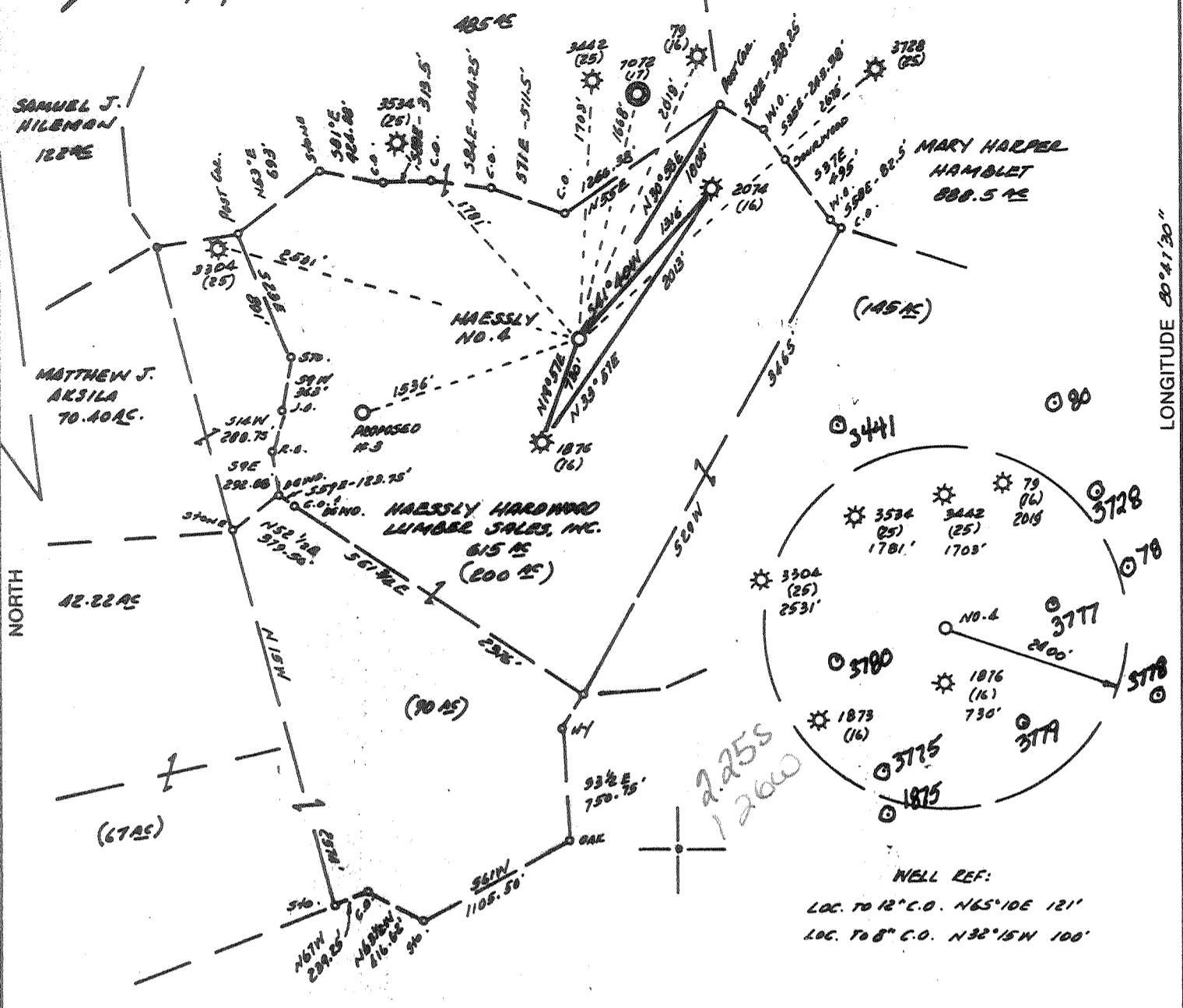


Janie 12/22/89

LATITUDE 39°15'00"



LONGITUDE 80°41'30"

NORTH

WELL REF:  
 LOC. TO 12" C.O. N65°10E 121'  
 LOC. TO 8" C.O. N32°15W 100'

