

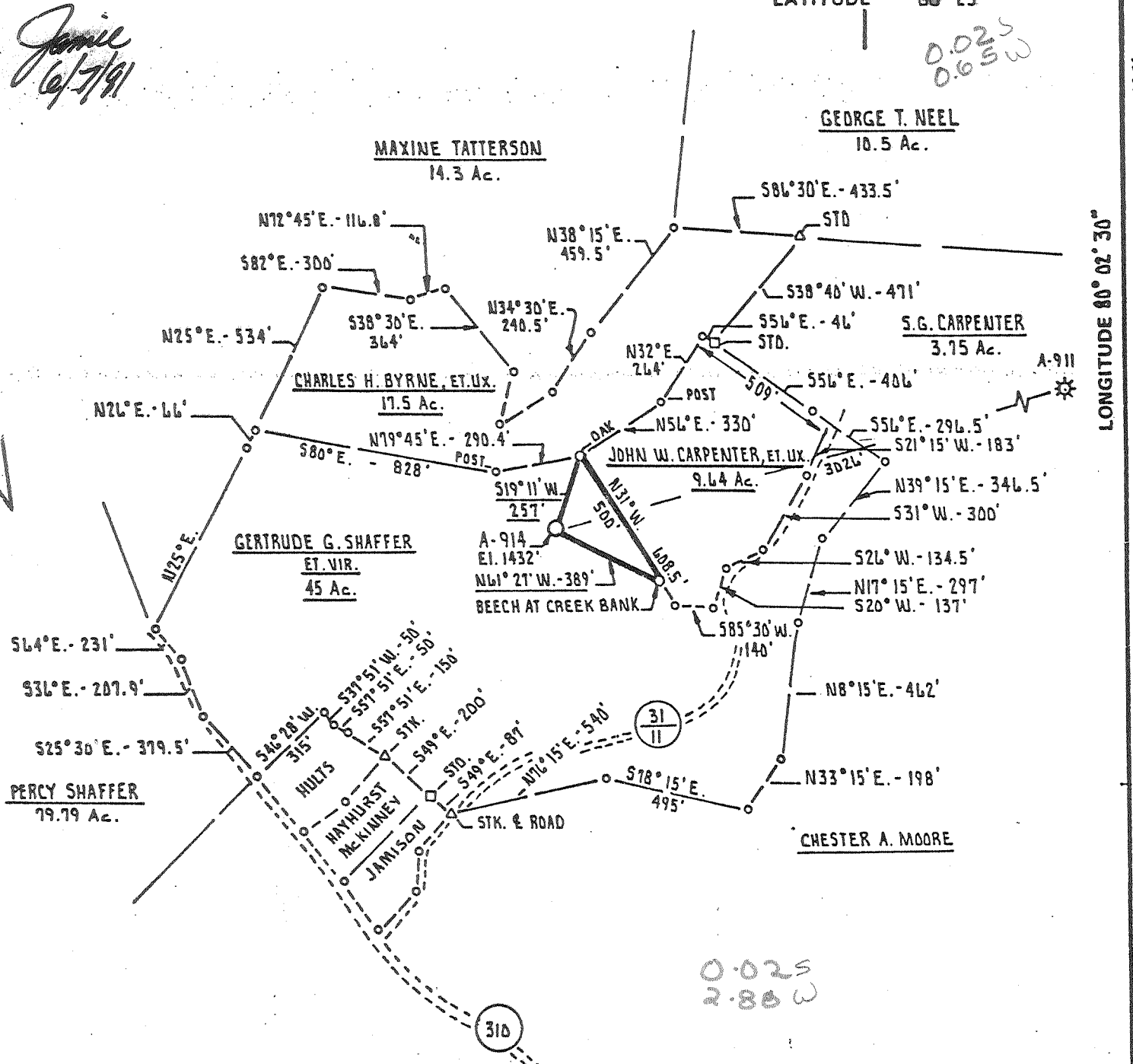
LATITUDE 80° 25'

LONGITUDE 80° 02' 30"

