

NOTE - NO WELLS
WITHIN 1200'
RADIUS

FILE NO. _____
DRAWING NO. _____
SCALE 1" = 1000'
MINIMUM DEGREE OF
ACCURACY 1 IN 200
PROVEN SOURCE OF
ELEVATION ELEV. 616 INT OF
RT 47 AND FALL RUN ROAD

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 REGU-
LATIONS ISSUED AND PRESCRIBED BY THE DEPART-
MENT OF MINES
(SIGNED) Samuel R. Boyce
R.P.E. _____ L.L.S. 667

PLACE SEAL HERE

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



DATE MAY 11, 1982
OPERATOR'S WELL NO. COLLUMS-1
API WELL NO. _____
47 - 107 - 1217-P
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 610 WATER SHED LITTLE KANAWHA RIVER
DISTRICT CLAY COUNTY WOOD
QUADRANGLE Kanawha
SURFACE OWNER J. PAUL COLLUMS ACREAGE 339
OIL & GAS ROYALTY OWNER SAME LEASE ACREAGE 339
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) _____

JUN 30 1986

PLUG AND ABANDON _____ CLEAN OUT AND REPLUG _____
TARGET FORMATION MARCELLUS SHALE ESTIMATED DEPTH 4000'
WELL OPERATOR Clay Resource DESIGNATED AGENT Andy Brown
ADDRESS Marietta, Ohio ADDRESS Box 32

M.S. 6/28/82

9510

LATITUDE 39°-10'
39-10

LONGITUDE 81-22-30

NORTH

R. W. WARNER

WESTVACO

HYER

P. COLLUMS

W. JACOBS

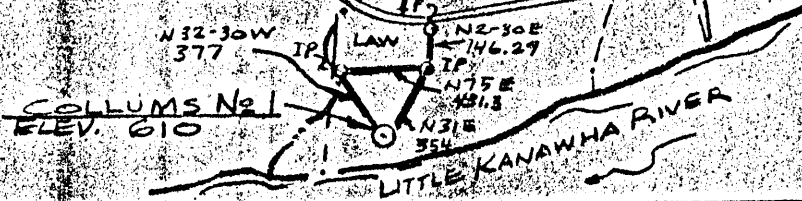
CLEGG

S85E 1192

488

SMALL LOTS

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 (SIGNED) Daniel R. Bence
 R.P.E. _____ L.S. 667

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 FORM IV-6 (8-78)



DATE MAY 11, 1982
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 API WELL NO. 47-107-1217-P
 STATE COUNTY PERMIT

STATE OF WEST VIRGINIA
 DEPARTMENT OF MINES
 OIL AND GAS DIVISION

PL CANCELLED

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 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 MARCELLUS SHALE ESTIMATED DEPTH 4000'
 WELL OPERATOR Clay Resource DESIGNATED AGENT Andy Brown
 ADDRESS Marietta, Ohio ADDRESS Box 32 Reader, W.V.

MAR 11 1982

WOOD 1217-P

M.J. 6/28/82

9510

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39-10

LONGITUDE 81-22-30
81-20

NORTH

R. W. WARNER

WESTVACO

HYER

P. COLLUMS

W. JACOBS

CLEGG

S85E 1192

N35W 567

5187.7

S4W 5184.3

7 1/2

N4-52E

N32-30W 377

N79E

SMALL LOTS

N2-30E 146.29

N75E 431.3

N31E 354

COLLUMS No 1
ELEV. 610

LITTLE KANAWHA RIVER

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R.P.E. _____ L.L.S. 667

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TOPOGRAPHIC MAPS
FORM IV-6
(8-78)



