

Note: This is a reference cited in AP 42, *Compilation of Air Pollutant Emission Factors, Volume I Stationary Point and Area Sources*. AP42 is located on the EPA web site at [www.epa.gov/ttn/chief/ap42/](http://www.epa.gov/ttn/chief/ap42/)

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AP-42 Section	<u>9.7</u>
Reference	<u>10</u>
Report Sect.	<u>4</u>
Reference	<u>2</u>

**AIRWAYS GINS**  
911 E. Shields Avenue  
Fresno, CA 93740  
Attn: Jack Hoover

CO-1000  
1/2

**PM10 & TOTAL PARTICULATE TESTING  
NOTES TRASH CYCLONE, #3 INCLINE CYCLONE  
OVERFLOW SEPARATOR CYCLONE  
NOVEMBER 21 & 22, 1991**

**AIRWAYS GIN**

P/O# 1030200101

Prepared By:

**BTC ENVIRONMENTAL, INC.**  
1536 Eastman Avenue  
Ventura, CA 93003

Job Number  
1045

Laboratory Report Number  
291-186

Test Team Leader  
Mark Patrick

Results Verified By:  
Tom Porter  
Vice President - Air Test Division

**BTC** ENVIRONMENTAL  
INCORPORATED

NOV-22-94 TUE 08:34

SJVUAPCD

FAX NO. 2332203

SAN JOAQUIN VALLEY UNIFIED  
AIR POLLUTION CONTROL DISTRICT/FRESNO ZONE  
1221 Fulton Mall, Fresno, California 93721  
Telephone: (209) 445-3239

PERMIT TO OPERATE

An Authority to Construct is hereby granted to:

AIRWAYS GIN INC.

For equipment located at:

103045 W. Gale Huron, California

DESCRIPTION:

Cotton Gin complete with truck unloading, cotton drying, cotton cleaning, seed delinting, lint cleaning and seed storage facilities. Total facility HP 22349.

Air Pollution Control Equipment to include the following major equipment:

- Four (4) 40" 1D-3D cyclones controlling wagon suction exhaust
- Two (2) 38" 1D-3D cyclones controlling #1a incline cleaner exhaust
- Two (2) 38" 1D-3D cyclones controlling #1b incline cleaner exhaust
- Two (2) 40" 1D-3D cyclones controlling #2a incline cleaner exhaust
- Two (2) 40" 1D-3D cyclones controlling #2b incline cleaner exhaust
- Two (2) 40" 1D-3D cyclones controlling #3a and #3b incline cleaner exhaust
- Two (2) 40" 1D-3D cyclones controlling the overflow separator exhaust
- Three (3) 72" 1D-3D cyclones controlling overflow and battery condensor exhaust
- One (1) 60" 1D-3D cyclones controlling primary lint cleaning exhaust
- Eight (8) 72" 1D-3D cyclones and One (1) 68" 1D-3D cyclone controlling secondary lint cleaner exhaust
- Two (2) 26" 1D-3D cyclones controlling moss/mote fan exhaust
- One (1) 20" 1D-3D cyclones controlling mote cleaner trash fan exhaust

Rating: 2239 hp

Continued on Page 2

Period October 1, 1991

This Permit becomes void upon any change of ownership or location.

Equipment modification requires a new Permit to Operate

AIRWAYSGINNING090691JT

P/O # 1030200101

LAWRENCE D. ODLE  
Air Pollution Control Officer

By: Simon T. Bugay  
Simon T. Bugay  
Supervising Air Quality Engineer  
San Joaquin Valley Unified  
APCD/Fresno Zone

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**PARTICULATE EMISSION SUMMARY  
MOTE CYCLONE**

		Run #1	Run #2	Run #3	Average
<b>Total Particulate</b>	<i>Bales/hr</i>	20.9	22	21.94	21.61
<b>gr/DSCF</b>		0.0183	0.0149	0.0170	<b>0.0167</b>
<b>lb/hr</b>		1.67	1.33	1.56	<b>1.52</b>
<b>lb/Bale</b>		0.08	0.06	0.07	<b>0.07</b>
	<i>bales/hr</i>				
<b>Particulate Size Distribution</b>					
<b>+10μ (%)</b>		30.67	46.73	47.60	<b>41.67</b>
<b>+10μ (lb/hr)</b>		2.50	0.62	0.74	<b>1.29</b>
<b>+10μ (lb/Bale)</b>		0.02	0.03	0.03	<b>0.03</b>
<b>-10μ (%)</b>		69.33	53.27	52.40	<b>58.33</b>
<b>-10μ (lb/hr)</b>	<i>1.16</i>	<u>1.46</u>	0.71	0.82	<b>1.00</b> <i>0.90</i>
<b>-10μ (lb/Bale)</b>		0.06	0.03	0.04	<b>0.04</b>

**#3 INCLINE CYCLONE**

		Run #1	Run #2	Run #3	Average
<b>Total Particulate</b>	<i>Bales/hr</i>	22.7	22	22	22.2
<b>gr/DSCF</b>		0.0335	0.0334	0.0349	<b>0.0339</b>
<b>lb/hr</b>		1.04	1.04	1.09	<b>1.06</b>
<b>lb/Bale</b>		0.04	0.05	0.05	<b>0.05</b>
	<i>B/a</i>				
<b>Particulate Size Distribution</b>					
<b>+10μ (%)</b>		71.90	68.59	59.74	<b>66.74</b>
<b>+10μ (lb/hr)</b>		0.75	0.71	0.65	<b>0.70</b>
<b>+10μ (lb/Bale)</b>		0.03	0.03	0.03	<b>0.03</b>
<b>-10μ (%)</b>		28.10	31.41	40.26	<b>33.26</b>
<b>-10μ (lb/hr)</b>		0.29	0.33	0.44	<b>0.35</b>
<b>-10μ (lb/Bale)</b>		0.01	0.02	0.02	<b>0.02</b>

**OVERFLOW CYCLONE**

		Run #1	Run #2	Run #3	Average
<b>Total Particulate</b>	<i>Bales/hr</i>	22	20.8	22	21.6
<b>gr/DSCF</b>		0.0309	0.0309	0.0175	<b>0.0264</b>
<b>lb/hr</b>		1.32	1.34	0.75	<b>1.14</b>
<b>lb/Bale</b>		0.06	0.06	0.03	<b>0.05</b>
<b>Particulate Size Distribution</b>					
<b>+10μ (%)</b>		63.86	68.06	59.35	<b>63.76</b>
<b>+10μ (lb/hr)</b>		0.84	0.91	0.45	<b>0.73</b>
<b>+10μ (lb/Bale)</b>		0.04	0.04	0.02	<b>0.03</b>
<b>-10μ (%)</b>		36.14	31.94	40.65	<b>36.24</b>
<b>-10μ (lb/hr)</b>		0.48	0.43	0.30	<b>0.40</b>
<b>-10μ (lb/Bale)</b>		0.02	0.02	0.01	<b>0.02</b>

**I. INTRODUCTION**

## INTRODUCTION

On November 21 & 22, 1991, BTC Environmental performed source emissions tests for PM-10 particulate matter on a Mote Trash Cyclone, #3 Incline Cyclone and an Overflow Separator Cyclone. Sampling was done in triplicate for total particulate and PM-10 particule size distribution. All the cyclones were operating at the following rates:

- 1) Mote Trash Cyclone - 22.6 bales per hour
- 2) #3 Incline cyclone - 23.2 bales per hour
- 3) Overflow Separator Cyclone - 22.8 bales per hour

## SAMPLING AND ANALYTICAL PROCEDURES

**STACK GAS ANALYSIS:** The oxygen and carbon dioxide content of the exhaust gases were assumed to be ambient air. Oxygen = 20.9% and Carbon Dioxide = 0.05%.

**STACK GAS VELOCITY:** The stack gas velocity was determined using an "S" type pitot tube connected to a magnehelic gauge. The "S" type pitot was used to determine the stack velocity profile for each run. Sampling was conducted from the horizontal port. A traverse was made on the verticle port yielding results that were with  $\pm 10\%$  of the horizontal  $\Delta P$  readings. A total of eight (8) traverse points was utilized.

The stack temperature was determined using a thermocouple and an indicating pyrometer. The proportion of water was determined gravimetrically and the dry molecular weight of the stack gas determined by E.P.A. Method 3, equation 3-2. Stack velocities were calculated using E.P.A. Method 2, equation 2-9; gas volumetric flow rate was determined by equation 2-10.

**TOTAL PARTICULATE EMISSIONS:** A CARB Method 5 sampling train was utilized to determine the total particulate emission from the cyclones. The sample train consists of a stainless steel nozzle, a heated stainless steel probe, a heated glass fiber filter and cooled impingers. After the weight is obtained from the filter, probe and nozzle rinses; the total solids in the impingers is added to the front-end catch to satisfy Fresno County APCD rules.

**PARTICULE SIZE DITRIBUTION:** A sample was taken isokinetically from the stack using a GII cascade impactor. The impactor consists of 2 slotted discs, a back up filter and cooled impingers. The first two (2) discs are  $+10\mu$  and the backup filter and impingers are  $-10\mu$ . The total weights obtained from each fraction were added together to obtain the total particulate weight. The total weight was used to determine the % of the  $+10\mu$  and the  $-10\mu$  fraction. The total weight obtained from the total particulate runs are used to determine the  $+10\mu$  and the  $-10\mu$  results reported in lb/hr and lb/bale.

**LEAK CHECKS:** Leak rates were conducted on the sampling train and the pitot tubes before and after each test. The leak check for the sampling train was done at the nozzle. Any leak rate greater than 0.02 cfm was corrected for in the volume calculations.

All calculations for lb/hr were done by using the flow rate of the stack gas. All values were calculated by using Fresno County APCD standard conditions (60°F & 29.92 in Hg).

If you have any questions concerning the above results please contact the undersigned at 805-644-1095.

Respectfully submitted,  
BTC Environmental, INC.



Tom Porter  
Vice President - Air Test Division

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**II. WET TEST METHODS DATA SUMMARIES**

**FIELD DATA SUMMARY  
PM10 PARTICULATE**

<b>MOTE Cyclone</b>	<b>Run#1</b>	<b>Run#2</b>	<b>Run#3</b>
Vlc - Volume of water collected, ml	5.3	3.4	6.0
Vm - Gas volume, meter cond., dcf	33.974	37.819	36.466
Y - Meter calibration factor	0.942	0.942	0.942
Pbar - Barometric pressure, in. Hg	30.30	30.30	30.30
Pg - Stack static pressure, in. H2O	-0.23	-0.23	-0.23
ΔH - Avg. meter press. diff., in. H2O	1.473	1.503	1.598
Tm - Absolute meter temperature, °R	535.8	544.3	546.0
Vm(std) - Standard sample gas vol., dscf	31.5504	34.5778	33.2415
Bws - Water vapor part in gas stream	0.8	0.5	0.8
CO2 - Dry concentration, volume %	0.1	0.1	0.1
O2 - Dry concentration, volume %	20.9	20.9	20.9
Md - Mol wt. stack gas, dry, g/gmole	28.844	28.844	28.844
Ms - Mol wt. stack gas, wet, g/gmole	28.760	28.795	28.754
Cp - Pitot tube coef., dimensionless	0.841	0.841	0.841
Δp - Avg. of sq. roots of each Δp	0.645	0.631	0.653
Ts - Absolute stack Temp. °R	517.7	517.6	517.4
A - Area of stack, square feet	4.91	4.91	4.91
Qstd - Volumetric flow rate, dscfm	10620	10420	10746
An - Area of nozzle, square feet	0.0002885	0.0002885	0.0002885
t - Sampling time, minutes	60	60	60
I - Isokinetic variation, percent	89.4	99.9	93.1

**FIELD DATA SUMMARY  
PM10 PARTICULATE**

**#3 INCLINE Cyclone**

	Run#1	Run#2	Run#3
Vlc - Volume of water collected, ml	1.9	5.0	4.0
Vm - Gas volume, meter cond., dcf	38.204	34.548	34.040
Y - Meter calibration factor	0.942	0.942	0.942
Pbar - Barometric pressure, in. Hg	30.15	30.15	30.15
Pg - Stack static pressure, in. H2O	-0.04	-0.04	-0.04
ΔH - Avg. meter press. diff., in. H2O	1.140	1.284	1.260
Tm - Absolute meter temperature, °R	513.0	536.3	536.5
Vm(std) - Standard sample gas vol., dscf	36.8453	31.8783	31.4004
Bws - Water vapor part in gas stream	0.2	0.7	0.6
CO2 - Dry concentration, volume %	0.1	0.1	0.1
O2 - Dry concentration, volume %	20.9	20.9	20.9
Md - Mol wt. stack gas, dry, g/gmole	28.844	28.844	28.844
Ms - Mol wt. stack gas, wet, g/gmole	28.818	28.765	28.780
Cp - Pitot tube coef., dimensionless	0.841	0.841	0.841
Δp - Avg. of sq. roots of each Δp	0.308	0.327	0.325
Ts - Absolute stack Temp. °R	502.3	536.1	537.2
A - Area of stack, square feet	3.41	3.41	3.41
Qstd - Volumetric flow rate, dscfm	3580	3663	3649
An - Area of nozzle, square feet	0.0005343	0.0005343	0.0005343
t - Sampling time, minutes	72	60	60
I - Isokinetic variation, percent	96.9	98.2	97.2

