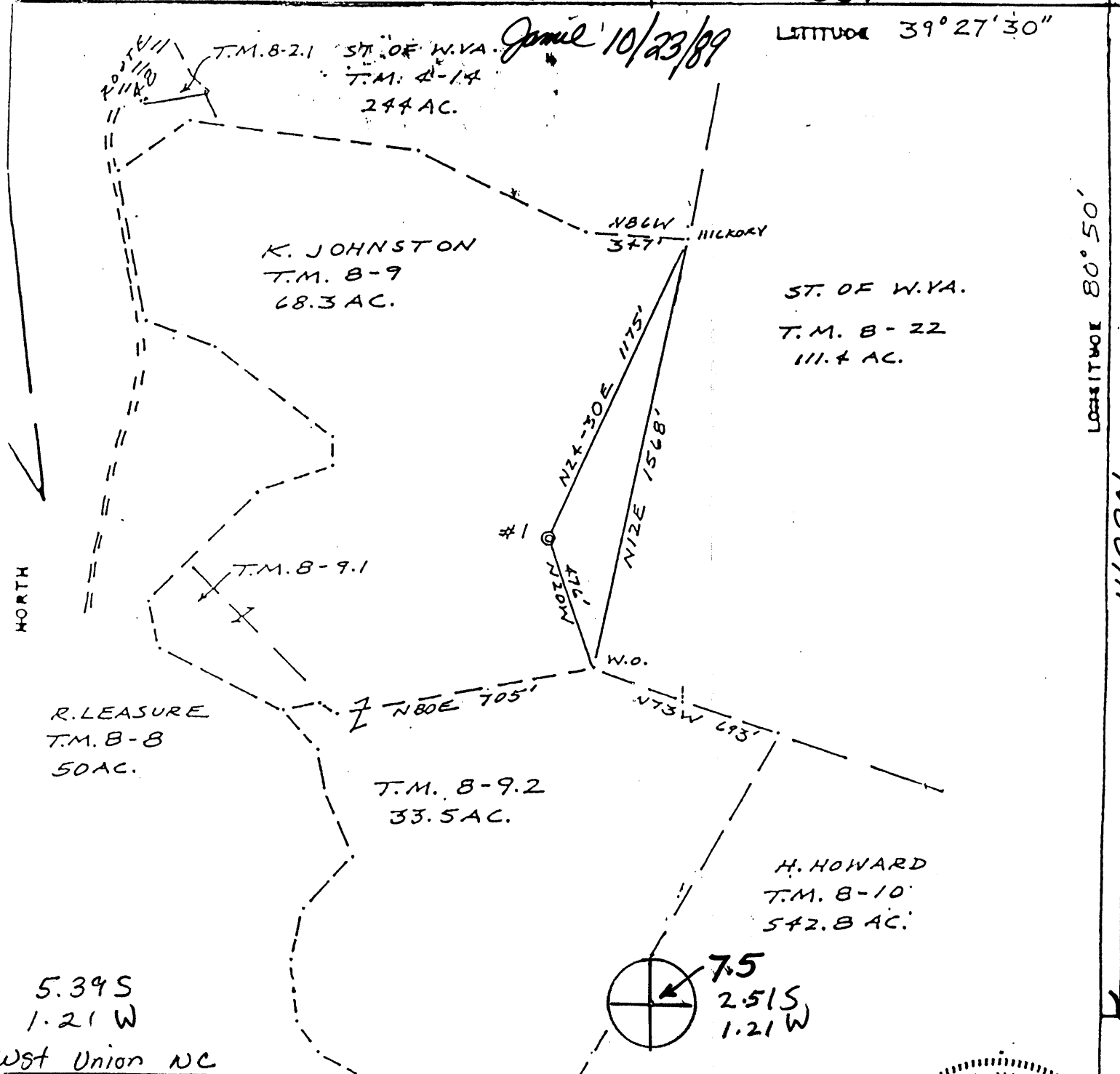


June 10/23/89

Latitude 39° 27' 30"

Longitude 80° 50'

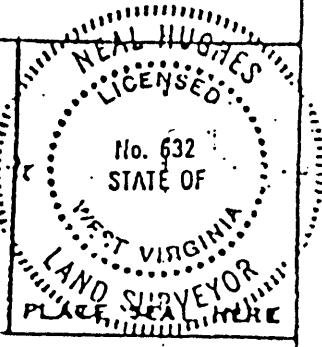
14230'



5.39S
1.21W
West Union NC

FILE NO. D.A.C.
 DRAWING NO. 1
 SCALE 1"=500'
 MINIMUM DEGREE OF ACCURACY 1/200
 PROVEN SOURCE OF ELEVATION RD 803

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) Neal Hughes
 R.P.E. _____ L.L.S. 632



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS
 FORM IV-6
 (8-79)



DATE Oct. 18, 1989
 OPERATOR'S WELL NO. 17
 API WELL NO. 47-095-094200
 STATE COUNTY PERMIT
Drill Deeper

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 885' WATER SHED CONAWAY RUN
 DISTRICT CENTERVILLE COUNTY TYLER
 QUADRANGLE SHIRLEY 7.5'
 SURFACE OWNER Eathel Johnston ACREAGE 68.3
 OIL & GAS ROYALTY OWNER Eathel Johnston LEASE ACREAGE 108
 LIASE NO. _____
 PROPOSED WORK: DRILL _____ CONVERT _____ DRILL DEEPER REDRILL _____ FRACTURE OR STIMULATE PLUS OFF OLD FORMATION _____ PERFORATE NEW FORMATION OTHER PHYSICAL CHANGE IN WELL (SPECIFY) _____

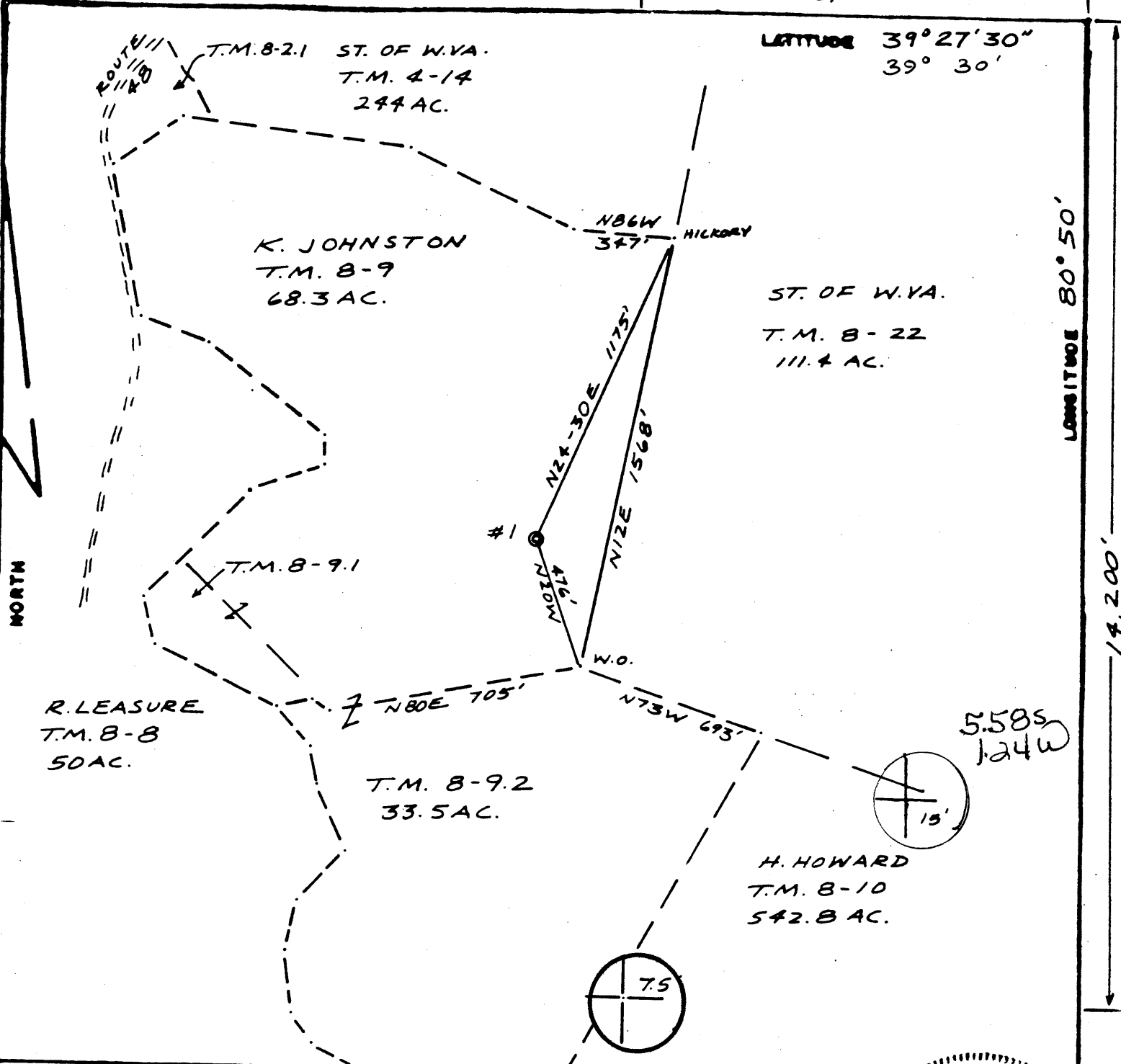
PLUS AND ADJUSTMENT _____ CLEAN OUT AND REPLUS _____
 TARGET FORMATION Benson/Riley ESTIMATED DEPTH 5100± **OCT 27 1989**
 WELL OPERATOR Drilling Appalachian Corporation DESIGNATED AGENT Kenneth Mason
 ADDRESS P. O. Box 99 ADDRESS P. O. Box 99
Alma, WV 26320 ADDRESS Alma, WV 26320
311

