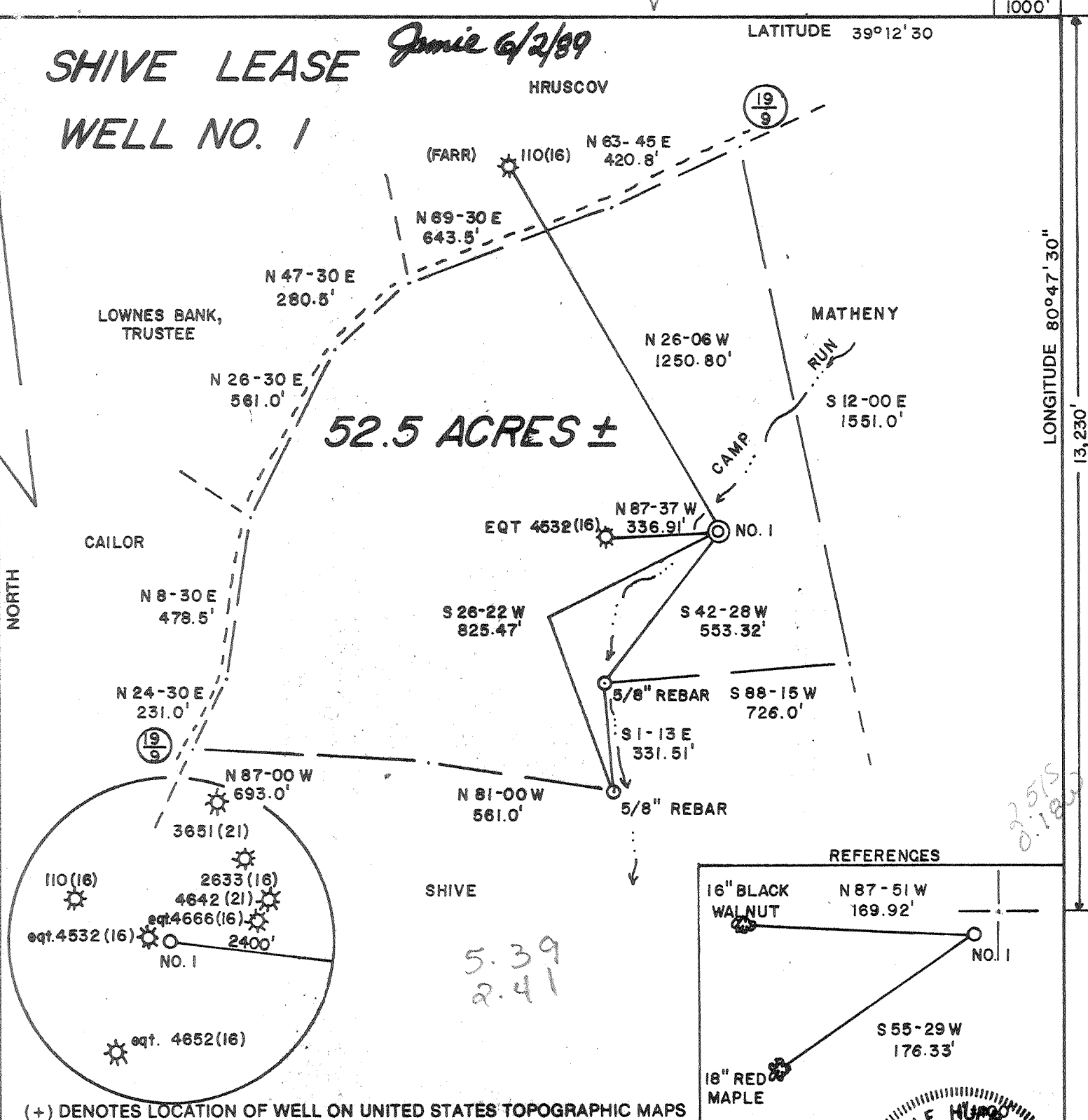


SHIVE LEASE *Janie 6/2/89*

LATITUDE 39°12'30"