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**FIELD DATA SUMMARY  
PM10 PARTICULATE**

<b>OVERFLOW Cyclone</b>	<b>Run#1</b>	<b>Run#2</b>	<b>Run#3</b>
Vlc - Volume of water collected, ml	<u>2.3</u>	<u>3.2</u>	<u>4.8</u>
Vm - Gas volume, meter cond., dcf	<u>36.539</u>	<u>38.451</u>	<u>35.195</u>
Y - Meter calibration factor	<u>0.942</u>	<u>0.942</u>	<u>0.942</u>
Pbar - Barometric pressure, in. Hg	<u>30.15</u>	<u>30.15</u>	<u>30.15</u>
Pg - Stack static pressure, in. H2O	<u>-0.15</u>	<u>-0.15</u>	<u>-0.15</u>
ΔH - Avg. meter press. diff., in. H2O	<u>1.448</u>	<u>1.539</u>	<u>1.538</u>
Tm - Absolute meter temperature, °R	<u>539.0</u>	<u>535.0</u>	<u>541.6</u>
Vm(std) - Standard sample gas vol., dscf	<u>33.5646</u>	<u>35.5874</u>	<u>32.1779</u>
Bws - Water vapor part in gas stream	<u>0.3</u>	<u>0.4</u>	<u>0.7</u>
CO2 - Dry concentration, volume %	<u>0.1</u>	<u>0.1</u>	<u>0.1</u>
O2 - Dry concentration, volume %	<u>20.9</u>	<u>20.9</u>	<u>20.9</u>
Md - Mol wt. stack gas, dry, g/gmole	<u>28.844</u>	<u>28.844</u>	<u>28.844</u>
Ms - Mol wt. stack gas, wet, g/gmole	<u>28.810</u>	<u>28.799</u>	<u>28.769</u>
Cp - Pitot tube coef., dimensionless	<u>0.841</u>	<u>0.841</u>	<u>0.841</u>
Δp - Avg. of sq. roots of each Δp	<u>0.433</u>	<u>0.447</u>	<u>0.444</u>
Ts - Absolute stack Temp. °R	<u>540.2</u>	<u>535.0</u>	<u>535.0</u>
A - Area of stack, square feet	<u>3.41</u>	<u>3.41</u>	<u>3.41</u>
Qstd - Volumetric flow rate, dscfm	<u>4850</u>	<u>5032</u>	<u>4985</u>
An - Area of nozzle, square feet	<u>0.0004307</u>	<u>0.0004307</u>	<u>0.0004307</u>
t - Sampling time, minutes	<u>60</u>	<u>60</u>	<u>60</u>
I - Isokinetic variation, percent	<u>97.0</u>	<u>99.1</u>	<u>90.4</u>

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**FIELD DATA SUMMARY  
TOTAL PARTICULATE**

<b>NOTE Cyclone</b>	<b>Run#1</b>	<b>Run#2</b>	<b>Run#3</b>
Vlc - Volume of water collected, ml	2.7	2.1	4.3
Vm - Gas volume, meter cond., dcf	41.270	40.919	44.010
Y - Meter calibration factor	0.982	0.982	0.982
Pbar - Barometric pressure, in. Hg	30.30	30.30	30.30
Pg - Stack static pressure, in. H2O	-0.23	-0.23	-0.23
ΔH - Avg. meter press. diff., in. H2O	1.608	1.603	1.689
Tm - Absolute meter temperature, °R	531.3	536.6	537.7
Vm(std) - Standard sample gas vol., dscf	40.3254	39.5846	42.4978
Bws - Water vapor part in gas stream	0.3	0.2	0.5
CO2 - Dry concentration, volume %	0.1	0.1	0.1
O2 - Dry concentration, volume %	20.9	20.9	20.9
Md - Mol wt. stack gas, dry, g/gmole	28.844	28.844	28.844
Ms - Mol wt. stack gas, wet, g/gmole	28.810	28.817	28.793
Cp - Pitot tube coef., dimensionless	0.841	0.841	0.841
Δp - Avg. of sq. roots of each Δp	0.645	0.630	0.649
Ts - Absolute stack Temp. °R	517.8	517.6	517.4
A - Area of stack, square feet	4.91	4.91	4.91
Qstd - Volumetric flow rate, dscfm	10658	10422	10715
An - Area of nozzle, square feet	0.0003142	0.0003142	0.0003142
t - Sampling time, minutes	60	60	60
I - Isokinetic variation, percent	100.3	100.7	105.2

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**FIELD DATA SUMMARY  
TOTAL PARTICULATE**

<b>#3 INCLINE Cyclone</b>	<b>Run#1</b>	<b>Run#2</b>	<b>Run#3</b>
Vlc - Volume of water collected, ml	3.2	5.6	3.9
Vm - Gas volume, meter cond., dcf	42.278	38.326	37.417
Y - Meter calibration factor	0.982	0.982	0.982
Pbar - Barometric pressure, in. Hg	30.15	30.15	30.15
Pg - Stack static pressure, in. H2O	-0.04	-0.04	-0.04
$\Delta H$ - Avg. meter press. diff., in. H2O	1.250	1.380	1.338
Tm - Absolute meter temperature, °R	513.9	530.0	532.5
Vm(std) - Standard sample gas vol., dscf	42.4595	37.3284	36.2682
Bws - Water vapor part in gas stream	0.3	0.7	0.5
CO2 - Dry concentration, volume %	0.1	0.1	0.1
O2 - Dry concentration, volume %	20.9	20.9	20.9
Md - Mol wt. stack gas, dry, g/gmole	28.844	28.844	28.844
Ms - Mol wt. stack gas, wet, g/gmole	28.806	28.769	28.790
Cp - Pitot tube coef., dimensionless	0.841	0.841	0.841
$\Delta p$ - Avg. of sq. roots of each $\Delta p$	0.312	0.324	0.324
Ts - Absolute stack Temp. °R	501.6	535.9	537.3
A - Area of stack, square feet	3.41	3.41	3.41
Qstd - Volumetric flow rate, dscfm	3627	3635	3636
An - Area of nozzle, square feet	0.0005761	0.0005761	0.0005761
$\sigma$ - Sampling time, minutes	72	60	60
l - Isokinetic variation, percent	98.0	103.1	100.2

**FIELD DATA SUMMARY  
TOTAL PARTICULATE**

<b>OVERFLOW Cyclone</b>	<b>Run#1</b>	<b>Run#2</b>	<b>Run#3</b>
Vlc - Volume of water collected, ml	2.8	4.8	4.4
Vm - Gas volume, meter cond., dcf	33.019	31.480	33.319
Y - Meter calibration factor	0.982	0.982	0.982
Pbar - Barometric pressure, in. Hg	30.15	30.15	30.15
Pg - Stack static pressure, in. H2O	-0.15	-0.15	-0.15
ΔH - Avg. meter press. diff., in. H2O	1.058	1.092	1.035
Tm - Absolute meter temperature, °R	535.2	536.2	538.8
Vm(std) - Standard sample gas vol., dscf	31.8266	30.2867	31.8979
Bws - Water vapor part in gas stream	0.4	0.7	0.6
CO2 - Dry concentration, volume %	0.1	0.1	0.1
O2 - Dry concentration, volume %	20.9	20.9	20.9
Md - Mol wt. stack gas, dry, g/gmole	28.844	28.844	28.844
Ms - Mol wt. stack gas, wet, g/gmole	28.800	28.765	28.775
Cp - Pitot tube coef., dimensionless	0.841	0.841	0.841
Δp - Avg. of sq. roots of each Δp	0.444	0.451	0.446
Ts - Absolute stack Temp. °R	540.0	535.0	535.0
A - Area of stack, square feet	3.41	3.41	3.41
Qstd - Volumetric flow rate, dscfm	4977	5061	5011
An - Area of nozzle, square feet	0.0003744	0.0003744	0.0003744
σ - Sampling time, minutes	60	60	60
l - Isokinetic variation, percent	98.8	92.5	98.4

MOTES TRASH  
CYCLONE

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**FIELD DATA & CALCULATIONS SUMMARY**

Client: **Airway Gins**  
 Site: **Fresno**  
 Unit: **Note**

Date: **11/21/91**  
 Type: **T std = 60 F**  
 Run: **1-PM10**

<b>Wlc</b>	Water Condensate Weight	5.3	g			
<b>Vlc</b>	Water Condensate Volume	<b>5.3</b>	<b>ml</b>			
<b>Vm</b>	Metered Sample Gas Volume	<b>33.974</b>	<b>dcf</b>			
<b>Lp</b>	Avg. Leak Rate	0.000	cf			
<b>Vn</b>	Leak Corrected Sample Gas Volume	33.974	dcf			
<b>Y</b>	Dry Gas Meter Calibration Factor	<b>0.942</b>				
<b>Pbar</b>	Barometric Pressure	<b>30.30</b>	<b>in. Hg</b>			
<b>Pg</b>	Static Pressure	<b>-0.23</b>	<b>in. H2O</b>			
<b>Ps</b>	Stack Pressure, Absolute	30.28	in. Hg			
<b>Δ H</b>	Dry Gas Meter Press. Differential, Average	<b>1.473</b>	<b>in. H2O</b>			
<b>Tm</b>	Dry Gas Meter Temperature, Average	75.8	deg. F	<b>535.8</b>	<b>deg. R</b>	
<b>Vm(std)</b>	Sample Gas Volume	<b>31.5504</b>	<b>dscf</b>			
<b>Vm(wet)</b>	Sample Gas Volume, Wet	31.7969	scf			
<b>Vw(std)</b>	Water Vapor Volume	0.2465	scf			
<b>Bws</b>	Water Content of Stack Gas	0.008		<b>0.8</b>	<b>%</b>	
<b>CO2</b>	Carbon Dioxide, Dry	<b>0.1</b>	<b>%</b>			
<b>O2</b>	Oxygen, Dry	<b>20.9</b>	<b>%</b>			
<b>N2</b>	Nitrogen, Dry	79.1	%			
<b>Md</b>	Molecular Wt. of Stack Gas, Dry	<b>28.844</b>	<b>lb/lb mole</b>			
<b>Ms</b>	Molecular Wt. of Stack Gas, Wet	<b>28.760</b>	<b>lb/lb mole</b>			
<b>Cp</b>	Pitot Calibration Factor	<b>0.841</b>				
<b>Δ P</b>	Velocity Head, Average Square Root	<b>0.645</b>	<b>in. H2O</b>			
<b>Ts</b>	Stack Gas Temperature, Average	<b>57.7</b>	deg. F	517.7	deg. R	
<b>As</b>	Area of Stack	<b>4.91</b>	<b>sq ft</b>	30.0	in. dia.	
<b>Vs</b>	Stack Gas Velocity	35.74	ft/sec			
<b>Qa</b>	Actual Flow Rate	10,527	cfm			
<b>Qad</b>	Actual Flow Rate, Dry	10,445	dcfm			
<b>Q(std)</b>	Stack Gas Flow Rate	<b>10.620</b>	<b>dscfm</b>			
<b>An</b>	Nozzle Area	<b>0.0002885</b>	<b>sq ft</b>	0.230	in. dia.	
<b>Theta</b>	Sampling Time	<b>60</b>	<b>min.</b>			
<b>I</b>	Isokinetics	<b>89.4</b>	<b>%</b>			

