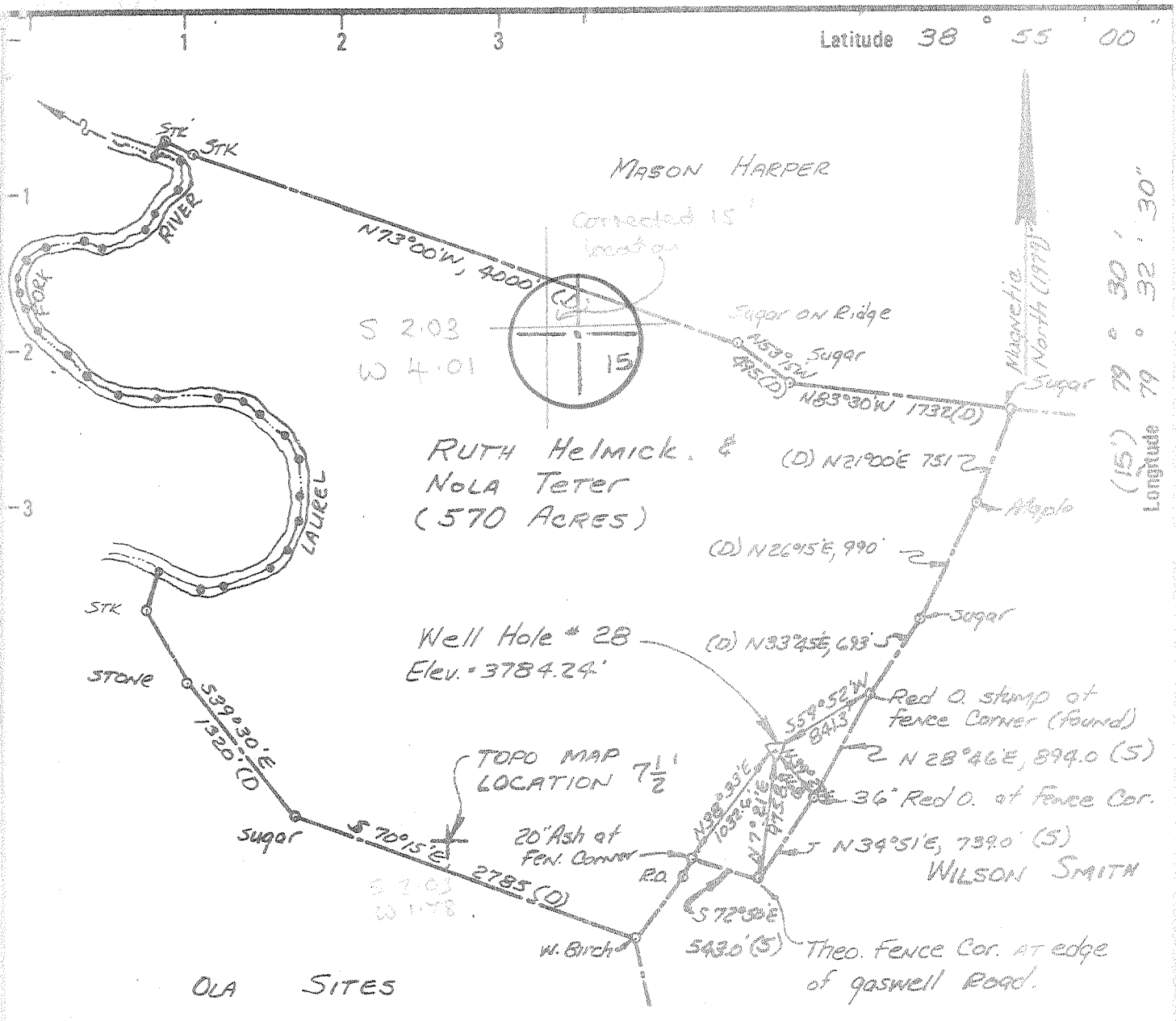


Latitude 38° 55' 00"

Longitude 79° 30' 30"
 (15') Longitude 79° 32' 30"



(S) = Surveyed Call
 (D) = Deed Call

New Location <input checked="" type="checkbox"/> Drill Deeper <input type="checkbox"/> Abandonment <input checked="" type="checkbox"/> 8/11/79 <i>RS</i>	Minimum Error of Closure 1 IN 2500 Source of Elevation USGS BM. ON NORTH SIDE OF US 33 5/8 of a mile southeast of Laurel Fork Bridge = 2959.00' "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."
---	--

