



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

Well Operator's Report of Well Work

Farm name: CONSOLIDATED GAS TRACT Operator Well No.: L-3673

LOCATION: Elevation: 1,115.00 Quadrangle: LITTLETON

District: LIBERTY County: MARSHALL

Latitude: 4200 Feet South of 39 Deg. 45Min. Sec. Longitude 1520 Feet West of 80 Deg. 35 Min. Sec.

Company: COLUMBIA GAS TRANSMISSION

P.O. BOX 1273

CHARLESTON, WV 25325-1273

Agent: RICHARD L. COTY

Inspector: RANDAL MICK
Permit Issued: 07/24/95
Well work Commenced: 10/20/95
Well work Completed: 12/4/95
Verbal Plugging
Permission granted on: N/A
Rotary X Cable Rig
Total Depth (feet) 2/86

Fresh water depths (ft)

Not RECORDED BY DRILLER.

Salt water depths (ft)

Not RECORDED BY DRILLER.

Is coal being mined in area (Y/N)?NO Coal Depths (ft): Patt Coal 885 - 891

Casing   & Tubing	Used in Drilling	1	Cement    Fill Up   Cu. Ft.
Size 103/4" od	254'	254'	118
858"	1378'	1378'	354
7100	2020'	2020'	236
4/2/00	2185'	21851	126

OPEN FLOW DATA

Producing formation BIG INJUN SAND Pay zone depth (ft) 2/40-2168'

Gas: Initial open flow27,740 MCF/d Oil: Initial open flow \_\_\_\_\_ Bbl/d Final open flow \_\_\_\_\_ Bbl/d Time of open flow between initial and final tests \_\_\_\_\_ Hours

Static rock Pressure 650 psig (surface pressure) after 48 Hours

Second producing formation None Pay zone depth (ft) \_\_\_\_\_

Gas: Initial open flow \_\_\_\_ MCF/d Oil: Initial open flow \_\_\_\_\_ Bbl/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: Konall A. Schoff

- 0/23/95 CLEANED OUT TO TOTAL DEPTH = 2171'G.L.
- 10/27/95 DRILLED NEW 6/8"HOLE TO 2186 G.L.
- 1/2/95 RAN 2185 G.L. OF 416"OD, K-55, 11,6 pp CASING AND HALLIBURTON CEMENTED IT IN PLACE WITH 100.
- WELLHEAD WITH 2-41/4", API 2000, NATIONAL-OILWELL WELLHEAD WITH 2-41/4", API 2000, BARTON GATE VALVES,
- 11/28/95 HALLIBURTON LOGGING PERFORATED THE 4500 CASING FROM 2140' TO 2168' @ 6 SHOTS/FOOT.
- 11/30/95 HALLIBURTON FRACTURED THE BIG INJUN SAND WITH 428 BB OF GELLED WATER, 2100# OF 80/100 SAND AND 23,700# OF 20/40 SAND.

FORMATION DEPTHS (FROM SERVICE COMPANY LOGS RUN BY HALLIBURTON LOGGING ON 10/30/95):

FORMATION	FROM	To
PITTSBURGH COAL	885 <sup>1</sup>	891'
3 PSALT SAND	18391	1903'
BIG LIME	2001'	20531
BIG INJUN SAND	20531	
DRILLED TD	********	2186'
LOGGED TD		2186'

## WEST VIRGINIA DEPARTMENT OF MINES OIL & GAS DIVISION WELLRECORD

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Permit No. Mars 134
                                                                    Gas Well
  Littleton Quad. N.E.
                                                                    CASING & TUBING
                             The Mfrs Light & Heat Company
  Company
  Address
                             800 Union Trust Bldg., Pittsburgh, Pa.
                             B.I. Rulong
  Farm
                                                     Acres 151
                                                                  10
                                                                         255'5 255'5
                                                                  8<del>1</del>
  Location
                                                                        1378 5 1378 5
  Well No
                             2-3673
                                      Elev. 1120'
                                                                  65/8 2037'3 2037'3
                                        Marshall County
  District
                             Liberty
                             Earl J. Harris, 700 Lafayette Ave.
  Surface
                             Moundsville, W. Va.
                                                                Coal at 510' 12"
  Mineral
                             The Mfrs Light & Heat Co.
                                                                545' 12"; 779' 12"
                             800 Union Trust Bldg., Pittsburgh, Pa. (886, 36, 1485)
  Commenced
                             11-9-42
                             12-7-42
  Completed
  Open flow
                             20/10ths W in 4"
  Volume
                             852,000 C.F.
  Rock Pressure
                             130 lbs. 48 hrs.
  Clay, Slate, Lime
                                      0
                                            225
                                     225
                                            245
  Slate & Lime
                                     245
                                            320
  Red Rock
                                     320
                                            332
  Slate & Lime
                                     332
                                            390
  Lime Shells
                                     390
                                            510
 Coal
                                     510
                                            511
  Lime
                                     511
                                            536
 Sand
                                     536
                                            545
 100al
                                     545
                                            546
  Slate
                                     546
                                            600
  Lime Shells
                                     600
                                            710
  Slate & Lime
                                     710
                                            779
 ∠Coal
                                     779
                                            780
  Lime
                                     780
                                            868
  Sand
                                    868
                                            889
 Pittsburgh Coal_ 886 889
                                    889
                                            968
  Slate, Rock, Lime
                                    968
                                            1095
  Lime
                                   1095
                                            1165
  Slate & Rock
                                   1165
                                            1190
                                                         2000
  Lime
                                   1190
                                            1240
  Sand
                                   1240
                                            1265
  Slate, Lime, Rock
                                   1265
                                            1337
  Sand
                                   1337
                                            1396
  Slate & Lime
                                   1396
                                            1485
 Freeport Coal
                                   1485
                                            1486
  Slate & Shells
                                   1486
                                            1541
  Sand
                                   1541
                                            1568
  Slate & Lime
                                   1568
                                           1617
  Sand
                                   1617
                                           1660
  Slate
                                   1660
                                           1693
  Sand
                                   1693
                                           1790
  Slate & Shells
                                   1790
                                           1844
  Sand
                                   1844
                                           1884
  Slate & Shells
                                   1884
                                           1958
  Sand
                                    1958
                                           1987
  Slate
                                   1987
                                           2000
Big Lime
                                   2000
                                           2052
Big Injun Sand
                                   2052
                                           2145
  TOTAL DEPTH
                                           2145 Gas 2140 - 2145
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2000



