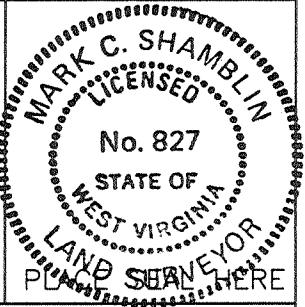


(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS

FILE No 96X208  
 DRAWING No. W-7052  
 SCALE 1" = 1000'  
 MINIMUM DEGREE OF ACCURACY 1 : 200  
 PROVEN SOURCE OF ELEVATION EXISTING WELL

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 MINES  
 (SIGNED) *Mark C. Shamblin*  
 P.E. \_\_\_\_\_ R.P.S. 827



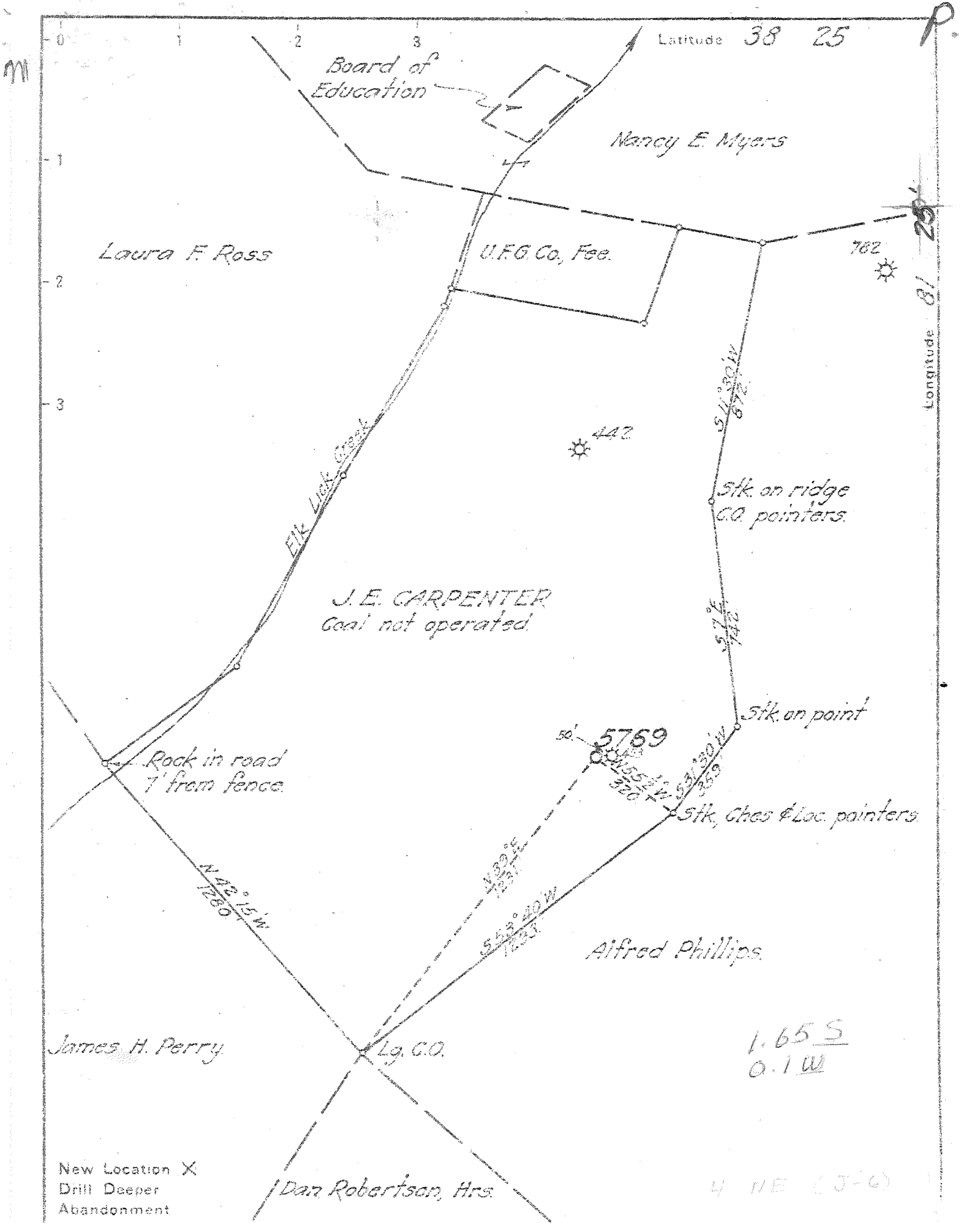
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
 OFFICE OF OIL & GAS  
 #10 McJUNKIN ROAD  
 NITRO, WEST VIRGINIA 25143-2506



DATE NOVEMBER 26, 19 96  
 OPERATOR'S WELL No. W-7052  
 API WELL No. \_\_\_\_\_

WELL TYPE: OIL  GAS  LIQUID INJECTION  WASTE DISPOSAL  STATE 47 COUNTY 039 PERMIT 012767  
 (IF "GAS") PRODUCTION  STORAGE  DEEP  SHALLOW   
 LOCATION: ELEVATION 1158.5 WATER SHED BLUE CREEK  
 DISTRICT ELK COUNTY KANAWHA  
 QUADRANGLE BLUE CREEK, 7.5' COORDINATES Lat: 38°-23'-36" Long: 81°-25'-10"  
 SURFACE OWNER CHARLES E. HUFFMAN ACREAGE 20.41 AC  
 OIL & GAS ROYALTY OWNER CARPENTER ETAL LEASE ACREAGE 78 AC  
 LEASE No. 7384  
 PROPOSED WORK: DRILL  CONVERT  DRILL DEEPER  REDRILL  FRACTURE OR Well Drilled  
 STIMULATE  PLUG OFF OLD FORMATION  PERFORATE NEW FORMATION  OTHER PHYSICAL CHANGE IN WELL (SPECIFY) STORAGE RECONDITION  
Drill existing storage well 100' deeper rework.  
 PLUG AND ABANDON  CLEAN OUT AND REPLUG  ESTIMATED DEPTH 5525  
 TARGET FORMATION Christy  
 WELL OPERATOR COLUMBIA GAS TRANSMISSION CORP. DESIGNATED AGENT RICHARD L. COTY  
 ADDRESS P.O. 1273 CHARLESTON, WV 25325 ADDRESS P.O. BOX 1723 CHARLESTON, WV 25325  
DEEP WELL

JAN 21 1997



Company	UNITED FUEL GAS CO.		
Address	CHARLESTON W.VA.		
Farm	J.E. CARPENTER		
Tract	Acres	Lease No.	78 7384
Well (Farm) No.	3	Serial No.	5769
Elevation (Spirit Level)	1158.5 Gr.		
Quadrangle	GLENDEMIN - WC		
County	District	KANAWHA ELK	
Engineer	M.A. Wood		
Engineer's Registration No.	662		
File No.	Drawing No.	72-61	
Date	Scale	APRIL 19, 1946 1" = 400'	

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

WELL LOCATION MAP  
FILE NO. KAN-1276

+ 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.

Deep Well

WEST VIRGINIA DEPARTMENT OF MINES  
OIL & GAS DIVISION  
W E L L    R E C O R D

Permit No. Kan 1276  
Glendenin Quad.

Gas Well  
CASING & TUBING

Company	United Fuel Gas Co.			
Address	P.O. Box 1273, Charleston 25, W.Va.	13 3/8	515	515
Farm	J.E. Carpenter Acres 78	10 1/2	1784	1784
Location	Elk Lick Cr. of Blue Cr.	8 5/8	2104	2104
Well No.	5769 Elev. 1158.5 Gr.	7	5281	5281
District	Elk Kanawha County	2 tubing		5420
Surface				
Mineral	R.C. Andrews et al, 2410 Kanawha Blvd E Charleston, W.Va.			Coal at 840' 36"
Commenced	9-23-46			
Completed	3-22-47			
Date shot	3-22-47 Depth 5390 to 5420 with 200 # EL 409 and 35# Gel.			
Rock Pressure	640 lbs. 19 hrs.			

