

Janice
11/27/96

47-075-00010

LATITUDE 38°42'30"

LONGITUDE 79°45'00"

075-00038

WELL #7467

WELL #7478

FOX RUN

WELL #7455

075-00009

WELL #7466

075-00032

WELL #7454

075-00025

WELL #7465

075-00031

ELKLICK RUN

WELL #7461

075-00011

WELL #7464

075-00030

SET STONE MARKED W.L.C.O. 22-52 FS BIRCH & SUGAR POINTER

075-00034

075-00026

N 15°45' W
6935.28'

N 6°15' W
10039.92'

N 13°30' E
3400.32'

N 78°25' W
2262.48'

UNITED STATES OF AMERICA

NIF
UNITED STATES OF AMERICA

4" X 4" X 3" SPRUCE POST
IN MOUND OF STONE
MARKED W.L.C.O. 23-FS

S 70°46' E
1170.50'

4" X 10" X 24" STONE
IN A MOUND OF STONES
CHISELLED W.L.C.O. 24-FS

2" X 18" X 26" SET STONE
IN MOUND OF STONES
MARKED W.L.C.O. 21-52 FS
MAPLE POINTER

Wildell Quad

Simps Quad
Dandy Quad

(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS (7 1/2")

FILE NO. _____
DRAWING NO. _____
SCALE 1" = 2000'
MINIMUM DEGREE OF
ACCURACY 1/200
PROVEN SOURCE OF
ELEVATION Well in base of large peach on
south side of Fox Run Road at intersection of
Atlantic Seaboard Corp. well road. Elev. 3562.36'

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 REGU-
LATIONS ISSUED AND PRESCRIBED BY THE DEPART-
MENT 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 OCTOBER 25, 1996
OPERATOR'S WELL NO. 7467
API WELL NO.

47 075 00036 W

WELL TYPE: OIL ___ GAS ___ LIQUID INJECTION ___ WASTE DISPOSAL ___ STATE COUNTY PERMIT
(IF "GAS,") PRODUCTION ___ STORAGE ___ DEEP ___ SHALLOW ___
LOCATION: ELEVATION 3522' WATER SHED FOX RUN OF WEST FORK OF GREENBRIER RIVER
DISTRICT GREENBANK COUNTY POCAHONTAS
QUADRANGLE WILDELL COORDINATES LAT. 38°41'48" LONG. 79°45'06"
SURFACE OWNER UNITED STATES OF AMERICA DEPT. OF INTERIOR ACREAGE 1852.00 ±
OIL & GAS ROYALTY OWNER USA DEPT OF INTERIOR LEASE ACREAGE 48212.33
COAL OWNER _____ LEASE NO. 90700

