



7.5 DGIS topo loc. 15' loc
 1.94S 1.94S
 1.62W 3.88W

FILE NO. BK 57 P 60
 DRAWING NO. _____
 SCALE 1" = 1000
 MINIMUM DEGREE OF ACCURACY 1-2500
 PROVEN SOURCE OF ELEVATION U.S.G.S.B.M.
2-JJS EL 763.42

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) C. S. Valley Jr.
 R.P.E. _____ ULS. 92

PLACE SEAL HERE

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



DATE SEPT 1, 1980
 OPERATOR'S WELL NO. C-9
 API WELL NO. 47-039-3664LI
 STATE COUNTY PERMIT

STATE OF WEST VIRGINIA
 DEPARTMENT OF MINES
 OIL AND GAS DIVISION

WELL TYPE: OIL ___ GAS ___ LIQUID INJECTION ___ WASTE DISPOSAL X
 (IF "GAS") PRODUCTION ___ STORAGE ___ DEEP ___ SHALLOW ___
 LOCATION: ELEVATION 933.24 WATER SHED INDIAN CREEK
 DISTRICT ELK COUNTY KANAWHA
 QUADRANGLE BLUE CREEK (LENDEN) WC
 SURFACE OWNER FAYETTE LUMBER CO ACREAGE 500
 OIL & GAS ROYALTY OWNER C.J. HUNT LEASE ACREAGE 700
 LEASE NO. _____
 PROPOSED WORK: DRILL X CONVERT ___ DRILL DEEPER ___ REDRILL ___ FRACTURE OR STIMULATE X PLUG OFF OLD FORMATION ___ PERFORATE NEW FORMATION ___ OTHER PHYSICAL CHANGE IN WELL (SPECIFY) _____

PLUG AND ABANDON ___ CLEAN OUT AND REPLUG ___
 TARGET FORMATION WEIR ESTIMATED DEPTH 2000
 WELL OPERATOR GARY ENERGY CORP DESIGNATED AGENT JAY J. VARGO
 ADDRESS FOUR INVERNESS COURT ADDRESS 1268 GREENBRIER ST
ENGLEWOOD COLORADO 80112 CHARLESTON WV 25311

OCT 28 1980

RECEIVED



OCT 18 1982

OIL AND GAS DIVISION
WV DEPARTMENT OF MINES

IV-35
(Rev 8-81)

Date October 6, 1982
Operator's
Well No. C-9
Farm C.J. Hunt
API No. 47 - 039 - 3664-LI

RECEIVED of West Virginia

OCT 18 1982 Department of Mines
Oil and Gas Division
OIL AND GAS DIVISION
WV DEPARTMENT OF MINES

WELL OPERATOR'S REPORT
OF

DRILLING, FRACTURING AND/OR STIMULATING, OR PHYSICAL CHANGE

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

LOCATION: Elevation: 933' Watershed Indian Creek
District: Elk County Kanawha Quadrangle Blue Creek

COMPANY GARY ENERGY CORPORATION
ADDRESS 112 Indian Lake Dr., Elkview, W.Va.
DESIGNATED AGENT DANIEL L. PAULEY
ADDRESS 112 Indian Lake Dr., Elkview, W.Va.
SURFACE OWNER FAYETTE LUMBER COMPANY
ADDRESS P.O. Box A Dixie, West Virginia
MINERAL RIGHTS OWNER See Title Opinion 25059
ADDRESS _____
OIL AND GAS INSPECTOR FOR THIS WORK Homer
H. Dougherty ADDRESS Looneyville, W.Va.
PERMIT ISSUED October 3, 1980
DRILLING COMMENCED November 29, 1980
DRILLING COMPLETED December 5, 1980

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"			
9 5/8			
8 5/8	465' KB	465' KB	Cement to Surface
7			
5 1/2			
4 1/2	2124' KB	2124' KB	Cement to Surface
3			
2			
Liners used			

GEOLOGICAL TARGET FORMATION Pocono Weir Depth 1962' feet
Depth of completed well 2125' feet Rotary X / Cable Tools _____
Water strata depth: Fresh _____ feet; Salt 890' feet
Coal seam depths: 318-328' 404-418' Is coal being mined in the area? NO

OPEN FLOW DATA

Producing formation Weir Pay zone depth 1962' feet
Gas: Initial open flow _____ Mcf/d Oil: Initial open flow _____ Bbl/d
Final open flow _____ Mcf/d 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
(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

OCT 25 1982

(Continue on reverse side)

FORM IV-35
(REVERSE)

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

NOTES

This is a new well. Drilled to 2125'.

