

Frac. -9-9
 New Location..
 Drill Deeper.....
 Abandonment.....

OGIS 75' loc 15'
 38° 32' 30" 1.215 4.095
 81° 27' 30" 1.49W sch 3.740

Company Columbia GAS CO.
 Address CHARLESTON, W. VA
 Farm LUVENIA HARPER
 Tract _____ Acres 118 Lease No. 12082
 Well (Farm) No. 2 Serial No. 6158
 Elevation (Spirit Level) 853.4'
 Quadrangle WALTON SW
 County KANAWHA District FLK
 Engineer Y. H. Moore
 Engineer's Registration No. 662
 File No. 68-71 Drawing No. _____
 Date FEB 11 1947 Scale 1" = 400'

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

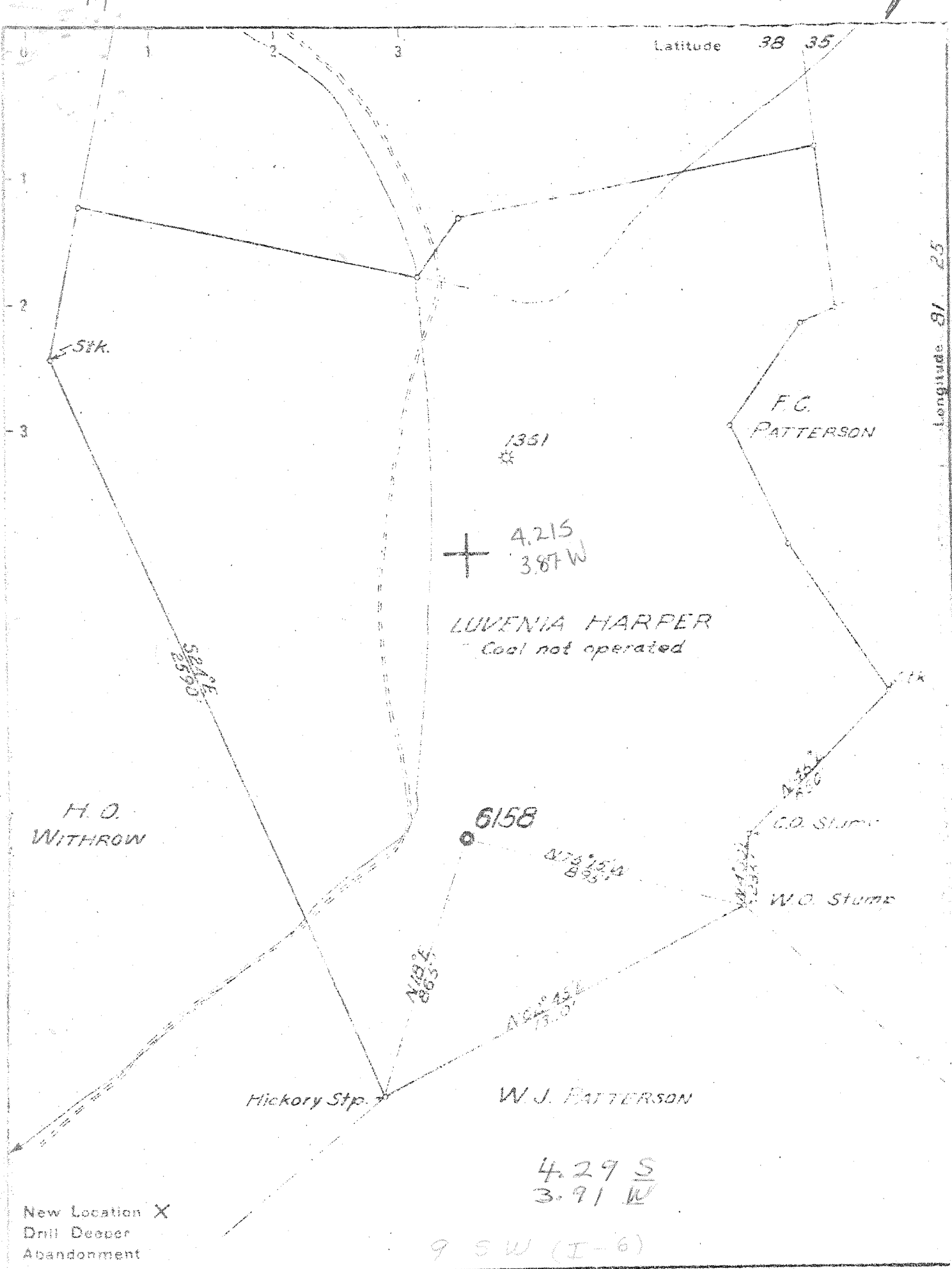
WELL LOCATION MAP
 FILE NO. KAN-1332- Frac.

