

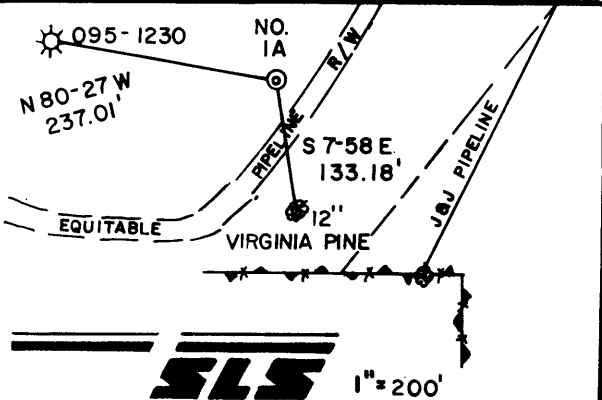
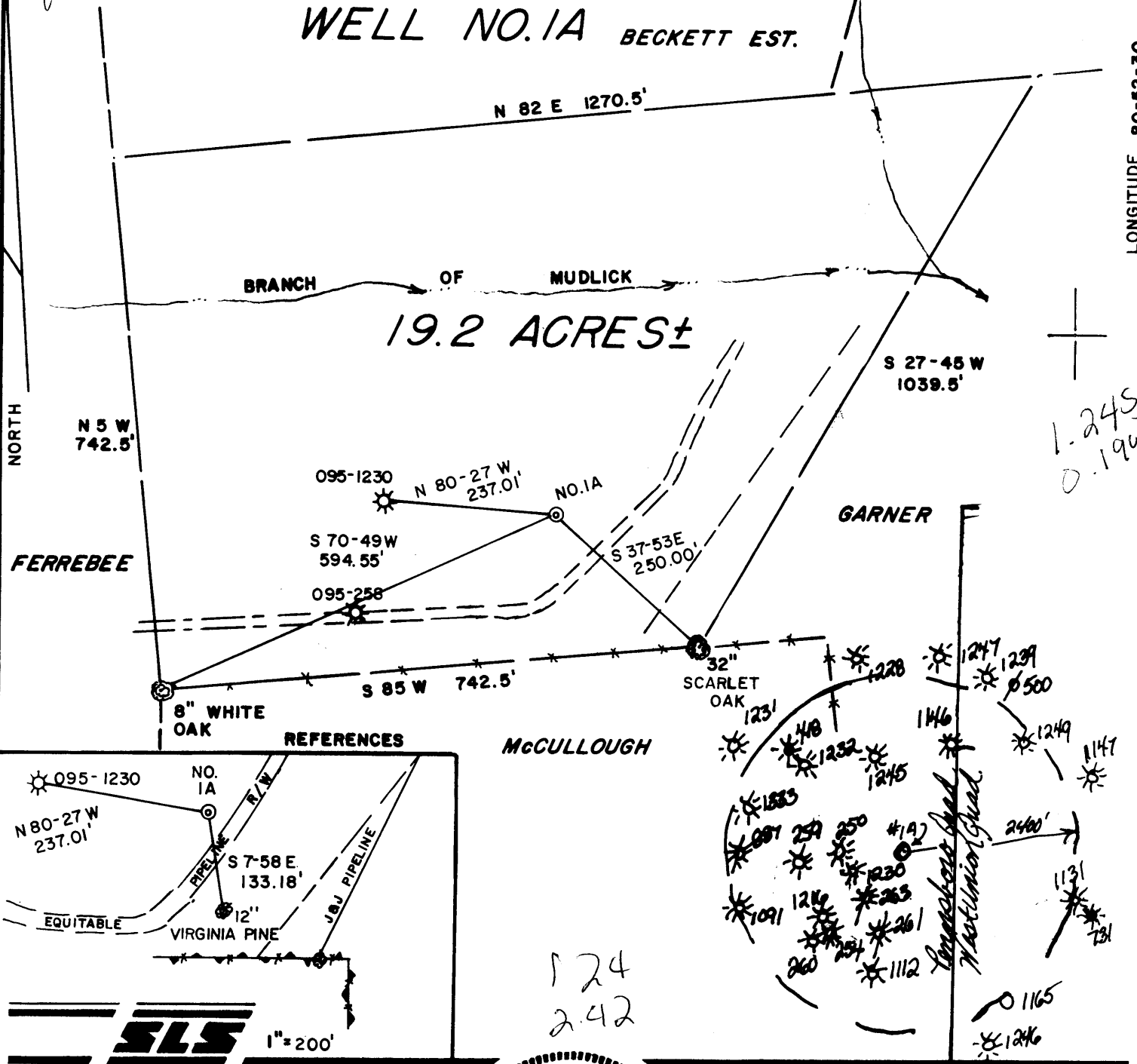
LATITUDE 39-20-00

