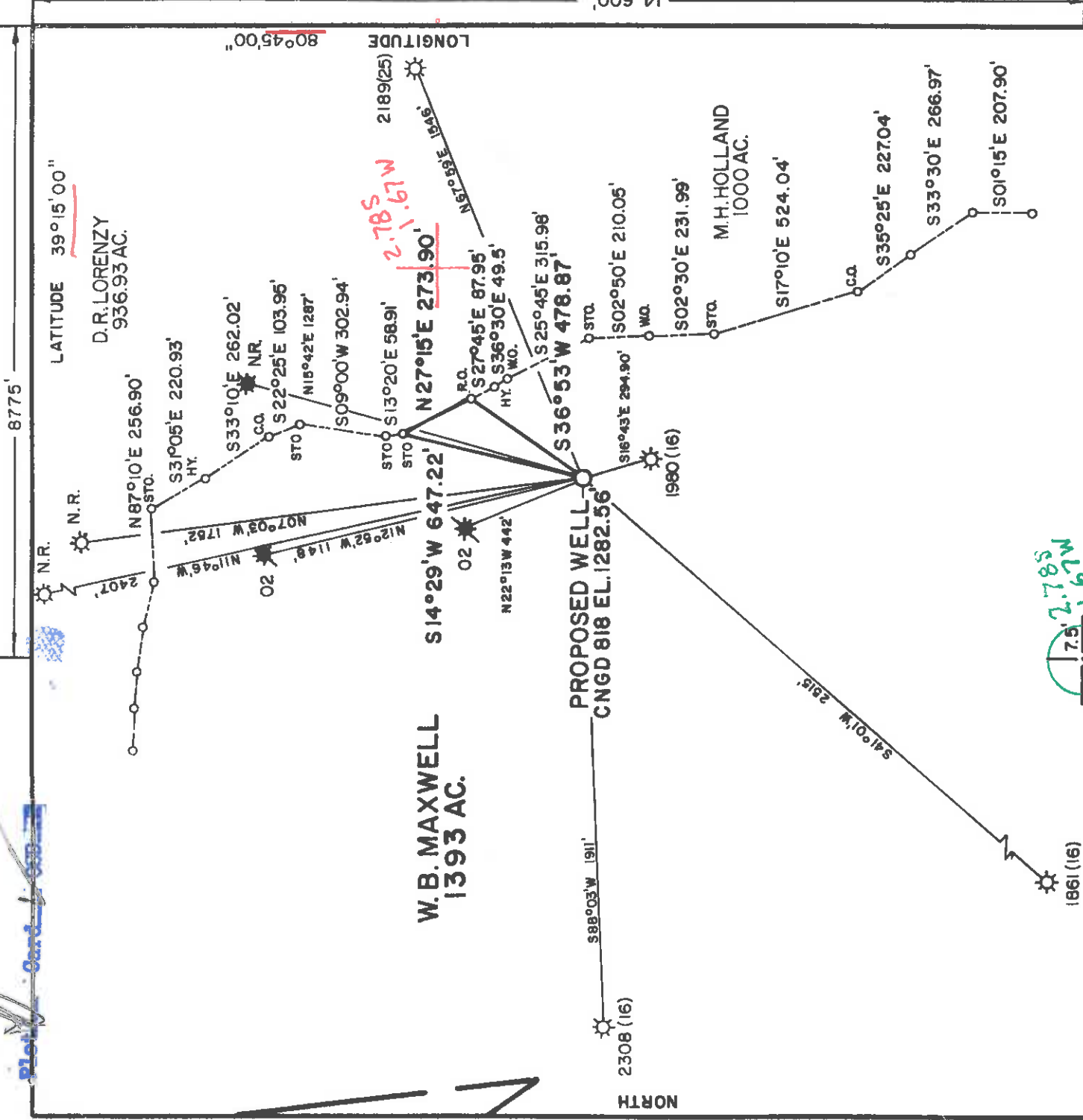


PLAT 1000



PREPARED BY MSES CONSULTANTS

FILE NO. MSES 84-308

DRAWING NO. _____

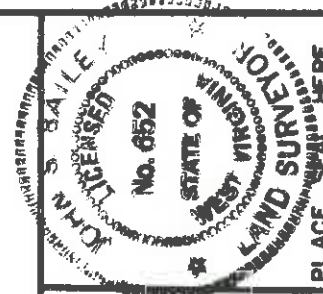
SCALE 1" = 500

MINIMUM DEGREE OF ACCURACY 1/16" 200

PROVEN SOURCE OF ELEVATION MAXWELL TRIANGULATION STATION EL. 1395

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 A. Bailey L.I.S. 652



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

FORM IV-6 (8-78)



DATE FEBRUARY 16, 1984

OPERATOR'S WELL NO. CNGD 818

API WELL NO. 47-017-3296

STATE WV COUNTY _____ PERMIT _____

Department of Mines
Oil & Gas Division

WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL DEEP SHALLOW

(IF "GAS", PRODUCTION STORAGE WATER SHED BIG RUN

LOCATION: ELEVATION 1282.56' DISTRICT SOUTHWEST COUNTY DODDRIDGE

QUADRANGLE OXFORD 7.5 (1976) S. & N. Holbrook 15' NE 3

SURFACE OWNER AARON S. & BEATRICE SCHWARTZMAN ACRES 4589.21

OIL & GAS ROYALTY OWNER W.B. MAXWELL LEASE ACRES 1393

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 ESTIMATED DEPTH 5200'

TARGET FORMATION ALEXANDER 142

WELL OPERATOR CNG DEVELOPMENT COMPANY DESIGNATED AGENT GARY A. NICHOLAS

ADDRESS ONE PARK BRIDGE CENTER ADDRESS CROSSWIND CORPORATE PARK

PITTSBURG, PA. 15244 ADDRESS ROUTE 2 BOX 698

ALLEN BLUEPRINT CO. INC. 3/1/84 EST 3/1/84 (1332) AM 3/1/84 Charleston, WV

IV-35
(Rev 8-81)

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AUG - 9 1984



State of West Virginia

Department of Mines

Oil and Gas Division

OIL & GAS DIVISION

DEPT. OF MINES

Date July 10, 1984

Operator's