+ 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.

47-039

owwo- Deep well 6-6 Elk Pass (Sissonville) (192)



New Location X
Drill Deeper
Abandonment

Company UNITED FUEL GAS CO.
 Address CHARLESTON, W. VA.
 Farm LUVENIA HARPER
 Tract _____ Acres 118 Lease No 12082
 Well / Farm No. 2 Serial No 6158
 Elevation (Spot Level) 853.4'
 Quadrangle WALTON - SW
 County KANAWHA District ELK
 Engineer _____
 Engineer's Registration No. 662
 File No. 68-71 Drawing No. _____
 Date FEB. 11, 1947 Scale 1" = 400'

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

WELL LOCATION MAP
 FILE NO KAN-1352

+ 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 other well locations on same acre of coal tract.

Deep Well

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

Gas Well
CASING & TUBING

Permit No. Kan 1352

Walton Quad.

Company

United Fuel Gas Co.

Address

P.O. Box 1273, Charleston 25, W.Va.

Farm

Luvenia Harper Acres 118 A

Location

Little Sandy Creek

Well No.

6158 Elev. 858.4 Gr.

District

Elk Kanawha County

Surface

Mineral

Geo. W. Harper et al, Frame, W.Va.

Commenced

4-3-47

Completed

8-5-47

Date shot.

8-6-47 Depth 5187½ to 5261

with 833 1/3# E.L. 409 and 37½# Gel.

Rock Pressure

1325 lbs. 42 days.

Salt Water

1215' H.F.

Surface	0	16
Red Rock	16	62
Sand	62	80
Red Rock	80	92
Slate	92	127
Red Rock	127	160
Slate	160	190
Lime	190	212
Red Rock	212	240
Slate	240	260
Red Rock	260	295
Slate	295	310
Lime	310	322
Sand	322	345
Slate	345	382
Sandy Lime	382	442
Slate	442	465
Lime	465	480
Sand	480	510
Slate	510	520
Sand	520	540
Slate	540	580
Sand	580	600
Slate & Shells	600	660
Sand	660	775
Slate & Shells	775	860
Sand	860	900
Slate & Shells	900	1070
Sand	1070	1140
Slate	1140	1152
Salt Sand	1152	1595
Slate	1595	1598
Lime L. Lime	1598	1626
Slate P.C.	1626	1630
Big Lime	1630	1753
Injun Sand	1753	1795
Slate & Shells	1795	3400
Brown Shale	3400	3520
White Slate	3520	3680
Slate & Shells	3680	3912
Brown Shale	3912	4062
White Slate	4162	4610
Brown Shale	4610	4890
White Slate	4890	5030
Black Slate	5030	5071
Corniferous Lime	5071	5188
Oriskany Sand	5188	5232
Lime	5232	5250
Sand	5250	5259
Lime	5259	5261
Total Depth	5261	

5071	5188	5259
853	853	853
<hr/>		
4218	4335	4406

Gas 1670-1673 Big Lime
Gas 1785-1790 Injun

Gas 5194-5198 Oriskany
Gas 5198-5202 Oriskany



IV-35
(Rev 8-81)

Date April 25, 1983
Operator's Well No. 7150
Farm Luvenia Harper #2
API No. 47 - 039 - 1352

State of West Virginia
Department of Mines
Oil and Gas Division

WELL OPERATOR'S REPORT
OF
DRILLING, FRACTURING AND/OR STIMULATING, OR PHYSICAL CHANGE

WELL TYPE: Oil ___ / Gas ___ / Liquid Injection ___ / Waste Disposal ___ /
(If "Gas," Production ___ / Underground Storage_{XX} ___ / Deep ___ / Shallow ___ /)

LOCATION: Elevation: 853'4" Watershed Patterson Fork Branch
District: Elk County Kanawha Quadrangle Kettle

COMPANY Columbia Gas Transmission Corporation

ADDRESS P.O. Box 1273 Charleston, WV 25325

DESIGNATED AGENT E. M. Williamson

ADDRESS P.O. Box 1273 Charleston, WV 25325

SURFACE OWNER Ivan Newhouse

ADDRESS Frame Rural Station, Elkview, WV 25071

MINERAL RIGHTS OWNER (SEE ATTACHED SHEET)

ADDRESS _____

OIL AND GAS INSPECTOR FOR THIS WORK Homer H.

