

Jamie 5/3/90

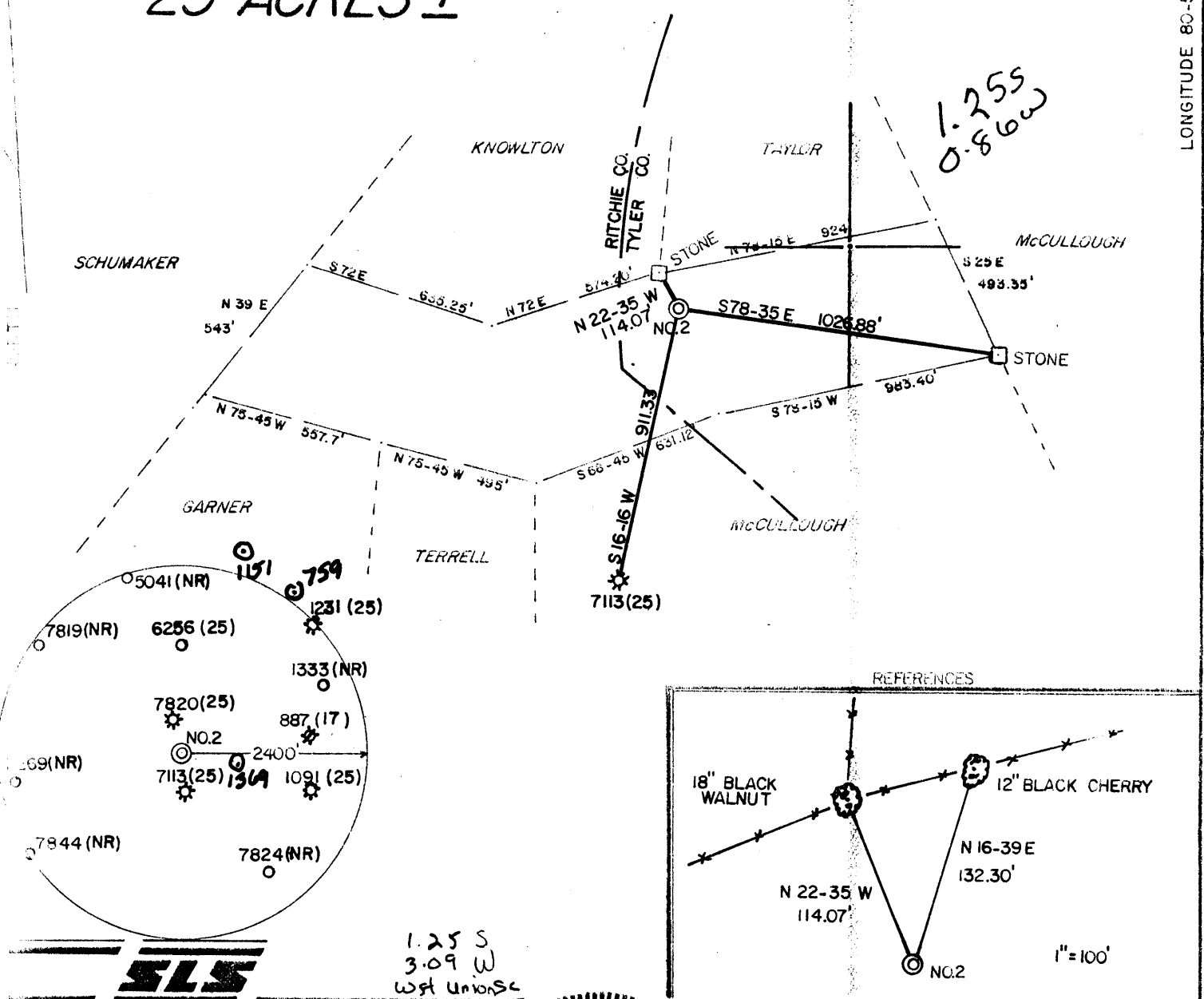
KOELLISCH LEASE

KOELLISCH WELL NO. 2

25 ACRES ±

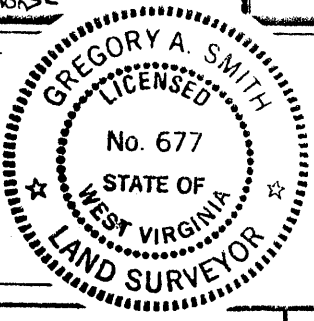
LONGITUDE 80-52-30
6680

*1.255
0.86w*



*1.25 S
3.09 W
Wgt Unionsc*

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.




