

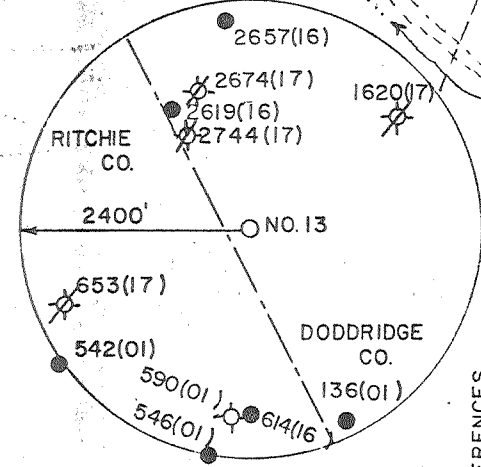
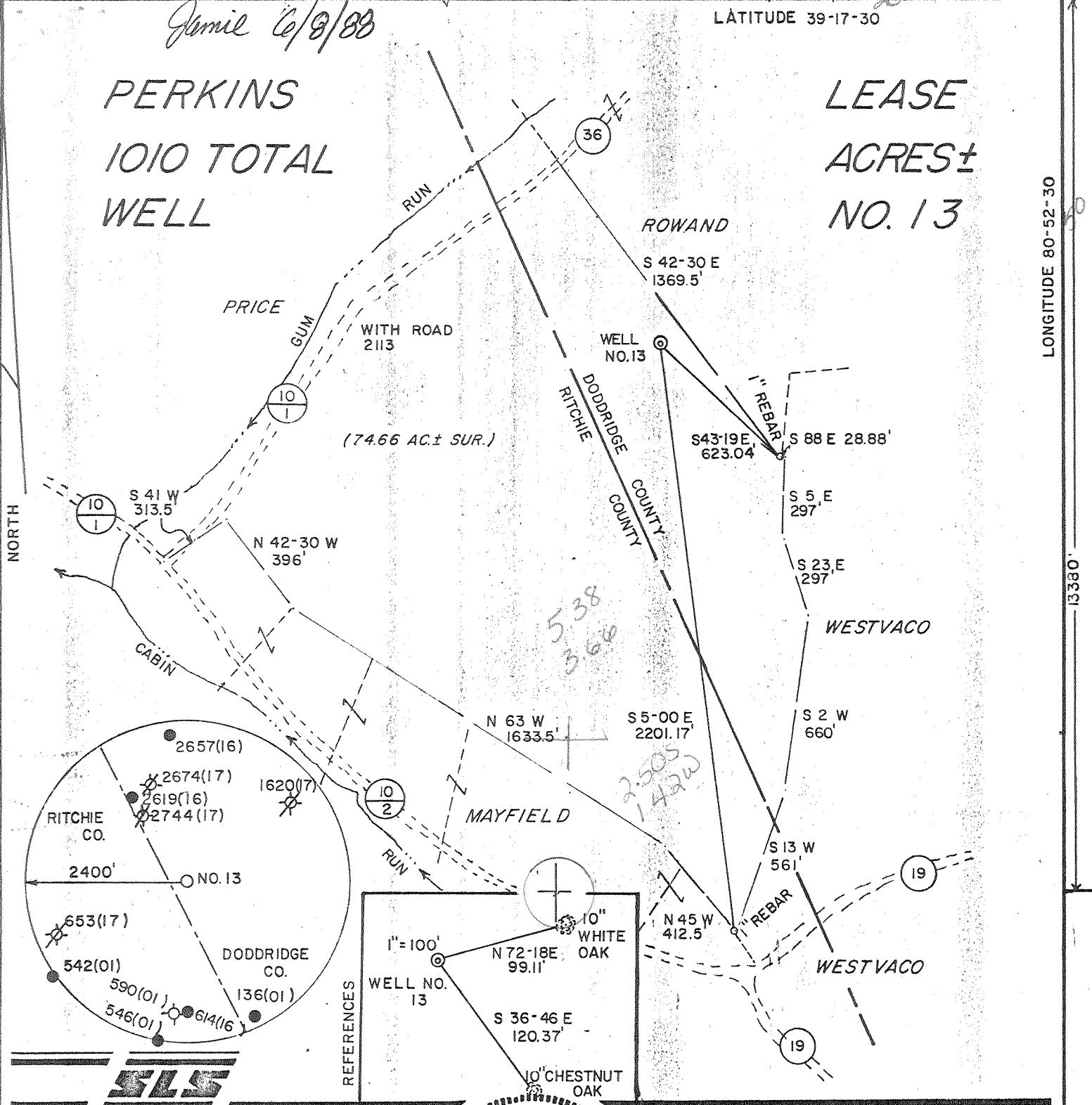
*Jamil 6/9/88*