## FIELD DATA & CALCULATIONS SUMMARY

Client: **Airway Gins**  
 Site: **Fresno**  
 Unit: **Note**

Date: **11/21/91**  
 Type: **T std = 60 F**  
 Run: **2-PM10**

<b>Wlc</b>	Water Condensate Weight	3.4	g			
<b>Vlc</b>	Water Condensate Volume	<b>3.4</b>	<b>mi</b>			
<b>Vm</b>	Metered Sample Gas Volume	<b>37.819</b>	<b>dcf</b>			
<b>Lp</b>	Avg. Leak Rate	0.000	cf			
<b>Vh</b>	Leak Corrected Sample Gas Volume	37.819	dcf			
<b>Y</b>	Dry Gas Meter Calibration Factor	<b>0.942</b>				
<b>Pbar</b>	Barometric Pressure	<b>30.30</b>	<b>in. Hg</b>			
<b>Pg</b>	Static Pressure	<b>-0.23</b>	<b>in. H2O</b>			
<b>Ps</b>	Stack Pressure, Absolute	30.28	in. Hg			
<b>Δ H</b>	Dry Gas Meter Press. Differential, Average	<b>1.503</b>	<b>in. H2O</b>			
<b>Tm</b>	Dry Gas Meter Temperature, Average	84.3	deg. F	<b>544.3</b>	<b>deg. R</b>	
<b>/m(std)</b>	Sample Gas Volume	<b>34.5778</b>	<b>dscf</b>			
<b>m(wet)</b>	Sample Gas Volume, Wet	34.7360	scf			
<b>Vw(std)</b>	Water Vapor Volume	0.1582	scf			
<b>Bws</b>	Water Content of Stack Gas	0.005		<b>0.5</b>	<b>%</b>	
<b>CO2</b>	Carbon Dioxide, Dry	<b>0.1</b>	<b>%</b>			
<b>O2</b>	Oxygen, Dry	<b>20.9</b>	<b>%</b>			
<b>N2</b>	Nitrogen, Dry	79.1	%			
<b>Md</b>	Molecular Wt. of Stack Gas, Dry	<b>28.844</b>	<b>lb/lb mole</b>			
<b>Ms</b>	Molecular Wt. of Stack Gas, Wet	<b>28.795</b>	<b>lb/lb mole</b>			
<b>Cp</b>	Pitot Calibration Factor	<b>0.841</b>				
<b>Δ P</b>	Velocity Head, Average Square Root	<b>0.631</b>	<b>in. H2O</b>			
<b>Ts</b>	Stack Gas Temperature, Average	<b>57.6</b>	deg. F	<b>517.6</b>	<b>deg. R</b>	
<b>As</b>	Area of Stack	<b>4.91</b>	<b>sq ft</b>	<b>30.0</b>	<b>in. dia.</b>	
<b>Vs</b>	Stack Gas Velocity	34.95	ft/sec			
<b>Qa</b>	Actual Flow Rate	10.294	cfm			
<b>Qad</b>	Actual Flow Rate, Dry	10.247	dcfm			
<b>Q(std)</b>	Stack Gas Flow Rate	<b>10.420</b>	<b>dscfm</b>			
<b>An</b>	Nozzle Area	<b>0.0002885</b>	<b>sq ft</b>	<b>0.230</b>	<b>in. dia.</b>	
<b>Theta</b>	Sampling Time	<b>60</b>	<b>min.</b>			
<b>I</b>	Isokinetics	<b>99.9</b>	<b>%</b>			

#3 INCLINE  
CYCLONE

**FIELD DATA & CALCULATIONS SUMMARY**

Client: **Airway Gins**  
 Site: **Fresno**  
 Unit: **#3 Incline**

Date: **11/22/91**  
 Type: **T std = 60 F**  
 Run: **1-PH10**

<b>Wlc</b>	Water Condensate Weight	1.9	g		
<b>Vlc</b>	Water Condensate Volume	<b>1.9</b>	<b>ml</b>		
<b>Vm</b>	Metered Sample Gas Volume	<b>38.204</b>	<b>dcf</b>		
<b>Lp</b>	Avg. Leak Rate	0.000	cf		
<b>Vn</b>	Leak Corrected Sample Gas Volume	38.204	dcf		
<b>Y</b>	Dry Gas Meter Calibration Factor	<b>0.942</b>			
<b>Pbar</b>	Barometric Pressure	<b>30.15</b>	<b>in. Hg</b>		
<b>Pg</b>	Static Pressure	<b>-0.04</b>	<b>in. H2O</b>		
<b>Ps</b>	Stack Pressure, Absolute	30.15	in. Hg		
<b>Δ H</b>	Dry Gas Meter Press. Differential, Average	<b>1.140</b>	<b>in. H2O</b>		
<b>Tm</b>	Dry Gas Meter Temperature, Average	53.0	deg. F	<b>513.0</b>	<b>deg. R</b>
<b>Vm(std)</b>	Sample Gas Volume	<b>36.8453</b>	<b>dscf</b>		
<b>Vm(wet)</b>	Sample Gas Volume, Wet	36.9337	scf		
<b>Vw(std)</b>	Water Vapor Volume	0.0884	scf		
<b>Bws</b>	Water Content of Stack Gas	0.002		<b>0.2</b>	<b>%</b>
<b>CO2</b>	Carbon Dioxide, Dry	<b>0.1</b>	<b>%</b>		
<b>O2</b>	Oxygen, Dry	<b>20.9</b>	<b>%</b>		
<b>N2</b>	Nitrogen, Dry	79.1	%		
<b>Md</b>	Molecular Wt. of Stack Gas, Dry	<b>28.844</b>	<b>lb/lb mole</b>		
<b>Ms</b>	Molecular Wt. of Stack Gas, Wet	<b>28.818</b>	<b>lb/lb mole</b>		
<b>Cp</b>	Pitot Calibration Factor	<b>0.841</b>			
<b>Δ P</b>	Velocity Head, Average Square Root	<b>0.308</b>	<b>in. H2O</b>		
<b>Ts</b>	Stack Gas Temperature, Average	<b>42.3</b>	deg. F	502.3	deg. R
<b>As</b>	Area of Stack	<b>3.41</b>	<b>sq ft</b>	25.0	in. dia.
<b>Vs</b>	Stack Gas Velocity	16.82	ft/sec		
<b>Qa</b>	Actual Flow Rate	3.440	cfm		
<b>Qad</b>	Actual Flow Rate, Dry	3.432	dcfm		
<b>Q(std)</b>	Stack Gas Flow Rate	<b>3.580</b>	<b>dscfm</b>		
<b>An</b>	Nozzle Area	<b>0.0005343</b>	<b>sq ft</b>	0.313	in. dia.
<b>Theta</b>	Sampling Time	<b>72</b>	<b>min.</b>		
<b>I</b>	Isokinetics	<b>96.9</b>	<b>%</b>		

**FIELD DATA & CALCULATIONS SUMMARY**

Client: **Airway Gins**  
 Site: **Fresno**  
 Unit: **#3 Incline**

Date: **11/22/91**  
 Type: **T std = 60 F**  
 Run: **2-PM10**

<b>Wlc</b>	Water Condensate Weight	5.0	g			
<b>Vlc</b>	Water Condensate Volume	<b>5.0</b>	<b>ml</b>			
<b>Vm</b>	Metered Sample Gas Volume	<b>34.548</b>	<b>dcf</b>			
<b>Lp</b>	Avg. Leak Rate	0.000	cf			
<b>Vn</b>	Leak Corrected Sample Gas Volume	34.548	dcf			
<b>Y</b>	Dry Gas Meter Calibration Factor	<b>0.942</b>				
<b>Pbar</b>	Barometric Pressure	<b>30.15</b>	<b>in. Hg</b>			
<b>Pg</b>	Static Pressure	<b>-0.04</b>	<b>in. H2O</b>			
<b>Ps</b>	Stack Pressure, Absolute	30.15	in. Hg			
<b>Δ H</b>	Dry Gas Meter Press. Differential, Average	<b>1.284</b>	<b>in. H2O</b>			
<b>Tm</b>	Dry Gas Meter Temperature, Average	76.3	deg. F	<b>536.3</b>	<b>deg. R</b>	
<b>Vm(std)</b>	Sample Gas Volume	<b>31.8783</b>	<b>dscf</b>			
<b>Vm(wet)</b>	Sample Gas Volume, Wet	32.1109	scf			
<b>Vw(std)</b>	Water Vapor Volume	0.2326	scf			
<b>Bws</b>	Water Content of Stack Gas	0.007		<b>0.7</b>	<b>%</b>	
<b>CO2</b>	Carbon Dioxide, Dry	<b>0.1</b>	<b>%</b>			
<b>O2</b>	Oxygen, Dry	<b>20.9</b>	<b>%</b>			
<b>N2</b>	Nitrogen, Dry	79.1	%			
<b>Md</b>	Molecular Wt. of Stack Gas, Dry	<b>28.844</b>	<b>lb/lb mole</b>			
<b>Ms</b>	Molecular Wt. of Stack Gas, Wet	<b>28.765</b>	<b>lb/lb mole</b>			
<b>Cp</b>	Pitot Calibration Factor	<b>0.841</b>				
<b>Δ P</b>	Velocity Head, Average Square Root	<b>0.327</b>	<b>in. H2O</b>			
<b>Ts</b>	Stack Gas Temperature, Average	<b>76.1</b>	deg. F	536.1	deg. R	
<b>As</b>	Area of Stack	<b>3.41</b>	<b>sq ft</b>	25.0	in. dia.	
<b>Vs</b>	Stack Gas Velocity	18.46	ft/sec			
<b>Qa</b>	Actual Flow Rate	✓ 3.775	cfm			
<b>Qad</b>	Actual Flow Rate, Dry	3.748	dcfm			
<b>Q(std)</b>	Stack Gas Flow Rate	<b>3.663</b>	<b>dscfm</b>			
<b>An</b>	Nozzle Area	<b>0.0005343</b>	<b>sq ft</b>	0.313	in. dia.	
<b>Theta</b>	Sampling Time	<b>60</b>	<b>min.</b>			
<b>I</b>	Isokinetics	<b>98.2</b>	<b>%</b>			

**FIELD DATA & CALCULATIONS SUMMARY**

Client: **Airway Gins**  
 Site: **Fresno**  
 Unit: **#3 Incline**

Date: **11/22/91**  
 Type: **T std = 60 F**  
 Run: **3-PM10**

<b>Wlc</b>	Water Condensate Weight	4.0	g		
<b>Vlc</b>	Water Condensate Volume	4.0	ml		
<b>Vm</b>	Metered Sample Gas Volume	34.040	dcf		
<b>Lp</b>	Avg. Leak Rate	0.000	cf		
<b>Vn</b>	Leak Corrected Sample Gas Volume	34.040	dcf		
<b>Y</b>	Dry Gas Meter Calibration Factor	0.942			
<b>Pbar</b>	Barometric Pressure	30.15	in. Hg		
<b>Pg</b>	Static Pressure	-0.04	in. H2O		
<b>Ps</b>	Stack Pressure, Absolute	30.15	in. Hg		
<b>Δ H</b>	Dry Gas Meter Press. Differential, Average	1.260	in. H2O		
<b>Tm</b>	Dry Gas Meter Temperature, Average	76.5	deg. F	536.5	deg. R
<b>Vm(std)</b>	Sample Gas Volume	31.4004	dscf		
<b>Vm(wet)</b>	Sample Gas Volume, Wet	31.5865	scf		
<b>Vw(std)</b>	Water Vapor Volume	0.1861	scf		
<b>Bws</b>	Water Content of Stack Gas	0.006		0.6	%
<b>CO2</b>	Carbon Dioxide, Dry	0.1	%		
<b>O2</b>	Oxygen, Dry	20.9	%		
<b>N2</b>	Nitrogen, Dry	79.1	%		
<b>Md</b>	Molecular Wt. of Stack Gas, Dry	28.844	lb/lb mole		
<b>Ms</b>	Molecular Wt. of Stack Gas, Wet	28.780	lb/lb mole		
<b>Cp</b>	Pitot Calibration Factor	0.841			
<b>Δ P</b>	Velocity Head, Average Square Root	0.325	in. H2O		
<b>Ts</b>	Stack Gas Temperature, Average	77.2	deg. F	537.2	deg. R
<b>As</b>	Area of Stack	3.41	sq ft	25.0	in. dia.
<b>Vs</b>	Stack Gas Velocity	18.40	ft/sec		
<b>Qa</b>	Actual Flow Rate	3,763	cfm		
<b>Qad</b>	Actual Flow Rate, Dry	3,741	dcfm		
<b>Q(std)</b>	Stack Gas Flow Rate	3,649	dscfm		
<b>An</b>	Nozzle Area	0.0005343	sq ft	0.313	in. dia.
<b>Theta</b>	Sampling Time	60	min.		
<b>I</b>	Isokinetics	97.2	%		

OVERFLOW SEPARATOR  
CYCLONE

### FIELD DATA & CALCULATIONS SUMMARY

Client: **Airway Gins**  
 Site: **Fresno**  
 Unit: **Overflow**

Date: **11/22/91**  
 Type: **T std = 60 F**  
 Run: **1-PM10**

<b>Wlc</b>	Water Condensate Weight	2.3	g		
<b>Vlc</b>	Water Condensate Volume	2.3	ml		
<b>Vm</b>	Metered Sample Gas Volume	36.539	dcf		
<b>Lp</b>	Avg. Leak Rate	0.000	cf		
<b>Vh</b>	Leak Corrected Sample Gas Volume	36.539	dcf		
<b>Y</b>	Dry Gas Meter Calibration Factor	0.942			
<b>Pbar</b>	Barometric Pressure	30.15	in. Hg		
<b>Pg</b>	Static Pressure	-0.15	in. H2O		
<b>Ps</b>	Stack Pressure, Absolute	30.14	in. Hg		
<b>Δ H</b>	Dry Gas Meter Press. Differential, Average	1.448	in. H2O		
<b>Tm</b>	Dry Gas Meter Temperature, Average	79.0	deg. F	539.0	deg. R
<b>Vm(std)</b>	Sample Gas Volume	33.5646	dscf		
<b>Vm(wet)</b>	Sample Gas Volume, Wet	33.6716	scf		
<b>Vw(std)</b>	Water Vapor Volume	0.1070	scf		
<b>Bws</b>	Water Content of Stack Gas	0.003		0.3	%
<b>CO2</b>	Carbon Dioxide, Dry	0.1	%		
<b>O2</b>	Oxygen, Dry	20.9	%		
<b>N2</b>	Nitrogen, Dry	79.1	%		
<b>Md</b>	Molecular Wt. of Stack Gas, Dry	28.844	lb/lb mole		
<b>Ms</b>	Molecular Wt. of Stack Gas, Wet	28.810	lb/lb mole		
<b>Cp</b>	Pitot Calibration Factor	0.841			
<b>Δ P</b>	Velocity Head, Average Square Root	0.433	in. H2O		
<b>Ts</b>	Stack Gas Temperature, Average	80.2	deg. F	540.2	deg. R
<b>As</b>	Area of Stack	3.41	sq ft	25.0	in. dia.
<b>Vs</b>	Stack Gas Velocity	24.53	ft/sec		
<b>Qa</b>	Actual Flow Rate	5,017	cfm		
<b>Qad</b>	Actual Flow Rate, Dry	5,001	dcfm		
<b>Q(std)</b>	Stack Gas Flow Rate	4,850	dscfm		
<b>An</b>	Nozzle Area	0.0004307	sq ft	0.281	in. dia.
<b>Theta</b>	Sampling Time	60	min.		
<b>I</b>	Isokinetics	97.0	%		

