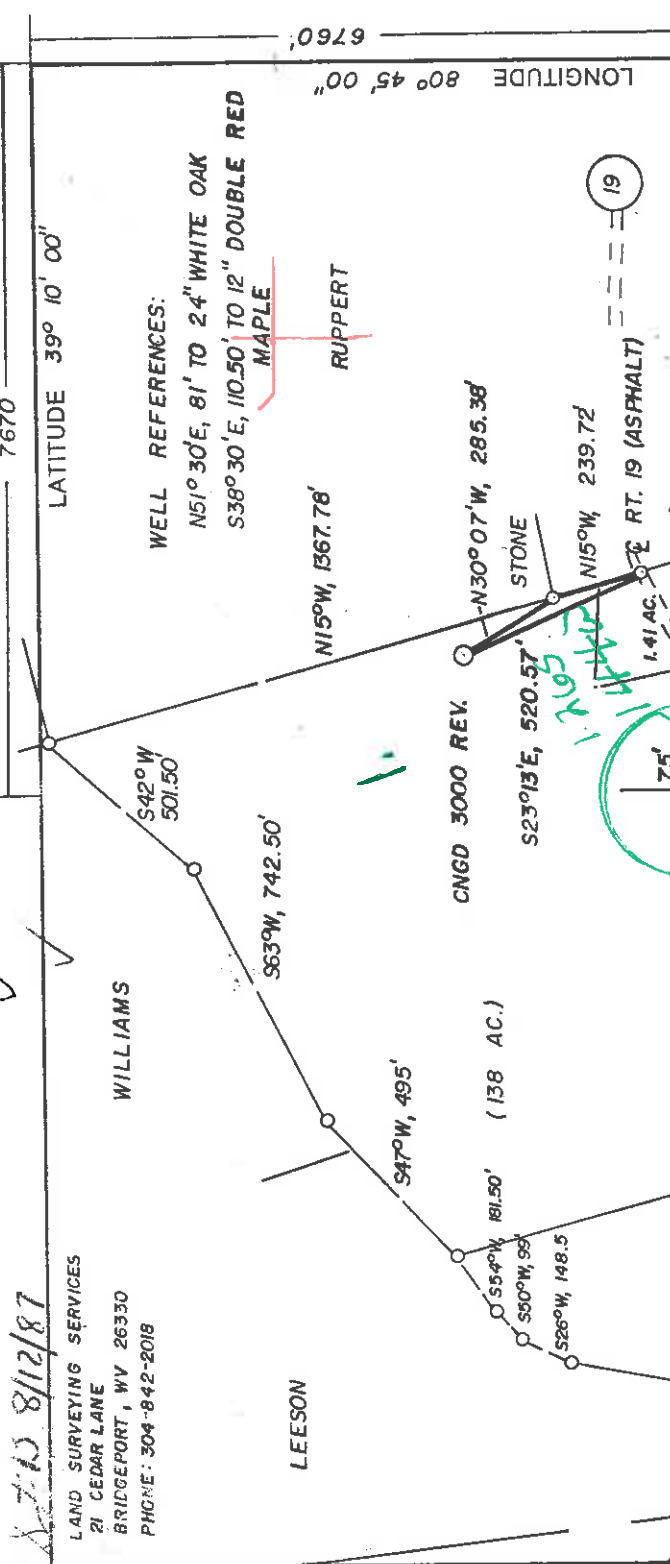


8/12/87

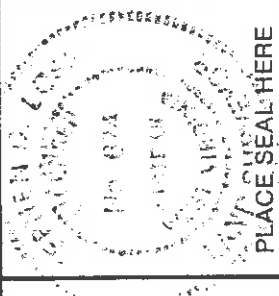
LAND SURVEYING SERVICES
21 CEDAR LANE
BRIDGEPORT, WV 26330
PHONE: 304-842-2018



(+) 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 INT. 2300' SW. QF
LOCATION AT ELEV. 882'

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) _____
R.P.E. _____ L.L.S. NO. 674
STEPHEN D. LOSH



