

Janice 6/24/88

9130'

20

LATITUDE 39-17-30

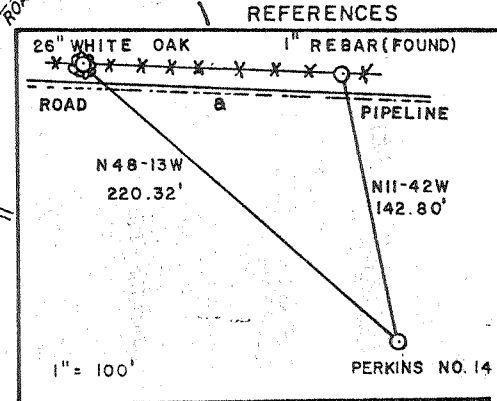
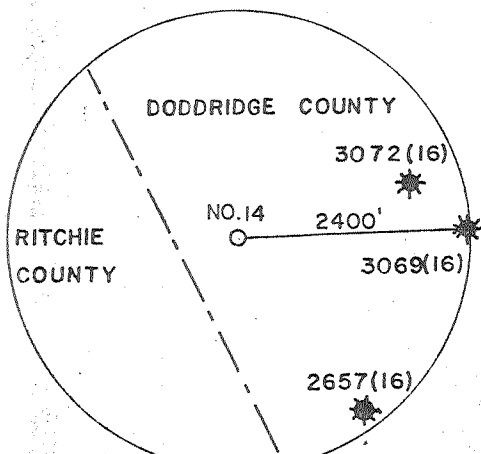
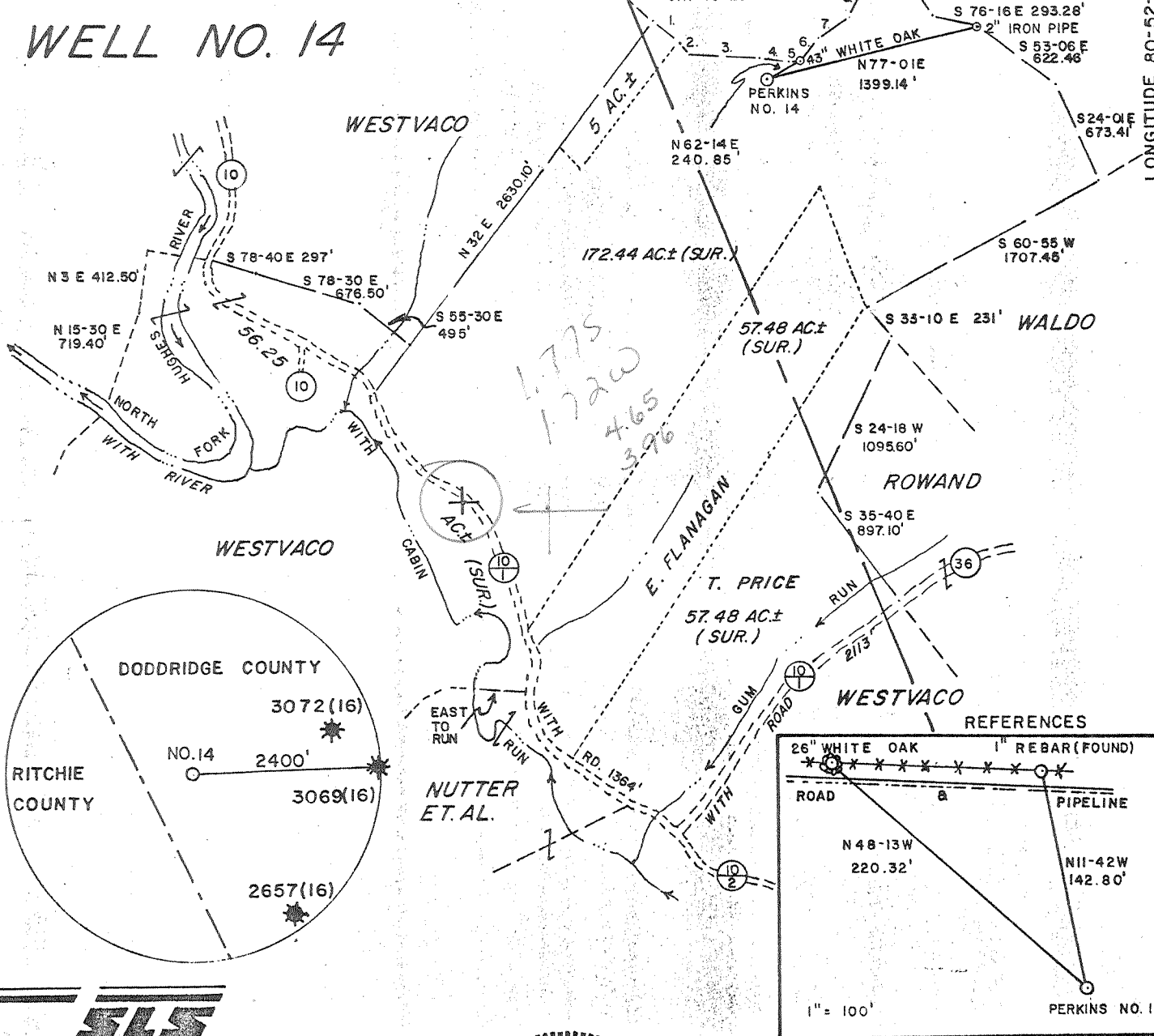
PERKINS LEASE 1010 ACRES± TOTAL WELL NO. 14

