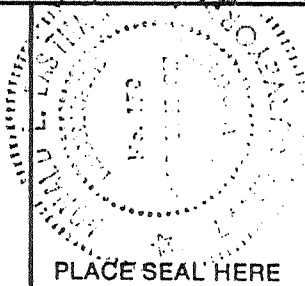


(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS

FILE NO. \_\_\_\_\_  
DRAWING NO. \_\_\_\_\_  
SCALE 1" = 2,000'  
MINIMUM DEGREE OF ACCURACY 1: 79,905  
PROVEN SOURCE OF ELEVATION  on S.W. headwall of culvert east of Ragland. Elev. = 926.40

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.  
(SIGNED) Ronald L. Cash  
R.P.E. \_\_\_\_\_ L.L.S. 150



**STATE OF WEST VIRGINIA**  
DEPARTMENT OF ENERGY  
OIL AND GAS DIVISION



DATE Jan. 11, 19 91  
OPERATOR'S WELL NO. D-30R  
API WELL NO. 47-059-1145-Racine  
STATE COUNTY PERMIT

WELL TYPE: OIL \_\_\_ GAS  LIQUID INJECTION \_\_\_ WASTE DISPOSAL \_\_\_  
(IF "GAS,") PRODUCTION  STORAGE \_\_\_ DEEP \_\_\_ SHALLOW   
LOCATION: ELEVATION 1,673.99 WATERSHED Big Pigeonroost of Rockhouse Fork  
DISTRICT Lee 4 COUNTY Mingo  
QUADRANGLE Delbarton  
SURFACE OWNER Georgia-Pacific Corporation ACREAGE 6,614.90  
OIL & GAS ROYALTY OWNER Island Creek Coal Company LEASE ACREAGE 35,053.47  
LEASE NO. C-4473  
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 ABANDON \_\_\_ CLEAN OUT AND REPLUG \_\_\_  
TARGET FORMATION Devonian Shale ESTIMATED DEPTH 5,404' KB  
WELL OPERATOR Ashland Exploration, Inc. DESIGNATED AGENT Forrest Burkett  
ADDRESS P.O. Box 391 Ashland, Ky. 41114 ADDRESS P.O. Box 379 Brantton, W.V. 24818

COUNTY NAME  
PERMIT

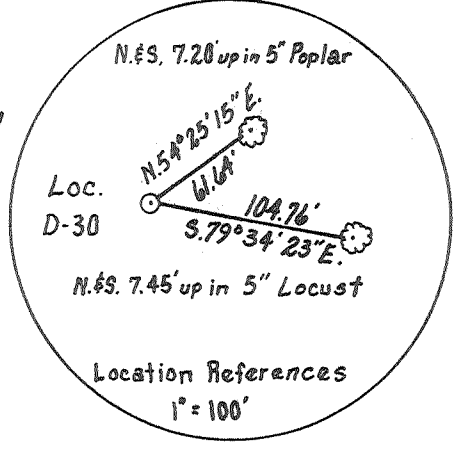
MAY 6 1991

8,400

LATITUDE 37° 42' 30"

