

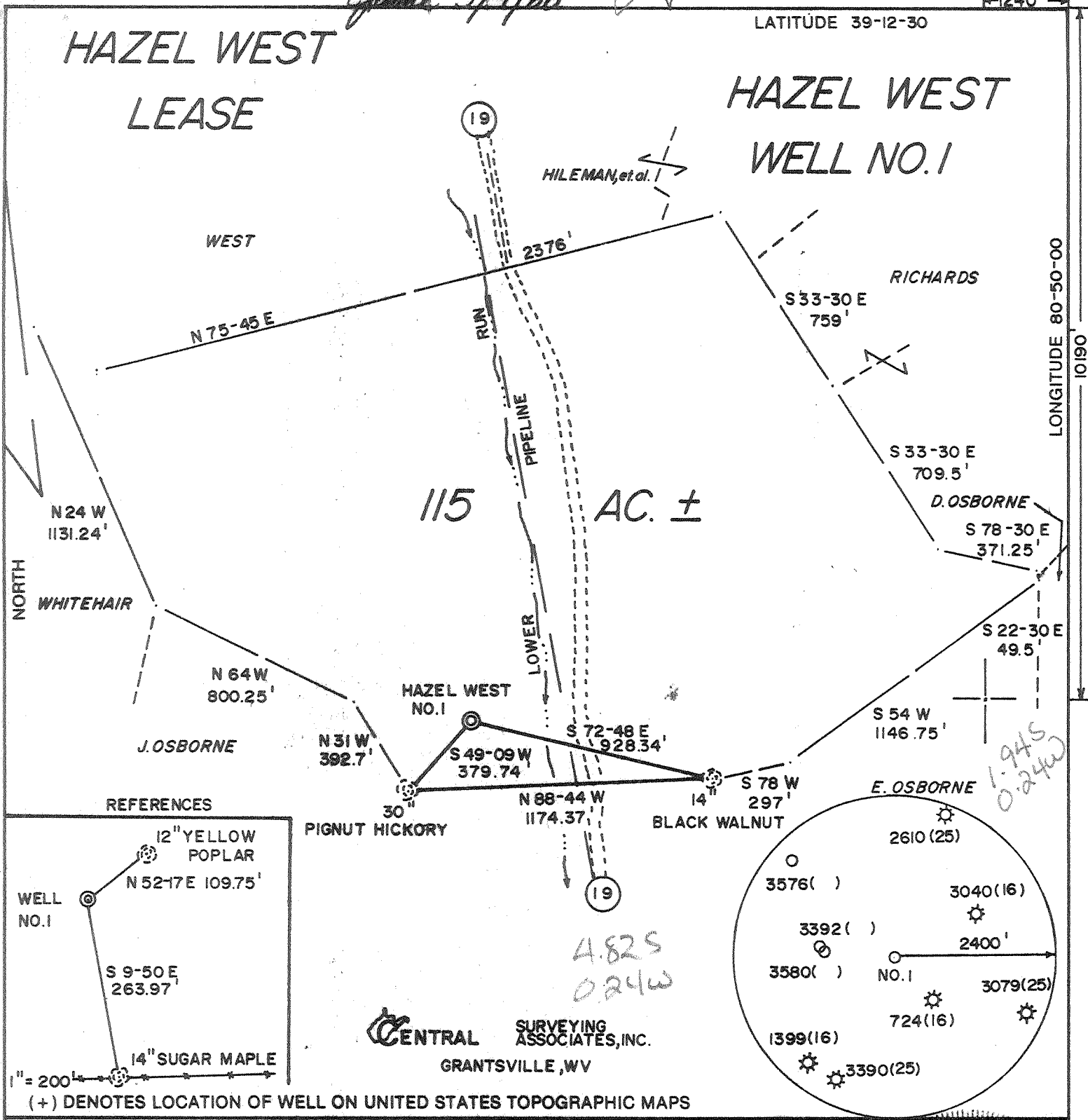
James 5/4/88

1240'

