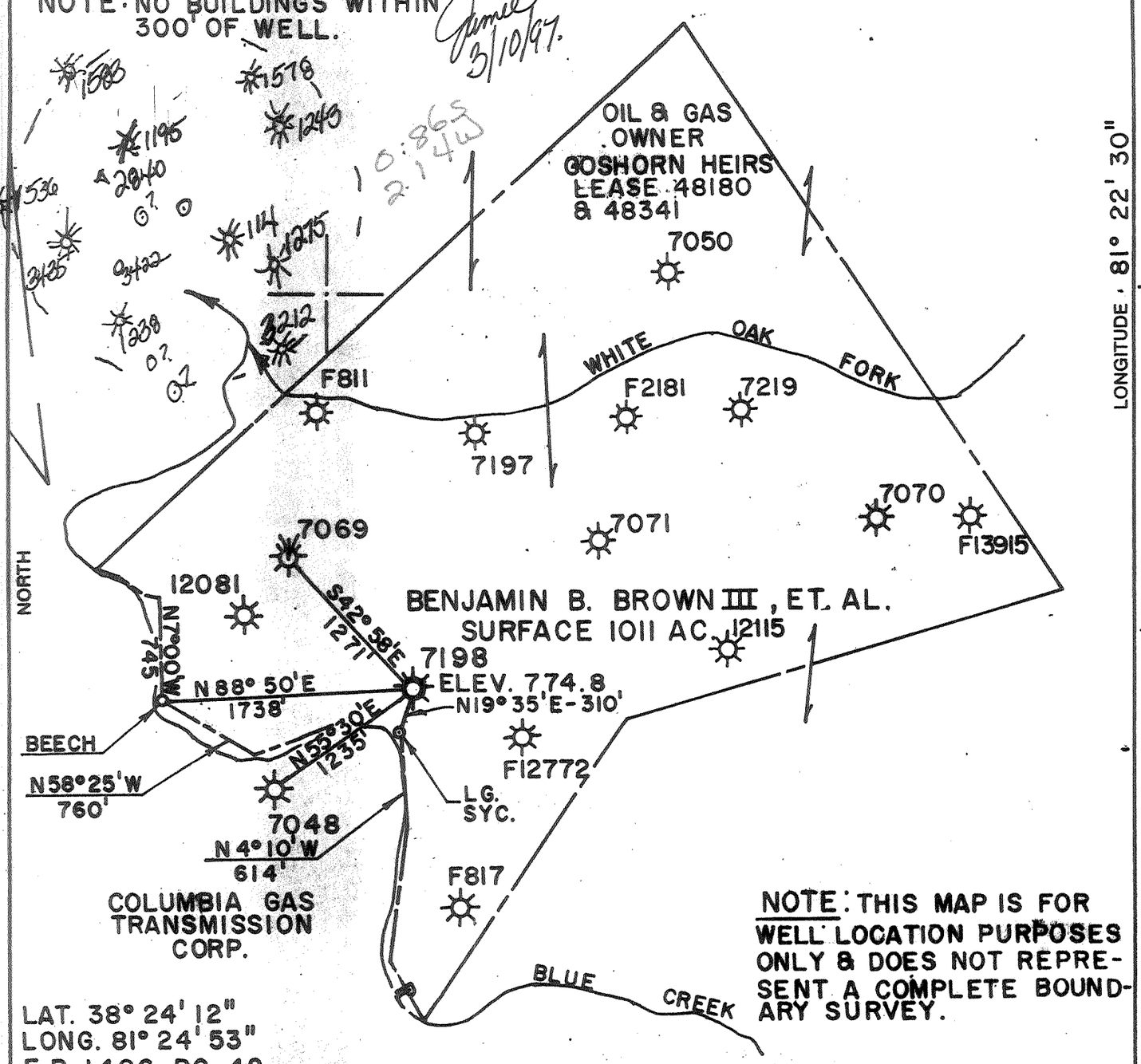
11,200'

LATITUDE 38° 25' 00"

NOTE: NO BUILDINGS WITHIN 300' OF WELL.

Jamie 3/10/97.



NOTE: THIS MAP IS FOR WELL LOCATION PURPOSES ONLY & DOES NOT REPRESENT A COMPLETE BOUNDARY SURVEY.

