



STATE OF WEST VIRGINIA
DEPARTMENT OF MINES

Oil and Gas Division

OIL AND GAS WELL PERMIT APPLICATION

ORIGINAL

RECEIVED
FEB 11 1981
DEPT. OF MINES
& GAS DIVISION

TO THE DEPARTMENT OF MINES,
Charleston, W. Va.

DATE Feb. 6, 1981
Company Lauderman Oil & Gas Drilling
Address 311 S. 4th Avenue Paden City, W.Va. 26
Farm George A. Little Acres 24.56
Location (waters) Middle Island Creek
Well No. One Elevation 720
District Washington County Pleasants
Quadrangle Raven Rock

Surface Owner George A. Little
Address R.F. D. St. Marys, W.Va. 26170
Mineral Owner Same
Address _____
Coal Owner No Coal
Address _____
Coal Operator _____
Address _____

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 10-17-81.

INSPECTOR
TO BE NOTIFIED Phillip Tracy
ADDRESS RFD Alms, W.Va.
PHONE _____

John B. ...
Deputy Director - Oil & Gas Division

GENTLEMEN:

The undersigned well operator is entitled to drill upon the above named farm or tract of land for oil and gas, having fee title thereto, (or as the case may be) under grant or lease dated June 10 1980 by George Little made to Eugene Carr and recorded on the 25th day of Aug. 1981, in Pleasants County, Book 157 Page 202
 NEW WELL DRILL DEEPER REDRILL FRACTURE OR STIMULATE
OIL AND GAS WELL ORIGINALLY DRILLED BEFORE JUNE 5, 1969.

The enclosed plat was prepared by a registered engineer or licensed land surveyor and all coal owners and/or operators have been notified as of the above date.

The above named coal owners and/or operator are hereby notified that any objection they wish to make, or are required to make by Section 3 of the Code, must be received by, or filed with the Department of Mines within ten (10) days. *

Copies of this notice and the enclosed plat were mailed by registered mail, or delivered to the above named coal operators or coal owners at their above shown respective address _____ day _____ before, or on the same day with the mailing or delivery of this copy to the Department of Mines at Charleston, West Virginia.

PLEASE SUBMIT COPIES OF ALL
GEOPHYSICAL LOGS DIRECTLY TO:

OFFICE OF OIL AND GAS
1615 Washington Street, East
Charleston, West Virginia
Area Code 304 -348-3092 348-3096

Address
of
Well Operator

Very truly yours,
(Sign Name) Phillip Tracy
Well Operator
20 Bx 366
Street
Paden City, W.V.
City or Town
West Virginia 26159
State

*SECTION 3 . . . If no objections are filed or found by the Department of mines, within said period of ten days from the receipt of notice and plat by the department of mines, to said proposed location, the department shall forthwith issue to the well operator a permit reciting the filing of such plat, that no objections have been made by the coal operators or found thereto by the department and that the same is approved and the well operator authorized to proceed.

BLANKET BOND

47-073-1121

PERMIT NUMBER

"I have read and understand the reclamation requirements as set forth in Chapter 22, Article 4, Section 12-b and will carry out the specified requirements."

Signed by _____

THIS IS AN ESTIMATE ONLY
ACTUAL INFORMATION WILL BE SUBMITTED ON OG-10 UPON COMPLETION

PROPOSED WORK ORDER TO DRILL DEEPEN FRACTURE-STIMULATE
 DRILLING CONTRACTOR: (If Known) RESPONSIBLE AGENT:
 NAME Unknown NAME Phillip Morgan
 ADDRESS _____ ADDRESS P.O. Box 266 Paden City, W.Va. 2615
 TELEPHONE _____ TELEPHONE 337-2215 (304)
 ESTIMATED DEPTH OF COMPLETED WELL: 4600 ROTARY CABLE TOOLS _____
 PROPOSED GEOLOGICAL FORMATION: Ohio Shale
 TYPE OF WELL: OIL _____ GAS _____ COMB. STORAGE _____ DISPOSAL _____
 RECYCLING _____ WATER FLOOD _____ OTHER _____