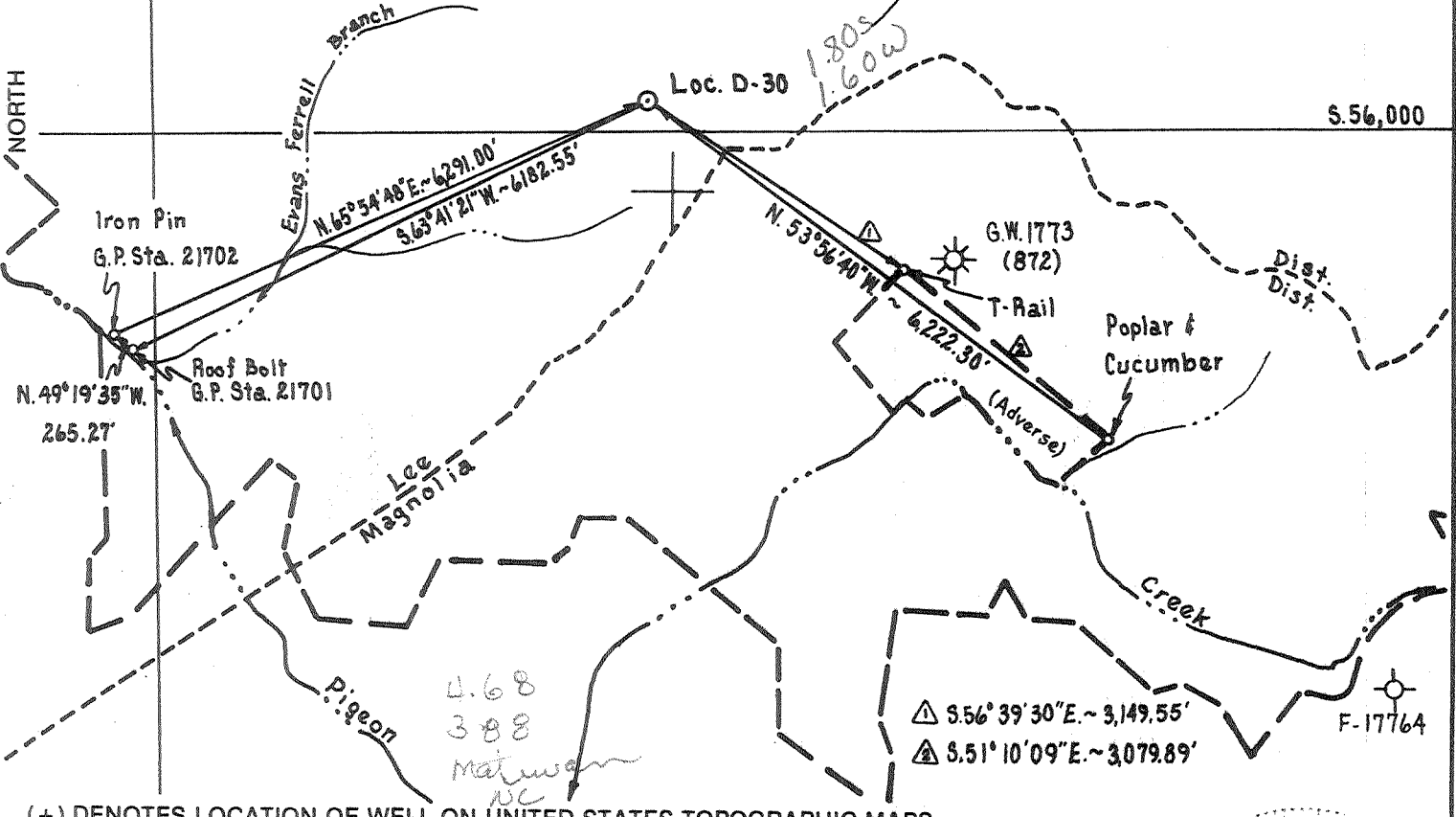
LONGITUDE 82° 07' 30"

*Janice 2/20/91*



Island Creek Coal Company  
 Coordinates for Well D-30  
 S. 55, 648.17 W. 38, 680.41

Island Creek Coal Co.  
 C-4473 35,053.47 ac.



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS

FILE NO. \_\_\_\_\_  
 DRAWING NO. \_\_\_\_\_  
 SCALE 1" = 2,000'  
 MINIMUM DEGREE OF ACCURACY 1: 79,905  
 PROVEN SOURCE OF ELEVATION  on S.W. headwall of culvert east of Ragland. Elev. = 926.40

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.  
 (SIGNED) Ronald L. East  
 R.P.E. \_\_\_\_\_ L.L.S. 150



STATE OF WEST VIRGINIA  
 DEPARTMENT OF ENERGY  
 OIL AND GAS DIVISION



DATE Jan. 11, 19 91  
 OPERATOR'S WELL NO. D-30; S.N. 133971  
 API WELL NO. \_\_\_\_\_

WELL TYPE: OIL \_\_\_ GAS X LIQUID INJECTION \_\_\_ WASTE DISPOSAL \_\_\_  
 (IF "GAS,") PRODUCTION X STORAGE \_\_\_ DEEP \_\_\_ SHALLOW X

LOCATION: ELEVATION 1,964.12 WATERSHED Big Pigeonroost of Rockhouse Fork  
 DISTRICT Lee COUNTY Mingo