*Jamie*  
6/7/91

0.025  
0.65W

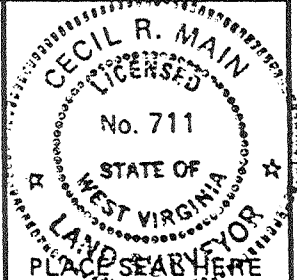
NORTH



0.025  
2.85W

FILE NO. \_\_\_\_\_  
 DRAWING NO. \_\_\_\_\_  
 SCALE 1" = 500'  
 MINIMUM DEGREE OF ACCURACY 1 PART IN 200  
 PROVEN SOURCE OF ELEVATION INTERSECTION (31) and (10)  
 ELEV. 1540'

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 MINES.  
 (SIGNED) *Cecil R. Main*  
 R.P.E. \_\_\_\_\_ L.L.S. 711



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS  
 FORM IV-6 (8-78)



DATE AUGUST 27<sup>th</sup>, 19 81  
 OPERATOR'S WELL NO. A-914  
 API WELL NO. 47 - D49 - 704-7  
 STATE COUNTY PERMIT

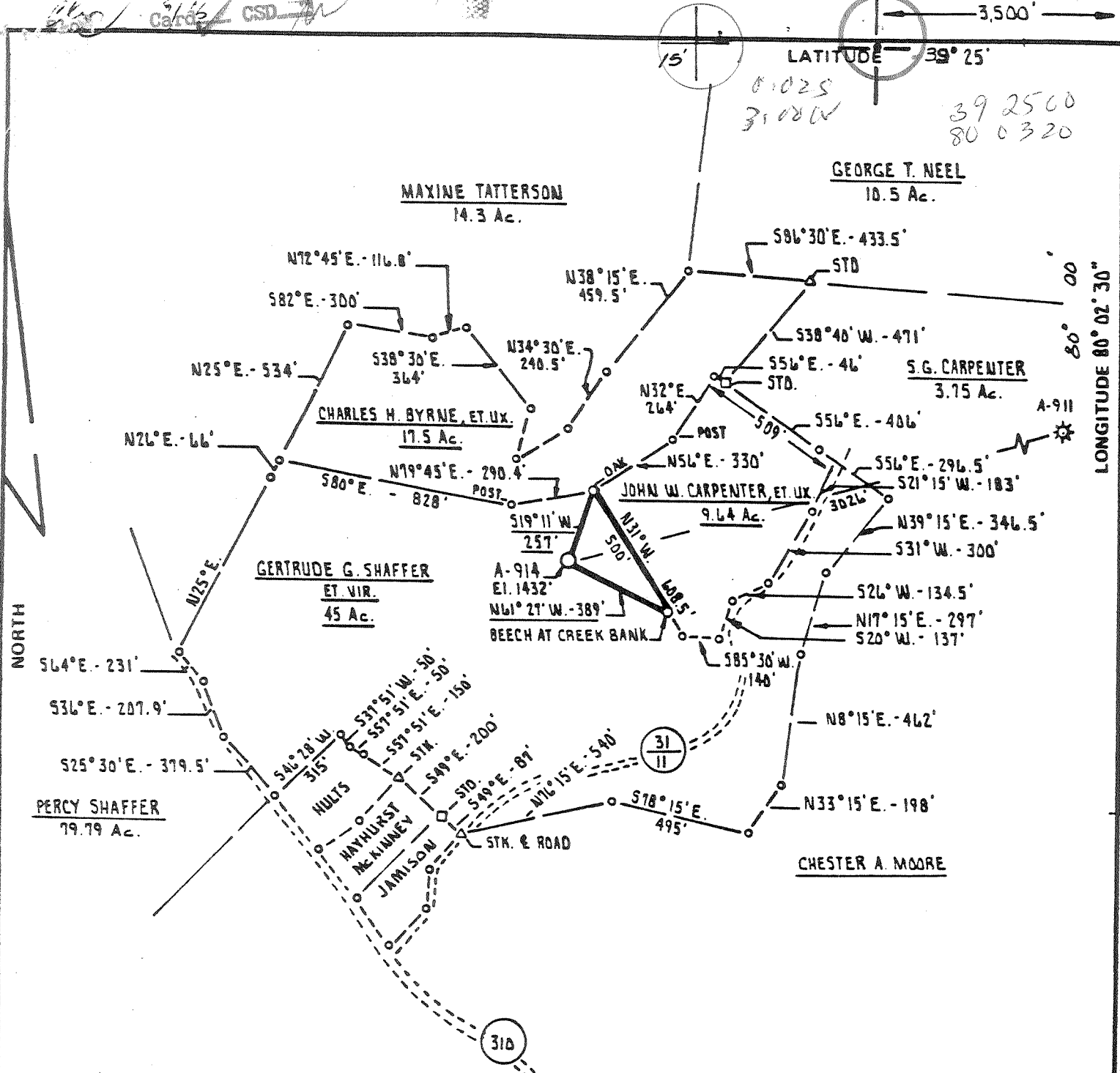
STATE OF WEST VIRGINIA  
 DEPARTMENT OF MINES  
 OIL AND GAS DIVISION

*Permanent Log Book's trac.*

WELL TYPE: OIL \_\_\_ GAS  LIQUID INJECTION \_\_\_ WASTE DISPOSAL \_\_\_  
 (IF "GAS,") PRODUCTION  STORAGE \_\_\_ DEEP  SHALLOW \_\_\_  
 LOCATION: ELEVATION 1432' WATER SHED PRICKETT CREEK  
 DISTRICT UNION 6 COUNTY MARION  
 QUADRANGLE FAIRMONT 7.5 F. East CC  
 SURFACE OWNER J. W. CARPENTER ACREAGE 43.49 Ac.  
 OIL & GAS ROYALTY OWNER GERTRUDE G. SHAFFER, ET. VIR. LEASE ACREAGE 328.45 Ac.  
