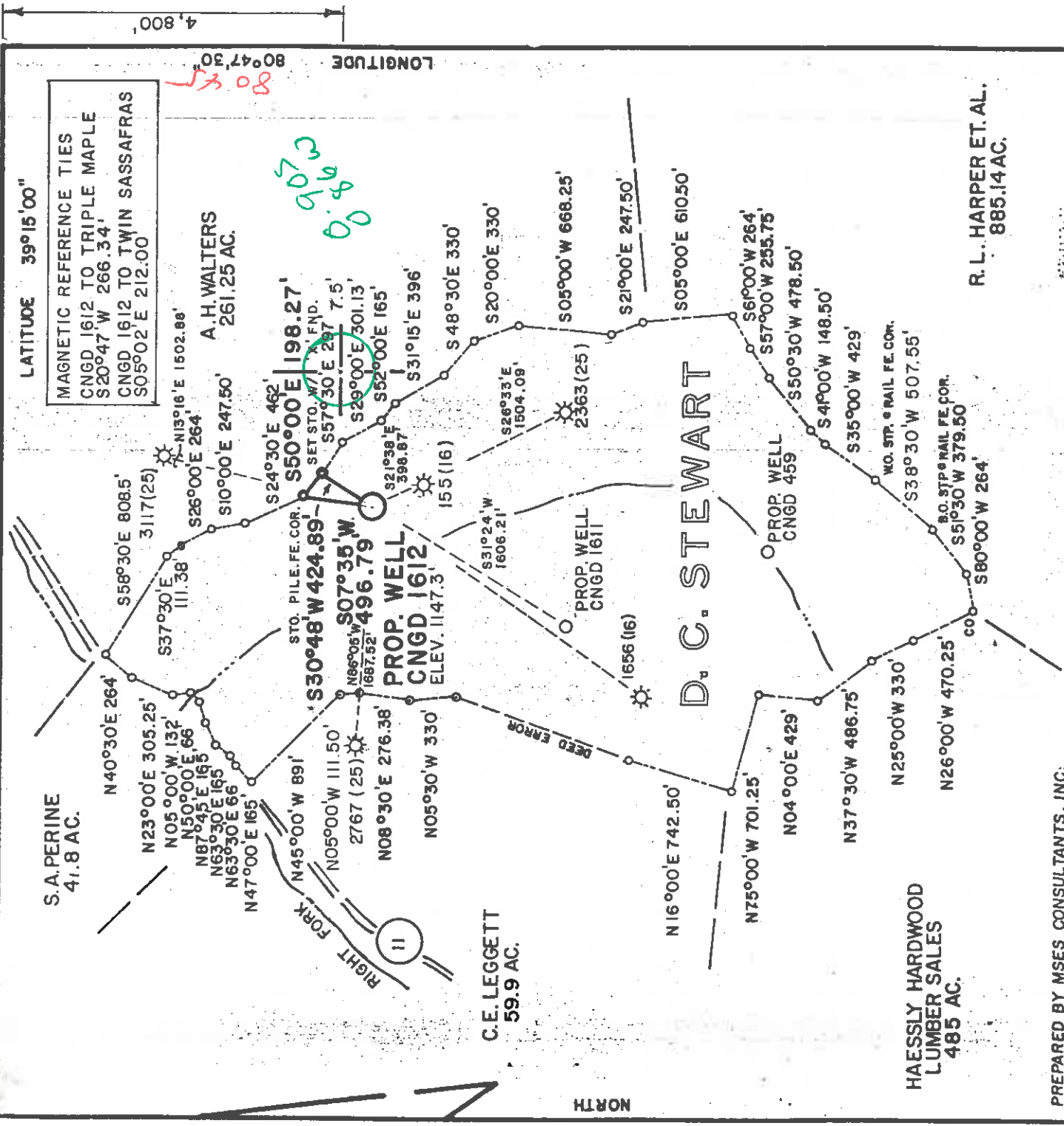


M13-11-85

4,575' 4,800' 80°47'30" LONGITUDE



LATITUDE 39°15'00"
 MAGNETIC REFERENCE TIES
 CNGD 1612 TO TRIPLE MAPLE
 S20°47'W 266.34'
 CNGD 1612 TO TWIN SASSAFRAS
 S05°02'E 212.00'

A.H. WALTERS
 261.25 AC.