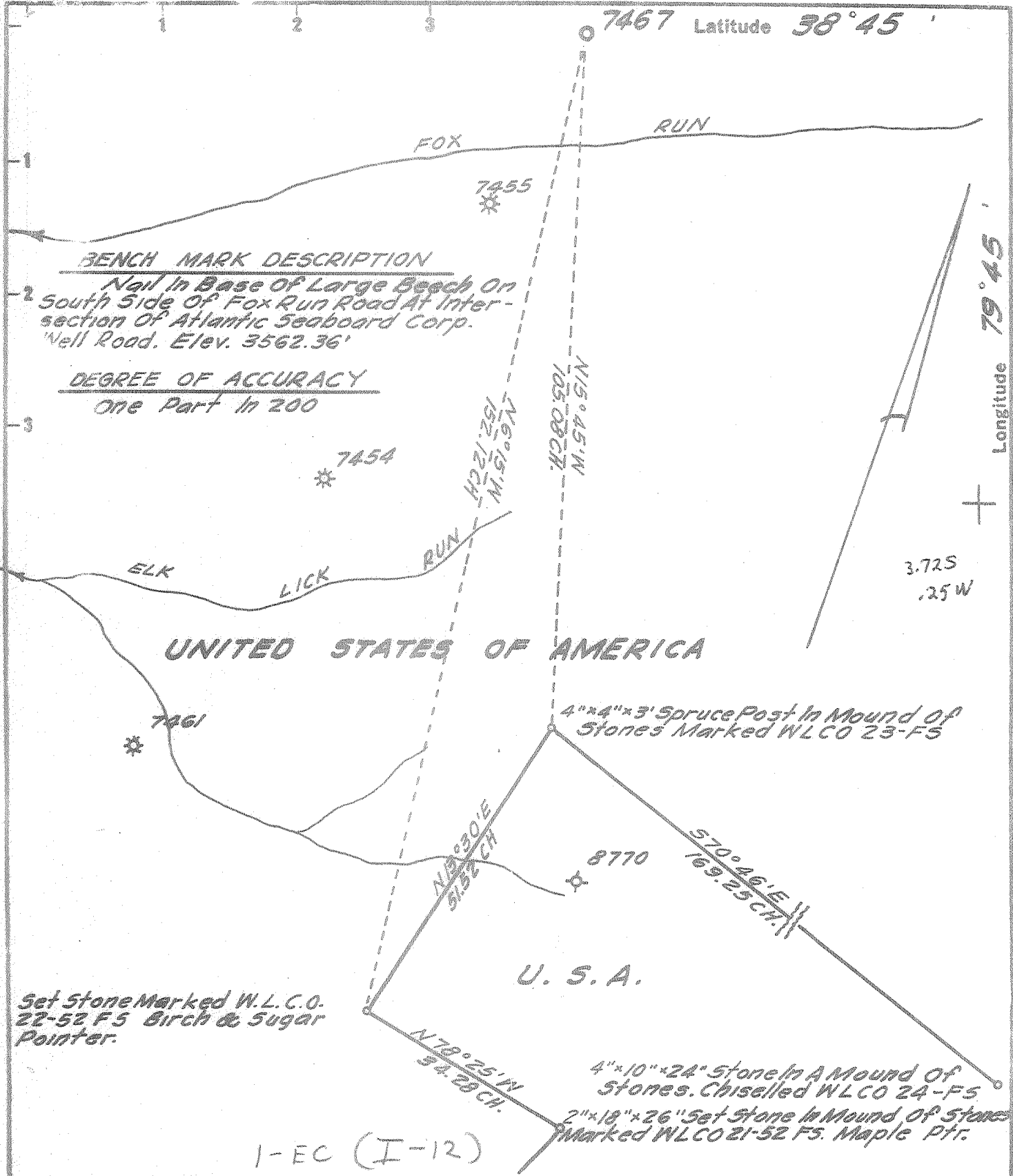
PROPOSED WORK: DRILL ___ CONVERT ___ DRILL DEEPER ___ REDRILL ___ FRACTURE OR Re-permitted work?
STIMULATE ___ PLUG OFF OLD FORMATION ___ PERFORATE NEW
FORMATION, OTHER PHYSICAL CHANGE IN WELL (SPECIFY) STORAGE RECONDITION
Well drilled by Atlantic Seaboard in 1966. 6151' TD.

PLUG AND ABANDON ___ CLEAN OUT AND REPLUG ___
TARGET FORMATION Oriskany ESTIMATED DEPTH 6181' DEC 6 1996

WELL OPERATOR COLUMBIA GAS TRANS. CORP. DESIGNATED AGENT RICHARD L. COTY
ADDRESS P.O. BOX 1273, CHARLESTON, WV ADDRESS P.O. BOX 1273, CHARLESTON, WV
25325-1273 25325-1273

9-AIA 11/80

POCAHONTAS
COUNTY NAME
PERMIT 00036



Set Stone Marked W.L.C.O. 22-52 F5 Birch & Sugar Pointer.

4" x 4" x 3" Spruce Post In Mound of Stones Marked WLCO 23-F5

4" x 10" x 24" Stone In A Mound of Stones. Chiselled WLCO 24-F5

2" x 10" x 26" Set Stone In Mound of Stones Marked WLCO 21-52 F5. Maple Pfr.

1-EC (I-12)

- Fracture Before 6/5/27
- New Location
- Drill Deeper
- Redrill
- Abandonment

I, the undersigned, hereby certify that this map is correct to the best of my knowledge and belief and shows all the information required by Paragraph 5 of the Rules and Regulations of the Oil and Gas Section of the Mining Laws of West Virginia.

The accuracy of this survey is within the limits and as prescribed in paragraph 5 by the Oil and Gas Division of the Department of Mines Regulations. **PROVEN ELEVATION 3562.36'**

Company ATLANTIC SEABOARD CORP.
 Address CHARLESTON, W. VA.
 Farm UNITED STATES OF AMERICA
 Tract 52 Acres 1964 Lease No. 45-700 BLM-A 022-923
 Well (Farm) No. _____ Serial No. 7467
 Elevation (Spirit Level) 3522.58'
 Quadrangle DURBIN - NE
 County POCAHONTAS District GREEN BANK
 Engineer O. L. Spinks
 Engineer's Registration No. 2712
 File No. 164-83 Drawing No. _____
 Date MARCH 21 '66 Scale 1" = 1320'

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

WELL LOCATION MAP
 FILE NO. Ec 36

+ 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.