2.25  
3.49

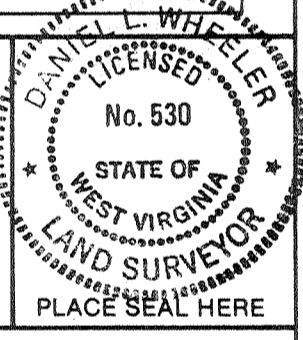
BEATRICE  
SCHWETZMAN  
4,583.245

D.L. WHEELER & ASSOCIATES, INC.  
 RT. 1, BOX 346  
 CLARKSBURG, WV 26301  
 PH: 304-623-5215

(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS

FILE NO. \_\_\_\_\_  
 DRAWING NO. \_\_\_\_\_  
 SCALE 1"=1000'  
 MINIMUM DEGREE OF ACCURACY 1 IN 200  
 PROVEN SOURCE OF ELEVATION WELL API # 3728  
ELEV. 1313'

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 ENERGY.  
 (SIGNED) Daniel L. Wheeler  
 R.P.E. \_\_\_\_\_ L.L.S. 530  
DANIEL L. WHEELER



**STATE OF WEST VIRGINIA**  
 DEPARTMENT OF ENERGY  
 OIL AND GAS DIVISION

DATE NOVEMBER 14, 1989  
 OPERATOR'S WELL NO. HAESSLY NO. 4  
 API WELL NO. 47-017-3776-7

WELL TYPE: OIL \_\_\_ GAS X LIQUID INJECTION \_\_\_ WASTE DISPOSAL \_\_\_  
 (IF "GAS,") PRODUCTION X STORAGE \_\_\_ DEEP \_\_\_ SHALLOW X

LOCATION: ELEVATION 1198' WATER SHED SHEEP RUN  
 DISTRICT SOUTHWEST COUNTY DODDRIDGE  
 QUADRANGLE OXFORD 7.5 Holbrook NE

SURFACE OWNER HAESSLY HARDWOOD LUMBER SALES, INC. ACREAGE 615  
 OIL & GAS ROYALTY OWNER ELI NUTTER MRS. LEASE ACREAGE 615  
 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 \_\_\_

TARGET FORMATION ALEXANDER ESTIMATED DEPTH 5500'  
 WELL OPERATOR Term Energy Corporation DESIGNATED AGENT, Jean Freeland  
 ADDRESS 713 E. Main Street ADDRESS \_\_\_\_\_  
Harrisville, WVa. 26362 PH: 304-643-4500

