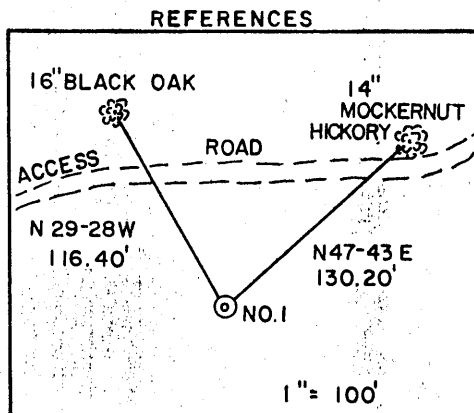
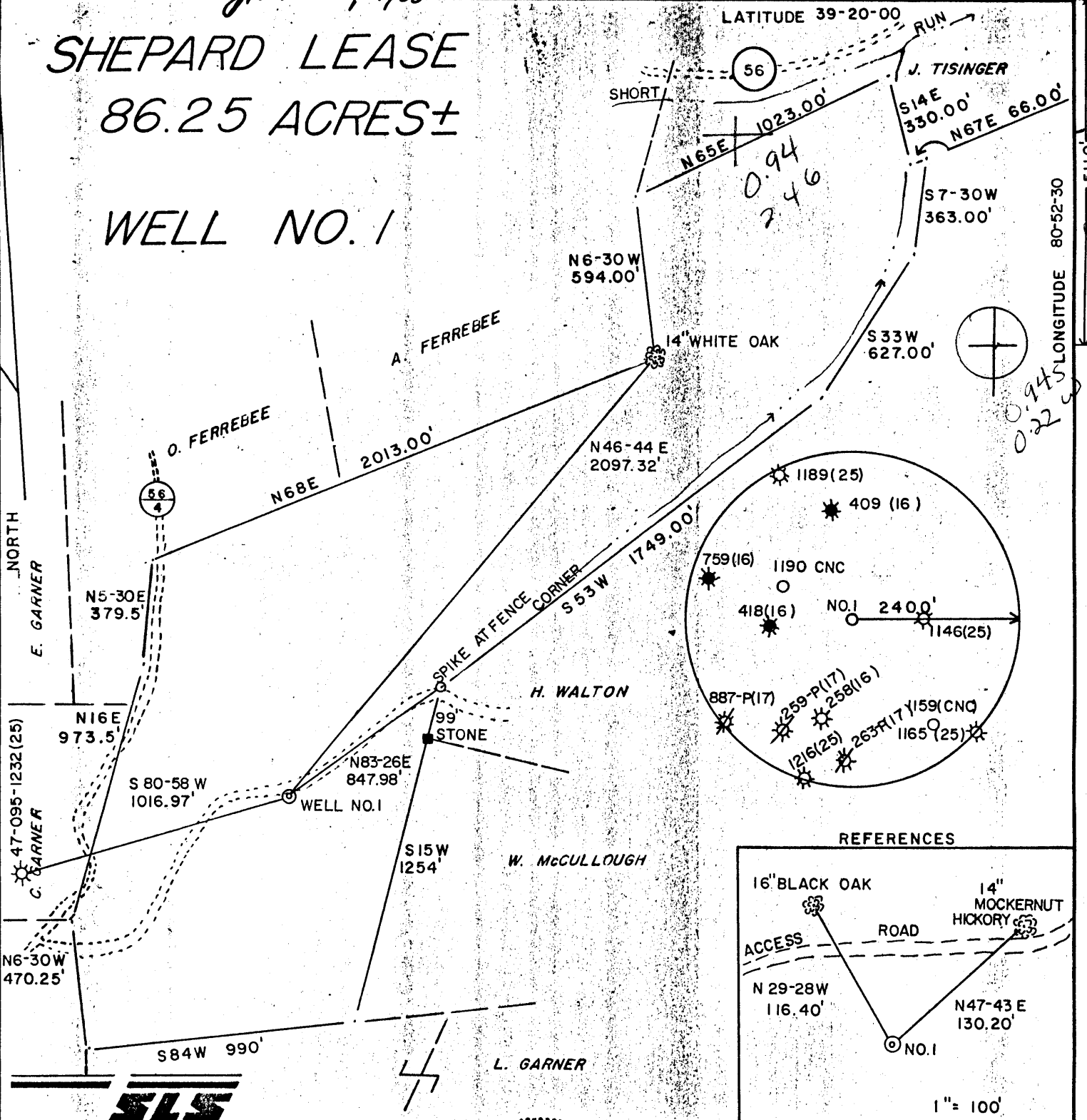