LATITUDE 39-17-30

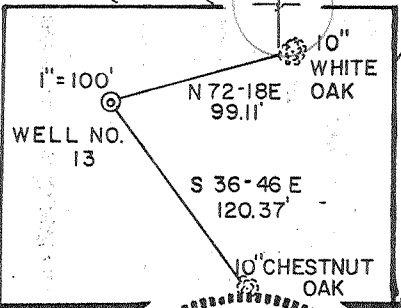
**PERKINS  
1010 TOTAL  
WELL**

**LEASE  
ACRES±  
NO. 13**

LONGITUDE 80-52-30

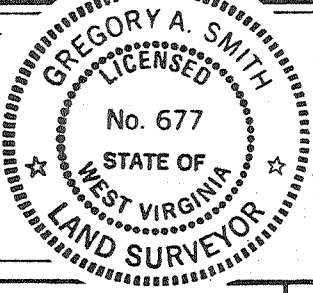


REFERENCES



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. 677 *Gregory A. Smith*



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS.  
 DATE MAY 16, 19 88  
 OPERATORS WELL NO. WVRIT-002213  
PERKINS NO. 13  
 API WELL NO. 47-017-3648  
 STATE COUNTY PERMIT

MINIMUM DEGREE OF ACCURACY 1 / 200 FILE NO. 1838 (25-47)  
 PROVEN SOURCE OF ELEVATION TOP OF KNOB SCALE 1" = 500'  
 ELEV. 1090'

**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 1089' WATERSHED GUM RUN West Union SC  
 DISTRICT CENTRAL COUNTY DODDRIDGE QUADRANGLE PENNSBORO 7.5' 539  
 SURFACE OWNER WESTVACO ACREAGE 74.66 133  
 ROYALTY OWNER W. FLANAGAN HEIRS ET.AL. LEASE ACREAGE 74.66 OF 1010 8  
 PROPOSED WORK: LEASE NO. \_\_\_\_\_  
 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 5250'

WELL OPERATOR EASTERN AMERICAN ENERGY CORP. DESIGNATED AGENT DONALD SUPCOE  
 ADDRESS BOX N GLENVILLE, W.V. 26351 ADDRESS BOX N GLENVILLE, W.V. 26351

COUNTY NAME PERMIT

6-6 Greenwood (89)

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

Well Operator's Report of Well Work

Farm name: WESTVACO CORPORATION Operator Well No.: PERKINS 13

LOCATION: Elevation: 1089.00 Quadrangle: PENNSBORO

District: CENTRAL County: DODDRIDGE  
Latitude: 13380 Feet South of 39 Des. 17 Min. 30 Sec.  
Longitude: 7550 Feet West of 80 Des. 52 Min. 30 Sec.

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

Agent: DONALD C. SUPCOE

Inspector: MIKE UNDERWOOD  
Permit Issued: 06/29/88  
Well work Commenced: 09/14/88  
Well work Completed: 10/01/88  
Verbal Plugging  
Permission granted on:  
Rotary  Cable \_\_\_\_\_ Rig  
Total Depth (feet) 5361'  
Fresh water depths (ft) \_\_\_\_\_  
90', 180', 440'  
Salt water depths (ft) 1610', 1915'

Size	Casings & Tubings Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
8-5/8"	1214.35'	1214.35'	C.T.S.
4-1/2"	5275.85'	5275.85'	424.87
1-1/2"	---	3507.85'	---

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DEPARTMENT OF ENERGY

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

OPEN FLOW DATA

Warren (Commingled)

Producing formation Alexander/Benson, Riley Pay zone depth (ft) 3403.15-5221  
Gas: Initial open flow 189 MCF/d Oil: Initial open flow \_\_\_\_\_ Bbl/d  
Final open flow 622 MCF/d Final open flow \_\_\_\_\_ Bbl/d  
Time of open flow between initial and final tests 24 Hours  
Static rock Pressure 1200 psis (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 \_\_\_\_\_ psis (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* \_\_\_\_\_ OCT 28 1988  
For: EASTERN AMERICAN ENERGY CORP.  
Rich Heffelfinger  
By: Vice President - Regional Operations  
Date: October 20, 1988

