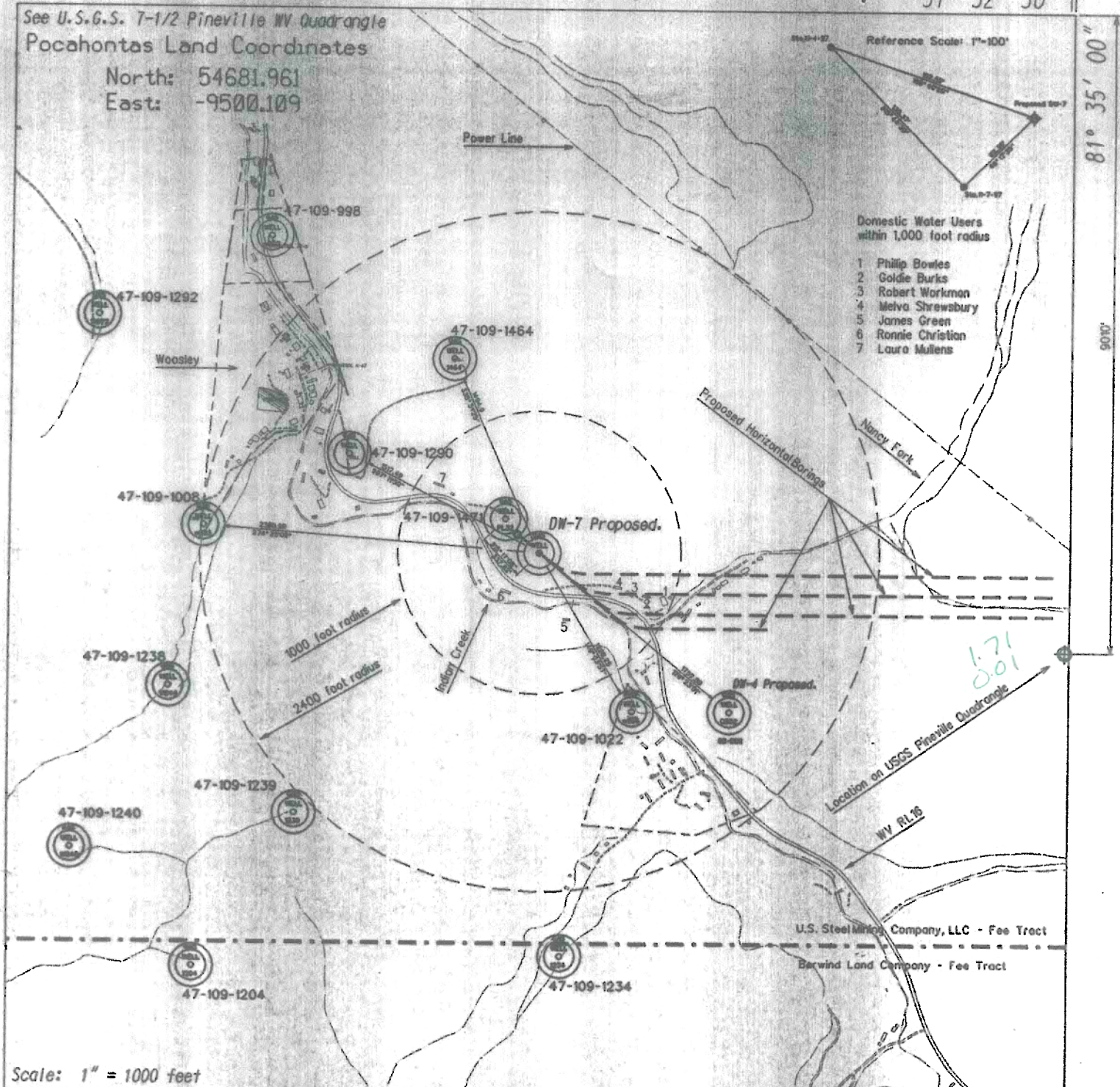


See U.S.G.S. 7-1/2 Pineville WV Quadrangle  
Pocahontas Land Coordinates

North: 54681.961  
East: -9500.109

37° 32' 30"

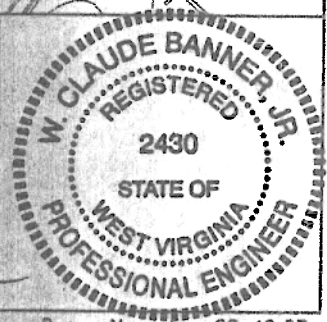
81° 35' 00"