TENTATIVE CASING PROGRAM:

CASING AND TUBING SIZE	USED FOR DRILLING	LEFT IN WELL	CEMENT FILL UP OR SACKS - CUBIC FT.
20 - 16			
13 - 10			
9 - 5/8			
8 - 5/8	250'	250 Cemented from Btm to surface	
7			
5 1/2			
4 1/2	Run to Production level	cemented from Btm. to approximately 1300 from Surface	Perf. Top
3			Perf. Bottom
2			Perf. Top
Liners			Perf. Bottom

APPROXIMATE FRESH WATER DEPTHS 90 FEET SALT WATER 1200 FEET
 APPROXIMATE COAL DEPTHS None
 IS COAL BEING MINED IN THE AREA? N/A BY WHOM? N/A

TO DRILL:

SUBMIT FIVE (5) COPIES OF OG - 1, \$100.00 PERMIT FEE, PERFORMANCE BOND AND PERMANENT COPY OF PLAT.

TO DRILL DEEPER OR REDRILL:

SUBMIT FIVE (5) COPIES OF OG - 1, SHOWING ORIGINAL PERMIT NUMBER AND PERFORMANCE BOND. ON WELLS DRILLED PRIOR TO 1929, A PERMANENT COPY OF THE PLAT AND THE ORIGINAL WELL RECORD MUST ALSO BE SUBMITTED.

TO FRACTURE - STIMULATE:

OIL AND/OR GAS WELL ORIGINALLY DRILLED BEFORE JUNE 5, 1929, FIVE (5) COPIES OG - 1, PERFORMANCE BOND, PERMANENT PLAT AND ORIGINAL WELL RECORD.

OIL AND/OR GAS WELL ORIGINALLY DRILLED ON AND/OR AFTER JUNE 5, 1929, FIVE COPIES OG - 1, SHOWING ORIGINAL PERMIT NUMBER AND PERFORMANCE BOND.

Required forms must be filed within ninety (90) days of completion for bond release. Inspector to be notified twenty-four (24) hours in advance.

The following waiver must be completed by the coal operator if the permit is to be issued within ten days of receipt thereof.

WAIVER: I the undersigned, Agent for _____ Coal Company, Owner or Operator of the coal under this lease have examined and place on our mine maps this proposed well location.

We the _____ Coal Company have no objections to said well being drilled at this location, providing operator has complied with all rules and regulations in Articles 4, 5, and 7, Chapter 22 of the West Virginia Code.

For Coal Company

Official Title

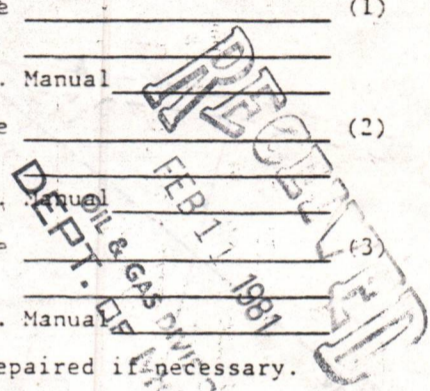
Form IV-9
(01-80)

Date 15 Dec 19 80
Well No. Little #1
API No. 47 - 073 - 1121
State County Permit

STATE OF WEST VIRGINIA
OFFICE OF OIL AND GAS

Company Name Lauderman Oil & Gas Designated Agent Phillip Morgan
Address Box 266, Paden City, W.Va. 26159 Address Box 266, Paden City, W.Va. 26159
Telephone 337-2215 Telephone 337-2215
Landowner George A. Little Soil Cons. District Upper Ohio
Revegetation to be carried out by Jim Renner (Agent)
This plan has been reviewed by Upper Ohio SCD. All corrections
and additions become a part of this plan. 2/5/81 Kenneth R. Masum
(Date) (SCD Agent)