STATE OF WEST VIRGINIA
DEPARTMENT OF ENERGY
OIL AND GAS DIVISION



DATE MAY 10, 19 87
OPERATOR'S WELL NO. CNGD 3000 REV.
API WELL NO. 47-017-3582

WELL TYPE: OIL GAS X LIQUID INJECTION WASTE DISPOSAL STATE COUNTY PERMIT
(IF "GAS,") PRODUCTION X STORAGE DEEP SHALLOW X
LOCATION: ELEVATION 1010' WATER SHED MIDDLE FORK
DISTRICT COVE COUNTY DODDRIDGE
QUADRANGLE OXFORD 7.5 526 058 E.C. Holbrook ACREAGE 170.14
SURFACE OWNER JAMES H. FOSTER
OIL & GAS ROYALTY OWNER THURMAN SPURGEON LEASE ACREAGE 170.

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 ALEXANDER ESTIMATED DEPTH 5500'
WELL OPERATOR CNG DEVELOPMENT COMPANY DESIGNATED AGENT GARY A. NICHOLAS
ADDRESS ONE PARK RIDGE CENTER 142 ADDRESS RT. 2, BOX 698
PITTSBURGH, PA 15244 BRIDGEPORT, WV 26330

PERMIT
NUG 31 1987

6-6 Straightfort - Bluestone Creek (133)

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NOV 25 1987



State of West Virginia
Department of Mines
Oil and Gas Division

Date November 17, 1987
Operator's
Well No. CNGD WN 3000
Farm Spurgeon
API No. 47 - 017 - 3582

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 Y / Underground Storage / Deep / Shallow X /)

LOCATION: Elevation: 1010 Watershed Middle Fork
District: Cove County Doddridge Quadrangle Oxford

COMPANY CNG Development Company
ADDRESS O, Box 15746
Pittsburgh, PA 15244
DESIGNATED AGENT Gary A. Nicholas
ADDRESS Rt 2 Box 698
Bridgeport, WV 26330
SURFACE OWNER James H. Foster
ADDRESS Rt. 1 Box 105
New Milton, WV 26411
MINERAL RIGHTS OWNER Thurman Spurgeon
ADDRESS _____
OIL AND GAS INSPECTOR FOR THIS WORK _____
Mike Underwood ADDRESS Rt. 2, Box 1426
Salem, WV 26426
PERMIT ISSUED August 27, 1987
DRILLING COMMENCED Oct. 10, 1987
DRILLING COMPLETED Oct. 15, 1987

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

Casing Tubing Size	Used in Drilling in Well	Left in Well	Cement fill up Cu. ft.
20-16 Cond.			
13-10"	216	216	To Surf.
9 5/8			
8 5/8	1746	1746	To Surf.
7			
5 1/2			
4 1/2	4642	4642	400 sks
3			
2-3/8	4324	4324	-----
Liners used			

GEOLOGICAL TARGET FORMATION Alexander

Depth 5500 feet

Depth of completed well 5342 feet Rotary X / Cable Tools

Water strata depth: Fresh 45 feet; Salt _____ feet

Coal seam depths: -- Is coal being mined in the area? No

OPEN FLOW DATA
Bradford 4344-53
Balltown 3388-93

Producing formation Speechley Pay zone depth 3241-83 feet

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

Final open flow 231 Mcf/d Final open flow _____ Bbl/d

Time of open flow between initial and final tests 4 hours

Static rock pressure 1175 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

(Continue on reverse side)

NOV 30 1987

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

10/27/87 - SUPERIOR PERF. BRADFORD 22 SHOTS, 4344 - 53, .39" HSC; NOMSCO WATER FRAC
 30# GEL - BREAKDOWN 2600, AVE HHP 1625, AVE RATE 31.4, AVE PR 2111, MAX TR PR 4200,
 TOTAL ACID 500, TOTAL SAND 45,000#, MAX CONC. 5#, TOTAL FLUID 644, SL FLUID 422,
 ISIP 1360. PERF. 2ND STAGE - BALLTOWN - 20 SHOTS, 3888 - 93, .39" HSC.; WATER FRAC -
 BREAKDOWN 2360, AVE HHP 1817, AVE RATE 28.7, AVE PRES. 2583, MAX TR PR 3500, 500 GAL ACID,
 TOTAL SAND 40,800#, MAX CONC. 5#, TOTAL FLUID 580, SL FLUID 410, ISIP 1474.
 PERF. 3RD STAGE - SPEECHLEY - 24 SHOTS, 3241 - 83, .39" HSC. WATER FRAC - BREAKDOWN 1600,
 AVE HHP 1167, AVE RATE 35, AVE PR 1360, MAX TR PR 1760, TOTAL ACID 500, TOTAL SAND 50,000#,
 MAX CONC. 5#, TOTAL FLUID 701, SL FLUID 490, ISIP 900, 5 MIN 700#