- 1. S 38-55 E 212.66'
- 2. S 41-02 E 107.50'
- 3. S 87-24 E 446.73'
- 4. S 79-29 E 167.90'
- 5. N 84-07 E 78.93'
- 6. N 42-04 E 197.53'
- 7. N 53-37 E 242.10'
- 8. N 25-33 E 215.42'
- 9. N 45-25 E 272.05'

WESTVACO

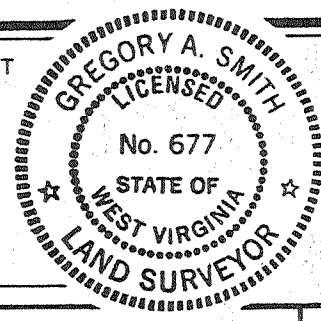
G.W. HILL

LONGITUDE 80-52-30



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 MAY 28, 19 88
 OPERATORS WELL NO. WVRIT 002214
PERKINS NO. 14
 API WELL NO. 47 - 017 - 3649
 STATE COUNTY PERMIT

MINIMUM DEGREE OF ACCURACY 1 / 200 FILE NO. 1838 (24-41)
 PROVEN SOURCE OF ELEVATION TOP OF KNOB ELEV.: 1090' SCALE 1" = 1000'

STATE OF WEST VIRGINIA
 DEPARTMENT OF ENERGY
 OIL AND GAS DIVISION



WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL IF "GAS" PRODUCTION STORAGE DEEP SHALLOW
 LOCATION: ELEVATION 1021 WATERSHED CABIN RUN
 DISTRICT CENTRAL COUNTY DODDRIDGE QUADRANGLE PENNSBORO 75' 539
 SURFACE OWNER GEORGE FLANAGAN ET. UX. ACREAGE 172.44
 ROYALTY OWNER W. FLANAGAN HEIRS ET.AL. LEASE ACREAGE 343.65 OF 1010
 PROPOSED WORK: DRILL CONVERT DRILL DEEPER REDRILL FRACTURE OR STIMULATE 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 5180' JUL 1 1988

WELL OPERATOR EASTERN AMERICAN ENERGY CORP. DESIGNATED AGENT DONALD SUPCOE
 ADDRESS BOX N GLENVILLE, W.V. 26351 ADDRESS BOX N GLENVILLE, W.V. 26351
66 259 Pennsboro-Tollgate (88)

NORTH

575

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

Well Operator's Report of Well Work

Farm name: FLANAGAN, GEORGE Operator Well No.: PERKINS 14

LOCATION: Elevation: 1021.00 Quadrangle: PENNSBORO

District: CENTRAL County: DODDRIDGE
Latitude: 9490 Feet South of 39 Deg. 17Min. 30 Sec.
Longitude 9130 Feet West of 80 Deg. 52 Min. 30 Sec.

Company: EASTERN AMERICAN ENERGY C
P. O. BOX N
GLENNVILLE, WV

Asent: DONALD C. SUPCOE

Inspector: MIKE UNDERWOOD
Permit Issued: 06/30/88
Well work Commenced: 08/26/88
Well work Completed: 09/10/88
Verbal Plugging
Permission granted on:
Rotary Cable _____ Ris _____
Total Depth (feet) 5290'
Fresh water depths (ft) 90'

Salt water depths (ft) None

Is coal being mined in area (Y/N)? N
Coal Depths (ft): 198', 940', 1455'

Casings & Tubing Size	Used in Drilling	Left in Well	Cement Fill Cu. Ft.
8-5/8"	1547.25'	1547.25'	C.T.S.
4-1/2"	5202.2'	5202.2'	708'
1-1/2"	---	3425.95'	---

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DIVISION OF OIL & GAS
DEPARTMENT OF ENERGY

OPEN FLOW DATA

Warren (Commingled)

Producing formation Alexander, Benson, Riley Pay zone depth (ft) 5112'-3295'
Gas: Initial open flow 189 MCF/d Oil: Initial open flow N/A Bbl/d
Final open flow 1302 MCF/d Final open flow N/A Bbl/d
Time of open flow between initial and final tests 24 Hours
Static rock Pressure 1610 psia (surface pressure) after 15 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 _____ psia (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.