STO. PILE FE. COR.
 S30°48'W 424.89'
 SET STO. W/ FND.
 S57°30'E 237 7.5'
 S29°00'E 301.13'
 S52°00'E 165'

PROP. WELL
 CNGD 1612
 ELEV. 1147.3

C.E. LEGGETT
 59.9 AC.

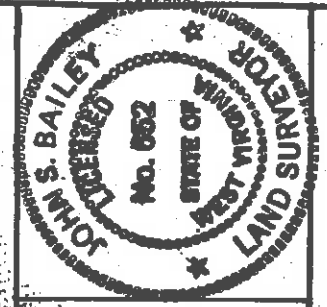
HAESSLY HARDWOOD
 LUMBER SALES
 485 AC.

R.L. HARPER ET. AL.
 885.14 AC.

PREPARED BY MSES CONSULTANTS, INC.

FILE NO. MSES 85-604
 DRAWING NO. _____
 SCALE 1"=1000'
 MINIMUM DEGREE OF ACCURACY 1/16"
 PROVEN SOURCE OF ELEVATION B.M. 944 ON RT. 11, 5400 SW OF LOCATION

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) *H. Y. Bailey*
 J. P. E. _____ L. M. S. 652



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



Department of Mines
 Oil & Gas Division

DATE JANUARY 11, 1985
 OPERATOR'S WELL NO. CNGD 1612
 API WELL NO. 47-017-3416-F
 STATE COUNTY PERMIT

WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL
 (IF "GAS", PRODUCTION STORAGE DEEP SHALLOW
 LOCATION: ELEVATION 1147.3' WATER SHED RIGHT FORK
 DISTRICT WEST UNION COUNTY DODDRIDGE

QUADRANGLE OXFORD 7.5' (1976) 526 058 NE Holbrook
 SURFACE OWNER HAESSLY HARDWOOD LUMBER SALES, INC ACREAGE 266
 OIL & GAS ROYALTY OWNER MARY K. & RICHARDA. POST, ET AL LEASE ACREAGE 266
 LEASE NO. 41980

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 5375'
 TARGET FORMATION ALEXANDER
 WELL OPERATOR CNG DEVELOPMENT COMPANY DESIGNATED AGENT GARY A. NICHOLAS
 ADDRESS ONE PARK RIDGE CENTER 142 ADDRESS BRIDGEPORT, WY. 26330
 PITTSBURGH, PA. 15219