DATE MAY 11, 19 82
OPERATOR'S WELL NO. COLLUMS-1
API WELL NO.
47-107-1217-P
STATE COUNTY PERMIT

STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
OIL AND GAS DIVISION

PL. CANCELLED.
FRAC CANCELLED

WELL TYPE: OIL GAS LIQUID INJECTION _____ WASTE DISPOSAL _____
(IF "GAS,") PRODUCTION STORAGE _____ DEEP _____ SHALLOW
LOCATION: ELEVATION 610 WATER SHED LITTLE KANAWHA RIVER
DISTRICT CLAY COUNTY WOOD
QUADRANGLE Kanawha
SURFACE OWNER J. PAUL COLLUMS ACREAGE 339
OIL & GAS ROYALTY OWNER SAME LEASE ACREAGE 339
LEASE NO. _____
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STIMULATE _____ PLUG OFF OLD FORMATION _____ PERFORATE NEW
FORMATION _____ OTHER PHYSICAL CHANGE IN WELL (SPECIFY) _____

PLUG AND ABANDON _____ CLEAN OUT AND REPLUG _____
TARGET FORMATION MARCELLUS SHALE ESTIMATED DEPTH 4000'
WELL OPERATOR Clay Resource DESIGNATED AGENT Andy Brown
ADDRESS Marietta, Ohio ADDRESS Box 32
Reader, W.V.

JUL 1 1988

Wood 1217-P CAN.

