

Latitude  $39^{\circ} 15'$   
 $7\frac{1}{2}$   $39^{\circ} 12' 30''$

Longitude  $80^{\circ} 50' 00''$   
 $(7\frac{1}{2})$   $80^{\circ} 45'$

39 11 25  
 50 56 35

- Fracture.....
- Redrill.....
- New Location.
- Drill Deeper.....
- Abandonment.....

Source of Elevation GRAY #2 - F. 32822 ELEV 850'  
 I, the undersigned, hereby certify that this map is correct to the best of my knowledge and belief and shows all the information required by paragraph 6 of the rules and regulations of the oil and gas section of the mining laws of West Virginia.  
 Minimum accuracy, one part in 200

Company ALLEGHENY LAND & MINERAL CO  
 Address CLARKSBURG, W.V. 26301  
 Farm LLOYD W. GRAY, RICHARD CROEFORD  
 Tract \_\_\_\_\_ Acres 318.23 Lease No. \_\_\_\_\_  
 Well (Farm) No. \_\_\_\_\_ Serial No. A-791  
 Elevation (Spirit Level) 1027' NONE  
 Quadrangle HOLBROOK 15', Oxford 7 1/2  
 County DODDRIDGE District SOUTHWEST  
 Engineer Daniel L. Wheeler  
 Engineer's Registration No. 530 L.L.S.  
 File No. 239 Drawing No. \_\_\_\_\_  
 Date 11-3-78 Scale 1" = 1000'

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

WELL LOCATION MAP  
 FILE NO. DODD-2318

+ 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.

47-017

IV-35  
 (Obv) MAR 13 1979

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

Date March 2 1979  
 Operator's L. Gray  
 Well No. A-791

[08-78]

WELL OPERATOR'S REPORT  
 OF

API Well No. 017-2318

OIL & GAS DIVISION, DRILLING, FRACTURING AND/OR STIMULATING, PHYSICAL CHANGE  
 DEPT. OF MINES

WELL TYPE: Oil  / Gas  / Liquid Injection  / Waste Disposal   
 (If "Gas", Production  / Underground storage  / Deep  / Shallow

LOCATION: Elevation: 1027' Watershed: Sugar Run  
 District: Southwest County: Doddridge Subtransfer: Holbrook (15')

WELL OPERATOR Allegheny Land & Mineral Co. DESIGNATED AGENT Allegheny Land & Mineral Co  
 Address Box 1740 Address Box 1740  
Clarksburg, WV 26301 Clarksburg, WV 26301

PERMITTED WORK: Drill  / Convert  / Drill deeper  / Re-drill  / Fracture or stimulate  
 Plug off old formation  / Perforate new formation   
 Other physical change in well (specify) \_\_\_\_\_

PERMIT ISSUED ON November 14, 1978

OIL & GAS INSPECTOR FOR THIS WORK:  
 Name Paul Garrett  
 Address 321 Beech Street  
Clarksburg, WV 26301

(IF APPLICABLE: PLUGGING OF DRY HOLE OR  
 CONTINUOUS PROGRESSION FROM DRILLING OR  
 REWORKING. VERBAL PERMISSION OBTAINED  
 \_\_\_\_\_, 19\_\_\_\_)

GEOLOGICAL TARGET FORMATION: Weir Sand Depth 2308' feet

Depth of completed well, 2415 feet Rotary  / Cable Tools \_\_\_\_\_  
 Water strata depth: Fresh @ 65' feet; salt, 1430' feet.  
 Coal seam depths: none Is coal being mined in the area? no  
 Work was commenced January 31, 1979, and completed February 5, 1979

CASING AND TUBING PROGRAM

CASING OR TUBING TYPE	SPECIFICATIONS					FOOTAGE INTERVALS		CEMENT FILL-UP OR SACKS (Cubic feet)	PACKERS
	Size	Grade	Weight per ft	New	Used	For drilling	Left in well		
Conductor									Minds
Fresh water									
Coal									Stops
Intermediate	8-5/8"		20#	x		351'	351'	to surface	
Production	4 1/2"	ERW	10.5#	x		2366'	2366'	to 1666'	
Tubing									
Liners									Bottom

OPEN FLOW DATA

Producing formation Weir Pay zone depth 2202-2308  
 Gas: Initial open flow, \_\_\_\_\_ McF/d Oil: Initial open flow, \_\_\_\_\_ McF/d  
 Final open flow, 231 McF/d Final open flow, \_\_\_\_\_ McF/d  
 Time of open flow between initial and final tests, \_\_\_\_\_ hours  
 Static rock pressure, 1250# psia (surface measurement) after 72 hours shut in  
 [if applicable due to multiple completion--]  
 Second producing formation \_\_\_\_\_ Pay zone depth \_\_\_\_\_ feet  
 Gas: Initial open flow, \_\_\_\_\_ McF/d Oil: Initial open flow, \_\_\_\_\_ McF/d  
 Final open flow, \_\_\_\_\_ McF/d Final open flow, \_\_\_\_\_ McF/d  
 Time of open flow between initial and final tests, \_\_\_\_\_ hours

