

LATITUDE 39° 27' 30"
39° 30'

O. P. GATRILL
73 a

G. GREGG
100a

E. SPENCER
443a

MS. HADLEY
144a

PROP WELL
NOWK-58
EL 824.0

3.525
3.92w

M.S. HADLEY
124 a

A.T. NICOLS

NORTH

LONGITUDE 80° 45'
80° 47' 30"

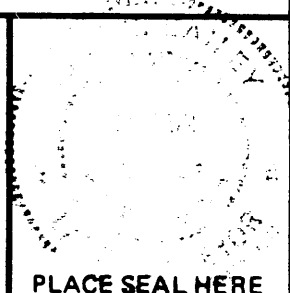
NOTE
NO OTHER WELLS WITHIN
2400' FOUND.

PLAT PREPARED BY MOUNTAIN STATE ENVIRONMENTAL SERVICE.

FILE NO. MSES - 82-14
DRAWING NO. _____
SCALE 1" = 1000'
MINIMUM DEGREE OF
ACCURACY 1 PART IN 200
PROVEN SOURCE OF
ELEVATION NW-SIDE BRIDGE ABT.
RT. 18, U.S.G.S.-1937, ELEV. 710.00'

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) John S. Bailey
R.P.E. _____ L.L.S. 652



STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
OIL AND GAS DIVISION



DATE APRIL - 6, 19 82
OPERATOR'S WELL NO. WK - 58
API WELL NO. _____
47 - 095 - 0994
STATE COUNTY PERMIT

(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS
WELL TYPE: OIL ___ GAS X LIQUID INJECTION ___ WASTE DISPOSAL ___
(IF "GAS,") PRODUCTION ___ STORAGE ___ DEEP ___ SHALLOW X
LOCATION: ELEVATION 821.0' WATER SHED INDIAN CREEK
DISTRICT MC ELROY COUNTY TYLER
QUADRANGLE SHIRLEY 7.5' (1961) West Union 15' NE
SURFACE OWNER MAURINE S. HADLEY, 1/2 INT. & OTHERS ACREAGE 137.38
OIL & GAS ROYALTY OWNER MAURINE S. HADLEY LEASE ACREAGE 144.0
LEASE NO. _____

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 ___ 3-3 Big Moses (94) JUN 2 1982
TARGET FORMATION ELK ESTIMATED DEPTH 5600'
WELL OPERATOR KEPCO, INC. DESIGNATED AGENT KEPCO, INC. E. L. STUART
ADDRESS 436 BLVD. OF THE ALLIES ADDRESS 436 BLVD. OF THE ALLIES P.O. BOX 1550
PITTSBURGH, PA. 15219 PITTSBURGH, PA. 15219 CLARKSBURG, W.VA. 26301

RECEIVED
JUN 15 1983

State of West Virginia
Department of Mines
Oil and Gas Division

Date October 20, 1982
Operator's
Well No. WK-58
Farm Maurine S. Hadley
API No. 47 - 095 - 0915
0994

JUN 27 1983

OIL & GAS DIVISION
DEPT. OF MINES

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 x / Underground Storage / Deep / Shallow x /)

LOCATION: Elevation: 821.0' Watershed Indiana Creek
District: McElroy County Tyler Quadrangle Shirley 7.5'

COMPANY Keeco, Inc.
ADDRESS 436 Boulevard of the Allies
Pittsburgh, PA 15219

DESIGNATED AGENT E. L. Stuart
ADDRESS P.O. Box 1550
Clarksburg, W.VA. 26301

SURFACE OWNER Maurine S. Hadley
ADDRESS Middlebourne, West Virginia 26149

MINERAL RIGHTS OWNER Maurine S. Hadley, et al
ADDRESS Middlebourne, West Virginia 26149

OIL AND GAS INSPECTOR FOR THIS WORK Robert
Lowther ADDRESS Middlebourne, WV 26149

PERMIT ISSUED April 26, 1982

DRILLING COMMENCED July 13, 1982

DRILLING COMPLETED July 20, 1982

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

Casing & Tubing	Used in Drilling	Left in Well	Cement fill up Cu. ft.
Size - 20-16 - Cond.			
13-10"	222'	222'	95 sks RCF
9 5/8			
8 5/8	1827'	1827'	10 sx pozmix 100 sx Class A
7			
5 1/2			
4 1/2	4935'	4935'	655 sx pozmix
3			
2			
Liners used			

GEOLOGICAL TARGET FORMATION Elk Depth 5600' feet

Depth of completed well 5904 feet Rotary x / Cable Tools

Water strata depth: Fresh None Reported feet; Salt None Reported feet

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

OPEN FLOW DATA

Producing formation Commingled Benson & Riley Pay zone depth 4813'; 4391' feet *see back*

Gas: Initial open flow 0 Mcf/d Oil: Initial open flow 0 Bbl/d
Final open flow 189 Mcf/d Final open flow 0 Bbl/d

Time of open flow between initial and final tests 8 hours

Static rock pressure 1050 psig (surface measurement) after 48 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