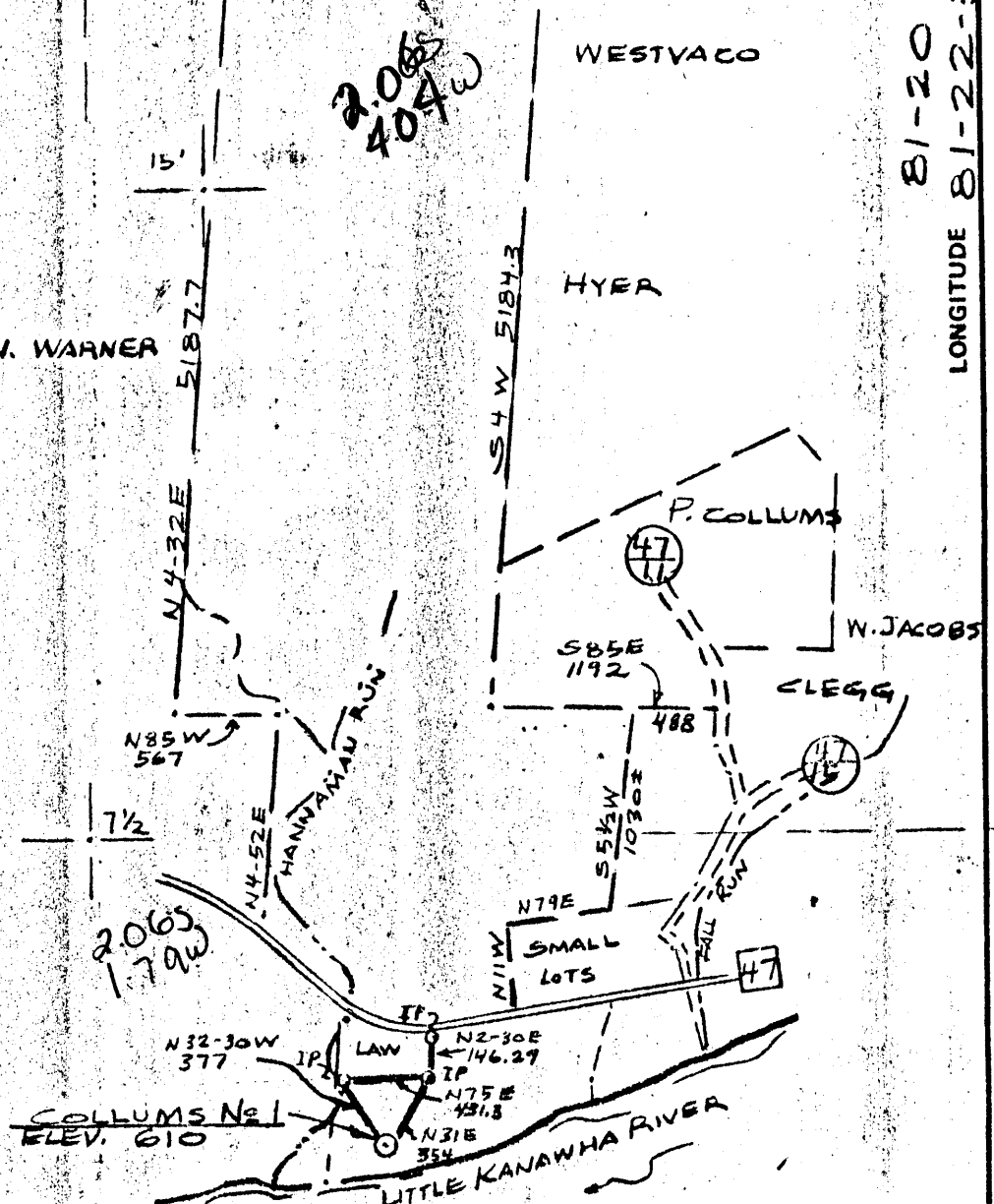
M.D. 8/28/82

CODE _____ CARD _____ PLOT 9510

LATITUDE 39°-10"
39-10

LONGITUDE 81-22-30
10,820

NORTH



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 MENT OF MINES.
 (SIGNED) Daniel R. Boice
 R.P.E. _____ L.L.S. 667

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 FORM IV-6
 (8-78)