HRUSCOV

WELL NO. 1

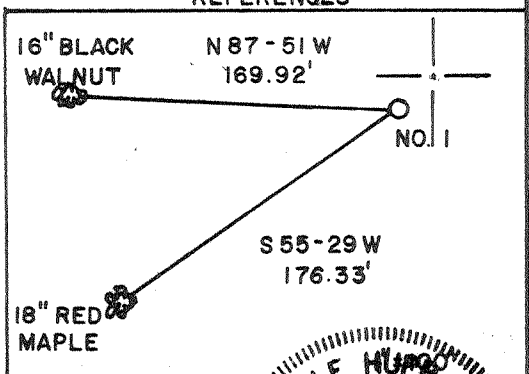


52.5 ACRES ±

SHIVE

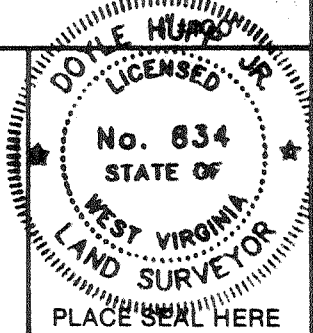
5.39
2.41

REFERENCES



FILE NO. 68 (3-6)
 DRAWING NO. _____
 SCALE 1"=400'
 MINIMUM DEGREE OF ACCURACY 1/200
 PROVEN SOURCE OF ELEVATION TOP OF KNOB
 ELEV. 1222'

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) Doyle Hupp Jr.
 R.P.E. _____ L.L.S. 834



STATE OF WEST VIRGINIA
 DEPARTMENT OF ENERGY
 OIL AND GAS DIVISION



DATE MAY 25 1989
 OPERATOR'S WELL NO. SHIVE NO. 1
 API WELL NO. _____

47-017-3722-F
 STATE COUNTY PERMIT

WELL TYPE: OIL ___ GAS X LIQUID INJECTION ___ WASTE DISPOSAL ___
 (IF "GAS,") PRODUCTION X STORAGE ___ DEEP ___ SHALLOW X
 LOCATION: ELEVATION 1021' WATERSHED CAMP RUN
 DISTRICT SOUTHWEST COUNTY DODDRIDGE
 QUADRANGLE OXFORD 7.5' Holbrook NB
 SURFACE OWNER GLENN HAROLD SHIVE ACREAGE 52.5
 OIL & GAS ROYALTY OWNER GLENN HAROLD SHIVE, et al. LEASE ACREAGE 52.5
 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 ALEXANDER ESTIMATED DEPTH 5300'

WF AC Term Energy Corporation
 713 E. Main Street
 Harrisville, wva. 26362-
 DESIGNATED ADDRESS
 Jean Freeland
 Same Address
 PH: 304-643-3500

1000'

LONGITUDE 80°47'30"