### FIELD DATA & CALCULATIONS SUMMARY

Client: **Airway Gins**  
 Site: **Fresno**  
 Unit: **Overflow**

Date: **11/22/91**  
 Type: **T std = 60 F**  
 Run: **2-PM10**

<b>Wlc</b>	Water Condensate Weight	3.2	g		
<b>Vlc</b>	Water Condensate Volume	3.2	ml		
<b>Vm</b>	Metered Sample Gas Volume	38.451	dcf		
<b>Lp</b>	Avg. Leak Rate	0.000	cf		
<b>Vn</b>	Leak Corrected Sample Gas Volume	38.451	dcf		
<b>Y</b>	Dry Gas Meter Calibration Factor	0.942			
<b>Pbar</b>	Barometric Pressure	30.15	in. Hg		
<b>Pg</b>	Static Pressure	-0.15	in. H2O		
<b>Ps</b>	Stack Pressure, Absolute	30.14	in. Hg		
<b>Δ H</b>	Dry Gas Meter Press. Differential, Average	1.539	in. H2O		
<b>Tm</b>	Dry Gas Meter Temperature, Average	75.0	deg. F	535.0	deg. R
<b>Vm(std)</b>	Sample Gas Volume	35.5874	dscf		
<b>Vm(wet)</b>	Sample Gas Volume, Wet	35.7363	scf		
<b>Vw(std)</b>	Water Vapor Volume	0.1489	scf		
<b>Bws</b>	Water Content of Stack Gas	0.004		0.4	%
<b>CO2</b>	Carbon Dioxide, Dry	0.1	%		
<b>O2</b>	Oxygen, Dry	20.9	%		
<b>N2</b>	Nitrogen, Dry	79.1	%		
<b>Md</b>	Molecular Wt. of Stack Gas, Dry	28.844	lb/lb mole		
<b>Ms</b>	Molecular Wt. of Stack Gas, Wet	28.799	lb/lb mole		
<b>Cp</b>	Pitot Calibration Factor	0.841			
<b>Δ P</b>	Velocity Head, Average Square Root	0.447	in. H2O		
<b>Ts</b>	Stack Gas Temperature, Average	75.0	deg. F	535.0	deg. R
<b>As</b>	Area of Stack	3.41	sq ft	25.0	in. dia.
<b>Vs</b>	Stack Gas Velocity	25.23	ft/sec		
<b>Qa</b>	Actual Flow Rate	5,161	cfm		
<b>Qad</b>	Actual Flow Rate, Dry	5,139	dcfm		
<b>Q(std)</b>	Stack Gas Flow Rate	5.032	dscfm		
<b>An</b>	Nozzle Area	0.0004307	sq ft	0.281	in. dia.
<b>Theta</b>	Sampling Time	60	min.		
<b>I</b>	Isokinetics	99.1	%		

**FIELD DATA & CALCULATIONS SUMMARY**

Client: **Airway Gins**  
 Site: **Fresno**  
 Unit: **Overflow**

Date: **11/22/91**  
 Type: **T std = 60 F**  
 Run: **3-PM10**

<b>Wlc</b>	Water Condensate Weight	4.8	g		
<b>Vlc</b>	Water Condensate Volume	<b>4.8</b>	<b>ml</b>		
<b>Vm</b>	Metered Sample Gas Volume	<b>35.195</b>	<b>dcf</b>		
<b>Lp</b>	Avg. Leak Rate	0.000	cf		
<b>Vn</b>	Leak Corrected Sample Gas Volume	35.195	dcf		
<b>Y</b>	Dry Gas Meter Calibration Factor	<b>0.942</b>			
<b>Pbar</b>	Barometric Pressure	<b>30.15</b>	<b>in. Hg</b>		
<b>Pg</b>	Static Pressure	<b>-0.15</b>	<b>in. H2O</b>		
<b>Ps</b>	Stack Pressure, Absolute	30.14	in. Hg		
<b>Δ H</b>	Dry Gas Meter Press. Differential, Average	<b>1.538</b>	<b>in. H2O</b>		
<b>Tm</b>	Dry Gas Meter Temperature, Average	81.6	deg. F	<b>541.6</b>	<b>deg. R</b>
<b>Vm(std)</b>	Sample Gas Volume	<b>32.1779</b>	<b>dscf</b>		
<b>Vm(wet)</b>	Sample Gas Volume, Wet	32.4011	scf		
<b>Vw(std)</b>	Water Vapor Volume	0.2233	scf		
<b>Bws</b>	Water Content of Stack Gas	0.007		<b>0.7</b>	<b>%</b>
<b>CO2</b>	Carbon Dioxide, Dry	<b>0.1</b>	<b>%</b>		
<b>O2</b>	Oxygen, Dry	<b>20.9</b>	<b>%</b>		
<b>N2</b>	Nitrogen, Dry	79.1	%		
<b>Md</b>	Molecular Wt. of Stack Gas, Dry	<b>28.844</b>	<b>lb/lb mole</b>		
<b>Ms</b>	Molecular Wt. of Stack Gas, Wet	<b>28.769</b>	<b>lb/lb mole</b>		
<b>Cp</b>	Pitot Calibration Factor	<b>0.841</b>			
<b>Δ P</b>	Velocity Head, Average Square Root	<b>0.444</b>	<b>in. H2O</b>		
<b>Ts</b>	Stack Gas Temperature, Average	<b>75.0</b>	deg. F	535.0	deg. R
<b>As</b>	Area of Stack	<b>3.41</b>	<b>sq ft</b>	25.0	in. dia.
<b>Vs</b>	Stack Gas Velocity	25.07	ft/sec		
<b>Qa</b>	Actual Flow Rate	5,127	cfm		
<b>Qad</b>	Actual Flow Rate, Dry	5,092	dcfm		
<b>Q(std)</b>	Stack Gas Flow Rate	<b>4,985</b>	<b>dscfm</b>		
<b>An</b>	Nozzle Area	<b>0.0004307</b>	<b>sq ft</b>	0.281	in. dia.
<b>Theta</b>	Sampling Time	<b>60</b>	<b>min.</b>		
<b>I</b>	Isokinetics	<b>90.4</b>	<b>%</b>		

MOTES TRASH  
CYCLONE

**FIELD DATA & CALCULATIONS SUMMARY**

Client: **Airway Gins**  
 Site: **Fresno**  
 Unit: **Note**

Date: **11/21/91**  
 Type: **T std = 60 F**  
 Run: **1-PM10**

<b>Wlc</b>	Water Condensate Weight	2.7	g		
<b>Vlc</b>	Water Condensate Volume	2.7	ml		
<b>Vm</b>	Metered Sample Gas Volume	41.270	dcf		
<b>Lp</b>	Avg. Leak Rate	0.000	cf		
<b>Vn</b>	Leak Corrected Sample Gas Volume	41.270	dcf		
<b>Y</b>	Dry Gas Meter Calibration Factor	0.982			
<b>Pbar</b>	Barometric Pressure	30.30	in. Hg		
<b>Pg</b>	Static Pressure	-0.23	in. H2O		
<b>Ps</b>	Stack Pressure, Absolute	30.28	in. Hg		
<b>Δ H</b>	Dry Gas Meter Press. Differential, Average	1.608	in. H2O		
<b>Tm</b>	Dry Gas Meter Temperature, Average	71.3	deg. F	531.3	deg. R
<b>Vm(std)</b>	Sample Gas Volume	40.3254	dscf		
<b>Vm(wet)</b>	Sample Gas Volume, Wet	40.4510	scf		
<b>Vw(std)</b>	Water Vapor Volume	0.1256	scf		
<b>Bws</b>	Water Content of Stack Gas	0.003		0.3	%
<b>CO2</b>	Carbon Dioxide, Dry	0.1	%		
<b>O2</b>	Oxygen, Dry	20.9	%		
<b>N2</b>	Nitrogen, Dry	79.1	%		
<b>Md</b>	Molecular Wt. of Stack Gas, Dry	28.844	lb/lb mole		
<b>Ms</b>	Molecular Wt. of Stack Gas, Wet	28.810	lb/lb mole		
<b>Cp</b>	Pitot Calibration Factor	0.841			
<b>Δ P</b>	Velocity Head, Average Square Root	0.645	in. H2O		
<b>Ts</b>	Stack Gas Temperature, Average	57.8	deg. F	517.8	deg. R
<b>As</b>	Area of Stack	4.91	sq ft	30.0	in. dia.
<b>Vs</b>	Stack Gas Velocity	35.72	ft/sec		
<b>Qa</b>	Actual Flow Rate	10,519	cfm		
<b>Qad</b>	Actual Flow Rate, Dry	10,487	dcfm		
<b>Q(std)</b>	Stack Gas Flow Rate	10.658	dscfm		
<b>An</b>	Nozzle Area	0.0003142	sq ft	0.240	in. dia.
<b>Theta</b>	Sampling Time	60	min.		
<b>I</b>	Isokinetics	100.3	%		

**FIELD DATA & CALCULATIONS SUMMARY**

Client: **Airway Gins**  
 Site: **Fresno**  
 Unit: **Note**

Date: **11/21/91**  
 Type: **T std = 60 F**  
 Run: **2-PM10**

<b>Wlc</b>	Water Condensate Weight	2.1	g		
<b>Vlc</b>	Water Condensate Volume	2.1	ml		
<b>Vm</b>	Metered Sample Gas Volume	40.919	dcf		
<b>Lp</b>	Avg. Leak Rate	0.000	cf		
<b>Vn</b>	Leak Corrected Sample Gas Volume	40.919	dcf		
<b>Y</b>	Dry Gas Meter Calibration Factor	0.982			
<b>Pbar</b>	Barometric Pressure	30.30	in. Hg		
<b>Pg</b>	Static Pressure	-0.23	in. H2O		
<b>Ps</b>	Stack Pressure, Absolute	30.28	in. Hg		
<b>Δ H</b>	Dry Gas Meter Press. Differential, Average	1.603	in. H2O		
<b>Tm</b>	Dry Gas Meter Temperature, Average	76.6	deg. F	536.6	deg. R
<b>Vm(std)</b>	Sample Gas Volume	39.5846	dscf		
<b>Vm(wet)</b>	Sample Gas Volume, Wet	39.6823	scf		
<b>Vw(std)</b>	Water Vapor Volume	0.0977	scf		
<b>Bws</b>	Water Content of Stack Gas	0.002		0.2	%
<b>CO2</b>	Carbon Dioxide, Dry	0.1	%		
<b>O2</b>	Oxygen, Dry	20.9	%		
<b>N2</b>	Nitrogen, Dry	79.1	%		
<b>Md</b>	Molecular Wt. of Stack Gas, Dry	28.844	lb/lb mole		
<b>Ms</b>	Molecular Wt. of Stack Gas, Wet	28.817	lb/lb mole		
<b>Cp</b>	Pitot Calibration Factor	0.841			
<b>Δ P</b>	Velocity Head, Average Square Root	0.630	in. H2O		
<b>Ts</b>	Stack Gas Temperature, Average	57.6	deg. F	517.6	deg. R
<b>As</b>	Area of Stack	4.91	sq ft	30.0	in. dia.
<b>Vs</b>	Stack Gas Velocity	34.88	ft/sec		
<b>Qa</b>	Actual Flow Rate	10,274	cfm		
<b>Qad</b>	Actual Flow Rate, Dry	10,249	dcfm		
<b>Q(std)</b>	Stack Gas Flow Rate	10.422	dscfm		
<b>An</b>	Nozzle Area	0.0003142	sq ft	0.240	in. dia.
<b>Theta</b>	Sampling Time	60	min.		
<b>I</b>	Isokinetics	100.7	%		

### FIELD DATA & CALCULATIONS SUMMARY

Client: **Airway Gins**  
 Site: **Fresno**  
 Unit: **Note**

Date: **11/21/91**  
 Type: **T std = 60 F**  
 Run: **3-PM10**

<b>Wlc</b>	Water Condensate Weight	4.3	g		
<b>Vlc</b>	Water Condensate Volume	4.3	ml		
<b>Vm</b>	Metered Sample Gas Volume	44.010	dcf		
<b>Lp</b>	Avg. Leak Rate	0.000	cf		
<b>Vn</b>	Leak Corrected Sample Gas Volume	44.010	dcf		
<b>Y</b>	Dry Gas Meter Calibration Factor	0.982			
<b>Pbar</b>	Barometric Pressure	30.30	in. Hg		
<b>Pg</b>	Static Pressure	-0.23	in. H2O		
<b>Ps</b>	Stack Pressure, Absolute	30.28	in. Hg		
<b>Δ H</b>	Dry Gas Meter Press. Differential, Average	1.689	in. H2O		
<b>Tm</b>	Dry Gas Meter Temperature, Average	77.7	deg. F	537.7	deg. R
<b>Vm(std)</b>	Sample Gas Volume	42.4978	dscf		
<b>Vm(wet)</b>	Sample Gas Volume, Wet	42.6978	scf		
<b>Vw(std)</b>	Water Vapor Volume	0.2000	scf		
<b>Bws</b>	Water Content of Stack Gas	0.005		0.5	%
<b>CO2</b>	Carbon Dioxide, Dry	0.1	%		
<b>O2</b>	Oxygen, Dry	20.9	%		
<b>N2</b>	Nitrogen, Dry	79.1	%		
<b>Md</b>	Molecular Wt. of Stack Gas, Dry	28.844	lb/lb mole		
<b>Ms</b>	Molecular Wt. of Stack Gas, Wet	28.793	lb/lb mole		
<b>Cp</b>	Pitot Calibration Factor	0.841			
<b>Δ P</b>	Velocity Head, Average Square Root	0.649	in. H2O		
<b>Ts</b>	Stack Gas Temperature, Average	57.4	deg. F	517.4	deg. R
<b>As</b>	Area of Stack	4.91	sq ft	30.0	in. dia.
<b>Vs</b>	Stack Gas Velocity	35.93	ft/sec		
<b>Qa</b>	Actual Flow Rate	10,583	cfm		
<b>Qad</b>	Actual Flow Rate, Dry	10,534	dcfm		
<b>Q(std)</b>	Stack Gas Flow Rate	10,715	dscfm		
<b>An</b>	Nozzle Area	0.0003142	sq ft	0.240	in. dia.
<b>Theta</b>	Sampling Time	60	min.		
<b>I</b>	Isokinetics	105.2	%		

#3 INCLINE  
CYCLONE

**FIELD DATA & CALCULATIONS SUMMARY**

Client: **Airway Gins**  
 Site: **Fresno**  
 Unit: **#3 Incline**

Date: **11/22/91**  
 Type: **T std = 60 F**  
 Run: **1-PM10**

<b>Wlc</b>	Water Condensate Weight	3.2	g		
<b>Vlc</b>	Water Condensate Volume	<b>3.2</b>	<b>ml</b>		
<b>Vm</b>	Metered Sample Gas Volume	<b>42.278</b>	<b>dcf</b>		
<b>Lp</b>	Avg. Leak Rate	0.000	cf		
<b>Vn</b>	Leak Corrected Sample Gas Volume	42.278	dcf		
<b>Y</b>	Dry Gas Meter Calibration Factor	<b>0.982</b>			
<b>Pbar</b>	Barometric Pressure	<b>30.15</b>	<b>in. Hg</b>		
<b>Pg</b>	Static Pressure	<b>-0.04</b>	<b>in. H2O</b>		
<b>Ps</b>	Stack Pressure, Absolute	30.15	in. Hg		
<b>Δ H</b>	Dry Gas Meter Press. Differential, Average	<b>1.250</b>	<b>in. H2O</b>		
<b>Tm</b>	Dry Gas Meter Temperature, Average	53.9	deg. F	<b>513.9</b>	<b>deg. R</b>
<b>Vm(std)</b>	Sample Gas Volume	<b>42.4595</b>	<b>dscf</b>		
<b>Vm(wet)</b>	Sample Gas Volume, Wet	42.6084	scf		
<b>Vw(std)</b>	Water Vapor Volume	0.1489	scf		
<b>Bws</b>	Water Content of Stack Gas	0.003		<b>0.3</b>	<b>%</b>
<b>CO2</b>	Carbon Dioxide, Dry	<b>0.1</b>	<b>%</b>		
<b>O2</b>	Oxygen, Dry	<b>20.9</b>	<b>%</b>		
<b>N2</b>	Nitrogen, Dry	79.1	%		
<b>Md</b>	Molecular Wt. of Stack Gas, Dry	<b>28.844</b>	<b>lb/lb mole</b>		
<b>Ms</b>	Molecular Wt. of Stack Gas, Wet	<b>28.806</b>	<b>lb/lb mole</b>		
<b>Cp</b>	Pitot Calibration Factor	<b>0.841</b>			
<b>Δ P</b>	Velocity Head, Average Square Root	<b>0.312</b>	<b>in. H2O</b>		
<b>Ts</b>	Stack Gas Temperature, Average	<b>41.6</b>	deg. F	501.6	deg. R
<b>As</b>	Area of Stack	<b>3.41</b>	<b>sq ft</b>	25.0	in. dia.
<b>Vs</b>	Stack Gas Velocity	17.04	ft/sec		
<b>Qa</b>	Actual Flow Rate	3,484	cfm		
<b>Qad</b>	Actual Flow Rate, Dry	3,472	dcfm		
<b>Q(std)</b>	Stack Gas Flow Rate	<b>3,627</b>	<b>dscfm</b>		
<b>An</b>	Nozzle Area	<b>0.0005761</b>	<b>sq ft</b>	0.325	in. dia.
<b>Theta</b>	Sampling Time	<b>72</b>	<b>min.</b>		
<b>I</b>	Isokinetics	<b>98.0</b>	<b>%</b>		

**FIELD DATA & CALCULATIONS SUMMARY**

Client: **Airway Gins**  
 Site: **Fresno**  
 Unit: **#3 Incline**

Date: **11/22/91**  
 Type: **T std = 60 F**  
 Run: **2-PM10**

<b>Wlc</b>	Water Condensate Weight	5.6	g		
<b>Vlc</b>	Water Condensate Volume	5.6	ml		
<b>Vm</b>	Metered Sample Gas Volume	38.326	dcf		
<b>Lp</b>	Avg. Leak Rate	0.000	cf		
<b>Vn</b>	Leak Corrected Sample Gas Volume	38.326	dcf		
<b>Y</b>	Dry Gas Meter Calibration Factor	0.982			
<b>Pbar</b>	Barometric Pressure	30.15	in. Hg		
<b>Pg</b>	Static Pressure	-0.04	in. H2O		
<b>Ps</b>	Stack Pressure, Absolute	30.15	in. Hg		
<b>Δ H</b>	Dry Gas Meter Press. Differential, Average	1.380	in. H2O		
<b>Tm</b>	Dry Gas Meter Temperature, Average	70.0	deg. F	530.0	deg. R
<b>Vm(std)</b>	Sample Gas Volume	37.3284	dscf		
<b>Vm(wet)</b>	Sample Gas Volume, Wet	37.5889	scf		
<b>Vw(std)</b>	Water Vapor Volume	0.2605	scf		
<b>Bws</b>	Water Content of Stack Gas	0.007		0.7	%
<b>CO2</b>	Carbon Dioxide, Dry	0.1	%		
<b>O2</b>	Oxygen, Dry	20.9	%		
<b>N2</b>	Nitrogen, Dry	79.1	%		
<b>Md</b>	Molecular Wt. of Stack Gas, Dry	28.844	lb/lb mole		
<b>Ms</b>	Molecular Wt. of Stack Gas, Wet	28.769	lb/lb mole		
<b>Cp</b>	Pitot Calibration Factor	0.841			
<b>Δ P</b>	Velocity Head, Average Square Root	0.324	in. H2O		
<b>Ts</b>	Stack Gas Temperature, Average	75.9	deg. F	535.9	deg. R
<b>As</b>	Area of Stack	3.41	sq ft	25.0	in. dia.
<b>Vs</b>	Stack Gas Velocity	18.30	ft/sec		
<b>Qa</b>	Actual Flow Rate	3,744	cfm		
<b>Qad</b>	Actual Flow Rate, Dry	3,718	dcfm		
<b>Q(std)</b>	Stack Gas Flow Rate	3.635	dscfm		
<b>An</b>	Nozzle Area	0.0005761	sq ft	0.325	in. dia.
<b>Theta</b>	Sampling Time	60	min.		
<b>I</b>	Isokinetics	103.1	%		

**FIELD DATA & CALCULATIONS SUMMARY**

Client: **Airway Gins**  
 Site: **Fresno**  
 Unit: **#3 Incline**

Date: **11/22/91**  
 Type: **T std = 60 F**  
 Run: **3-PH10**

<b>Wlc</b>	Water Condensate Weight	3.9	g		
<b>Vlc</b>	Water Condensate Volume	3.9	ml		
<b>Vm</b>	Metered Sample Gas Volume	37.417	dcf		
<b>Lp</b>	Avg. Leak Rate	0.000	cf		
<b>Vn</b>	Leak Corrected Sample Gas Volume	37.417	dcf		
<b>Y</b>	Dry Gas Meter Calibration Factor	0.982			
<b>Pbar</b>	Barometric Pressure	30.15	in. Hg		
<b>Pg</b>	Static Pressure	-0.04	in. H2O		
<b>Ps</b>	Stack Pressure, Absolute	30.15	in. Hg		
<b>Δ H</b>	Dry Gas Meter Press. Differential, Average	1.338	in. H2O		
<b>Tm</b>	Dry Gas Meter Temperature, Average	72.5	deg. F	532.5	deg. R
<b>Vm(std)</b>	Sample Gas Volume	36.2682	dscf		
<b>Vm(wet)</b>	Sample Gas Volume, Wet	36.4496	scf		
<b>Vw(std)</b>	Water Vapor Volume	0.1814	scf		
<b>Bws</b>	Water Content of Stack Gas	0.005		0.5	%
<b>CO2</b>	Carbon Dioxide, Dry	0.1	%		
<b>O2</b>	Oxygen, Dry	20.9	%		
<b>N2</b>	Nitrogen, Dry	79.1	%		
<b>Md</b>	Molecular Wt. of Stack Gas, Dry	28.844	lb/lb mole		
<b>Ms</b>	Molecular Wt. of Stack Gas, Wet	28.790	lb/lb mole		
<b>Cp</b>	Pitot Calibration Factor	0.841			
<b>Δ P</b>	Velocity Head, Average Square Root	0.324	in. H2O		
<b>Ts</b>	Stack Gas Temperature, Average	77.3	deg. F	537.3	deg. R
<b>As</b>	Area of Stack	3.41	sq ft	25.0	in. dia.
<b>Vs</b>	Stack Gas Velocity	18.32	ft/sec		
<b>Qa</b>	Actual Flow Rate	3,747	cfm		
<b>Qad</b>	Actual Flow Rate, Dry	3,729	dcfm		
<b>Q(std)</b>	Stack Gas Flow Rate	3,636	dscfm		
<b>An</b>	Nozzle Area	0.0005761	sq ft	0.325	in. dia.
<b>Theta</b>	Sampling Time	60	min.		
<b>I</b>	Isokinetics	100.2	%		

OVERFLOW SEPARATOR  
CYCLONE

**FIELD DATA & CALCULATIONS SUMMARY**

Client: **Airway Gins**  
 Site: **Fresno**  
 Unit: **Overflow**

Date: **11/22/91**  
 Type: **T std = 60 F**  
 Run: **1-PM10**

<b>Wlc</b>	Water Condensate Weight	2.8	g		
<b>Vlc</b>	Water Condensate Volume	<b>2.8</b>	<b>ml</b>		
<b>Vm</b>	Metered Sample Gas Volume	<b>33.019</b>	<b>dcf</b>		
<b>Lp</b>	Avg. Leak Rate	0.000	cf		
<b>Vn</b>	Leak Corrected Sample Gas Volume	33.019	dcf		
<b>Y</b>	Dry Gas Meter Calibration Factor	<b>0.982</b>			
<b>Pbar</b>	Barometric Pressure	<b>30.15</b>	<b>in. Hg</b>		
<b>Pg</b>	Static Pressure	<b>-0.15</b>	<b>in. H2O</b>		
<b>Ps</b>	Stack Pressure, Absolute	30.14	in. Hg		
<b>Δ H</b>	Dry Gas Meter Press. Differential, Average	<b>1.058</b>	<b>in. H2O</b>		
<b>Tm</b>	Dry Gas Meter Temperature, Average	75.2	deg. F	<b>535.2</b>	<b>deg. R</b>
<b>Vm(std)</b>	Sample Gas Volume	<b>31.8266</b>	<b>dscf</b>		
<b>Vm(wet)</b>	Sample Gas Volume, Wet	31.9569	scf		
<b>Vw(std)</b>	Water Vapor Volume	0.1303	scf		
<b>Bws</b>	Water Content of Stack Gas	0.004		<b>0.4</b>	<b>%</b>
<b>CO2</b>	Carbon Dioxide, Dry	<b>0.1</b>	<b>%</b>		
<b>O2</b>	Oxygen, Dry	<b>20.9</b>	<b>%</b>		
<b>N2</b>	Nitrogen, Dry	79.1	%		
<b>Md</b>	Molecular Wt. of Stack Gas, Dry	<b>28.844</b>	<b>lb/lb mole</b>		
<b>Ms</b>	Molecular Wt. of Stack Gas, Wet	<b>28.800</b>	<b>lb/lb mole</b>		
<b>Cp</b>	Pitot Calibration Factor	<b>0.841</b>			
<b>Δ P</b>	Velocity Head, Average Square Root	<b>0.444</b>	<b>in. H2O</b>		
<b>Ts</b>	Stack Gas Temperature, Average	<b>80.0</b>	deg. F	540.0	deg. R
<b>As</b>	Area of Stack	<b>3.41</b>	<b>sq ft</b>	25.0	in. dia.
<b>Vs</b>	Stack Gas Velocity	25.19	ft/sec		
<b>Qa</b>	Actual Flow Rate	5,151	cfm		
<b>Qad</b>	Actual Flow Rate, Dry	5,130	dcfm		
<b>Q(std)</b>	Stack Gas Flow Rate	<b>4,977</b>	<b>dscfm</b>		
<b>An</b>	Nozzle Area	<b>0.0003744</b>	<b>sq ft</b>	0.262	in. dia.
<b>Theta</b>	Sampling Time	<b>60</b>	<b>min.</b>		
<b>I</b>	Isokinetics	<b>98.8</b>	<b>%</b>		