DATE MAY 11, 1982
 OPERATOR'S WELL NO. Collums-1
 API WELL NO. _____
47 - 107 - 1217-F
 STATE COUNTY PERMIT

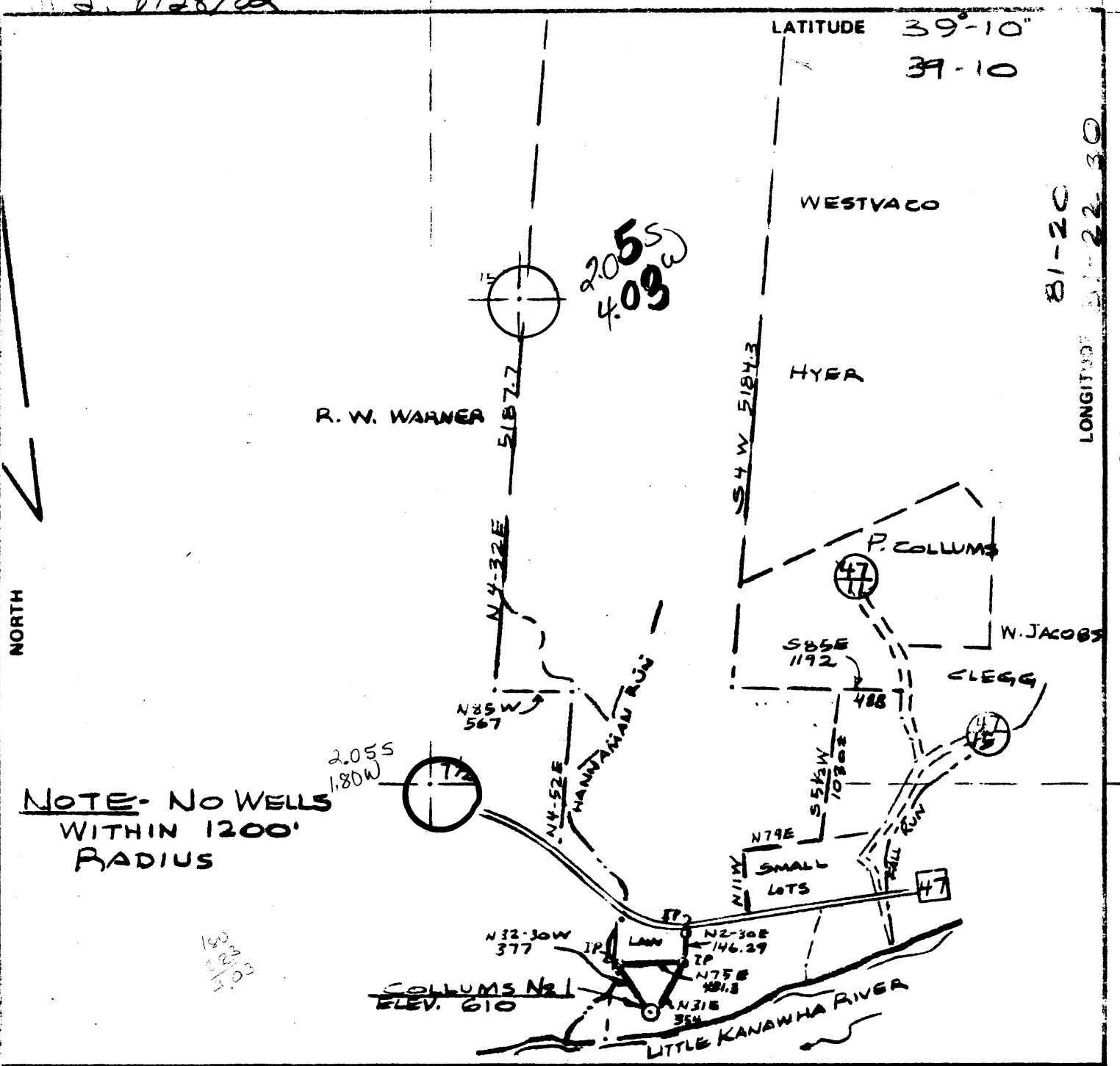
STATE OF WEST VIRGINIA
 DEPARTMENT OF MINES
 OIL AND GAS DIVISION

WELL TYPE: OIL GAS LIQUID INJECTION _____ WASTE DISPOSAL _____
 (IF "GAS,") PRODUCTION STORAGE _____ DEEP _____ SHALLOW
 LOCATION: ELEVATION 610 WATER SHED LITTLE KANAWHA RIVER
 DISTRICT CLAY COUNTY WOOD
 QUADRANGLE Kanawha 413 0385
 SURFACE OWNER J. PAUL COLLUMS ACREAGE 339
 OIL & GAS ROYALTY OWNER SAME LEASE ACREAGE 339
 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) _____

MAY 12 1986

PLUG AND ABANDON _____ CLEAN OUT AND REPLUG _____
 TARGET FORMATION MARCELLUS SHALE ESTIMATED DEPTH 4000'
 WELL OPERATOR Clay Resource DESIGNATED AGENT Andy Brown
 ADDRESS Marietta, Ohio 172 ADDRESS Box 32
Reader, WV

6/28/82



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 (SIGNED) Samuel R. Boice
 R.P.E. _____ L.L.S. 667

PLACE SEAL HERE

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



DATE MAY 11, 1982
 OPERATOR'S WELL NO. COLLUMS-1
 API WELL NO. _____
47 - 107 - 1217
 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 610 WATER SHED LITTLE KANAWHA RIVER
 DISTRICT CLAY COUNTY WOOD
 QUADRANGLE Kanawha ELY 15'C
 SURFACE OWNER J. PAUL COLLUMS ACREAGE 339
 OIL & GAS ROYALTY OWNER SAMB LEASE ACREAGE 339
 LEASE NO. _____
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PLUG AND ABANDON _____ CLEAN OUT AND REPLUG _____
 TARGET FORMATION MARCELLUS SHALE ESTIMATED DEPTH 4000'
 WELL OPERATOR ENERGEX OIL & GAS DESIGNATED AGENT WALTER ALLEN
 ADDRESS P.O. Box 5306 ADDRESS P.O. Box 5306
VIENNA, W. VA 26105 VIENNA, W. VA 26105

JUL 06 1982

RECEIVED



IV-35
(Per 8-81)

SEP - 7 1982

OIL AND GAS DIVISION
WV DEPARTMENT OF MINES

State of West Virginia

Department of Mines
Oil and Gas Division

Date Sept. 4, 1982
Operator's
Well No. EN107-1217
Farm J. Collums #1
API No. 47 - 107 - 1217