Rich Heffelfinger

For: EASTERN AMERICAN ENERGY CORP.

Rich Heffelfinger

By: Vice President - Regional Operations

Date: September 26, 1988

OCT 10 1988

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

4 STAGE FOAM FRAC

- Stage 1: 12 holes (^{Alex}5111.5'-5083') Breakdown pressure @ 2000 psi, 60 quality foam, 25,000 lbs. 20/40 sand, 420,000 scf of N₂
- Stage 2: 8 holes (^{Benson}4812'-4815') Breakdown pressure @ 1250 psi, 60 quality foam, 20,000 lbs. of 20/40 sand, 386,000 scf of N₂
- Stage 3: 12 holes (^{Riley}4443.5'-4415.5') Breakdown Pressure @ 1200 psi, 75 quality foam, 30,000 lbs. of 20/40 sand, 560,000 scf of N₂
- Stage 4: 12 holes (^{Warren}3340'-3295') Breakdown pressure @ 1750 psi, 75 quality foam, 25,000 lbs. of 20/40 sand, 562,000 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, Sand, Shale			0	198	1/4" stream of water @ 90'
Coal			198	202	
Sand, Shale, Red Rock			202	940	
Coal			940	950	
Sand, Shale			950	1455	
Coal			1455	1460	
Sand, Shale			1460	1850	Show of oil @ 1825'
Big Lime			1850	1912	
Big Injun			1912	2008	
Shale			2008	2204	<u>GAS CHECKS:</u>
Weir			2204	2318	
Shale			2318	3289	1820' 6/10 through 2" w/water
Warren			3289	3342	2039' 64/10 through 2" w/water
Shale			3342	4430	2300' 30/10 through 2" w/water
Riley			4430	4460	2600' 30/10 through 2" w/water
Shale			4460	4811	2900' 30/10 through 2" w/water
Benson			4811	4816	3200' 50/10 through 2" w/water
Shale			4816	5081	3400' 24/10 through 2" w/water
Alexander			5081	5122	3600' 24/10 through 2" w/water
Log T.D.				5281	3800' 24/10 through 2" w/water
					4100' 24/10 through 2" w/water
					4300' 24/10 through 2" w/water
					4500' 24/10 through 2" w/water
					4700' 24/10 through 2" w/water
					4900' 26/10 through 2" w/water
					5200' 26/10 through 2" w/water
					T.D. 20/10 through 2" w/water
					D.C. 20/10 through 2" w/water

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DIVISION OF OIL & GAS
DEPARTMENT OF ENERGY

(Attach separate sheets as necessary)

7212

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, 1, 538
- 2) Operator's Well Number: Perkins #14 (WVRIT002214) 3) Elevation: 1021'
- 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: 5180' feet
- 7) Approximate fresh water strata depths: 160', 317'
- 8) Approximate salt water depths: 1400' None 1600'
- 9) Approximate coal seam depths: 1400' None 1600'
- 10) Does land contain coal seams tributary to active mine? Yes / No /
- 11) Proposed Well Work: Drill and complete new well.
- 12)

CASING AND TUBING PROGRAM

TYPE	SPECIFICATIONS		FOOTAGE INTERVALS		CEMENT	
	Size	Grade	Weight per ft.	For drilling		Left in well
Conductor	11"	F-25	37.5	32'	0	---
Fresh Water	8-5/8"	J-55	20.0	1121'	1121'	C.T.S. 88CSR18-11.3 88CSR18-11.2.2
Coal						
Intermediate						
Production	4-1/2"	J-55	10.5	5180'	5180'	400 cu. ft. 88CSR18-11.1
Tubing	1-1/2"	H-40	2.75	---	4400'	
Liners						

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PACKERS : Kind _____
Sizes _____
Depths set _____

DIVISION OF OIL & GAS
DEPARTMENT OF ENERGY

For Division of Oil and Gas Use Only

72/2

7/4

Fee(s) paid: Well Work Permit Reclamation Fund WPCP
 Plat WW-9 WW-2B Bond 50 blanket Agent
(Type)

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DIVISION OF OIL & GAS,
DEPARTMENT OF ENERGY

Date: June 1, 1988
Operator's well number
Perkins #14 (WVRIT002214)
API Well No: 47 - 017 - 3649
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 George Flanagan
Address 13283 Dawn Avenue
Uniontown, OH 44685
(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 _____
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
X 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)
X 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: [Signature]
Its: Designated Agent
Address P.O. Box N
Glenville, WV 26351
Telephone (304) 462-5781

Subscribed and sworn before me this 1st day of June, 1988

[Signature] Notary Public
My commission expires August 2, 1993.