

AS 10/23/86

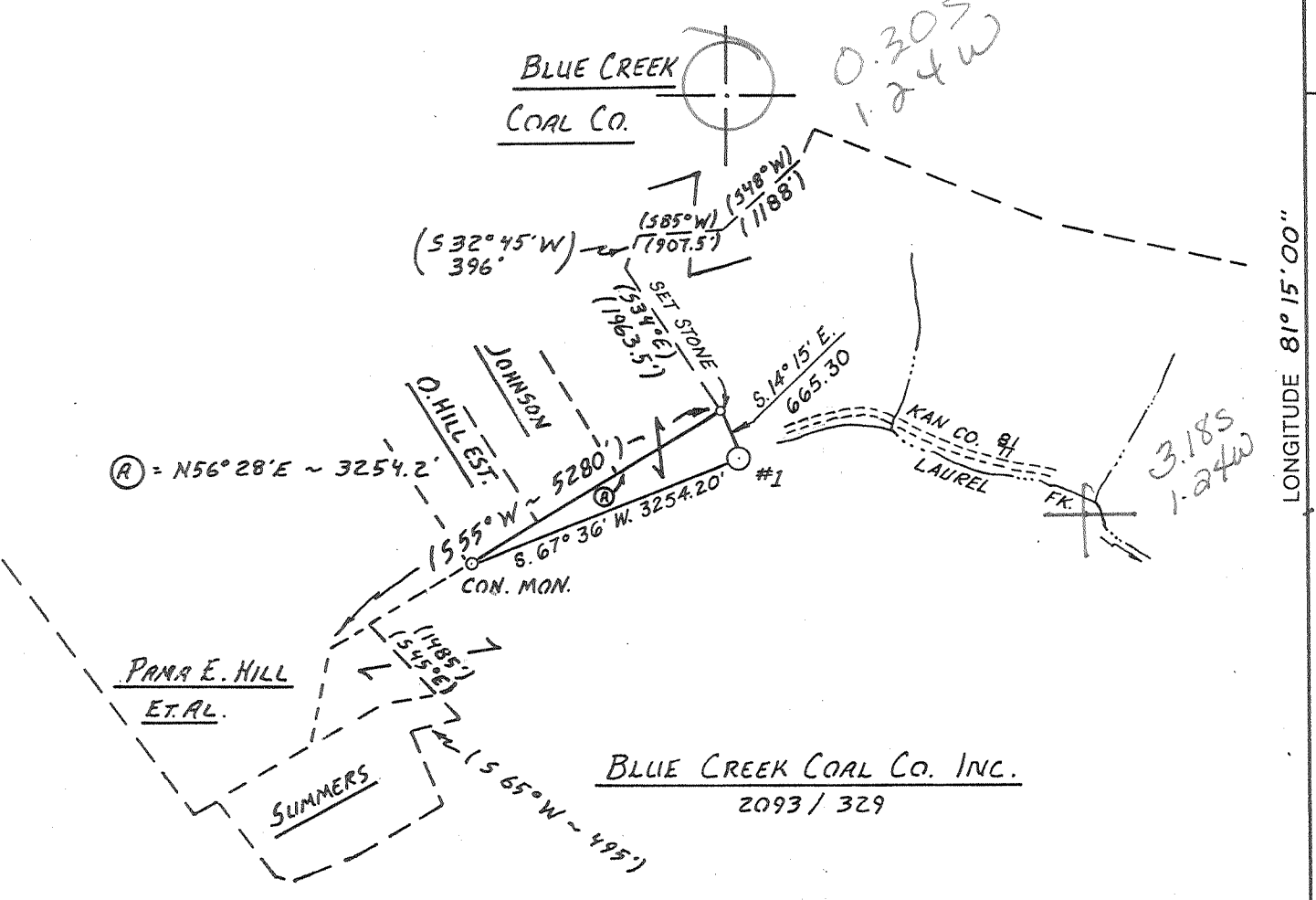
6450' W 38 20
LATITUDE 38° 17' 30"

5,0091

LONGITUDE 81° 15' 00"

BLUE CREEK COAL COMPANY NORTH

BLUE CREEK
COAL CO.



