

NATIONAL ENVIRONMENTAL BALANCING BUREAU CERTIFIED TEST, ADJUST, AND BALANCE REPORT



#### **NEBB CERTIFICATION NUMBER 2851**



ARCHITECT: ng CITY/STATE: ng

ENGINEER: ng CITY/STATE: ng

HVAC CONTRACTOR: AFC CITY/STATE: Lee's Summit, Missouri



5411 Westbound 40 Highway Blue Springs, Missouri 64015 ContactUS@probalanceusa.com (816) 228-7800



project: Big Whiskey's

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# Project Sheet

- Project Name: Big Whiskey's
- Date Started: Wednesday, May 03, 2017
- Date Finished: Wednesday, May 10, 2017
- Field Tech(s): David Yocum
- Project Supervisor: Rick West

#### NATIONAL ENVIRONMENTAL BALANCING BUREAU PROJECT CERTIFICATION

PROJECT: Big Whiskey's Lee's Summit, Missouri

The data presented in this report is a record of system measurements and final adjustments that have been obtained in accordance with the current edition of NEBB Procedural Standard for Testing, Adjusting and Balancing of Environmental Systems.

The measurements shown and information given, in this report are certified to be accurate and complete, at the time and the date information was gathered.

Any variances from design quantities, which exceed NEBB tolerances, are noted in the TAB report Summary.

Submitted by:

PRO BALANCE, INC. NEBB CERTIFICATION NUMBER 2851 5411 West 40 Hwy Blue Springs, Missouri 64015 ContactUS@probalanceusa.com (816)228-7800

**NEBB Supervisor:** 

Rick West



Date:

May 12, 2017



#### **Equipment Calibration Log**

PROJECT: Big Whiskey's

INSTRUMENT/SERIAL NUMBER	APPLICATION	CALIBRATION TEST DATE	RE CALIBRATION DUE DATE
Shortridge ADM 860/M11838	Velocity, pressures, flow hood, temp.	October 18, 2016	October 18, 2017
Shortridge ADM 860/M96498	Velocity, pressures, flow hood, temp.	March 30, 2016	March 30, 2017
Check-Line PLT-5000/B1298510P	Digital RPM Measurement	December 20, 2016	December 20, 2017
Amprobe Southwire 21010N/60204	Amperage/Voltage Measurement	April 8, 2016	April 8, 2017
Cooper SRH77A-E / 12110020	DB/WB Temperature Measurement	April 7, 2016	April 7, 2017
			NA 1 20 2017
Shortridge HDM-250 Hydronic/W02041	Water Balance Differential Meter	March 30, 2016	March 30, 2017
Alnor/HM670/71025017	Water Balance Differential Meter	August 1, 2016	August 1, 2017
		Newsystem 1, 2010	Newsyk au († 2017
Shortridge ADM 860C/M12360	Velocity, pressures, flow hood, temp.	November 1, 2016	November 1, 2017
Shortridge ADM 860/M96106	Velocity, pressures, flow hood, temp.	November 11, 2016	November 11, 2017



## Report Summary & Nomenclatures

#### PROJECT: Big Whiskey's

Report Summary : Pro Balance preformed TAB per NEBB standards. EF-4: Flow measured 109% of design, average of 105 fpm at the grease filters. Pro Balance typically see an average of 150-200 fpm at the filters. AMP= Amperes MAT= Mixed Air Temperature (°F) BTU= British Thermal Unit NA= Not Applicable MBH= 1000 BTUs Per Hour NG= Not Given CD= **Ceiling Diffuser** OA= **Outside Air** CFM= Cubic Feet Per Minute OAT= Outside Air Temperature (°F) DMP= Damper PH= Phase °F= **Degrees Fahrenheit** PSI= **Pounds Per Square Inch** DIA= Diameter RLF= Relief ΔP= **Differential Pressure** RA= Return Air DB= Dry Bulb (°F) RAT= Return Air Temperature (°F) EAT= Entering Air Temperature (°F) **RPM=** Revolutions Per Minute EXH= Exhaust S.F.= Service Factor EA= Exhaust Air SCFM= Standard Cubic Feet Per Minute ESP= External SP ("WG) SP= Static Pressure ("WG) EWT= Entering Water Temp (°F) SA= Supply Air FT= Feet SAT= Supply Air Temperature (°F) FPM= Feet Per Minute SQFT= Square Feet HZ= Hertz ΔT= **Temperature Difference** IN= Inches TSP= Total SP ("WG) kW= VFD= Variable Frequency Drive Kilowatt LAT= Leaving Air Temperature (°F) WG= Water Gauge LWT= Leaving Water Temp (°F) WB= Wet Bulb (°F)