Access Road	Location
Structure <u>N/A</u> (A)	Structure _____ (1)
Spacing _____	Material _____
Page Ref. Manual _____	Page Ref. Manual _____
Structure _____ (B)	Structure _____ (2)
Spacing _____	Material _____
Page Ref. Manual _____	Page Ref. Manual _____
Structure _____ (C)	Structure _____ (3)
Spacing _____	Material _____
Page Ref. Manual _____	Page Ref. Manual _____



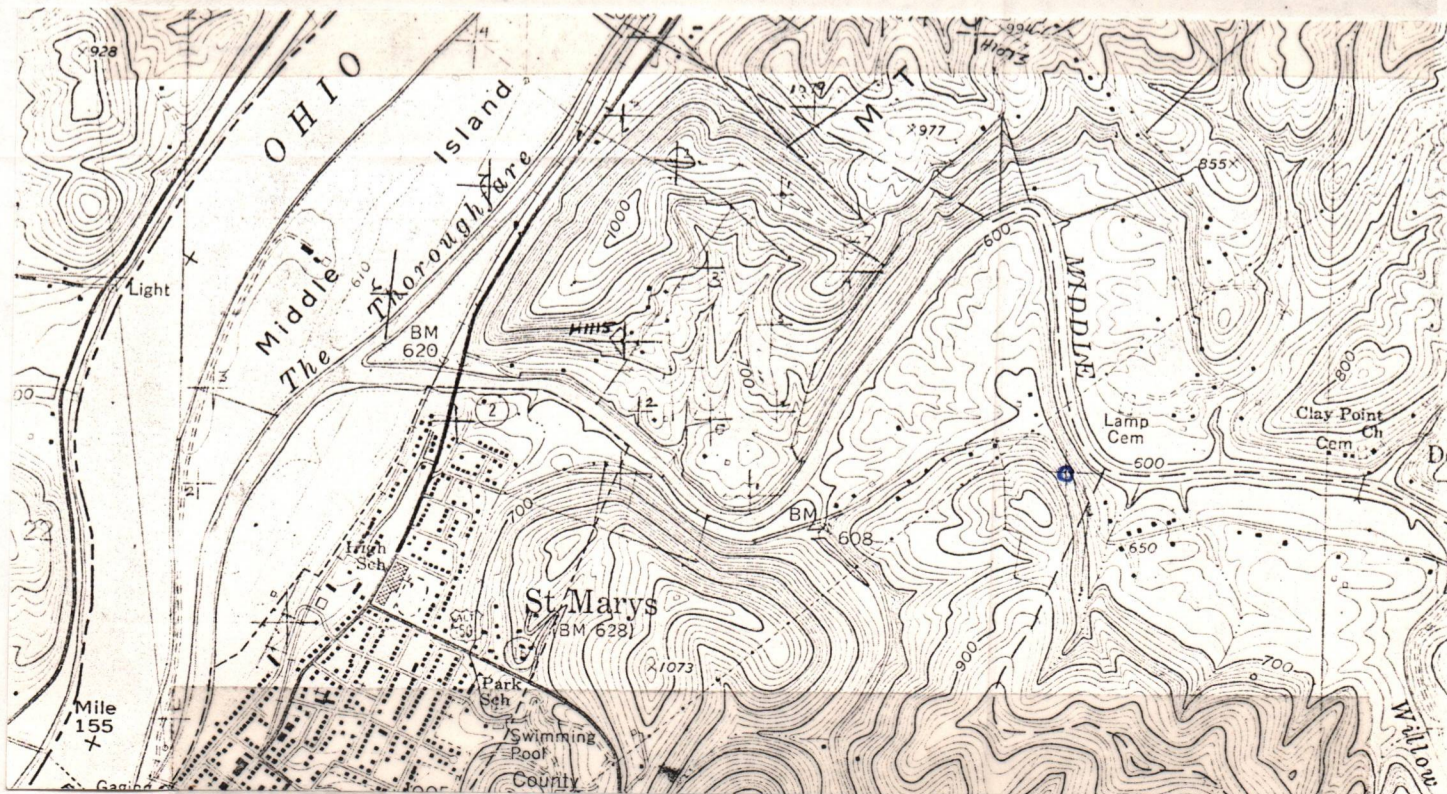
All structures should be inspected regularly and repaired if necessary.

