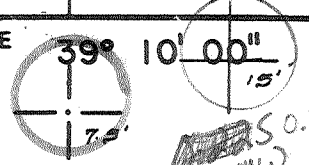


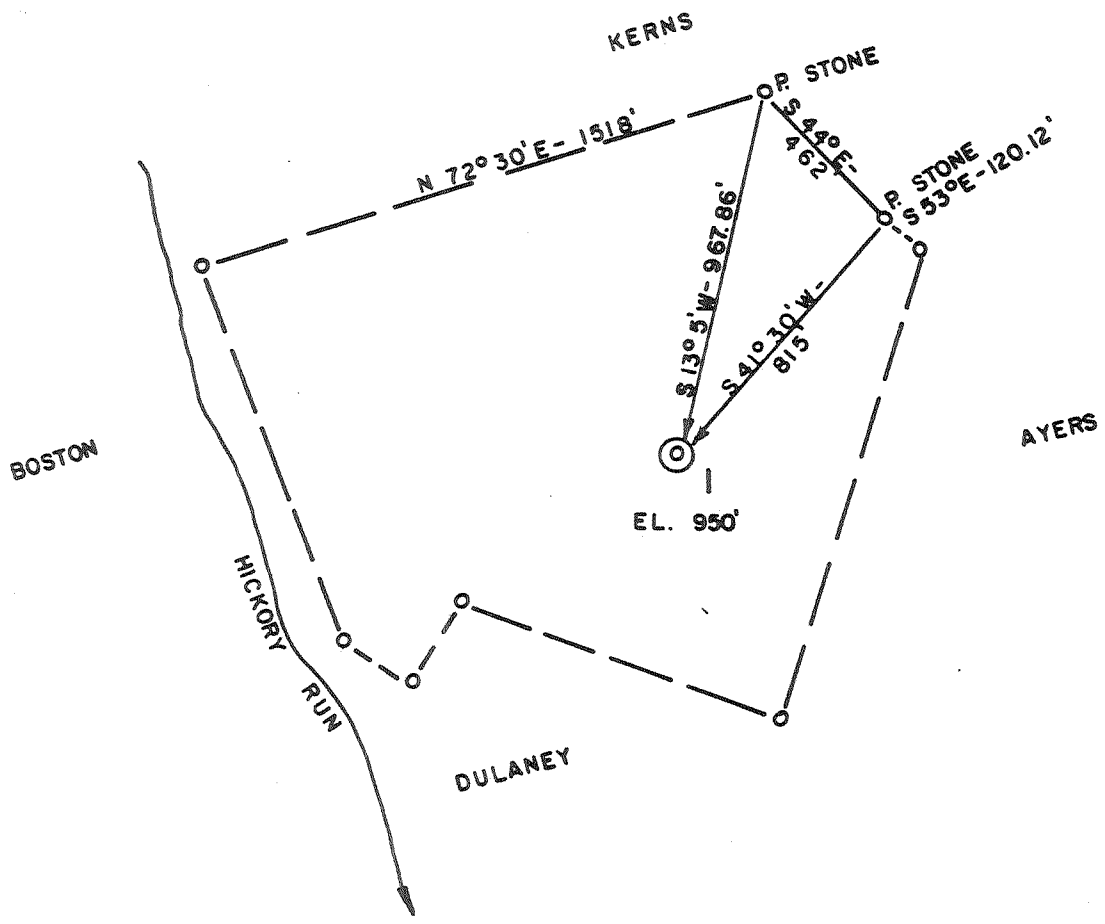
LATITUDE 39° 10' 00"  
 0.18 S  
 0.52 W



*AYERS* S 0.18  
 0.50 W  
 2

LONGITUDE 81° 15' 00"

NORTH



FILE NO. 81-551  
 DRAWING NO. \_\_\_\_\_  
 SCALE 1" = 500'  
 MINIMUM DEGREE OF ACCURACY 1/200'  
 PROVEN SOURCE OF ELEVATION NOB (1126')

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) [Signature]  
 R.P.E. 3788 L.L.S. \_\_\_\_\_

PLACE SEAL HERE

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

FORM IV-6 (8-78)