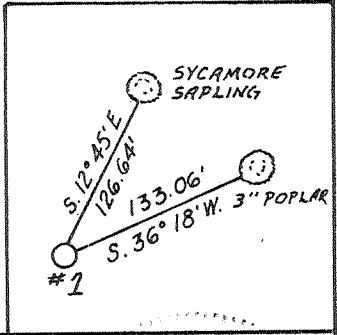
(R) = N56° 28' E ~ 3254.2'

BLUE CREEK COAL CO. INC.
2093 / 329

() DENOTES DEED CALLS

BLUE CREEK COAL COMPANY COORDINATES
N. 20,689.54 E. 65,961.23

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



FILE NO. _____
 DRAWING NO. 8699-1
 SCALE 1" = 2000'
 MINIMUM DEGREE OF ACCURACY 1 IN 25000
 PROVEN SOURCE OF ELEVATION BLUE CREEK COAL TBM FOR MINE NO. 8 = 1028.53

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) J Bruce Hager
 R.P.E. _____ L.L.S. 1577

PLACE SEAL HERE

STATE OF WEST VIRGINIA
 DEPARTMENT OF ENERGY
 OIL AND GAS DIVISION



DATE OCTOBER 17, 19 86
 OPERATOR'S WELL NO. DICKINSON NO. 1
 API WELL NO. _____

WELL TYPE: OIL ___ GAS LIQUID INJECTION ___ WASTE DISPOSAL ___
 (IF "GAS,") PRODUCTION STORAGE ___ DEEP ___ SHALLOW
 LOCATION: ELEVATION 1149' WATER SHED LAUREL FORK OF BELLS CREEK OF GAULEY RIVER
 DISTRICT CABIN CREEK 2 COUNTY KANAWHA
 QUADRANGLE MMMOTH 7.5' 455 029 SE9 Clendenin
 SURFACE OWNER BLUE CREEK COAL COMPANY ACREAGE 6350
 OIL & GAS ROYALTY OWNER DICKINSON PROPERTIES INC. ETAL LEASE ACREAGE 6350
 LEASE NO. _____

PROPOSED WORK: DRILL CONVERT ___ DRILL DEEPER ___ REDRILL ___ FRACTURE OR STIMULATE PLUG OFF OLD FORMATION ___ PERFORATE NEW FORMATION ___ OTHER PHYSICAL CHANGE IN WELL (SPECIFY) _____
OCT 27 1986

PLUG AND ABANDON ___ CLEAN OUT AND REPLUG ___
 TARGET FORMATION MARCELLUS SHALE ESTIMATED DEPTH 5290'
 WELL OPERATOR ALLEGHENY & WESTERN ENERGY CORP. DESIGNATED AGENT DENNIS L. MRNN
 ADDRESS PO BOX 2587 CHARLESTON WV 25329 ADDRESS P.O. BOX 2587 CHARLESTON WV 25329

DEEP WELL

004

Food Fork

(375)

COUNTY NAME PERMIT

7/85

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OCT 23 1986



1) Date: October 17, 1986
 2) Operator's Dickinson No. 1
 Well No. _____
 3) API Well No. 47-039-4375
 State _____ County _____ Permit _____

STATE OF WEST VIRGINIA

DIVISION OF OIL & GAS DEPARTMENT OF ENERGY, OIL AND GAS DIVISION
 DEPARTMENT OF ENERGY APPLICATION FOR A WELL WORK PERMIT

- 4) WELL TYPE: A Oil _____ / Gas XX
 B (If "Gas", Production XX / Underground storage _____ / Deep _____ / Shallow XX)
- 5) LOCATION: Elevation: 1149 Watershed: Bells Creek
 District: Cabin Creek 2 County: Kanawha Quadrangle: Mammoth 455
- 6) WELL OPERATOR A&W Energy Corp CODE: 1100 7) DESIGNATED AGENT Dennis L. Mann
 Address P.O. Box 2587 Address P.O. Box 2587
Charleston, WV 25329 Charleston, WV 25329
- 8) OIL & GAS INSPECTOR TO BE NOTIFIED Name Carlos Hively
 Address 223 Pinch Ridge Road
Elkview, WV 25071
- 9) DRILLING CONTRACTOR: Name Not Available
 Address _____
- 10) PROPOSED WELL WORK: Drill XX / Drill deeper _____ / Redrill _____ / Stimulate XX /
 Plug off old formation _____ / Perforate new formation _____ /
 Other physical change in well (specify) _____
- 11) GEOLOGICAL TARGET FORMATION, Big Lime, Weir, Devonian Shales 40
- 12) Estimated depth of completed well, 5290 feet
- 13) Approximate strata depths: Fresh, 50 feet; salt, 500 feet.
- 14) Approximate coal seam depths: 712 200 Is coal being mined in the area? Yes _____ / No XX
- 15) CASING AND TUBING PROGRAM

CASING OR TUBING TYPE	SPECIFICATIONS					FOOTAGE INTERVALS		CEMENT FILL-UP OR SACKS (Cubic feet)	PACKERS
	Size	Grade	Weight per ft.	New	Used	For drilling	Left in well		
Conductor									Kinds
Fresh water	9 5/8	sm1s	32	x		742 742	21742 21742	200 cts	by rule 15.05
Coal	7	sm1s	23	x		2045	2045	200 cts	Sizes
Intermediate								<u>520 SCS</u>	
Production	4 1/2	sm1s	10.5	x		5290	5290	200 400 cts	Depths set or as required
Tubing									by rule 15.01
Liners									Perforations:
									Top Bottom

OFFICE USE ONLY
DRILLING PERMIT

Permit number 47-039-4375 Date October 24 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 Note 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 24, 1988 unless well work is commenced prior to that date and prosecuted with due diligence.