Revegetation

Treatment Area I		Treatment Area II	
Lime _____ Tons/acre	Lime _____ Tons/Acre		
or correct to pH <u>6.5</u>	or correct to pH <u>6.5</u>		
Fertilizer <u>500</u> lbs/acre	Fertilizer <u>500</u> lbs/acre		
(10-20-20 or equivalent)	(10-20-20 or equivalent)		
Mulch <u>Hay</u> <u>2</u> Tons/Acre	Mulch <u>Hay</u> <u>2</u> Tons/Acre		
Seed* <u>KY31 Fescue</u> <u>35</u> lbs/acre	Seed* <u>KY31 Fescue</u> <u>35</u> lbs/acre		
<u>Redtop</u> <u>5</u> lbs/acre	<u>Redtop</u> <u>5</u> lbs/acre		

*Inoculate all legumes such as vetch, trefoil and clovers with the proper bacterium. Inoculate with 3X recommended amount.

Attach or photocopy section of involved Topographic map. Quadrangle Raven Rock, W.Va.



This Lease, Made and entered into this 10th day of June, 1980, by and between GEORGE A. and ELEANOR LITTLE (wife) RT# 39, ST. MARYS, WVA. 26170

of the County of PLEASANTS and State of WEST VA. and EUGENE CARR, P.O. Box 104, FRIENDLY, WVA. 26046 Lessee. WITNESSETH:

The lessor in consideration of \$1200 dollar paid by the lessee, the receipt of which is hereby acknowledged, do hereby grant, demise and let unto the lessee all the oil and gas and casing-head gas in and under the following described tract of land, and also the said tract of land for the purpose and with the exclusive right of drilling and operating thereon for said oil and gas, together with the right of way, and the right to lay pipes to convey water, oil, steam, and gas, and to have sufficient water and gas from the premises to drill and operate wells thereon, also such other privileges as are necessary for conducting said operations, and the right to remove at any time all property placed thereon by the lessee

Lessee to pay a reasonable damage to growing crops by said operations. All that certain tract of land situate in WASHINGTON District, PLEASANTS County, and State of WEST VA. on the waters of Middle Island Creek bounded and described as follows, to-wit:

On the North by lands of Route 39 On the East by lands of RT# 39, WILLIAM KIDDER On the South by lands of C. W. RIGGS (HALL PROPERTY) On the West by lands of WILLIAM ELDER 25 ACRES, more or less containing

but no wells are to be drilled within 300' or as mutually agreed (Two years) feet of the dwelling house or barn now on the premises without the lessor's consent.

To have and to hold the same unto the lessee for the term of 3 years from the date hereof and as much longer as the said premises are being operated for the production of oil or gas, or as oil or gas is found in paying quantities thereon, yielding and paying to the lessor the one-eighth (1/8) part or share of all the oil saved from that produced on the premises, delivered free of expense into tank or pipe line to the lessor's credit; and should any well produce gas or casing-head gas in sufficient quantities to justify marketing the same in PIPE LINE pipe line, the lessor shall be paid at the rate of one-eighth (1/8) of the market price for such gas so long as the gas therefrom is conveyed and sold off the premises, payable monthly as marketed.

Said lessee shall not be required in any event, to increase the rate of said gas well payments, or said royalty of oil by reason of any royalty or interest in said oil or gas that may have been heretofore sold, reserved or conveyed by said lessor or predecessors in title or otherwise.