ALL FM REEPRINT CO 0WWD-6-6 Straight Fork - Bivestone Creek (133) Charleston, WV

DODD 3416

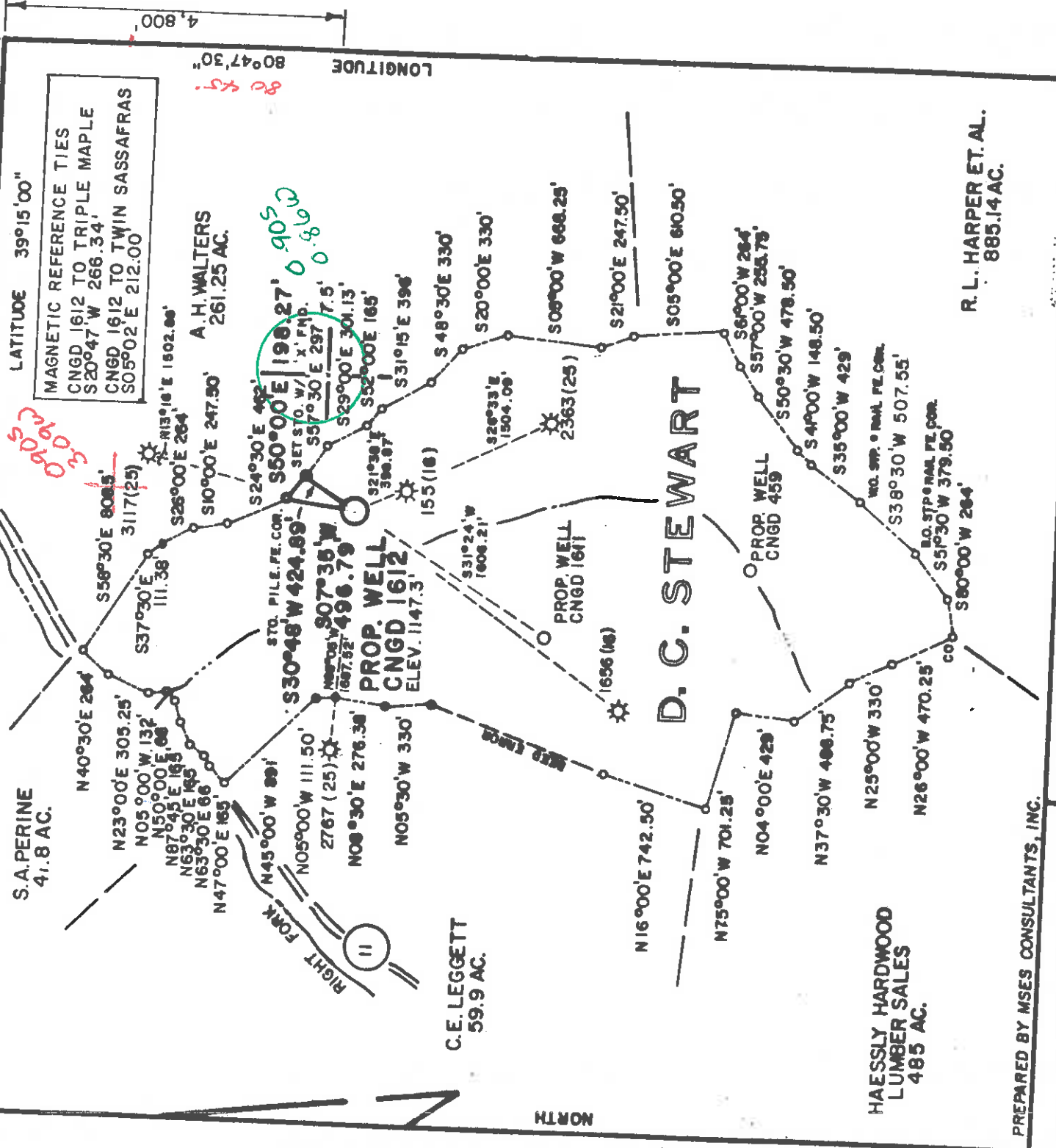
AUG 20 1986

12113-11-85

CODE CARD

PLAT

4,575'



LATITUDE 39°15'00"
 MAGNETIC REFERENCE TIES
 CNGD 1612 TO TRIPLE MAPLE
 S20°47' W 266.34'
 CNGD 1612 TO TWIN SASSAFRAS
 S05°02' E 212.00'

LONGITUDE 80°47'30"

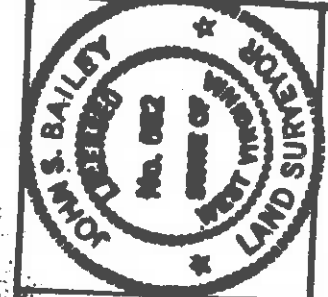
86 47

A. H. WALTERS
 261.25 AC.

198.27' 0.905
 0.860
 SET ST. W/ 'X' P.M.
 S57°30' E 297.75'
 S29°00' E 301.13'
 S52°00' E 165'

FILE NO. MSES 85-604
 DRAWING NO. _____
 SCALE 1"=1000'
 MINIMUM DEGREE OF ACCURACY 1/16" 200
 PROVEN SOURCE OF ELEVATION B.M. EL. 944' ON RT. 111; 5400 SW OF LOCATION

PREPARED BY MSES CONSULTANTS, INC.
 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) H. V. Bailey
 J.P.E. LS 652



