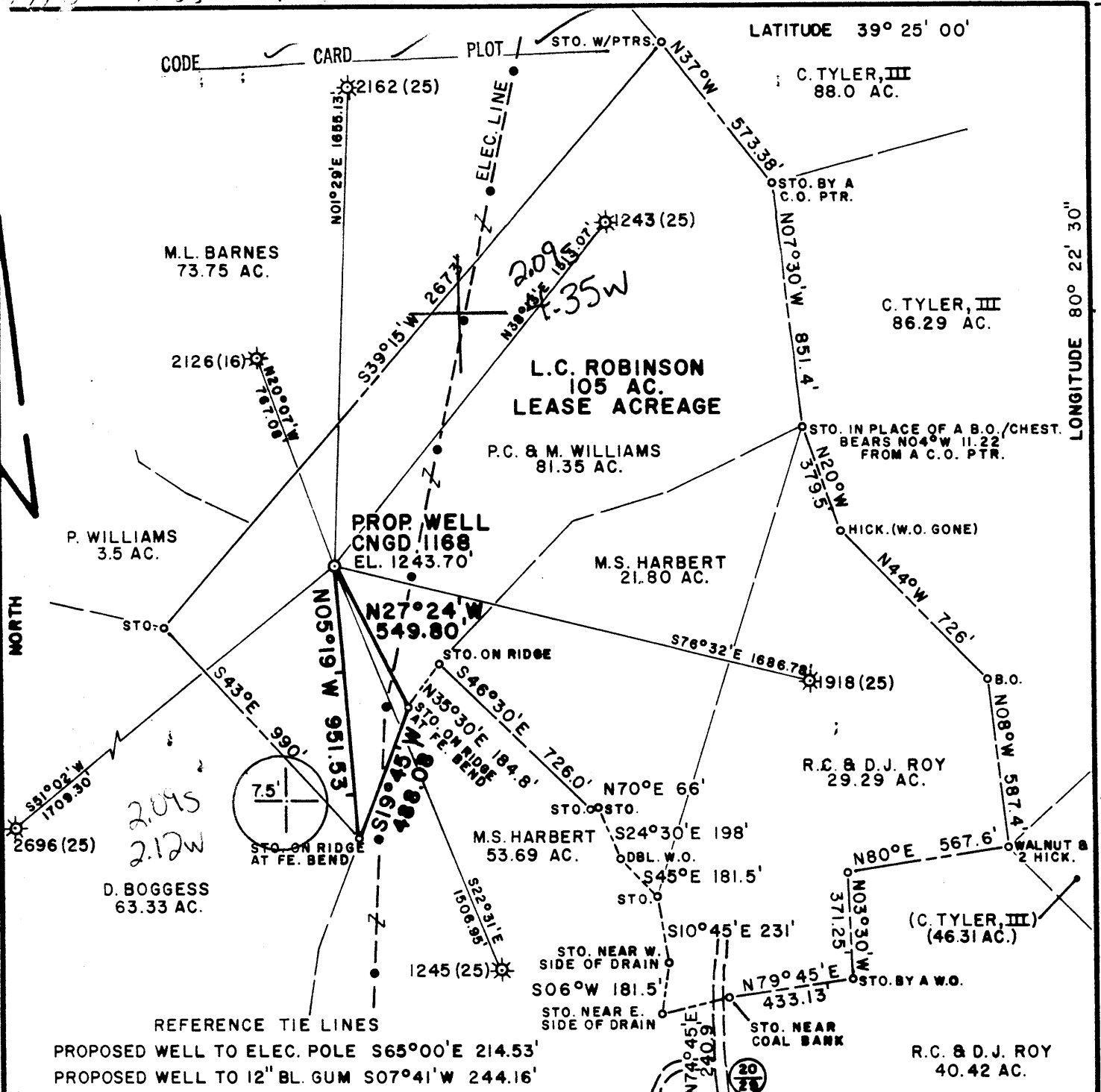


4-19-85

11,180'



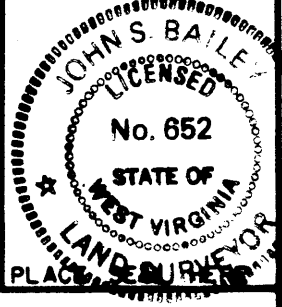
LONGITUDE 80° 22' 30"

0208 066'01"