### FIELD DATA & CALCULATIONS SUMMARY

Client: **Airway Gins**  
 Site: **Fresno**  
 Unit: **Overflow**

Date: **11/22/91**  
 Type: **T std - 60 F**  
 Run: **2-PM10**

<b>Wlc</b>	Water Condensate Weight	4.8	g		
<b>Vlc</b>	Water Condensate Volume	4.8	ml		
<b>Vm</b>	Metered Sample Gas Volume	31.480	dcf		
<b>Lp</b>	Avg. Leak Rate	0.000	cf		
<b>Vn</b>	Leak Corrected Sample Gas Volume	31.480	dcf		
<b>Y</b>	Dry Gas Meter Calibration Factor	0.982			
<b>Pbar</b>	Barometric Pressure	30.15	in. Hg		
<b>Pg</b>	Static Pressure	-0.15	in. H2O		
<b>Ps</b>	Stack Pressure, Absolute	30.14	in. Hg		
<b>Δ H</b>	Dry Gas Meter Press. Differential, Average	1.092	in. H2O		
<b>Tm</b>	Dry Gas Meter Temperature, Average	76.2	deg. F	536.2	deg. R
<b>Vm(std)</b>	Sample Gas Volume	30.2867	dscf		
<b>Vm(wet)</b>	Sample Gas Volume, Wet	30.5100	scf		
<b>Vw(std)</b>	Water Vapor Volume	0.2233	scf		
<b>Bws</b>	Water Content of Stack Gas	0.007		0.7	%
<b>CO2</b>	Carbon Dioxide, Dry	0.1	%		
<b>O2</b>	Oxygen, Dry	20.9	%		
<b>N2</b>	Nitrogen, Dry	79.1	%		
<b>Md</b>	Molecular Wt. of Stack Gas, Dry	28.844	lb/lb mole		
<b>Ms</b>	Molecular Wt. of Stack Gas, Wet	28.765	lb/lb mole		
<b>Cp</b>	Pitot Calibration Factor	0.841			
<b>Δ P</b>	Velocity Head, Average Square Root	0.451	in. H2O		
<b>Ts</b>	Stack Gas Temperature, Average	75.0	deg. F	535.0	deg. R
<b>As</b>	Area of Stack	3.41	sq ft	25.0	in. dia.
<b>Vs</b>	Stack Gas Velocity	25.46	ft/sec		
<b>Qa</b>	Actual Flow Rate	5,207	cfm		
<b>Qad</b>	Actual Flow Rate, Dry	5,169	dcfm		
<b>Q(std)</b>	Stack Gas Flow Rate	5.061	dscfm		
<b>An</b>	Nozzle Area	0.0003744	sq ft	0.262	in. dia.
<b>Theta</b>	Sampling Time	60	min.		
<b>I</b>	Isokinetics	92.5	%		

**FIELD DATA & CALCULATIONS SUMMARY**

Client: **Airway Gins**  
 Site: **Fresno**  
 Unit: **Overflow**

Date: **11/22/91**  
 Type: **T std = 60 F**  
 Run: **3-PH10**

<b>Wlc</b>	Water Condensate Weight	4.4	g		
<b>Vlc</b>	Water Condensate Volume	<b>4.4</b>	<b>ml</b>		
<b>Vm</b>	Metered Sample Gas Volume	<b>33.319</b>	<b>dcf</b>		
<b>Lp</b>	Avg. Leak Rate	0.000	cf		
<b>Vn</b>	Leak Corrected Sample Gas Volume	33.319	dcf		
<b>Y</b>	Dry Gas Meter Calibration Factor	<b>0.982</b>			
<b>Pbar</b>	Barometric Pressure	<b>30.15</b>	<b>in. Hg</b>		
<b>Pg</b>	Static Pressure	<b>-0.15</b>	<b>in. H2O</b>		
<b>Ps</b>	Stack Pressure, Absolute	30.14	in. Hg		
<b>Δ H</b>	Dry Gas Meter Press. Differential, Average	<b>1.035</b>	<b>in. H2O</b>		
<b>Tm</b>	Dry Gas Meter Temperature, Average	78.8	deg. F	<b>538.8</b>	<b>deg. R</b>
<b>Vm(std)</b>	Sample Gas Volume	<b>31.8979</b>	<b>dscf</b>		
<b>Vm(wet)</b>	Sample Gas Volume, Wet	32.1026	scf		
<b>Vw(std)</b>	Water Vapor Volume	0.2047	scf		
<b>Bws</b>	Water Content of Stack Gas	0.006		<b>0.6</b>	<b>%</b>
<b>CO2</b>	Carbon Dioxide, Dry	<b>0.1</b>	<b>%</b>		
<b>O2</b>	Oxygen, Dry	<b>20.9</b>	<b>%</b>		
<b>N2</b>	Nitrogen, Dry	79.1	%		
<b>Md</b>	Molecular Wt. of Stack Gas, Dry	<b>28.844</b>	<b>lb/lb mole</b>		
<b>Ms</b>	Molecular Wt. of Stack Gas, Wet	<b>28.775</b>	<b>lb/lb mole</b>		
<b>Cp</b>	Pitot Calibration Factor	<b>0.841</b>			
<b>Δ P</b>	Velocity Head, Average Square Root	<b>0.446</b>	<b>in. H2O</b>		
<b>Ts</b>	Stack Gas Temperature, Average	<b>75.0</b>	deg. F	535.0	deg. R
<b>As</b>	Area of Stack	<b>3.41</b>	<b>sq ft</b>	25.0	in. dia.
<b>Vs</b>	Stack Gas Velocity	25.18	ft/sec		
<b>Qa</b>	Actual Flow Rate	5,151	cfm		
<b>Qad</b>	Actual Flow Rate, Dry	5,118	dcfm		
<b>Q(std)</b>	Stack Gas Flow Rate	<b>5,011</b>	<b>dscfm</b>		
<b>An</b>	Nozzle Area	<b>0.0003744</b>	<b>sq ft</b>	0.262	in. dia.
<b>Theta</b>	Sampling Time	<b>60</b>	<b>min.</b>		
<b>I</b>	Isokinetics	<b>98.4</b>	<b>%</b>		

**III. WET TEST METHODS CALCULATIONS**

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MOTES TRASH  
CYCLONE

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### CALCULATED EMISSION RESULTS

Client: **Airway Gins**  
Site: **Fresno**  
Unit: **Note**

Date: **11/21/91**  
Type: **T std = 60 F**  
Run: **1-PM10**

### PM10 PARTICULATE

<b>Wt</b>	Total Particulate Weight	<b>0.0477</b>	<b>g</b>
<b>Ct</b>	Total Particulate Emissions	<b>0.0183</b>	<b>grain/dscf</b>
<b>CFl</b>	Particulate Flow Rate	<b>1.67</b>	<b>lb/hr</b>
	+10 $\mu$ Particulate	<b>30.67</b>	<b>%</b>
	+10 $\mu$ Particulate	<b>0.51</b>	<b>lb/hr</b>
	-10 $\mu$ Particulate	<b>69.33</b>	<b>%</b>
	-10 $\mu$ Particulate	<b>1.16</b>	<b>lb/hr</b>

*BTC Environmental, Inc. - 1989*

### CALCULATED EMISSION RESULTS

Client: **Airway Gins**  
Site: **Fresno**  
Unit: **Mote**

Date: **11/21/91**  
Type: **T std = 60 F**  
Run: **2-PM10**

### PM10 PARTICULATE

<b>Wt</b>	Total Particulate Weight	0.0383	g
<b>Cl</b>	Total Particulate Emissions	<b>0.0149</b>	grain/dscf
<b>Cft</b>	Particulate Flow Rate	<b>1.33</b>	lb/hr
	+10 $\mu$ Particulate	<b>46.73</b>	%
	+10 $\mu$ Particulate	<b>0.62</b>	lb/hr
	-10 $\mu$ Particulate	<b>53.27</b>	%
	-10 $\mu$ Particulate	<b>0.71</b>	lb/hr

BTC Environmental, Inc. - 1989

### CALCULATED EMISSION RESULTS

Client: **Airway Gins**  
Site: **Fresno**  
Unit: **Note**

Date: **11/21/91**  
Type: **T std = 60 F**  
Run: **3-PH10**

### PM10 PARTICULATE

<b>WT</b>	Total Particulate Weight	0.0468	g
<b>CE</b>	Total Particulate Emissions	<b>0.0170</b>	grain/dscf
<b>CFL</b>	Particulate Flow Rate	<b>1.56</b>	lb/hr
	+10 $\mu$ Particulate	<b>47.60</b>	%
	+10 $\mu$ Particulate	<b>0.74</b>	lb/hr
	-10 $\mu$ Particulate	<b>52.40</b>	%
	-10 $\mu$ Particulate	<b>0.82</b>	lb/hr

BTC Environmental, Inc. - 1989

#3 INCLINE  
CYCLONE

### CALCULATED EMISSION RESULTS

Client: **Airway Gins**  
Site: **Fresno**  
Unit: **#3 Incline**

Date: **11/22/91**  
Type: **T std = 60 F**  
Run: **1-PM10**

### PM10 PARTICULATE

<b>Wt</b>	Total Particulate Weight	0.0921	g
<b>Ct</b>	Total Particulate Emissions	<b>0.0335</b>	grain/dscf
<b>Cft</b>	Particulate Flow Rate	<b>1.04</b>	lb/hr
	+10 $\mu$ Particulate	<b>71.90</b>	%
	+10 $\mu$ Particulate	<b>0.75</b>	lb/hr
	-10 $\mu$ Particulate	<b>28.10</b>	%
	-10 $\mu$ Particulate	<b>0.29</b>	lb/hr

BTC Environmental, Inc. - 1989

**CALCULATED EMISSION RESULTS**

Client: **Airway Gins**  
Site: **Fresno**  
Unit: **#3 Incline**

Date: **11/22/91**  
Type: **T std = 60 F**  
Run: **2-PM10**

**PM10 PARTICULATE**

<b>Wt</b>	Total Particulate Weight	0.0809	g
<b>Ct</b>	Total Particulate Emissions	<b>0.0334</b>	grain/dscf
<b>CFl</b>	Particulate Flow Rate	<b>1.04</b>	lb/hr
	+10 $\mu$ Particulate	<b>68.59</b>	%
	+10 $\mu$ Particulate	<b>0.71</b>	lb/hr
	-10 $\mu$ Particulate	<b>31.41</b>	%
	-10 $\mu$ Particulate	<b>0.33</b>	lb/hr

*BTC Environmental, Inc. - 1989*

### CALCULATED EMISSION RESULTS

Client: **Airway Gins**  
Site: **Fresno**  
Unit: **#3 Incline**

Date: **11/22/91**  
Type: **T std = 60 F**  
Run: **3-PM10**

### PM10 PARTICULATE

<b>Wt</b>	Total Particulate Weight	0.0821	g
<b>Ct</b>	Total Particulate Emissions	<b>0.0349</b>	grain/dscf
<b>CFl</b>	Particulate Flow Rate	<b>1.09</b>	lb/hr
	+10 $\mu$ Particulate	<b>59.74</b>	%
	+10 $\mu$ Particulate	<b>0.65</b>	lb/hr
	-10 $\mu$ Particulate	<b>40.26</b>	%
	-10 $\mu$ Particulate	<b>0.44</b>	lb/hr