APR 10 1979

[08-78]

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

Fractured by Dowell - February 13, 1979

Perforations: 2192-2202' - 6 shots  
 2214-2224' - 5 "  
 2242-2246' - 5 "  
 2282-2286' - 4 "

(Perforation Log was 10' off depth)

WELL LOG

FORMATION	Color	Hard or Soft	Top Feet	Bottom Feet	Remarks Including indication of all fresh and salt water, coal, oil and gas
Red Rock			0	10	
Shale & Red Rock			10	856	
Salt Sand			856	860	Water @ 65'
Shale & Red Rock			860	978	
2nd Salt Sand			978	988	
Shale			988	1115	
Sand			1115	1130	
Sand & Shale			1130	1902	Water @ 1430'
Big Lime			- 1902	1958	
Injun Sand			1958	2024	
Sand & Shale			2024	2202	
Weir Sand			2202	2308	
Sand & Shale			2308	2415	
		total depth		2415 (Driller)	

(Attach separate sheets if complete as necessary)

Allegheny Land & Mineral Company  
Well Operator

By Claron Dawson

Its Superintendent

NOTE: Regulation 8.011 provides as follows:

"The term 'log' or 'well log' shall mean a systematic, detailed geological record of all formations, including all the interval in the drilling of a well."

ALLEGHENY LAND AND MINERAL CO.

Under this lease or grant dated the 1st day of August, 1907, by D. W. Gray, etux unto Hope Natural Gas Company, subsequently Consolidated Gas Supply Corporation.

This lease was recorded on the 26th day of January, 1902 in Lease Book 30, Page 148 in the Office of the County Clerk of Doddridge County, West Virginia.

Allegheny Land and Mineral Company is vested with the drilling rights of this lease by virtue of an assignment dated the 15th day of November, 1957 and is of record in the office of the County Clerk of Doddridge County in Book 60, Page 84.



STATE OF WEST VIRGINIA  
DEPARTMENT OF MINES

Oil and Gas Division

OIL AND GAS WELL PERMIT APPLICATION

TO THE DEPARTMENT OF MINES,

Charleston, W. Va.

Richard Crofford

Surface Owner Route 1, Box 93  
Address West Union, WV 26456

Mineral Owner Hayward Gray  
Address Ellenboro, WV 26346


Coal Owner Hayward Gray  
Address Ellenboro, WV 26346

Coal Operator none  
Address \_\_\_\_\_

DATE November 14, 1978  
Company ALLEGHENY LAND AND MINERAL CO.  
P. O. DRAWER 1740  
Address Clarksburg, West Virginia 26301  
Farm Lloyd Gray Acres 318.23  
Location (waters) Sugar Run  
Well No. A-791 Elevation 1027'  
District Southwest County Doddridge  
Quadrangle Holbrook (15')

THIS PERMIT MUST BE POSTED AT THE WELL SITE

All provisions being in accordance with Chapter 22, of the W. Va. Code, the location is hereby approved for drilling. This permit shall expire if operations have not commenced by 3-20-79.

  
Deputy Director - Oil & Gas Division

INSPECTOR  
TO BE NOTIFIED Paul Garrett  
321 Beech Street  
ADDRESS Clarksburg, WV 26301  
PHONE 622-3871

GENTLEMEN:

The undersigned well operator is entitled to drill upon the above named farm or tract of land for oil and gas, having fee title thereto, (or as the case may be) under grant or lease dated see attached 19\_\_\_\_ by \_\_\_\_\_ made to \_\_\_\_\_ and recorded on the \_\_\_\_\_ day of \_\_\_\_\_ 19\_\_\_\_, in \_\_\_\_\_ County, Book \_\_\_\_\_ Page \_\_\_\_\_

XX NEW WELL \_\_\_\_\_ DRILL DEEPER \_\_\_\_\_ REDRILL \_\_\_\_\_ FRACTURE OR STIMULATE  
\_\_\_\_\_ OIL AND GAS WELL ORIGINALLY DRILLED BEFORE JUNE 5, 1969.

The enclosed plat was prepared by a registered engineer or licensed land surveyor and all coal owners and/or operators have been notified as of the above date.


The above named coal owners and/or operator are hereby notified that any objection they wish to make, or are required to make by Section 3 of the Code, must be received by, or filed with the Department of Mines within ten (10) days. \*

Copies of this notice and the enclosed plat were mailed by registered mail, or delivered to the above named coal operators or coal owners at their above shown respective address \_\_\_\_\_ day \_\_\_\_\_ before, or on the same day with the mailing or delivery of this copy to the Department of Mines at Charleston, West Virginia.