033-3195

FILE NO. MSES84-523  
 DRAWN BY PJD  
 SCALE 1"=500'  
 MINIMUM DEGREE OF ACCURACY 1 IN 200  
 PROVEN SOURCE OF ELEVATION USGS DISK AT INT. CO. RTS. 20/6 & 6/4 2450' W OF LOC. - EL. 1006'

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) John S. Bailey  
 P.E. \_\_\_\_\_ L.L.S. 652



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS  
 FORM IV-6  
 (8-78)



Department of Mines  
 Oil & Gas Division

DATE OCTOBER 9, 1984  
 OPERATOR'S WELL NO. CNGD 1168  
 API WELL NO. 47-033-3195  
 STATE COUNTY PERMIT

WELL TYPE: OIL \_\_\_ GAS X LIQUID INJECTION \_\_\_ WASTE DISPOSAL \_\_\_  
 (IF "GAS", PRODUCTION X STORAGE \_\_\_ DEEP \_\_\_ SHALLOW X)  
 LOCATION: ELEVATION 1243.70' WATER SHED BENNETT RUN  
 DISTRICT EAGLE 4 COUNTY HARRISON  
 QUADRANGLE WALLACE 7.5' 1960 (1978) 655 Clarksburg 027 CS  
 SURFACE OWNER PERRY C. & MARIE WILLIAMS ACREAGE 81.35  
 OIL & GAS ROYALTY OWNER J. NELSON SWIGER ESTATE, ET AL. LEASE ACREAGE 105  
 LEASE NO. 13264  
 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 4750'  
 WELL OPERATOR CNG DEVELOPMENT COMPANY DESIGNATED AGENT GARY A. NICHOLAS  
 ADDRESS ONE PARK RIDGE CENTER ADDRESS RT. 2, BOX 698  
PITTSBURGH, PA 15219 BRIDGEPORT, WV 26330

MAY 06 1985



**RECEIVED**  
JUL 10 1985

**OIL & GAS DIV.**  
**DEPT. OF MINES**  
State of West Virginia  
Department of Mines  
Oil and Gas Division

Date June 12, 1985  
Operator's \_\_\_\_\_  
Well No. CNGD WN 1168  
Farm Robinson  
API No. 47 - 033 - 3195

**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: 1243.7 Watershed Bennett Run  
District: Eagle County Harrison Quadrangle Wallace 7.5'

COMPANY CNG Development Company  
ADDRESS P. O. Box 15746  
Pittsburgh, PA 15244  
DESIGNATED AGENT Gary A. Nicholas  
ADDRESS Rt. 2 Box 698  
Bridgeport, WV 26330  
SURFACE OWNER Perry C. & Marie Williams  
ADDRESS Box 276  
Lumberport, WV 26386  
MINERAL RIGHTS OWNER J. Nelson Swiger Est., et al  
ADDRESS \_\_\_\_\_  
OIL AND GAS INSPECTOR FOR THIS WORK \_\_\_\_\_  
Stephen Casey ADDRESS Rt. 2 Box 232-D  
Jane Lew, WV 26378  
PERMIT ISSUED April 29, 1985  
DRILLING COMMENCED May 20, 1985  
DRILLING COMPLETED May 30, 1985  
IF APPLICABLE: PLUGGING OF DRY HOLE ON  
CONTINUOUS PROGRESSION FROM DRILLING OR  
REWORKING. VERBAL PERMISSION OBTAINED  
ON \_\_\_\_\_

Casing & Tubing Size Cond.	Used in Drilling	Left in Well	Cement fill up Cu. ft.
<del>11-3/4</del> 9 5/8	214	214	To Surf.
8 5/8	1395	1395	To Surf.
7			
5 1/2			
4 1/2	4736	4736	470 sks
3			
2 1-1/2	4609	4609	-----
Liners used			

GEOLOGICAL TARGET FORMATION Benson Depth 4750 feet  
Depth of completed well 4762 feet Rotary x / Cable Tools \_\_\_\_\_  
Water strata depth: Fresh 200 feet; Salt \_\_\_\_\_ feet  
690  
Coal seam depths: 910 Is coal being mined in the area? No  
990 - 995

OPEN FLOW DATA  
Producing formation Benson Pay zone depth 4622-4626 feet  
Balltown  
Speechley 3073-3494  
Gas: Initial open flow \_\_\_\_\_ Mcf/d Oil: Initial open flow \_\_\_\_\_ Bbl/d  
Final open flow 411 Mcf/d Final open flow \_\_\_\_\_ Bbl/d  
Time of open flow between initial and final tests 4 hours  
Static rock pressure 790 psig (surface measurement) after 24 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 \_\_\_\_\_ 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 shut in