LONGITUDE 80-52-30

Amil 3/23/95

GARNER LEASE WELL NO. 1A BECKETT EST.

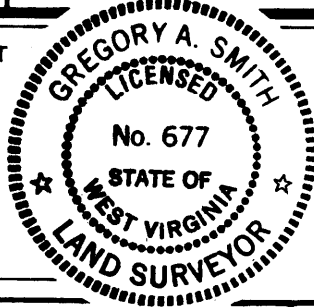
MCCULLOUGH



1"=200'

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. GARNER NO. 1A
 API WELL NO. 47 - 095 - 1236
 STATE COUNTY PERMIT

MINIMUM DEGREE OF ACCURACY 1 / 200 FILE NO. 1844(25-20)
 PROVEN SOURCE OF ELEVATION WELL API NO. 1216 ELEV= 1084' SCALE 1"=200'

STATE OF WEST VIRGINIA
 DEPARTMENT OF ENERGY
 OIL AND GAS DIVISION



WELL TYPE: OIL ___ GAS X LIQUID INJECTION ___ WASTE DISPOSAL ___ IF "GAS" PRODUCTION X STORAGE ___ DEEP ___ SHALLOW X
 LOCATION: ELEVATION 1084' WATERSHED MUDLICK RUN
 DISTRICT CENTERVILLE COUNTY TYLER QUADRANGLE PENNSBORO 7.5'
 SURFACE OWNER L.I. GARNER HEIRS ACREAGE 19.2
 ROYALTY OWNER L.I. GARNER HEIRS ET.AL. LEASE ACREAGE 19.2
 PROPOSED WORK: DRILL X CONVERT ___ DRILL DEEPER ___ REDRILL ___ FRACTURE OR STIMULATE X 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 5990' 5 1/25'