(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS.
 DATE DECEMBER 14, 19 89
 OPERATORS: WELL NO. KOELLISCH NO. 2
 API WELL NO. 47 - 095 - 1385
 STATE COUNTY PERMIT

L.L.S. 677 *Gregory A. Smith*

MINIMUM DEGREE OF ACCURACY 1 / 200 FILE NO. 2206 (30-47)
 PROVEN SOURCE OF ELEVATION TOP OF KNOB ELEVATION 1310' 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 1320' WATERSHED MUDLICK RUN
 DISTRICT CENTERVILLE COUNTY TYLER QUADRANGLE PENNSBORO 7.5'

SURFACE OWNER DELLA ROSE KOELLISCH ACREAGE 25
 ROYALTY OWNER DELLA ROSE KOELLISCH LEASE ACREAGE 25

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 5200'

WELL OPERATOR APPALACHIAN ENERGY DEVELOPMENT INC. DESIGNATED AGENT GEORGE WILLIAMS
 ADDRESS RT. 2 BOX 499 GRAFTON, WV 26354 ADDRESS RT. 2 BOX 499 GRAFTON, WV. 26354

MAY 11 1990

1234

6-6 Stanley (0910)

COUNTY NAME PERMIT

RECEIVED

Division of Energy

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

API # 47- 95-01385

AUG 13 91

Permitting Well Operator's Report of Well Work
Oil and Gas Section

Farm name: KOELLISCH, DELLA ROSE Operator Well No.: KOELLISCH #2

LOCATION: Elevation: 1320.00 Quadrangle: PENNSBORO

District: CENTERVILLE County: TYLER
Latitude: 6680 Feet South of 39 Deg. 20Min. 0 Sec.
Longitude 4620 Feet West of 80 Deg. 52 Min. 30 Sec.

Company: APPALACHIAN ENERGY DEVELO
ROUTE 2, BOX 499
GRAFTON, WV 26354-0499

Agent: GEORGE WILLIAMS

Inspector: GLEN P. ROBINSON
Permit Issued: 05/07/90
Well work Commenced: 7/17/91
Well work Completed: 7/22/91
Verbal Plugging
Permission granted on: 5/7/90
Rotary x Cable _____ Rig
Total Depth (feet) 5630'
Fresh water depths (ft) 230
Salt water depths (ft) N/A

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

Casing & Tubing Size	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
11 3/4	129.15'	129.15'	76.7
8 5/8	1993'	1993'	Surface
4 1/2	5562'	5562'	330sx

OPEN FLOW DATA Note* These zones are downhole commingled.

Producing formation Alexander/Benson/Riley Pay zone depth (ft) 5432
Gas: Initial open flow 189 MCF/d Oil: Initial open flow 0 Bbl/d
Final open flow 270 MCF/d Final open flow 0 Bbl/d
Time of open flow between initial and final tests 4 Hours
Static rock Pressure 1720 psig (surface pressure) after 48 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: APPALACHIAN ENERGY DEVELOPMENT, INC.

By: George R. Williams, President
Date: 8/12/91

AUG 16 1991

Treatment Summary

- 1.) Alexander -Perf 5432-42 W/18 holes. Frac w/5000# 80/100 & 25000# 20/40 sand in 350 bbls. gelled water. Used 45000 scf N₂ as assist.
- 2.) Benson-Perf 5146-54 w/18 holes. Frac w/ 5000# 80/100 & 25000# 20/40 sand in 375 bbls. gelled water. Used 48000 scf N₂ as assist.
- 3.) Riley-Perf 4755-86 w/14 holes. foam frac w/75 quality foam using 30000# 20/40 sand.