BTC Environmental, Inc. - 1989

OVERFLOW SEPARATOR  
CYCLONE

**CALCULATED EMISSION RESULTS**

Client: **Airway Gins**  
Site: **Fresno**  
Unit: **Overflow**

Date: **11/22/91**  
Type: **T std = 60 F**  
Run: **1-PH10**

**PM10 PARTICULATE**

<b>WT</b>	Total Particulate Weight	0.0638	g
<b>CE</b>	Total Particulate Emissions	<b>0.0309</b>	grain/dscf
<b>CFL</b>	Particulate Flow Rate	<b>1.32</b>	lb/hr
	+10 $\mu$ Particulate	<b>63.86</b>	%
	+10 $\mu$ Particulate	<b>0.84</b>	lb/hr
	-10 $\mu$ Particulate	<b>36.14</b>	%
	-10 $\mu$ Particulate	<b>0.48</b>	lb/hr

BTC Environmental, Inc. - 1989

**CALCULATED EMISSION RESULTS**

Client: **Airway Gins**  
Site: **Fresno**  
Unit: **Overflow**

Date: **11/22/91**  
Type: **T std = 60 F**  
Run: **2-PM10**

**PM10 PARTICULATE**

<b>WE</b>	Total Particulate Weight	0.0606	g
<b>CE</b>	Total Particulate Emissions	<b>0.0309</b>	grain/dscf
<b>CFL</b>	Particulate Flow Rate	<b>1.34</b>	lb/hr
	+10 $\mu$ Particulate	<b>68.06</b>	%
	+10 $\mu$ Particulate	<b>0.91</b>	lb/hr
	-10 $\mu$ Particulate	<b>31.94</b>	%
	-10 $\mu$ Particulate	<b>0.43</b>	lb/hr

BTC Environmental, Inc. - 1989

### CALCULATED EMISSION RESULTS

Client: **Airway Gins**  
Site: **Fresno**  
Unit: **Overflow**

Date: **11/22/91**  
Type: **T std = 60 F**  
Run: **3-PH10**

### PM10 PARTICULATE

<b>Wt</b>	Total Particulate Weight	0.0362	g
<b>Ct</b>	Total Particulate Emissions	<b>0.0175</b>	grain/dscf
<b>Cft</b>	Particulate Flow Rate	<b>0.75</b>	lb/hr
	+10 $\mu$ Particulate	<b>59.35</b>	%
	+10 $\mu$ Particulate	<b>0.45</b>	lb/hr
	-10 $\mu$ Particulate	<b>40.65</b>	%
	-10 $\mu$ Particulate	<b>0.31</b>	lb/hr

BTC Environmental, Inc. - 1989

**BTC ENVIRONMENTAL**  
**EPA methods 2, 3, 4, 5, 6, 8**

**CONSTANTS & CONVERSIONS**

Tstd = 60, 68, or 70 °F	1 in. Hg = 13.6 in. H <sub>2</sub> O
Pstd = 29.92 in. Hg	1 lb = 453.6 g
R = 21.85(in. Hg-cu ft/lb mole-°R)	1 lb = 7000 grain
Dw = 0.9982(g/ml)	1 g = 15.432 grain
MW(H <sub>2</sub> O) = 18.0 lb/lb mole	1 mg = 0.001 g
MW(Sulfur) = 32.03 lb/lb mole	1 hr = 60 min.
M(H <sub>2</sub> SO <sub>4</sub> ) = 98.08 lb/lb mole	1 part/vol X = 1*10 <sup>6</sup> ppmv X
MW(SO <sub>2</sub> ) = 64.06 lb/lb mole	1 bbl = 42 gal
K(H <sub>2</sub> SO <sub>4</sub> ) = 0.5 mg-g mole/g-meq	M = 1000
K(SO <sub>2</sub> ) = 0.5 mg-g mole/g-meq	La = 0.02 cfm
Kp = 85.49(ft/sec(sqrt(lb/lb mole-in.Hg/°R-in. H <sub>2</sub> O)))	
Kw,[cu ft/g-°R] = R / (453.6*MW(H <sub>2</sub> O)*Pstd)	
Kf,[scf-ppm/lb mole] = R * (Tstd+460) * (1*10 <sup>6</sup> ) / Pstd	

**INTERMEDIATE CALCULATIONS**

$$F_{[scf/MMBtu]} = F \text{ Factor} * (Tstd + 460) / 528$$

$$Ph_{[in. Hg]} = Pbar + (\Delta H / 13.6)$$

$$N2_{[%]} = 100 - (O2\% + CO2\%)$$

$$Vlc_{[ml]} = Ww / Dw$$

$$Qa_{[cfm]} = 60 * Vs * As$$

$$Qad_{[dcfm]} = Qa * (1 - Bws)$$

**CFR 40 - EPA EQUATIONS**

eq. 2-8  $T[°R] = T[°F] + 460$

eq. 2-6  $Ps_{[in. Hg]} = Pbar + (Pg/13.6)$

eq. 5-3  $Bws_{[%]} = Vw(std) / \{ Vw(std) + Vm(std) \}$

eq. 3-2  $Md_{[lb/lb-mole]} = 0.44*CO2\% + 0.32*O2\% + 0.28*(N2\% + CO\%)$

eq. 2-5  $Ms_{[lb/lb mol]} = Md*(1-Bws) + (MW(H2O)*Bws)$

eq. 5-2  $Vw(std)_{[scf]} = Ww * Kw * (Tstd+460)$

eq. 5-1  $Vn_{[cf]} = Vm - ((Lp-La) * Theta)$

eq. 5-1  $Vm(std)_{[sdscf]} = Vm * Y * ( (Tstd+460) / (Tm+460) ) * Ph / Pstd$

eq. 2-9  $Vs_{[ft./sec.]} = Kp * Cp * (\Delta P * (Ts+460)) / (Ps * Ms)^{0.5}$

eq. 2-10  $Qstd_{[dscfm]} = Qad * (Tstd+460) * Ps / ((Ts+460) * Pstd)$

eq. 5-8  $l_{[%]} = 100 * (Ts+460) * Vm(std) * Pstd / (60 * Vs * Theta * An * Ps * (1-Bws) * (Tstd+460))$

eq. 5-6  $Cx_{[grain/dscf]} = Wx * g * 15.432 / Vm(std)$

eq. 8-2,3  $Wx_{[mg]} = (Vt - Vtb) * N(std) * (Vsoln / Valq) * MWx * Kx$

$Cx_{[grain/dscf]} = Wx_{mg} * 0.001 * 15.432 / Vm(std)$

$CWx_{[grain/scf]} = Cx * (1 - Bws)$

$CCx_{[grain/dscf @ 12\% CO2]} = Cx * 12.0 / CO2\%$

$CWCx_{[grain/scf @ 12\% CO2\%]} = CCx$

$CPx_{[ppmv dry]} = Cx * Kf / (MWx * 7000)$

$CPCx_{[ppmv @ N\% O2]} = CPx * ((20.9 - N\%) / (20.9 - O2\%))$

$CFx_{[lb/hr]} = Cx * Q(std) * 60 / 7000$

$CEx_{[lb/MMBtu]} = F * (Cx / 7000) * (20.9 / (20.9 - O2\%))$

$CBx_{[lb/bbl]} = CEx * (Fuel Btu/MM) * (Fuel lb/gal) * 42$

$CEsx_{[lb S/MMBtu]} = CEx * (MW(S) / MWx)$

Where x represents, Particulate, Sulfuric Acid, Sulfate, or Sulfur Dioxide respectively.

**IV. CONTINUOUS TEST METHODS DATA**

50

**V. LABORATORY ANALYSIS**

MOTES TRASH  
CYCLONE

52

**Run Set Up Sheet**

Client : Airway Gin  
Site : Fresno  
Unit : Mote

Date : 11/21/91  
Job # : 1045  
Lab # : 291-186

Method# : PM10      Probe# : 6  
Run# : 1      Stack box# : B  
Hot box# : -      Cold box# : 4

Pryo# : T-4  
Nozzle# : 0.281  
Pitot# : 0.841

Imp. #1: 

gross	646.3
tare	642.2
final	<u>4.1</u>

Imp. #2: 

gross	596.4
tare	597.4
final	<u>-1.0</u>

Imp. #3: 

gross	375.8
tare	373.6
final	<u>2.2</u>

Imp. #4: 

gross	657.8
tare	657.8
final	<u>0.0</u>

Total      5.3

Solution blank 

DI
----

  
Solution blank 

Acetone
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Filter Nos: 

G-25
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Filter Nos: 

G-48
------

  
Filter Nos: 

G-149
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Filter Nos: 

B-28
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Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Run Set Up Sheet**

Client : Airway Gin  
 Site : Fresno  
 Unit: Mote

Date : 11/21/91  
 Job # : 1045  
 Lab # : 291-186

Method#: PM10      Probe#: 6  
 Run#: 2      Stack box#: B  
 Hot box#: -      Cold box#: 1

Pryo#: T-4  
 Nozzle#: 0.281  
 Pitot#: 0.841

Imp. #1:      

gross	647.6
tare	641.7
final	<u>5.9</u>

Imp. #2:      

gross	652.3
tare	654.4
final	<u>-2.1</u>

Imp. #3:      

gross	482.7
tare	483.2
final	<u>-0.5</u>

Imp. #4:      

gross	572.9
tare	572.8
final	<u>0.1</u>

Total      3.4

Solution blank 

DI
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 Solution blank 

Acetone
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Filter Nos: 

G-52
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 Filter Nos: 

G-24
------

  
 Filter Nos: 

G-156
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 Filter Nos: 

B-30
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Comments: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
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**Run Set Up Sheet**

Client : Airway Gin  
Site : Fresno  
Unit: Mote

Date : 11/21/91  
Job # : 1045  
Lab # : 291-186

Method#: PM10      Probe#: 6  
Run#: 3      Stack box#: B  
Hot box#: -      Cold box#: 4

Pryo#: T-4  
Nozzle#: 0.281  
Pitot#: 0.841

Imp. #1:	gross	640.2
	tare	636.1
	final	4.1
Imp. #2:	gross	665.9
	tare	666.1
	final	-0.2
Imp. #3:	gross	373.8
	tare	373.3
	final	0.5
Imp. #4:	gross	659.4
	tare	657.8
	final	1.6
Total		6.0

Solution blank: DI  
Solution blank: Acetone  
Filter Nos: G-77  
Filter Nos: G-66  
Filter Nos: G-131  
Filter Nos: B-32

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

#3 INCLINE  
CYCLONE

### Run Set Up Sheet

Client : Airway Gin  
 Site : Fresho  
 Unit : #3 Incline

Date : 11/22/91  
 Job # : 1045  
 Lab # : 291-186

Method# : PM10  
 Run# : 1  
 Hot box# : -

Probe# : 6  
 Stack box# : B  
 Cold box# : 6

Pryo# : T-4  
 Nozzle# : 0.313  
 Pitot# : 0.841

Imp. #1: 

gross	632.1
tare	630.8
final	1.3

Imp. #2: 

gross	658.0
tare	657.8
final	0.2

Imp. #3: 

gross	482.5
tare	482.8
final	-0.3

Imp. #4: 

gross	573.5
tare	572.8
final	0.7

Total 1.9

Solution blank 

DI
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 Solution blank 

Acetone
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Filter Nos: 

G-86
------

  
 Filter Nos: 

G-42
------

  
 Filter Nos: 

G-129
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 Filter Nos: 

<del>G</del> -34
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Comments: \_\_\_\_\_  
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### Run Set Up Sheet

Client : Airway Gin  
 Site : Fresno  
 Unit: #3 Incline

Date : 11/22/91  
 Job #: 1045  
 Lab #: 291-186

Method#: PM10      Probe#: 6  
 Run#: 2      Stack box#: B  
 Hot box#: -      Cold box#: 4

Pryo#: T-4  
 Nozzle#: 0.313  
 Pitot#: 0.841

Imp. #1: 

gross	633.1
tare	629.1
final	<u>4.0</u>

Imp. #2: 

gross	633.0
tare	632.2
final	<u>0.8</u>

Imp. #3: 

gross	475.0
tare	475.0
final	<u>0.0</u>

Imp. #4: 

gross	659.6
tare	659.4
final	<u>0.2</u>

Total      5.0

Solution blank 

DI
----

  
 Solution blank 

Acetone
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Filter Nos: 

G-16
------

  
 Filter Nos: 

G-54
------

  
 Filter Nos: 

G-128
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 Filter Nos: 

<del>0</del> -36
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Comments: \_\_\_\_\_  
 \_\_\_\_\_  
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 \_\_\_\_\_  
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### Run Set Up Sheet

Client : Airway Gin  
 Site : Fresno  
 Unit : #3 Incline

Date : 11/22/91  
 Job # : 1045  
 Lab # : 291-186

Method# : PM10  
 Run# : 3  
 Hot box# : -

Probe# : 6  
 Stack box# : 8  
 Cold box# : 1

Pryo# : T-4  
 Nozzle# : 0.313  
 Pitot# : 0.841

Imp. #1: 

gross	611.8
tare	609.3
final	<u>2.5</u>

Imp. #2: 

gross	627.3
tare	626.5
final	<u>0.8</u>

Imp. #3: 

gross	482.5
tare	482.5
final	<u>0.0</u>

Imp. #4: 

gross	574.2
tare	573.5
final	<u>0.7</u>

Total 4.0

Solution blank 

DI
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 Solution blank 

Acetone
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Filter Nos: 

