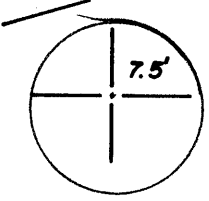
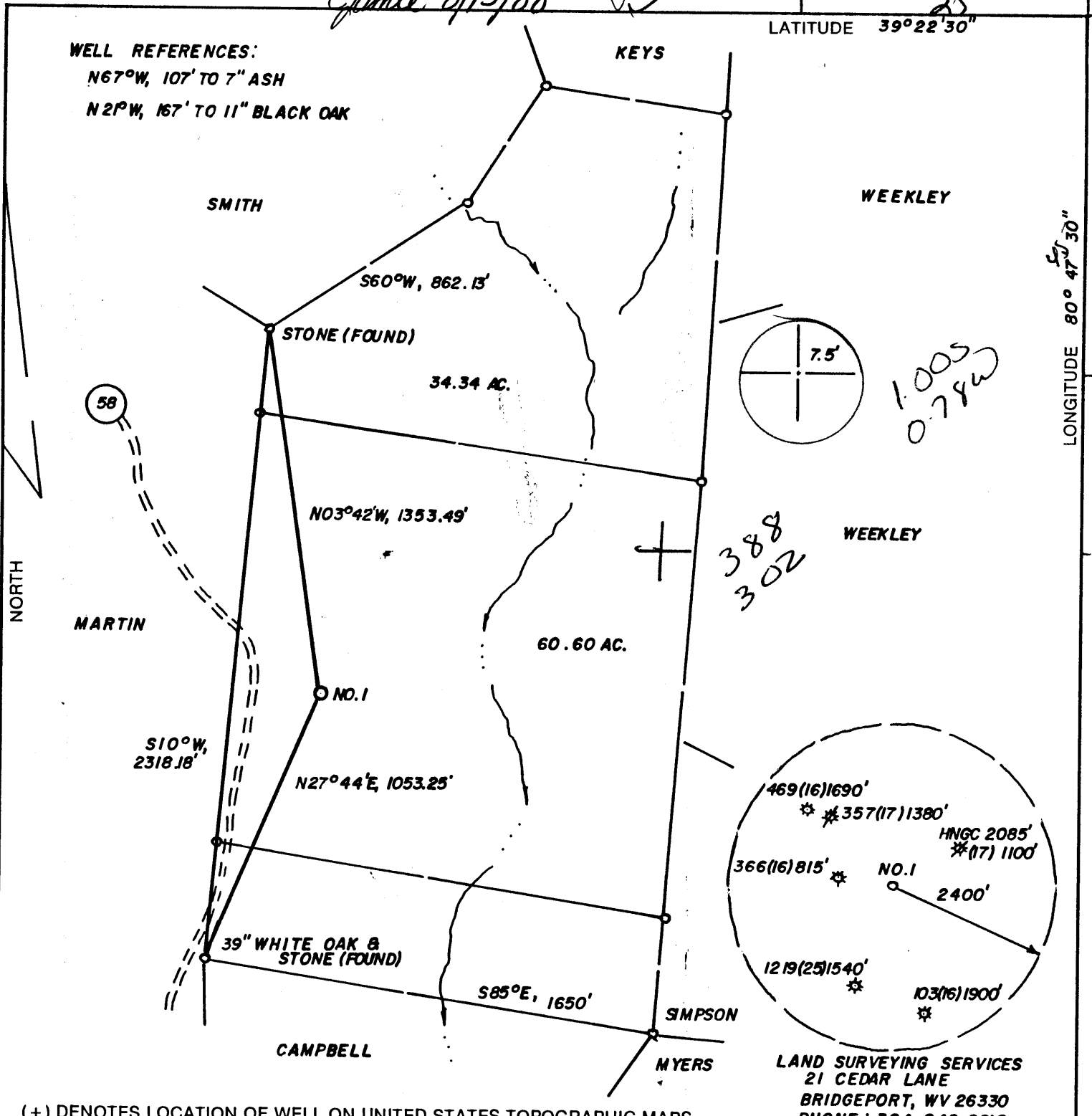