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS Including indication of all fres. and salt water, coal, oil and ga
Sand, Shale & RR			0	1820	1/2" stream water @ 45'
Little Lime			1820	1828	
Shale			1828	1833	
Big Lime			1833	1930	
Injun			1930	1985	
Sand & Shale			1985	2114	
Weir			2114	2172	
Sand & Shale			2172	3150	
Warren			3150	3165	
Sand & Shale			3165	3115	
U. Speechley			3115	3338	
Sand & Shale			3338	3406	
Speechley			3406	3510	
Sand & Shale			3510	4766	
Benson			4766	4816	
Sand & Shale			4816	4888	
Leopold			4888	4898	
Sand & Shale			4898	5022	
Alexander			5022	5132	
Sand & Shale			5132	5330	
LOG TOPS ✓					
Big Lime			1830	1910	
Big Injun			1910	1982	
Weir			2100	2214	
Berea			2300	2308	
Gordon			2528	2534	
Warren			3148	3190	
U. Speechley			3240	3286	
Balltown			3880	3940	
Bradford			4314	4374	
Benson			4760	4826	
Leopold			4878	4908	
Alexander			5002	5110	

(Attach separate sheets as necessary)

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NOV 25 1987
DIVISION OF OIL & GAS
DEPARTMENT OF ENERGY

CNG DEVELOPMENT COMPANY
Well Operator

By: [Signature]
Date: November 17, 1987

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
 well, encountered in the drilling of a well."

1) Date: June 30, 19 87
 2) Operator's Well No. CNGD 3000
 3) API Well No. 47 017 3582
 State County Permit



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 AUG 11 1987

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

4) WELL TYPE: A Oil Gas
 B (if "Gas", Production Middle Fork Deep Shallow
 5) LOCATION: Elevation: 1010 Watershed: Middle Fork
 District: Cove County: Doddridge 017 Quadrangle: Oxford 525
 6) WELL OPERATOR: CNG Development Co CODE: 1010 7) DESIGNATED AGENT Gary Nicholas
 Address c/o Cheryl S. Hartle P.O. Box 15746 Rt. 2, Box 698, Bridgeport, WV 26330
 Pittsburgh, PA 15244
 8) OIL & GAS INSPECTOR TO BE NOTIFIED
 Name Mike Underwood
 Address Route 2, Box 114 P.O. Box 48
 Salem, WV 26426 Buckhannon, WV 26201

9) DRILLING CONTRACTOR:
 Name Sam Jack Drilling Co.
 Address P.O. Box 48
 Buckhannon, WV 26201

10) PROPOSED WELL WORK: Drill / deeper / Drill deeper / Perforate new formation / 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, 5500 feet
 13) Approximate true depths: Fresh, 148 feet; salt, 1503 feet.
 14) Approximate coal seam depths: _____ 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
Conductor	11-3/4	H-40	42	X		200	To surface	By rule 15.05
Fresh water								
Coal								
Intermediate	8-5/8	X-42	23	X		1750	To surface	By rule 15.05
Production	4-1/2	J-55	10.5	X		5500	200 - 400	Depths set
Tubing	1-1/2	CN-55	2.75	X			By rule 15.01	Perforations:
Liners							Top	Bottom

OFFICE USE ONLY
 DRILLING PERMIT

Permit number 47-017-3582

Date August 27 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 August 27, 1989 unless well work is commenced prior to that date and prosecuted with due diligence.

Bond:	Agent:	Agent:	Fee:	Other:
			225	
			019073	

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

Director, Division of Oil and Gas

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

101901