R. L. HARPER ET AL.
 885.14 AC.

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



Department of Mines
 Oil & Gas Division

DATE JANUARY 11, 1985
 OPERATOR'S WELL NO. CNGD 1612
 API WELL NO. 47-017-3416
 STATE WV COUNTY PUTNAM PERMIT _____

WELL TYPE: OIL GAS LIQUID INJECTION _____ WASTE DISPOSAL _____
 (IF "GAS", PRODUCTION STORAGE DEEP SHALLOW
 LOCATION: ELEVATION 1147.3' WATER SHED RIGHT FORK
 DISTRICT WEST UNION COUNTY DODDRIDGE
 QUADRANGLE S.6. OXFORD T.5' (1978) Nolbrook 15' NE 3
 SURFACE OWNER HAESSLY HARDWOOD LUMBER SALES, INC. ACRES 288
 OIL & GAS ROYALTY OWNER MARY K. & RICHARDA. POST, ET AL LEASE ACREAGE 288
 PROPOSED WORK: DRILL CONVERT _____ DRILL DEEPER _____ REDRILL _____ FRACTURE OR STIMULATE _____ PLUS OFF OLD FORMATION _____ PERFORATE NEW FORMATION _____ OTHER PHYSICAL CHANGE IN WELL (SPECIFY) _____

PLUG AND ABANDON _____ CLEAN OUT AND REPLUG _____
 TARGET FORMATION ALEXANDER ESTIMATED DEPTH 5375'
 WELL OPERATOR CNG DEVELOPMENT COMPANY DESIGNATED AGENT GARY A. NICHOLAS
 ADDRESS ONE PARK RIDGE CENTER ADDRESS CROSSWIND CORPORATE PARK
142 PITTSBURGH, PA. 15219 BRIDGEPORT, WV 26330
6-6 Straight Fork - Bluestone Creek (133)

ALL IN REVERSE PRINT

MAR 25 1985



State of West Virginia
Department of Mines
Oil and Gas Division

Date Nov. 3, 1986
Operator's
Well No. CNGD WN 1612
Farm Stewart
API No. 47-017 - 3416-F

RECEIVED
DEC 11 1986

WELL OPERATOR'S REPORT

DIVISION OF ~~MINING~~ GAS, FRACTURING AND/OR STIMULATING, OR PHYSICAL CHANGE
DEPARTMENT OF ENERGY

WELL TYPE: Oil / Gas X / Liquid Injection / Waste Disposal /
(If "Gas," Production X / Underground Storage / Deep / Shallow X /)

LOCATION: Elevation: 1147.3 Watershed Right Fork
District: West Union County Doddridge Quadrangle Oxford

COMPANY CNG Development Company
ADDRESS P.O. Box 15746
Pittsburgh, PA 15244
DESIGNATED AGENT Gary A. Nicholas
ADDRESS Rt. 2 Box 698
Bridgport, WV 26330
SURFACE OWNER Haessly Hardwood Lbr. Sales, Inc.
ADDRESS Rt. 1 Newport Pike
Marietta, OH 45750
MINERAL RIGHTS OWNER Mary K. & Richard Post, et al
ADDRESS _____

OIL AND GAS INSPECTOR FOR THIS WORK
Mike Underwood ADDRESS Rt. 2 Box 114
Salem, WV 26426
PERMIT ISSUED August 21, 1986
DRILLING COMMENCED 10-30-86
DRILLING COMPLETED 11-01-86

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

Casing Tubing Size	Used in Drilling	Left in Well	Cement fill up Cu. ft.
20-16 Cond.			
13-10"			
9 5/8			
8 5/8			
7			
5 1/2			
4 1/2			
3			
2 1-1/2	2141	2141	-----
Liners used			

GEOLOGICAL TARGET FORMATION _____ Depth _____ feet
Depth of completed well _____ feet Rotary / Cable Tools _____
Water strata depth: Fresh _____ feet; Salt _____ feet
Coal seam depths: _____ Is coal being mined in the area? _____