Company	Hampshire Gas Co.		
Address	6801 INDUSTRIAL ROAD, SPRINGFIELD, Va.		
Farm	HELMICK/TETER		
Tract	Acres	Lease No.	
	570	43	
Well (Farm) No.	28	Serial No.	
Elevation (Spirit Level)	3784.24'		EC
Quadrangle	HORTON 15' HARMAN (7 1/2 Minute)		
County	District		
Randolph	Dry Fork		
Engineer	William D. Sweeber		
Engineer's Registration No.	5953		
File No.	Drawing No.		
	H-28		
Date	Scale		
Jan. 18 1979	1" = 1200'		

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

WELL LOCATION MAP
 FILE NO. 47-083-0257-P

+ Denotes location of well on United States Topographic Maps, scale 1 to 24,000 latitude and longitude lines being represented by border lines as shown.
 - Denotes one inch spaces on border line of original tracing.

SEP 18 1979

9700' Birch DEEPWELL

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

Date: August 28, 1979

FORM 17-15
(Obverse)

Well No. Hamp Well #28

[08-78]

WELL OPERATOR'S REPORT
OF

47-083-0257

Access

WELL TYPE: Oil XX / Gas XX / *Drif* / Acid Infection XX / Waste Disposal XX
 (If "Gas", Production XX / Underground storage XX / Gas: XX / XX
 LOCATION: Elevation: 3784.24 Waterbed: Between Dry Fork and Laurel Fork
 District: Dry Fork County: Randolph Supervisor: Harman

WELL OPERATOR: Hampshire Gas Company DESIGNATED AGENT: Charles Griffith
 Address: 6801 Industrial Road Springfield, Virginia 22151
P.O. Box 368
Romney, West Virginia 26757

ADMITTED WORK: Drill XX / Stagger XX / Drill deeper XX / Fracture or stimulate XX
 Plug off old formation XX / Perforate new formation XX
 Other physical change in well (specify) _____

RECEIVED

AUG 30 1979

WELL LOGGED ON February 9, 1979 OIL & GAS DIVISION FIELD WORK
 Name: Robert Stewart & GAS DIVISION
 Address: DEPT. OF MINES
Jane Lew, West Virginia 26378

GEOLOGICAL TARGET FORMATION: Oriskany Sandstone Depth: 9092 feet
 Depth of completed well, 9365 feet Rotary XX / Cable Tools XX
 Water strata depth: Fresh, 130 feet; salt, n/a feet.
 Coal seam depths: n/a Is coal being mined in the area? No
 Work was commenced April 14, 1979, and completed August 11, 1979

CASING AND TUBING PROGRAM

CASING OR TUBING TYPE	SPECIFICATIONS				FOOTAGE INTERVALS		CEMENT FILLING OR SACKS (Cubic Feet)	PACKERS		
	Size	Grade	Weight per ft	New	Used	For drilling		Left in well	Kinds	
Stamper	13-3/8	H40	48	x		80.06	80.06	60 sks RFC	Kinds	N/A
Flow water	9-5/8	J55	36	x		2331.20	2331.20)	445 sks RFC		
Flow water	9-5/8	N80	36	x		71.24	71.24)	200 sks Class 'A'		
Intermediate										
Production	7"	P110	26	x		3079.93	1814.12)			Positive set
Production	7"	N80	26	x		1744.32	--)	160 sks		
Production	7"	N80	23		x	3006.35	--)	Class 'A'	Perforations:	N/A
Production	7"	J55	26		x	1289.25	--)		Top	Bottom
Tubing	2-3/8	J55	4-6		x	9225	--			

PERM FLGWA DATA

Producing formation: _____ Pay zone depth: _____ feet
 Gas: Initial open flow, 0 Mcf/d Oil: Initial open flow, N/A Bbl/d
 Final open flow, 0 Mcf/d Final open flow, N/A Bbl/d
 Time of open flow between initial and final tests, _____ hours
 Static rock pressure, _____ psig (surface measurement) after _____ hours shut in
 [If not feasible due to multiple completion--]
 Second producing formation: _____ Pay zone depth: _____ feet
 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 measurement) after _____ hours shut in

SEP 18 1979

[08-78]

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

Oriskany formation was fractured with 1340 barrels of gelled water, 15,000 lb 80/100 mesh sand; 65,000 lb 20/40 mesh sand. Average rate was 22 bbl/min at 3300 psi. Shut in pressure was 3175 psig.