QUADRANGLE Delbarton  
 SURFACE OWNER Georgia-Pacific Corporation ACREAGE 6,614.90  
 OIL & GAS ROYALTY OWNER Island Creek Coal Company LEASE ACREAGE 35,053.47

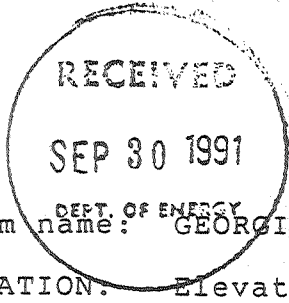
LEASE NO. C-4473  
 PROPOSED WORK: DRILL X CONVERT \_\_\_ DRILL DEEPER \_\_\_ REDRILL \_\_\_ FRACTURE OR STIMULATE \_\_\_ PLUG OFF OLD FORMATION \_\_\_ PERFORATE NEW FORMATION \_\_\_ OTHER PHYSICAL CHANGE IN WELL (SPECIFY) \_\_\_\_\_

PLUG AND ABANDON \_\_\_ CLEAN OUT AND REPLUG \_\_\_

TARGET FORMATION Devonian Shale ESTIMATED DEPTH 5,694' K.B.

WELL OPERATOR Ashland Exploration, Inc. DESIGNATED AGENT Forrest Burkett  
 ADDRESS P.O. Box 391 ADDRESS P.O. Box 379  
Ashland, Ky. 41114 Branton, W.V. 24818

COUNTY NAME  
 PERMIT



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

Reviewed JMB  
Recorded \_\_\_\_\_

Well Operator's Report of Well Work

Farm name: DEPT. OF ENERGY GEORGIA PACIFIC CORP Operator Well No.: D-30 SN 133971

LOCATION: Elevation: 1673.99 Quadrangle: DELBARTON

District: LEE County: MINGO  
Latitude: 8250 Feet South of 37 Deg. 42Min. 30 Sec.  
Longitude 7450 Feet West of 82 Deg. 7 Min. 30 Sec.

Company: ASHLAND EXPLORATION, INC.  
P.O. BOX 391, A1-6  
ASHLAND, KY 41114-0391

Agent: FORREST BURKETT

Inspector: TIM BENNETT  
Permit Issued: 05/03/91  
Well work Commenced: 7-1-91  
Well work Completed: 8-27-91  
Verbal Plugging \_\_\_\_\_  
Permission granted on: \_\_\_\_\_  
Rotary  Cable \_\_\_\_\_ Rig  
Total Depth (feet) 5370  
Fresh water depths (ft) 183

Salt water depths (ft) 4" stream @ 2260', Damp @ 2010'

Is coal being mined in area (Y/N)? N  
Coal Depths (ft): Open Mine @ 825'

Casing & Tubing Size	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
16"	42'	42'	18.3
11 3/4"	883'	883'	470
8 5/8"	2922'	2922'	963
5 1/2"	5354'	5354'	692
1.9" @ 5207'			

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OCT 22 91

OPEN FLOW DATA

Dev. Shale/Berea

Division of Energy 3751-5298  
Oil and Gas Section 2190-3128

Producing formation Big Lime Pay zone depth (ft) \_\_\_\_\_  
Gas: Initial open flow 103 MCF/d Oil: Initial open flow 0 Bbl/d  
Final open flow 1171 MCF/d Final open flow 0 Bbl/d  
Time of open flow between initial and final tests 3 Hours  
Static rock Pressure 720# psig (surface pressure) after 72 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: ASHLAND EXPLORATION, INC.

By: James L. Stephens James L. Stephens, Engr. Tech  
Date: September 25, 1991

SEP 27 1991

<u>Formation or Rock Type</u>	<u>Top</u>	<u>Base</u>
Breathitt Formation	0	1534
Lee Formation	1534	2265
Pennington Formation	2265	2837
U. Maxton 2429-2467		
M. Maxton 2612-2712		
L. Maxton 2783-2822		
Little Lime	2837	2892
Big Lime	2892	3150
Borden Formation	3150	3718
Sunbury Shale	3718	3748
Berea	3748	3807
Devonian Shale	3807	5360
Onondaga LS	5360	TD
DTD 5370		
LTD 5372		

Well Treatment:

Perf Rhinestreet 11H/5173-5298. N<sub>2</sub> frac using 500 gal 8 1/2% inh fe acid, 804,000 SCF N<sub>2</sub> @ 64,000 SCF/min. BD @ 2920#, ATP 4100#, MTP 4180#, ISIP 3000#, & 5 min 1800#.