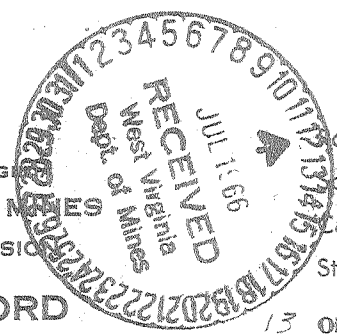
9-0 261 Deep Well - Storage

Deep Well

7-12-66
AS



STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
OIL AND GAS DIVISION



- Notary
- Blowdown
- Cable Tools
- Storage

WELL RECORD

13 Oil or Gas Well Gas Storage (KIND)

Quadrangle Durbin
Permit No. POC.-36

Company Atlantic Seaboard Corporation
 Address P.O. Box 1273 Charleston, W. Va. 25325
 Farm United States of America Acres -
 Location (waters) Fox Run
 Well No. X-77-7467 Elev. 3522.58'
 District Green Bank County Pocahontas
 The surface of tract is owned in fee by _____
 Address _____
 Mineral rights are owned by United States Geological Survey/16
3218 General Services Bldg. Address Washington, D.C. 20240

Casing and Tubing	Used in Drilling	Left in Well	Packers
Size			Kind of Packer
16			
13 3/8" 40'	Cemented with 20 sacks		Size of
10			
9 5/8" 1435'	Cemented 225 cu.ft. neat cement		Depth set
7" 5956'	Cemented with 200 cu.ft. Litepoz		
3			Perf. top
2 3/8"		6143'	Perf. bottom
Liners Used			Perf. top
			Perf. bottom

Drilling commenced 5-18-66
 Drilling completed 5-31-66
 Date Shot _____ From _____ To _____
 With _____
 Open Flow _____ /10ths Water in _____ Inch
 _____ /10ths Merc in _____ Inch
 Volume 10,280 M - Oriskany Cu. Ft.
 Rock Pressure 1420 lbs. _____ hrs.
 Oil _____ bbls., 1st 24 hrs.

Attach copy of cementing record.
 CASING CEMENTED _____ SIZE _____ No. Ft. _____ Date _____
 Amount of cement used (bags) _____
 Name of Service Co. _____
 COAL WAS ENCOUNTERED AT _____ FEET _____ INCHES
 _____ FEET _____ INCHES _____ FEET _____ INCHES
 _____ FEET _____ INCHES _____ FEET _____ INCHES

WELL ACIDIZED (DETAILS) _____
 WELL FRACTURED (DETAILS) _____
 RESULT AFTER TREATMENT (Initial open Flow or bbls.) _____
 ROCK PRESSURE AFTER TREATMENT _____ HOURS _____
 Fresh Water 145' Feet 400' Salt Water _____ Feet _____
 Producing Sand _____ Depth _____

Formation	Color	Hard or Soft	Top	Bottom	Oil, Gas or Water	Depth	Remarks
Soil			0	18	Fresh water	145'	
Shale			18	110			
Sand			110	220	Fresh water	400'	
Shale & Sand			220	480			
Shale			480	540	Gas	5914'	150 M estimated.
Sand & Shale			540	665			
Shale			665	725	Gas	6105'	all gas gauged 1,221 M when completed drilling.
Sand			725	810			
Shale			810	955			
Sand			955	1210	Test before acidized -	53/10 W 4"	
Sand & Shale			1210	1995		1,221 M.	
Shale			1995	3200	Acidized 6-3-66 with 20,000 gallons		
Sand & Shale			3200	3290	15% HCL acid, 3,500 gallons water		
Shale & Lime			3290	5430	overflush with 177,000 standard		
Tully Limestone			5430	5450	cu.ft. nitrogen at rate of 250		
Marcellus Shale			5450	5760	standard cu.ft. per bbl.		
Onondaga Limestone			5760	5794	Test after acidized - 1 1/4" spring gauge		
Chert			5794	5910	thru 4" 10,280 M.		
Shale Needmore			5910	5949			
Oriskany			5949	6145			
Helderberg Limestone			6145'	-	Shut in 6-8-66 in 2-3/8" tubing.		
Total Depth			6151'				
			5760	5949	6145		
			3523	3523	3523		
			2237	2426	2622		

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

Issued 12/04/96
Expires 12/04/98

1) Well Operator: COLUMBIA GAS TRANSMISSION CORPORATION 10450

Operator's Well Number: Gladly Stg # 7467 (API 47-075-00036) 3) Elevation: 3,522.58 feet

Well type: (a) Oil / or Gas X /
(b) If Gas: Production / Underground Storage X /
Deep X / Shallow /