Dougherty ADDRESS Linden Rt. Box 3A
Looneyville, WV 25259

PERMIT ISSUED August 12, 1982

DRILLING COMMENCED (RECONDITIONING) 9-30-82

DRILLING COMPLETED (RECONDITIONING) 11-9-82

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

Casing & Tubing	Used in Drilling	Left in Well	Cement fill up Cu. ft.
Size 20-16 Cond.			
10 3/4" 10 3/4"	Orig.	468'4"	
9 5/8			
8 5/8	Orig.	1669'9"	
7	Orig.	5109'8"	(Squeeze) 899
5 1/2			
4 1/2		5252.35'	722
3			
2			
Liners used	OIL & GAS DIVISION DEPT. OF MINES		

GEOLOGICAL TARGET FORMATION Oriskany Sand Depth 5190 feet

Depth of completed well 5250 feet Rotary ___ / Cable Tools X

Water strata depth: Fresh ___ feet; Salt ___ feet

Coal seam depths: _____ Is coal being mined in the area? _____

OPEN FLOW DATA

Producing formation Oriskany Sand Pay zone depth 5190 feet

Gas: Initial open flow NA Mcf/d Oil: Initial open flow ___ Bbl/d

Final open flow 1,838 Mcf/d Final open flow ___ Bbl/d

Time of open flow between initial and final tests ___ hours

Static rock pressure ___ psig (surface measurement) after ___ hours shut in

(If applicable due to multiple completion--)

Second producing formation _____ Pay zone depth _____ feet

Gas: Initial open flow _____ Mcf/d Oil: Initial open flow _____ Bbl/d

Final open flow _____ Mcf/d Oil: Final open flow _____ Bbl/d

Time of open flow between initial and final tests ___ hours

Static rock pressure ___ psig (surface measurement) after ___ hours shut in

(Continue on reverse side)

MAY 09 1983

KAN - 1352

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

Reconditioned: Pulled 5237.49 feet of 203/8" tubing. Cleaned hole to total depth with a 6-1/8" bit. Perforate 7" 226- to 2264 feet squeeze with 354 cubic feet of cement. Perforate 7" 1560 to 1561 feet (4shots) and squeeze 7" with 545 cubic feet of cement. Run 4 1/2" casing to 5252.35 feet of cement with 722 cubic feet of cement. Drill out cement (Openhole completion). Ran a water frac with Nitrogen -500BB1- fluid, 146,000 SCF Nitrogen.

WELL LOG

FORMATION COLOR HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS Including indication of all fresh and salt water, coal, oil and gas

(Attach separate sheets as necessary)

Columbia Gas Transmission Corporation
Well Operator

By: [Signature]
Date: April 25, 1983

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."



(Revised 3-81)

STATE OF WEST VIRGINIA
OFFICE OF OIL AND GAS - DEPARTMENT OF MINES

OIL AND GAS WELL PERMIT APPLICATION

WELL TYPE: Oil ___ / Gas X /
(If "Gas", Production ___ / Underground storage X / Deep ___ / Shallow ___ /
LOCATION: Elevation: 853'-4" Watershed: Patterson Fork Branch
District: Elk County: Kanawha Quadrangle: Kettle

WELL OPERATOR Columbia Gas Trans. Corp.
Address P.O. Box 1273
Charleston, WV 25325

DESIGNATED AGENT E. M. Williamson
Address P.O. Box 1273
Charleston, WV 25325

OIL AND GAS ROYALTY OWNER (See attached Sheet)
Address _____
Acreage _____

COAL OPERATOR Not Operated
Address _____

SURFACE OWNER Ivan Newhouse
Address Frame Rural Station
Elkview, WV 25071
Acreage 118

COAL OWNER(S) WITH DECLARATION ON RECORD:
NAME (See attached sheet)
Address NONE
NAME _____
Address _____

FIELD SALE (IF MADE) TO:
NAME _____
Address _____

COAL LESSEE WITH DECLARATION ON RECORD:
NAME None
Address _____

OIL AND GAS INSPECTOR TO BE NOTIFIED:
NAME Fred Burdette
Address P.O. Box 190, Cicerone Route
Sissonville, WV 25320
Telephone 304/984-9263

RECEIVED
AUG 30 1982

OIL & GAS DIVISION
DEPT. OF MINES

The undersigned well operator is entitled to operate for oil or gas purposes at the above location under a deed ___ / lease X / other contract ___ / dated 4-9, 1914, to the undersigned well operator from Luvenia and H. K. Harper.