Scale: 1" = 1000 feet

FILE No. TD-40\C\dgn\jd\drill\_plots  
DRAWING No. DW-7.dgn  
SCALE 1" = 1000'  
MINIMUM DEGREE OF ACCURACY 1:2500  
PROVEN SOURCE OF ELEVATION USC&GS BM F44 el. 1565

I THE UNDERSIGNED, HEREBY CERTIFY THAT THIS PLAT IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AND SHOWS ALL THE INFORMATION REQUIRED BY LAW AND THE REGULATIONS ISSUED AND PRESCRIBED BY THE DEPARTMENT OF MINES  
(SIGNED) *W. Claude Banner, Jr.*  
R.P.E. R.P.S.



STATE OF WEST VIRGINIA  
DIVISION OF ENVIRONMENTAL PROTECTION  
OFFICE OF OIL AND GAS  
NITRD, WV

Date: November 20, 1997  
Operator's Well No. DW-7

WELL TYPE: OIL  GAS  LIQUID INJECTION   
(IF "GAS") PRODUCTION  STORAGE  DEEP  SHALLOW  CBM

LOCATION: ELEVATION: 1413.78 WATERSHED: Indian Creek/Guyandotte  
DISTRICT: Center COUNTY: Wyoming  
QUADRANGLE: USGS Pineville WV Quadrangle

SURFACE OWNER U.S. Steel Mining Company, LLC ACREAGE 24965  
OIL & GAS ROYALTY OWNER U.S. Steel Mining Company, LLC LEASE ACREAGE \_\_\_\_\_  
LEASE NO. \_\_\_\_\_

PROPOSED WORK: DRILL  CONVERT  DRILL DEEPER  REDRILL  FRACTURE OR STIMULATE  PLUG OFF OLD FORMATION  PERFORATE NEW FORMATION  OTHER PHYSICAL CHANGE IN WELL (SPECIFY) \_\_\_\_\_  
PLUG AND ABANDON  CLEANOUT AND REPLUG

TARGET FORMATION Pocahontas No.3 ESTIMATED DEPTH 670

WELL OPERATOR U.S. Steel Mining Company, LLC DESIGNATED AGENT Joseph A Zupanick  
ADDRESS P.O. Box 338 ADDRESS P.O. Box 338  
Pineville WV 24874 Pineville WV 24874

DEC 19 1997

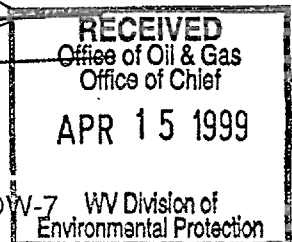
COUNTY NAME  
PERMIT

1-1 200

WR-35

16-Dec-97  
API # 47-109-01686 C

State of West Virginia Reviewed MS  
Division of Environmental Protection  
Section of Oil & Gas



Well Operator's Report of Well Work

Farm name: U. S. STEEL MINING COMPANY, LLC Operator Well No: DW-7 WV Division of Environmental Protection  
Location: Elevation: 1,413.78 Quadrangle: PINEVILLE  
District: CENTER County: WYOMING  
Latitude: 9010 Feet South of 37 Deg. 32 Min.30 Sec.  
Longitude: 60 Feet West of 81 Deg. 35 Min. 0 Sec.

Company: U.S. STEEL MINING COMPANY LLC  
P.O. Box 338  
Pineville, WV 24874-0338

Agent: David Trader

Inspector: OFIE HELMICK  
Permit Issued: 12/16/97  
Well Work commenced: \*11/30/97  
Well Work completed: 12/07/98  
Verbal plugging  
Permission granted on: \_\_\_\_\_  
Rotary x Cable \_\_\_\_\_ Rig \_\_\_\_\_  
Total depth (ft) 690'  
Fresh water depths (ft) N/A  
Salt water depths (ft) N/A  
Is coal being mined in the area (Y/N)? Y  
Coal depths (ft): Poca No. 3 654 - 658.5  
\*Borehole drilled under WVDEP Permit O-4017-92 & NPDES WV0090000

Casing & Tubing Size	Used in Drilling	Left in Well	Cement Fill up
16"	15'	15'	12
11 3/4"	241'	241'	105
8 5/8"	575'	575'	121