2.515
0.180

COUNTY NAME
 0000

PERMIT
 3722

FORM WW-6
 H.T. HALL 48673

SHIVE LEASE

Janie 6/2/89

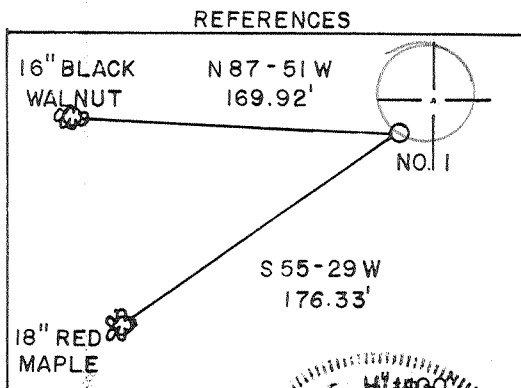
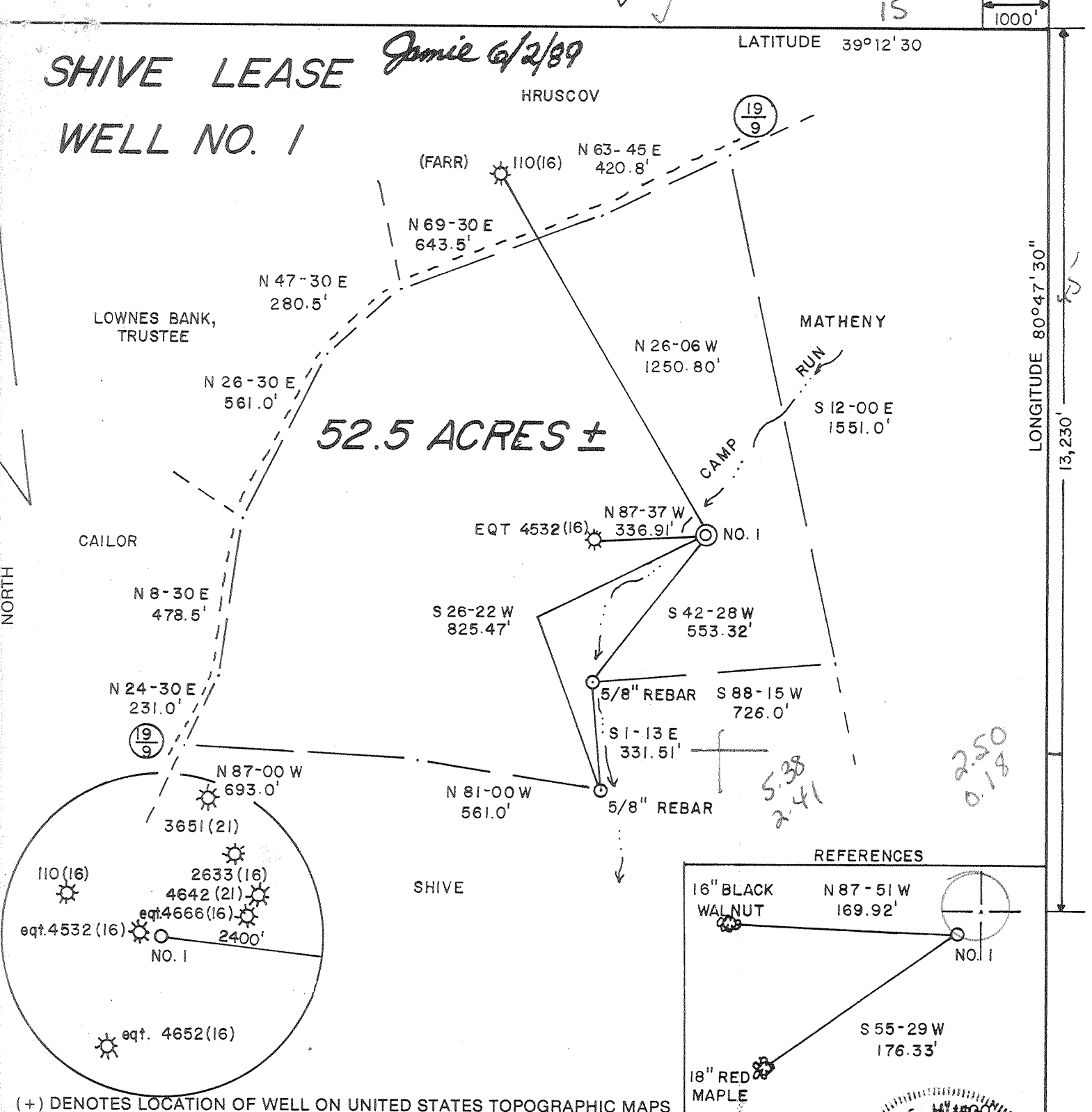
WELL NO. 1

HRUSCOV

LATITUDE 39°12'30"