6,500'

LATITUDE 39° 27' 30"
39° 30'

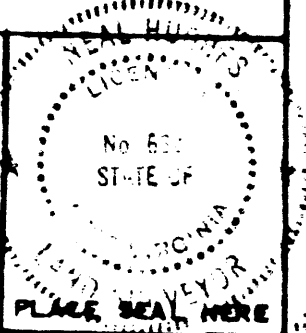
LONGITUDE 80° 50'

14,200'



FILE NO. L+M
 DRAWING NO. 1
 SCALE 1"=500'
 MINIMUM DEGREE OF ACCURACY 1/200
 PROVEN SOURCE OF ELEVATION RD 803

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) Neal Hughes
 R.P.E. _____ L.L.S. 632



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS
 FORM IV-6
 (8-79)



DATE AUG 10, 1981
 OPERATOR'S WELL NO. 1
 SPI WELL NO. 47-095-0942
 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 885' WATER SHED CONAWAY RUN
 DISTRICT CENTERVILLE COUNTY TYLER
 QUADRANGLE SHIRLEY 7.5' West Union 15' NC
 SURFACE OWNER KENNETH JOHNSON ACREAGE 68.3
 OIL & GAS ROYALTY OWNER K. JOHNSON LEASE NO. _____ LEASE ACREAGE 108

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 BANGSON _____ CLEAN OUT AND REPLUG _____
 TARGET FORMATION Devonian Shale ESTIMATED DEPTH 4500'
 WELL OPERATOR L.M. Petroleum Co. DESIGNATED AGENT David Clovis
 ADDRESS P.O. Box 89 ADDRESS P.O. Box 288
Wend, Ohio 45773 Chilbriding, W. Va. 26101

SEP 9 1981

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

Well Operator's Report of Well Work

Farm name: JOHNSTON, EATHEL Operator Well No.: JOHNSTON #1

LOCATION: Elevation: 885.00 Quadrangle: SHIRLEY

District: CENTERVILLE County: TYLER
Latitude: 14230 Feet South of 39 Deg. 27Min. 30 Sec.
Longitude 6510 Feet West of 80 Deg. 50 Min. 0 Sec.

Company: DRILLING APPALACHIAN CORP
P. O. BOX 99
ALMA, WV 26320-0099

Agent: KENNETH R. MASON

Inspector: GLEN P. ROBINSON
Permit Issued: 10/23/89
Well work Commenced: OCTOBER 21, 1989
Well work Completed: NOVEMBER 15, 1989
Verbal Plugging
Permission granted on: _____
Rotary ~~XXX~~ Cable _____ Rig
Total Depth (feet) _____
Fresh water depths (ft) NA

Salt water depths (ft) NONE

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

Casing & Tubing Size	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
2 7/8	-	4965	1090

OPEN FLOW DATA

Producing formation BENSON SAND Pay zone depth (ft) 4865-72
Gas: Initial open flow SHOW MCF/d Oil: Initial open flow - Bbl/
Final open flow 150 MCF/d Final open flow - Bbl/
Time of open flow between initial and final tests 4 Hour
Static rock Pressure 1200 psig (surface pressure) after 72 Hour

Second producing formation RILEY SAND Pay zone depth (ft) 4456-68
Gas: Initial open flow SHOW MCF/d Oil: Initial open flow - Bbl/
Final open flow 100 MCF/d Final open flow - Bbl/
Time of open flow between initial and final tests 4 Hour
Static rock Pressure - psig (surface pressure) after - Hour

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: DRILLING APPALACHIAN CORP.