Proposed Target Formation(s): Oriskany 475

Proposed Total Depth: 6,181 (drill 30 feet deeper) feet

- 7) Approximate fresh water strata depths: 145', 400'
8) Approximate salt water strata depths: 1200' (approx.)
9) Approximate coal seam depths: NONE
10) Does land contain coal seams tributary to active mine? Yes / No X /

11) Proposed Well Work: Columbia proposes to kill the well with a freshwater polymer based mud system. Remove the tubing and reconfigure or replace the wellhead. The well casing will be inspected with a casing inspection log and hydrostatically tested against a bridge plug. The wellbore will be cleaned out to the original TD and drilled an additional 30 feet into the Helderburg Lime for logging purposes. The open hole section will be logged. The well will be hydra-jetted with coiled tubing and acidized across the Oriskany section. The well will then be cleaned up, flow tested and placed back in service.

12) CASING AND TUBING PROGRAM

Table with 7 columns: TYPE, SPECIFICATIONS (Size, Grade), FOOTAGE INTERVALS (Weight per ft., For drilling), CEMENT (Left in well, Fill-up). Rows include conductor, Fresh Water, Coal, Intermediate, Production, Tubing, and Liners.

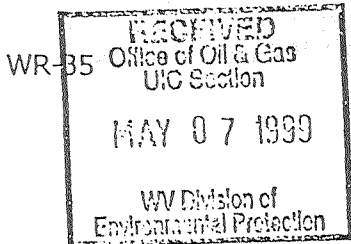
PACKERS: Kind None
Sizes
Depths set

For Division of Oil and Gas Use Only
Fee(s) paid: Well Work Permit Reclamation Fund WPCP Agent
Plat WW-9 WW-2B Bond Blanket (Type)

RECEIVED
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Office of Oil & Gas
Permitting
Environmental Protection

22925

10/16/2025/38



03-Dec-96
API # 47- 075-00036

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

Reviewed AS

Well Operator's Report of Well Work

Farm name: U. S. FOREST SERVICE Operator Well No.: GLADY 7467

LOCATION: Elevation: 3,522.00' Quadrangle: WILDELL

District: GREENBANK County: POCAHONTAS
Latitude: 4,150 Feet South of 38 Deg. 42 Min. 30 Sec.
Longitude: 450 Feet West of 79 Deg. 45 Min. 0 Sec.

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

Agent: RICHARD L. COTY
Inspector: CRAIG DUCKWORTH
Permit Issued: 12/04/96
Well work Commenced: 09/03/97
Well work Completed: 10/03/97
Verbal Plugging
Permission granted on: _____
Rotary _____ Cable _____ Rig
Total Depth (feet) 6,151'
Fresh water depths (ft) See Original Records
Salt water depths (ft) See Previous
Is coal being mined in area (Y/N) ? N
Coal Depths (ft) : See Previous

Casing & Up Tubing Size	Used in Drilling	Left in Well	Cement Fill Cu. Ft.
PULLED & RETIRED 6,143' of 2-3/8", J-55, 4.7 #/FT EUE TUBING			
STIMULATION; SEE BACK FOR DETAILS			

OPEN FLOW DATA

Producing formation ORISKANY Pay zone depth (ft) 5,966' - 6,150'
Gas : Initial open flow 15742 MCF/d Oil : Initial open flow _____ Bbl/d
Final open flow 5570 MCF/d Final open flow _____ Bbl/d
Time of open flow between initial and final tests 427 Days Hours
Static rock Pressure 1994 psig (surface pressure) after 4 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. MAY 24 1999

By: William H. Frazer
Date: May 7, 1999

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

Well Operator's Report of Well Work

STIMULATION

- Acidized on 09-29-97
- Halliburton Foamed Acid Job.
- Pre-flush with 4,032 gals equivalent 15% Halliburton 75 Quality FE Foamed Acid followed by 11,928 gals equivalent 75 Quality Foam.
- Treated with 252 gals 28% Halliburton FE Acid followed by 11,970 gals equivalent 20% Halliburton 75 Quality FE Foamed Acid followed by 11,760 gals equivalent 15% Halliburton 75 Quality FE Foamed Acid. Flushed with 13,986 gals equivalent 75 quality foam and 840 gals H₂O.
- Avg. Rate Approx. 20 BPM @ 1900 PSIG
- Total acid 4,528 gallons 28% Halliburton FE acid (uncut).
- Total nitrogen 735,000 scf.
- Additives: 45 gals FE-1A; 14 gals-HAI-81; 5 gals-SCA-130; 3 gals-FE5A; 23 gals-HC2; 18 lbs BA-2, 5 gals PEN-88M.