LAT. 38° 24' 12"
LONG. 81° 24' 53"
F.B. 1406 PG. 42

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

FILE NO. _____
DRAWING NO. 7198
SCALE 1" = 1000'
MINIMUM DEGREE OF ACCURACY 1 / 200
PROVEN SOURCE OF ELEVATION WELL № 7048

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) Edward Nicholson

R.P.E. 9936 L.L.S. 798

PLACE SEAL HERE

DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF OIL & GAS
#10 McJUNKIN ROAD
NITRO, WEST VIRGINIA 25143-2506

DATE JUNE 22, 19 90
OPERATOR'S WELL NO. 7198
API WELL NO.
47 - 039 - 01579 D
STATE COUNTY PERMIT

WELL TYPE: OIL ___ GAS X LIQUID INJECTION ___ WASTE DISPOSAL ___
(IF "GAS,") PRODUCTION ___ STORAGE X DEEP ___ SHALLOW ___
LOCATION: ELEVATION 774.8 WATER SHED BLUE CREEK
DISTRICT ELK COUNTY KANAWHA
QUADRANGLE BLUE CREEK
SURFACE OWNER BENJAMIN B. BROWN III, ET. AL. ACREAGE 1011
OIL & GAS ROYALTY OWNER GOSHORN HEIRS LEASE ACREAGE 837 & 787
LEASE NO. 48180 & 48341
PROPOSED WORK: DRILL ___ CONVERT ___ DRILL DEEPER ___ REDRILL ___ FRACTURE OR STIMULATE ___ PLUG OFF OLD FORMATION ___ PERFORATE NEW FORMATION ___ OTHER PHYSICAL CHANGE IN WELL (SPECIFY) STORAGE RECONDITION
Drill existing storage well 50' deeper Run 4½ pipe cement & frac
PLUG AND ABANDON ___ CLEAN OUT AND REPLUG ___
TARGET FORMATION Oriskany ESTIMATED DEPTH 5115
WELL OPERATOR COLUMBIA GAS TRANS. CORP. DESIGNATED AGENT ROBERT C. WEIDNER
ADDRESS P.O. BOX 1273 CHARLESTON, WV 25325 ADDRESS P.O. BOX 1273 CHARLESTON, WV 25325

KAN. COUNTY NAME

1579 PERMIT

MAR 14 1997

FORM WW-6

HALLS INC.

