

8/15 9/3/87

6520'

LATITUDE 39°22'30"

CUMBERLEDGE

ROWAND

S53°W, 957'

S77°32'W, 533.63' NO.1

STONE (FOUND)

S4°E, 1198.45'

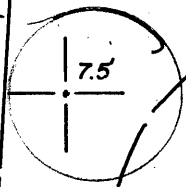
N18°28'E, 1381.90'

STONE (HICKORY DOWN)

S75°E, 668.25'

CUMBERLEDGE

1345  
1220



NO. 1 2400'

3575 (25) 1838'

4.22  
3.46

NORTH

LONGITUDE 80° 47' 30"

7135'

KEYS

WELL REFERENCES:

- N81°E, 95.5' TO 10" BLACK WALNUT
- S4°30'E, 149' TO 13" BLACK WALNUT

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" = 400'  
 MINIMUM DEGREE OF ACCURACY 1 IN 200  
 PROVEN SOURCE OF ELEVATION B.M. 2380' S.E. OF LOC. AT ELEV. 749'

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. \_\_\_\_\_ L.L.S. NO. 674  
 STEPHEN D. LOSH



PLACE SEAL HERE

STATE OF WEST VIRGINIA  
 DEPARTMENT OF ENERGY  
 OIL AND GAS DIVISION



DATE AUGUST 21, 19 87  
 OPERATOR'S WELL NO. SMITH 1  
 API WELL NO.

WELL TYPE: OIL \_\_\_ GAS X LIQUID INJECTION \_\_\_ WASTE DISPOSAL \_\_\_ STATE COUNTY PERMIT  
 (IF "GAS,") PRODUCTION X STORAGE \_\_\_ DEEP \_\_\_ SHALLOW X  
 LOCATION: ELEVATION 826' WATER SHED CAMP MISTAKE RUN  
 DISTRICT CENTERVILLE COUNTY TYLER  
 QUADRANGLE WEST UNION 7.5' 671 1336 EC  
 SURFACE OWNER ASIA DELL CUMBERLEDGE ACREAGE 27.5  
 OIL & GAS ROYALTY OWNER JOS. SMITH HRS LEASE ACREAGE 27.5  
 LEASE NO. \_\_\_\_\_

PROPOSED WORK: DRILL X 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 BENSON ESTIMATED DEPTH 5100' SEP 21 1987  
 WELL OPERATOR STONEWALL GAS COMPANY DESIGNATED AGENT CHARLES CANFIELD  
 ADDRESS P.O. DRAWER R ADDRESS P.O. DRAWER R  
 JANE LEW, WV 26378-0080 847 JANE LEW, WV 26378-0080

COUNTY NAME PERMIT

FORM WV-6

6-6 Wilbur (92)



RECEIVED  
OCT 15 1987

State of West Virginia  
DEPARTMENT OF ENERGY  
Oil and Gas Division

Date OCTOBER 7, 87  
Operator's  
Well No. SMITH #1 228-S  
Farm SMITH  
API No. 47 - 095 - 1212

DIVISION OF OIL & GAS  
DEPARTMENT OF ENERGY

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 X / Underground Storage \_\_\_ / Deep \_\_\_ / Shallow X /)

LOCATION: Elevation: 826 Watershed CAMP MISTAKE RUN  
District: CENTERVILLE County TYLER Quadrangle WEST UNION 7.5

COMPANY STONEWALL GAS COMPANY

ADDRESS PO DRAWER R, JANE LEW, WV 26378

DESIGNATED AGENT CHARLES W. CANFIELD

ADDRESS PO DRAWER R, JANE LEW, WV 26378

SURFACE OWNER HESTER BRITTON ET AL

ADDRESS PO BOX 355, ST MARYS, WV 26170

MINERAL RIGHTS OWNER SAME AS SURFACE

ADDRESS \_\_\_\_\_

OIL AND GAS INSPECTOR FOR THIS WORK ROBERT

LOWTHER ADDRESS MIDDLEBOURNE, WV 26149

PERMIT ISSUED SEPTEMBER 18, 87

DRILLING COMMENCED SEPTEMBER 24, 87

DRILLING COMPLETED SEPTEMBER 30, 87

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

Casing Tubing	Used in Drilling	Left in Well	Cement fill up Cu. ft.
Size 20-16 Cond.			
11 3/4" 13-10"	258	258	120 SKS
9 5/8			
8 5/8	1939	1939	430 SKS
7			
5 1/2			
4 1/2	4868	4868	210 SKS
3			
2			
Liners used			

GEOLOGICAL TARGET FORMATION BENSON Depth 4710 feet

Depth of completed well 4868 feet Rotary X / Cable Tools \_\_\_\_\_

Water strata depth: Fresh 60 feet; Salt 1357 feet

Coal seam depths: N/A Is coal being mined in the area? NO

OPEN FLOW DATA

Producing formation BENSON Pay zone depth 4710 feet

Gas: Initial open flow 94 Mcf/d Oil: Initial open flow N/A Bbl/d

Final open flow 919 Mcf/d Final open flow N/A Bbl/d

Time of open flow between initial and final tests 48 hours

Static rock pressure 1400 psig (surface measurement) after 72 hours shut in  
(If applicable due to multiple completion--)

Second producing formation RILEY Pay zone depth 4290 feet

Gas: Initial open flow 94 Mcf/d Oil: Initial open flow N/A Bbl/d

Final open flow 919 Mcf/d Oil: Final open flow N/A Bbl/d

Time of open flow between initial and final tests 48 hours

Static rock pressure 1400 psig (surface measurement) after 72 hours shut in

OCT 26 1987

(Continue on reverse side)

DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC.  
 FRAC TWO STAGES 10/6/87