 LEASE NO. \_\_\_\_\_  
 PROPOSED WORK: DRILL  CONVERT \_\_\_ DRILL DEEPER \_\_\_ REDRILL \_\_\_ FRACTURE OR STIMULATE \_\_\_ PLUG OFF OLD FORMATION \_\_\_ PERFORATE NEW FORMATION \_\_\_ OTHER PHYSICAL CHANGE IN WELL (SPECIFY) \_\_\_\_\_

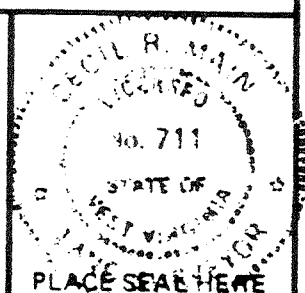
PLUG AND ABANDON \_\_\_ CLEAN OUT AND REPLUG \_\_\_  
 TARGET FORMATION DRISKANY ESTIMATED DEPTH 7550'  
 WELL OPERATOR ALLEGHENY LAND AND MINERAL CO. DESIGNATED AGENT ALLEGHENY LAND AND MINERAL CO.  
 ADDRESS P.O. BOX 1740 17 ADDRESS P.O. BOX 1740  
 CLARKSBURG, WEST VIRGINIA 26302-1740 CLARKSBURG, WEST VIRGINIA 26302-1740

JUN 17 1991



FILE NO. \_\_\_\_\_  
 DRAWING NO. \_\_\_\_\_  
 SCALE 1" = 500'  
 MINIMUM DEGREE OF ACCURACY 1 PART IN 200  
 PROVEN SOURCE OF ELEVATION INTERSECTION (31) and (31) ELEV. 1540'

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 MINES.  
 (SIGNED) Cecil R. Main  
 R.P.E. \_\_\_\_\_ L.L.S. 711



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS  
 FORM IV-6 (8-78)



DATE AUGUST 27<sup>th</sup> 19 81  
 OPERATOR'S WELL NO. A-914  
 API WELL NO. 47 - 049 - 0704  
 STATE WEST VIRGINIA COUNTY MARION PERMIT