Well No. CNGD 818

Farm Maxwell

API No. 47 - 017 - 3296

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: 1282.56 Watershed Big Run

District: Southwest County Doddridge Quadrangle Oxford 7.5

COMPANY CNG Development Company

ADDRESS P. O. Box 15746, Pittsburgh, PA 15275

DESIGNATED AGENT Gary A. Nicholas

ADDRESS Rt. 2 Box 698, Bridgeport, WV 26330

SURFACE OWNER Aaron & Beatrice Schwartzmann
2520 - 30th Street, NW

ADDRESS Washington, DC 20008

MINERAL RIGHTS OWNER W. B. Maxwell

ADDRESS c/o Union National Bank
Clarksburg, WV 26301

OIL AND GAS INSPECTOR FOR THIS WORK

H.M. Underwood ADDRESS Rt. 2 Box 114
Salem, WV 26426

PERMIT ISSUED 3-26-84

DRILLING COMMENCED 5-02-84

DRILLING COMPLETED 5-06-84

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"	20	--	--
9 5/8			
8 5/8	1833	1833	To surf
7			
5 1/2			
4 1/2	5352	5352	515 sks
3			
1 1/2"	5134	5134	--
Liners used			

GEOLOGICAL TARGET FORMATION Alexander

Depth 5200 feet

Depth of completed well 5350⁴⁰ feet Rotary X / Cable Tools

Water strata depth: Fresh 370 feet; Salt

Coal seam depths: 250 - 255 Is coal being mined in the area? No
1350 - 1355

OPEN FLOW DATA

Alexander
Bradford
Speechley

5162 - 5222
4316 - 4320

Producing formation Pay zone depth 3258 - 3378 feet

Gas: Initial open flow Mcf/d Oil: Initial open flow Bbl/d

Final open flow 467 Mcf/d Final open flow Bbl/d

Time of open flow between initial and final tests hours

Static rock pressure 850 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

SEP 4 1984

(Continue on reverse side)