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 ___ / Underground Storage ___ / Deep ___ / Shallow x /)

LOCATION: Elevation: 610' Watershed Little Kanawha River
District: Clay County Wood Quadrangle Kanawha

COMPANY Energex Oil & Gas Corporation
ADDRESS P.O. Box 5306, Vienna, WV 26105
DESIGNATED AGENT W. H. Allen
ADDRESS P.O. Box 5306, Vienna, WV 26105
SURFACE OWNER J. Paul & Alice I Collums
ADDRESS Route 1, Walker, WV 26180
MINERAL RIGHTS OWNER Same as above
ADDRESS Same as above
OIL AND GAS INSPECTOR FOR THIS WORK DEO
Male ADDRESS Rt.#1, Sandridge, WV
PERMIT ISSUED June 23, 1982
DRILLING COMMENCED July 8, 1982
DRILLING COMPLETED July 16, 1982
IF APPLICABLE: PLUGGING OF DRY HOLE ON
CONTINUOUS PROGRESSION FROM DRILLING OR
REWORKING. VERBAL PERMISSION OBTAINED
ON Not applicable

Casing Tubing	Used in Drilling	Left in Well	Cement fill up Cu. ft.
Size 20-16 Cord.			
13-10"			
9 5/8			
8 5/8	240'	240'	to surface
7			
5 1/2			
4 1/2	3919	3919	220 sacks
3			
2			
Liners used			

GEOLOGICAL TARGET FORMATION Devonian Shale Depth 4,000 feet
Depth of completed well 3919 feet Rotary x / Cable Tools ___
Water strata depth: Fresh ___ feet; Salt ___ feet
Coal seam depths: None Is coal being mined in the area? No

OPEN FLOW DATA

Producing formation Shale HURON Pay zone depth 3400-3660' feet
Gas: Initial open flow 1.2 Mcf/d Oil: Initial open flow 0 Bbl/d
Final open flow 500 Mcf/d Final open flow 0 Bbl/d
Time of open flow between initial and final tests 8 hours
Static rock pressure 525 psig (surface measurement) after 24 hours shut in
(If applicable due to multiple completion--)
Second producing formation N/A 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 10 1982
(Continue on reverse side)
SEP 13 1982

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

Up Rev.
Perfs. 3304 to 3442 30.500 shots
Fracked with 850,000 cubic Feet N2

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS Including indication of all fresh and salt water, coal, oil and gas
Big Injun	white	hard	1608	1722	
Shale	gray	soft	1722	1756	
Squaw	white	hard	1756	1722	
Shale	gray	soft	1722	2210	
Berea	gray	hard	2210	2220	
Bedford	gray	hard	2220	2318	
Gantz	gray	hard	2318	2358	
Shale	gray	soft	2358	2566	
Gordon	gray	hard	2566	2595	
Shale	gray	soft	2595	3120	
Balltown	gray	hard	3120	3200	
Shale	gray	soft	3200	3310	
Speechley	gray	hard	3310	3360	
Shale	gray	soft	3360	4000	TO driller
				TO 3919	logger

HURON

4370
3550
4/30

(Attach separate sheets as necessary)

Energex Oil and Gas Corporation

Well Operator

By: *W. H. Allen*

Date: *9/4/82*

Note: Regulation 2.02(i) provides as follows:
The term 'log' or 'well log' shall mean a systematic detail of well log data, including



Date: 6-23, 19 82

Operator's Well No. Collums - 1

API Well No. 47 107 1217
State County Permit

STATE OF WEST VIRGINIA
DEPARTMENT OF MINES, OIL AND GAS DIVISION
OIL AND GAS WELL PERMIT APPLICATION

WELL TYPE: Oil X / Gas /
(If "Gas", Production X / Underground storage / Deep / Shallow X /)

LOCATION: Elevation: 610 Watershed: Little Kanawha River
District: Clay County: Wood Quadrangle: Kanawha