Janie 8/15/88

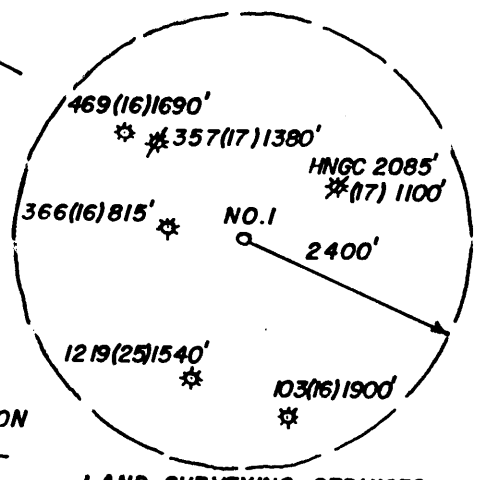
LATITUDE 39°22'30"  
 4180'  
 23'  
 LONGITUDE 80°47'30"

WELL REFERENCES:  
 N67°W, 107' TO 7" ASH  
 N2°W, 167' TO 11" BLACK OAK



388  
 302

1.005  
 500.0  
 0.780



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" = 500'  
 MINIMUM DEGREE OF ACCURACY 1 IN 200  
 PROVEN SOURCE OF ELEVATION ROAD AND CREEK INT.  
 2200' SW. OF LOC. AT ELEV. 834'

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) *[Signature]*  
 R.P.E. \_\_\_\_\_ L.L.S. NO. 674  
 STEPHEN D. LOSH



STATE OF WEST VIRGINIA  
 DEPARTMENT OF ENERGY  
 OIL AND GAS DIVISION

DATE JULY 18, 19 88  
 OPERATOR'S WELL NO. FREEMAN NO. 1  
 API WELL NO. 47-095-1257

WELL TYPE: OIL \_\_\_ GAS X LIQUID INJECTION \_\_\_ WASTE DISPOSAL \_\_\_  
 (IF "GAS,") PRODUCTION X STORAGE \_\_\_ DEEP \_\_\_ SHALLOW X

LOCATION: ELEVATION 1020' WATERSHED CAMP MISTAKE RUN  
 DISTRICT McELROY 5 COUNTY TYLER  
 QUADRANGLE WEST UNION 7.5 671 1336 +15' EC

SURFACE OWNER EDITH P. B BENTON HUSK ACREAGE 60.60  
 OIL & GAS ROYALTY OWNER E. M. B. KEYS, HRS. LEASE ACREAGE 110.  
 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 5300'  
 WELL OPERATOR STONEWALL GAS CO. DESIGNATED AGENT CHARLES CANFIELD  
 ADDRESS P. O. DRAWER R ADDRESS P. O. DRAWER R  
JANE LEW, WV 26378-0080 JANE LEW, WV 26378-0080

AUG 29 1988

4-6 Wilbur (092)

H.T. HALL 48673 FORM WW-6

COUNTY NAME PERMIT



Date NOVEMBER 11, 1988  
Operator's 377-S  
Well No. FREEMAN #1  
Farm FREEMAN  
API No. 47-095-1257

**RECEIVED**  
NOV 28 1988

State of West Virginia  
DEPARTMENT OF ENERGY  
Oil and Gas Division

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: 1020 Watershed CAMP MISTAKE RUN  
District: MC ELROY 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 BENTON EDWARD KEYS  
ADDRESS BOX 335, ROUTE 1, BUNKER HILL, WV 25413  
MINERAL RIGHTS OWNER C.W. HYLBERT  
ADDRESS 2705 MORNINGSIDE AVE. PARKERSBURG, WV 26101  
OIL AND GAS INSPECTOR FOR THIS WORK GLEN ROBINSON ADDRESS RT 1, MINERAL WELLS, WV  
PERMIT ISSUED 08-27-88  
DRILLING COMMENCED 10-18-88  
DRILLING COMPLETED 10-24-88  
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.			
13-10"	125	125	65 SKS
9 5/8			
8 5/8	1255	1255	340 SKS
7			
5 1/2			
4 1/2	5129	5129	720 SKS
3			
2 3/8		4874	
Liners used			