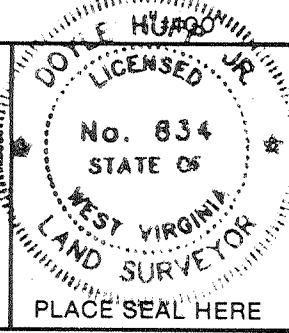
1000'

15



FILE NO. 68 (3-6)
 DRAWING NO. _____
 SCALE 1"=400'
 MINIMUM DEGREE OF ACCURACY 1/200
 PROVEN SOURCE OF ELEVATION TOP OF KNOB
 ELEV. 1222'

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) Doyle Hupp Jr.
 R.P.E. _____ L.L.S. 834



STATE OF WEST VIRGINIA
 DEPARTMENT OF ENERGY
 OIL AND GAS DIVISION

DATE MAY 25, 19 89
 OPERATOR'S WELL NO. SHIVE NO. 1
 API WELL NO. 47-017-3722

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

LOCATION: ELEVATION 1021' WATERSHED CAMP RUN
 DISTRICT SOUTHWEST 7 COUNTY DODDRIDGE
 QUADRANGLE OXFORD 7.5' 526 0583 Holbrook NE

SURFACE OWNER GLENN HAROLD SHIVE ACREAGE 52.5
 OIL & GAS ROYALTY OWNER GLENN HAROLD SHIVE, et al. LEASE ACREAGE 52.5
 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 ALEXANDER ESTIMATED DEPTH 5300'
 WELL OPERATOR TERM ENERGY DESIGNATED AGENT JEAN FREELAND
 ADDRESS 110 N. SPRING ST. HARRISVILLE, WV 26362 ADDRESS 110 N. SPRING ST. HARRISVILLE, WV 26362

JUN 12 1989

6-6 Straight Fork - Bluestone Creek (133)

RECEIVED
JUL 07 1989

API # 47- 17-03722

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

DIVISION OF OIL & GAS
DEPARTMENT OF ENERGY
Well Operator's Report of Well Work

Farm name: SHIVE, GLENN HAROLD Operator Well No.: SHIVE 1

LOCATION: Elevation: 1021.00 Quadrangle: OXFORD

District: SOUTHWEST County: DODDRIDGE
Latitude: 13230 Feet South of 39 Deg. 12Min. 30 Sec.
Longitude 1000 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: 06/06/89
Well work Commenced: 06/13/89
Well work Completed: 06/23/89
Verbal Plugging
Permission granted on: _____
Rotary Cable _____ Rig
Total Depth (feet) 5094
Fresh water depths (ft) 200
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.
11 3/4"	25'	0	
8 5/8"	1152.2'	1152.2'	397.6
4 1/2"	5068'	5068'	891.25

RECEIVED
JUN 29 1989

DIVISION OF OIL & GAS
DEPARTMENT OF ENERGY

OPEN FLOW DATA

Producing formation Alexander-Leopold Pay zone depth (ft) 4805-5023
 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 1500 psig (surface pressure) after 24 Hours

Co-mingled Production Benson, Benson Stray
 Second producing formation Riley Pay zone depth (ft) 4261-4680
 Gas: Initial open flow 0 MCF/d Oil: Initial open flow _____ Bbl/d
 Final open flow 700 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.

For: TERM Energy Corp
TERM ENERGY CORP.
By: Jean Freeland Agent
Date: June 26, 1989

JUL 14 1989

5-23-89 Perforated
 Alexander 4967-5023; 14 holes .39
 Leopold 4805-4806; 2 holes .39
 Benson 4678-4680; 3 holes .39
 Benson Stray 4594-4601; 5 holes .39
 Riley 4261-4289; 8 holes .39

2 Stage Frac-

1st stage Nitrogen Foam 75 Quality
 2nd stage Nitrogen Foam 60 Quality

- Alexander, Leopold; Max TR Press 3300, Avg rate 27, Avg Press 2700, 50,000# 20/40, max conc. 4, Total acid 500 gal, ISIP 1250, 5 min SIP 1200, Total Nitrogen 512, 160 scf, Total fluids 225 BBLS.