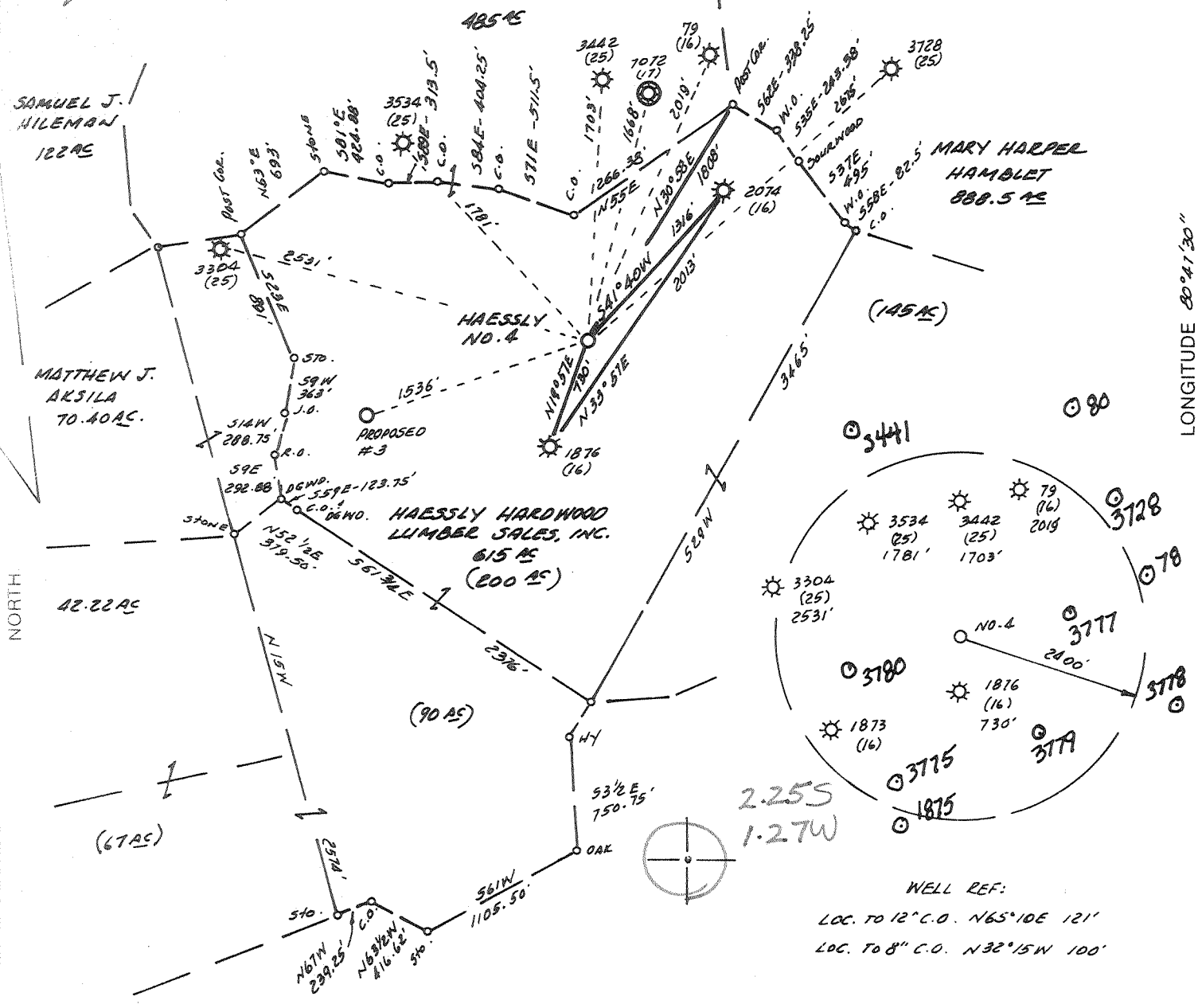
COUNTY NAME DODD  
PERMIT 3776

JUN 11 1994

H.T. HALL 48673 FORM WW-6

Janie 12/29/89

LATITUDE 39°15'00"



WELL REF:  
 LOC. TO 12" C.O. N65°10'E 121'  
 LOC. TO 8" C.O. N32°15'W 100'

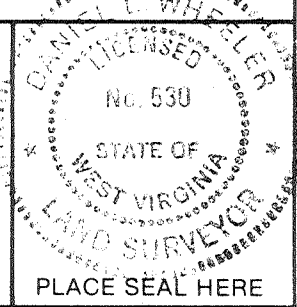
BEATRICE SCHARFMAN  
 4,583.2 AC  
 2.255  
 3.50W

D.L. WHEELER & ASSOCIATES, INC.  
 27.1, BOX 346  
 CHARLES BURG, WV 26301  
 PH: 304-623-5215

(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS

FILE NO. \_\_\_\_\_  
 DRAWING NO. \_\_\_\_\_  
 SCALE 1"=1000'  
 MINIMUM DEGREE OF ACCURACY 1 IN 200  
 PROVEN SOURCE OF ELEVATION WELL API # 3728  
ELEV. 1313'

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 ENERGY.  
 (SIGNED) Daniel L. Wheeler  
 R.P.E. \_\_\_\_\_ L.L.S. 530  
DANIEL L. WHEELER



STATE OF WEST VIRGINIA  
 DEPARTMENT OF ENERGY  
 OIL AND GAS DIVISION



DATE NOVEMBER 14, 1989  
 OPERATOR'S WELL NO. HAESSLY NO. 4  
 API WELL NO. \_\_\_\_\_

47 - 017 - 3776  
 STATE COUNTY PERMIT

WELL TYPE: OIL \_\_\_ GAS X LIQUID INJECTION \_\_\_ WASTE DISPOSAL \_\_\_  
 (IF "GAS,") PRODUCTION \_\_\_ STORAGE \_\_\_ DEEP \_\_\_ SHALLOW X  
 LOCATION: ELEVATION 1198' WATER SHED SHEEP RUN  
 DISTRICT SOUTHWEST 7 COUNTY DODDRIDGE

QUADRANGLE OXFORD 7.5' SW Holbrook NE  
 SURFACE OWNER HAESSLY HARDWOOD LUMBER SALES, INC. ACREAGE 615  
 OIL & GAS ROYALTY OWNER ELI NUTTER HBS. LEASE ACREAGE 615

