & Fees (check box, add fee as appropriate)	\$7.75	
<input type="checkbox"/> Return Receipt (hardcopy)	\$0.00	
<input type="checkbox"/> Return Receipt (electronic)	\$0.00	
<input type="checkbox"/> Certified Mail Restricted Delivery	\$0.00	
<input type="checkbox"/> Adult Signature Required	\$0.00	
<input type="checkbox"/> Adult Signature Restricted Delivery	\$0.00	
Postage	\$1.40	
Total Postage and Fees	\$7.50	

Sent To
 Pinnacle Coal Mining Companies
 Street and Apt. No., or PO Box No.
 PO Box 338
 City, State, ZIP+4®
 Pineville WV 24874

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

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 WV Department of
 Environmental Protection

SURFACE OWNER WAIVER

Operator's Well
Number

WB #10 (POC #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

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Environmental Protection

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,

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

WW-4B

API No. 47-109-01047 P
Farm Name Peckhontas Land Corp.
Well No. WB #10 (POC #5)

**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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Environmental Protection

WW-9
(5/16)

API Number 47 - 109 - 01047
Operator's Well No. WB #10 (POC #5)

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

Operator Name K. PETROLEUM, INC OP Code 306574

Watershed (HUC 10) INDIAN CREEK Quadrangle PINEVILLE 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

*ANY WELL EFFLUENT WILL BE
DISPOSED OF OFFSITE IN A PROPER
MANNER.
J.M.M.*

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 (if selected provide a completed form WW-9-GPP)
- Underground Injection (UIC Permit Number _____)
- Reuse (at API Number _____)
- Off Site Disposal (Supply form WW-9 for disposal location)
- Other (Explain Plugging contractor uses a vac truck for all fluids associated with plugging operations.)

Will closed loop system be used? If so, describe: N/A

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

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

Additives to be used in drilling medium? N/A

Drill cuttings disposal method? Leave in pit, landfill, removed offsite, etc. N/A

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

-Landfill or offsite name/permit number? N/A

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 April 1, 2016, 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 [Signature]

Company Official (Typed Name) JAM KHORRAMI

Company Official Title PRESIDENT

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Subscribed and sworn before me this 13 day of December, 2017

[Signature]

My commission expires 6-28-21

WV Department of
Environmental Protection



TERESAM JONAS
NOTARY PUBLIC
STATE OF OHIO
Comm. Expires
06-28-2021

Proposed Revegetation Treatment: Acres Disturbed 3.2 Prevegetation pH 6.67

Lime 2 Tons/acre or to correct to pH 6.5

Fertilizer type 10-20-20 OR EQUIVALENT

Fertilizer amount 500 lbs/acre

Mulch STRAW Tons/acre

Seed Mixtures

Temporary		Permanent	
Seed Type	lbs/acre	Seed Type	lbs/acre
TALL FESCUE	40		
LADINO CLOVER	5		

Attach:
Maps(s) of road, location, pit and proposed area for land application (unless engineered plans including this info have been provided). If water from the pit will be land applied, provide water volume, include dimensions (L, W, D) of the pit, and dimensions (L, W), and area in acres, of the land application area.

Photocopied section of involved 7.5' topographic sheet.

Plan Approved by: _____

Comments: _____

Title: _____

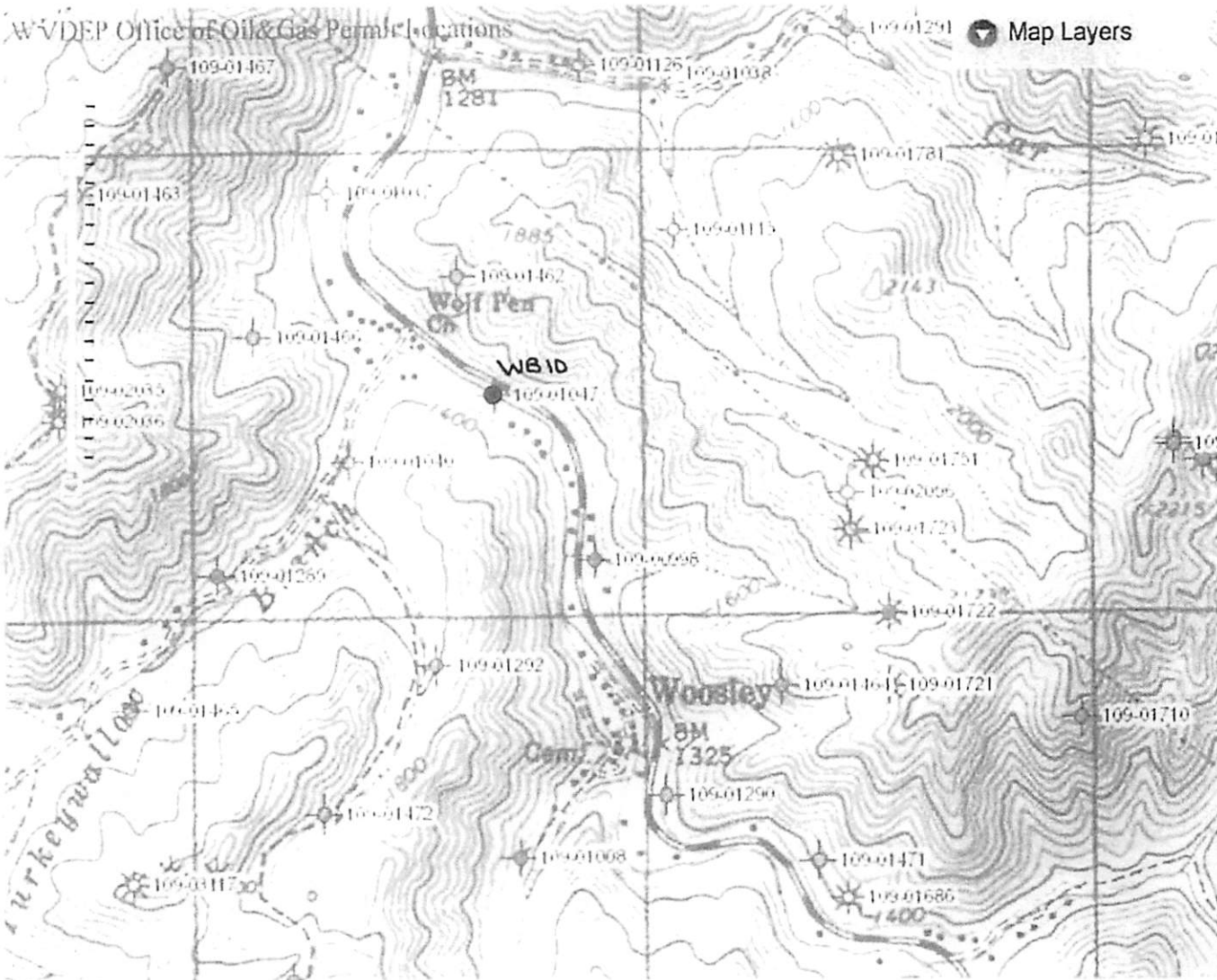
Date: _____

Field Reviewed? () Yes () No

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