#### STATE OF WEST VIRGINIA

### DEPARTMENT OF MINES

OIL AND GAS DIVISION

### Quadrangle Littletin

Permit No. MARS-134-D

#### **WELL RECORD**

Storage
Oil or Gas Well Gas

• •			nd Heat Compar Pgh. 19, Pen	Casiny and	Used in Drilling	Left in Well	Packers
Farm R. I	. Rulong		_Acres151	Size Cond	noton		
Location (waters				16 Pipe	27'	271	Cind of Packer
			Elev. //20'				Lind of Packer
		County_Mars		18	2541	254' s	
				10	970	13781	lize of
		Address		8¼ X <del>8%</del> 7"	2033*	00001	Depth set
Mineral rights ar		Address		5 3/16			Jehrtt ser
Drilling commend			 58	3 3/10	-	F	Perf. top
Drilling complete				2			Perf. bottom
			·o	Liners Used		F	Perf. top
						F	erf. bottom
			Inch				
-	•		Inch	CASING CEMI	ENTED	SIZENo	. FtDate
Volume	·		Cu. Ft.				
Rock Pressure		lbs	hrs.	CO.47 W.4.C.F.	NACTIVE DEL	A. 70 TO	TATOTTING
Oil			bbls., 1st 24 hrs.			6 · · · · · · · · · · · · · · · · · · ·	EETINCHES
			feet				CETINCHES
Salt water		feet	feet	FEE	rINC	HESFI	CETINCHES
Formation	Color	Hard or THICKNESS	Тор	Bottom	Oil, Gas or Water	Depth Found	Remarks
Schlumberger S	ūrvey	1				easured over	Threads.
Pittsburgh Coa Maxton Sand Lower Maxton Big Lime Total Depth 7" Shoe Set at		32° 7°	885 1873 2000 2010	890 1905 2007 2170 1 2018	Conductor. SM.GR. H-3 with 100 b No return of 8 5/8" t to 408' a Steel Di bags cemen of cement 7" casing, set at 202 cement 14. cement at set at 203	Run 254 of 2# on a Stee ags Cement 1 of cement at Casing Smls. of original at the surfact the surface. 2# per gallotthe surface. 2 for cemented out & We	of 10 3/4" Casing 1 Shoe & Cemented 4.3# per Gallon. 5 surface. Run 970' Gr.J24# & connected 8 5/8" Casing with 6 emented with 300 gallon. Good return 10.0# on a steel shoe 10.0# on a steel shoe 10.0# on a steel shoe 11 Baker Plug was 12 ting purposes, 12 drilled on down
		13/5					