Perf Huron 22H/4568-4904. N<sub>2</sub> frac Huron shale using 795,000 SCF N<sub>2</sub> @ 80,000 SCF/min. BD @ 4100#, ATP 3750#, MTP 4120#, ISIP 1800#.

Perf Chagrin/Berea 23H/3751-4155. N<sub>2</sub> frac using 500 gal 8% inh fe acid, 802,000 SCF N<sub>2</sub> @ 102,000 SCF/min. BD @ 1840#, ATP 2350#, MTP 2450#, ISIP 1400# & 5 min 1100#.

Perf Big Lime 10H/2190-3128. Foam acidize Big Lime using 500 gal inh 15% HCl, 4000 gal 28% inh fe acid foamed w/ 131,000 SCF N<sub>2</sub> @ 4100 SCF/min. BD @ 2226#, ATP 1500# @ 5 BPM acid rate, MTP 2226#, ISIP 1655#, 15 min 1181 & TF 107 bbls.

1155

059-1145-Rev.  
 Issued 05/03/91  
 Page 1 of 1  
 Expires 05/03/93

FORM WW-2B

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

- 1) Well Operator: Ashland Exploration, Inc. 2750 (4) 321  
 Island Creek Coal Co.
- 2) Operator's Well Number: D-30R, Serial No. 133971 3) Elevation: 1673.99
- 4) Well type: (a) Oil  / or Gas  /  
 (b) If Gas: Production  / Underground Storage  /  
 Deep  / Shallow  /
- 5) Proposed Target Formation(s): Devonian Shale 441
- 6) Proposed Total Depth: 5404'KB feet
- 7) Approximate fresh water strata depths: 1204'KB (Map WV-12)
- 8) Approximate salt water depths: 1284'KB (Map WV-12)
- 9) Approximate coal seam depths: Upper Cedar Grove - Elev. 950' - Mined Out
- 10) Does land contain coal seams tributary to active mine? Yes  / No  /
- 11) Proposed Well Work:
- 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	16	LS	42.0	30	30	CTS
Fresh Water						
Coal	11 3/4	H40	42.0	789	789	CTS
Intermediate	8 5/8	J55	24.0 32.0	0-2500 2500-2885	0-2500 2500-2885	CTS
Production	5 1/2	J55	15.5	5404	5404	As Needed
Tubing	1.9	J55	2.76	-	5354	Siphon
Liners						

PACKERS : Kind \_\_\_\_\_  
 Sizes \_\_\_\_\_  
 Depths set \_\_\_\_\_

Division of Energy

APR 22 91

Permitting

For Division of Oil and Gas Use Only

Oil and Gas Section

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

11850

- 1) Date: April 19, 1991
- 2) Operator's well number  
Island Creek Coal Co. #D-30R, Serial #133971
- 3) API Well No: 47 - 059 - 1145-REV.  
State - County - Permit

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

**RECEIVED**  
Division of Energy  
**APR 22 1991**  
Permitting  
Oil and Gas Section

- |  |   |
|--|---|
| <p>4) Surface Owner(s) to be served:</p> <p>(a) Name <u>Georgia-Pacific Corp.</u><br/>Address <u>Jerry Crouse</u><br/><u>Wyoming, WV</u></p> <p>(b) Name _____<br/>Address _____</p> <p>(c) Name _____<br/>Address _____</p> | <p>5) (a) Coal Operator:</p> <p>Name _____<br/>Address _____</p> <p>(b) Coal Owner(s) with Declaration</p> <p>Name <u>Island Creek Corporation</u><br/>Address <u>P.O. Box 840</u><br/><u>Holden, WV 25625</u></p> <p>Name _____<br/>Address _____</p> <p>(c) Coal Lessee with Declaration</p> <p>Name <u>Hobet Mining, Inc.</u><br/>Address <u>P.O. Box 305</u><br/><u>Madison, WV 25130</u></p> |
| <p>6) Inspector <u>Tim Bennett</u><br/>Address <u>Route 2 Box 61-B</u><br/><u>Chapmanville, WV 25508</u><br/>Telephone (304)- <u>855-7705</u></p>  |   |