- Benson, Benson Stray and Riley; Max TR Press 3520, Avg. rate 16, Avg Press 3000, 32,000# 20/40, Max conc. 3 1/2, Total acid 1000 gal, ISIP 3500, Total Nitrogen 308,400 scf, Total fluid 208 BBLS.

WELL LOG

Sand, Shale, RR
 Little Lime
 Shale
 Big Lime
 Big, Injun
 Sand & Shale

TOP

1640
 1660
 1660
 1680
 1720
 1837
 5094

BOTTOM

1640
 1660
 1680
 1720
 1837
 5094

Water
 200' - Damp

Geophysical Log

Big Lime
 Big Injun
 Well
 Berea
 Gordon
 Warren
 Balltown
 Riley
 Benson Stray
 Benson
 Alexander

TOP

1702
 1768
 2001
 2201
 2429
 3075
 3798
 4245
 4591
 4677
 4927

BOTTOM

1768
 1858
 2118
 2205
 2432
 3207
 3888
 4297
 4606
 4681
 5024

84909

RECEIVED RECEIVED
 JUL 07 1989 JUN 29 1989
 DIVISION OF OIL & GAS DEPARTMENT OF ENERGY
 DIVISION OF OIL & GAS DEPARTMENT OF ENERGY

JUL 14 1989

SEP 14 1994

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

Permitting
Office of Oil & Gas

Well Operator's Report of Well Work

Farm name: ZORN, MIKE

Operator Well No.: SHIVE #1

LOCATION: Elevation: 1,021.00 Quadrangle: OXFORD

District: SOUTHWEST County: DODDRIDGE

Latitude: 13230 Feet South of 39 Deg. 12 Min. 30 Sec.

Longitude 1000 Feet West of 80 Deg. 47 Min. 30 Sec.

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

Agent: JEAN FREELAND

Inspector: MIKE UNDERWOOD
Permit Issued: 06/16/94
Well work Commenced: 08/23/94
Well work Completed: 08/31/94

Verbal Plugging
Permission granted on: _____
Rotary _____ Cable _____ Rig _____
Total Depth (feet) 5068 Actual
Fresh water depths (ft) 200'

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.
11 4/3"	25'	0	
8 5/8"	1152.5	1152.5	397.6
4 1/2"	5068'	5068'	891.25

OPEN FLOW DATA

Producing formation Alexander, Leopold, Benson Pay zone depth (ft) 4261-5023
Benson Stray, and Riley
Gas: Initial open flow _____ MCF/d Oil: Initial open flow _____ Bbl/d
Final open flow 95 MCF/d Final open flow 0 Bbl/d
Time of open flow between initial and final tests _____ Hours
Static rock Pressure 280 psig (surface pressure) after 24 Hours

Comingled Production

Second producing formation Gordon & Weir Pay zone depth (ft) _____
Gas: Initial open flow _____ MCF/d Oil: Initial open flow _____ Bbl/d
Final open flow 132 MCF/d Final open flow 1 Bbl/d
Time of open flow between initial and final tests _____ Hours
Static rock Pressure 480 psig (surface pressure) after 12 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: Jean Freeland
TERM ENERGY CORP.

By: Designated Agent

Date: Sept 9, 1994

SEP 17 1994

SHIVE

08-23-94

PERFORATED:	GORDON:	2429 - 2430.5	5 HOLES .39
	WEIR:	2010 - 2030.5	13 HOLES .39

SET WIDE MOUTH PLUG AT 2445'

ONE STAGE ENERGIZE WATER FRAC

- GORDON & WEIR: MAX TR PRESS 3100; AVG RATE 27; AVG PRESS 2946;
35,000# 20/40; MAX CONC 3; TOTAL ACID 500 GAL; ISIP
1680; 5 MIN SIP 1470; TOTAL NITROGEN 87,000 SCF;
TOTAL FLUIDS 585 BBLs.