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

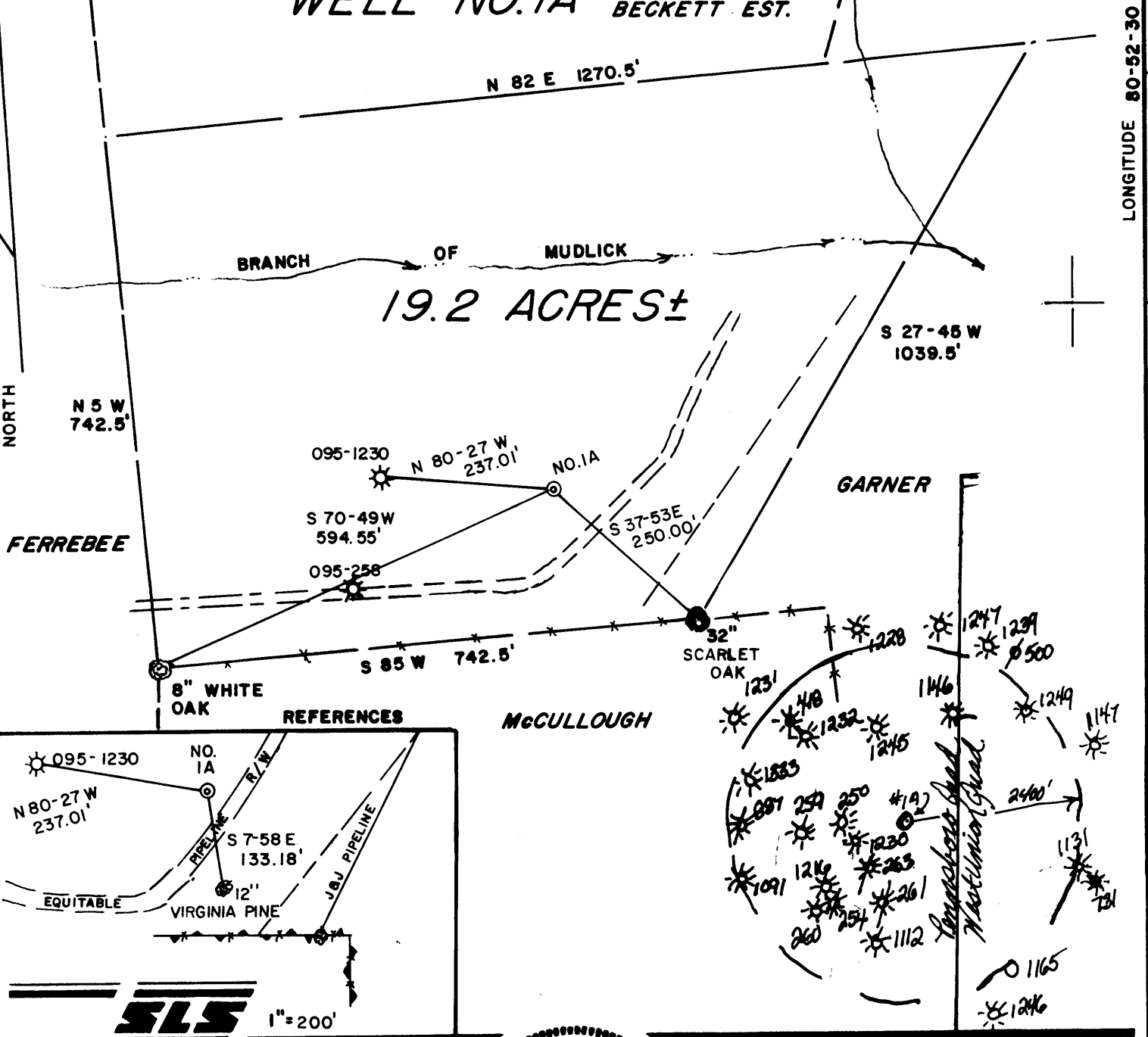
COUNTY NAME TYLER PERMIT 1236

575

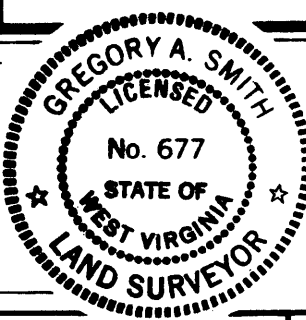
Amil
3/23/95

GARNER LEASE WELL NO. 1A BECKETT EST.

McCULLOUGH



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 MAY 16, 19 88
 OPERATORS WELL NO. GARNER NO. 1A
 API WELL NO. 47 - 095 - 1236
 STATE COUNTY PERMIT
Can call

L.L.S. Gregory A. Smith
677

MINIMUM DEGREE OF ACCURACY 1 / 200 FILE NO. 1844(25-20)
 PROVEN SOURCE OF ELEVATION WELL API NO. 1216 SCALE 1" = 200'
ELEV = 1084'

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 1084' WATERSHED MUDLICK RUN
 DISTRICT CENTERVILLE COUNTY TYLER QUADRANGLE PENNSBORO 7.5'

SURFACE OWNER L.I. GARNER HEIRS ACREAGE 19.2
 ROYALTY OWNER L.I. GARNER HEIRS ET.AL. LEASE ACREAGE 19.2

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 5900 - 5425'