GEOLOGICAL TARGET FORMATION BENSON Depth 5300 feet  
Depth of completed well 5149 feet Rotary X / Cable Tools \_\_\_\_\_  
Water strata depth: Fresh 0 feet; Salt \_\_\_\_\_ feet  
Coal seam depths: 90-93 Is coal being mined in the area? NO

OPEN FLOW DATA

Producing formation BENSON Pay zone depth 4914 feet  
Gas: Initial open flow 103 Mcf/d Oil: Initial open flow N/A Bbl/d  
Final open flow 671 Mcf/d Final open flow N/A Bbl/d  
Time of open flow between initial and final tests 120 hours  
Static rock pressure 1500 psig (surface measurement) after 120 hours shut in  
(If applicable due to multiple completion--)  
Second producing formation RILEY Pay zone depth 4470 feet  
Gas: Initial open flow 102 Mcf/d Oil: Initial open flow N/A Bbl/d  
Final open flow 677 Mcf/d Oil: Final open flow N/A Bbl/d  
Time of open flow between initial and final tests 120 hours  
Static rock pressure 1500 psig (surface measurement) after 120 hours shut in

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

BENSON 4914-4921 18 HOLES 700 BBL 30# GEL 20,000 # 80-100 SAND  
50,000 # 20-40- SAND

RILEY 4470-4510 20 HOLES 700 BBL 30# GEL 20,000 # 80-100 SAND  
50,000 # 20-40 SAND

[BIG INJUN 1945-1955 10 HOLES SET TUBING PACKER AT 2055' TO ISOLATE  
BIG INJUN AT EQUITRAN'S REQUEST FOR STORAGE FIELD OBSERVATIONS.  
BIG INJUN WILL NOT BE PRODUCED.]

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS Including indication of all fresh and salt water, coal, oil and gas
GL	BROWN	SOFT	0	8	
CLAY	BROWN	SOFT	8	15	
RED ROCK			15	35	
SAND & SHALE			35	260	
RED ROCK & SHALE			260	290	
SAND & SHALE			290	384	
RED ROCK & SHALE			384	534	GAS CHECK @ 1994 NO SHOW
SAND & SHALE			534	780	
RED ROCK			780	800	GAS CHECK @ 2087 NO SHOW
SAND & SHALE			800	965	
RED ROCK & SHALE			965	1092	GAS CHECK @ 2678 80/10 1" H <sub>2</sub> O
SAND & SHALE			1092	1828	
LITTLE LIME			1828	1838	GAS CHECK @ 3586 146/10 1" H <sub>2</sub> O
SHALE			1838	1870	
BIG LIME			1870	1956	GAS CHECK @ 4581 95/10 1" H <sub>2</sub> O
INJUN SAND			1956	2060	
SHALE			2060	2654	GAS CHECK @ 5023 96/10 1½" H <sub>2</sub> O
GORDON			2654	2675	
SAND & SHALE			2675	4478	GAS CHECK \$ 5149 64/10 1½" H <sub>2</sub> O
RILEY			4478	4534	
SHALE			4534	4915	
BENSON			4915	4927	
SHALE			4927	5150	LOG TOPS
TD			5150		
					BIG LIME 1860
					BIG INJUN 1938
					WEIR 2207
					BEREA 2410
					GORDON 2615
					RILEY 4457
					BENSON 4905

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NOV 28 1988  
DIVISION OF OIL & GAS  
DEPARTMENT OF ENERGY

(Attach separate sheets as necessary)

STONEWALL GAS COMPANY  
Well Operator  
By: Ben A. Hardesty  
Date: BENJAMIN A. HARDESTY, VICE PRESIDENT

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."