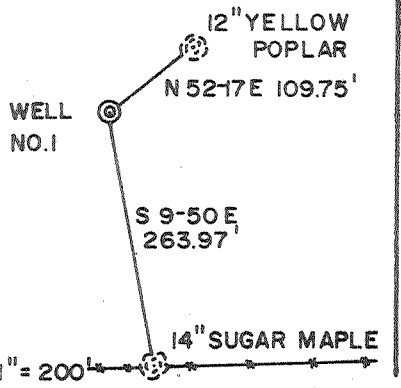
LATITUDE 39-12-30

HAZEL WEST LEASE

HAZEL WEST WELL NO. 1



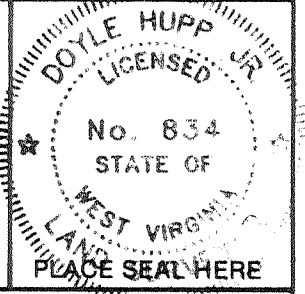
REFERENCES



CENTRAL SURVEYING ASSOCIATES, INC.
GRANTSVILLE, WV

FILE NO. (2-1) 22
 DRAWING NO. _____
 SCALE 1" = 500'
 MINIMUM DEGREE OF ACCURACY 1/200
 PROVEN SOURCE OF ELEVATION TOP OF KNOB
ELEV. 1214'

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 APRIL 8, 19 88
 OPERATOR'S WELL NO. HAZEL WEST NO. 1
 API WELL NO. _____

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

47 017 3637-F
 STATE COUNTY PERMIT

LOCATION: ELEVATION 978' WATERSHED LOWER RUN
 DISTRICT SOUTHWEST COUNTY DODDRIDGE
 QUADRANGLE OXFORD 7.5' Walbrook NC

SURFACE OWNER HAZEL N. WEST et al. ACREAGE 115
 OIL & GAS ROYALTY OWNER HAZEL N. WEST et al. LEASE ACREAGE 115

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'