OPEN FLOW DATA

Producing formation Pocahontas No. 3 Seam Pay zone depth (ft) \_\_\_\_\_  
 Gas: Initial open flow N/A Mcf/d Oil: Initial open flow \_\_\_\_\_ Bbl/d  
 Final open flow N/A 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

Second Producing formation \_\_\_\_\_ Pay zone depth (ft) \_\_\_\_\_  
 Gas: Initial open flow N/A Mcf/d Oil: Initial open flow \_\_\_\_\_ Bbl/d  
 Final open flow N/A 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

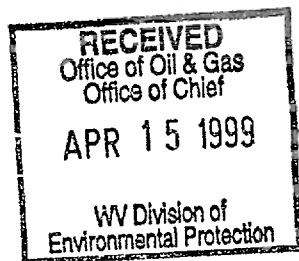
Note: ON BACK OF THIS FORM, PUT THE FOLLOWING: 1) DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2) THE WELL LOG WHICH IS A SYSTEMATICK DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

For: David Trader  
U.S. Steel Mining Company, LLC  
By: David Trader  
Date: 4/12/99

APR 26 1999

WV 0 1686 C

Operator: DW-7  
API: 47-109-01686C  
Locaton: Pineville



ation, Physical Change, Etc.

Well DW-7

	Top	Bottom
	0	101
	101	139
	139	251
	251	277
	277	380
	380	487
	487	590
	590	594
	594	654
	654	658.5
	658.5	690

109-1686-C  
Issued 12/16/97  
Expires 12/16/99  
Page 1 of 3  
50510 (3) 549

FORM \_\_\_\_\_ (9/97)

**STATE OF WEST VIRGINIA**  
**DIVISION OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS**  
**COALBED METHANE PERMIT APPLICATION**

24690

- 1) Well Operator: U. S. Steel Mining Company, LLC 2) Well Name DW-7
- 3) Operator's Well Number DW-7 4) Elevation 1413.78
- 5) Well Type: (a) Oil  / or Gas  /  
(b) If Gas: Production  / Underground Storage  / CBM  /  
Deep  / Shallow  /
- 6) Proposed Target Formation(s): Pocahontas #3
- 7) Proposed Total Depth: 670 feet
- 8) Approximate Fresh Water Strata Depths: 200±
- 9) Approximate Salt Water Depths: N/A
- 10) Approximate Coal Seam Depths: Poca 4 / 600 Poca 3 / 670
- 11) Does Land Contain Coal Seams Tributary to Active Mines? Yes  Poca 3 / No  /
- 12) (a) Proposed Well Work: Drill a horizontal Coalbed Methane Well  
(b) If Stimulation Proposed, Describe Means to be used to Stimulate Well: \_\_\_\_\_
- 13) (a) Does the proposed operation plan to convert an existing well (as defined in W.Va. Code § 22-6-1) or a vertical ventilation hole to a coalbed methane well? Yes  / No  /  
(b) If yes, please attach to this Application a list of all formations from which production is anticipated and a description of any plans to plug any portion of the well. **Poca 3 Only**
- 14) (a) Will the proposed coalbed methane well be completed in some but not all coal seams for production (except for a gob well or vent hole proposed to be converted to a well)? Yes  / No  / N/A  /  
(b) If yes, please attach to this Application a plan and design for the well which will protect all workable coal seams which will be penetrated by the well.
- 15) (a) Does the proposed operation include horizontal drilling of a well commenced on the surface? Yes  / No  /  
(b) If yes, please attach to this Application a description of such operations, including both the vertical and horizontal alignment and extent of the well from the surface to total depth.

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FORM \_\_\_\_\_ (9/97)

PERMIT NO. 107

DW-7

Page 2 of 3

Permitting **Vertical Well**  
Office of Oil & Gas

**CASING AND TUBING PROGRAM**

TYPE	SPECIFICATIONS		FOOTAGE INTERVALS		CEMENT	
	Size	Grade	Weight per ft.	For Drilling	Left in Well	Fill-up (cu. ft.)
Conductor	13 <sup>5</sup> / <sub>8</sub> "		65#	30'	30'	10
Fresh Water	11 <sup>3</sup> / <sub>4</sub> "	J-55	48#	350	350	110
Coal						
Intermediate						
Production	8 <sup>5</sup> / <sub>8</sub>	J-55	23#	640		*See below
Tubing						
Liners						