OPEN FLOW DATA

Producing formation _____ Pay zone depth _____ feet
Gas: Initial open flow _____ Mcf/d Oil: Initial open flow _____ Bbl/d
Final open flow 822 Mcf/d Final open flow _____ Bbl/d

Time of open flow between initial and final tests 4 hours
Static rock pressure 400 psig (surface measurement) after 1 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)

DEC 15 1986

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

Pulled 151 fts. of 1-1/2" Tubing - 5165'; Sand Pump to 5316', McCullough set Baker Plug at 5100', Perforated 4 holes (.41) for squeeze at 2520'.
Halliburton cemented with 250 sks standard, 2# CalSeal, 1% Halad 322, 3% KCL, Used 500 gals Mud Flush. Follow Plug Down with Steel Line to 2487'.
McCullough ran Corilog and CBL Sonic Seismogram - Swab hole Bry to 2487'.
McCullough perforated the Weir with 3-3/8" HSC .39 hole as follows:
2174 - 2182, 6 holes; 2193 - 2201, 14 holes; 2207 - 2223, 10 holes; 2240 - 2248, 8 holes;
2254 - 2269, 20 holes; 2275 - 2280, 4 holes.
Halliburton Foam Frac 70Q Weir Sand - Break 2200, Ballout with 125 perf. Balls @ 3700#, 18 BPM, ISI 1600#, Avg TPSI 2642, Avg Rate 30 BPM, HHP used 1009, ISI 1700# 5 mln 1600#, used 1000 gals 15% FE Acid, 500 gals Enwar 288, 10,000# 80/100 Sand, 155,000# 20/40Sand, 869,000 SCFM₂, Max Sand Conc. 7#/gal.

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS Including indication of all fresh and salt water, coal, oil and gas.
LOG TOPS					
Big Lime			1860	1920	
Big Injun			1924	2014	
Weir			2168	2284	
Berea			2370	2374	
Warren			3235	3290	
Benson			4880	4915	
Leopold			5084	5093	
Alexander			5125	5225	

(Attach separate sheets as necessary)

CNG DEVELOPMENT COMPANY
Well Operator

By: *George A. McAllister*

Date: 11/13/86

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 sand, encountered in the drilling of a well."



Date June 12, 1985
 Operator's Well No. CNGD WN 1612
 Farm Stewart
 API No. 47 - 017 - 3416

RECEIVED
 JUN 21 1985
 STATE OF WEST VIRGINIA
 DEPT. OF MINES
 Oil and Gas Division
 WELL OPERATOR'S REPORT
 OF

DRILLING, FRACTURING AND/OR STIMULATING, OR PHYSICAL CHANGE

WELL TYPE: Oil X / Gas X / Liquid Injection / Waste Disposal /
 (If "Gas," Production X / Underground Storage / Deep / Shallow X /)

LOCATION: Elevation: 1147.3 Watershed Right Fork
 District: West Union County Doddridge Quadrangle Oxford 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 Haessly Hardwood Lumber Sales, Inc
 ADDRESS Rt. 1 Newport Pike Marlette, OH 45750
 MINERAL RIGHTS OWNER Mary K & Richard A Post et al
 ADDRESS _____

OIL AND GAS INSPECTOR FOR THIS WORK _____
 Mike Underwood ADDRESS Rt. 2 Box 114 Salem, WV 26426
 PERMIT ISSUED March 14, 1985
 DRILLING COMMENCED May 9, 1985
 DRILLING COMPLETED May 16, 1985

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

Casing Tubing	Used in Drilling in Well	Left in Well	Cement fill up Cu. ft.
Size 20-16 Cond.			
11-3/4	168	168	To Surf
9 5/8			
8 5/8	1470	1470	To Surf
7			
5 1/2			
4 1/2	5361	5361	150 sks
3			
2			
Liners used			

GEOLOGICAL TARGET FORMATION Alexander Depth 5375 feet
 Depth of completed well 5402 feet Rotary X / Cable Tools _____
 Water strata depth: Fresh 540 feet; Salt _____ feet
 Coal seam depths: 535 - 538 Is coal being mined in the area? No