PLEASE SUBMIT COPIES OF ALL  
GEOPHYSICAL LOGS DIRECTLY TO:

WEST VIRGINIA GEOLOGICAL AND  
ECONOMIC SURVEY  
P. O. BOX 879  
MORGANTOWN, WEST VIRGINIA 26505  
AC-304 - 292-6331

Address  
of  
Well Operator

Very truly yours,  
  
(Sign Name) \_\_\_\_\_ Manager  
ALLEGHENY LAND AND MINERAL COMPANY  
Land, Lease and Right of Way  
P. O. Drawer 1740  
\_\_\_\_\_  
Street  
Clarksburg  
\_\_\_\_\_  
City or Town  
West Virginia 26301  
\_\_\_\_\_  
State

\*SECTION 3 . . . . If no objections are filed or found by the Department of mines, within said period of ten days from the receipt of notice and plat by the department of mines, to said proposed location, the department shall forthwith issue to the well operator a permit reciting the filing of such plat, that no objections have been made by the coal operators or found thereto by the department and that the same is approved and the well operator authorized to proceed.

DODD-2318 PERMIT NUMBER  
47-017

"I have read and understand the reclamation requirements as set forth in Chapter 22, Article 4, Section 12-b and will carry out the specified requirements."

Signed by \_\_\_\_\_

BLANKET BOND

THIS IS AN ESTIMATE ONLY  
ACTUAL INFORMATION WILL BE SUBMITTED ON OG-10 UPON COMPLETION

PROPOSED WORK ORDER TO XX DRILL \_\_\_\_\_ DEEPEN \_\_\_\_\_ FRACTURE-STIMULATE \_\_\_\_\_  
 DRILLING CONTRACTOR: (If Known) \_\_\_\_\_ RESPONSIBLE AGENT: \_\_\_\_\_  
 NAME \_\_\_\_\_ NAME Allegheny Land and Mineral Company  
 ADDRESS \_\_\_\_\_ ADDRESS P. O. Drawer 1740  
 TELEPHONE \_\_\_\_\_ TELEPHONE 304 623-6671  
 ESTIMATED DEPTH OF COMPLETED WELL: 2300' ROTARY XX CABLE TOOLS \_\_\_\_\_  
 PROPOSED GEOLOGICAL FORMATION: Weir  
 TYPE OF WELL: OIL \_\_\_\_\_ GAS XX COMB. \_\_\_\_\_ STORAGE \_\_\_\_\_ DISPOSAL \_\_\_\_\_  
 RECYCLING \_\_\_\_\_ WATER FLOOD \_\_\_\_\_ OTHER \_\_\_\_\_

TENTATIVE CASING PROGRAM:

CASING AND TUBING SIZE	USED FOR DRILLING	LEFT IN WELL	CEMENT FILL UP OR SACKS - CUBIC FT.
20 - 16	20'	20'	cement to surface
13 - 10			
9 - 5/8			
8 - 5/8	550'	550'	cement to surface
7			
5 1/2			cement to 300' above
4 1/2	2300'	2300'	producing horizon
3			Perf. Top
2			Perf. Bottom
Liners			Perf. Top
			Perf. Bottom

APPROXIMATE FRESH WATER DEPTHS 30-60 FEET \_\_\_\_\_ SALT WATER \_\_\_\_\_ FEET \_\_\_\_\_  
 APPROXIMATE COAL DEPTHS 87 - 125 - 182 \_\_\_\_\_  
 IS COAL BEING MINED IN THE AREA? NO BY WHOM? \_\_\_\_\_

TO DRILL:

SUBMIT FIVE (5) COPIES OF OG - 1, \$100.00 PERMIT FEE, PERFORMANCE BOND AND PERMANENT COPY OF PLAT.

TO DRILL DEEPER OR REDRILL:

SUBMIT FIVE (5) COPIES OF OG - 1, SHOWING ORIGINAL PERMIT NUMBER AND PERFORMANCE BOND. ON WELLS DRILLED PRIOR TO 1929, A PERMANENT COPY OF THE PLAT AND THE ORIGINAL WELL RECORD MUST ALSO BE SUBMITTED.

TO FRACTURE - STIMULATE:

OIL AND/OR GAS WELL ORIGINALLY DRILLED BEFORE JUNE 5, 1929, FIVE (5) COPIES OG - 1, PERFORMANCE BOND, PERMANENT PLAT AND ORIGINAL WELL RECORD.

OIL AND/OR GAS WELL ORIGINALLY DRILLED ON AND/OR AFTER JUNE 5, 1929, FIVE COPIES OG - 1, SHOWING ORIGINAL PERMIT NUMBER, AND PERFORMANCE BOND.

Required forms must be filed within ninety (90) days of completion for bond release. Inspector to be notified twenty-four (24) hours in advance.

The following waiver must be completed by the coal operator if the permit is to be issued within ten days of receipt thereof.

WAIVER: I the undersigned, Agent for \_\_\_\_\_ Coal Company, Owner or Operator of the coal under this lease have examined and place on our mine maps this proposed well location.

We the \_\_\_\_\_ Coal Company have no objections to said well being drilled at this location, providing operator has complied with all rules and regulations in Articles 4, 5, and 7, Chapter 22 of the West Virginia Code.

\_\_\_\_\_  
For Coal Company

\_\_\_\_\_  
Official Title