DEC 2 1988

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

- 1) Well Operator: STONEWALL GAS COMPANY 47850, 5, 670
2) Operator's Well Number: FREEMAN #1 (377-S) 3) Elevation: 1020'
4) Well type: (a) Oil / or Gas X/ (b) If Gas: Production X/ Underground Storage / Deep / Shallow /
5) Proposed Target Formation(s): BENSON
6) Proposed Total Depth: 5150' feet
7) Approximate fresh water strata depths: 61'
8) Approximate salt water depths: 1150'
9) Approximate coal seam depths: N/A @ 183'-186' possibly
10) Does land contain coal seams tributary to active mine? Yes / No X/
11) Proposed Well Work: Drill & Stimulate New Well.

CASING AND TUBING PROGRAM

Table with 4 columns: TYPE, SPECIFICATIONS, FOOTAGE INTERVALS, CEMENT. Rows include Conductor, Fresh Water, Coal, Intermediate, Production, Tubing, and Liners.

RECEIVED AUG 11 1988

PACKERS : Kind Sizes Depths set DIVISION OF OIL & GAS DEPARTMENT OF ENERGY

For Division of Oil and Gas Use Only

Fee(s) paid: Well Work Permit Reclamation Fund WPCP Plat WW-9 WW-2B Bond 50 Blanket Agent (Type)

**RECEIVED**  
AUG 11 1988

DIVISION OF OIL & GAS  
DEPARTMENT OF ENERGY

1)  
2)  
3)

Date: AUGUST 5, 1988  
Operator's well number  
FREEMAN #1 377-S  
API Well No: 47 - 095 - 1257  
State - County - Permit

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

NOTICE AND APPLICATION FOR A WELL WORK PERMIT

4) Surface Owner(s) to be served:  
(a) Name BENTON EDWARD KEYS  
Address BOX 335 ROUTE #1  
BUNKER HILL, WV 25413  
(b) Name \_\_\_\_\_  
Address \_\_\_\_\_  
(c) Name \_\_\_\_\_  
Address \_\_\_\_\_  
6) Inspector GLEN P. ROBINSON  
Address RT 1, #6 MT. PLEASANT  
MINERALWELLS, WV26150 ESTATE  
Telephone (304)- 489-9162

5) (a) Coal Operator:  
Name N/A  
Address \_\_\_\_\_  
(b) Coal Owner(s) with Declaration  
Name BENTON EDWARD KEYS  
Address BOX 335 ROUTE 1  
BUNKER HILL, WV 25413  
Name \_\_\_\_\_  
Address \_\_\_\_\_  
(c) Coal Lessee with Declaration  
Name N/A  
Address \_\_\_\_\_

TO THE PERSON(S) NAMED ABOVE TAKE NOTICE THAT:

\_\_\_\_\_ Included is the lease or leases or other continuing contract or contracts by which I hold the right to extract oil and gas OR  
\_\_\_\_\_ Included is the information required by Chapter 22B, Article 1, Section 8(d) of the Code of West Virginia (see page 2)

I certify that as required under Chapter 22B of the West Virginia Code I have served copies of this notice and application, a location plat, and accompanying documents pages 1 through \_\_\_\_\_ on the above named parties, by:  
\_\_\_\_\_ Personal Service (Affidavit attached)  
\_\_\_\_\_ Certified Mail (Postmarked postal receipt attached)  
\_\_\_\_\_ Publication (Notice of Publication attached)

I have read and understand Chapter 22B and 38 CSR 11-18, and I agree to the terms and conditions of any permit issued under this application. I certify under penalty of law that I have personally examined and am familiar with the information submitted on this application form and all attachments, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete.

I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Well Operator STONEWALL GAS COMPANY  
By: *Roger A. ...*  
Its: VICE PRESIDENT  
Address P.O. DRAWER R  
JANE LEW, WV 26378-0080  
Telephone (304) 884-7881

Subscribed and sworn before me this 5TH day of AUGUST, 1988

*[Signature]* Notary Public  
My commission expires JANUARY 16, 1991