*Jamie 6/17/88*

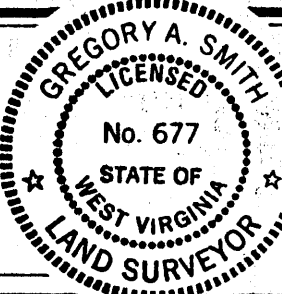
1190'

# SHEPARD LEASE 86.25 ACRES± WELL NO. 1



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 JUNE 7, 19 88

OPERATORS WELL NO. SHEPARD NO. 1


API WELL NO. 47 - 095 - 1245

STATE WV COUNTY TYLER PERMIT 133

MINIMUM DEGREE OF ACCURACY 1 / 200 FILE NO. 1845 (25-32)

PROVEN SOURCE OF ELEVATION TOP OF KNOB ELEV. = 1308' SCALE 1" = 500'

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 1225' WATERSHED MUDLICK RUN West Union sc

DISTRICT CENTERVILLE COUNTY TYLER QUADRANGLE PENNSBORO 7.5 687

SURFACE OWNER PHYLLIS A. SHEPARD ACREAGE 86.25 133

ROYALTY OWNER PHYLLIS A. SHEPARD LEASE ACREAGE 86.25 8

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 1800' JUN 27 1988

WELL OPERATOR APPALACHIAN ENERGY DEVELOPMENT DESIGNATED AGENT GEORGE WILLIAMS

ADDRESS RT.2 BOX 499, GRAFTON, WV 26354 ADDRESS RT.2 BOX 499, GRAFTON, WV 26354

575

*397 66 Stanley (90)*

WR-35

**RECEIVED**  
AUG 18 1988

DIVISION OF OIL & GAS  
**DEPT. OF ENERGY**



State of West Virginia

DEPARTMENT OF ENERGY  
Oil and Gas Division

Date 8/15/88  
Operator's  
Well No. 1  
Farm Shepard  
API No. 47 - 095 - 1245

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 X / Underground Storage \_\_\_ / Deep \_\_\_ / Shallow X /)

LOCATION: Elevation: 1225 Watershed Mudlick Run  
District: Centerville County Tyler Quadrangle Pennsboro

COMPANY Appalachian Energy Dev., Inc.

ADDRESS Rt. 2, Box 499, Grafton, WV 26354

DESIGNATED AGENT George R. Williams

ADDRESS Rt. 2, Box 499, Grafton, WV 26354

SURFACE OWNER Phyllis Shepard

ADDRESS 1662 Kaiser Drive, Reynoldsburg, OH 43068

MINERAL RIGHTS OWNER Phyllis Shepard

ADDRESS 1662 Kaiser Drive, Reynoldsburg, OH 43068

OIL AND GAS INSPECTOR FOR THIS WORK Robert

Lowther ADDRESS Middlebourne, WV

PERMIT ISSUED 6/21/88

DRILLING COMMENCED 6/24/88

DRILLING COMPLETED 7/1/88

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

Casing & Tubing	Used in Drilling	Left in Well	Cement fill up Cu. ft.
Size 20-16 Cond.			
13-10"	30	0	0
9 5/8			
8 5/8	1788	1788	Surface
7			
5 1/2			
4 1/2	5487	5487	300 sxs.
3			
2			
Liners used			

GEOLOGICAL TARGET FORMATION Alexander/Benson/Riley Depth 5380 feet

Depth of completed well 5561 feet Rotary X / Cable Tools \_\_\_\_\_

Water strata depth: Fresh 580 feet; Salt 1665 feet

Coal seam depths: \_\_\_\_\_ Is coal being mined in the area? no

OPEN FLOW DATA

Producing formation Alexander/Benson/Riley Pay zone depth See Perf. Detail feet

Gas: Initial open flow 20 Mcf/d Oil: Initial open flow 0 Bbl/d

Final open flow (750) Mcf/d Final open flow 0 Bbl/d

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

Static rock pressure 1690 psig (surface measurement) after 48 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 Oil: 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