Ran 455' of all new 8 5/8" (Grade H 40 20#/ft.) casing and cemented to surface.

Ran 2114' of all new 4 1/2" (J55 12.6) casing and cemented to surface.

We plan to use this well for CO₂ Injection.

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	10	
Rock and Shale			10	185	
Sand and Slate with Rock			185	273	
Rock and Shale			273	318	
Coal			318	328	
Rock and Shale			328	404	
Coal			404	418	
Shale			418	470	
Sand Shale			470	760	
Shale			760	890	
Salt Sand			890	1290	
Salt and Sand			1290	1400	
Shale and Sand			1400	1430	
Sand			1430	1575	
Little Lime			1575	1625	
Pencil Cave			1625	1628	
Big Lime			1628	1806	
Big Injun			1806	1840	
Shale			1840	1881	
Squaw Sand			1881	1940	
Shale			1940	1962	
<u>Weir</u>			1962	2061	
Shale			2061	<u>2125</u>	

(Attach separate sheets as necessary)

GARY ENERGY CORPORATION

Well Operator

By:

Daniel L. Paulsen

Date:

10-15-82

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."

[08-78]

Operator's Well No. C-9
API Well No. 47 - 039 - 3664-LI
State County Permit

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

LIQUID INJECTION OR WASTE DISPOSAL WELL PERMIT APPLICATION

WELL TYPE: Liquid Injection X / Waste Disposal _____
LOCATION: Elevation: 933 ft. Watershed: Indian Creek
District: Elk County: Kanawha Quadrangle: Blue Creek
GEOLOGICAL TARGET FORMATION: Pocono (Weir) Approximate depth 2000 feet
Virgin reservoir pressure in target formation 150 psig (surface measurement)
Source of information on virgin reservoir pressure Measurement from adjacent new well
(C. J. Hunt 3-T)

WELL OPERATOR Gary Energy Corporation
Address 112 Indian Lake Drive
Elkview, West Virginia 25071

DESIGNATED AGENT Dan Pauley
Address 112 Indian Lake Drive
Elkview, West Virginia 25071

ROYALTY OWNER See title opinion
Address _____

COAL OPERATOR NONE
Address _____

ACREAGE 700
SURFACE OWNER Fayette Lumber Company
Address P. O. Box A
Dixie, W. Va. 25059
ACREAGE 470

COAL OWNER(S) ~~XXXXXXXXXXXXXXXXXXXX~~
Name D. L. Ray and Carol Ann Young
Address _____

OIL & GAS INSPECTOR TO BE NOTIFIED
Name Martin Nichols
Address P. O. Box 554
Clendenin, W. Va. 25045
548-6993

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OCT - 3 1980
COAL LESSEE WITH DECLARATION ON RECORD:
Name NONE
Address _____
OIL & GAS DIVISION
DEPT. OF MINES

The undersigned well operator is entitled to operate for liquid injection or waste disposal purposes at the above location under a deed _____ / lease _____ / other contract X / dated July 30 1980, to the undersigned well operator from Permeator Corporation

[If said deed, lease, or other contract has been recorded:]
Recorded on August 18, 1980, in the office of the Clerk of the County Commission of Kanawha County, West Virginia, in Assignment Book 93 at page 201. A permit is requested as follows:

PROPOSED WORK: Convert _____ / Drill X / Drill deeper _____ / Redrill _____ / Fracture or stimulate X
Plug off old formation _____ / Perforate new formation _____
Other physical change in well (specify) _____

--planned as shown on the work order on the reverse side hereof.

