



FILE NO. BK 57 P 61
 DRAWING NO. _____
 SCALE 1" = 1000'
 MINIMUM DEGREE OF ACCURACY 1-2500
 PROVEN SOURCE OF ELEVATION USGS BM
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. V.S. 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-2
 API WELL NO. 47-039-3657 LI
 STATE COUNTY PERMIT

STATE OF WEST VIRGINIA
 DEPARTMENT OF MINES
 OIL AND GAS DIVISION

WELL TYPE: OIL ___ GAS ___ LIQUID INJECTION WASTE DISPOSAL ___
 (IF "GAS,") PRODUCTION ___ STORAGE ___ DEEP ___ SHALLOW ___
 LOCATION: ELEVATION 745.78 WATER SHED INDIAN CREEK
 DISTRICT ELK COUNTY KANAWHA
 QUADRANGLE BLUE CREEK CLENDENIN WC
 SURFACE OWNER WESLEY H O'DELL HRS ACREAGE 178
 OIL & GAS ROYALTY OWNER C.J. HUNT LEASE ACREAGE 700
 LEASE NO. _____
 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 ___
 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 25301 28 1980



IV-35
(Rev 8-81)

State of West Virginia
Department of Mines
Oil and Gas Division

Date October 1, 1982
Operator's
Well No. C-2
Farm C.J. Hunt
API No. 47 - 039 - 3657-LI

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: 746' 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 Russ & Olive Culpepper
ADDRESS 510 Kanawha Blvd. W., Charleston, W.Va.
MINERAL RIGHTS OWNER See Title Opinion
ADDRESS _____
OIL AND GAS INSPECTOR FOR THIS WORK Homer
H. Dougherty ADDRESS Looneyville, W.Va.
PERMIT ISSUED October 1980
DRILLING COMMENCED October 30, 1980
DRILLING COMPLETED November 3, 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 | 288' | 288' | Cement to Surface |
| 7 | | | |
| 5 1/2 | | | |
| 4 1/2 | 1936'KB | 1936'KB | Cement to Surface |
| 3 | | | |
| 2 | | | |
| Liners used | | | |

GEOLOGICAL TARGET FORMATION Pocono Weir Depth 1790' feet
Depth of completed well 1950' feet Rotary X / Cable Tools _____
Water strata depth: Fresh _____ feet; Salt 1120' feet
Coal seam depths: 161'-167', 223'-243' Is coal being mined in the area? NO

OPEN FLOW DATA

Producing formation Weir Sand Pay zone depth 1790' 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

(Continue on reverse side)

MAX 1 4 1983

FORM IV-35
(REVERSE)

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

NOTES

This is a new well. Drilled to 1950'.

Ran 288' of all new 8 5/8" (20^{H 40}#/ft.) casing and cemented to surface.

Ran 1936' of all new 4 1/2" (J55-12.6) casing and cemented to surface.

We plan to use this well for H₂O 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 |
| Sub Base | | | 0 | 10 | |
| Sand, Shale and Rock | | | 10 | 161 | |
| Coal | | | 161 | 167 | |
| Sand and Shale | | | 167 | 223 | |
| Coal | | | 223 | 243 | |
| Sand and Shale | | | 243 | 300 | |
| Shale | | | 300 | 470 | |
| Shale and Sand | | | 470 | 1120 | |
| Salt Sand | | | 1120 | 1348 | |
| Maxon Sand | | | 1348 | 1379 | |
| Sand and Shale | | | 1379 | 1450 | |
| Big Lime | | | 1450 | 1603 | |
| Big Injun | | | 1603 | 1650 | |
| Shale | | | 1650 | 1740 | |
| Shale and Sand | | | 1740 | 1790 | |
| Weir Sand | | | 1790 | 1950 | |

(Attach separate sheets as necessary)

GARY ENERGY CORPORATION

Well Operator

By: 

Date: 2-14-83

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."

FORM IV-35
(REVERSE)

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

NOTES

This is a new well. Drilled to 1950'.

Ran 288' of all new 8 5/8" (20^{H 40}#/ft.) casing and cemented to surface.

Ran 1936' 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 |
| Sub Base | | | 0 | 10 | |
| Sand, Shale and Rock | | | 10 | 161 | |
| Coal | | | 161 | 167 | |
| Sand and Shale | | | 167 | 223 | |
| Coal | | | 223 | 243 | |
| Sand and Shale | | | 243 | 300 | |
| Shale | | | 300 | 470 | |
| Shale and Sand | | | 470 | 1120 | |
| Salt Sand | | | 1120 | 1348 | |
| Maxon Sand | | | 1348 | 1379 | |
| Sand and Shale | | | 1379 | 1450 | |
| Big Lime | | | 1450 | 1603 | |
| Big Injun | | | 1603 | 1650 | |
| Shale | | | 1650 | 1740 | |
| Shale and Sand | | | 1740 | 1790 | |
| <u>Weir Sand</u> | | | 1790 | <u>1950</u> | |

(Attach separate sheets as necessary)

GARY ENERGY CORPORATION

Well Operator

By: Daniel L. Pauley

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."

RM 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 X / 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 X /
641-644

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 | 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. G. Huggins
 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