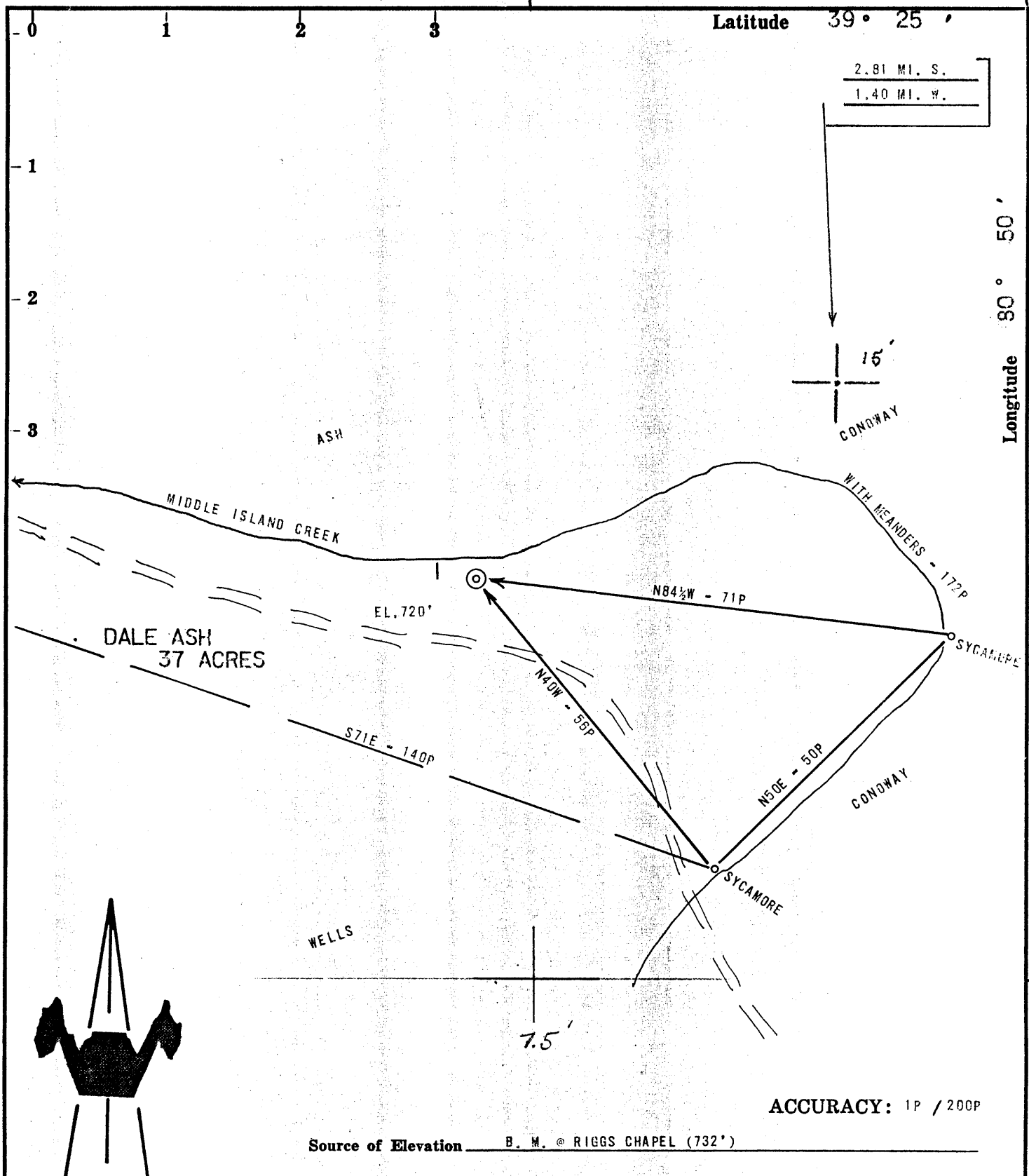


7,400'

11/18/1988



ACCURACY: 1P / 200P

Source of Elevation B. M. @ RIGGS CHAPEL (732')

- New Location
- Drill Deeper
- Abandonment
- Fracture
- Redrill

I, the undersigned, hereby certify that this map is correct to the best of my knowledge and belief and shows all the information required by paragraph 6 of the rules and regulations of the oil and gas section of the mining laws of West Virginia.