**STATE OF WEST VIRGINIA**  
 DEPARTMENT OF MINES  
 OIL AND GAS DIVISION

WELL TYPE: OIL  GAS  LIQUID INJECTION  WASTE DISPOSAL   
 (IF "GAS,") PRODUCTION  STORAGE  DEEP  SHALLOW   
 LOCATION: ELEVATION 1432' WATER SHED PRICKETT CREEK  
 DISTRICT UNION COUNTY MARION  
 QUADRANGLE FAIRMONT 7.5 Fairmont 15' EC  
 SURFACE OWNER J. W. CARPENTER ACREAGE 43.49 Ac.  
 OIL & GAS ROYALTY OWNER GERTRUDE G. SHAFER, ET. VIR. LEASE ACREAGE 328.45 Ac.  
 LEASE NO. \_\_\_\_\_

PROPOSED WORK: DRILL  CONVERT  DRILL DEEPER  REDRILL  FRACTURE OR STIMULATE  PLUG OFF OLD FORMATION  PERFORATE NEW FORMATION  OTHER PHYSICAL CHANGE IN WELL (SPECIFY) \_\_\_\_\_  
 PLUG AND ABANDON  CLEAN OUT AND REPLUG   
 TARGET FORMATION DRISKANY ESTIMATED DEPTH 7550'  
 WELL OPERATOR ALLEGHENY LAND AND MINERAL CO. DESIGNATED AGENT ALLEGHENY LAND AND MINERAL CO.  
 ADDRESS P.O. BOX 1740 ADDRESS P.O. BOX 1740  
CLARKSBURG, WEST VIRGINIA 26302-1740 CLARKSBURG, WEST VIRGINIA 26302-1740

OCT 08 1981  
 367

6-6 BUNNERS RIDGE deep well

IV-35  
(Rev 8-81)



STATE OF WEST VIRGINIA  
DEPARTMENT OF MINES

Date December 1, 1981  
Operator's \_\_\_\_\_  
Well No. A-914  
Farm Shaffer  
API No. 47 - 049 - 0704

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: 1432' Watershed Prickett Creek  
District: Union County Marion Quadrangle Fairmont 7.5'

COMPANY Allegheny Land and Mineral Company  
200 W. Main Street, P. O. Box 1740  
ADDRESS Clarksburg, West Virginia 26301

DESIGNATED AGENT Allegheny Land & Mineral Co.  
200 W. Main Street, P. O. Box 1740  
ADDRESS Clarksburg, West Virginia 26301

SURFACE OWNER J.W. Carpenter, et ux  
Route 8 Box 385-A  
ADDRESS Fairmont, West Virginia 26554

MINERAL RIGHTS OWNER Gertrude Shaffer et al  
307 School Street  
ADDRESS Grafton, West Virginia

OIL AND GAS INSPECTOR FOR THIS WORK William Blosser  
ADDRESS Rt. 4, Box 317, Fairmont, W.V.

PERMIT ISSUED October 18, 1981

DRILLING COMMENCED September 28, 1981

DRILLING COMPLETED October 9, 1981

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

Casing & Tubing Size	Used in Drilling	Left in Well	Cement fill up Cu. Ft.
20-16 Cond.	300.38	300.38	
13-10"			
9 5/8"			
8 5/8"	1491.14	1491.14	to surface
7"			
5 1/2"			
4 1/2 "	7448	7448	w/220 sks 6400'
3			
2			
Liners used	<b>RECEIVED</b> DEC 17 1981 OIL AND GAS DIVISION WV DEPARTMENT OF MINES		

GEOLOGICAL TARGET FORMATION Oriskany DEPTH 7550 Feet

Depth of completed well 7560 feet Rotary xxx / Cable Tools \_\_\_\_\_

Water strata depth: Fresh 30, 80, 110, 367 & 570 Feet Salt \_\_\_\_\_ feet

Coal seam depth: 142-145, 199-202, 226-229, 267-371, 453-460, 467-474 & 498-505 Is coal being mined in this area? \_\_\_\_\_