Provided, however, that this lease shall become null and void and all the rights thereunder shall cease and determine unless one well shall be completed on the said premises within (Lessee to pay at rate of \$3.00 per acre per year, 1st year in advance) from the date hereof, or unless the lessee shall pay at the rate of () Dollars in advance for each additional three months such completion is delayed from the time above mentioned for the completion of said well until one well is completed.

All payments may be made direct to SEE NAMES & ADDRESS ABOVE or deposited to credit in P. O. County

State of or in the same manner to who is hereby appointed Agent for such purpose; and 10 days grace shall be allowed on all payments that may become due under provisions of this lease.

If gas is found in paying quantities to the lessee and conveyed from the premises, the lessor may have 100,000 feet of gas annually, free of cost by laying the necessary line and making connections at lessor cost at such point as may be designated by the lessee for two dwellings.

in the mansion house on said premises, to be used with economical appliances subject to the approval of the lessee; said gas to be used at lessor's own risk and lessee not to be in any way liable for insufficient supply of gas caused by the use of pumping stations, breakage of lines or other causes, but nothing herein shall prevent the lessee from abandoning any well or wells and removing the pipe therefrom.

Lessee at his option may combine the above property with other adjacent tracts for a drilling unit of not more than three hundred (300) acres on which unit one well may be drilled. If it is productive all royalties shall be pro-rated according to acreage of each tract in the unit and no delay rental shall be due to lessor as long as such production continues, but lessor may have free gas from such unitized well as heretofore provided, and Lessor agrees to give free right of way for service lines of all other members of the unit.

Lessee is not to use existing roads to farm, but is to build their own well location is by mutual agreement. Lessee is to grade & reseed land - returning it as near as possible to its original contour.

It is further agreed, that the second party shall, by paying all moneys due, have the right to surrender this grant at any time to the first part and thereafter be fully discharged from any and all claims whatsoever arising from any neglect or non-fulfillment of the foregoing contract.

It is understood between the parties to this agreement that all conditions between the parties hereunto shall extend to the heirs, executors, successors and assigns of the respective parties.

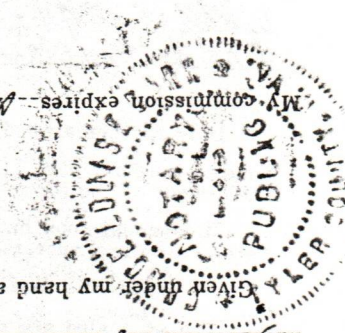
IN WITNESS WHEREOF, The said parties have hereunto set their hands and seals the day and year first above written.

Signed, sealed and delivered in the presence of Grace Louise Carr (Seal) x George A. Little (Seal) x Eleanor Little (Seal) This instrument prepared by Eugene Carr (Seal) (Seal) (Seal)

I, Grace Louise Carr, a Notary Public in and for said County of Pleasants, do certify that George A. Little & Company, Little, whose name is

has not this day acknowledged the same before me, in my said County. Signed to the writing hereto annexed bearing date June 10 A. D., 1980.

Given under my hand and official seal, this 10 day of June A. D., 1980.
Grace Louise Carr
Notary Public in and for Pleasants County, W. Va.



I, _____, a Notary Public in and for said County of _____, do certify that _____, whose name _____

signed to the writing hereto annexed bearing date _____ A. D., 19____.

Given under my hand and official seal, this _____ day of _____ A. D., 19____.

My commission expires _____ Notary Public in and for _____ County, W. Va.

Oil and Gas Lease

FROM

TO

P. O. Address _____

State of _____

County, _____

Date _____, 19____

Term _____ No. of Acres _____

Location _____

District, _____

County, _____

State of _____
11:10 A.M. August 25, 1980
RECORDED FOR RECORD August 25, 1980
AND RECORDED IN THE OFFICE OF
THE CLERK OF THE COUNTY COURT
IN BOOK PLEASANTS COUNTY WEST VA.