FORECEIVE	D	<u></u> ድሞልጣ	E OF WEST	VIRGINIA		Pageof	
JUN 2 2 199	)	VIRONMENT WELL WOI	AL PROTEC	TION, OFF	ICE OF OIL	OSI 134W	
office of Oil & G	erator: as s Well N				3)	Elevation: 1115'	
<b>O</b>	oe: (a) O					med 07/24/95 over 07/24/97	
Proposed	l Target F		Deep	<u></u>	Shal	low <u>X</u> /	
	l Total De						
7) Approxim	nate fresh	water st	rata dept	hs:10	00'		
8) Approxim	mate salt	water dep	oths:	134	10'	<u> </u>	
	mate coal						
10) Does lar	nd contain	coal sea	ms tribut	ary to ac	tive mine?	Yes <u>x</u> / No/	
11) Proposed	Well Wor	k: CLEAN O	UT TO TD.	INSTALL NEW	4-1/2"X8-5/8"	WELLHEAD AND 4-1/2"	
CASI	NG. PERFOR					_	
CASING AND TUBING PROGRAM							
TYPE	SP	ECIFICATI				CEMENT	
TYPE		ECIFICATI  Grade	Weight	For	INTERVALS  Left in well	Fill-up	
Conductor			Weight	For	Left in	Fill-up	
Conductor EXISTING Fresh Water			Weight	For	Left in	Fill-up	
Conductor EXISTING Fresh Water EXISTING	Size	Grade	Weight per ft.	For drilling	Left in well	Fill-up (cu. ft.)	
Conductor EXISTING Fresh Water EXISTING	<b>Size</b> 10-3/4"0D	Grade H-40	Weight per ft. 32.75#	For drilling 254'	Left in well	Fill-up (cu. ft.)	
Conductor EXISTING Fresh Water EXISTING Coal	Size 10-3/4"0D 8-5/8"0D	<b>Grade</b> H-40 J-55	Weight per ft.  32.75#	For drilling  254'  1378'	Left in well  254'  1378'	Fill-up (cu. ft.)	
Conductor EXISTING Fresh Water EXISTING Coal EXISTING Intermediate PROPOSED	Size  10-3/4"0D  8-5/8"0D  7" 0D	Grade H-40 J-55 J-55	Weight per ft.  32.75#  24#  20#	For drilling  254'  1378'  2033'	254' 1378' 2033'	Fill-up (cu. ft.)  118  354  236	
Conductor EXISTING Fresh Water EXISTING Coal EXISTING Intermediate PROPOSED Production Tubing	Size  10-3/4"0D  8-5/8"0D  7" 0D	Grade H-40 J-55 J-55	Weight per ft.  32.75#  24#  20#	For drilling  254'  1378'  2033'	254' 1378' 2033'	Fill-up (cu. ft.)  118  354  236	
Conductor  EXISTING Fresh Water  EXISTING Coal  EXISTING Intermediate  PROPOSED Production  Tubing  Liners  PACKERS: Kingsing	Size  10-3/4"0D  8-5/8"0D  7" 0D  4-1/2" 0D	Grade H-40 J-55 J-55	Weight per ft.  32.75#  24#  20#	For drilling  254'  1378'  2033'	254' 1378' 2033' 2170'	Fill-up (cu. ft.)  118  354  236	

Form	1 of2 ww2-A	RECEIVED  W Division of Environmental Protection	1)	Date: 06/0	s well number	
(09/8 ile	7) Copy	JUN 22 1995	3)	API Well	L-3673 No: 47 - <u>051</u> -	00134
		Permitting Office of Oil AFE DEPARTMENT OF ENE	RGY, DI	VISION OF	OIL AND GAS	Permit
		NOTICE AND APPLIC				
4).	(a) Name Address CLA (b) Name Address C JOI (c) Name	wner(s) to be serv CONSOLIDATED GAS TRA 445 WEST MAIN ST. ARKSBURG, WV 26301 MORRIS & ANDREW RULO O ROGER RULONG- 200 I HNSTOWN, PA 15904 STUART R. WALLACE & NA	ANS. CORF	Name NON Address _ E&b) Coal DName CON Address 4	Owner(s) with Dec SOLIDATION COAL CO. 50 RACE TRACK ROAD ASHINGTON, PA 15301	
	Address P Cl	. O. BOX 562 HAMA, NEW MEXICO 875	20	Address _		
6)	Address	RANDAL MICK 111 BLACKSHORE DRIV MANNINGTON, WV 265 (304)- 986-3324	E	Name	Lessee with Decla	
		TO THE PERSON(S) N	AMED AE	OVE TAKE N	NOTICE THAT:	
Contr X Secti	racts by ware included ion 8(d) on a certify reserved apanying dates to the certify reserved apanying dates reserved apanying	is the lease or le hich I hold the ri is the information f the Code of West that as required copies of this not ocuments pages 1 t onal Service (Affi ified Mail (Postma ication (Notice of	ght to require virging under Control and the c	extract of ed by Chapia (see pahapter 221 application that application the application that application the	il and gas <u>OR</u> pter 22B, Article age 2) B of the <u>West Vire</u> ion, a location pl e above named part	1, ginia Code lat, and
familattac respo is tr	ne terms a I certify liar with chments, a onsible fo rue, accur I am awar rmation, i	:\	any perm law that abmitted my inquinformati signification	it issued t I have p on this a ry of thos on, I beli ant penal of fine a	under this application form a application form a see individuals implied that the infollowing the for submitting	cation. ed and am and all mediately ormation ng false
OTARY Pi	Promise Commence	VIRGINIA By:	MANAGE	Chard Z R - WELL SE	RVICES L	
COLUMB. O. BOX I.			P. O.	BOX 1273	5325-1273	
Y COMM: معمد ubs	cribed and		one <u>304</u> -	357-3034	5325-1275	
		Phyllis		Dnills	Note	ary Public
My C	ommission		1 //	1 20 =	2011	- <u>-</u>