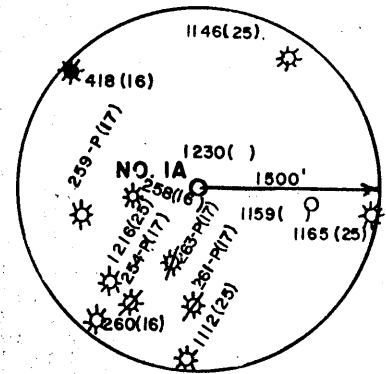
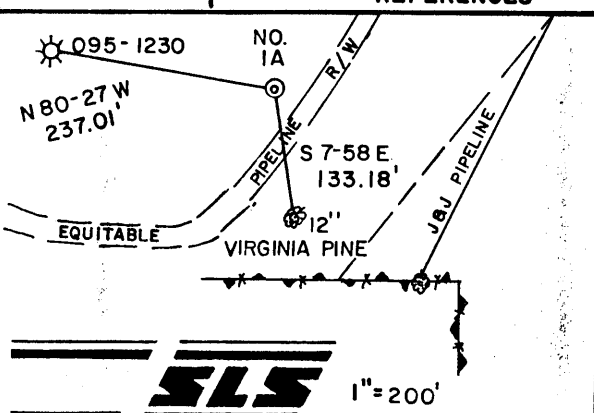
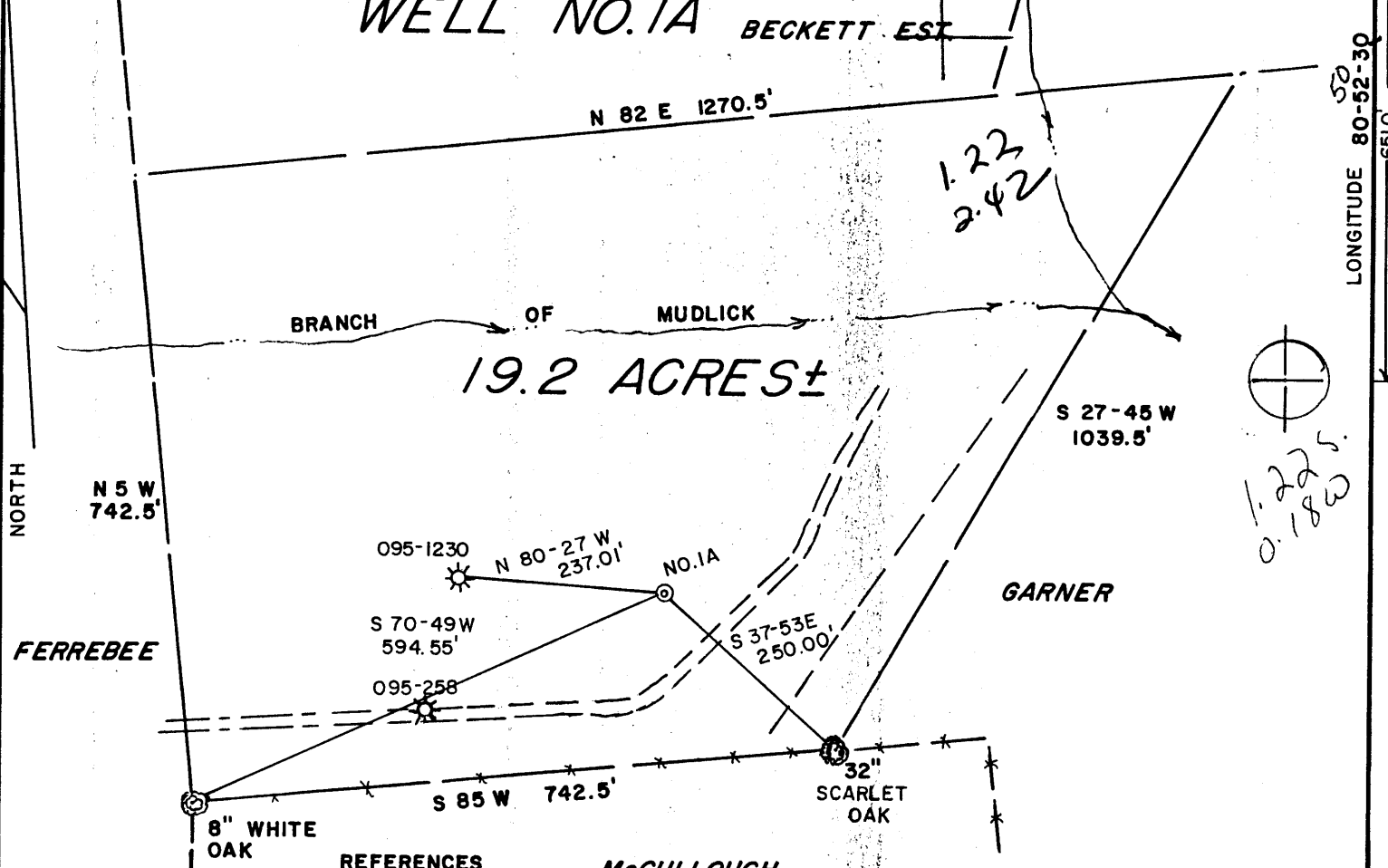
WELL OPERATOR APPALACHIAN ENERGY DEVELOPMENT DESIGNATED AGENT GEORGE WILLIAMSON 27 1997
 ADDRESS RT. 2 BOX 499 GRAFTON, W.V. 26354 ADDRESS RT. 2 BOX 499 GRAFTON, W.V. 26354