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 2 on the above named parties, by:

\_\_\_\_\_ Personal Service (Affidavit attached)

X 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 Ashland Exploration, Inc.  
By: W. Mark Parks *W. Mark Parks* **EXC**  
Its: Operations Manager  
Address P.O. Box 391  
Ashland, KY 41114  
Telephone 606-329-5589

Subscribed and sworn before me this 19th day of April, 1991

Rich W. Spotts \_\_\_\_\_ Notary Public  
My commission expires November 23, 1994

RECEIVED

Division of Energy

059-1145

Issued 2/27/91

Page 1 of 1

Expires 2/27/93

FORM WW-2B FEB 0 8 91

Permitting STATE OF WEST VIRGINIA  
Oil and ~~DEPARTMENT~~ DEPARTMENT OF ENERGY, DIVISION OF OIL AND GAS  
WELL WORK PERMIT APPLICATION

- 1) Well Operator: Ashland Exploration, Inc. 2750 (4) 321  
Island Creek Coal Co.
- 2) Operator's Well Number: D-30, Serial #133971 3) Elevation: 1964.12
- 4) Well type: (a) Oil    / or Gas X /  
(b) If Gas: Production X / Underground Storage    /  
Deep    / Shallow X /
- 5) Proposed Target Formation(s): Devonian Shale
- 6) Proposed Total Depth: 5694'KB feet
- 7) Approximate fresh water strata depths: 1204'KB (Map WV-12)
- 8) Approximate salt water depths: 1284'KB (Map WV-12)
- 9) Approximate coal seam depths: Upper Cedar Grove; Elev. 950' - Mined Out
- 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	
Conductor	16	LS	42.0	30	30 } CTS
Fresh Water					3805R18-11.3
Coal	11 3/4	H40	42.0	1079	1079 } 3805R18-11.2 & 2
			24.0	0-2000	0-2000 } CTS
Intermediate	8 5/8	J55	32.0	2000-3175	2000-3175 } CTS
Production	5 1/2	J55	15.5	5694	5694 } 3805R18-11.1
					As Needed
Tubing	1.9	J55	2.76	-	5644 } Siphon
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 Surety Blanket Agent  
(Type)

RECEIVED  
Division of Energy

FEB 08 91

Permitting  
Oil and Gas Section

- 1) Date: February 7, 1991
- 2) Operator's well number  
Island Creek Coal Co. #D-30, Serial #133971
- 3) API Well No: 47 - 059 - 1145  
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 Georgia-Pacific Corp.  
Address Jerry Crouse  
Wyoming, WV
  - (b) Name \_\_\_\_\_  
Address \_\_\_\_\_
  - (c) Name \_\_\_\_\_  
Address \_\_\_\_\_

- 5) (a) Coal Operator:
  - Name \_\_\_\_\_  
Address \_\_\_\_\_
  - (b) Coal Owner(s) with Declaration  
Name Island Creek Corporation  
Address P.O. Box 840  
Holden, WV 25625
  - Name \_\_\_\_\_  
Address \_\_\_\_\_

- 6) Inspector Tim Bennett  
Address Route 2 Box 61-B  
Chapmanville, WV 25508  
Telephone (304)-855-7705

- (c) Coal Lessee with Declaration  
Name \_\_\_\_\_  
Address \_\_\_\_\_

TO THE PERSON(S) NAMED ABOVE TAKE NOTICE THAT:

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- X Certified Mail (Postmarked postal receipt attached)
- \_\_\_\_\_ Publication (Notice of Publication attached)

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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 Ashland Exploration, Inc.  
 By: J. T. Mellinger  
 Its: Vice President  
 Address P.O. Box 391  
Ashland, KY 41114  
 Telephone 606-329-5450