OPEN FLOW DATA

Producing formation Chert Pay zone depth \_\_\_\_\_ feet

Gas: Initial open flow 14.90 Mcf/d Oil: Initial open flow \_\_\_\_\_ Bbl/d

Final open flow 1122 Mcf/d Final open flow \_\_\_\_\_ Bbl/d

Time of open flow between initial and final tests \_\_\_\_\_ hours

Static rock pressure 3050# psig (surface measurement) after \_\_\_\_\_ 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)

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

Well was fractured October 22, 1981  
Perforations: 7287-7314 28 holes

WELL LOG

FORMATION COLOR HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS Including indication of all fresh and salt water, coal, oil and gas
Top soil	0	8	1 1/2" stream H <sub>2</sub> O @ 30'
Shale	8	40	1/4" stream H <sub>2</sub> O @ 80'
Shale	40	108	4" stream H <sub>2</sub> O @ 110
Sand	108	142	1/4" stream H <sub>2</sub> O @ 367'
Coal	142	145	1/2" stream H <sub>2</sub> O @ 570'
Shale	145	153	
Sand	153	160	
Sand & Shale	160	199	
Coal	199	202	
Shale	202	226	
Coal	226	229	
Shale	229	236	
Sand	236	267	
Coal	267	371	
Sand & Shale	371	453	
Coal	453	460	
Sand & Shale	460	467	
Coal	467	474	
Shale	474	498	
Coal	498	505	
Sand	505	550	
Red Rock	550	680	
Sand & Shale	680	764	
Sand & Shale	764	831	
L. Lime	831	843	
Sand & Shale	843	1008	
Sand	1008	1113	
Coal	1113	1117	
Sand & Shale	1117	3663	
Benson	3663	3712	
Sand & Shale	3712	6780	
Lime	6780	7040	
Shale	7040	7229	
Sand & Shale	7229	7560 T.D.	

*O.P. 15 N.*

(Attach separate sheets as necessary)

Allegheny Land and Mineral Company

Well Operator

BY:

Date:

*A. J. Sabat*  
12/8

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."



PROPOSED WORK ORDER

THIS IS AN ESTIMATE ONLY:

ACTUAL INFORMATION MUST BE SUBMITTED ON FORM IV-35 UPON COMPLETION

DRILLING CONTRACTOR (IF KNOWN) Union Drilling Company, Inc.  
P. O. Drawer 1740  
Buckhannon, West Virginia 26201

GEOLOGICAL TARGET FORMATION, Oriskany

Estimated depth of completed well 7550 feet Rotary XXX / Cable tools      /

Approximate water strata depths: Fresh, 457 feet; salt,      feet.

Approximate coal seam depths: 180-182 Is coal being mined in the area? Yes      / No XXXX /

CASING AND TUBING PROGRAM 254-258, 293-299, 475-594

CASING OR TUBING TYPE	SPECIFICATIONS					FOOTAGE INTERVALS		CEMENT FILL-UP or SACKS (Cubic Feet)	PACKERS Kinds
	Size	Grade	Weight per ft.	New	Used	For Drilling	Left in well		
Conductor	16"				X	20'	20'	cement to surface	
Fresh Water	8-5/8"								Sizes
Coal	8-5/8"		24#	X		700'	700'	cement to surface	
Intermediate									Depth <u>shallowest</u>
Production	4-1/2"		N-80 11.616	X		7550'	7550'	cement to 300' above / producing horizon or as required by Rule 15.01	<u>7</u>
Tubing									Perforations:
Liners									Top Bottom

NOTE: Regulation 7.02 of the Department of Mines provides that the original and four copies of Form IV-2 must be filed with the Department, accompanied by (i) a plat in the form prescribed by Regulation 11, (ii) a bond in one of the form prescribed by Regulation 12, or in lieu thereof the other security allowed by Code §22-4-2, (iii) Form IV-9 "Reclamation Plan", applicable to the reclamation required by Code §22-4-12b and Regulation 23, (iv) unless previously paid on the same well, the fee required by Code §22-4-12a, and (v) if applicable, the consent required by Code §22-4-8a from the owner of any water well or dwelling within 200 feet of the proposed well.