Bond:	Agent:	Plat:	Casing	Fee	WPCP	S&E	Other
	<u>ALB</u>	<u>AS</u>	<u>AS</u>	<u>3928</u> <u>157</u>	<u>AS</u>	<u>AS</u>	

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

John D. Johnston
 Director, Division of Oil and Gas
Margaret J. Hase
 File

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



IV-35
(Rev 8-80)

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DIVISION OF OIL & GAS
DEPARTMENT OF ENERGY

State of West Virginia
Department of Mines
Oil and Gas Division

Date April 30, 1987
Operator's
Well No. Dickinson # 1
Farm Blue Creek Coal Co
API No. 47-039-4375

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 / Underground Storage / Deep / Shallow X /)

LOCATION: Elevation: 1149 Watershed Bells Creek
District: Cabin Creek County Kanawha Quadrangle Mammoth 7.5

COMPANY Allegheny & Western Energy Corp
ADDRESS P.O.Box 2587, Charleston, W.Va., 25329
DESIGNATED AGENT Dennis L. Mann
ADDRESS P.O.Box 2587, Charleston, W.Va., 25329
SURFACE OWNER Blue Creek Coal Co
ADDRESS Rt 2, Box 224-B, Clendenin, W.Va
MINERAL RIGHTS OWNER Dickinson Properties ET AL
ADDRESS 1401 Kanawha Valley Bldg, Charleston, W.VA
OIL AND GAS INSPECTOR FOR THIS WORK Carlos Hivley
ADDRESS 223 Pinch Ridge Rd Elkview, W.VA
PERMIT ISSUED Oct 24, 1986
DRILLING COMMENCED 10/31/86
DRILLING COMPLETED 11/7/86

Casing & Tubing	Used in Drilling	Left in Well	Cement fill up Cu. ft.
Size 20-16 Cond.			
13-10"	40	0	0
9 5/8	1044	1044	400 sks
8 5/8			
7	1987	1987	175 sks
5 1/2			
4 1/2	5944	5944	300 sks
3			
2			
Liners used			

IF APPLICABLE: PLUGGING OF DRY HOLE ON CONTINUOUS PROGRESSION FROM DRILLING OR REWORKING. VERBAL PERMISSION OBTAINED ON

GEOLOGICAL TARGET FORMATION Devonian Shale Depth 5290 feet
Depth of completed well 5980 feet Rotary X / Cable Tools
Water strata depth: Fresh 50 feet; Salt 500 feet
Coal seam depths: 712 Is coal being mined in the area? no

OPEN FLOW DATA
Producing formation Weir Pay zone depth 2186 feet
Gas: Initial open flow Mcf/d Oil: Initial open flow Bbl/d
Final open flow (10) Mcf/d Final open flow Bbl/d
Time of open flow between initial and final tests 24 hours

Static rock pressure 560 psig (surface measurement) after 24 hours shut in
(If applicable due to multiple completion--)

81 Mcf DF for well
Second producing formation Devonian Shale Pay zone depth 2396 feet
Gas: Initial open flow Mcf/d Oil: Initial open flow Bbl/d
Final open flow (571) Mcf/d Oil: Final open flow Bbl/d
Time of open flow between initial and final tests 24 hours
Static rock pressure 560 psig (surface measurement) after 24 hours shut in

(Continue on reverse side)

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

2168-2309 perf w/ 34 holes frac w/ 30,000# 20/40 sd + 180,000 n2
 2396-3585 perf w/ 48 holes frac w/ 60,000# 20/40 sd + 1,068,000 n2
 3663-5004 perf w/ 60 holes frac w/ 60,000# 20/40 sd + 1,000,000 n2
 5094-5955 perf w/ 49 holes frac w/ 37,500# 20/40 sd + 1,100,000 n2

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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
sandstone & shale			0	1187	
salt sand			1187	1350	
shale			1350	1452	
salt sand			1452	1574	
shale & sand			1574	1806	
maxen			1806	1873	
little lime			1873	1912	
pencil cave			1912	1919	
big lime			1919	2130	
big injun			2130	2140	
shale			2140	2181	
weir			2181	2310	
shale			2310	2567	
sunbury shale			2567	2583	
sandy siltstone & shale			2583	2863	
grey & brown shale			2863	5920	
marcellus shale			5920	5954	
onondaga lime			5954	5980	T.D. 5980 K.B.

(Attach separate sheets as necessary)

Allegheny & Western Energy Corp

Well Operator

By: Dennis G. Mann, Vice President

Date: _____, 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."