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

Perfco ran Corrlog & Perf. Benson 4622 - 4626; 10 holes (.39)  
Halliburton Water Frac Benson - Break 2200, Avg TPSI 3200, Avg Rate 25 BPM, HHP used 1960, Screened off @ 3#/gal ISI 3800, used 32,000# 20/40 Sand.  
Perfco Perf. Balltown 3473 - 3478, 8 holes; 3494, 1 hole and 3496, 1 hole (.39)  
Halliburton Water Frac Balltown - Break 1800, Avg TPSI 2100, Avg Rate 25 BPM, HHP used 1286, ISI 1200, 5 min 1200, used 45,000# 20/40 Sand.  
Perfco Perf Speechley Sand 3005 - 3008, 3 holes; 3146, 3147, 3154, 3155, 3156, 3170 and 3171. (.39)  
Halliburton Water Frac Speechley - Break 2800, Avg TPSI 3000, Avg Rate 30 BPM, HHP used 2095, ISI 1800, 5 min 1500, used 40,000# 20/40 Sand.

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS
					Including indication of all fresh and salt water, coal, oil and gas
Clay			0	33	Water @ 200' - 1"
Sand & Shale			33	190	690' - 1/2"
Lost Circulation			190	191	910' - 1"
Sand, Shale & RR			191	990	
Coal			990	995	
Sand, Shale & RR			995	1510	
Big Lime & Injun			1510	1650	
Sand & Shale			1650	4762	← T.D. Benson at T.D.
<u>LOG TOPS</u>					
B. Lime/B. Injun			1519	1663	
Pocono			1693	1717	
50'			2147	2188	
30'			2226	2250	
Gord. Stray/Gordon			2280	2385	
4th			2390	2452	
Warren			2924	2964	
U. Speechley/Speechley			3132	3270	
Balltown			3382	3523	
Bradford			3900	4026	
Riley			4263	4484	
Benson			4620	4630	

(Attach separate sheets as necessary)

CNG DEVELOPMENT COMPANY

Well Operator

By:



Date:

June 12, 1985

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 coal, encountered in the drilling of a well."

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OIL & GAS DIV.  
DEPT. OF MINES

APR 19 1985

**RECEIVED**



1) Date: February 7, 19 85  
 2) Operator's Well No. 1168  
 3) API Well No. 47 -033-3195  
 State County Permit

FEB 15 1985

OIL & GAS DIV.  
DEPT. OF MINES

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

- 4) WELL TYPE: A Oil  Gas  B (If "Gas", Production  Underground storage  Deep  Shallow )
- 5) LOCATION: Elevation: 1243.7' Watershed: Bennett Run  
 District: Eagle County: Harrison Quadrangle: Wallace 7.5'
- 6) WELL OPERATOR CNG Development Company  
 Address C/o Paul W. Garrett, P.O. Box 15746  
 Pittsburgh, PA 15244
- 7) DESIGNATED AGENT Mr. Gary Nicholas  
 Address Crosswind Corporate Park  
 Rt. 2, Box 698, Bridgeport, WV 26330
- 8) OIL & GAS INSPECTOR TO BE NOTIFIED  
 Name Mr. Stephen Casey  
 Address Rt. 2, Box 232-D  
 Jane Lew, WV 26378
- 9) DRILLING CONTRACTOR:  
 Name Sam Jack Drilling Company  
 Address P. O. Box 48  
 Buckhannon, WV 26201
- 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, 4750 feet
- 13) Approximate strata depths: Fresh, 632, 1287 feet; salt, - feet.
- 14) Approximate coal seam depths: 117, 133 Is coal being mined in the area? Yes  / No  /

15) 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									Kinds
Fresh water	11-3/4	H-40	42	X		- 40	40	To surface	By Rule 15.05
Coal									Sizes
Intermediate	8-5/8	X-42	23	X		1350	1350	To surface	By Rule 15.05
Production	4-1/2	J-55	10.5	X		4750	4750	200-400 sks	Depths set
Tubing	1-1/2	CN-55	2.75	X					By Rule 15.01
Liners									Perforations:
									Top Bottom

OFFICE USE ONLY  
DRILLING PERMIT

Permit number 47-033-3195 Date April 29, 19 85

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 April 29, 1987 unless well work is commenced prior to that date and prosecuted with due diligence.

Bond: 28	Agent: MUMU	Plat: MUMU	Casing: MUMU	Fee: 6097
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Margaret J. Hassel  
 Administrator, Office 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.

File