COUNTY NAME PERMIT

S75

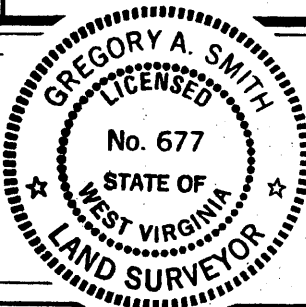
GARNER LEASE WELL NO. 1A BECKETT EST

McCULLOUGH



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. GARNER NO. 1A

API WELL NO. 47 - 095 - 1236

STATE COUNTY PERMIT

MINIMUM DEGREE OF ACCURACY 1 / 200 FILE NO. 1844(25-20)

PROVEN SOURCE OF ELEVATION WELL API NO. 1216 SCALE 1"=200' ELEV. 1084'

STATE OF WEST VIRGINIA DEPARTMENT OF ENERGY OIL AND GAS DIVISION

WELL TYPE: OIL ___ GAS X LIQUID INJECTION ___ WASTE DISPOSAL ___ "GAS" PRODUCTION X STORAGE ___ DEEP ___ SHALLOW X

LOCATION: ELEVATION 1084' WATERSHED MUDLICK RUN DISTRICT CENTERVILLE 1 COUNTY TYLER QUADRANGLE PENNSBORO 7.5' 539

SURFACE OWNER L.I. GARNER HEIRS ACREAGE 19.2 COUNTY NAME West Union

ROYALTY OWNER L.I. GARNER HEIRS ET.AL. LEASE ACREAGE 19.2 PERMIT SCg

PROPOSED WORK: DRILL X CONVERT ___ DRILL DEEPER ___ REDRILL ___ FRACTURE OR STIMULATE X 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 5980

WELL OPERATOR APPALACHIAN ENERGY DEVELOPMENT DESIGNATED AGENT GEORGE WILLIAMS

ADDRESS RT. 2 BOX 499 GRAFTON, W.V. 26354 ADDRESS RT. 2 BOX 499 GRAFTON, W.V. 26354

RECEIVED
JUN 10 1988



WR-35

DIVISION OF OIL & GAS
DEPARTMENT OF ENERGY

State of West Virginia
DEPARTMENT OF ENERGY
Oil and Gas Division

Date 6/7/88
Operator's
Well No. #1A
Farm L. Garner
API No. 47 - 095 - 1236

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: 1084 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 Lovie Garner
ADDRESS 104 14th St., Massilon, Ohio 44646
MINERAL RIGHTS OWNER Lovie Garner
ADDRESS 104 14th St., Massilon, Ohio 44646
OIL AND GAS INSPECTOR FOR THIS WORK Robert Lowther
ADDRESS Middlebourne, Wv
PERMIT ISSUED 5/17/88
DRILLING COMMENCED 5/19/88
DRILLING COMPLETED 5/23/88
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	1680	1680	surface
7			
5 1/2			
4 1/2	5379	5379	1500'
3			
2 1 1/2	5225	5225	0
Liners used			

GEOLOGICAL TARGET FORMATION Alexander Depth 5242 feet
Depth of completed well 5425 feet Rotary x / Cable Tools _____
Water strata depth: Fresh 425 feet; Salt 1525 feet
Coal seam depths: none Is coal being mined in the area? no

OPEN FLOW DATA Note: These zones are downhole commingled. see perf.
Producing formation Alexander/Benson/Riley Pay zone depth detail feet
Gas: Initial open flow 35 Mcf/d Oil: Initial open flow 0 Bbl/d
Final open flow 810 Mcf/d Final open flow 0 Bbl/d
Time of open flow between initial and final tests 4 hours
Static rock pressure 1655 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