WELL LOG

FORMATION	Color	Hard or Soft	Top Feet	Bottom Feet	Remarks Including indication of all fresh and salt water, coal, oil and gas
Shale with interbedded sandstone and streaks of limestone	Red	Hard	0	750	Mauch chunk
Limestone	Medium Brown	Soft	750	1180	Greenbriar
Shales & sandstone	Red & Med. Grey	Soft w/ some hard streaks	1180	3310	Catskill
Shale, silty, streaks of siltstone and some thick sands	Med. Grey	Soft	3310	7810	Chemung
Shale, streaks of dark shale	Med. Grey	Soft	7810	8472	Portage
Shale, calcareous	Dk. grey to black	Soft	8472	8518	Harrell
Shale	Dk. grey to black	Soft	8518	8836	Hamilton
Shale	Black	Soft	8836	8950	Marcellus
Metabentonite	Red/Brown	Soft	8950	8951	Tioga
Limestone	Dk. grey	Soft	8951	8980	Onondaga
Chert	White	Hard	8980	9004	Huntersville
Shale	Light grey	Soft	9004	9092	Needmore
Sandstone-Argil., v. calc.	Milky to clear wh.	Hard	9092	9315	Oriskany
Limestone w/chert	Lt. brown to lt. grey	Hard	9315	9365	Heiderberg

(Attach separate sheets to complete as necessary)

HAMPSHIRE GAS COMPANY
Well Operator

By Harry L. Ketcham, Jr.
Its Superintendent, Natural Gas Prod. & Storage

NOTE: Regulation 2.02(f) provides as follows:

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



STATE OF WEST VIRGINIA
DEPARTMENT OF MINES

RECEIVED
FEB - 8 1979

OIL & GAS DIVISION
DEPT. OF MINES

Oil and Gas Division

OIL AND GAS WELL PERMIT APPLICATION

TO THE DEPARTMENT OF MINES,
Charleston, W. Va.

DATE February 6, 1979

Surface Owner Ruth Helmick/Nola Teter

Company HAMPSHIRE GAS COMPANY

Address Brandywine, West Virginia 26802

Address 6801 Industrial Road, Springfield Va., 22151

Mineral Owner same as above

Farm Helmick/Teter Acres 570

Address _____

Location (waters) Between Dry Fork & Laurel Fork

Coal Owner _____

Well No. 28 Elevation 3784.24

Address _____

District Dry Fork County Randolph

Coal Operator _____

Quadrangle Harman

Address _____

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 11-28-79.

INSPECTOR TO BE NOTIFIED Robert S. Stewart

ADDRESS Box 345, Jane Lew, West Virginia 26378

PHONE 884-7782

Robert S. Stewart
Deputy Director - Oil & Gas Division

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 August 20, 1970 by Corbitt and Martha White made to Skeen Enterprises, Inc. and recorded on the 21st day of August 1970 in Randolph County, Book 267 Page 233

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:

Very truly yours, HAMPSHIRE GAS COMPANY
(Sign Name) *[Signature]*
Well Operator

W. VA. OIL & GAS CONSERVATION COMMISSION
613 WASHINGTON STREET, EAST
CHARLESTON, WEST VIRGINIA 25311

Address of Well Operator
6801 Industrial Road Street
Springfield, Virginia 22151 City or Town
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.

BLANKET BOARD

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 Arden Drilling Company NAME Harry L. Ketcham, Jr.
 ADDRESS P.O. Box 1237, Edmond, Oklahoma 73034 ADDRESS 6801 Industrial Road, Springfield, Va.
 TELEPHONE _____ TELEPHONE (703) 750-4871
 ESTIMATED DEPTH OF COMPLETED WELL: 9700' ROTARY XX CABLE TOOLS _____
 PROPOSED GEOLOGICAL FORMATION: Oriskany Sand
 TYPE OF WELL: OIL _____ GAS XX COMB. _____ STORAGE _____ DISPOSAL _____
 RECYCLING _____ WATER FLOOD _____ OTHER _____

TENTATIVE CASING PROGRAM:

CASING AND TUBING SIZE	USED FOR DRILLING	LIFT IN WELL	CEMENT LIFT UP OR SACKS - CUBIC FT.
20 - 16			
13 - 10 13-3/8"	60'	60'	70 sacks
9 - 5/8 9-5/8"	3,000'	3,000'	1,200 sacks
8 - 5/8			
7 7"	9,500'	1,000'	160 sacks
5 1/2			
4 1/2			
3			
2 2-3/8"	9,600'	0'	Perf. Top Perf. Bottom
Liners			Perf. Top Perf. Bottom

APPROXIMATE FRESH WATER DEPTHS N/A FEET N/A SALT WATER N/A FEET N/A

APPROXIMATE COAL DEPTHS N/A

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