

Test ID	FNSB 19048
Date	1/29/20

Module 1			
Variable	Description	Value	Units
	final volume module 1	527.915	cubic feet
	initial volume module 1	317.753	cubic feet
V <sub>tot</sub>	total gas volume collected (module 1)	210.162	cubic feet
Average ΔH	average delta H over entirety of run	0.79	in water
T <sub>m</sub>	average gas meter temperature	73	°F
P <sub>bar</sub>	barometric pressure	29.65	in Hg
Y	DGM calibration factor	1.007	unitless
K <sub>1</sub>	volume corrected to standard conditions	17.64	R/(in Hg)
V <sub>total</sub>	volume gas sampled (corrected to standard conditions)	208.252416	dscf
Total Catch	total catch (raw data)	2.565	mg
C <sub>c</sub>	concentration of PM in tunnel gas (dry basis, corrected to standard conditions)	1.2317E-05	g/dscf

Module 2			
Variable	Description	Value	Units
	final volume module 2	957.895	cubic feet
	initial volume module 2	741.930	cubic feet
V <sub>tot</sub>	total gas volume collected (module 2)	215.965	cubic feet
Average ΔH	average delta H over entirety of run	0.79	in water
T <sub>m</sub>	average gas meter temperature	70	°F
P <sub>bar</sub>	barometric pressure	29.65	in Hg
Y	DGM calibration factor	1.003	unitless
K <sub>1</sub>	volume corrected to standard conditions	17.64	°F/(in Hg)
V <sub>total</sub>	volume gas sampled (corrected to standard conditions)	214.0489217	dscf
Total Catch	total catch (raw data)	0.29	mg
C <sub>c</sub>	concentration of PM in tunnel gas (dry basis, corrected to standard conditions)	1.35483E-06	g/dscf

Ambient			
Variable	Description	Value	Units
	final volume ambient		cubic meters
	initial volume ambient		cubic meters
V <sub>tot</sub>	total gas volume collected (ambient)	0.0000	cubic feet
Average ΔH	average delta H over entirety of run	6.10	in water
T <sub>m</sub>	average gas meter temperature	0.0	°F
P <sub>bar</sub>	barometric pressure	29.65	in Hg
Y	DGM calibration factor	1.002	unitless
K <sub>1</sub>	volume corrected to standard conditions	17.64	°F/(in Hg)
V <sub>total</sub>	volume gas sampled (corrected to standard conditions)	0	dscf
Total Catch	total catch (raw data)	0	mg
C <sub>R</sub>	concentration of PM in tunnel gas (dry basis, corrected to standard conditions)	#DIV/0!	g/dscf

Pre ESP			
C <sub>c</sub>	concentration of PM in tunnel gas (dry basis, corrected to standard conditions)	1.2317E-05	g/dscf
C <sub>R</sub>	concentration of PM in tunnel gas (dry basis, corrected to standard conditions)	0	g/dscf
Q <sub>ad</sub>	average gas flow rate through dilution tunnel	30.32	dscf/min
B <sub>wt</sub>	water vapor in gas stream (assumed) (proportion by volume)	0.02	unitless
v <sub>c</sub>	average velocity of gas through dilution tunnel	#DIV/0!	ft/s

POST ESP			
C <sub>c</sub>	concentration of PM in tunnel gas (dry basis, corrected to standard conditions)	1.35483E-06	g/dscf
C <sub>R</sub>	concentration of PM in tunnel gas (dry basis, corrected to standard conditions)	0	g/dscf
Q <sub>ad</sub>	average gas flow rate through dilution tunnel	30.32	dscf/min
B <sub>wt</sub>	water vapor in gas stream (assumed) (proportion by volume)	0.02	unitless
v <sub>c</sub>	average velocity of gas through dilution tunnel	#DIV/0!	ft/s

Signature\_\_\_\_\_

Quality Review\_\_\_\_\_

A	cross-sectional area of dilution tunnel	0.349	square ft
T <sub>s</sub>	average gas temperature in dilution tunnel	676.144524	R
T <sub>ad</sub>	absolute average gas temperature in dilution tunnel	528	R
P <sub>s</sub>	average gas static pressure in dilution tunnel	29.65	in Hg
P <sub>ad</sub>	standard absolute pressure	29.92	in Hg
F <sub>p</sub>	adjustment factor for center of tunnel pitot tube placement	#DIV/0!	unitless
V <sub>avg</sub>	average gas velocity after multi point pitot traverse	0	ACFM
V <sub>cont</sub>	average gas velocity at center of dilution tunnel calculated after pitot tube traverse	0	ACFM
K <sub>p</sub>	pitot tube constant	85.49	ft/sec)((lb/lb-mole)(in Hg)/(R)(in water)))^(1/2)
C <sub>p</sub>	pitot tube coefficient	0.99	unitless
ΔP <sub>avg</sub>	average velocity pressure in dilution tunnel		in H <sub>2</sub> O
M <sub>s</sub>	dilution tunnel dry gas MW (assumed)	29	lb/(lb-mol)
Θ	total sampling time	420.00	min
E <sub>T</sub>	total particulate emissions	0.15684685	g

A	cross-sectional area of dilution tunnel	0.349	square ft
T <sub>s</sub>	average gas temperature in dilution tunnel	#N/A	R
T <sub>ad</sub>	absolute average gas temperature in dilution tunnel	528	R
P <sub>s</sub>	average gas static pressure in dilution tunnel	0	in Hg
P <sub>ad</sub>	standard absolute pressure	29.92	in Hg
F <sub>p</sub>	adjustment factor for center of tunnel pitot tube placement	#DIV/0!	unitless
V <sub>avg</sub>	average gas velocity after multi point pitot traverse	0	ACFM
V <sub>cont</sub>	average gas velocity at center of dilution tunnel calculated after pitot tube traverse	0	ACFM
K <sub>p</sub>	pitot tube constant	85.49	ft/sec)((lb/lb-mole)(in Hg)/(R)(in water)))^(1/2)
C <sub>p</sub>	pitot tube coefficient	0.99	unitless
ΔP <sub>avg</sub>	average velocity pressure in dilution tunnel		in H <sub>2</sub> O
M <sub>s</sub>	dilution tunnel dry gas MW (assumed)	29	lb/(lb-mol)
Θ	total sampling time	420.00	min
E <sub>T</sub>	total particulate emissions	0.017252953	g