In _____ Book No. 57
Recorded 203 Fee 1.50 Paid

Grace Louise Carr
CLERK PLEASANTS COUNTY COURT

STATE OF WEST VIRGINIA, COUNTY OF PLEASANTS, TO-WIT:

I, _____, a Notary Public in and for said County of _____

The foregoing paper writing was this day 8/25/80 at 11:10 AM presented for record in my office, and thereupon, together with the certificate thereto annexed, is admitted to record.

Teste: Grace Louise Carr

County Court of Pleasants County
Clerk, Grace Louise Carr

RECEIVED

MAR 21 1985



IV-35
(Rev 8-81)

OIL & GAS DIVISION
DEPT. OF MINES
State of West Virginia
Department of Mines
Oil and Gas Division

Date 9/22/83
Operator's
Well No. _____
Farm George Little
API No. 47 - 073 - 1121

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 X / Shallow ___ /)

LOCATION: Elevation: 721 Watershed Middle Island Creek
District: Washington County Pleasants Quadrangle Raven Rock

COMPANY Lauderman Oil & Gas
ADDRESS Paden City, West Virginia
DESIGNATED AGENT Phillip Morgan
ADDRESS P.O. Box 266, Paden City, W.Va. 26159
SURFACE OWNER George A. Little
ADDRESS Rt. 39, Box 109, St. Marys, W.Va. 26170
MINERAL RIGHTS OWNER Same
ADDRESS _____
OIL AND GAS INSPECTOR FOR THIS WORK Bob
Lowther ADDRESS Middlebourne, W.Va. 26149
PERMIT ISSUED 2-17-81
DRILLING COMMENCED 4-23-81
DRILLING COMPLETED 5-31-81
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"			
9 5/8			
8 5/8	1160	1160	Surface
7			
5 1/2			
4 1/2	4157	4157	300 cu. ft.
3			
2			
Liners used			

GEOLOGICAL TARGET FORMATION Devonian Shale Depth 4,000 feet
Depth of completed well 4,190 feet Rotary ___ / Cable Tools X
Water strata depth: Fresh 120 feet; Salt None feet
Coal seam depths: No Is coal being mined in the area? No

OPEN FLOW DATA

Producing formation Devonian Shale Pay zone depth 3509-3659 feet
Gas: Initial open flow 150 Mcf/d Oil: Initial open flow — Bbl/d
Final open flow 30 Mcf/d Final open flow — Bbl/d
Time of open flow between initial and final tests 24 hours
Static rock pressure 865 psig (surface measurement) after 24 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

(Continue on reverse side)

RECEIVED

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

The George A Little #1 was frac'd from 3,659 to 3509, using twenty select fere perfs .39 in diameter. Nitrogen was used for the frac in the amount of 750,000 std. cubic feet.

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS Including indication of all fresh and salt water, coal, oil and gas
Red Rock Sand & Shale			Surface	1224	
Salt Sand			1224	1276	
Shale			1276	1280	
Maxton			1280	1319	
Big Lime			1319	1348	
Big Injun			1348	1526	
Shale			1526	1551	
Squaw			1551	1566	
Shale			1566	1918	
Berea			1918	1920	
Shale			1920	2026	
Fifty Foot			2026	2040	
Shale			2040	2312	
Gordon Stray			2312	2326	
Shale			2326	2342	
Gordon			2322	2416	
Shale			2416	4157	

(Attach separate sheets as necessary)

Golden Black
Well Operator

By: Edward E. Pilling

Date: 3/19/85

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."



RECEIVED
APR 4 - 1985
OIL & GAS DIVISION
DEPT. OF MINES

State of West Virginia
Department of Mines
Oil and Gas Division
Charleston 25305

FINAL INSPECTION REPORT
INSPECTORS COMPLIANCE REPORT
March 26, 1985

COMPANY Lauderman Oil & Gas
c/o Golden Black, Inc.
Attention: Herbert Everett
8916 Gale Road
Pontiac, Michigan 48054