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 \_\_\_  
 TARGET FORMATION ALEXANDER ESTIMATED DEPTH 5500'  
 WELL OPERATOR TERM ENERGY CORP. DESIGNATED AGENT JEAN FREELAND  
 ADDRESS 110 N. SPRING STREET ADDRESS 110 N. SPRING STREET  
HARRISVILLE, WV 26362 886 HARRISVILLE, WV 26362

6-6 Straight Fork-Bluestone Creek (133) DEC 29 1989

LONGITUDE 80°41'30"

COUNTY NAME

PERMIT

RECEIVED  
WV Division of Environmental Protection  
JUL 13 1994

State of West Virginia  
Division of Environmental Protection  
Section of Oil and Gas

Well Operator's Report of Well Work

Farm name: HAESSLY HARDWOOD LUMBER Operator Well No.: HAESSLY #4

LOCATION: Elevation: 1,198.00 Quadrangle: OXFORD

District: SOUTHWEST County: DODDRIDGE  
Latitude: 11920 Feet South of 39 Deg. 15Min. Sec.  
Longitude 6700 Feet West of 80 Deg. 41 Min. 30 Sec.

Company: TERM ENERGY CORP.  
713 EAST MAIN STREET  
HARRISVILLE, WV 26362-0000

Agent: JEAN FREELAND

Inspector: MIKE UNDERWOOD  
Permit Issued: 06/08/94  
Well work Commenced: 06/14/94  
Well work Completed: 06/15/94  
Verbal Plugging  
Permission granted on: \_\_\_\_\_  
Rotary N/A Cable \_\_\_\_\_ Rig \_\_\_\_\_  
Total Depth (feet) N/A  
Fresh water depths (ft) 1368'  
  
Salt water depths (ft) N/A

Is coal being mined in area (Y/N)? N  
Coal Depths (ft): \_\_\_\_\_

Casing & Tubing Size	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
16	15	0	0
11 3/4"	25'	0	0
8 5/8"	1276.30'	1276.30'	360.81
4 1/2"	5273.5'	5273.5'	735.95

OPEN FLOW DATA

Producing formation Alexander-Riley-Bradford <sup>Balltown</sup> Pay zone depth (ft) 4020-5190  
Gas: Initial open flow \_\_\_\_\_ MCF/d Oil: Initial open flow \_\_\_\_\_ Bbl/d  
Final open flow 164 MCF/d Final open flow 0 Bbl/d  
Time of open flow between initial and final tests \_\_\_\_\_ Hours  
Static rock Pressure 210 psig (surface pressure) after 24 Hours

Second producing formation Weir Pay zone depth (ft) \_\_\_\_\_  
Gas: Initial open flow N/A MCF/d Oil: Initial open flow N/A Bbl/d  
Final open flow 268 MCF/d Final open flow show Bbl/d  
Time of open flow between initial and final tests \_\_\_\_\_ Hours  
Static rock Pressure 520 psig (surface pressure) after 24 Hours

NOTE: ON BACK OF THIS FORM PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

For: TERM ENERGY CORP.

By: Jean Freeland Jean Freeland  
Date: July 7, 1994 Designated Agent

JUL 13 1994

HAESSLY #4

06-15-94

PERFORATED:	UPPER WEIR	2192 - 2214;	15 HOLES .39
	LOWER WEIR	2260 - 2285	25 HOLES .39

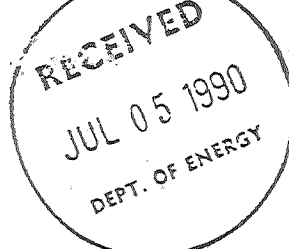
SET SMALL MOUTH PLUG AT 2300'

SET WIDE MOUTH PLUG AT 2225'

TWO STAGE ENERGIZE WATER FRAC

- UPPER WEIR: MAX TR PRESS 3280; AVG RATE 21; AVG PRESS 2300; 28,100# 20/40; MAX CONC 3; TOTAL ACID 500 GAL; ISIP 2570; 10 MIN SIP 1350; TOTAL NITROGEN 62,500 SCF; TOTAL FLUIDS 429 BBLs.
- LOWER WEIR: MAX TR PRESS 2650; AVG RATE 27; AVG PRESS 2500; 40,000# 20/40; MAX CONC 3; TOTAL ACID 500 GAL; ISIP 1530; 5 MIN SIP 1330; TOTAL NITROGEN 88,750 SCF; TOTAL FLUIDS 571 BBLs.