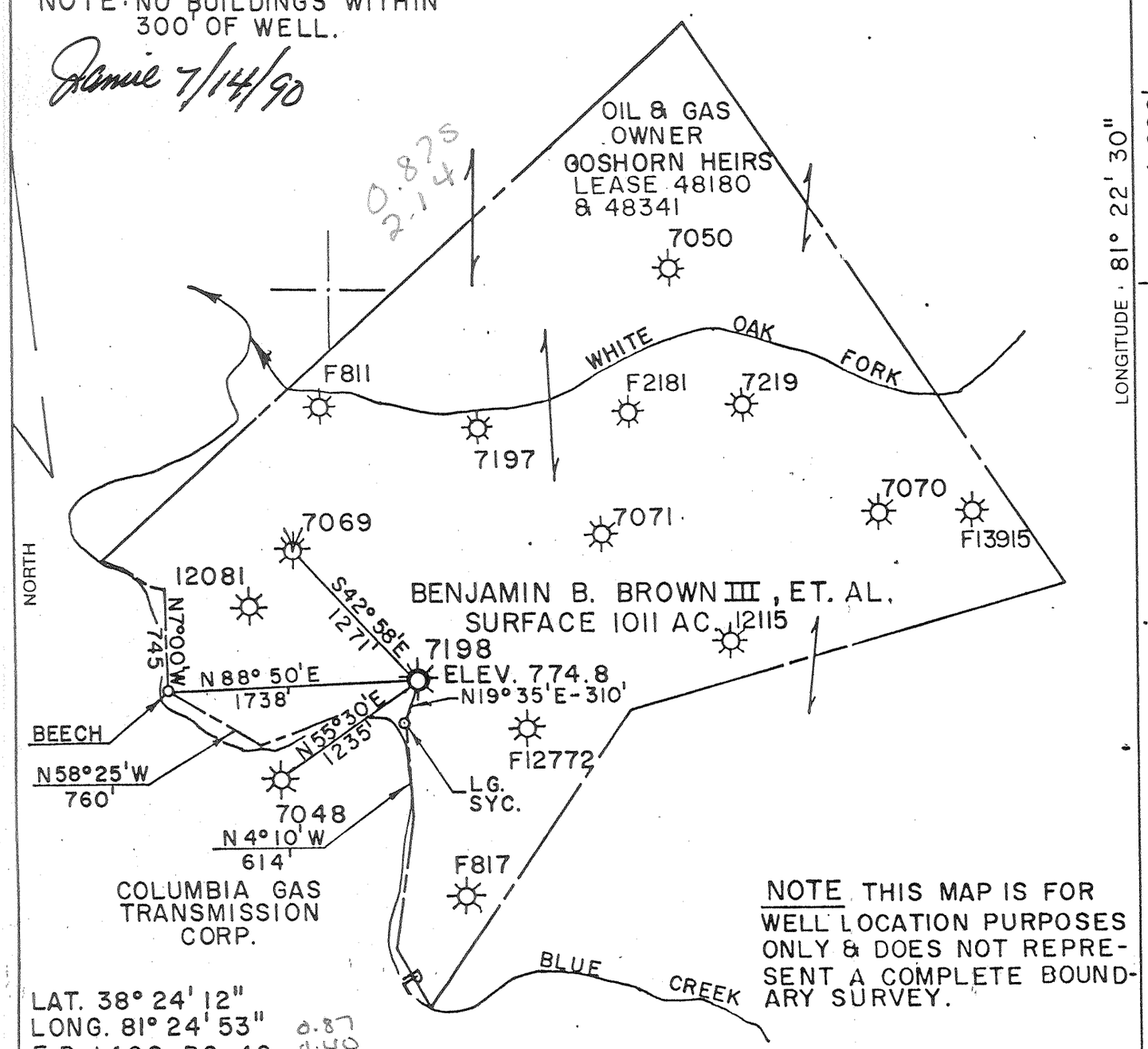
DSGD LISU

11,200'

LATITUDE 38° 25' 00"

NOTE: NO BUILDINGS WITHIN 300' OF WELL.

Jamie 7/14/90



NOTE THIS MAP IS FOR WELL LOCATION PURPOSES ONLY & DOES NOT REPRESENT A COMPLETE BOUNDARY SURVEY.

LAT. 38° 24' 12"
LONG. 81° 24' 53"
F.B. 1406 PG. 42

0.87
4.40
Clend. c

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

FILE NO. _____
DRAWING NO. 7198
SCALE 1" = 1000'
MINIMUM DEGREE OF ACCURACY 1/200
PROVEN SOURCE OF ELEVATION WELL № 7048

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) Edward Nichols

R.P.E. 9936 L.L.S. 798

PLACE SEAL HERE

STATE OF WEST VIRGINIA
DEPARTMENT OF ENERGY
OIL AND GAS DIVISION

DATE JUNE 22, 19 90
OPERATOR'S WELL NO. 7198
API WELL NO.
47 - KAN - 1579 - W
STATE COUNTY PERMIT

WELL TYPE: OIL ___ GAS X LIQUID INJECTION ___ WASTE DISPOSAL ___
(IF "GAS,") PRODUCTION ___ STORAGE X DEEP ___ SHALLOW ___
LOCATION: ELEVATION 774.8 WATER SHED BLUE CREEK
DISTRICT ELK COUNTY KANAWHA
QUADRANGLE BLUE CREEK
SURFACE OWNER BENJAMIN B. BROWN III, ET. AL. ACREAGE 1011
OIL & GAS ROYALTY OWNER GOSHORN HEIRS LEASE ACREAGE 837 & 787
LEASE NO. 48180 & 48341
PROPOSED WORK: DRILL ___ CONVERT ___ DRILL DEEPER ___ REDRILL ___ FRACTURE OR STIMULATE ___ PLUG OFF OLD FORMATION ___ PERFORATE NEW FORMATION ___ OTHER PHYSICAL CHANGE IN WELL (SPECIFY) STORAGE RECONDITION
JUL 27 1990
PLUG AND ABANDON ___ CLEAN OUT AND REPLUG ___
TARGET FORMATION _____ ESTIMATED DEPTH _____
WELL OPERATOR COLUMBIA GAS TRANS. CORP. DESIGNATED AGENT ROBERT C. WEIDNER
ADDRESS P.O. BOX 1273 CHARLESTON, WV 25325 ADDRESS P.O. BOX 1273 CHARLESTON, WV 25325

175

KAN. COUNTY NAME

1579 PERMIT

FORM WW-6

HALLS INC. 068865

P.

