Facility : 1009 **Date :** 9/30/2019

Enter data in shaded fields to calculate gas volumes released due to leak and/or blowdown of system.

Hours of leak	0.5
Diameter of hole (inches)	0.015625
Line Pressure at Leak	481
Volume of Gas Leaked	**0.06**

Hourly Basis

0.06 MSCF

NOTE: Enter Components on the Gas Leak or Gas Blowdown sheet as needed.

Rectangle or Line Crack

Length, in.	0
Width, in,	0
Eqv. Diameter, in.	#DIV/0!

Calculations:

Volume of Gas Leaked (MSCF) = Diameter*Diameter*(Upstream Gauge Pressure + Atmospheric Pressure)*Hours of Leak

****Reference: Pipeline Rules of Thumb Handbook, 3rd Edition, McAllister. Page 260. Assuming Standard Temperature and Pressure (14.7 psi and 60 F)**

Footage of Pipe blowndown	42280
Initial line pressure	481
Diameter of Pipe (inches)	12
Volume of Gas Blown Down	**1297.40910**

MSCF

Calculations:

Volume of Gas Blown Down (MSCF) = Volume at pipeline conditions (ft3)*(Gauge Pressure (psig)+Atmospheric Pressure 13.7 psi)*Standard Temperature (60F) /(1000 scf/mscf)*Standard Pressure (14.7psi)*Temperature(F)*Z Factor

Volume at pipeline conditions (scf) = Diameter/12 (ft)*Diameter/12 (ft)*PI/4*Length of pipe (ft)

****Reference: Gas Pipeline Hydraulics, Menson (2005) Pages 132-134. Assuming the Ideal Gas Law and Tpipeline = Tatm.**

Total Gas Loss	**1297.47 MSCF**	**1.297 MMSCF**

Cause/ Reason: Unknown

Corrective Action: Isolated and blew down

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