A separate Form IV-2 shall not be required for fracturing or stimulating a well where fracturing or stimulating is to be part of the work for which a permit is sought and is noted as such on the Form IV-2 filed in connection therewith.

The following waiver must be completed by the coal operator and by any coal owner or coal lessee who has recorded a declaration under Code §22-4-20, if the permit is to be issued with fifteen (15) days of receipt thereof.

WAIVER

The undersigned coal operator  / owner  / lessee  of the coal under this well location has examined this proposed well location. If a mine map exists which covers the area of the well location, the well location has been added to the mine map. The undersigned has no objection to the work proposed to be done at this location, provided, the well operator has complied with all applicable requirements by the West Virginia Code and the governing regulations.

SOUTHERN OHIO COAL COMPANY

Date: September 3 19 81

BY: John A. Riley  
Property Manager

THIS PERMIT MUST BE POSTED AT THE WELL SITE

All provisions being in accordance with Chapter 22, of the W. Va. Code, the location is hereby approved for drilling. This permit shall expire if operations have not commenced by 5-18-82.

J. H. Hays  
 Deputy Director - Coal Division

*[Handwritten signature]*

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

- 1) Well Operator: ALAMCO, INC. 975 (L)
- 2) Operator's Well Number: A-914 (Shaffer Unit) 3) Elevation: 1432'
- 4) Well type: (a) Oil    / or Gas XX /  
 (b) If Gas: Production XX / Underground Storage    /  
 Deep    / Shallow XX
- 5) Proposed Target Formation(s): SEE ATTACHED 430
- 6) Proposed Total Depth: 3,000 feet
- 7) Approximate fresh water strata depths: 30, 80, 110, 367, 570
- 8) Approximate salt water depths: N/A
- 9) Approximate coal seam depths: 142, 199, 226, 267, 453, 498
- 10) Does land contain coal seams tributary to active mine? Yes XX / No    /
- 11) Proposed Well Work: SEE ATTACHED
- 12) SEE ATTACHED

CASING AND TUBING PROGRAM

TYPE	SPECIFICATIONS		FOOTAGE INTERVALS		CEMENT
	Size	Grade	Weight per ft.	For drilling	
Conductor	11-3/4"			30'	300'
Fresh Water					
Coal		SEE ORIGINAL			
Intermediate	8-5/8"			140'	To surface
Production	4-1/2"		J.55 10.50#		300' above top pay zone
Tubing					
Liners					3% CSR 18-1/2" / Return

RECEIVED  
 MAY 20 1991  
 DEPT. OF ENERGY

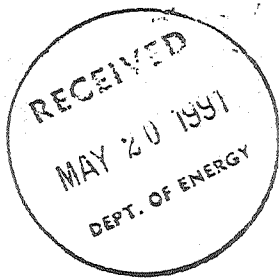
PACKERS : Kind \_\_\_\_\_  
 Sizes \_\_\_\_\_  
 Depths set \_\_\_\_\_

For Division of Oil and Gas Use Only

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

12274

069240  
 15



- 1) Date: May 10, 1991
- 2) Operator's well number A-914 (Shaffer Unit)
- 3) API Well No: 47 - 049 - 00704 F  
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 John W. & Karen D. Carpenter  
Address Route 8, Box 385-A  
Fairmont, WV 26554
  - (b) Name \_\_\_\_\_  
Address \_\_\_\_\_
  - (c) Name \_\_\_\_\_  
Address \_\_\_\_\_
- 5) (a) Coal Operator:
  - Name Southern Ohio Coal Comapny  
Address P. O. Box 700  
Lancaster, Ohio 43130
  - (b) Coal Owner(s) with Declaration  
Name Hillman Coal & Coke Company  
Address 108 McCurdy Drive  
Pittsburgh, PA 15235
  - Name \_\_\_\_\_  
Address \_\_\_\_\_
  - (c) Coal Lessee with Declaration  
Name N/A  
Address \_\_\_\_\_
- 6) Inspector Donald Ellis  
Address 2604 Crab Apple Lane  
Fairmont, WV 26554  
Telephone (304)- 534-5596

