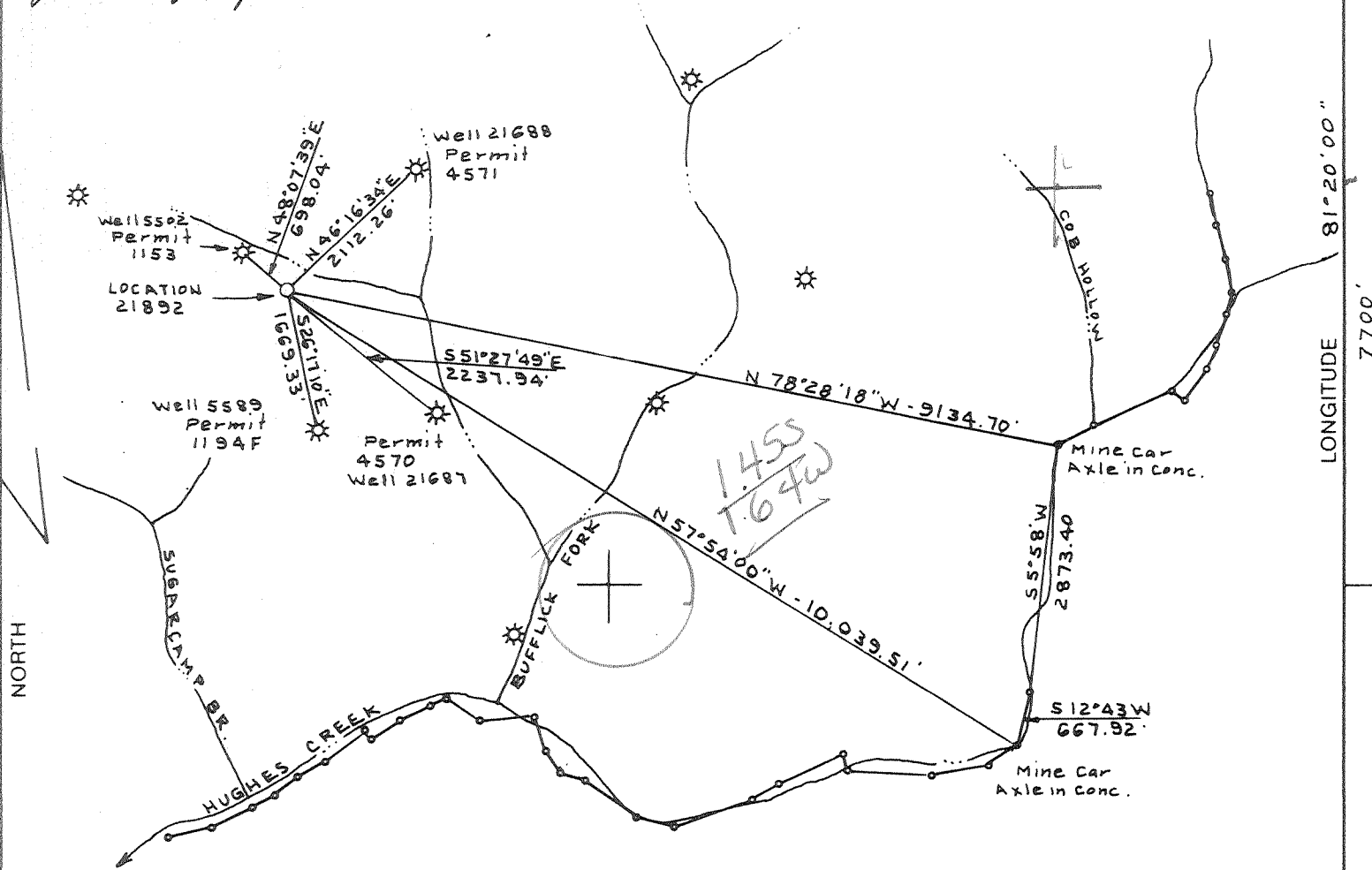


Janie 7/28/89

8600

LATITUDE 38°15'00"



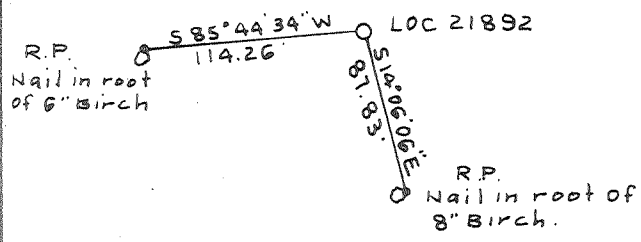
Nº 2 GAS COAL SEAM MINED OUT AT LOCATION SITE EL. 635'± NO COAL OPERATIONS AT PRESENT.

FIRST NATIONAL BANK OF NEWPORT NEWS VA

VALLEY CAMP COAL CO COORD.
N 13,446.37' - E 26,631.67'

CANNELTON INDUSTRIES COORD.
N 11,647.76' W 19,060.61'

COAL LEASED TO VALLEY CAMP COAL CO. EXCEPT Nº 2 GAS COAL SEAM, LEASED TO CANNELTON INDUSTRIES, INC



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

FILE NO. BK 114 PG 86
DRAWING NO. 21892
SCALE 1" = 2000'
MINIMUM DEGREE OF ACCURACY 1:5000'
PROVEN SOURCE OF ELEVATION USGS BM 24 SKS
TOP head wall of bridge over Bufflick Fork EL. 672.0'

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) C. J. ...
R.P.E. _____ I.L.S. 92

PLACE SEAL HERE

STATE OF WEST VIRGINIA
DEPARTMENT OF ENERGY
OIL AND GAS DIVISION



DATE MAY 13, 19 89
OPERATOR'S WELL NO. 21892
API WELL NO. _____

WELL TYPE: OIL ___ GAS X LIQUID INJECTION ___ WASTE DISPOSAL ___
(IF "GAS,") PRODUCTION X STORAGE ___ DEEP X SHALLOW ___
LOCATION: ELEVATION 1141.54 WATERSHED BUFFLICK FORK OF HUGHES CREEK
DISTRICT CABIN CREEK COUNTY KANAWHA
QUADRANGLE MONTGOMERY 481 0842 Montgomery 15' NC
SURFACE OWNER DAVID WARD ESTATE ACREAGE 8000
OIL & GAS ROYALTY OWNER DAVID WARD ESTATE LEASE ACREAGE 8000
LEASE NO. 25660

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

AUG 4 1989

PLUG AND ABANDON ___ CLEAN OUT AND REPLUG ___
TARGET FORMATION ORISKANY ESTIMATED DEPTH 4650'
WELL OPERATOR COLUMBIA NATURAL RESOURCES DESIGNATED AGENT J. E. CAMPBELL
ADDRESS P.O. BOX 1273 CHARLESTON WV 25325 ADDRESS P.O. BOX 1273 CHARLESTON WV 25325

COUNTY NAME
PERMIT

DEEP WELL 3-6 Montgomery (242) DPT-Oriskany

3

47-039-4679
Issued 8/3/89 Expires 8/3/91

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

- 1) Well Operator: Columbia Natural Resources, Inc. 10460 (2) 480
- 2) Operator's Well Number: 21892 3) Elevation: 1141.5
- 4) Well type: (a) Oil or Gas
(b) If Gas: Production Underground Storage
Deep Shallow
- 5) Proposed Target Formation(s): Oriskany
- 6) Proposed Total Depth: 4650' feet
- 7) Approximate fresh water strata depths: 45', 60', 250'
- 8) Approximate salt water depths: 1432', 1660'
- 9) Approximate coal seam depths: 610'
- 10) Does land contain coal seams tributary to active mine? Yes No
- 11) Proposed Well Work: Drill Well Ref. Permit Nos. 47-039-4570, 4571
4572, 4581
- 12) Drill & Stimulate New Well
CASING AND TUBING PROGRAM

TYPE	SPECIFICATIONS			FOOTAGE INTERVALS		CEMENT
	Size	Grade	Weight per ft.	For drilling	Left in well	Fill-up (cu. ft.)
Conductor	13 3/8	H	48#	40'	40'	28
Fresh Water						
Coal						
Intermediate	8 5/8	J/K	24#	2400'	2400'	610
Production	4 1/2	J/K	10.5#	4650'	4650'	370
Tubing						
Liners						

RECEIVED
JUL 18 1989

PACKERS : Kind _____
Sizes _____
Depths set _____

DIVISION OF OIL & GAS
DEPARTMENT OF ENERGY

For Division of Oil and Gas Use Only

5015 8017

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

RECEIVED
JUL 18 1989

DIVISION OF OIL & GAS
DEPARTMENT OF ENERGY

1) Date: June 13, 1989
2) Operator's well number 21892
3) API Well No: 47 - 039 - 4679
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 James F. Brown, III,
Address Atty -in-Fact, Brown & Peyton
P. O. Box 88, Charleston, WV 25321
 - (b) Name Kanawha & Flk Railway Co.
Address P. O. Box 88
Charleston, WV 25321
 - (c) Name The Valley Camp Coal Company
Address 206 Seneca Street
Oil City, PA 16301
- 5) (a) Coal Operator:
Name _____
Address _____
- (b) Coal Owner(s) with Declaration
Name Same as Surface
Address _____
- (c) Coal Lessee with Declaration
Name See Attached List
Address _____
- 6) Inspector Carlos Hively
Address 223 Pinch Ridge Road
Elkview, WV 25071
Telephone (304)- 965-6069

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 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 Columbia Natural Resources, Inc.

By: [Signature]

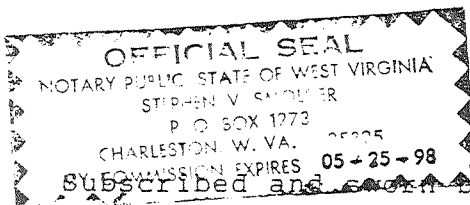
Its: Vice President, Drilling and Production Operations

Address P. O. Box 1273

Charleston, WV 25325

Telephone 304/357-2000

Subscribed and sworn before me this 14 day of June, 1989



My commission expires May 25, 1998 [Signature] Notary Public

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

NOV 28 90
Permitting
Oil and Gas Section

Well Operator's Report of Well Work

Farm name: BROWN, JAMES F. III Operator Well No.: (WARD) 21892

LOCATION: Elevation: 1141.54 Quadrangle: MONTGOMERY

District: CABIN CREEK County: KANAWHA
Latitude: 7700 Feet South of 38 Deg. 15Min. 0 Sec.
Longitude 8600 Feet West of 81 Deg. 20 Min. 0 Sec.

Company: COLUMBIA NATURAL RESOURCE
P. O. BOX 1273
CHARLESTON, WV 25325-0000

Agent: JOSEPH E. CAMPBELL

Inspector: CARLOS W. HIVELY
Permit Issued: 08/03/89
Well work Commenced: Oct. 24, 1989
Well work Completed: Nov. 2, 1989
Verbal Plugging
Permission granted on: --
Rotary Cable Rig
Total Depth (feet) * 5958
Fresh water depths (ft) _____

Salt water depths (ft) _____

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

Casing & Tubing Size	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
16"	42	40	11
11-3/4"	614	614	266
8-5/8"	2283	2283	278
4-1/2"	5746	5783	466

OPEN FLOW DATA

Producing formation Devonian Shale/Weir Pay zone depth (ft) 4045-5614
Gas: Initial open flow _____ MCF/d Oil: Initial open flow _____ Bbl/d
Final open flow 622 MCF/d Final open flow _____ Bbl/d
Time of open flow between initial and final tests 6 Hours
Static rock Pressure 260 psig (surface pressure) after 60 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: Joseph E. Campbell
COLUMBIA NATURAL RESOURCES, INC.

By: Vice President, Drilling & Production Operations
Date: 11-26-90

*Note: Hole filled with cement from 5775' - 5958'
Alpha Bridge Plug set at 5650'.

Fracture: 2 stage foam frac pumped as varied Q (90-75)
w/water as a 20# gel from 4325' to 5614'.

Stage 1 Acid 500 gal./15% HCl, fill-up & breakdown w/N₂
at 3641#, flush w/120 bbl. water, total N₂
490,000 Scf, total sand 13,000#, ATP 4200#.

Stage 2 Acid 500 gal./15% HCl, fill-up and breakdown
w/N₂ at 4024#, treat and flush w/173 bbls.
water, total N₂ 874,000 Scf, total sand
33,000#, ATP 3616#.

Perf Weir w/19 holes ^{weir} 2220-2238, pumped foam
frac with 65 Q, w/water as a 20# gel. Acid 400
gal. 15% HCl, fill-up and breakdown 26 bbl. Kcl
water at 850#, treat and flush with 239 bbl.
water, total N₂ 183,000 Scf, total sand
46,600#, ATP 1450#.

Formation:

0	-	1100	Sand and Shale
1100	-	1378	Salt Sand
1378	-	1408	Sand and Shale
1408	-	1454	Ravencliff
1798	-	1846	Maxon
1920	-	2126	Greenbrier
2126	-	2160	Injun
2160	-	2216	Shale
2216	-	2240	Weir
2240	-	2572	Shale
2572	-	2582	Sanburg Shale
2582	-	5734	Shale
5734	-	5770	Orondogals
5770	-	5810	Huntersville
5810	-	5830	Sand/Shale
5830	-	5850	Oriskany
5850	-	TD	Helderburg

UD 2582
LH 3800
J. 4800
A 4950
Rh 5250

DFT

5958
5734

224 expl. ftg.

9257