ISSUED 7-14-15  
3/14/88

*Chet Waterman*

Company: Appalachian Energy Dev  
 Address: Belington WV  
 Farm: DALE ASH  
 Tract: \_\_\_\_\_ Acres 37 Lease No. \_\_\_\_\_  
 Well (Farm) No. 1 Serial No. \_\_\_\_\_  
 Elevation (Spirit Level) 720'  
 Quadrangle WEST UNION 15' / Shirley 7.5'  
 County TYLER District CENTERVILLE  
 Engineer CHET WATERMAN  
 Engineer's Registration No. 3788  
 File No. 70003-419 Drawing No. \_\_\_\_\_  
 Date 10/19/70 Scale 1" = 200'

STATE OF WEST VIRGINIA  
DEPARTMENT OF MINES  
OIL AND GAS DIVISION  
CHARLESTON

WELL LOCATION MAP

FILE NO. 141-428-D-1

+ Denotes location of well on United States Topographic Maps, scale 1 to 62,500, latitude and longitude lines being represented by border lines as shown.

- Denotes one inch spaces on border line of original tracing. 47-095 MAR 18 1988

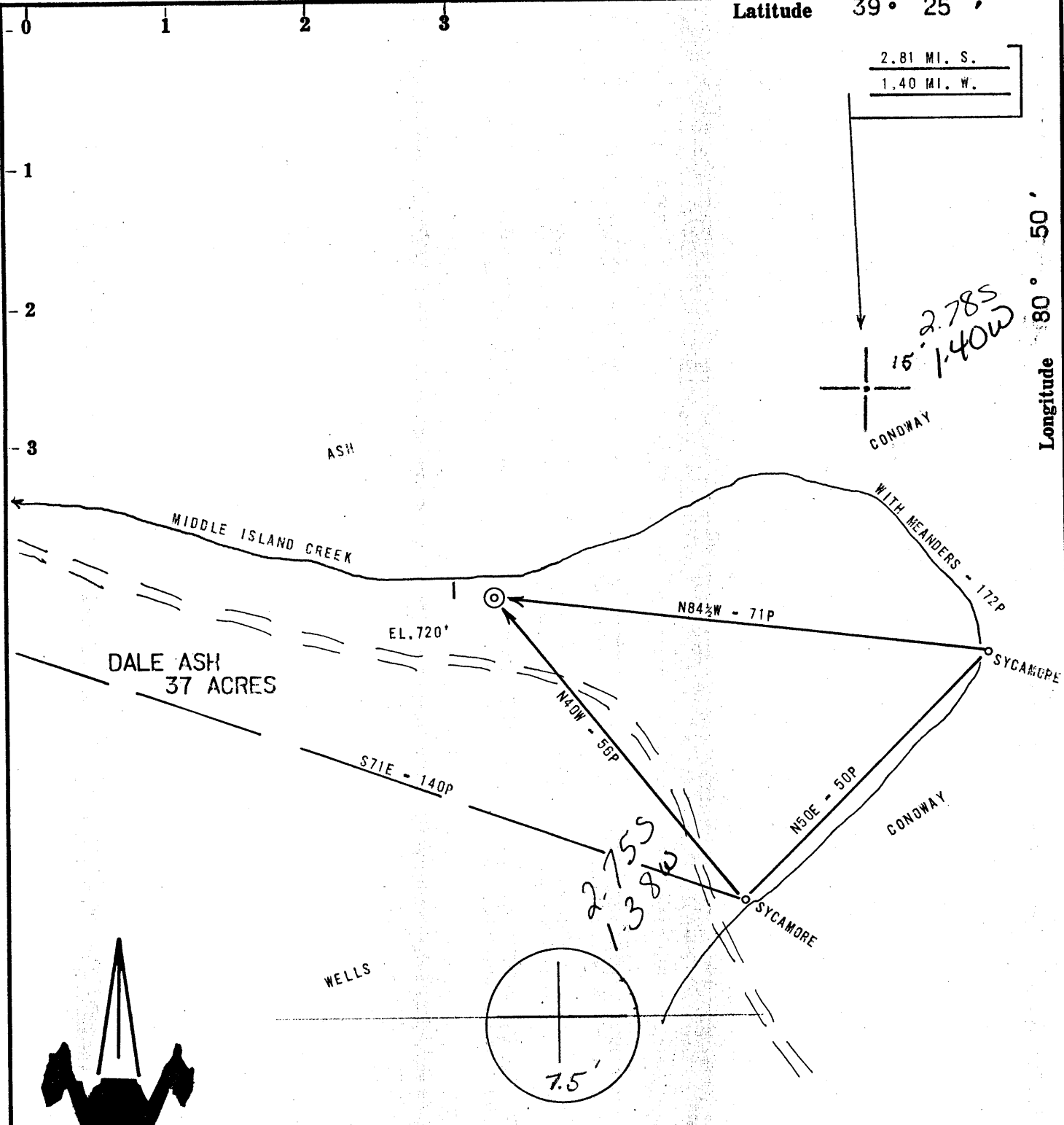
Bowson 4900'

14,600'

10-11-1988

7,400' 11/18/70CEN

Latitude 39° 25'



14,600'

ACCURACY: 1P / 200P

Source of Elevation B. M. @ RIGGS CHAPEL (732')

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*Chet Waterman*

- New Location
- Drill Deeper
- Abandonment  ISSUED 7-14-75
- Fracture
- Redrill

Company Appalachian Energy DEV 391  
 Address BELINGTON WV  
 Farm DALE ASH  
 Tract \_\_\_\_\_ Acres 37 Lease No. \_\_\_\_\_  
 Well (Farm) No. 1 Serial No. \_\_\_\_\_  
 Elevation (Spirit Level) 720' C5 607  
 Quadrangle WEST UNION 15' / Shirley 7.5'  
 County TYLER District CENTERVILLE 1  
 Engineer CHET WATERMAN  
 Engineer's Registration No. 3788  
 File No. 70003-419 Drawing No. \_\_\_\_\_  
 Date 10/19/70 Scale 1" = 20P

STATE OF WEST VIRGINIA  
DEPARTMENT OF MINES  
OIL AND GAS DIVISION  
CHARLESTON

WELL LOCATION MAP  
FILE NO. Tyl-428-D

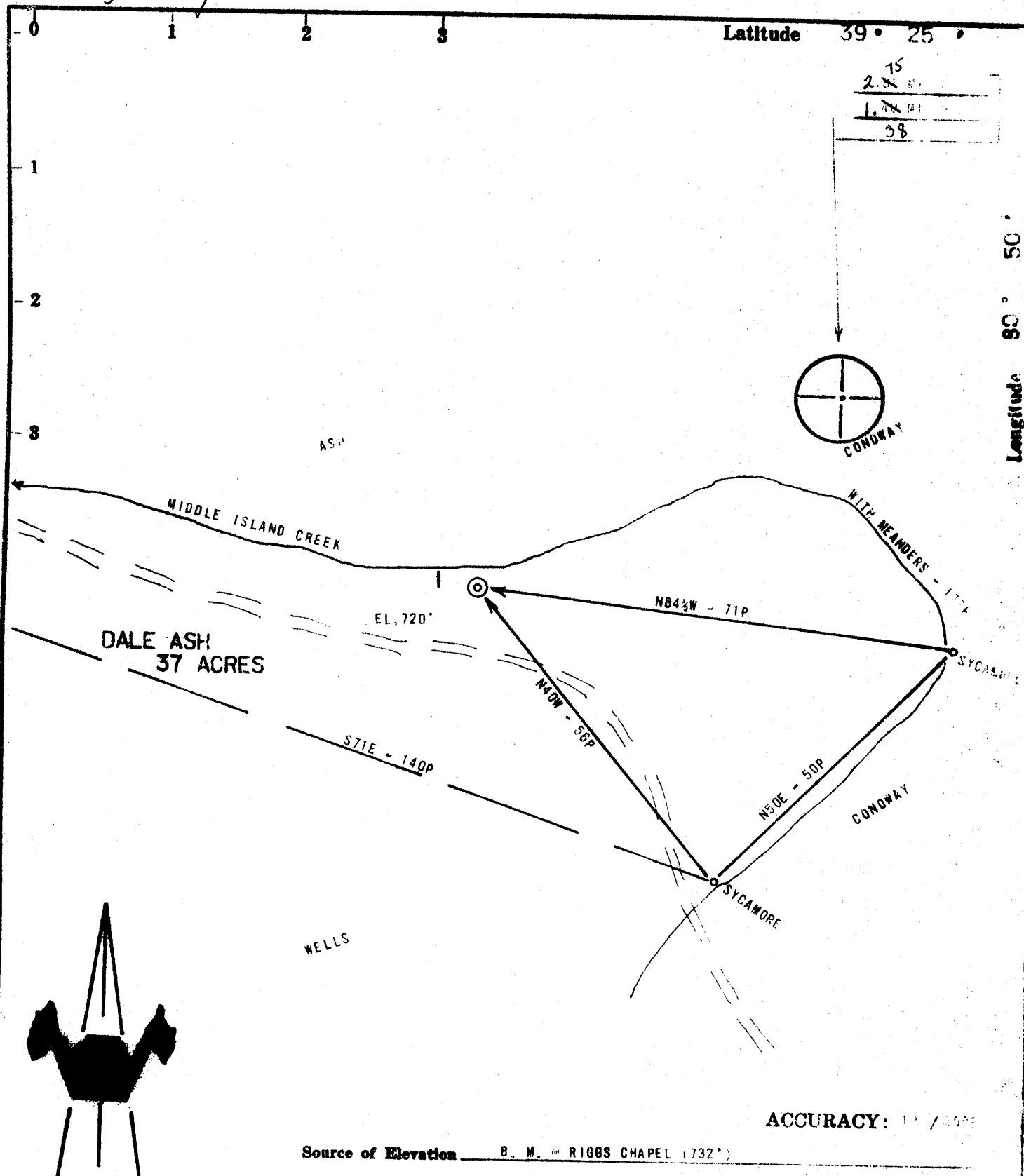
+ Denotes location of well on United States Topographic Maps, scale 1 to 62,500, latitude and longitude lines being represented by border lines as shown.

- Denotes one inch spaces on border line of original tracing. 47-095

-OWND-60

Wilbur

(92)



- New Location
- Drill Deeper
- Abandonment  ISSUED 7-14-75
- Fracture
- Redrill

I, the undersigned, hereby certify that this map is correct to the best of my knowledge and belief and shows all the information required by paragraph 6 of the rules and regulations of the oil and gas section of the mining laws of West Virginia.

*Chet Waterman*

Company	JACK E. & DOROTHEA WEBBER	
Address	WEST UNION WV 26456	
Farm	DALE ASH	
Tract	Acres 37	Lease No.
Well (Farm) No.	1	Serial No.
Elevation (Spirit Level)	720'	
Quadrangle	WEST UNION C	
County	TYLER	District CENTERVILLE
Engineer	CHET WATERMAN	
Engineer's Registration No.	3788	
File No.	70003-419	Drawing No.
Date	10/19/70	Scale 1" = 20P

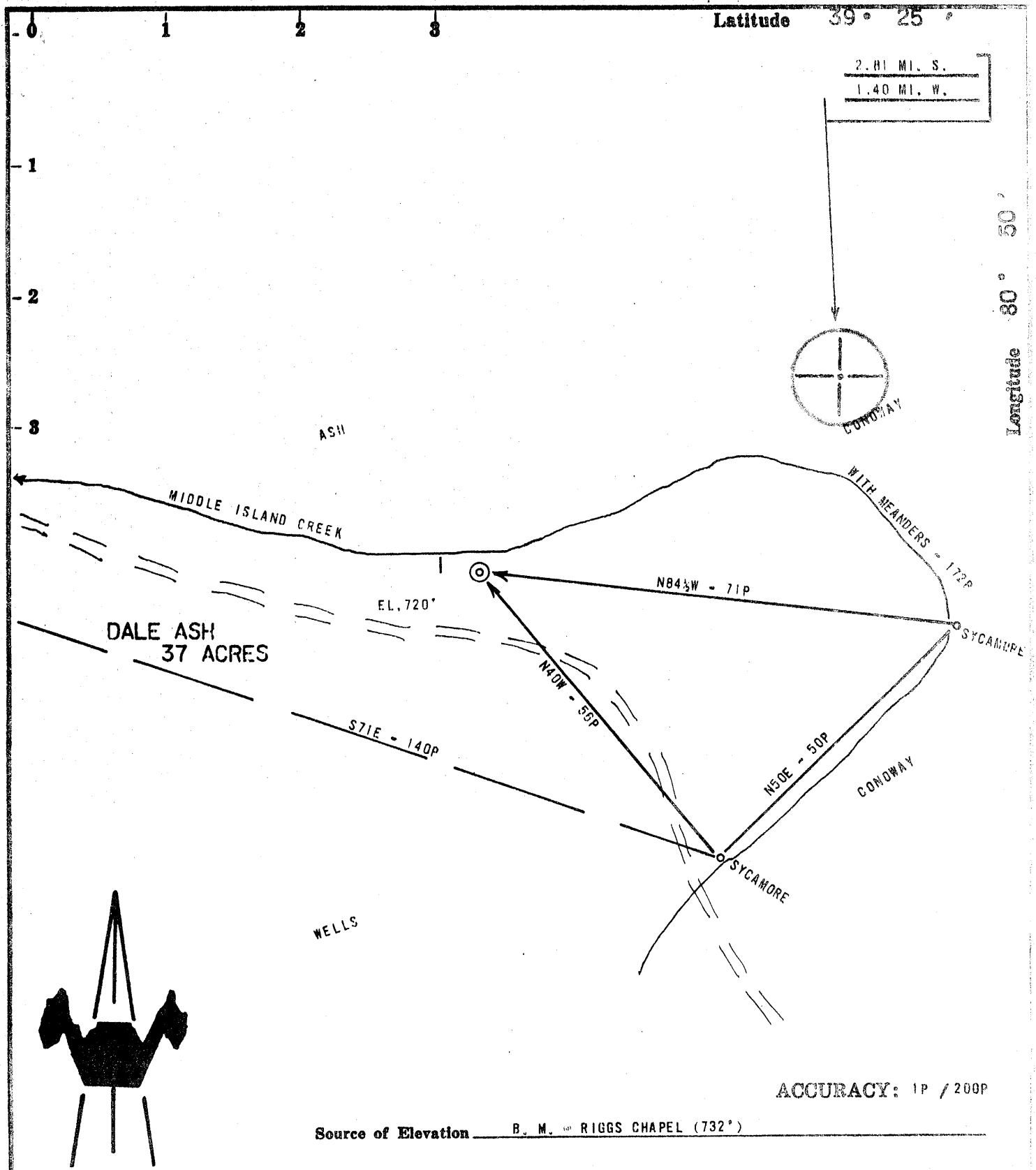
STATE OF WEST VIRGINIA  
 DEPARTMENT OF MINES  
 OIL AND GAS DIVISION  
 CHARLESTON

**WELL LOCATION MAP**  
 FILE NO. *428-P*

+ Denotes location of well on United States Topographic Maps, scale 1 to 62,500, latitude and longitude lines being represented by border lines as shown.

— Denotes one inch spaces on border line of original tracing.

47-095



ACCURACY: 1P / 200P

Source of Elevation B. M. RIGGS CHAPEL (732')

I, the undersigned, hereby certify that this map is correct to the best of my knowledge and belief and shows all the information required by paragraph 6 of the rules and regulations of the oil and gas section of the mining laws of West Virginia.

- New Location
- Drill Deeper
- Abandonment
- Fracture
- Redrill

*Chet Waterman*

Company JOHN WARREN DBA WARREN DRILLING COMPANY  
 Address OKLAHOMA CITY, OKLA.  
 Farm DALE ASH  
 Tract \_\_\_\_\_ Acres 37 Lease No. \_\_\_\_\_  
 Well (Farm) No. 1 Serial No. \_\_\_\_\_  
 Elevation (Spirit Level) 720'  
 Quadrangle WEST UNION  
 County TYLER District CENTERVILLE  
 Engineer CHET WATERMAN  
 Engineer's Registration No. 3788  
 File No. 70003-419 Drawing No. \_\_\_\_\_  
 Date 10/19/70 Scale 1" = 20P

STATE OF WEST VIRGINIA  
 DEPARTMENT OF MINES  
 OIL AND GAS DIVISION  
 CHARLESTON

WELL LOCATION MAP  
 FILE NO. Lepl-428

+ Denotes location of well on United States Topographic Maps, scale 1 to 62,500, latitude and longitude lines being represented by border lines as shown.

— Denotes one inch spaces on border line of original tracing.



WR-35

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State of West Virginia

DEPARTMENT OF ENERGY  
Oil and Gas Division

DIVISION OF OIL & GAS  
DEPARTMENT OF ENERGY

Date Sept 24 1987  
Operator's  
Well No. 1  
Farm Ash  
API No. 47 - 095 - 0428 D

WELL OPERATOR'S REPORT  
OF  
DRILLING, FRACTURING AND/OR STIMULATING, OR PHYSICAL CHANGE

WELL TYPE: Oil\_\_\_/ Gas~~XX~~/ Liquid Injection\_\_\_/ Waste Disposal\_\_\_/  
(If "Gas," Production\_\_\_/ Underground Storage\_\_\_/ Deep\_\_\_/ Shallow~~XX~~/)

LOCATION: Elevation: 720' Watershed Middle Island Creek  
District: CentervilleCounty Tyler Quadrangle Shirley 7.5

COMPANY Appalachian Energy Dev., Inc.  
ADDRESS P.O. Box 902 Belington, WV 26250  
DESIGNATED AGENT George Williams  
ADDRESS RT. 2 Box 499 Grafton WV 26354  
SURFACE OWNER Dale Ash  
ADDRESS Central Station, WV  
MINERAL RIGHTS OWNER Dale Ash  
ADDRESS Central Station, WV  
OIL AND GAS INSPECTOR FOR THIS WORK Robert Lowther ADDRESS Middlebourne, WV  
PERMIT ISSUED 10/17/86  
DRILLING COMMENCED 10/21/86  
DRILLING COMPLETED 11/15/86  
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.	30	30	
18-10"	250	250	
9 5/8			
8 5/8	630		
7 65/8	1558		
5 1/2			
4 1/2	2040	640	
3			
Drill 2	Collars	300'	
Liners used			

GEOLOGICAL TARGET FORMATION Benson Depth 5000 feet  
Depth of completed well \_\_\_\_\_ feet Rotary\_\_\_/ Cable Tools\_\_\_  
Water strata depth: Fresh \_\_\_\_\_ feet; Salt \_\_\_\_\_ feet  
Coal seam depths: \_\_\_\_\_ Is coal being mined in the area? \_\_\_\_\_

OPEN FLOW DATA

Producing formation \_\_\_\_\_ Pay zone depth \_\_\_\_\_ feet  
Gas: Initial open flow 5 ✓ 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 measurement) after \_\_\_\_\_ 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

OCT 5 1987

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

Cleaned out to 1396' to top of 4½ left in well. Run 4½ to 1390'  
 Used 15 sacks of cement. Lost 10 drill collars when drilling out  
 cement at 1400'

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 SEP 29 1987

DIVISION OF OIL & GAS  
 DEPARTMENT OF ENERGY

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS
					Including indication of all fresh and salt water, coal, oil and gas
Gravel & sand			0	60	
Lime			60	70	
Red Rock			70	100	
Shale		Gr.	100	138	
Red Rock			138	172	
Lime			172	182	
Red Rock			182	190	
Shale			190	232	
Red Rock			232	240	
Sand			240	305	
Shale			305	324	
Sand			324	351	
Shale			351	370	
Lime			370	401	
Shale			401	442	
Red Rock			442	470	
Shale			470	495	
Red Rock			495	550	
Shale			550	600	
Red Rock			600	610	
Lime			610	620	
Shale			620	705	
Lime			705	800	
Shale			800	880	
Red Rock			880	890	
Lime			890	940	
Shale, Lime, shells			940	1103	
Lime			1103	1160	
Shale			1160	1168	
Lime		Black	1168	1180	
Sand			1180	1280	
Shale			1280	1358	
Lime			1358	1366	
Shale			1366	1490	
Sand			1490	1550	Maxson
Shale			1550	1595	
Lime			1595	1680	Big Lime
Sand & Lime			1680	1687	
Sand			1687	1810	
Shale & Silt			1810	2052	

(Attach separate sheets as necessary) Oil 1705-13 Big Injun  
 Oil & Gas

Application Energy Res. Div.  
 Well Operator

By: Marge Paulson

Date: Sept 24, 1987

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."

29-30  
1-34



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JUN 25 1971

STATE OF WEST VIRGINIA  
DEPARTMENT OF MINES  
OIL AND GAS WELLS DIVISION 5

Rotary   
Spudder   
Cable Tools   
Storage  E: NOEL

Quadrangle West Union

WELL RECORD

Permit No. TYL 428

Oil or Gas Well **GAS**  
(KIND)

Company JOHN R. WARREN DBA WARREN DRG. CO.  
Address 1215 UNITED FOUNDERS BUILDING  
Oklahoma City, Okla. 73112  
Farm Dale Ash Acres 37  
Location (waters) Middle Island Creek  
Well No. One (1) Elev. 720'  
District Centerville County TYLER  
The surface of tract is owned in fee by  
Address  
Mineral rights are owned by Dale & Gladis Ash, Jr.  
Address Central Station, W. Va.

Drilling commenced 11/23/70  
Drilling completed 1/20/71  
Date Shot From To  
With

Open Flow /10ths Water in Inch  
/10ths Merc. in Inch  
Volume show Cu. Ft.  
Rock Pressure lbs. hrs.  
Oil bbls., 1st 24 hrs.

WELL ACIDIZED (DETAILS)

WELL FRACTURED (DETAILS) 20-1 B/M at 3086psi, 30,000# 20-40, 15,000# 10-20, 3000# CaCl2  
250 gals. reg mud acid.

RESULT AFTER TREATMENT (Initial open Flow or bbls.) 202,000 cu.ft./day 202,000 202 MCFGPI

ROCK PRESSURE AFTER TREATMENT 820 psi HOURS 18

Fresh Water 25, 100, 300 Feet Salt Water 1260, 1530 Feet  
Producing Sand 2nd Weir Depth 1975-1990'

Casing and Tubing	Used in Drilling	Left in Well	Packers
Size			Kind of Packer
16	30'	30'	
13			
10	250'	250'	Size of
8 1/4	630'		
6 5/8	1558'		Depth set
5 3/16			
4 1/2	2040'	2040'	Perf. top 1986
3			Perf. bottom 1988
2			Perf. top
Liners Used			Perf. bottom

Attach copy of cementing record.  
CASING CEMENTED 4 1/2" SIZE 2040 No. Ft. 1/21/71 Dat  
Amount of cement used (bags) 35 sks. Type I  
Name of Service Co. Halliburton  
COAL WAS ENCOUNTERED AT None FEET INCHES  
FEET INCHES FEET INCHES  
FEET INCHES FEET INCHES

Formation	Color	Hard or Soft	Top	Bottom	Oil, Gas or Water	Depth	Remarks
gravel&sand			0	60			
lime			60	70			
red rock			70	100			
shale	gr.		100	138			
red rock			138	158			
red rock			158	172			
lime			172	182			
red rock			182	190			
shale			190	200			
shale			200	232			
red rock			232	240			
sand			240	305			
shale			305	324			
sand			324	351			
shale			351	370			
lime			370	401			
shale			401	442			
red rock			442	470			
shale			470	495			
red rock			495	550			
shale			550	600			
red rock			600	610			
lime			610	620			
shale			620	705			
lime			705	800			
					OVER		

(over)

JUL 2 1971

Formation	Color	Hard or Soft	Top	Bottom	Oil, Gas or Water	Depth Found	Remarks
shale			800	880			
red rock			880	890			
lime			890	940			
shale, lime shells			940	1103			
lime			1103	1160			
shale			1160	1168			
lime	black		1168	1180			
sand			1180	1280			
shale			1280	1358			
lime			1358	1366			
shale			1366	1490			
sand			1490	1550			Maxon
shale			1550	1595			
lime			1595	1680			Big Line
sand&lime			1680	1687			
sand			1687	1810	oil	1705-13	Big Injun
shale			1810	1875	oil	1798-05	
sand			1875	2032	oil	1985-95	Weir
shale&silt			2032	2052	oil&gas	2000-10	
TD			2052				

Date 6/20/71, 19

APPROVED WARREN DRILLING COMPANY, Owner

By John H. Dain Consultant  
(Title)



**RECEIVED**  
OCT 8 1986



1) Date: Oct 6, 19 86  
2) Operator's Well No. Ash # 1  
3) API Well No. 47 State 095 County 428-D Permit

DIVISION OF OIL & GAS DEPARTMENT OF ENERGY  
STATE OF WEST VIRGINIA DEPARTMENT OF ENERGY, OIL AND GAS DIVISION  
**APPLICATION FOR A WELL WORK PERMIT**

- 4) WELL TYPE: A Oil  Gas   
B (If "Gas", Production  Underground storage  Deep  Shallow )
- 5) LOCATION: Elevation: 720' Watershed: Middle Island Creek  
District: Centerville 6971 County: Tyler Quadrangle: Shirley 7.5' 606
- 6) WELL OPERATOR Appalachian Energy CODE: 2325 7) DESIGNATED AGENT George Williams  
Address Box 902 Address Box 902  
Belington WV Belington WV
- 8) OIL & GAS INSPECTOR TO BE NOTIFIED  
Name Bob Lowther 9) DRILLING CONTRACTOR:  
Address General Delivery Name \_\_\_\_\_  
Middlebourne WV Address \_\_\_\_\_
- 10) PROPOSED WELL WORK: Drill  Drill deeper  Redrill  Stimulate   
Plug off old formation  Perforate new formation   
Other physical change in well (specify) \_\_\_\_\_
- 11) GEOLOGICAL TARGET FORMATION, Benson 435
- 12) Estimated depth of completed well, 4900
- 13) Approximate strata depths: Fresh, previous cased feet; off salt, \_\_\_\_\_ feet.
- 14) Approximate coal seam depths: None Is coal being mined in the area? Yes  No