By: Ken Mason
Date: 11/21/89

MAY 11 1990

GEOLOGICAL WELL RECORD DATA

WELL NAME: Johnston #1
 PERMIT NUMBER: 47-095-0942 DD

From 4 1/2 inch Casing - Bottom 4090

	TOP	BOTTOM	
Middle Chemung Shale	4090	4456	
Riley Sand	4456	4488	
Lower Chemung Shale	4488	4865	
Benson Sand	4865	4869	Show Gas
Lower Chemung Shale	4869	4995	
TOTAL DEPTH	4995		

WELL TREATMENT SCHEDULE:

Benson Sand 4865 - 4869 Perforated with 18 holes

Formation Break Down 1950 PSI

Hydraulic Frac with Nitrogen Assist
 Average Treating Rate 8 Barrels/Min
 278 barrels of gel treated water
 50 Sacks of 80/100 Sand
 103 Sacks of 20/40 Sand
 40,000 scf of Nitrogen

Average Treating Pressure 3000 - 3300 PSI

Riley Sand 4456 - 4466 Perforated with 15 holes

Formation Break Down 3000 PSI

Hydraulic Frac with Nitrogen Assist
 Average Treating Rate 12.5 Barrels/Min
 334 barrels of gel treated water
 50 Sacks of 80/100 Sand
 100 Sacks of 20/40 Sand
 48,000 scf of Nitrogen

Average Treating Pressure 3200 - 3400 PSI

4995
 3900 old TD?

 1095

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

- 1) Well Operator: DRILLING APPALACHIAN CORPORATION *14425, 1, 6000*
- 2) Operator's Well Number: JOHNSTON #1 3) Elevation: 885'
- 4) Well type: (a) Oil / or Gas /
(b) If Gas: Production / Underground Storage /
Deep / Shallow /
- 5) Proposed Target Formation(s): BENSON/RILEY *000*
- 6) Proposed Total Depth: 5100'± feet
- 7) Approximate fresh water strata depths: _____
- 8) Approximate salt water depths: _____
- 9) Approximate coal seam depths: _____
- 10) Does land contain coal seams tributary to active mine? Yes / No /
- 11) Proposed Well Work: Drill deeper, perforate, stimulate
- 12) *Existing well*

CASING AND TUBING PROGRAM

TYPE	SPECIFICATIONS		FOOTAGE INTERVALS		CEMENT	
	Size	Grade	Weight per ft.	For drilling	Left in well	Fill-up (cu. ft.)
<i>DRP 10/19/89</i>						
Conductor						
Fresh Water	8-5/8"		20#		250'	85 sacks
Coal						<i>Existing</i>
Intermediate						
Production	4-1/2"		10.5#		3900'	170 sacks
Tubing	2-7/8"	upset tubing			5,000'±	<i>38CSR18-11.1</i> 200 sacks
Liners						

PACKERS : Kind _____
 Sizes _____
 Depths set _____

RECEIVED
OCT 23 1989

For Division of Oil and Gas Use Only

DIVISION OF OIL & GAS
DEPARTMENT OF ENERGY

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

4740
4705
27

RECEIVED
OCT 23 1989

DIVISION OF OIL & GAS
DEPARTMENT OF ENERGY

Date: October 12, 1989
Operator's well number
JOHNSTON #1
API Well No: 47 - 095 - 0942 DD
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 Eathel A. Johnston
Address Rte. 1, Box A-14
Alma, WV 26320
 - (b) Name ---
Address _____
 - (c) Name ---
Address _____
- 5) (a) Coal Operator:
Name same ---
Address _____
- (b) Coal Owner(s) with Declaration
Name same
Address _____
- Name _____
Address _____
- (c) Coal Lessee with Declaration
Name ---
Address _____
- 6) Inspector Glen Robinson
Address Rt 1, #6 Mt. Pleasant Est.
Mineral Wells, WV 26150
Telephone (304)- 489-9162

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 5 on the above named parties, by:

- _____ Personal Service (Affidavit 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 DRILLING APPALACHIAN CORPORATION

By: Kenneth R. Mason

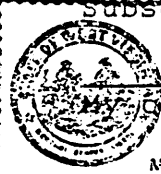
Its: President

Address PO Box 99

Alma, WV 26320-0099

Telephone (304) 758-4638

Subscribed and sworn before me this 12th day of October, 1989



OFFICIAL SEAL
NOTARY PUBLIC
STATE OF WEST VIRGINIA
My Commission Expires Jan. 28, 1997
P. O. Box 48
Alma, West Virginia 26320
My Commission Expires Jan. 28, 1997

Notary Public



Well No. #1
Farm Kenneth Johnston
API # 47-095-0942
Date August 20, 1981

STATE OF WEST VIRGINIA
OFFICE OF OIL AND GAS - DEPARTMENT OF MINES

OIL AND GAS WELL PERMIT APPLICATION

WELL TYPE: Oil X / Gas X /

(If "Gas", Production ___ / Underground storage ___ / Deep ___ / Shallow ___ /

LOCATION: Elevation: 885' Watershed: Conaway Run
District: Centerville County: Tyler Quadrangle: Shirley 7.5'

WELL OPERATOR L&M Petroleum Co.
Address P.O. Box 89
Reno, Ohio 45773

DESIGNATED AGENT David Clovis
Address P.O. Box 288
Parkersburg, WV 26101

OIL AND GAS ROYALTY OWNER Kenneth P. Johnston
Address Alma, WV 26320

COAL OPERATOR N/A
Address _____

Acreage 108 acres

COAL OWNER(S) WITH DECLARATION ON RECORD:
NAME N/A
Address _____

SURFACE OWNER Kenneth P. Johnston
Address Alma, WV 26320

Acreage 108 acres

NAME _____
Address _____

FIELD SALE (IF MADE) TO:
NAME N/A
Address _____

COAL LESSEE WITH DECLARATION ON RECORD:
NAME N/A
Address _____

OIL AND GAS INSPECTOR TO BE NOTIFIED:
NAME Phillip L. Tracy
Address Rt. 23
Alma, WV 26320
Telephone 1-304-758-4573

RECEIVED

AUG 24 1981

OIL AND GAS DIVISION
WV DEPARTMENT OF MINES

The undersigned well operator is entitled to operate for oil or gas purposes at the above location under a deed ___ / lease X / other contract ___ / dated Oct. 30 1972, to the undersigned well operator from Kenneth P. Johnston & Ethel A. Johnston.

(If deed, lease, or other contract has been recorded:)

Recorded on March 19, 1973, in the office of the Clerk of County Commission of

Tyler County, West Virginia, in Deed Book at page 200. A permit is requested as follows:

PROPOSED WORK: Drill X / Drill Deeper ___ / Redrill ___ / Fracture or stimulate ___ / Plug off old formation ___ / Perforate new formation ___ / Other physical change in well (specify) _____

--planned as shown on the work order on the reverse side hereof.

The above named coal operator, coal owner(s), and coal lessee are hereby notified that any objection they wish to make or are required to make by Code §22-4-3 must be filed with the Department of Mines within fifteen (15) days after receipt of this Application by the Dept. Copies of this Permit Application and the enclosed plat and reclamation plan have been mailed by registered mail or delivered by hand to the above named coal operator, coal owner(s), and coal lessees on or before the day of the mailing or delivery of this Application to the Department of Mines at Charleston, West Virginia.

PLEASE SUBMIT COPIES OF ALL GEOPHYSICAL LOGS DIRECTLY TO:

WEST VIRGINIA OIL AND GAS CONSERVATION COMMISSION
1113 WASHINGTON ST., E.
CHARLESTON, WV 25311
Telephone - 304/348-3092

L&M Petroleum Co.
Well Operator

By: Jeanne Cagan
Its: Vice President

BLANKET BOND

(Revised 3-81)

PROPOSED WORK ORDER

THIS IS AN ESTIMATE ONLY:
ACTUAL INFORMATION MUST BE SUBMITTED ON FORM IV-35 UPON COMPLETION

DRILLING CONTRACTOR (IF KNOWN) _____

Address _____

GEOLOGICAL TARGET FORMATION Devonian Shale

Estimated depth of completed well 4500' feet. Rotary X / Cable tools /
Approximate water strata depths: Fresh, N/A feet; salt, N/A feet.
Approximate coal seam depths: N/A
Is coal being mined in this area: Yes / No X /

CASING AND TUBING PROGRAM

CASING OR TUBING TYPE	SPECIFICATIONS				FOOTAGE INTERVALS		CEMENT FILL- UP OR SACKS Cubic ft.	PACKERS	
	Size	Grade	Weight per ft	New	Used	For Drill- ling			Left in Well
Conductor	85/8			X		250'	250'	To surface	Kinds
Fresh water									
Coal									Sizes
Intermed.									
Production Tubing		4 1/2"		X		4500'	4500'	450 sacks	Depths set
Liners								according to Rule 15.01	Perforations:
									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 forms 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.

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 4-25-82.

[Signature]
Deputy Director - Oil & Gas Division

[Signature]

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 within fifteen (15) days of receipt thereof:

W A I V E R

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 of the West Virginia Code and the governing regulations.

Date: _____, 19____.

By: _____

Its: _____