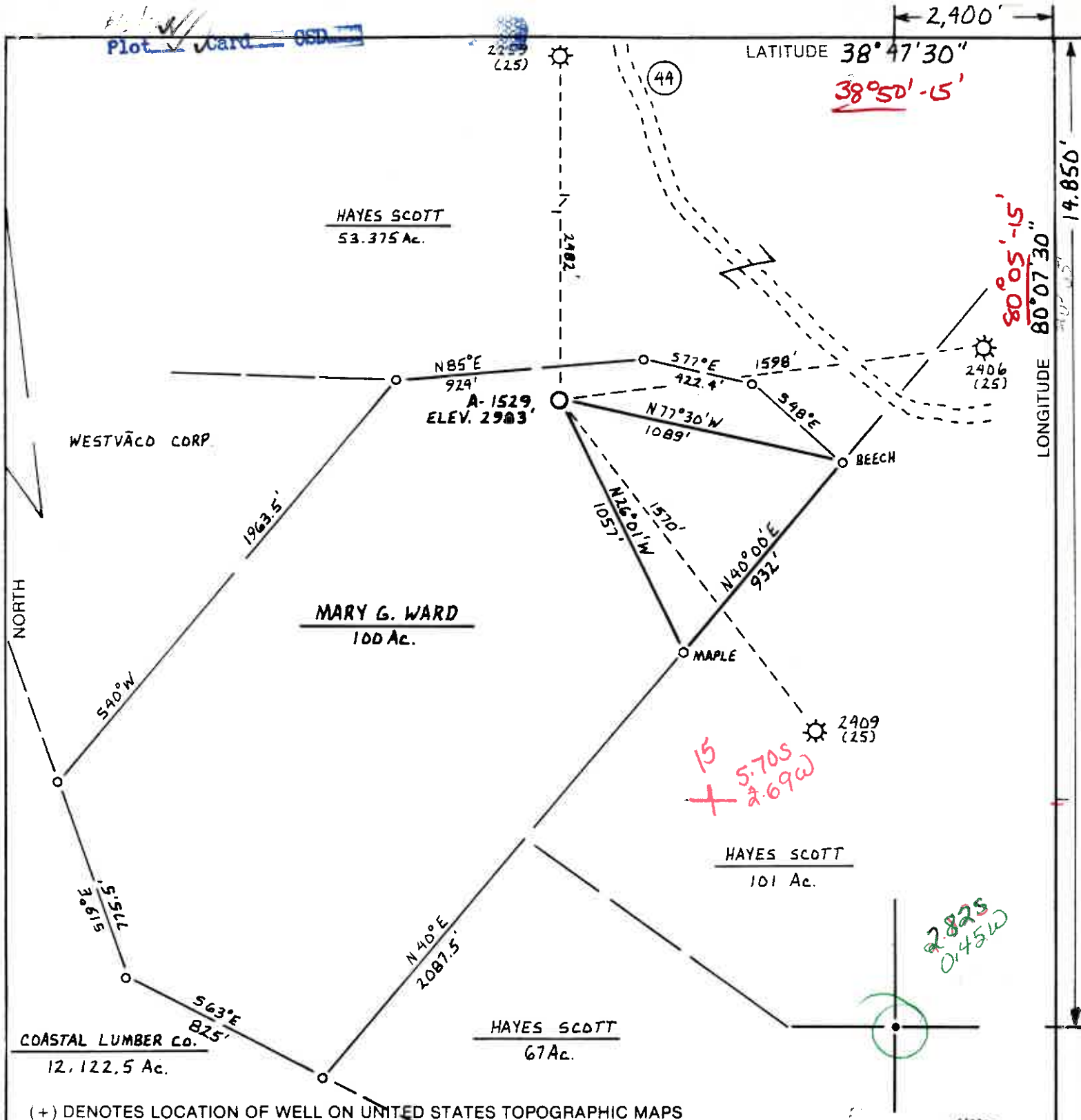
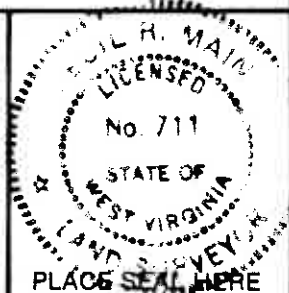




FILE NO. R.M. / R.K.
DRAWING NO. _____
SCALE 1" = 500'
MINIMUM DEGREE OF
ACCURACY 1 PART IN 200
PROVEN SOURCE OF
ELEVATION S.U. PET. INC. WELL 1A
API # 2406 ELEV. 2850'

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 REGU-
LATIONS ISSUED AND PRESCRIBED BY THE DEPART-
MENT OF MINES.