OPEN FLOW DATA

Producing formation Alexander Pay zone depth 5174 - 5213 feet
 Gas: Initial open flow _____ Mcf/d Oil: Initial open flow _____ Bbl/d
 Final open flow 335 Mcf/d Final open flow _____ Bbl/d

Time of open flow between initial and final tests 4 hours
 Static rock pressure 310 psig (surface measurement) after 1 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)

FORM WV-2 (B)
(Obverse)
7/85



1) Date: July 14, 1986
2) Operator's Well No. 1612
3) API Well No. 47-017-3416-F
State County Permit

FILED
RECEIVED
JUL 30 1986

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

4) WELL TYPE: A Oil Gas B (if "Gas", Production Undergrnd storage Deep Shallow
Elevation: 1147.3 (42) Watershed: Right Fork
District: West Union B County: Doddridge Quadrangle: Oxford 525
6) WELL OPERATOR: Development Co. CODE: 10110 7) DESIGNATED AGENT: Gary Nicholas
Address: Paul W. Garrett, P.O. Box 15746 Crosswind Corporate Park
Pittsburgh, PA 15244 Rt. 2, Box 698, Bridgeport, WV 26330
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 Redrill Stimulate
Plug off old formation Perforate new formation
Other physical change in well (specify) See attached sheet
11) GEOLOGICAL TARGET FORMATION, Well 387
12) Estimated depth of completed well, 2270 feet
13) Approximate traat depths: Fresh, - feet; salt, - feet.
14) Approximate coal seam depths: - feet; salt, - feet. 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	For drilling	Left in well		
Conductor	11 3/4			168	CTS	
Fresh water	8 5/8			1470	CTS	
Coal	4 1/2			5361	150 SKS	
Intermediate Production Tubing						
Lim.						

OFFICE USE ONLY
DRILLING PERMIT

Permit number 47-017-3416-F W Date August 21 19 86

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 21, 1988 unless well work is commenced prior to that date and prosecuted with due diligence.

Bond:	Agent: ASD	Plat: AS	Casing: AS	Fee: 14613	WPCP: AS	S&E: AS	Other: AS
				139			

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.
Director, Division of Oil and Gas

RECEIVED

FEB 26 1985

- 1) Date: February 12, 19 85
 2) Operator's Well No. 1612
 3) API Well No. 47 - 017 - 3416
 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
 Elevation: 1147.3
 District: West Union
 5) LOCATION: Underground storage Deep Shallow
 Watershed: Right Fork
 County: Doddridge
 6) WELL OPERATOR: ONG Development Company
 Address One Park Ridge Center P.O. Box 15746
 Pittsburgh, PA 15244
 7) DESIGNATED AGENT: Gary Nicholas
 Address Crosswind Corporate Park Route 2 Box 698
 Bridgeport W. VA. 26330
 8) OIL & GAS INSPECTOR TO BE NOTIFIED
 Name Mike Underwood
 Address Rte 2 Box 114
 Salem, W. VA. 26426
 9) DRILLING CONTRACTOR:
 Name Sam Jack Drilling Company
 Address P.O. Box 48
 Buckhannon, W. VA. 26201
 10) PROPOSED WELL WORK: Drill deeper 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, 5375 feet
 13) Approximate strata depths: Fresh, 1380 feet; salt, 13 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		
Conductor							
Fresh water	1 1/4	H-40	42	X		40	To Surface
Coal							By Rule 15.05
Intermediate	8-5/8	X-42	23	X		1450	To Surface
Production	4 1/2	J-55	105	X		5375	By Rule 15.05
Tubing	1 1/2	CN-55	2.75	X		200-400	Depths set
Liners							By Rule 15.01
							Perforations:
							Top
							Bottom

OFFICE USE ONLY
DRILLING PERMIT

Permit number 47-017-3416

March 14, 19 85
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 14, 1987 unless well work is commenced prior to that date and prosecuted with due diligence.

Bond:	Agent:	Plat:	Casing	Fee
28	MW	MW	MW	6965

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

2/12