## Exhaust/Supply Fan Test Report

PROJECT: Big Whiskey's

UNIT TAG	E-k	(EF	EF	-4		
LOCATION	ro	of	ro	of		
SERVICE	existing kit	chen hood	kitche	n hood		
MANUFACTURER	Captiv	e Aire	Capriv	ve Aire		
MODEL NUMBER	NCA24	1HPFA	DU8	5HFA		
SERIAL NUMBER	n	g	n	g		
ТҮРЕ	backwar	d incline	backwar	d incline		
MOTOR MAKE/FRAME	Weg/	′184T	HSS	A/ng		
MOTOR HP/RPM	3.0/2	1750	1.0/	1350		
VOLTS/PH/HZ	208-23	0/1/60	115-20	8/1/60		
F.L. AMPS/S.F.	18.6-17	.5/1.25	7.2-3.	6/1.15		
MTR SHEAVE MAKE	n	g	direct	: drive		
MTR SHEAVE DIA./BORE	2 - 4.0"	dia./1.0	direct	: drive		
FAN SHEAVE MAKE	n	-	direct	: drive		
FAN SHEAVE DIA./BORE	2 - 5.0" d	ia./1.125	direct	: drive		
#BELTS/MAKE/SIZE	2/ng/	BX30	direct	: drive		
CENTER LINE/BACK ADJ.	8.0/-	-2+2	direct	: drive		
PITCH DIAMETER	-0.	75	direct	: drive		
TEST DATA	DESIGN	ACTUAL	DESIGN	ACTUAL	DESIGN	ACTUAL
DISTRIBUTION CFM TOTAL	4538	4153	1125	1221		
SUBMITTED FAN CFM	4538	4153	1125	1221		
SP IN/OUT	ng	*1	ng	*1		
TOTAL SP	ng	*1	1.00	*1		
FAN RPM/VFD HZ	ng	1098	ng *2			
VOLTAGE	208	211	208 211			
AMERAGE	18.6	15.4	3.6	3.6		

Remarks: \*1 No access to measure static pressure. \*2 No access to fan shaft.



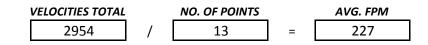
# Rectangular Duct Traverse/Surface Velocity Report

*PROJECT:* Big Whiskey's *SYSTEM:* Existing KEF

LOCATION OF TRAVERSE	MEASURING DEVICE	SP	AIR TEMP	ALTITUDE	CORRECTION FACTOR
grease filters	velgride	na	70.0	Standard	1.00

DUCT SIZE							DESIGI	V DATA		ACTUAL DATA			
WXH:	188.00	Х	14.00					SCFM:	4538			SCFM:	4153
LINER:	0.00			SQFT:	18.28	FPM:	248	CFM:	4538	FPM:	227	CFM:	4153

	1	2	3	4	5	6	7	8	9	10	11	12	13
1	186												
2	209												
3	234												
4	244												
5	227												
6	236												
7	211												
8	258												
9	263												
10	247												
11	224												
12	209												
13	206												



Remarks:



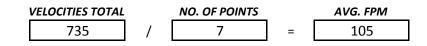
# Rectangular Duct Traverse/Surface Velocity Report

*PROJECT:* Big Whiskey's *SYSTEM:* EF-4

LOCATION OF TRAVERSE	MEASURING DEVICE	SP	AIR TEMP	ALTITUDE	CORRECTION FACTOR
grease filters	velgride	na	70.0	Standard	1.00

DUCT SIZE							DESIGI	N DATA		ACTUAL DATA			
WXH:	93.00	Х	18.00					SCFM:	1125			SCFM:	1221
LINER:	0.00			SQFT:	11.63	FPM:	97	CFM:	1125	FPM:	105	CFM:	1221

	1	2	3	4	5	6	7	8	9	10	11	12	13
1	94												
2	114												
3	106												
4	103												
5	112												
6	108												
7	98												
8													
9													
10													
11													
12													
13													



Remarks: