

US RT. 50

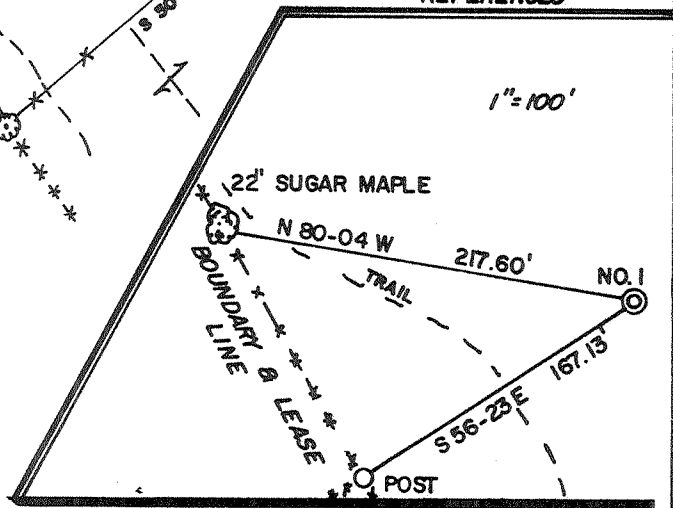
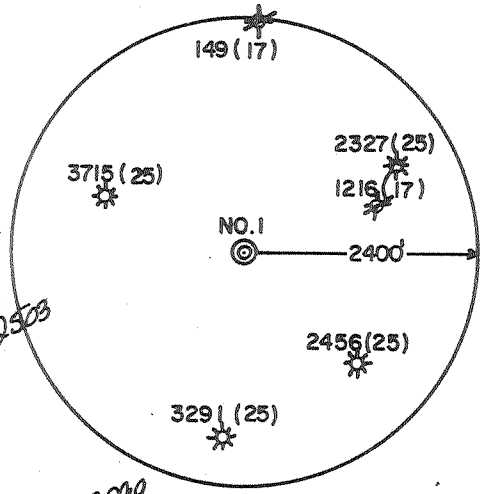
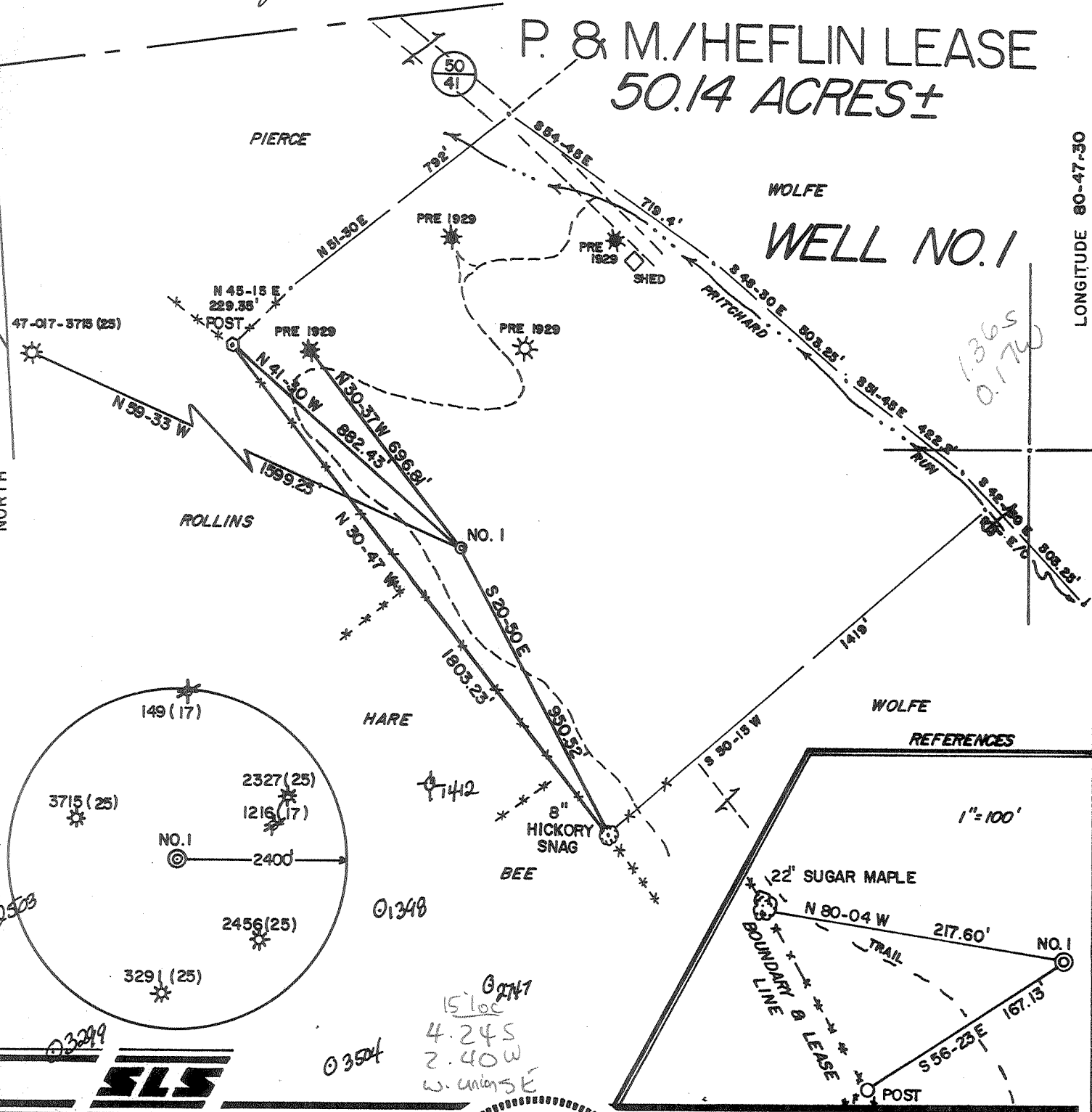
Jamie 11/29/90

LATITUDE 39-17-30

P. & M./HEFLIN LEASE 50.14 ACRES±

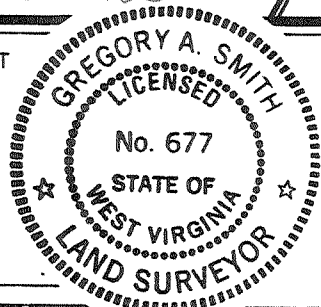
LONGITUDE 80-47-30

NORTH



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.

L.L.S. Gregory A. Smith
677



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS.
DATE NOVEMBER 13, 19 90
OPERATORS WELL NO. P & M/HEFLIN No. 1
WVD0002001
API WELL NO. 47 - 017 - 3864
STATE COUNTY PERMIT

MINIMUM DEGREE OF ACCURACY 1 / 200 FILE NO. 2512 (31-77)
PROVEN SOURCE OF ELEVATION TOP OF KNOB ELEV. 1335' SCALE 1" = 400'

STATE OF WEST VIRGINIA
DEPARTMENT OF ENERGY
OIL AND GAS DIVISION



WELL TYPE: OIL ___ GAS X LIQUID INJECTION ___ WASTE DISPOSAL ___ IF "GAS" PRODUCTION X STORAGE ___ DEEP ___ SHALLOW X
LOCATION: ELEVATION 1211' WATERSHED PRITCHARD RUN
DISTRICT WESTUNION COUNTY DODDRIDGE QUADRANGLE WEST UNION 7.5'
SURFACE OWNER WILLIAM J. WOLFE ACREAGE 50.14
ROYALTY OWNER CHARLES MITCHELS ET. AL. LEASE ACREAGE 50.14
PROPOSED WORK: LEASE NO. WV02034 - +
DRILL X CONVERT ___ DRILL DEEPER ___ REDRILL ___ FRACTURE OR STIMULATE X PLUG OFF OLD FORMATION ___ PERFORATE NEW FORMATION ___ PLUG AND ABANDON ___ CLEAN OUT AND REPLUG ___ OTHER ___
PHYSICAL CHANGE IN WELL (SPECIFY) ___ TARGET FORMATION ALEXANDER
ESTIMATED DEPTH 5510'

WELL OPERATOR EASTERN AMERICAN ENERGY CORP. DESIGNATED AGENT JOHN M. PALETTI
ADDRESS BOX N GLENVILLE, WV. 26351 ADDRESS 501 56th ST. CHARLESTON, WV. 25304

COUNTY NAME PERMIT

RECEIVED
Division of Energy

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

FEB 11 91

Well Operator's Report of Well Work

Farm name: WOLFE, WILLIAM J Operator Well No.: P&M/HEFLIN 1

LOCATION: Elevation: 1211.00 Quadrangle: WEST UNION

District: WESTUNION County: DODDRIDGE
Latitude: 7110 Feet South of 39 Deg. 17Min. 30 Sec.
Longitude 950 Feet West of 80 Deg. 47 Min. 30 Sec.

Company: EASTERN AMERICAN ENERGY C
P. O. BOX N
GLENVILLE, WV 26351-0000

Agent: DONALD C. SUPCOE

Inspector: MIKE UNDERWOOD
Permit Issued: 11/29/90
Well work Commenced: 12/06/90
Well work Completed: 01/09/91
Verbal Plugging
Permission granted on: _____
Rotary X Cable _____ Rig
Total Depth (feet) 5583'
Fresh water depths (ft) 210'

Salt water depths (ft) None

Is coal being mined in area (Y/N)? N
Coal Depths (ft): None

Casing & Tubing Size	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
8-5/8"	1379'	1379'	C.T.S.
4-1/2"	5492'	5492'	355
1-1/5"	---	5350'	---

OPEN FLOW DATA

Alexander, Benson/3rd Riley, 5386.5'-
Producing formation Riley (Commingle) Pay zone depth (ft) 4618'
Gas: Initial open flow 700 MCF/d Oil: Initial open flow N/A Bbl/d
Final open flow 502 MCF/d Final open flow N/A Bbl/d
Time of open flow between initial and final tests 15 Hours
Static rock Pressure 1410 psig (surface pressure) after 24 Hours

Second producing formation _____ Pay zone depth (ft) _____
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.

For: *Ron Rech*
EASTERN AMERICAN ENERGY CORP.

By: Ron Rech, Regional Drilling Manager
Date: February 5, 1991

FEB 15 1991

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

3-STAGE FOAM FRAC

- Stage 1: Alexander - 14 holes (5386.5'-5329.5') Breakdown 1620 psi, 65 Quality foam, 20 lbs/1000 gals Gel, 70,000 lbs 20/40 sand, 500 gals 15% HCl, 528,000 scf of N₂
- Stage 2: Benson/3rd Riley - 13 holes (5070'-4929') Breakdown 2650 psi, 65 Quality foam, 20 lbs/1000 gals Gel, 60,000 lbs 20/40 sand, 750 gals 15% HCl, 576,100 scf of N₂
- Stage 3: Riley - 10 holes (4633.5'-4618') Breakdown 1750 psi, 65 Quality foam, 20 lbs/1000 gals Gel, 5,000 lbs 80/100 sand, 60,000 lbs 20/40 sand, 500 gals 15% HCl, 700,000 scf of 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
Red Rock			0	15	
Sandy Shale			15	30	
Sand			30	140	
Sand & Shale			140	370	3/4" stream water @ 210'
Shale and Red Rock			370	405	
Sand and Shale			405	830	
Sand, Shale and Red Rock			830	1110	
Shale			1110	1200	<u>GAS CHECKS:</u>
Sand and Shale			1200	2000	3021' - No show
Little Lime			2000	2012	3360' - 2/10 thru 1" w/water (15 MCF)
Sand			2012	2047	3976' - 2/10 thru 1" w/water (15 MCF)
Big Lime			2047	2108	4503' - 2/10 thru 1" w/water (15 MCF)
Big Injun			2108	2196	4750' - 6/10 thru 1" w/water (26 MCF)
Shale			2196	2346	4966' - 6/10 thru 1" w/water (26 MCF)
Weir			2346	2454	5213' - 6/10 thru 1" w/water (26 MCF)
Shale			2454	2547	T.D. - 2/10 thru 1" w/water (16 MCF)
Berea			2547	2557	Collars - 2/10 thru 1" w/water (16 MCF)
Shale			2557	2750	
Gordon			2750	2794	
Sand and Shale			2794	3414	
Warren			3414	3472	
Shale			3472	3486	
Speechley			3486	3584	
Sand and Shale			3584	4610	
Riley			4610	4672	
Shale			4672	4920	
3rd Riley			4920	5007	
Shale			5007	5062	
Benson			5062	5089	
Shale			5089	5300	
Alexander			5300	5390	
Shale			5390	5583 T.D.	

11587

(Attach separate sheets as necessary)

1) Date: November 14, 1990
2) Operator's well number
E&M/Heflin #1 - WVDOD002001
3) API Well No: 47 - 017 - 3864
State - County - Permit

RECEIVED
Division of Energy
NOV 14 90
Permitting
Oil and Gas Section

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 William J. Wolfe
Address 5210 N. Grey Mountain Trail
Tuscon, AZ 85715
(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 None
Address _____
(b) Coal Owner(s) with Declaration
Name None
Address _____
Name _____
Address _____
(c) Coal Lessee with Declaration
Name None
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
XX 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 8 on the above named parties, by:

- Personal Service (Affidavit attached)
- XX 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 Eastern American Energy Corporation
By: John M. Paletti
Its: Designated Agent
Address P.O. Box N
Glenville, WV 26351
Telephone (304) 462-5781

Subscribed and sworn before me this 14th day of November, 1990

My commission expires _____ Notary Public

017-3864
 Issued 11/29/90
 Expires 11/29/90
 Page 3 of 8

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

- 1) Well Operator: ²⁵⁹ Eastern American Energy Corporation 14980 (8) 670
- 2) Operator's Well Number: P&M/Heflin #1 - WVDOD002001 3) Elevation: 1211'
- 4) Well type: (a) Oil ___ / or Gas XX /
 (b) If Gas: Production XX / Underground Storage ___ /
 Deep ___ / Shallow XX /
- 5) Proposed Target Formation(s): Alexander ⁴³⁹
- 6) Proposed Total Depth: 5510 feet
- 7) Approximate fresh water strata depths: 178', 498', 636'
- 8) Approximate salt water depths: 1973'
- 9) Approximate coal seam depths: 714'-717'
- 10) Does land contain coal seams tributary to active mine? Yes ___ / No XX /
- 11) Proposed Well Work: Drill and complete new well. /
- 12)

RECEIVED
 DEPARTMENT OF ENERGY
 NOV 19 90
 OIL AND GAS SECTION

OK

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"	F-25	37.5	30'	-----	
Fresh Water	8-5/8"	J-55	20.0	1350'	1350'	C.T.S. 38CSR18-11.3 38CSR18-11.2.2
Coal						
Intermediate						
Production	4-1/2"	J-55	10.5	5465'	5465'	38CSR18-11.1
Tubing	1-1/2"	H-40	2.75			
Liners						

PACKERS : Kind _____
 Sizes _____
 Depths set _____

14028
 34

For Division of Oil and Gas Use Only

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