WELL OPERATOR Energex Oil and Gas Corp. DESIGNATED AGENT Walter Allen
Address P.O. Box 5306 Address P.O. Box 5306
Vienna, WV 26105 Vienna, WV 26105

OIL & GAS ROYALTY OWNER J. P. Collums
Address Rt. 1
Walker, WV 26180

COAL OPERATOR
Address

Acreage 339 Ae.
SURFACE OWNER Same
Address
Acreage Same

COAL OWNER(S) WITH DECLARATION ON RECORD:
Name
Address
Name JUN 23 1982
Address OIL AND GAS DIVISION
WV DEPARTMENT OF MINES

FIELD SALE (IF MADE) TO:
Address N/A

COAL LESSEE WITH DECLARATION ON RECORD:
Name
Address

OIL & GAS INSPECTOR TO BE NOTIFIED
Name Deo Mace
Address Rt. #1, Box 65
Sandridge, WV
304-665-8693

The undersigned well operator is entitled to operate for oil or gas purposes at the above location under a deed / lease X
other contract / dated Dec. 8, 19 78, to the undersigned well operator from J. Paul Collums

(If said deed, lease, or other contract has been recorded:)
Recorded on Dec., 19 78, in the office of the Clerk of the County Commission of Wood County, West Va., in Deed Book 714 at page 730. A permit is requested as follows:

PROPOSED WORK: Drill X / Drill deeper / Redrill / Fracture or stimulate /
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.

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 §22-4-3 must be filed with the Department of Mines within fifteen (15) days after the receipt of this Application by the Department.

Copies of this Permit Application and the enclosed plat and reclamation plan have been mailed by registered mail or delivered by hand 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 SUBMIT COPIES OF ALL GEOPHYSICAL LOGS DIRECTLY TO:
WEST VIRGINIA OIL AND GAS CONSERVATION COMMISSION
1615 WASHINGTON STREET EAST CHARLESTON, WV 25311
TELEPHONE: (304) 348-3092

BLANKET BOND

Energex Oil & Gas Corp.
Well Operator
By
Agent

PROPOSED WORK ORDER

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

DRILLING CONTRACTOR (IF KNOWN) Paul Drilling Corporation
Address P.O. Box 1365
Parkersburg, WV 26101

GEOLOGICAL TARGET FORMATION, Marcellus Shale

Estimated depth of completed well, 4000 feet Rotary X / Cable tools /
Approximate water strata depths: Fresh, 100 feet; salt, 150 feet.
Approximate coal seam depths: None Is coal being mined in the area? Yes / No X /

CASING AND TUBING PROGRAM

CASING OR TUBING TYPE	SPECIFICATIONS			New	Used	FOOTAGE INTERVALS		CEMENT FILL-UP OR SACKS (Cubic feet)	PACKERS
	Size	Grade	Weight per ft			For drilling	Left in well		
Conductor									Kinds
Fresh Water	8 5/8	St&C	24	X		300	300	To Surface	
Coal									Sizes
Intermediate									
Production	4 1/2	St&C	9 1/2	X		4000	4000'	2000'	4000' or as req. by Rule 15.01
Tubing									
Liners									Perforations:
									Top Bottom

NOTE: Regulation 7.02 of the Department of Mines provides that the original and four copies of Form IV-2 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 § 22-4-2, (iii) Form IV-9, "Reclamation Plan", applicable to the reclamation required by Code § 22-4-12b and Regulation 23, (iv) unless previously paid on the same well, the fee required by Code § 22-4-12a, 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-2 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-2 filed in connection therewith.

THIS PERMIT MUST BE POSTED AT THE WELL SITE.
ALL PROVISIONS BEING IN ACCORDANCE WITH CHAPTER 22,
ARTICLE 4 OF THE W. VA. CODE, THE LOCATION IS HEREBY
APPROVED FOR drilling. THIS PERMIT SHALL EXPIRE
IF OPERATIONS HAVE NOT COMMENCED BY 3-1-83.
BY [Signature]

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 fifteen (15) days of receipt thereof.

WAIVER

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