Subscribed and sworn before me this 7th day of February, 1991

Debi W. Santa Notary Public  
 My commission expires November 23, 1994

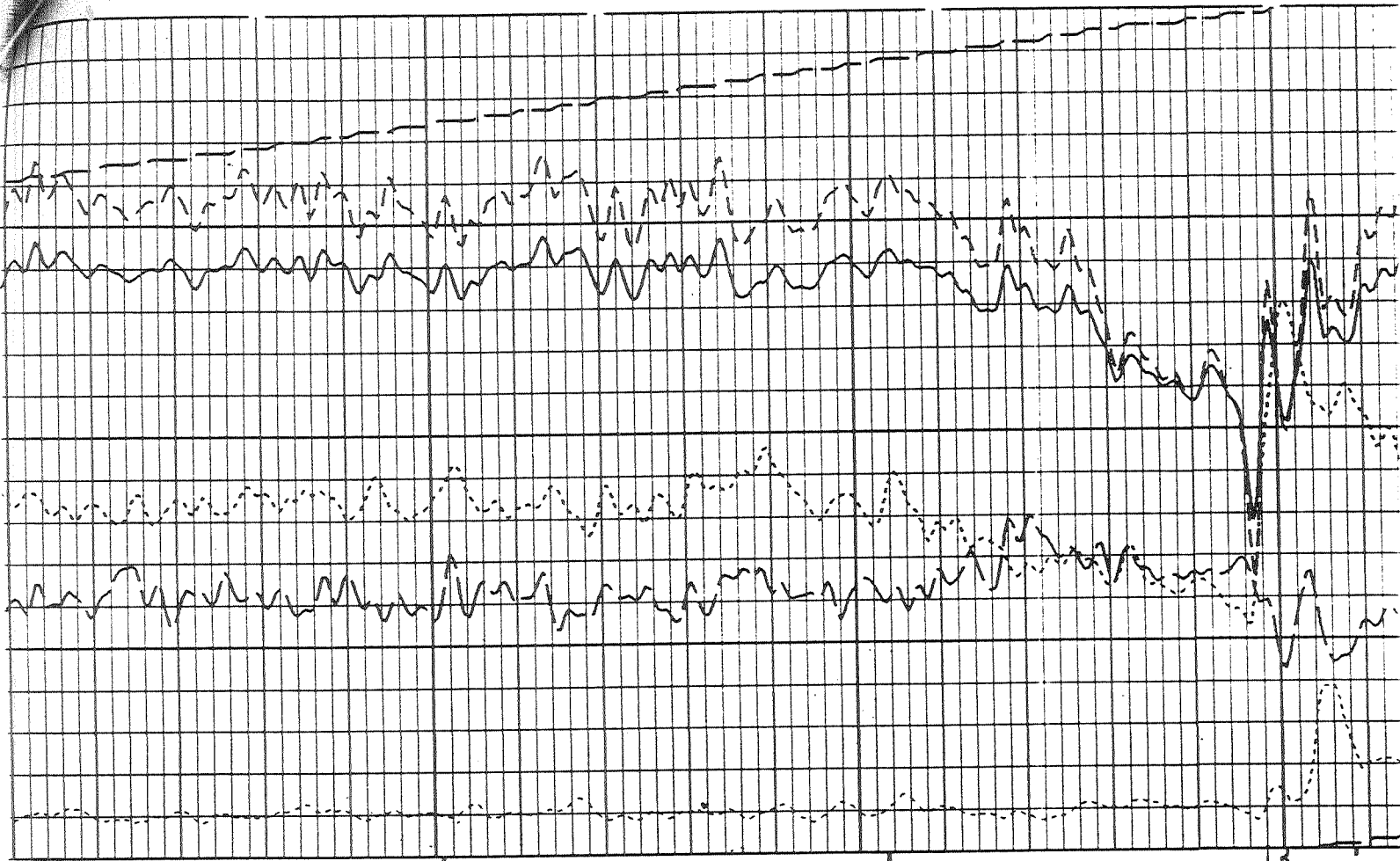


LITHO-DENSITY / NEUTRON / TEMPERATURE

Schlumberger

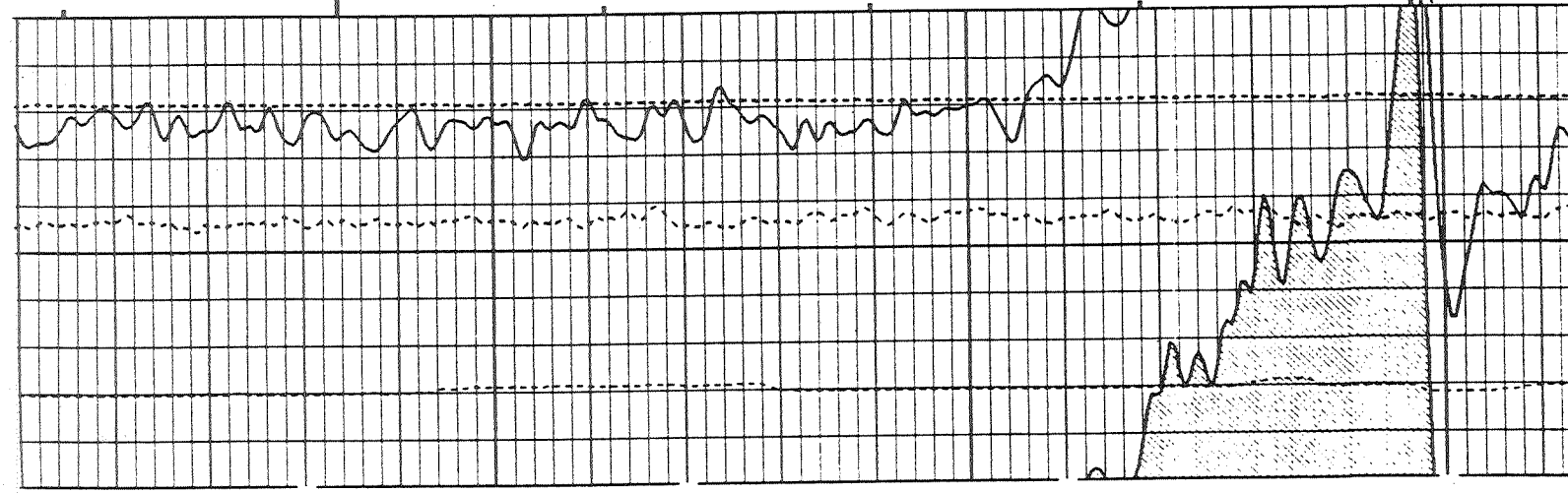
COUNTY		MINGO		STATE		WEST VIRGINIA	
FIELD		DELBARTON QUAD		COUNTY		MINGO	
WELL		ISLAND CREEK COAL #D-30R EXP. (OXY)		COMPANY		ASHLAND EXPLORATION, INC.	
LOCATION		8,250' S. OF 37 42' 30"		Other Services:		LDT-SNP-TEMP	
WELL		7,450' W. OF 82 07' 30"		API SERIAL NO.		47-59-01145	
FIELD		DELBARTON QUAD		SECT.		TWP.	
COUNTY		MINGO		RANGE			
Permanent Datum		GROUND LEVEL		Elev.		1674.0 F	
Log Measured From		KELLY BUSHING		10.0 F		above Perm. Datum	
Drilling Measured From		KELLY BUSHING		Elev.:		K.B.1684.0 F	
						D.F.1683.0 F	
						G.L.1674.0 F	
Date		21-JUL-1991					
Run No.		ONE					
Depth Driller		5373.0 F					
Depth Logger (Schl)		5372.0 F					
Btm. Log Interval		5365.0 F					
Top Log Interval		2922.0 F					
Casing-Driller		8 5/8" @2922.0 F					
Casing-Logger		2922.0 F					
Bit Size		10 5/8"		7 7/8"			
Type Fluid in Hole		AIR/GAS					
Dens.		Visc.		0.0 LB/G			
pH		Fld. Loss					
Source of Sample		N/A					
Rm @ Meas. Temp.		@		@			
Rmf @ Meas. Temp.		@		@			
Rmc @ Meas. Temp.		@		@			
Source: Rmf		Rmc		N/A		N/A	
Rm @ BHT		@		115. DEGF		@	
Circulation Ended		18:00 / 20-JULY-1991					
Logger on Bottom		01:50 / 21-JULY-1991					
Max. Rec. Temp.		115. DEGF					
Equip.		Location		8291		PAINTSVILLE, KY.	
Recorded By		TOM THOMAS					
Witnessed By		S. RHOADES					

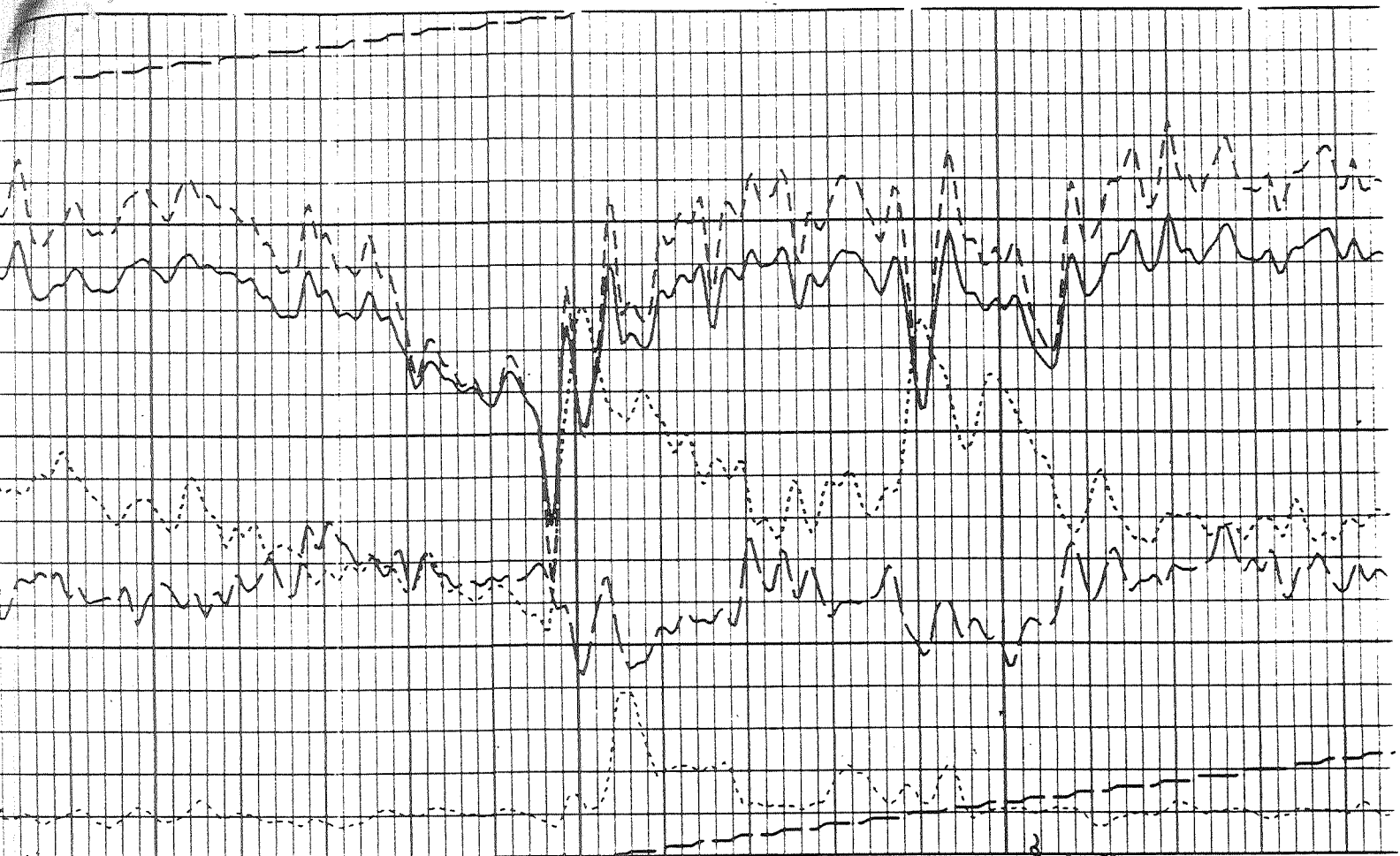
The well name, location and borehole reference data were furnished by the customer.



3700

Top of Base  
2748'





3700

Top of Berea  
2748'

3800

Base of Berea  
2807'  
Top of Dev  
Shale 2807'