(Continued on reverse side)

095 1245

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

- 1) Alexander - perf 5382-92 w/ 18 holes. Frac w/30,000# 20/40 sand in 675 bbls. 75 quality foam using 520,000 SCF N<sub>2</sub>.
- 2) Benson - perf 5091-97 w/ 18 holes. Frac w/30,000# 20/40 sand in 690 bbls. 75 quality foam using 535,000 SCF N<sub>2</sub>.
- 3) Riley - perf 4692-4723 w/17 holes. Foam frac w/30,000# 20/40 sand in 700 bbls. 75 quality foam, using 556,000 SCF N<sub>2</sub>.

VERIFIED BY [unclear]

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS
					Including indication of all fractures and salt water, coal, oil and gas
Sand and Shale			0	580	Hole damp @ 580'
Red Rock			580	610	Hole wet @ 1665'
Sand and Shale			610	2072	
Big Lime			2072	2142	
Big INjun			2142	2257	
Sand and Shale			2257	2422	
Weir			2422	2541	
Snad and Shale			2541	4691	
Riley			4691	4738	
Shale			4738	5092	
Benson			5092	5096	
Shale			5096	5380	
✓ Alexander			5380	5408	
Shale			5408	5561	
TOTAL DEPTH				5561	

(Attach separate sheets as necessary)

APPALACHIAN ENERGY DEV., INC.

Well Operator

By: George R. Williams

Date: August 15, 1988

7245  
 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."

AUG 22 1988

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

2325, 1, 538

- 1) Well Operator: Appalachian Energy Development, Inc.
- 2) Operator's Well Number: Shepard No. 1 3) Elevation: 1225'
- 4) Well type: (a) Oil  or Gas   
(b) If Gas: Production  Underground Storage   
Deep  Shallow
- 5) Proposed Target Formation(s): Alexander
- 6) Proposed Total Depth: 5990' feet
- 7) Approximate fresh water strata depths: 115'
- 8) Approximate salt water depths: N/A
- 9) Approximate coal seam depths: N/A
- 10) Does land contain coal seams tributary to active mine? Yes  No
- 11) Proposed Well Work: Drill & Stimulate
- 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 3/4			30'	0'	0 Skts.
Fresh Water	8 5/8			1820' <del>1820'</del>	1820'	CTS or 38 CSR 18-11.3
Coal						
Intermediate						
Production	4 1/2			5990'	5990'	CTS or 38 CSR 18-11.1
Tubing						
Liners						

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

**RECEIVED**  
JUN 17 1988

1406  
19  
[Signature]

For Division of Oil and Gas Use Only DIVISION OF OIL & GAS  
DEPARTMENT OF ENERGY

Fee(s) paid: [Signature] Well Work Permit [Signature] Reclamation Fund [Signature] WPCP  
 Plat [Signature] WW-9 [Signature] WW-2B [Signature] Bond 5031m per [Signature] Agent  
 (Type)

**RECEIVED**  
JUN 17 1988

DIVISION OF OIL & GAS  
DEPARTMENT OF ENERGY

Date: June 8, 1988  
Operator's well number  
Shepard No. 1  
API Well No: 47 - 095 - 1245  
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 Phyllis A. Shepard  
Address 1662 Kaiser Dr.  
Reynoldsburg, OH 43068  
(b) Name \_\_\_\_\_  
Address \_\_\_\_\_  
(c) Name \_\_\_\_\_  
Address \_\_\_\_\_  
6) Inspector Robert Lowther  
Address General Delivery  
Middlebourne, WV 26149  
Telephone (304)- 758 - 4764

5) (a) Coal Operator:  
Name N/A  
Address \_\_\_\_\_  
(b) Coal Owner(s) with Declaration  
Name N/A  
Address \_\_\_\_\_  
Name \_\_\_\_\_  
Address \_\_\_\_\_  
(c) Coal Lessee with Declaration  
Name N/A  
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 7 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 Appalachian Energy Development, Inc.  
By: George Bullens  
Its: President  
Address Rt. 2, XX Box 499  
Grafton, WV 26354  
Telephone (304) 265 - 4147

Subscribed and sworn before me this 8th day of June, 1988

Gregory A. Smith Notary Public  
My commission expires 12/7/92

JUN 27 1988