Clay	0	20	Blue Slate	1712	1722
Sand	20	60	Lime Shells	1722	1732
Slate	60	90	-Pencil Cave	1732	1735
Sand	90	150	-Big Lime	1735	1761
Slate	150	175	Slate	1761	1765
Sand	175	235	-Big Lime	1765	1875
Slate	235	250	-Injun Sand	1875	1937
Sand	250	315	-Weir Sand	1937	2130
Slate	315	325	Slate	2130	2144
Sand	325	368	Lime	2144	2215
Black Slate	368	373	Slate & Shells	2215	2425
Sand	373	381	Lime and Shells	2425	3527
Black Lime	381	390	Shale	3527	3810
Slate	390	407	Slate & Shells	3810	3917
Sand	407	415	Shale	3917	4200
Slate	415	430	Slate	4200	4750
Sand	430	460	Shale	4750	5220
Slate	460	495	Slate	5220	5240
Sand	495	535	- Blk. Shale	5240	5269
Slate	535	560	- Corniferous	5269	5390
Sand	560	575	- Oriskany	5390	5420
Slate & Shells	575	665	Total Depth		5420
Lime	665	680			
Slate	680	700	Gas 5401-5413 Oriskany		
Lime	700	740	Gas 1743 Lime		
Slate	740	745	Gas 2011-2021 Weir		
Black Lime	745	790			
Sand	790	832			
Slate	832	840			
-Coal	840	843			
Lime	843	910			
Slate	910	930			
-Gas Sand	930	1005			
Slate	1005	1010			
-Salt Sand	1010	1264			
Slate	1264	1268			
-Sand	1268	1342			
Slate	1342	1377			
-Salt Sand	1377	1431			
Slate & Shells	1431	1438			
-Sand	1438	1496			
Lime	1496	1512			
-Red Rock	1512	1518			
Slate	1518	1530			
Red Rock	1530	1570			
Slate	1570	1600			
Red Rock	1600	1610			
Slate	1610	1617			
Lime	1617	1628			
Slate	1628	1634			
Lime	1634	1638			
-Maxon Sand	1638	1658			
Blue Slate	1658	1685			
-Little Lime	1685	1712			

5390    5269  
 1159    1159  
 -----  
 4231    4110

STATE OF WEST VIRGINIA  
DIVISION OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS  
WELL WORK PERMIT APPLICATION

10456 (4)

258

- 1) Well Operator: Columbia Gas Transmission Corp.
  - 2) Operator's Well Number: 7052 3) Elevation: 1159
  - 4) Well type: (a) Oil      / or Gas X /  
(b) If Gas: Production      / Underground Storage X /  
Deep X / Shallow      /
- Proposed Target Formation(s): Oriskany Sandstone  
Proposed Total Depth: 5525 feet  
Approximate fresh water strata depths: N/A  
8) Approximate salt water depths: N/A  
9) Approximate coal seam depths: 840'-843'  
10) Does land contain coal seams tributary to active mine? Yes      / No X /  
11) Proposed Well Work: Install API 3000 Wellhead. Drill well 100' deeper. Log. Stimulate Oriskany. Install tubing if needed.  
12)

Issued 01/13/97  
Expires 01/13/99

RECEIVED  
Division of Environmental Protection  
DEC 27 1996  
Permitting Office of Oil & Gas

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"		48	515'	-0-	
Fresh Water	10 3/4"		32,35,40	1784'	1784'	
Coal	8 5/8"		28	2148'	2148'	
Intermediate	7"		22	5281'	5281'	
Production	4 1/2"	K-55	11.6	5345'	5345'	40 sks
Tubing						
Liners		C. H. 10-32-96				

*Oriskany from Well Records*

*3805/11/1*

PACKERS : Kind       
Sizes       
Depths set     

For Office of Oil and Gas Use Only

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

0017760  
42

23042



RECEIVED  
WV Division of  
Environmental Protection

WR-35

JAN 21 1998

Permitting  
Office of Oil & Gas

07-Jan-97  
API # 47- 39-01276 D

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

Well Operator's Report of Well Work

Farm name: HUFFMAN, CHARLES E. ETAL. Operator Well No.: 7052

LOCATION: Elevation: 1,158.50 Quadrangle: BLUE CREEK

District: ELK County: KANAWHA  
Latitude: 8600 Feet South of 38 Deg. 25Min. 0 Sec.  
Longitude 900 Feet West of 81 Deg. 25 Min. 0 Sec.

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

Agent: RICHARD L. COTY

Inspector: CARLOS HIVELY  
Permit Issued: 01/13/97  
Well work Commenced: 07/26/97  
Well work Completed: 08/19/97  
Verbal Plugging \_\_\_\_\_  
Permission granted on: \_\_\_\_\_  
Rotary Cable Rig  
Total Depth (feet) 5420'  
Fresh water depths (ft) \_\_\_\_\_  
Not Reported  
Salt water depths (ft) \_\_\_\_\_  
Not Reported  
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.
10 3/4"		1785'	
8 5/8"		2148'	
7"		5281'	
4 1/2"		5345'	40SX

OPEN FLOW DATA

Producing formation ORISKANY STORAGE Pay zone depth (ft) 5387'-5420'  
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

JAN 23 1998

Replaced top joint of 4 1/2" casing and installed new 7" X 4 1/2" API 3000 wellhead.  
Stimulated ORISKANY with N<sub>2</sub>-assist Deltafrac treatment using 343 bbls water,  
188 MSCF N<sub>2</sub>, and 25,900 lbs. 20/40 sand.