DATE 10/5, 1981  
 OPERATOR'S WELL NO. 1  
 API WELL NO. \_\_\_\_\_  
47 - 085 - 5347  
 STATE COUNTY PERMIT

STATE OF WEST VIRGINIA  
 DEPARTMENT OF MINES  
 OIL AND GAS DIVISION

WELL TYPE: OIL \_\_\_ GAS  LIQUID INJECTION \_\_\_ WASTE DISPOSAL \_\_\_  
 (IF "GAS,") PRODUCTION  STORAGE \_\_\_ DEEP \_\_\_ SHALLOW \_\_\_  
 LOCATION: ELEVATION 950 WATER SHED HICKORY RUN  
 DISTRICT GRANT COUNTY RITCHIE  
 QUADRANGLE PETROLEUM 7.5' Eliz. 15' EC  
 SURFACE OWNER WESTVACO ACREAGE 52  
 OIL & GAS ROYALTY OWNER W. AYERS LEASE ACREAGE 52  
 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 \_\_\_ CLEAN OUT AND REPLUG \_\_\_  
 TARGET FORMATION MARCELLUS SHALE ESTIMATED DEPTH 5950'  
 WELL OPERATOR WAYMAN W. BUCHANAN DESIGNATED AGENT JIM P. MORRIS  
 ADDRESS SAN ANTONIO, TX ADDRESS CHARLESTON, WV

DEC 4 1981

DEEPWELL 3-6 Burning Springs North (112)



STATE OF WEST VIRGINIA  
OFFICE OF OIL AND GAS - DEPARTMENT OF MINES

OIL AND GAS WELL PERMIT APPLICATION

WELL TYPE: Oil X / Gas X /

(If "Gas", Production x / Underground storage \_\_\_ / Deep \_\_\_ / Shallow \_\_\_ /

LOCATION: Elevation: 950 Watershed: Hickory Run  
District: Grant County: Ritchie Quadrangle: Petroleum 7.5

WELL OPERATOR Waymon W. Buchanan  
Address 444 Petroleum Commerce Bldg.  
San Antonio, Texas

DESIGNATED AGENT Jim P. Morris  
Address 414 Peoples Bldg.  
Charleston, W. Va. 26301

OIL AND GAS  
ROYALTY OWNER Willard Ayers  
Address Rt. 2, Eastwood Drive  
Parkersburg, W. Va. 26101  
Acreage 52

COAL OPERATOR NONE  
Address \_\_\_\_\_

SURFACE OWNER Westvaco  
Address \_\_\_\_\_  
Parkersburg, W. Va. 26101  
Acreage 52

COAL OWNER(S) WITH DECLARATION ON RECORD:  
NAME NONE  
Address \_\_\_\_\_

FIELD SALE (IF MADE) TO:  
NAME NONE  
Address \_\_\_\_\_

NAME \_\_\_\_\_  
Address \_\_\_\_\_

OIL AND GAS INSPECTOR TO BE NOTIFIED:  
NAME Deo Mace  
Address Route 1, Box 65  
Sandridge, West Virginia  
Telephone 1-304-655-8693

COAL LESSEE WITH DECLARATION ON RECORD:  
NAME \_\_\_\_\_  
Address \_\_\_\_\_

RECEIVED

NOV 10 1981

OIL AND GAS PERMIT  
WEST VIRGINIA

The undersigned well operator is entitled to operate for oil or gas purposes at the above location under a deed \_\_\_ / lease x / other contract \_\_\_ / dated Jan. 14 1981, to the undersigned well operator from Willard Ayers and wife, Marie Ayers.  
(If said deed, lease, or other contract has been recorded:)

Recorded on Jan. 26, 1981, in the office of the Clerk of County Commission of Ritchie County, West Virginia, in Lease 133 Book at page 726. A permit is requested as follows:

PROPOSED WORK: Drill x / Drill Deeper \_\_\_ / Redrill \_\_\_ / Fracture or stimulate \_\_\_ / Plug off old formation \_\_\_ / Perforate new formation \_\_\_ / Other physical change in well (specify) \_\_\_\_\_

--planned as shown on the work order on the reverse side hereof.