WEL ADD Term Energy Corporation
713 East Main Street
Harrisville, wva. 26362

ESIC ADI Jean Freeland, Agt.
Same Address
 PH: 304-643-4500

00-05-08 EADJUN01

06101

1.945 0.24W

4.825 0.24W

COUNTY NAME Dodd

PERMIT 3637

FORM WW-6

H.T. HALL 9-8673

JUN 3 8 1988

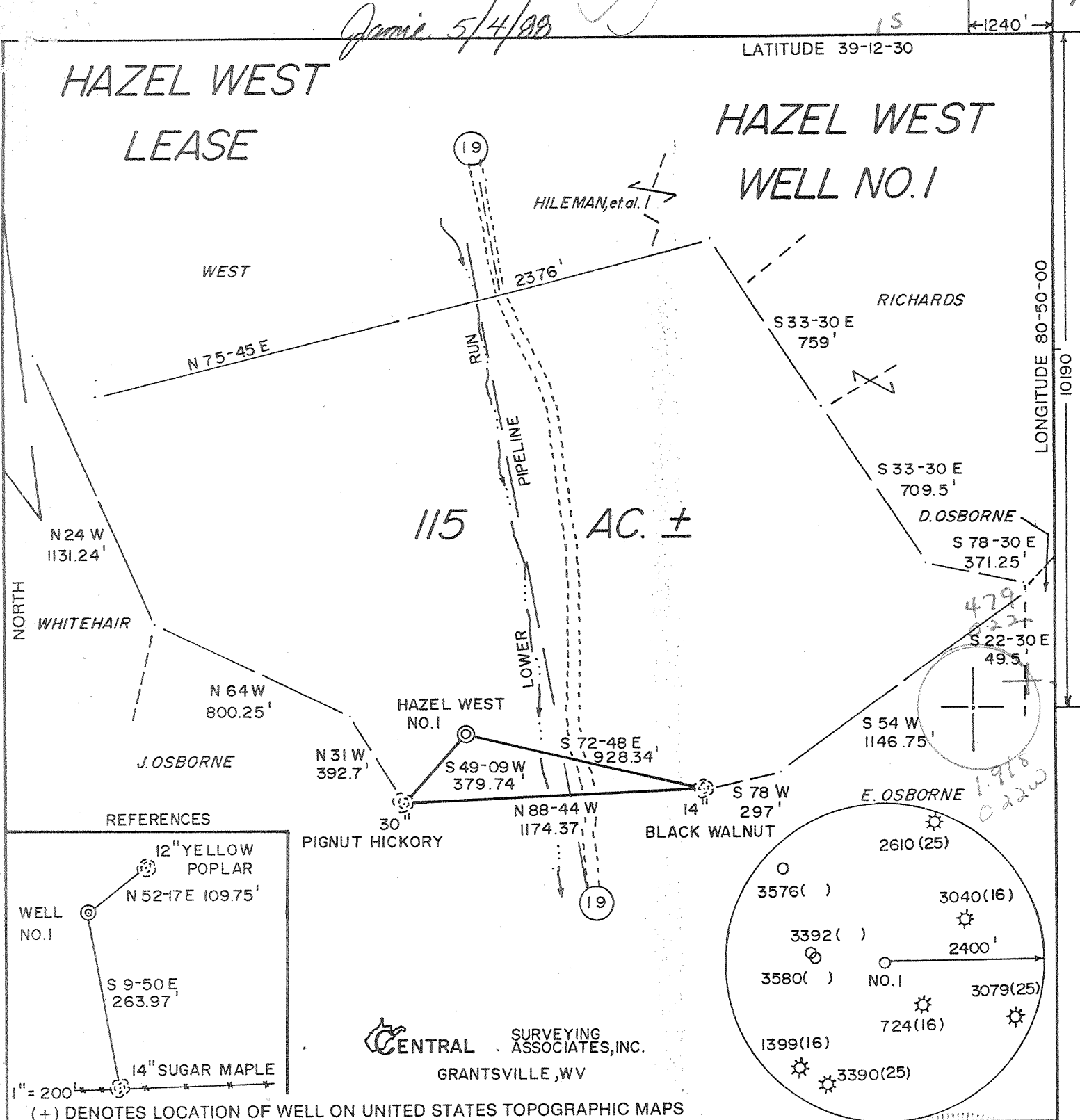
Jamie 5/4/88

LATITUDE 39-12-30

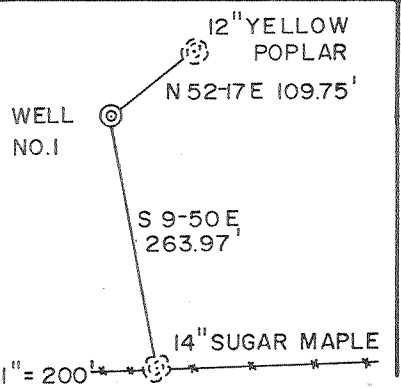
LONGITUDE 80-05-08

HAZEL WEST LEASE

HAZEL WEST WELL NO. 1



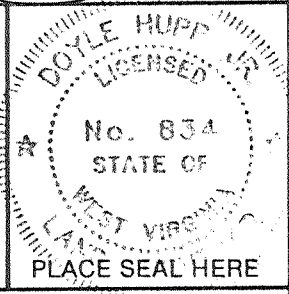
REFERENCES



CENTRAL SURVEYING ASSOCIATES, INC. GRANTSVILLE, WV

FILE NO. (2-1) 22
 DRAWING NO. _____
 SCALE 1" = 500'
 MINIMUM DEGREE OF ACCURACY 1/200
 PROVEN SOURCE OF ELEVATION TOP OF KNOB
 ELEV. 1214'

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 APRIL 8, 19 88
 OPERATOR'S WELL NO. HAZEL WEST NO. 1
 API WELL NO. _____

WELL TYPE: OIL ___ GAS X LIQUID INJECTION ___ WASTE DISPOSAL ___
 (IF "GAS,") PRODUCTION X STORAGE ___ DEEP ___ SHALLOW X
 LOCATION: ELEVATION 978' WATERSHED LOWER RUN

DISTRICT SOUTHWEST 7 COUNTY DODDRIDGE
 QUADRANGLE OXFORD 7.5' 526 05B 2 Holbrook NC

SURFACE OWNER HAZEL N. WEST et al. ACREAGE 115
 OIL & GAS ROYALTY OWNER HAZEL N. WEST et al. LEASE ACREAGE 115

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 CORP. 886 DESIGNATED AGENT KATHY JARVIS
 ADDRESS 110 N. SPRING ST. HARRISVILLE, WV 26362 ADDRESS 110 N. SPRING ST. HARRISVILLE, WV 26362

MAY 09 1988

6-6 Straight Fork - Bluestone Creek (133)

FORM WW-6

COUNTY NAME PERMIT

WR-RECEIVED
WV Division of
Environmental Protection
NOV 02 1994

24-Jun-94
API # 47-17-03637 F

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: WEST, HAZEL

Operator Well No.: HAZEL WEST #1

LOCATION: Elevation: 978.00 Quadrangle: OXFORD

District: SOUTHWEST County: DODDRIDGE
Latitude: 10190 Feet South of 39 Deg. 12Min. 30 Sec.
Longitude 1240 Feet West of 80 Deg. 50 Min. 0 Sec.

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

Agent: JEAN FREELAND

Inspector: MIKE UNDERWOOD
Permit Issued: 06/27/94
Well work Commenced: 9-16-94
Well work Completed: 9-22-94
Verbal Plugging _____
Permission granted on: _____
Rotary Cable Rig _____
Total Depth (feet) 5077 Actual _____
Fresh water depths (ft) 75 _____

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"	17'	0	
8 5/8"	1097'	1097'	435
4 1/2"	5077'	5077'	573.8

OPEN FLOW DATA

Producing formation Alexander & Riley Pay zone depth (ft) 4286-5026
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 190 psig (surface pressure) after 24 Hours

Comingled Production
Second producing formation Gordon, Weir, Big Injun Pay zone depth (ft) 1828.5-2464
Gas: Initial open flow _____ MCF/d Oil: Initial open flow _____ Bbl/d
Final open flow 444 MCF/d Final open flow show Bbl/d
Time of open flow between initial and final tests _____ Hours
Static rock Pressure 560 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: Jean Freeland
TERM ENERGY CORP.
By: Designated Agent
Date: 11-1-94

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

Well Operator's Report of Well Work

Farm name: WEST, HAZEL

Operator Well No.: WEST 1

LOCATION: Elevation: 978.00 Quadrangle: OXFORD

District: SOUTHWEST County: DODDRIDGE
Latitude: 10190 Feet South of 39 Des. 12Min. 30 Sec.
Longitude: 1240 Feet West of 80 Des. 50 Min. 0 Sec.

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

Asent: KATHY D. JARVIS

Inspector: MIKE UNDERWOOD
Permit Issued: 05/04/88
Well work Commenced: 5/31/88
Well work Completed: 6/10/88
Verbal Flussions
Permission granted on:
Rotary Cable _____ Ris _____
Total Depth (feet) 5139'
Fresh water depths (ft) 75'
Salt water depths (ft) None
Is coal beins mined in area (Y/N)?
Coal Depths (ft):

Casings & Tubings	Used in Drillings	Left in Well	Cement Fill Up Cu. Ft.
Size			
11-3/4	17'	0	
8-5/8	1097'	1097'	300 sacks
4-1/2	5077'	5077'	235sacks
2-3/8			

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AUG 08 1988

OPEN FLOW DATA

DIVISION OF OIL & GAS
DEPARTMENT OF ENERGY

Producing formation Alexander Pay zone depth (ft) 4932-5026
Gas: Initial open flow _____ MCF/d Oil: Initial open flow _____ Bbl/d
Final open flow 800 MCF/d Final open flow _____ Bbl/d
Time of open flow between initial and final tests _____ Hours
Static rock Pressure 1200 psis (surface pressure) after 12 Hours

Second producing formation Riley Pay zone depth (ft) 4286-4295
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 _____ psis (surface pressure) after _____ Hours

CO-MINGLED

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.

Kathy D. Jarvis
For: TERM ENERGY CORP.

By: *Its Agent*
Date: *June 14, 1988*

AUG 12 1988

6/10/88 Perforated Alexander 4952, ^{4997?} 5997, 20 holes, .39
 Riley 4286, 8 holes, .39

2 stage foam frac - Alexander; Max TR Press. 3350, Ave rate 20, Ave Press 2500, 80,000# 20/40; 4,500# 80/ 100; Max Conc. 6, Total Acid 500 gal, ISIP 1250 5 min, Total Nitrogen 658,910 SCF, total fluid 936 bbls,

Riley; Max TR Press. 3050, Ave rate 20, Ave Press 2450, 48,000# 20/40, 4,500# 80/100, Max Conc 5, ISIP 1490 5 min, Total Nitrogen 391,742 SCF, Total Fluid 579 Bbls

Well Log:	TOP	BOTTOM
Sand, Shale and RR	0	1694 1/4" stream @ 75'
Lime	1694	1737 3/4" stream @ 236'
Shale	1737	1748
Lime	1748	1826
Sand and Shale	1826	1836
Big Injun	1836	1869
Sand and Shale	1869	5139

Log Tops: ✓

Big Lime	1736	1808
Big Injun	1808	1887
Weir	2040	2166
Gordon	2459	2467
Warren	3114	3154
Speechly		
Balltown	3870	3952
Riley	4286	4308
Benson	4687	4693
✓ Alexander	4932	5026

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 AUG 08 1988

DIVISION OF OIL & GAS
 DEPARTMENT OF ENERGY

6969

017-3637
 issued 5/4/88
 expires 5/4/90
 Page ____ of ____

FORM WW-2B

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

- 1) Well Operator: TERM Energy Corporation ³⁸⁶ 49105, 7, 525
- 2) Operator's Well Number: Hazel West No. 1 3) Elevation: 978'
- 4) Well type: (a) Oil / or Gas /
 (b) If Gas: Production / Underground Storage /
 Deep / Shallow /
- 5) Proposed Target Formation(s): Alexander ⁴³⁹
- 6) Proposed Total Depth: 5125 feet
- 7) Approximate fresh water strata depths: OK-70' 110' & 250'
- 8) ^{From Dodd. 12-1-1399, 30x10} Approximate salt water depths: ~~70 and 110. 250'~~
- 9) Approximate coal seam depths: OK None
- 10) Does land contain coal seams tributary to active mine? Yes / No /
- 11) Proposed Well Work:
- 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	11-3/4		42	30	30	CTS
Fresh Water	8-5/8		20	1080	1080	CTS
Coal						
Intermediate						
Production	4-1/2		10.5	5100	5100	38CSR18-11.1 700 sks
Tubing						
Liners						

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 MAY 04 1988

PACKERS : Kind _____
 Sizes _____
 Depths set _____

DIVISION OF OIL & GAS
 DEPARTMENT OF ENERGY

For Division of Oil and Gas Use Only

Fee(s) paid: 11 Well Work Permit 11 Reclamation Fund 11 WPCP
11 Plat 11 WW-9 11 WW-2B 11 Bond 50 Blanket 11 Agent
 (Type) 11 Agent
 MAY 09 1988

6969
 09219
 11

RECEIVED
MAY 04 1988
 DIVISION OF OIL & GAS
 DEPARTMENT OF ENERGY

Page 1 of _____
 Form WW2-A
 (09/87)
 File Copy

Date: April 26, 1988
 Operator's well number
Hazel West No. 1
 API Well No: 47 - 017 - 3637
 State - County - Permit