PERMIT NO 073-1121

FARM & WELL NO George Little #1

DIST. & COUNTY Washington/Pleasants

RULE	DESCRIPTION	IN COMPLIANCE	
		YES	NO
23.06	Notification Prior to Starting Work	<input checked="" type="checkbox"/>	<input type="checkbox"/>
25.04	Prepared before Drilling to Prevent Waste	<input checked="" type="checkbox"/>	<input type="checkbox"/>
25.03	High-Pressure Drilling	<input checked="" type="checkbox"/>	<input type="checkbox"/>
16.01	Required Permits at Wellsite	<input checked="" type="checkbox"/>	<input type="checkbox"/>
15.03	Adequate Fresh Water Casing	<input checked="" type="checkbox"/>	<input type="checkbox"/>
15.02	Adequate Coal Casing	<input checked="" type="checkbox"/>	<input type="checkbox"/>
15.01	Adequate Production Casing	<input checked="" type="checkbox"/>	<input type="checkbox"/>
15.04	Adequate Cement Strenght	<input checked="" type="checkbox"/>	<input type="checkbox"/>
15.05	Cement Type	<input checked="" type="checkbox"/>	<input type="checkbox"/>
23.02	Maintained Access Roads	<input checked="" type="checkbox"/>	<input type="checkbox"/>
25.01	Necessary Equipment to Prevent Waste	<input checked="" type="checkbox"/>	<input type="checkbox"/>
23.04	Reclaimed Drilling Pits	<input checked="" type="checkbox"/>	<input type="checkbox"/>
23.05	No Surface or Underground Pollution	<input checked="" type="checkbox"/>	<input type="checkbox"/>
23.07	Requirements for Production & Gathering Pipelines	<input checked="" type="checkbox"/>	<input type="checkbox"/>
16.01	Well Records on Site	<input checked="" type="checkbox"/>	<input type="checkbox"/>
16.02	Well Records Filed	<input checked="" type="checkbox"/>	<input type="checkbox"/>
7.05	Identification Markings	<input checked="" type="checkbox"/>	<input type="checkbox"/>

I HAVE INSPECTED THE ABOVE CAPTIONED WELL AND RECOMMEND THAT IT BE RELEASED:

SIGNED R. H. Lowther

DATE April 1, 1985

Your well record was received and reclamation requirements approved. In accordance with Chapter 22, Article 4, Section 2, the above well will remain under bond coverage for the life of the well.