\* PACKERS: 8<sup>5</sup>/<sub>8</sub> x 11<sup>3</sup>/<sub>4</sub> @ 340

For Office of Oil and Gas Use Only

9387/38

- Fee(s) paid:       Well Work Permit       Reclamation Fund       WPCP
- Plat       WW-9       WW-5B       Bond \_\_\_\_\_       Agent
- (Type)

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109-2686-L

FORM \_\_\_\_\_ (9/97)

Permitting  
 Office of Oil & Gas **DW-7**  
**Horizontal Well**

Page 3 of 3

**CASING AND TUBING PROGRAM**

TYPE	SPECIFICATIONS		FOOTAGE INTERVALS			CEMENT
	Size	Grade	Weight per ft.	For Drilling	Left in Well	Fill-up (cu.ft.)
Conductor	13 <sup>5</sup> / <sub>8</sub>		65#	30'	30'	16
Fresh Water	9 <sup>5</sup> / <sub>8</sub>	J-55	42#	350	350	128
Coal						
Intermediate						
Production	7"	J-55	23#	470	470	172
Tubing						
Liners						

PACKERS:

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- Fee(s) paid:     
  Well Work Permit     
  Reclamation Fund     
  WPCP  
 Plat     
  WW-9     
  WW-5B     
  Bond \_\_\_\_\_     
  Agent  
 (Type)

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Permitting  
Office of Oil & Gas

1) Date: \_\_\_\_\_  
2) Operator's well number DW-7  
3) API Well No: 47 - 109 - 1686-C  
State- County- Permit

**STATE OF WEST VIRGINIA - BUREAU OF ENVIRONMENT  
DIVISION OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS**

**NOTICE AND APPLICATION FOR A COALBED METHANE WELL PERMIT**

4) Surface Owner(s):

(a) Name U. S. Steel Mining Company, LLC  
Address Box 338  
Pineville, WV 24874

(b) Name \_\_\_\_\_  
Address \_\_\_\_\_

(c) Name \_\_\_\_\_  
Address \_\_\_\_\_

5) Other Parties Noticed:

(a) Coal Owner(s):  
Name U. S. Steel Mining Company, LLC  
Address Box 338  
Pineville, WV 24874

Name \_\_\_\_\_  
Address \_\_\_\_\_

(b) Coal Lessee(s):

Name \_\_\_\_\_  
Address \_\_\_\_\_

Name \_\_\_\_\_  
Address \_\_\_\_\_

(c) Coal Operator(s):

Name U. S. Steel Mining Company, LLC  
Address Box 338  
Pineville, WV 24874

Name \_\_\_\_\_  
Address \_\_\_\_\_

(d) Natural Gas Owner(s)

Name U. S. Steel Mining Company, LLC  
Address P.O. Box 338  
Pineville, WV 24874

Name \_\_\_\_\_  
Address \_\_\_\_\_

(e) Natural Gas Lessee(s):

Name CNG Producing Company  
Address Crosswind Corporate Park  
Bridgeport, WV 26330

Name \_\_\_\_\_  
Address \_\_\_\_\_

(f) Natural Gas Operator(s)

Name CNG Producing Company  
Address Crosswind Corporate Park  
Bridgeport, WV 26330

Name \_\_\_\_\_  
Address \_\_\_\_\_

6) Inspector Ofie Helmick  
Address P.O. Box 398  
Brenton, WV 24818  
Telephone 304-732-9219

38 CSR 23-13.3

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Office of Oil & Gas

109-1686-C

Water users within 1000' of the well have been identified by name on the plat. Pursuant to and in compliance with the provisions of our approved mining plan under WVDEP permit U-204-83, these water sources have been included in the base-line ground water monitoring program. Water samples have been analyzed for the parameters listed in 38 CSR 23-13.10 with exception of detergents (MBAS) The entire base-line results are included for your review.

This application is to convert a degas borehole to a gas well. The degas borehole was drilled during October '97 as provided in Permit O-4016-92. No adverse affects to quality or quantity of groundwater have been detected by the water sample results and no complaints have been received by groundwater users as a result of this drilling.

This monitoring program will continue during and after mining as per requirements of the WVDEP and will therefore be available upon request. Please advise if the information provided herein does not meet the requirements of your office.