JUN 10 1988
(Continue on reverse side)

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

- 1) Alexander-perf 5267-86 w/18 holes. Frac w/30,000# 20/40 sand in 363 bbls water, using 56,300 SCF N₂. Avg Rate-26, Avg Pr-2359, ISDP-1350.
- 2) Benson-perf 4978-84 w/16 holes. Frac w/30,000# 20/40 sand in 375 bbls water using 44,100 SCF N₂. Avg rate-26, Avg pr-2750, ISDP-1250.
- 3) Riley-perf 4578-4617 w/18 holes. Foam frac w/30,000# 20/40 sand in 636 bbls 75 quality foam, using 541,361 SCF N₂. Avg rate-24 Avg Pr-3220, ISDP-1650.

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS Including indication of all fresh and salt water, coal, oil and gas
sand & shale			0	265	
sand			265	321	
shale			321	425	
sand			425	447	damp @ 425
sand & shale			447	1525	
sand			1525	1575	1" water @ 1525
sand & shale			1575	1913	
Big Lime			1913	2022	
Big Injun			2022	2145	
shale			2145	2308	
Weir			2308	2427	
shale			2427	2493	
Berea			2493	2497	
shale			2497	4578	
Riley			4578	4636	
shale			4636	4977	
Benson			4977	4985	
shale			4985	5242	
✓ Alexander			5242	5293	
shale			5293	5425	
		total depth		<u>5425</u>	

RECEIVED
JUN 10 1988

DIVISION OF OIL & GAS
DEPARTMENT OF ENERGY

(Attach separate sheets as necessary)

Appalachian Energy Dev., Inc.

Well Operator

By:

Date:

6/7/88

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."

7042

095-1236 Issued 5/17/88
Expires 5/17/90

FORM WW-2B

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

- 1) Well Operator: 0397 APPALACHIAN ENERGY DEVELOPMENT, INC. 2325, 1, 538
- 2) Operator's Well Number: Garner No. 1A 3) Elevation: 1084'
- 4) Well type: (a) Oil / or Gas /
(b) If Gas: Production / Underground Storage /
Deep / Shallow /
- 5) Proposed Target Formation(s): Alexander 409
- 6) Proposed Total Depth: 5990 feet
- 7) Approximate fresh water strata depths: 55'
- 8) Approximate salt water depths: 1530'
- 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 Sks.
Fresh Water	8 5/8		23'	1565'	1565'	CTS or 38 CSR 18-11.3
Coal						
Intermediate						
Production	4 1/2		10.5	5990'	5990'	CTS or 38 CSR 18-11.1
Tubing						
Liners						

RECEIVED
MAY 17 1988

PACKERS : Kind _____
 Sizes _____
 Depths set _____

DIVISION OF OIL & GAS
DEPARTMENT OF ENERGY

For Division of Oil and Gas Use Only

Fee(s) paid: Well Work Permit Reclamation Fund WPCP
 Plat WW-9 WW-2B Bond 50 Blanket Agent
 okk pr R.A.L. (Type)

7042
1355
14

RECEIVED
MAY 17 1988

Page 1 of 7
Form WW2-A
(09/87)
File Copy

DIVISION OF OIL & GAS
DEPARTMENT OF ENERGY

1) Date: May 10, 1988
2) Operator's well number
L. I. Garner 1A
3) API Well No: 47 - 095 - 1236
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 Lovie E. Garner
Address 104 14th Street, SW
Massilon, OH 44646
(b) Name _____
Address _____
(c) Name _____
Address _____
6) Inspector Robert Lowther
Address General Delivery
Middlebourne, WV
Telephone (304)- 758-4764

5) (a) Coal Operator:
Name None
Address _____
(b) Coal Owner(s) with Declaration
Name None
Address _____
Name _____
Address _____
(c) Coal Lessee with Declaration
Name None
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:

- X Personal Service (~~XXXXXXXXXXXXXXXXXXXX~~) (Signed Surface Waiver Attached)
- _____ 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 Williams
Its: President
Address P. O. Box 902
Belington, WV 26250
Telephone 304-265-4147

Subscribed and sworn before me this 13 day of May, 1988

Alan E. Williams Notary Public
My commission expires March 7, 1993