Latitude 38 25

7.5 OGIS topo loc 15' loc
0.88 S 0.88 S
2.14 W 4.40 W

7069

stake

S 17° W - 745'

GOSHORN HEIRS

7193

Beech

N 88° 50' E - 1738'

N 80° 40' W 415'

N 19° 35' E 310'

N 58° 25' W - 760'

S 70° 50' W - 623'

stake

sycamore

stake

N 4° 10' W 614'

NANCY E. MYERS

7072

stake

BLUE

7048

CREEK

GOSHORN HEIRS

0.95 S
4.35 W

New Location ☒
Drill Deeper ☐
Abandonment ☐

.5 NW (J-6)

Company UNITED FUEL GAS CO.
Address CHARLESTON, W.VA.
Farm GOSHORN HEIRS
Tract _____ Acres 787 8.37 Lease No. 48180 48341
Well (Farm) No. _____ Serial No. X-52-A-7198
Elevation (Spirit Level) 776.3
Quadrangle CLENDENIN — C
County KANAWHA District ELK
Engineer Sapiel C. Driscoll
Engineer's Registration No. 2529
File No. 72-63 Drawing No. _____
Date 2-4-52 Scale 1" = 400'

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

WELL LOCATION MAP

FILE NO. KAN-1579

+ 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.

Orig. Stamper

Deep Well

Big Lime 1328 — 1473
Berea shell 1940 — 1952
Corniferous Lm. 4918 — 5033
Oriskany 5033 — 5064
TD 5064'
Vol. 3,110,000 cu. ft. in Orisk.

Comp. Aug. 20, 1952

STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
OIL AND GAS DIVISION

Okendemus

WELL RECORD

Permit No. KAN-1579 Oil or Gas Well Gas (KIND)

Company UNITED FUEL GAS CORPORATION
Address P. O. Box 1273, Charleston 25, W. Va.
Farm Goshorn Heirs Acres 837
Location (waters) Blue Creek
Well No. 7198 Elev. 776.3
District Elk County Kanawha
The surface of tract is owned in fee by
Address
Mineral rights are owned by Goshorn Heirs
Address
Drilling commenced 5-3-52
Drilling completed 8-20-52
Date Shot Not Shot From To
With

Casing and Tubing	Used in Drilling	Left in Well	Packers
Size			
16			Kind of Packer
13		461'	
10	Pulled	1315'	Size of
8 5/8"		1739	
6 5/8 7"		4949'	Depth set
5 3/16			
8			Perf. top
2			Perf. bottom
Liners Used			Perf. top
			Perf. bottom

Open Flow 54 /10ths Water in 7" Inch
/10ths Merc. in Inch
Volume 3,110,000 Cu. Ft.
Rock Pressure 1435 lbs. 48 hrs.
Oil bbls., 1st 24 hrs.
Fresh water 380 feet feet
Salt water 700 feet 750 feet