15) CASING AND TUBING PROGRAM

CASING OR TUBING TYPE	Size	SPECIFICATIONS		FOOTAGE INTERVALS		CEMENT FILL-UP OR SACKS (Cubic feet)	PACKERS
		Grade	Weight per Ft.	New	Used		
Conductor	14						
Fresh water	10						Kinds
Coal	8 1/4						CTS
Intermediate	6 3/8						CTS per Route 15.05
Production	4 1/2						Depths set
Tubing	2 3/8						Perforations:
Liners							Top Bottom

OFFICE USE ONLY  
DRILLING PERMIT

Permit number 47-095-0428-D Date October 17 19 86

This permit covering the well operator and well location shown below is evidence of permission granted to drill in accordance with the pertinent legal requirements subject to the conditions contained herein and on the reverse hereof. Notification must be given to the District Oil and Gas Inspector. (Refer to No. 8) Prior to the construction of roads, locations and pits for any permitted work. In addition, the well operator or his contractor shall notify the proper district oil and gas inspector 24 hours before actual permitted work has commenced.)

The permitted work is as described in the Notice and Application, plat, and reclamation plan, subject to any modifications and conditions specified on the reverse hereof.  
Permit expires October 17, 1988 unless well work is commenced prior to that date and prosecuted with due diligence.

Bond:	Agent: <u>ALB</u>	Plat: <u>187</u>	Casing: <u>187</u>	Fee: <u>326</u> <u>148</u>	WOP: <u>AS</u>	SAE: <u>AS</u>	Other:
-------	-------------------	------------------	--------------------	-------------------------------	----------------	----------------	--------

NOTE: Keep one copy of this permit posted at the drilling location.

[Signature]  
Director, Division of Oil and Gas

See the reverse side of the APPLICANT'S COPY for instructions to the well operator.

File

**RECEIVED**  
MAY 17 1988

DIVISION OF OIL & GAS  
DEPARTMENT OF ENERGY

AFFIDAVIT OF PLUGGING AND FILLING WELL

AFFIDAVIT SHOULD BE MADE IN TRIPPLICATE, one copy mailed to the Division, one copy to be retained by the Well Operator and the third copy (and extra copies if required) should be mailed to each coal operator at their respective addresses.

N/A	APPALACHIAN ENERGY DEVELOPMENT, INC.,
Coal Operator or Owner	Name of Well Operator
Address	Route 2, Box 499, Grafton, WV 26354
Coal Operator or Owner	Complete Address
Address	Ash: West Union Quad.15°, Shirley 7.519
Coal Operator or Owner	WELL AND LOCATION
Address	Centerville District
Randall Ash	Tyler County
Lease or Property Owner	WELL NO. 47-095-0428D
State Route 2, Greenwood, WV	Dale Ash Farm
Address	

STATE INSPECTOR SUPERVISING PLUGGING Robert Lowther

AFFIDAVIT

STATE OF WEST VIRGINIA,  
County of \_\_\_\_\_

ss:

Norman J. Olley and John Clowser

being first duly sworn according to law depose and say that they are experienced in the work of plugging and filling oil and gas wells and were employed by Appalachian Energy Development, Inc., well operator, and participated in the work of plugging and filling the above well, that said work was commenced on the 4th day of May, 19 88, and that the well was plugged and filled in the following manner:

Sand or Zone Record	Filling Material	Plugs Used	Casing
Formation		Size & Kind	CSG PULLED / CSG LEFT IN
1265' - Surface	Cement	Cement	4 1/2" / 8 5/8"
*pulled 1265' of 4 1/2" pipe. As 4 1/2" was pulled, cement was pumped into 8 5/8", insuring solid fill to surface.			
Coal Seams		Description of Monument	
(Name) None		Iron pipe embedded in 8 5/8 C.	
(Name)		& cement to extend 3' above	
(Name)		ground. Steel plaque welded to	
(Name)		pipe, bearing operator name, API#	
		well name & plug date.	

and that the work of plugging and filling said well was completed on the 4th day of May, 1988.

And further deponents saith not.

Sworn to and subscribed before me this 13th day of May, 19 88.

Norman J. Olley  
John Clowser  
Flora E. Wellin  
Notary Public

My commission expires:

March 7, 1993

Permit No. 095-0428-P

MAY 20 1988