19300



State of West Virginia  
DEPARTMENT OF ENERGY  
Division of Oil and Gas

Well Operator's Report of Well Work

Farm name: HAESSLY HARWOOD LUMBER Operator Well No.: HAESSLY #4

LOCATION: Elevation: 1198.00 Quadrangle: OXFORD

District: SOUTHWEST County: DODDRIDGE  
Latitude: 11920 Feet South of 39 Deg. 15Min. 0 Sec.  
Longitude 6700 Feet West of 80 Deg. 47 Min. 30 Sec.

Company: TERM ENERGY CORP.  
110 N. SPRING ST.  
HARRISVILLE, WV 26362-0000

Agent: JEAN FREELAND

Inspector: MIKE UNDERWOOD  
Permit Issued: 12/26/89  
Well work Commenced: 12/28/89  
Well work Completed: 05/10/90  
Verbal Plugging  
Permission granted on:  
Rotary x Cable Rig  
Total Depth (feet) 5408  
Fresh water depths (ft) 1368'  
Salt water depths (ft) None

Is coal being mined in area (Y/N)? N  
Coal Depths (ft):

Casing & Tubing Size	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
16"	15	-0-	-0-
11 3/4"	25	-0-	-0-
8 5/8"	1276.30	1276.30'	360.81
4 1/2"	5273.5'	5273.5'	735.95

OPEN FLOW DATA

Producing formation Alexander Pay zone depth (ft) 5150 to 5190  
 Gas: Initial open flow \_\_\_\_\_ MCF/d Oil: Initial open flow \_\_\_\_\_ Bbl/d  
 Final open flow 760 MCF/d Final open flow \_\_\_\_\_ Bbl/d  
 Time of open flow between initial and final tests \_\_\_\_\_ Hours  
 Static rock Pressure 1000 psig (surface pressure) after 14 Hours  
 Comingled Production Riley, Bradford, 4020 to  
 Second producing formation Balltown Pay zone depth (ft) 4727  
 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 pressure) after \_\_\_\_\_ Hours

NOTE: ON BACK OF THIS FORM PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

JUL 6 1990

For: TERM ENERGY CORP.

JUL 6 1990

By: Jean Freeland Agent  
Date: 5-11-90

5/9/90 Perforated Alexander --- 5150-5190; 17 Holes .39  
 Riley -- 4724-4727; 4 Holes .39  
 Bradford --- 4463-4479; 11 Holes .39  
 Balltown --- 4020-4347; 16 Holes .39

3 Stage Water Frac:

- Alexander; Max TR Press 2885, Avg. Rate 30.9, Avg. Press 2485, 55,000# 20/40;  
 10,000# 80/100, Max Conc. 4, Total Acid 500 Gal., ISIP 1200,  
 5 min SIP 915, Total Fluids 720 Bbls.
- Bradford & Riley; Max TR Press 3556, Avg. Rate 26, Avg. Press 3069, 40,000# 20/40;  
 10,000# 80/100, Max conc. 4, Total Acid 1000 Gal, ISIP 1355,  
 5 min SIP 950, Total Fluids 681 Bbls.
- Balltown; Max TR Press 2984, Avg. Rate 31.1, Avg. Press 2514, 55,000# 20/40;  
 10,000# 80/100, Max Conc. 4, Total Acid 1000 Gal., ISIP 1038,  
 5 min SIP 1011, Total Fluids 649.3 Bbls.