(SIGNED) Daniel R. Main
R.P.E. _____ L.L.S. 711



STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
OIL AND GAS DIVISION



DATE FEBRUARY 14, 1984
OPERATOR'S WELL NO. A-1529
API WELL NO. _____

47 - 097 - 2630
STATE COUNTY PERMIT

WELL TYPE: OIL ___ GAS X LIQUID INJECTION ___ WASTE DISPOSAL ___
(IF "GAS,") PRODUCTION X STORAGE ___ DEEP ___ SHALLOW X
LOCATION: ELEVATION 2983 WATERSHED LEFT FORK BUCKHANNON RIVER
DISTRICT WASHINGTON 6 COUNTY UPSHUR COUNTY
QUADRANGLE ALTON 7.5'306 Sago 15'30
SURFACE OWNER WESTVACO CORP. ACREAGE 100 Ac.
OIL & GAS ROYALTY OWNER MARY G. WARD LEASE ACREAGE 100 Ac.

LEASE NO. 2289
PROPOSED WORK: DRILL X CONVERT ___ DRILL DEEPER ___ REDRILL ___ FRACTURE OR
STIMULATE ___ PLUG OFF OLD FORMATION ___ PERFORATE NEW
FORMATION X OTHER PHYSICAL CHANGE IN WELL (SPECIFY) _____

PLUG AND ABANDON ___ CLEAN OUT AND REPLUG ___
TARGET FORMATION ELK ESTIMATED DEPTH 5.300'
WELL OPERATOR ALAMCO DESIGNATED AGENT DANIEL L. WHEELER
ADDRESS P.O. Box 1740 ADDRESS P.O. Box 1740
CLARKSBURG, WEST VIRGINIA 26302-1740 CLARKSBURG, WEST VIRGINIA 26302-1740

APR 9 1984

6-6 Cassity (295)

Date June 25, 1984
Operator's _____
Well No. A-1529
Farm Ward
API No. 47 - ~~000~~ - 2630
097

OIL & GAS DIVISION DEPARTMENT OF MINES
DEPT. OF MINES OIL and GAS DIVISION

WELL OPERATOR'S REPORT
OF

DRILLING, FRACTURING AND/OR STIMULATING, OR PHYSICAL CHANGE

WELL TYPE: OIL___/ GAS X/ LIQUID INJECTION___/ WASTE DISPOSAL___/
(If "Gas", Production___/ Underground Storage___/ Deep___/ Shallow XX /)

LOCATION: Elevation: 2983' Watershed Left Fork Buckhannon River
District: Washington County: Upshur Quadrangle: Alton 7.5'

COMPANY ALAMCO, INC
200 West Main Street
ADDRESS Clarksburg, West Virginia 26301

DESIGNATED AGENT ALAMCO, INC
200 West Main Street
ADDRESS Clarksburg, West Virginia 26301

SURFACE OWNER Westvaco Corp.
ADDRESS 203 Randolph St., Elkins, WV 26241

MINERAL RIGHTS OWNER Mary G. Ward
ADDRESS P.O. Box 323, Beverly, WV 26253

OIL AND GAS INSPECTOR FOR THIS WORK Philip
Forest Festival Terrace,
Tracy ADDRESS Apt. #24, Elkins, WV 26241

PERMIT ISSUED April 3, 1984

DRILLING COMMENCED May 10, 1984

DRILLING COMPLETED May 17, 1984

IF APPLICABLE: PLUGGING OF DRY HOLE ON
CONTINUOUS PROGRESSION FROM DRILLING OR
REWORKING. VERBAL PERMISSION OBTAINED
ON

Casing & Tubing Size 20-16 Cond.	Used in Drilling	Left in Well	Cement fill up Cu. Ft.
13-10"			
9 5/8"			
8 5/8"	919'	919'	to surface
7"			
5 1/2"			
4 1/2"	4855'	4855'	w/250 sks 3300'
3			
2			
Liners used			

GEOLOGICAL TARGET FORMATION	Elk	DEPTH	5300	FEET
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Depth of completed well 5360 feet Rotary x / Cable Tools
 Water Strata depth: Fresh 40, 55, 75 feet Salt feet
 Coal seam depth: 360-365 Is coal being mined in this area? No

OPEN FLOW DATA

Producing formation Alexander, Benson Pay zone depth See back feet

Gas: Initial open flow 25 Mcf/d Oil: Initial open flow Bbl/d

Final open flow 933 Mcf/d Final open flow Bbl/d

Time of open flow between initial and final tests 2 hours

Static rock pressure 625 psig (surface measurement after 288 hours shut-in
(If applicable due to multiple completion--)

Second producing formation _____	Pay zone depth _____	feet
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 measurement) after _____ hours shut-in
(continue on reverse side)

JUL 16 1984

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

Well was fractured May 24, 1984
Perforations: 3780 - 3784
3786 - 3788 Benson
4490 - 4496
4502 - 4503
4542 - 4544
4707 - 4710 Alexander