<u>Formation</u>	<u>Top</u>	<u>Bottom</u>	<u>Comments</u>
shale	0	49	
sand	49	228	
sand & shale	228	2107	1/4" water @ 228'
Big Lime	2107	2320	
shale	2320	2502	
Weir	2502	2616	
shale	2616	2924	
Gordon	2924	2936	
shale	2936	4740	
Riley	4740	4794	
shale	4794	5147	
Benson	5147	5154	
shale	5154	5430	
Alexander	5430	5448	
shale	5448	5630	

Total Depth-5630

<u>Gas Check</u>		
2600'	6/10"	water - 2"OF
3113'	20/10"	water - 2"OF
3610'	14/10"	water - 2"OF
4110'	8/10"	water - 2"OF
4600'	6/10"	water - 2"OF
4793'	12/10"	water - 2"OF
5196'	12/10"	water - 2"OF
5478'	10/10"	water - 2"OF
<u>T.D</u>	10/10"	water - 2"OF

10546

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

RECEIVED
APR 27 1990
DEPT. OF ENERGY
1320

- 1) Well Operator: Appalachian Energy Development, Inc. ⁰³⁹⁷ 2325 (1) 538
- 2) Operator's Well Number: Koellisch No. 2
- 3) Elevation: 1320
- 4) Well type: (a) Oil ___ / or Gas X /
(b) If Gas: Production X / Underground Storage ___ /
Deep ___ / Shallow X /
*Issued 5/7/90
Expires 5/7/92*
- 5) Proposed Target Formation(s): Alexander ⁴³⁹
- 6) Proposed Total Depth: 5200' feet
- 7) Approximate fresh water strata depths: 185' ^{398'}, ^{539'}
- 8) Approximate salt water depths: N/A ^{1800'} ^{1829'}
- 9) Approximate coal seam depths: N/A
- 10) Does land contain coal seams tributary to active mine? Yes ___ / No X /
- 11) Proposed Well Work: Drill & Stimulate *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 3/4"			120' ^{30'}	120' ^{0'}	0 Sacks
Fresh Water	8 5/8"			1915'	1915'	CIS or 38 ^{C/S} CSR 18-11.3 ^{ear}
Coal						38 CSR 18-11.3 38 CSR 18-11.2
Intermediate						
Production	4 1/2"			5200'	5200'	By rule 38 CSR 18-11.1
Tubing						
Liners						

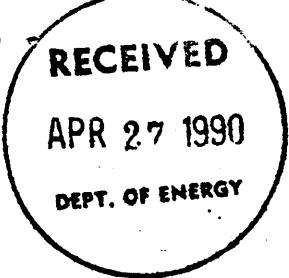
PACKERS : Kind _____
Sizes _____
Depths set _____

For Division of Oil and Gas Use Only

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

Plat WW-9 WW-2B Bond *Bumper* Agent

(Type)



1) Date: December 22, 1989
2) Operator's well number Koellisch No. 2
3) API Well No: 47 - 095 - 1385
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 Della Rose Koellisch
Address 752 Commonwealth Ave, NE
Massoline, OH 44646
(b) Name _____
Address _____
(c) Name _____
Address _____

5) (a) Coal Operator:
Name N/A
Address _____

(b) Coal Owner(s) with Declaration
Name N/A
Address _____

Name _____
Address _____

6) Inspector Glen P. Robinson
Address Rt. 1 #6 Mt. Pleasant Est.
Mineralwells, WV 26150
Telephone (304)-489-2736

(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

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 8x 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 Appalachian Energy Development, Inc.

By: George P. Williams
Its: President

Address Rt. 2 Box 499
Grafton, WV 26354

Telephone 265-4147

Subscribed and sworn before me this 22nd day of December, 1989

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