T. L. ...
Administrator-Oil & Gas Division

April 18, 1985

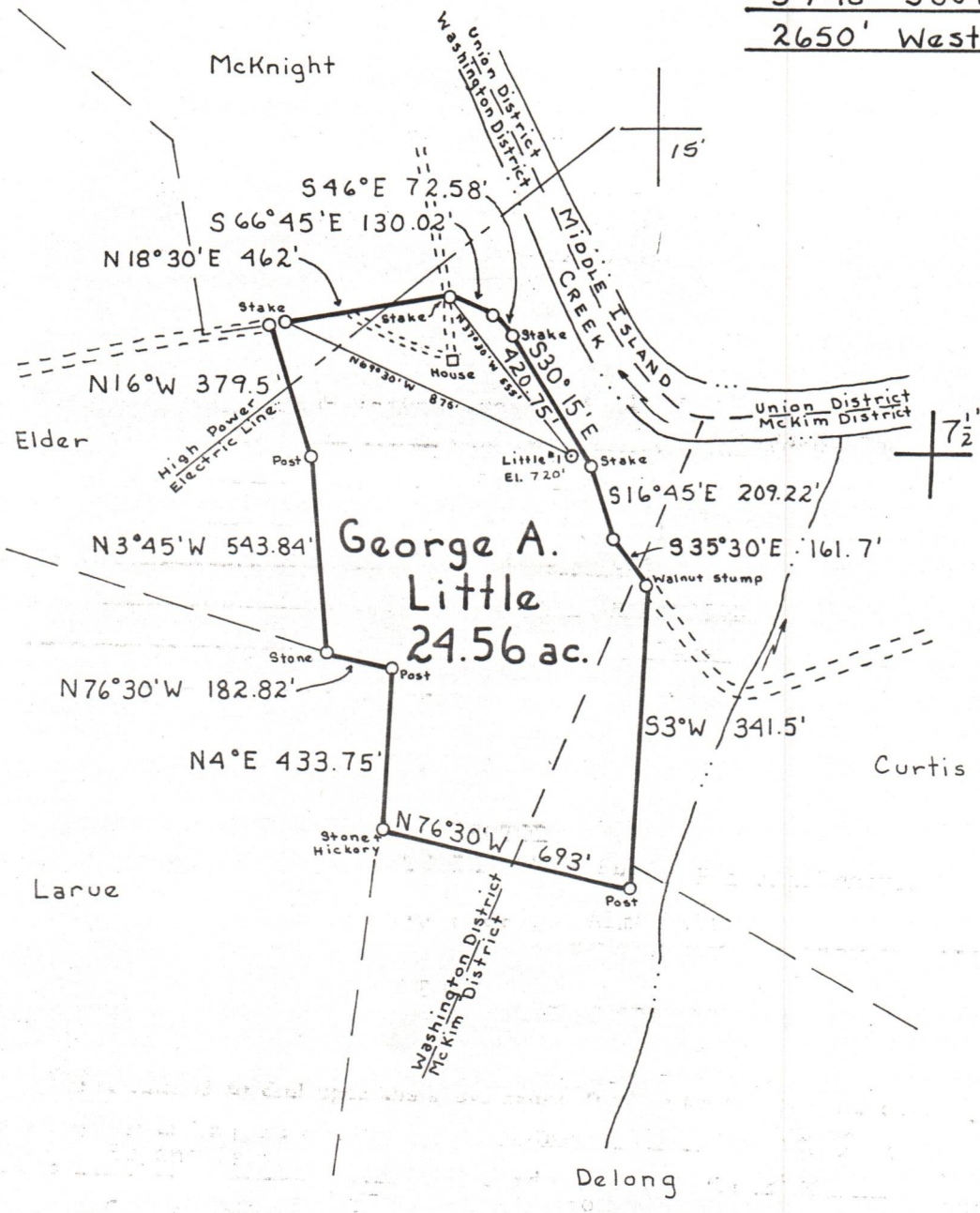
DATE

Ch 2113

LATITUDE 39° 25'
5940' South
2650' West

LONGITUDE 81° 10'

NORTH



FILE NO. _____
 DRAWING NO. _____
 SCALE 1" = 500'
 MINIMUM DEGREE OF ACCURACY 1:200
 PROVEN SOURCE OF ELEVATION Road Int. 650'

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) William L. Mosser
 R.P.E. _____ L.L.S. 551



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



DATE 15 Dec. 19 80
 OPERATOR'S WELL NO Little #1
 API WELL NO. 47-073-1121
 STATE COUNTY 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 720' WATER SHED Middle Island Creek
 DISTRICT Washington COUNTY Pleasants
 QUADRANGLE Raven Rock, W.Va. 7 1/2' Quad.
 SURFACE OWNER George A. Little, et ux ACREAGE 24.56
 OIL & GAS ROYALTY OWNER George A. Little, et ux LEASE ACREAGE 24.56
 LEASE NO. _____
 PROPOSED WORK: DRILL CONVERT _____ DRILL DEEPER _____ REDRILL _____ FRACTURE OR STIMULATE _____ PLUS OFF OLD FORMATION _____ PERFORATE NEW FORMATION _____ OTHER PHYSICAL CHANGE IN WELL (SPECIFY) _____
 PLUS AND ABANDON _____ CLEAN OUT AND REPLUG _____
 TARGET FORMATION Shale ESTIMATED DEPTH 4000'
 WELL OPERATOR Lauderman O+G DESIGNATED AGENT Phillip Morgan
 ADDRESS Box 266 ADDRESS Box 266
Paden City, W.Va. 26159 Paden City, W.Va. 26159