Plug Back:
5360-5000 6% Gel
5000-4900 30 sks cement

WELL LOG

FORMATION COLOR HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS
			Including indication of all fresh and salt water, coal, oil and gas
Drift	0	10	Damp @ 40'
Sand & Shale	10	360	1/4" stream water @ 55'
Coal	360	365	1/2" stream water @ 75'
Sand & Shale	365	830	Gas check @ 1225' No show
Red Rock	830	850	Gas check @ 1564' No show
Sand & Shale	850	935	Gas check @ 1843' No show
Red Rock	935	1050	Gas check @ 2186' 47 MCF/D
Red Rock & Shale	1050	1200	Gas check @ 2497' 25 MCF/D
Little Lime	1200	1220	Gas check @ 3215' 25 MCF/D
Sand & Shale	1220	1260	Gas check @ 3714' 25 MCF/D
Big Lime	1260	1425	Gas check @ 4120' 25 MCF/D
Lime & Injun	1425	1543	Gas check @ 4994' 34 MCF/D
Red Shale	1543	1558	Gas check @ 5207' 25 MCF/D
Sand & Shale	1558	5360 T.D.	

Brellier @
T.D.

GAMMA RAY LOG TOPS

Pocono 1554'
Gordon 1875'
4th Sand 2013'
4th A Sand 2083'
5th Sand 2150'
Bayard 2210'
Speechley 2335'
Balltown 2525'
Riley 3561'
Benson 3779'
Alexander 4482'
1st Elk 4948'
2nd Elk 5010'

33
37
16

(Attach separate sheets as necessary)

ALAMCO, INC.

Well Operator

By: Raymond T. Drago
Vice President Oil & Gas Operations

Date: June 25, 1984

Note: Regulation 2.02 (i) provides as follows
"The term 'log' or 'well log' shall mean a systematic detailed geological record of all formations, including coal, encountered in the drilling of a well."



1) Date: February 15, 1984
2) Operator's Well No. A-1529 (Ward)
3) API Well No. 47 -097 - 2630
State County Permit

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

- 4) WELL TYPE: A Oil / Gas XX /
B (If "Gas", Production XY / Underground storage / Deep / Shallow XX /)
5) LOCATION: Elevation: 2,983' Watershed: Left Fork Buckhannon River
District: Washington County: Upshur Quadrangle: Alton 7.5'
6) WELL OPERATOR Alamco, Inc. 7) DESIGNATED AGENT D. L. Wheeler
Address P. O. Box 1740 Address P. O. Box 1740
Clarksburg, WV 26301 Clarksburg, WV 26301
8) OIL & GAS INSPECTOR TO BE NOTIFIED 9) DRILLING CONTRACTOR:
Name Robert Stewart Phillip Tracy Name Development Drilling Corp.
Address P. O. Box 345 Address P. O. Box 1740
Jane Lew, WV 26378 Clarksburg, WV 26301
10) PROPOSED WELL WORK: Drill XX / Drill deeper / Redrill / Stimulate
Plug off old formation / Perforate new formation /
Other physical change in well (specify)

- 11) GEOLOGICAL TARGET FORMATION, Elk
12) Estimated depth of completed well, 5,300' feet
13) Approximate strata depths: Fresh, 420 feet; salt, feet.
14) Approximate coal seam depths: 286, 716' Is coal being mined in the area? Yes
OIL & GAS DIVISION
No. XX
DEPT. OF MINES

CASING OR TUBING TYPE	SPECIFICATIONS					FOOTAGE INTERVALS		CEMENT FILL-UP OR SACKS (Cubic feet)	PACKERS
	Size	Grade	Weight per ft.	New	Used	For drilling	Left in well		
Conductor	16"				X	20'	20'	Cement to surface	
Fresh water									
Coal	8-5/8"		20#	X		900'	900'	Cement to surface by rule	
Intermediate			J.55						
Production	4-1/2"		10.50#	X		5300'	5300'	Req. by Rule 15.05	
Tubing									
Liners									
									Perforations:
									Top Bottom

OFFICE USE ONLY
DRILLING PERMIT

Permit number 47-097-2630 Date April 3, 1984

This permit covering the well operator and well location shown below is evidence of permission granted to drill in accordance with the pertinent legal requirements subject to the conditions contained herein and on the reverse hereof. Notification must be given to the District Oil and Gas Inspector, (Refer to No. 8) Prior to the construction of roads, locations and pits for any permitted work. In addition, the well operator or his contractor shall notify the proper district oil and gas inspector 24 hours before actual permitted work has commenced.)

The permitted work is as described in the Notice and Application, plat, and reclamation plan, subject to any modifications and conditions specified on the reverse hereof.

Permit expires April 3, 1986 unless well work is commenced prior to that date and prosecuted with due diligence.

Bond: KEY	Agent: LO	Plat: MH	Casing: MH	Fee: 25600
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Administrator, Office of Oil and Gas

NOTE: Keep one copy of this permit posted at the drilling location.

File

See the reverse side of the APPLICANT'S COPY for instructions to the well operator.