<u>WELL LOG</u>	<u>TOP</u>	<u>BOTTOM</u>	<u>WATER</u>
Sand, Shale, & RR	-0-	1885	1368" - 2" Stream
Big Lme	1885	1954	
Big Injun	1954	2009	
Sand & Shale	2009	5408	

<u>GEOPHYSICAL LOG</u>	<u>TOP</u>	<u>BOTTOM</u>
Big Lime	1881	1944
Big Injun	1944	2023
Weir	2181	2304
Berea	2382	2388
Gordon Group	2608	2761
Warren	3245	3304
Speechly	3317	3875
Balltown	4011	4368
Bradford	4426	4502
Riley	4684	4820
Benson	4878	4890
Leopold	5015	5095
Alexander	5132	5228

10004

017-3776  
Issued 12/26/89  
Expires 12/26/91

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

- 1) Well Operator: TERM Energy Corporation 49105 (7) 525
- 2) Operator's Well Number: Haessly #4 3) Elevation: 1198
- 4) Well type: (a) Oil    / or Gas    /  
(b) If Gas: Production x / Underground Storage    /  
Deep    / Shallow x /
- 5) Proposed Target Formation(s): Alexander 439
- 6) Proposed Total Depth: 5500 feet
- 7) Approximate fresh water strata depths: 80, 282', 298', 433'
- 8) Approximate salt water depths: 1321' 0
- 9) Approximate coal seam depths: 0
- 10) Does land contain coal seams tributary to active mine? Yes    / No x /
- 11) Proposed Well Work: Drill and Stimulate New Well
- 12)

CASING AND TUBING PROGRAM

TYPE	SPECIFICATIONS			FOOTAGE INTERVALS		CEMENT
	Size	Grade	Weight per ft.	For drilling	Left in well	
Conductor	16 11 3/4"	J-55 J-55	75# 42#	15' 22'	0	0
Fresh Water	8 5/8"	J-55	20#	1298'	1298'	0
Coal						0
Intermediate						0
Production	4 1/2"	J-55	11.6# 10.5#	84' 5234'	84' 5234'	250
Tubing						
Liners						

RECEIVED  
DEC 20 1989

PACKERS : Kind \_\_\_\_\_  
Sizes \_\_\_\_\_  
Depths set \_\_\_\_\_

For Division of Oil and Gas Use Only

DIVISION OF OIL & GAS  
DEPARTMENT OF ENERGY

557 B3

Fee(s) paid:  Well Work Permit  Reclamation Fund  WPCP  
 Plat  WW-9  WW-2B  Bond Blanket Letter  Agent  
(Type)

**RECEIVED**  
DEC 20 1999

DIVISION OF OIL & GAS  
DEPARTMENT OF ENERGY

1) Date: December 14, 1989  
2) Operator's well number  
Haessly #4  
3) API Well No: 47 - 017 - 3776  
State - County - Permit

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

NOTICE AND APPLICATION FOR A WELL WORK PERMIT

- 4) Surface Owner(s) to be served:
- (a) Name Haessly Hardwood Lumber Sales  
Address R.D. #1  
Marietta, OH
- (b) Name \_\_\_\_\_  
Address \_\_\_\_\_
- (c) Name \_\_\_\_\_  
Address \_\_\_\_\_
- 5) (a) Coal Operator:  
Name N/A  
Address \_\_\_\_\_
- (b) Coal Owner(s) with Declaration  
Name N/A  
Address \_\_\_\_\_
- (c) Coal Lessee with Declaration  
Name N/A  
Address \_\_\_\_\_
- 6) Inspector Mike Underwood  
Address Rt. 2, Box 135  
Salem, WV 26426  
Telephone (304)- 782-1043

TO THE PERSON(S) NAMED ABOVE TAKE NOTICE THAT:

\_\_\_\_\_ Included is the lease or leases or other continuing contract or contracts by which I hold the right to extract oil and gas OR

\_\_\_\_\_ Included is the information required by Chapter 22B, Article 1, Section 8(d) of the Code of West Virginia (see page 2)

I certify that as required under Chapter 22B of the West Virginia Code I have served copies of this notice and application, a location plat, and accompanying documents pages 1 through \_\_\_\_\_ on the above named parties, by:

- \_\_\_\_\_ Personal Service (Affidavit attached)  
\_\_\_\_\_ Certified Mail (Postmarked postal receipt attached)  
\_\_\_\_\_ Publication (Notice of Publication attached)

I have read and understand Chapter 22B and 38 CSR 11-18, and I agree to the terms and conditions of any permit issued under this application.

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this application form and all attachments, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete.

I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Well Operator TERM Energy Corporation  
By: [Signature]  
Its: Agent  
Address 110 North Spring Street  
Harrisville, WV 26362  
Telephone \_\_\_\_\_

Subscribed and sworn before me this 14 day of December, 19 89

[Signature] Notary Public  
My commission expires 4/13/95