CASING CEMENTED SIZE No. Ft. Date

COAL WAS ENCOUNTERED AT FEET INCHES
FEET INCHES FEET INCHES
FEET INCHES FEET INCHES

Formation	Color	Hard or Soft	Top	Bottom	Oil, Gas or Water	Depth Found	Remarks
Soil			0	10			
Slate			10	35			
Sand			35	100			
Slate			100	110			
Sand			110	158			
Slate			158	248			
Sand			248	265			
Slate			265	308	4946 DLM - 4918' SLM		
Sand			308	386	Hole Full water 380'		
Slate			386	477			
Salt Sand			477	1118	Salt Water 700' 2-13" bailers per hr.		
Slate			1118	1120			
Lime			1120	1132	Hole full salt water 750'		
Red Rock			1132	1144			
Lime			1144	1158	Show oil & gas 583'		
Slate			1158	1170	Show oil 679'		
Lime			1170	1187			
Slate			1187	1203	Strong show gas 1460'		
Lime			1203	1222			
Sand			1222	1231	Water 1408-1410' 1-10" bailer in 2 hrs		
Lime			1231	1292			
Break			1292	1295	Gas 1580'		
Sand			1295	1305	Gas 1602'		
Lime			1305	1307			
Pencil Cave			1307	1316	Gas in Weir 1722-1730' 45/10 W 3" 636M		
Lime			1316	1326			
Slate			1326	1328	Gas 1790' no test		
Big Lime			1328	1473			
Slate			1473	1487	Show oil 2195'		
Red Sand			1487	1542			
Weir Sand			1542	1735	Gas 4690'		
Lime			1735	1751			
Slate & Shells			1751	1940	Gas 5041-5042' 30/10 W 2" 231 M		
Berea Shell			1940	1952			
Slate & Shells			1952	2070	Gas 5042-5053' 54/10 W 7" 3,110 M		
Red Rock			2070	2078			
Slate & Shells			2078	2368	Not Shot		
White Slate			2368	2620			
Slate & Shells			2620	3125	FINAL OPEN FLOW-3,110 M - Oriskany		
Shale & Shells			3125	3167	48 Hr. S.I.P. 1435#		

(Over)

GOSHORN HEIRS NO. 7198 — U. F. G. CO. — KAN-1579

Formation	Color	Hard or Soft	Top	Bottom	Oil, Gas or Water	Depth Found	Remarks
Slate & Shells			3167	3203			
Shale & Shells			3203	3380			
White Slate			3380	3709			
Shale & Shells			3709	3935			
White Slate			3935	4100			
Brown Shale			4100	4125			
White Slate			4125	4355			
Brown Shale			4355	4784			
White Slate			4784	4838			
Brown Shale			4838	4930			
Dark Shale			4930	4946			
Corniferous	Lime		4918	5033			
Oriskany			5033				
Total depth			5064'				
				4918	5033		
				776	776		
				4142	4257		

Date January 8, 19 53

APPROVED UNITED FUEL GAS COMPANY, Owner

By R. O. Greer
(Title)

WR-35

23-Jul-90
API # 47- 39-01579 W

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

Well Operator's Report of Well Work

Farm name: BROWN III,BEN,ET. AL Operator Well No.: 7198

LOCATION: Elevation: 776.00 Quadrangle: BLUE CREEK

District: ELK County: KANAWHA
Latitude: 4600 Feet South of 38 Deg. 25Min. 0 Sec.
Longitude 11200 Feet West of 81 Deg. 22 Min. 30 Sec.

Company: COLUMBIA GAS TRANSMISSION
1700 MacCORKLE AVENUE S.E.
CHARLESTON, WV 25314-0000

Agent: ROBERT E. WEIDNER

Inspector: CARLOS W. HIVELY
Permit Issued: 07/23/90
Well work Commenced: 8/6/90
Well work Completed: 8/23/90
Verbal Plugging
Permission granted on: _____
Rotary ____ Cable ____ Rig
Total Depth (feet) 5064
Fresh water depths (ft) 150' est.

Salt water depths (ft) 380' est.

Is coal being mined in area (Y/N)? ___
Coal Depths (ft): 1000' Est

Casing & Tubing Size	Used in Drilling #/ft		Left in Well	Cement Fill Up Cu. Ft.
13-3/8"	48#	508'	457'	—
10-3/4"	32.75 40.50	2895'	0'	—
8-5/8"	24#	1830'	1753'	Cement-ge
7"	23#	5129'	4997'	fill Cement
2 3/8"	4.6#	5316'	5045.9	—

OPEN FLOW DATA

Producing formation Oriskany Pay zone depth (ft) 5033'-5064'
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

N/A
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

— over —

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: COLUMBIA GAS TRANSMISSION CORP.
By: Richard L. Coty
Date: 9/19/97