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 20 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, ALAMCO, INC.  
 By: Marty Perre  
 Its: Manager, Land  
 Address 200 West Main Street, P. O. Box 1740  
Clarksburg, WV 26301  
 Telephone 304 623-6671

Subscribed and sworn before me this 10th day of May, 19 91

COMMISSIONER  
~~XXXXXXXXXXXXXXXXXXXX~~

My commission expires February 21, 1999



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

Reviewed TMG

Well Operator's Report of Well Work Recorded

Farm name: CARPENTER, JOHN & KAREN Operator Well No.: SHAFFER A-914

LOCATION: Elevation: 1432.00 Quadrangle: FAIRMONT EAST

District: UNION County: MARION  
 Latitude: 125 Feet South of 80 Deg. 25Min. 0 Sec.  
 Longitude 3500 Feet West of 80 Deg. 2 Min. 30 Sec.

Company: ALAMCO, INC.

200 W. MAIN ST., P.O. BOX 1740 | Casing | Used in | Left | Cement  
 CLARKSBURG, WV 26302-1740

Agent: MARTY L. PERRI

Inspector: DONALD ELLIS  
 Permit Issued: 06/10/91  
 Well work Commenced: 09/04/91  
 Well work Completed: 10/25/91  
 Verbal Plugging \_\_\_\_\_  
 Permission granted on: \_\_\_\_\_  
 Rotary N/A Cable \_\_\_\_\_ Rig \_\_\_\_\_  
 Total Depth (feet) 7560'  
 Fresh water depths (ft) 30', 80', 110',  
 367', 570'  
 Salt water depths (ft) None

Size	Drilling	in Well	Fill Up Cu. Ft.
16"	300'	300'	Surface
8 5/8"	1502'	1502'	Surface
4 1/2"	-	7448'	1830'
2 3/8"	-	2694'	-

Is coal being mined in area (Y/N)? N  
 Coal Depths (ft): 142-145, 199-202, 226-229  
 267-371, 453-460, 467-474, 498-505

OPEN FLOW DATA

Producing formation Speechley & Bayard Pay zone depth (ft) 2084-2714'  
 Gas: Initial open flow N/A MCF/d Oil: Initial open flow \_\_\_\_\_ Bbl/d  
 Final open flow 440 MCF/d Final open flow \_\_\_\_\_ Bbl/d  
 Time of open flow between initial and final tests 4 Hours  
 Static rock Pressure 440 psig (surface pressure) after 72 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

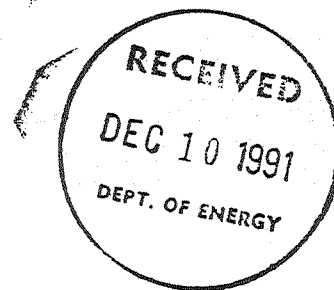
NOTE: ON BACK OF THIS FORM PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE.



For: ALAMCO, INC  
 By: [Signature] Richard R. Hoffman  
 Date: \_\_\_\_\_

381 20 1991

1. Spotted balanced cement plug from 7,001-7,287' KB and pumped 6% Gel up hole to 3,000' KB. Set solid cast iron bridge plug @ 3,050' KB and dumped 1 bailer of Cal-Seal on top of CIBP to permanently abandon deeper zone.
2. Shoot squeeze holes @ 3,000-01' KB.
3. Circulate cement to bring cement top to 1,830' KB.
4. Perforate Speechley Sand (2,708-14') 13 shots.
5. Fracture Speechley with 24,890 lbs. of 20/40 Sand.
6. Perforate Bayard Sand (2,084-98') 8 shots.
7. Fracture Bayard with 47,000 lbs. of 20/40 Sand.



0802 /