14327

RECEIVED
JUN 02 1989

DIVISION OF OIL & GAS
DEPARTMENT OF ENERGY

Date: May 25, 1989
Operator's well number
Shive #1
API Well No: 47 - 017 - 3722
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 Glen Harold Shive
Address P.O. Box 224
Pullman, WV 26421
(b) Name _____
Address _____
(c) Name _____
Address _____
6) Inspector _____
Address _____
Telephone (304)- 782-1043

5) (a) Coal Operator:
Name _____
Address _____
(b) Coal Owner(s) with Declaration
Name _____
Address _____
Name _____
Address _____
(c) Coal Lessee with Declaration
Name _____
Address _____

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: _____

Its: Agent

Address 110 N. Spring Street

Harrisville, WV 26362

Telephone (304) 643-4500

Subscribed and sworn before me this _____ day of _____, 19____

Notary Public

My commission expires _____

1) Date: May 31, 1994
2) Operator's well number
Shive #1
3) API Well No: 47 - 017 - 3722F
State - County - Permit

STATE OF WEST VIRGINIA
DIVISION OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS

NOTICE AND APPLICATION FOR A WELL WORK PERMIT

4) Surface Owner(s) to be served:
(a) Name Mike Zorn
Address 3613 Mexico St.
Pittsburgh, PA 15212-1814
(b) Name _____
Address _____
(c) Name _____
Address _____
6) Inspector Mike Underwood
Address Rt. 2 Box 135
Salem, WV 26426
Telephone (304)-782-1043

5) (a) Coal Operator:
Name N/A
Address _____
(b) Coal Owner(s) with Declaration
Name N/A
Address _____
Name N/A
Address _____
(c) Coal Lessee with Declaration
Name _____
Address _____

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)

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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: Jean Freeland Jean Freeland
Its: Designated Agent
Address 713 E. Main St.
Harrisville, WV 26362
Telephone (304) 643-3500


OFFICIAL SEAL
Notary Public, State of West Virginia
MICHAEL B. RING
Rt. 2, Box 31
Harrisville, W. Va. 26362
My Commission Expires September 21, 1998

Subscribed and sworn before me this 31st day of May, 1994

Michael B. Ring Notary Public
My commission expires Sept 21, 1998

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

Expires 06/16/96
526

19327

Well Operator: Term Energy Corporation ^{886 49105} (7)

Operator's Well Number: Shive #1 3) Elevation: 1021'

Well type: (a) Oil / or Gas X /

(b) If Gas: Production XY / Underground Storage /
Deep / Shallow XY

5) Proposed Target Formation(s): Gordon, Berea, and Weir ⁴⁹

6) Proposed Total Depth: 5068 Actual feet

7) Approximate fresh water strata depths: 200

8) Approximate salt water depths: None

9) Approximate coal seam depths: None

10) Does land contain coal seams tributary to active mine? Yes / No XX /

11) Proposed Well Work: Set Wide mouth frac plug at 2460', Frac Gordon, Berea & weir Comingle with Lower production.

12)

CASING AND TUBING PROGRAM

TYPE	SPECIFICATIONS			FOOTAGE INTERVALS		CEMENT
	Size	Grade	Weight per ft.	For drilling	Left in well	Fill-up (cu. ft.)
Conductor	11 3/8"	J-55	42#	17'	0	
Fresh Water	8 5/8"	J-55	20#	1152'	1152'	CTS 397.6 <i>[Signature]</i>
Coal						
Intermediate						
Production	4 1/2"	J-55	11.6# 10.5#	84" 4984'	84' 4984'	1600' 891.25
Tubing						
Liners						

PACKERS : Kind
Sizes
Depths set

For Division of Oil and Gas Use Only

321 / 19
 Fee(s) paid: Well Work Permit Reclamation Fund WPCP
 Plat WW-9 WW-2B Bond Agent
(Type)