PERFS	HOLES	BBL	SAND	B.D.	I.S.I.P.
BENSON 4713-4718	15	780	60,000#	2100#	1450#
<u>Riley</u> 4293-4297	12	650	60,000#	1700#	1930#

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS Including indication of all and salt water, coal, oil and
FILL	RED	SOFT	0	10	H <sub>2</sub> O 25' 1" STREAM
CLAY, SAND	WHITE	SOFT	10	292	H <sub>2</sub> O 60' ½" STREAM
SHALE & RED ROCK	RED	SOFT	292	750	H <sub>2</sub> O 560' 1" STREAM
SAND & SHALE	LIGHT GREY	SOFT	750	1290	
SHALE	GREY	SOFT	1290	1690	
BIG LIME	GREY	HARD	1690	1780	
BIG INJUN	GREY	SOFT	1780	1880	GAS CK @ 1880 NO SHOW
WEIR	GREY	SOFT	2030	2140	
BEREA	GREY	SOFT	2240	2330	
GORDON	GREY	SOFT	2440	2490	GAS CK @ 2519 NO SHOW
RILEY	BROWN	HARD	4290	4380	GAS CK @ 4675 NO SHOW
<u>BENSON</u>	BROWN	HARD	4710	4780	GAS CK @ 4771 80/10 1" H <sub>2</sub> O
T.D.				<u>4929</u>	GAS CK @ TD 60/10 1" H <sub>2</sub> O

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 OCT 15 1987

DIVISION OF OIL & GAS  
 DEPARTMENT OF ENERGY

(Attach separate sheets as necessary)

STONEWALL GAS COMPANY

Well Operator

By: Benjamin A. Hardesty  
 BENJAMIN A. HARDESTY, VICE PRESIDENT

Date: \_\_\_\_\_

Note: Regulation 2.02(i) provides as follows:  
 "The term 'log' or 'well log' shall mean a systematic  
 detailed geological record of all formations, including  
 ... of a well."



1) Date: SEPTEMBER 1, 19 87  
2) Operator's Well No. SMITH #1 228-S  
3) API Well No. 47 095 1212  
State County Permit

RECEIVED  
SEP 02 1987

STATE OF WEST VIRGINIA  
DEPARTMENT OF ENERGY, OIL AND GAS DIVISION  
APPLICATION FOR A WELL WORK PERMIT

DIVISION OF OIL & GAS  
DEPARTMENT OF ENERGY

4) WELL TYPE: A Oil  / Gas \_\_\_\_\_  
B (If "Gas", Production  / Underground storage \_\_\_\_\_ / Deep \_\_\_\_\_ / Shallow )  
5) LOCATION: Elevation: 826 / Watershed: CAMP MISTAKE RUN  
District: CENTERVILLE / County: TYLER 095 / Quadrange: WEST UNION 670  
6) WELL OPERATOR STONEWALL GAS CODE: 47850 / 7) DESIGNATED AGENT CHARLES CANFIELD  
Address PO DRAWER R / Address PO DRAWER R  
JANE LEW, WV 26378-0080 / JANE LEW, WV 26378-0080  
8) OIL & GAS INSPECTOR TO BE NOTIFIED  
Name ROBERT LOWTHER / 9) DRILLING CONTRACTOR:  
Address GENERAL DELIVERY / Name UNKNOWN  
MIDDLEBOURNE, WV 26149 / Address \_\_\_\_\_

10) PROPOSED WELL WORK: Drill  / Drill deeper \_\_\_\_\_ / Redrill \_\_\_\_\_ / Stimulate \_\_\_\_\_  
Plug off old formation \_\_\_\_\_ / Perforate new formation \_\_\_\_\_  
Other physical change in well (specify) \_\_\_\_\_  
11) GEOLOGICAL TARGET FORMATION, BENSON  
12) Estimated depth of completed well, 5100 feet  
13) Approximate strata depths: Fresh, 241, 50, 648 feet; salt, 1316, 1692 feet.  
14) Approximate coal seam depths: UNKNOWN 746 Is coal being mined in the area? Yes \_\_\_\_\_ / No   
15) CASING AND TUBING PROGRAM From Tyl-366, 870, 955, 956

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	11 3/4			X		200 <del>35</del>	200 <del>35</del>	RULE <del>150</del> 38	CSR18-11.3
Fresh water									
Coal									
Intermediate	8 5/8			X		1200	1200	RULE <del>150</del> 38	CSR18-11.3
Production	4 1/2			X		4900	4900	RULE <del>150</del> 38	CSR18-11.1
Tubing									
Liners									

OFFICE USE ONLY  
DRILLING PERMIT

47-095-1212

Permit number \_\_\_\_\_

September 18

19 87

Date

This permit covering the well operator and well location shown below is evidence of permission granted to drill in accordance with the pertinent legal requirements subject to the conditions contained herein and on the reverse hereof. Notification must be given to the District Oil and Gas Inspector. (Refer to No. 8) Prior to the construction of roads, locations and pits for any permitted work. In addition, the well operator or his contractor shall notify the proper district oil and gas inspector 24 hours before actual permitted work has commenced.)

The permitted work is as described in the Notice and Application, plat, and reclamation plan, subject to any modifications and conditions specified on the reverse hereof.

Permit expires September 18, 1989 unless well work is commenced prior to that date and prosecuted with due diligence.

Bond: <input checked="" type="checkbox"/>	Agent: <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Fee: 229 3975	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Other
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John H. Johnston by Margaret D. Hase  
Director, Division of Oil and Gas

NOTE: Keep one copy of this permit posted at the drilling location.

See the reverse side of the APPLICANT'S COPY for instructions to the well operator.