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

3-STAGE FOAM FRAC

- Stage 1: 09 holes (<sup>alex + Benson</sup>5221.5'-4919.5') Breakdown @ 1900 psi, ISIP @ 1150 psi, 60 Quality Foam  
25,000 lbs. 20/40 sand, 380 Mscf of N<sub>2</sub>
- Stage 2: 11 holes (<sup>ELY</sup>4555'-4520') Breakdown @ 1460 psi, ISIP @ 1350 psi, 75 Quality Foam  
30,000 lbs. 20/40 sand, 621 Mscf of N<sub>2</sub>
- Stage 3: 12 holes (<sup>Warren</sup>3436'-3403') Breakdown @ 2100 psi, ISIP @ 1350 psi, 75 Quality Foam  
27,000 lbs. 20/40 sand, 555.5 Mscf of N<sub>2</sub>

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS Including indication of all fresh and salt water, coal, oil and gas
Shale & Red Rock			0	90	Damp @ 90'
Sand, Shale & Red Rock			90	172	
Sand			172	186	
Sand, Shale & Red Rock			186	436	1/4" stream water @ 180'
Sand			436	444	
Sand, Shale & Red Rock			444	1180	1/2" stream water @ 440'
Sand & Shale			1180	1285	
Red Rock			1285	1310	Damp @ 1610'
Shale			1310	1517	
Sand			1517	1610	Gas Checks as follows:
Sand & Shale			1610	1690	
Sand			1690	1730	1884' No show
Sand & Shale			1730	1890	1900' Odor
Sand			1890	1920	1915' 1/2" stream oil
Shale			1920	1930	1975' 80/10 thru 2" w/water
Lime & Shale			1930	1969	2252' 70/10 thru 2" w/water
Big Lime			1969	2054	2435' 70/10 thru 2" w/water
Big Injun			2054	2104	2714' 30/10 thru 2" w/water
Sand & Shale			2104	2302	2992' 34/10 thru 2" w/water
Weir			2302	2427	3518' 20/10 thru 2" w/water
Sand & Shale			2427	2606	3796' 70/10 thru 2" w/water
Gordon			2606	2616	4105' 70/10 thru 2" w/water
Sand & Shale			2616	3368	4321' 18/10 thru 2" w/water
Warren			3368	3443	4502' 18/10 thru 2" w/water
Sand & Shale			3443	4516	4719' 12/10 thru 2" w/water
Riley			4516	4579	4994' 18/10 thru 2" w/water
Sand & Shale			4579	4898	5209' 18/10 thru 2" w/water
Benson			4898	4926	T.D. 20/10 thru 2" w/water
Sand & Shale			4926	5160	D.C.'s 20/10 thru 2" w/water
Alexander			5160	5232	
Sand & Shale			5232	5361 T.D	

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DIVISION OF OIL & GAS  
DEPARTMENT OF ENERGY

(Attach separate sheets as necessary)

OCT 28 1988

7133

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

- 1) Well Operator: <sup>259</sup> Eastern American Energy Corporation 14980, 1, 538
- 2) Operator's Well Number: Perkins #13 (WVRIT002213) 3) Elevation: 1089'
- 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: 5250 feet
- 7) Approximate fresh water strata depths: 240', 415' OK.
- 8) Approximate salt water depths: 1410' 1640' OK
- 9) Approximate coal seam depths: None
- 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	Fill-up (cu. ft.)
Conductor	11"	F-25	37.5	32'	0'	---
Fresh Water	8-5/8"	J-55	20.0	1189'	1189'	C.T.S. 38CSR18-11.3 38CSR18-11.2.2
Coal						
Intermediate						
Production	4-1/2"	J-55	10.5	5250'	5250'	400 cu. ft. 38CSR18-11.1
Tubing	1-1/2"	H-40	2.75		4520'	
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

7138

Fee(s) paid: 113 Well Work Permit 16 Reclamation Fund 113 WPCP 113

Plat 113 WW-9 113 WW-2B 113 Bond Blanket Agent 113

(Type)

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DIVISION OF OIL & GAS  
DEPARTMENT OF ENERGY

Date: May 31, 1988  
Operator's well number  
Perkins #13 (WVRIT002213)  
API Well No: 47 - 017 - 3648  
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 Westvaco Corp.  
Address P.O. Box 577  
Rupert, WV 25984  
(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 31st day of May, 1988  
Edna Marie Huff  
My commission expires August 2, 1993. Notary Public