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

Perfs: ~~Benson~~ 4813'-4818' 21 holes Avg. press. 2500 psi; Avg. rate 25 BPM

Riley 4391'-4395' 9 holes
~~Bullhorn~~ 4406'-4410' 9 holes
 4418'-4422' 9 holes } Avg. press. 2900 psi; Avg. rate 24 BPM

Fractured: 7/28/82 Halliburton
 2 stage frac job
 1st stage 20,000 lbs. 20/40
 2nd stage 25,000 lbs. 20/40

KCl, Nitrogen, J-266, W-22, U-42

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS Including indication of all fresh and salt water, coal, oil and gas
Shale			0'	336'	
Sand and shale			336'	428'	
Shale and siltstone			428'	554'	No record of water
Sand			554'	574'	
Shale			574'	794'	
Sand			794'	806'	
Shale			806'	1016'	
Sand			1016'	1034'	
Shale			1034'	1141'	
Sand and shale			1141'	1706'	
Little Lime			1706'	1722'	
Shale			1722'	1788'	
Big Lime			1788'	1820'	* Electric Logs tops ?
Shale			1820'	1836'	
Big Injun			1836'	1954'	
Shale and silts stone			1954'	2540'	
Gordon			2540'	2548'	Gas
Shale			2548'	2732'	
5th Sand			2732'	2744'	
Shale and siltstone			2744'	4640'	
Riley			4640'	4660'	
Shale			4660'	4812'	
Benson			4812'	4818'	
Shale and siltstone			4818'	5904'	
TD				5904'	

3904
3050 ~ Warren -
2854 expl. log.

production 1984-1999
117,226 mcf

5904
1954
3950

(Attach separate sheets as necessary)

KEPCO, INC.
 Well Operator

By: [Signature] Operations Manager

Date: October 20, 1982

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-2 (Obverse) (12-81)



Date: April 6, 19 82
Operator's Well No. WK-58
API Well No. 47 095 0994
State County Permit

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

WELL TYPE: Oil / Gas x
LOCATION: Elevation: 821.0-feet Watershed: Indian Creek
District: McElroy County: Tyler Quadrangle: Shirley 7.5 min.
WELL OPERATOR Kepco, Inc. DESIGNATED AGENT Kepco, Inc.
Address 436 Blvd. of the Allies Pittsburgh, PA 15219
Address % E. L. Stuart P.O. Box 1550; Clarksburg, WV 26301

OIL & GAS ROYALTY OWNER Maurine S. Hadley and
Address Betty Lou Robinson, Agent for others Middlebourne, WV 26149
Acreage 144.0
SURFACE OWNER Maurine S. Hadley
Address Middlebourne, WV 26149
Acreage 137.38

COAL OPERATOR
COAL OWNER(S) WITH DECLARATION ON RECORD:
Name Maurine S. Hadley
Address Middlebourne, WV 26149
Name
Address

FIELD SALE (IF MADE) TO:
Address Unknown at this time

COAL LESSEE WITH DECLARATION ON RECORD:
Name
Address
RECEIVED APR 26 1982
OIL AND GAS DIVISION WV DEPARTMENT OF MINES

OIL & GAS INSPECTOR TO BE NOTIFIED
Name William Blosser ROBERT LOWTHER
Address P.O. Box 1028 320. STREET Middlebourne W.V. 26149

The undersigned well operator is entitled to operate for oil or gas purposes at the above location under a deed X / lease other contract / dated July 1, 19 80, to the undersigned well operator from

(IF said deed, lease, or other contract has been recorded:)
Recorded on July 1, 19 80, in the office of the Clerk of the County Commission of Tyler County, West Va., in Deed Book 226 at page 380. 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 522-4-3 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

Kepeco, Inc.
Well Operator
By H. E. Gardner
Its Operations Manager

PROPOSED WORK ORDER

(12-81)

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

DRILLING CONTRACTOR (IF KNOWN) Unknown at this time

Address _____

GEOLOGICAL TARGET FORMATION, Elk

Estimated depth of completed well, 5600 feet Rotary X / Cable tools _____ /

Approximate water strata depths: Fresh, 30 feet; salt, 2050 feet.

Approximate coal seam depths: 400' and 600' 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	11-3/4"	H-40	42#		X		20'		Kinds
Fresh Water									
Coal									Sizes
Intermediate	8-5/8"	J-55	23#	X		1200'	1200'	Circulate	
Production	4-1/2"	J-55	10.5#	X			5500'	550 SX	Depths set
Tubing								or as req by rule 15.07	
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 FROM OPERATING IN ACCORDANCE WITH CHAPTER 22,
ARTICLE 4 OF THE WEST VIRGINIA CODE, THE LOCATION IS HEREBY
APPROVED FOR drilling. THIS PERMIT SHALL EXPIRE
IF OPERATIONS HAVE NOT COMMENCED BY 1-21-83.
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 X / 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.

[Signature: Maurine S. Hadley]

Date: April 21, 19 82

By Maurine S. Hadley
Its Owner