Date of first liquid injection or waste disposal: June 1, 19 81

The above named coal operator, coal owner(s), and coal lessee are hereby notified that any objection they wish to make or are required to make by Code § 22-4-1 must be filed with the Department of Mines within thirty (30) days after the receipt of this Application by the Department.

This Permit Application and the enclosed plat and reclamation plan have been filed and registered and delivered by mail to the above named coal operator, coal owner(s), and coal lessee on or before the day of the mailing or delivery of this Permit Application to the Department of Mines at Charleston, West Virginia.

PLEASE PRINT NAMES OF ALL
PROPHYSICAL DATA DIRECTLY TO:
WEST VIRGINIA OIL AND GAS
CONSERVATION COMMISSION
1014 WASHINGTON STREET EAST
CHARLESTON, WV 25301
TELEPHONE: 336-144-1000

Gary Energy Corporation
Well Operator
By J. J. Vargo
Production Manager

BLANKET BOND

FORM IV-3
(reverse)
8-78]

PROPOSED WORK ORDER

THIS IS AN ESTIMATE ONLY:
ACTUAL INFORMATION MUST BE SUBMITTED ON
FORM IV-35 AND/OR FORM IV-37 UPON COMPLETION

DRILLING CONTRACTOR (IF KNOWN) Clint Hurt & Associates, Inc.
Address P. O. Box 383
Elkview, W. Va. 25071

GEOLOGICAL TARGET FORMATION, Pocono (Weir)

Estimated depth of completed well, 2000 feet Rotary / Cable tools /
Approximate water strata depths: Fresh, N/A feet; salt, 740 feet.
Approximate coal seam depths: 555-559 Is coal being mined in the area? Yes / No /
641-644 ¹²⁴⁰

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	13	H40		X		30'	0	Kinds
Fresh water								
Coal								Sizes
Intermediate	8 5/8	H40	20#	X		400'	To Surface	
Production	4 1/2	K55	105#	X		2000'	To Surface	Depths set
Tubing								
Liners								Perforations:
								Top Bottom

NOTE 1: Regulation 7.02 of the Department of Mines provides that the original and four copies of Form IV-3 must be filed with the Department, accompanied by (i) a plat in the form prescribed by Regulation 11, (ii) a bond in one of the forms prescribed by Regulation 12, or in lieu thereof the other security allowed by Code § 22-4-2a, (iii) unless previously paid on the same well, the fee required by Code § 22-4-12a, (iv) Form IV-9, "Reclamation Plan", applicable to the reclamation required by Code § 22-4-12b and Regulation 23, and (v) if applicable, the consent required by Code § 22-4-8a from the owner of any water well or dwelling within 200 feet of the proposed well.

A separate Form IV-3 shall not be required for fracturing or stimulating a well where fracturing or stimulating is to be part of the work for which a permit is sought and is noted as such on the Form IV-3 filed in connection therewith.

NOTE 2: In addition to the permit required from the Department of Mines, the operator of a disposal well must obtain a separate permit from the Department of Natural Resources under the provisions of Code § 20-5A-5(b)(7).

NOTE: This well will be drilled and cored with a low water loss mud system.

All provisions being in accordance with Chapter 22, of the W. Va. Code, the location is hereby approved for drilling. This permit shall expire if operations have not commenced by 6-7-81.

J. E. Murray
Deputy Director - Oil & Gas Division

The following waiver must be completed by the coal operator and by any coal owner or coal lessee who has recorded a declaration under Code § 22-4-20, if the permit is to be issued within thirty (30) days of receipt thereof:

W A I V E R

The undersigned coal operator / owner / lessee / of the coal under this well location has examined this proposed well location. If a mine map exists which covers the area of the well location, the well location has been added to the mine map. The undersigned has no objection to the work proposed to be done at this location, provided, the well operator has complied with all applicable requirements of the West Virginia Code and the governing regulations.

Date: , 19
By
Its

Survey