Physical Changes

1.) Welded 6' Pup joint onto 13-3/8" csg -
2.) Pulled 2 jts of 7" csg (61.90') and replaced w/ 2 new joints of 7" - 23#/ft casing -
3.) Pulled 5048' of 2-3/8" tubing - and replaced w/ 5034' of new 2-3/8" NUE, 4.6 #/ft, J-55 tubing with a Baker seating nipple on bottom -

(NOTE: See previously submitted geological record)

039-1579W
Issued 7/23/90
Expires 7/23/92

FORM WW-2B

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

1) Well Operator: COLUMBIA GAS TRANSMISSION CORP. 10450 (4) 258

2) Operator's Well Number: 7198 3) Elevation: 776'

4) Well type: (a) Oil __/ or Gas X/

(b) If Gas: Production __/ Underground Storage X/
Deep X/ Shallow __/

5) Proposed Target Formation(s): Oriskany Sand

6) Proposed Total Depth: 5064 feet

7) Approximate fresh water strata depths: 150' est.

8) Approximate salt water depths: 380' est.

9) Approximate coal seam depths: 1,000' est.

10) Does land contain coal seams tributary to active mine? Yes ___/ No ___/

11) Proposed Well Work: A) Pull & replace 2-3/8" tubing and partial replacement of the 7" casing. B) Perforate and squeeze the 8-5/8" casing

12) C) Install 3,000 psi API flanged wellhead assembly.

CASING AND TUBING PROGRAM

TYPE	SPECIFICATIONS			FOOTAGE INTERVALS		CEMENT
	Size	Grade	Weight per ft.	For drilling	Left in well	Fill-up (cu. ft.)
Conductor						
Fresh Water	13-3/8"		48#	508'	457'	Rework Gas Storage well
Coal	10-3/4"		32.75# 40.50#	2,895'	0'	
Intermediate	8-5/8"		24#	1,830'	1,753'	cement-gel
Production	7"		23#	5,129'	4,997'	fill cement
Tubing	2-3/8"		4.6#	5,316'	5,079'	
Liners						

PACKERS : Kind None
Sizes
Depths set

105121
17

RECEIVED
JUL 06 1990
DIVISION OF OIL & GAS
DEPARTMENT OF ENERGY

For Divison of Oil and Gas Use Only

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

Form WW2-A
(09/87)
File Copy

RECEIVED
JUL 06 1990
DIVISION OF OIL & GAS
DEPARTMENT OF ENERGY

1) Date: June 22, 1990
2) Operator's well number
Coco A #7198
3) API Well No: 47 - 039 - 01579 -REWOR
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 (see attached listing)
Address

(b) Name
Address

(c) Name
Address

5) (a) Coal Operator:
Name none
Address

(b) Coal Owner(s) with Declaration
Name (see attached listing)
Address

Name
Address

(c) Coal Lessee with Declaration
Name none
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.

OFFICIAL SEAL
NOTARY PUBLIC
STATE OF WEST VIRGINIA
MARY PARSONS
2052 Lincoln Avenue
St. Albans, West Virginia 25177
My Commission Expires Oct. 10, 1994

Well Operator Columbia Gas Transmission Corp.
By: R. W. Lichtenfels
Its: Director, Drilling and Maintenance
Address P. O. Box 1273
Charleston, WV 25325-1273
Telephone (304) 357-2459

Subscribed and sworn before me this 25th day of June, 1990

Mary Parsons
Notary Public

My commission expires October 10, 1994

039-1579-D

FORM WW-2B

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

1) Well Operator: COLUMBIA GAS TRANSMISSION CORP. 175 10450 (4) 388

2) Operator's Well Number: 7198 3) Elevation: 775'

23240

Well type: (a) Oil __/ or Gas ✓/

Issued 03/10/97
Expires 03/10/99

(b) If Gas: Production __/ Underground Storage ✓/
Deep ✓/ Shallow __/

Proposed Target Formation(s): ORISKANY 475

Proposed Total Depth: 5115' feet

7) Approximate fresh water strata depths: 380'

8) Approximate salt water depths: 750'

9) Approximate coal seam depths: N/A

10) Does land contain coal seams tributary to active mine? Yes __/ No ✓/

11) Proposed Well Work: KILL WELL, PULL TUBING, DRILL 50' DEEPER, RUN + CEMENT 4½" CASING, AND STIMULATE ORISKANY.