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

Superior Wireline Perforated - Alexander, 5162 - 5222, 11 holes (.41)
 Bradford, 4316 - 4320, 8 holes (.39)
 Speechley, 3258 - 3378, 13 holes (.39)
 Halliburton Foam Fractured - Alexander 1st stage, 500 gal MOD 202 Acid, 40,000 # 20/40 Sand,
 694 BBL Foam, 650 MSCF SCFN₂
 Bradford 2nd stage, 500 gal MOD 202 Acid, 25,000 # 20/40 Sand,
 560 BBL Foam, 408 MSCF SCFN₂
 Halliburton Water Fractured - 3rd stage, 500 gal MOD 202 Acid, 50,000 # 20/40 Sand,
 680 BBL Water

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS
Clay			0	5	Including indication of all fresh and salt water, coal, oil and gas
Sd, Sh & RR			5	250	1/2" stream water @ 40'
Coal			250	255	1" stream water @ 370'
Sd, Sh & RR			255	1350	
Coal			1350	1355	
Sd, Sh & RR			1355	1840	
Little Lime			1840	1855	
Sd & Sh			1855	1885	
Big Lime			1885	1960	
Injun			1960	2030	
Sd & Sh			2030	5400	
<u>LOG TOPS</u> ✓					
B. Lime/B. Injun			1874	2004	
Berea			2375	2385	
Gordon Stray/Gordon			2564	2700	
4th			2746	2760	
Warren			3248	3382	
Balltown			3935	4100	
Bradford			4180	4322	
Riley			4444		
Benson			4876	4885	
Leopold			5002	5026	
Alexander			5126	5225	

5400
~~5126~~
 TD 5350

(Attach separate sheets as necessary)

CNG DEVELOPMENT COMPANY

Well Operator

By: _____

Date: July 10, 1984

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 soil, encountered in the drilling of a well."



1) Date: March 5, 19 84
2) Operator's Well No. 818
3) API Well No. 47 - 017 - 3296 State County Permit

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: 1282.56 Watershed: Big Run
District: Southwest County: Doddridge Quadrangle: Oxford 7.5
6) WELL OPERATOR CNG Development Company 7) DESIGNATED AGENT Mr. Gary Nicholas
Address c/o Paul Garrett, P.O. Box 15746 Address Crosswind Corporate Park
Pittsburgh, PA 15244 Rt. 2, Box 698, Bridgeport, WV 26330
8) OIL & GAS INSPECTOR TO BE NOTIFIED
Name Mr. H. M. Underwood 9) DRILLING CONTRACTOR:
Address Rt. 2, Box 114 Name Sam Jack Drilling Company
Salem, WV 26426 Address P. O. Box 48
Buckhannon, WV 26201

10) PROPOSED WELL WORK: Drill deeper Redrill Stimulate
Plug off old formation Perforate new formation
Other physical change in well (specify)

11) GEOLOGICAL TARGET FORMATION, Alexander
12) Estimated depth of completed well, 5350 feet
13) Approximate trata depths: Fresh, 395 feet; salt, n/a feet.
14) Approximate coal seam depths: 569 Is coal being mined in the area? Yes

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	Kind
Conductor										
Fresh water	11-3/4	H-40	42	X		30		To surface	By rule	15.05
Coal										
Intermediate	8-5/8	X-42	23	X		1000		To surface	By Rule	15.05
Production	4-1/2	J-55	10.5	X		5350		200-400 sks	Depths set	Rule 15.01
Tubing	1-1/2	CN-55	2.75	X						
Liners										
									Perforations:	
									Top	Bottom

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MAR 9 - 1984

OIL & GAS DIVISION
DEPT. OF MINES

OFFICE USE ONLY
DRILLING PERMIT

Permit number 47-017-3296

March 26, 19 84
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 March 26, 1986 unless well work is commenced prior to that date and prosecuted with due diligence.

Bond:	Agent:	Plat:	Casing:	Fee
GLAWNET	SA	MW	MW	001-614

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