The above named coal operator, coal owner(s), and coal lessee are hereby notified that any objection they wish to make or are required to make by Code §22-4-3 must be filed with the Department of Mines within fifteen (15) days after receipt of this Application by the Dept. Copies of this Permit Application and the enclosed plat and reclamation plan have been mailed by registered mail or delivered by hand to the above named coal operator, coal owner(s), and coal lessees on or before the day of the mailing or delivery of this Application to the Department of Mines at Charleston, West Virginia.

PLEASE SUBMIT COPIES OF ALL GEOPHYSICAL LOGS DIRECTLY TO:

WEST VIRGINIA OIL AND GAS CONSERVATION COMMISSION  
1613 WASHINGTON ST., E.  
CHARLESTON, WV 25311  
Telephone - 304/348-3092

STAMPED BOND

By: Waymon W. Buchanan  
Well Operator  
By: Jim P. Morris  
Jim P. Morris  
Its: Designated Agent

(Revised 3-81)

PROPOSED WORK ORDER

THIS IS AN ESTIMATE ONLY:  
ACTUAL INFORMATION MUST BE SUBMITTED ON FORM IV-35 UPON COMPLETION

DRILLING CONTRACTOR (IF KNOWN) Gene Stalnaker

Address P. O. Box 178

Glenville, W. Va. 26351

MARCELLUS SHALE

GEOLOGICAL TARGET FORMATION Devonian Shale

Estimated depth of completed well 5775' feet. Rotary x / Cable tools    /

Approximate water strata depths: Fresh, 78' feet; salt,    feet.

Approximate coal seam depths: NONE

Is coal being mined in this area: Yes    / No x /

CASING AND TUBING PROGRAM

CASING OR TUBING TYPE	SPECIFICATIONS					FOOTAGE INTERVALS		CEMENT FILL-UP OR SACKS Cubic ft.	PACKERS
	Size	Grade	Weight per ft	New	Used	For Drill-ling	Left in Well		
Conductor	11 3/4		37#	X			150'	Circulate	Kinds
Fresh water									
Coal									Sizes
Intermed.	8 5/8		23#	X			1900'	Circulate	
Production	4 1/2	ERW	10.5	X			5775'	400 sks	Depths set
Tubing									
Liners									Perforations:
									Top Bottom

*NOTE: Regulation 7.02 of the Department of Mines provides that the original and four copies of Form IV-2 must be filed with the Department, accompanied by (i) a plat in the form prescribed by Regulation 11, (ii) a bond in one of the forms prescribed by Regulation 12, or in lieu thereof the other security allowed by Code §22-4-2, (iii) Form IV-9, "Reclamation Plan" applicable to the reclamation required by Code §22-4-12b and Regulation 23, (iv) unless previously paid on the same well, the fee required by Code §22-4-12a, and (v) if applicable, the consent required by Code §22-4-8a from the owner of any water well or dwelling within 200 feet of the proposed well.*

*A separate Form IV-2 shall not be required for fracturing or stimulating a well where fracturing or stimulating is to be part of the work for which a permit is sought and is noted as such on the Form IV-2 filed in connection therewith.*

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 7-17-82.

*[Signature]*  
Deputy Director - Oil & Gas Division

The following waiver must be completed by the coal operator and by any coal owner or coal lessee who has recorded a declaration under Code §22-4-20, if the permit is to be issued within fifteen (15) days of receipt thereof:

W A I V E R

The undersigned coal operator    / owner    / lessee    / of the coal under this well location has examined this proposed well location. If a mine map exists which covers the area of the well location, the well location has been added to the mine map. 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 regularions.

Date:   , 19   .

By:   

Its:



Date August 25, 1982

Operator's W. Ayers #1  
Well No. W. Ayers  
Farm W. Ayers  
API No. 47 - 85 - 5347

State of West Virginia  
Department of Mines  
Oil and Gas Division

JUN 27 1983

WELL OPERATOR'S REPORT  
OF  
DRILLING, FRACTURING AND/OR STIMULATING, OR PHYSICAL CHANGE

WELL TYPE: Oil \_\_\_ / Gas X / Liquid Injection \_\_\_ / Waste Disposal \_\_\_ /  
(If "Gas," Production \_\_\_ / Underground Storage \_\_\_ / Deep \_\_\_ / Shallow X /)

LOCATION: Elevation: 950 Watershed Hickory Run  
District: Grant County Ritchie Quadrangle Petroleum 7.5'

COMPANY Wayman W. Buchanan  
ADDRESS 444 Petroleum Commerce Bldg. San Antonio, Texas 78205  
DESIGNATED AGENT Jim P. Morris  
ADDRESS 401 Peoples Building Charleston, WV 25301  
SURFACE OWNER Westvaco  
ADDRESS Parkersburg, WV 26101  
MINERAL RIGHTS OWNER Willard Ayers  
ADDRESS Rt. 2, Eastwood Drive Parkersburg, WV  
OIL AND GAS INSPECTOR FOR THIS WORK Deo Mace  
ADDRESS Rt. 1, Box 65 Sandridge, WV  
PERMIT ISSUED 11/03/81  
DRILLING COMMENCED 12/7/82  
DRILLING COMPLETED 12/17/82

Casing & Tubing	Used in Drilling	Left in Well	Cement fill up Cu. ft.
Size 20-16 Cond.			
13-10"		100	Circ.
9 5/8			
8 5/8		2018	Circ.
7			
5 1/2			
4 1/2		5880	580 sks.
3			
2			
Liners used			

IF APPLICABLE: PLUGGING OF DRY HOLE ON CONTINUOUS PROGRESSION FROM DRILLING OR REWORKING. VERBAL PERMISSION OBTAINED ON: \_\_\_\_\_

GEOLOGICAL TARGET FORMATION Marcellus Shale Depth 5950 feet  
Depth of completed well 5884 feet Rotary X / Cable Tools \_\_\_\_\_  
Water strata depth: Fresh 45 feet; Salt 1814 feet  
Coal seam depths: None Is coal being mined in the area? No

OPEN FLOW DATA  
Producing formation Devonian Shale Pay zone depth 3976-3716 feet  
Gas: Initial open flow Show Mcf/d Oil: Initial open flow 0 Bbl/d  
Final open flow 220 Mcf/d Final open flow 0 Bbl/d  
Time of open flow between initial and final tests 3 hours  
Static rock pressure 550 psig (surface measurement) after 24 hours shut in  
(If applicable due to multiple completion--)  
Second producing formation None Pay zone depth \_\_\_\_\_ feet  
Gas: Initial open flow \_\_\_\_\_ Mcf/d Oil: Initial open flow \_\_\_\_\_ Bbl/d  
Final open flow \_\_\_\_\_ Mcf/d Oil: Final open flow \_\_\_\_\_ Bbl/d  
Time of open flow between initial and final tests \_\_\_\_\_ hours  
Static rock pressure \_\_\_\_\_ psig (surface measurement) after \_\_\_\_\_ hours

JUN 27 1983

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

Perforations from 3976 to 3716 *Huron*  
 Acidized with 1500 gals. acid, with 36,000 scf Nitrogen.  
 Fractured with 2,000,000 scf Nitrogen

*2001 7 8 MUL*

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS Including indication of all free and salt water, coal, oil and gas
Redrock, shale & sand			0	110	Gas show at 3425' to 5800'
Redrock & shale			110	335	
Sand & redrock			335	515	
Shale			515	894	
Sand			894	971	
Shale interbedded w/sand			971	1246	
Shale			1246	1280	
Sand			1280	1406	
Shale			1406	1530	
Sand			1530	1613	
Shale			1613	1630	
Sand			1630	1748	
Break			1748	1752	
Big Lime			1752	1814	
Injun			1814	1840	
Squaw			1840	1926	
Shale			1926	2300	
Coffee Shale			2300	2311	
Berea			2311	2314	
Gray shale			2314	4200	
Huron Shale			4200	4447	
Shale			4447	5317	
Rhinestreet Shale			5317	5495	
Shale			5495	5650	
Marcellus Shale			5650	5722	
Break			5722	5730	
Onondaga Limestone			5730	5884	
TD			5884		

*5884*  
*5495*  
*389' expl. log*

*5730*  
*950*  
*4780*  
*5730*  
*2314*  
*3416*

(Attach separate sheets as necessary)

Wayman W. Buchanan  
 Well Operator  
 By: *[Signature]*  
 Date: August 25, 1982

Note: Regulation 0.02(d) provides as follows:  
 "The term 'log' or 'well log' shall mean a systematic  
 description of all formations, including  
 encountered in the drilling of a well."