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						
Fresh Water	13 3/8"		48*		457'	
Coal	10 3/4"		40.5*	1315'		
Intermediate	8 5/8"		24*		1739'	
Production	7"		23*		4948'	
Tubing						380 SK 10 11.1
Liners (NEW)	4½"	N-80	11.6*	C.H.-1-13-97	5115'	100 SK

PACKERS : Kind NONE
Sizes
Depths set

0018 2240 4

For Divison of Oil and Gas Use Only

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

Page 1 of__
Form WW2 - A
(6/94)
File Copy

1) Date: 1/3/97
2) Operator's well number
COCO-A WELL #07198
3) API Well No: 47 - 039 - 01579
State - County - Permit

STATE OF WEST VIRGINIA - BUREAU OF ENVIRONMENT
DIVISION OF ENVIRONMENTAL PROTECTION
OFFICE 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, Trustee
Address P.O. Box 1793
Charleston, WV 25326
b) Name
Address
c) Name
Address

5) (a) Coal Operator:
Name
Address

(b) Coal Owner (s) with Declaration
Name James F. Brown, III, Trustee
Address P.O. Box 1793
Charleston, WV 25326
Name
Address

(c) Coal Lessee with Declaration
Name
Address

6) Inspector Carlos W. Hively
Address 223 Pinch Ridge Road
Elkview, WV 25071
Telephone (304) - 965-6069

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

Copy of Storage Lease in Col. C.T. Kanawha Cty Office

_____ 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 22, Article 6, Section 8 (d) of the Code of West Virginia (see page 2)

I certify that as required under Chapter 22 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 22-6 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 GAS TRANSMISSION CORP.
By:
Its: Storage Engineer / Well Services
Address P. O. Box 1808
St. Albans, WV 25177-1808
Telephone (304) 722-8612

Subscribed and sworn before me this 13th day of January, 1997

Patricia A. Turkett Notary Public

My commission expires August 12, 1997

OFFICIAL SEAL
NOTARY PUBLIC
STATE OF WEST VIRGINIA
PATRICIA A. TURKETT
P. O. BOX 1273
CHARLESTON, WEST VIRGINIA 25325-1273
My Commission Expires August 12, 1997

WR-35

07-Mar-97
API # 47- 39-01579 D

State of West Virginia
Division of Environmental Protection
Section of Oil and Gas

Well Operator's Report of Well Work

Farm name: BROWN, JAMES F. III Operator Well No.: 7198

LOCATION: Elevation: 774.80 Quadrangle: BLUE CREEK

District: ELK County: KANAWHA
Latitude: 4600 Feet South of 38 Deg. 25Min. 0 Sec.
Longitude 11200 Feet West of 81 Deg. 22 Min. 30 Sec.

Company: COLUMBIA GAS TRANSMISSION
P. O. BOX 1273
CHARLESTON, WV 25325-1273

Agent: RICHARD L. COTY

Inspector: CARLOS HIVELY
Permit Issued: 03/10/97
Well work Commenced: 09/30/97
Well work Completed: 10/21/97
Verbal Plugging
Permission granted on: _____
Rotary X Cable _____ Rig
Total Depth (feet) 5133'
Fresh water depths (ft) 380'
Salt water depths (ft) 700',750'
Is coal being mined in area (Y/N)? N
Coal Depths (ft): Not reported

Casing & Tubing Size	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
13 3/8"		457'	
8 5/8"		1739'	40SX
7"		4948'	835SX
4 1/2",	11.6 lb.,N-80	5131'	75SX

OPEN FLOW DATA

Producing formation ORISKANY STORAGE Pay zone depth (ft) 5037'-5064'
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

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: COLUMBIA GAS TRANSMISSION CORP.
By: [signature]
Date: 1-15-98

Pulled 5077' of 2 3/8" tubing, drilled new 6 1/8" hole 5082' - 5133', ran 5131' of 4 1/2", 11.6 lb, N-80 casing and cemented with 75SX CLass A cement. Perf'd ORISKANY 5037' -5064' with 6 spf and stimulated with N_2-Assist Deltafrac using 410 bbls water, 137 MSCF N_2, and 21,000 lbs 20/40 sand.