If said deed, lease, or other contract has been recorded:
Recorded on _____, 19___, in the office of the Clerk of County Commission of Kanawha County, West Virginia, in 25 Book at page 275. A permit is requested as follows:

PROPOSED WORK: Drill ___ / Drill Deeper X / Redrill ___ / Fracture or stimulate X / Plug off old formation ___ / Perforate new formation ___ / Other physical change in well (specify) Recondition by running new Casing string and install new Wellhead.
--planned as shown on the work order on the reverse side hereof.

The above named coal operator, coal owner(s), and coal lessee are hereby notified that any objection they wish to make or are required to make by Code §22-4-3 must be filed with the Department of Mines within fifteen (15) days after receipt of this Application by the Dept. Copies of this Permit Application and the enclosed plat and reclamation plan have been mailed by registered mail or delivered by hand to the above named coal operator, coal owner(s), and coal lessees on or before the day of the mailing or delivery of this Application to the Department of Mines at Charleston, West Virginia.

PLEASE SUBMIT COPIES OF ALL PHYSICAL LOGS DIRECTLY TO:

WEST VIRGINIA OIL AND GAS CONSERVATION COMMISSION
13 WASHINGTON ST., E.
CHARLESTON, WV 25311
Telephone - 304/348-3092

Columbia Gas Transmission Corporation
Well Operator
By: E. M. Williamson
Its: Director - Drilling & Maintenance

PROPOSED WORK ORDER

THIS IS AN ESTIMATE ONLY:
ACTUAL INFORMATION MUST BE SUBMITTED ON FORM IV-35 UPON COMPLETION

DRILLING CONTRACTOR (IF KNOWN) _____

Address _____

GEOLOGICAL TARGET FORMATION

Oriskany

Estimated depth of completed well 5261 feet. Rotary X / Cable tools ___ /
Approximate water strata depths: Fresh, ___ feet; salt, 1215 feet.
Approximate coal seam depths: ___
Is coal being mined in this area: Yes ___ / No X /

CASING AND TUBING PROGRAM

CASING OR TUBING TYPE	SPECIFICATIONS				FOOTAGE INTERVALS		CEMENT FILL UP OR SACKS Cubic ft.	PACKERS
	Size	Grade	Weight per ft	New	Used	For Drill-ling		
Conductor								Kinds
Fresh water	10 3/4"		32.75#				468'-4"	10 Sacks
8 5/8" Inter.	8 5/8"		28.00#				1669'-9"	18 Sacks
Intermed.	7"		Mixed				5109'-8"	2400' to Surface
Production Tubing	4 1/2"	K-55	10.50#				5261'	1000' of fillup
Liners								Depths set
								Perforations:
								Top Bottom
								Open Hole

NOTE: Regulation 7.02 of the Department of Mines provides that the original and four copies of Form IV-2 must be filed with the Department, accompanied by (i) a plat in the form prescribed by Regulation 11, (ii) a bond in one of the forms prescribed by Regulation 12, or in lieu thereof the other security allowed by Code §22-4-2, (iii) Form IV-9, "Reclamation Plan" applicable to the reclamation required by Code §22-4-12b and Regulation 23, (iv) unless previously paid on the same well, the fee required by Code §22-4-12a, and (v) if applicable, the consent required by Code §22-4-8a from the owner of any water well or dwelling within 200 feet of the proposed well.

A separate Form IV-2 shall not be required for fracturing or stimulating a well where fracturing or stimulating is to be part of the work for which a permit is sought and is noted as such on the Form IV-2 filed in connection therewith.

THIS PERMIT MUST BE POSTED AT THE WELL SITE:

ALL PROVISIONS BEING IN ACCORDANCE WITH CHAPTER 22,

ARTICLE 4 OF THE W. VA. CODE, THE LOCATION IS HEREBY

APPROVED FOR fracturing THIS PERMIT SHALL EXPIRE

IF OPERATIONS HAVE NOT COMMENCED BY 5-9-83

BY [Signature]

The following waiver must be completed by the coal operator and by any coal owner or coal lessee who has recorded a declaration under Code §22-4-20, if the permit is to be issued within fifteen (15) days of receipt thereof:

W A I V E R

The undersigned coal operator ___ / owner ___ / lessee ___ / of the coal under this well location has examined this proposed well location. If a mine map exists which covers the area of the well location, the well location has been added to the mine map. The undersigned has no objection to the work proposed to be done at this location, provided the coal operator has complied with all applicable requirements of the West Virginia Code and the governing regulations.

Date: _____, 19____.

By: _____

Its: _____