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

- | | |
|---|--|
| <p>4) Surface Owner(s) to be served:
 (a) Name <u>Hazel West</u>
 Address <u>Box 121</u>
 <u>Harrisville WV 26362</u>

 (b) Name _____
 Address _____

 (c) Name _____
 Address _____</p> | <p>5) (a) Coal Operator:
 Name <u>None</u>
 Address _____

 (b) Coal Owner(s) with Declaration
 Name _____
 Address _____

 Name _____
 Address _____

 (c) Coal Lessee with Declaration
 Name _____
 Address _____</p> |
| <p>6) Inspector <u>Michael Underwood</u>
 Address <u>Rt 2, Box 114</u>
 <u>Salem WV 26426</u>
 Telephone (304)-_____</p> | |

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: Kathy D. Jarvis, Office Manager *Kathy D Jarvis*
 Its: Agent
 Address 110 North Spring Street
Harrisville WV 26362
 Telephone 304-643-4500

Subscribed and sworn before me this _____ day of _____, 1988
 OFFICIAL SEAL
 Notary Public, State of West Virginia
DYANNA L. DYE
 My 121 N. Court St. on expires _____
 HARRISVILLE, W.VA. 26362
 My Commission Expires September 22, 1997

before me this 27 day of April, 1988
Dyanne L. Dye Notary Public
9/22/97
 MAY 09 1988

RECEIVED
WV Division of
Environmental Protection

017-3637-Frac
Issued 06/27/94
Page ___ of ___
Expires 06/27/96

FORM WW-2B

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

19326

Well Operator: Term Energy Corporation 49105 ⑦ 526

Operator's Well Number: Hazel West #1 3) Elevation: 978'

Well type: (a) Oil or Gas
(b) If Gas: Production / Underground Storage
Deep Shallow

5) Proposed Target Formation(s): Gordon, Weir, Big Injun

6) Proposed Total Depth: 5077 Actual 469 feet

7) Approximate fresh water strata depths: 70', 110', & 250'

8) Approximate salt water depths: None

9) Approximate coal seam depths: None

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

11) Proposed Well Work: Set bridge plug at 2660', perf & squeeze cement from 2650' to 1700'; Set small mouth frac plug at 2480', frack Gordon & Weir, Set wide mouth plug at

12) 1890', frack Big Injun, Comingle with lower production
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 3/4"	J-55	42#	17'	0	
Fresh Water	8 5/8"	J-55	20#	1097'	1097'	Surface 300 sks
Coal						<i>300 sks</i>
Intermediate						
Production	4 1/2"	J-55	10.5#	5077'	5077'	3760' 235 sks
Tubing						
Liners						

PACKERS : Kind _____
Sizes _____
Depths set _____

For Division of Oil and Gas Use Only

Fee(s) paid: Well Work Permit Reclamation Fund WPCP

Plat WW-9 WW-2B Bond _____ Agent

322/19

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WV
Environmental Protection
JUN 0 9 94

- 1) Date: May 31, 1994
- 2) Operator's well number
Hazel West
- 3) API Well No: 47 - 017 - 3637F
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 Hazel West
Address P.O. Box 121
Harrisville, WV 26362
 - (b) Name _____
Address _____
 - (c) Name _____
Address _____
- 6) Inspector Mike Underwood
Address Rt. 2 Box 114
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 _____
Address _____
 - (c) Coal Lessee with Declaration
Name N/A
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:

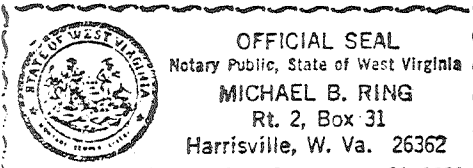
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- Certified Mail (Postmarked postal receipt attached)
- Publication (Notice of Publication attached)

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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: Jean Freeland Jean Freeland
 Its: Designated Agent
 Address 713 E. Main St.
Harrisville, WV 26362
 Telephone (304) 643-4500



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

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