G-7
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 Filter Nos: 

G-8
-----

  
 Filter Nos: 

G-9
-----

  
 Filter Nos: 

B-38
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Comments: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

OVERFLOW SEPARATOR  
CYCLONE

**Run Set Up Sheet**

Client : Airway Gin  
Site : Fresno  
Unit : Overflow

Date : 11/22/91  
Job # : 1045  
Lab # : 291-186

Method# : PM10      Probe# : 6  
Run# : 1      Stack box# : 8  
Hot box# : -      Cold box# : 4

Pryo# : T-4  
Nozzle# : 0.281  
Pitot# : 0.841

Imp. #1:    

gross	619.1
tare	617.3
final	<u>1.8</u>

Imp. #2:    

gross	643.2
tare	643.2
final	<u>0.0</u>

Imp. #3:    

gross	475.5
tare	475.0
final	<u>0.5</u>

Imp. #4:    

gross	659.6
tare	659.6
final	<u>0.0</u>

Total      2.3

Solution blank 

DI
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Solution blank 

Acetone
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Filter Nos: 

G-68
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Filter Nos: 

G-108
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Filter Nos: 

G-130
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Filter Nos: 

<del>G</del> -40
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Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Run Set Up Sheet**

Client : Airway Gin  
Site : Fresno  
Unit: Overflow

Date : 11/22/91  
Job # : 1045  
Lab # : 291-186

Method#: PM10      Probe#: 6  
Run#: 2            Stack box#: 8  
Hot box#: -        Cold box#: 1

Pryo#: T-4  
Nozzle#: 0.281  
Pitot#: 0.841

Imp. #1:      

gross	616.1
tare	611.6
final	<u>4.5</u>

Imp. #2:      

gross	657.2
tare	659.0
final	<u>-1.8</u>

Imp. #3:      

gross	482.4
tare	482.5
final	<u>-0.1</u>

Imp. #4:      

gross	574.8
tare	574.2
final	<u>0.6</u>

Total      3.2

Solution blank 

DI
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Solution blank 

Acetone
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Filter Nos: 

G-18
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Filter Nos: 

G-88
------

  
Filter Nos: 

G-154
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Filter Nos: 

<del>8</del> -42
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Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

### Run Set Up Sheet

Client : Airway Gin  
 Site : Fresno  
 Unit: Overflow

Date : 11/22/91  
 Job #: 1045  
 Lab #: 291-186

Method#: PM10      Probe#: 6  
 Run#: 3      Stack box#: B  
 Hot box#: -      Cold box#: 4

Pryo#: T-4  
 Nozzle#: 0.281  
 Pitot#: 0.841

Imp. #1:    

gross	666.9
tare	661.8
final	<u>5.1</u>

Imp. #2:    

gross	664.8
tare	665.6
final	<u>-0.8</u>

Imp. #3:    

gross	474.0
tare	474.1
final	<u>-0.1</u>

Imp. #4:    

gross	660.2
tare	659.6
final	<u>0.6</u>

Total      4.8

Solution blank 

DI
----

  
 Solution blank 

Acetone
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Filter Nos: 

G-47
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 Filter Nos: 

G-113
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 Filter Nos: 

G-153
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 Filter Nos: 

<del>G</del> -44
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Comments: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

MOTES TRASH  
CYCLONE

64

**Run Set Up Sheet**

Client : Airway Gin  
Site : Fresno  
Unit: Mote

Date : 11/21/91  
Job # : 1045  
Lab # : 291-186

Method# : M5                      Probe# : 6  
Run# : 1                              Stack box# : A  
Hot box# : -                            Cold box# : 11

Pryo# : T-4  
Nozzle# : 0.24  
Pitot# : 0.841

Imp. #1: 

gross	655.2
tare	653.2
final	<u>2.0</u>

Imp. #2: 

gross	617.9
tare	617.3
final	<u>0.6</u>

Imp. #3: 

gross	470.6
tare	470.8
final	<u>-0.2</u>

Imp. #4: 

gross	586.6
tare	586.3
final	<u>0.3</u>

Total                      2.7

Solution blank 

DI
----

  
Solution blank 

Acetone
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Filter No: 

B-27
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Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Run Set Up Sheet**

Client : Airway Gin  
Site : Fresno  
Unit: Mote

Date : 11/21/91  
Job #: 1045  
Lab #: 291-186

Method#: M5      Probe#: 6  
Run#: 2      Stack box#: A  
Hot box#: -      Cold box#: 10

Pryo#: T-4  
Nozzle#: 0.24  
Pitot#: 0.841

Imp. #1:    

gross	644.9
tare	639.5
final	<u>5.4</u>

Imp. #2:    

gross	628.1
tare	630.5
final	<u>-2.4</u>

Imp. #3:    

gross	444.6
tare	445.0
final	<u>-0.4</u>

Imp. #4:    

gross	585.1
tare	585.6
final	<u>-0.5</u>

Total      2.1

Solution blank DI  
Solution blank Acetone

Filter No: B-29

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

### Run Set Up Sheet

Client : Airway Gin  
Site : Fresno  
Unit: Mote

Date : 11/21/91  
Job # : 1045  
Lab # : 291-186

Method#: M5      Probe#: 6  
Run#: 3      Stack box#: A  
Hot box#: -      Cold box#: 11

Pryo#: T-4  
Nozzle#: 0.24  
Pitot#: 0.841

Imp. #1: 

gross	626.6
tare	624.6
final	<u>2.0</u>

Imp. #2: 

gross	616.4
tare	615.3
final	<u>1.1</u>

Imp. #3: 

gross	470.8
tare	470.2
final	<u>0.6</u>

Imp. #4: 

gross	586.9
tare	586.3
final	<u>0.6</u>

Total      4.3

Solution blank 

DI
----

  
Solution blank 

Acetone
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Filter No: 

B-31
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Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

#3 INCLINE  
CYCLONE

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**Run Set Up Sheet**

Client : Airway Gin  
Site : Fresno  
Unit: #3 Incline

Date : 11/22/91  
Job #: 1045  
Lab #: 291-186

Method#: M5  
Run#: 1  
Hot box#: -

Probe#: 6  
Stack box#: A  
Cold box#: 10

Pryo#: T-4  
Nozzle#: 0.325  
Pitot#: 0.841

Imp. #1: 

gross	630.9
tare	629.0
final	<u>1.9</u>

Imp. #2: 

gross	639.2
tare	638.4
final	<u>0.8</u>

Imp. #3: 

gross	445.5
tare	445.2
final	<u>0.3</u>

Imp. #4: 

gross	585.8
tare	585.6
final	<u>0.2</u>

Total 3.2

Solution blank DI  
Solution blank Acetone

Filter No: B-33

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

### Run Set Up Sheet

Client : Airway Gin  
 Site : Fresno  
 Unit: #3 Incline

Date : 11/22/91  
 Job # : 1045  
 Lab # : 291-186

Method# : M5  
 Run# : 2  
 Hot box# : -

Probe# : 6  
 Stack box# : A  
 Cold box# : 11

Pryo# : T-4  
 Nozzle# : 0.325  
 Pitot# : 0.841

Imp. #1: 

gross	621.4
tare	616.6
final	<u>4.8</u>

Imp. #2: 

gross	607.9
tare	607.5
final	<u>0.4</u>

Imp. #3: 

gross	470.2
tare	470.2
final	<u>0.0</u>

Imp. #4: 

gross	587.3
tare	586.9
final	<u>0.4</u>

Total 5.6

Solution blank 

DI
----

  
 Solution blank 

Acetone
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Filter No: 

B-35
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Comments: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**Run Set Up Sheet**

Client : Airway Gin  
Site : Fresno  
Unit : #3 Incline

Date : 11/22/91  
Job # : 1045  
Lab # : 291-186

Method# : M5  
Run# : 3  
Hot box# : -

Probe# : 6  
Stack box# : A  
Cold box# : 10

Pryo# : T-4  
Nozzle# : 0.325  
Pitot# : 0.841

Imp. #1: 

gross	622.3
tare	620.3
final	<u>2.0</u>

Imp. #2: 

gross	604.5
tare	603.6
final	<u>0.9</u>

Imp. #3: 

gross	446.1
tare	445.6
final	<u>0.5</u>

Imp. #4: 

gross	586.3
tare	585.8
final	<u>0.5</u>

Total 3.9

Solution blank DI  
Solution blank Acetone

Filter No: B-37

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

OVERFLOW SEPARATOR  
CYCLONE

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### Run Set Up Sheet

Client : Airway Gin  
Site : Fresno  
Unit : Overflow

Date : 11/22/91  
Job # : 1045  
Lab # : 291-186

Method# : M5      Probe# : 6  
Run# : 1      Stack box# : A  
Hot box# : -      Cold box# : 11

Pryo# : T-4  
Nozzle# : 0.262  
Pitot# : 0.841

Imp. #1: 

gross	615.8
tare	612.8
final	<u>3.0</u>

Imp. #2: 

gross	597.7
tare	597.8
final	<u>-0.1</u>

Imp. #3: 

gross	470.0
tare	470.1
final	<u>-0.1</u>

Imp. #4: 

gross	587.3
tare	587.3
final	<u>0.0</u>

Total      2.8

Solution blank 

DI
----

  
Solution blank 

Acetone
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Filter No: 

B-39
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Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Run Set Up Sheet**

Client : Airway Gin  
Site : Fresno  
Unit : Overflow

Date : 11/22/91  
Job # : 1045  
Lab # : 291-186

Method# : M5      Probe# : 6  
Run# : 2      Stack box# : A  
Hot box# : -      Cold box# : 10

Pryo# : T-4  
Nozzle# : 0.262  
Pitot# : 0.841

Imp. #1:    

gross	630.3
tare	626.6
final	<u>3.7</u>

Imp. #2:    

gross	608.8
tare	607.6
final	<u>1.2</u>

Imp. #3:    

gross	445.4
tare	445.7
final	<u>-0.3</u>

Imp. #4:    

gross	586.5
tare	586.3
final	<u>0.2</u>

Total      4.8

Solution blank 

DI
----

  
Solution blank 

Acetone
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Filter No: 

B-41
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Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Run Set Up Sheet

Client : Airway Gin  
Site : Fresno  
Unit: Overflow

Date : 11/22/91  
Job #: 1045  
Lab #: 291-186

Method#: M5 Probe#: 6  
Run#: 3 Stack box#: A  
Hot box#: - Cold box#: 11

Pryo#: T-4  
Nozzle#: 0.262  
Pitot#: 0.841

Imp. #1: 

gross	649.4
tare	645.8
final	<u>3.6</u>

Imp. #2: 

gross	629.1
tare	628.7
final	<u>0.4</u>

Imp. #3: 

gross	470.3
tare	470.0
final	<u>0.3</u>

Imp. #4: 

gross	587.4
tare	587.3
final	<u>0.1</u>

Total 4.4

Solution blank 

DI
----

  
Solution blank 

Acetone
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Filter No: 

B-43
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Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

MOTES TRASH  
CYCLONE

**PM10 PARTICULATE WEIGHTS : DATA & CALCULATIONS**

Client : <u>Airway Gins</u>	Date : <u>11/21/91</u>
Site : <u>Fresno</u>	Job # : <u>1045</u>
Unit : <u>Mote</u>	Lab # : <u>291-186</u>
Run : <u>1</u>	

**BLANKS**

Acetone	Gross: <u>67.4637</u> gms.	Tare: <u>67.4634</u> gms.	Volume: <u>100</u> ml	Residue: <u>0.0003</u> gms.
DI Water	Gross: <u>66.5226</u> gms.	Tare: <u>66.5224</u> gms.	Volume: <u>100</u> ml	Residue: <u>0.0002</u> gms.

**WEIGHTS & VOLUMES**

Filter	Gross: <u>0.0914</u> gms.	Tare: <u>0.0898</u> gms.	Net: <u>0.0016</u> gms.
Filter	Gross: <u>0.0911</u> gms.	Tare: <u>0.0898</u> gms.	Net: <u>0.0013</u> gms.

+ 10 μ Rinse -				
Acetone:	<u>21</u> ml * <u>3E-06</u> gms./ml	=	Net: <u>-0.0001</u> gms.	
DI Water:	<u>40</u> ml * <u>2E-06</u> gms./ml	=	Net: <u>-0.0001</u> gms.	
Gross:	<u>66.6498</u> gms.	Tare: <u>66.6420</u> gms.	Net: <u>0.0078</u> gms.	

**+ 10μ Total Weight = 0.0106 gms.**

Filter	Gross: <u>0.1295</u> gms.	Tare: <u>0.1129</u> gms.	Net: <u>0.0166</u> gms.
Filter	Gross: <u>0.5695</u> gms.	Tare: <u>0.5691</u> gms.	Net: <u>0.0004</u> gms.

- 10 μ Rinse				
DI Water:	<u>310</u> ml * <u>2E-06</u> gms./ml	=	Net: <u>-0.0006</u> gms.	
Acetone:	<u>50</u> ml * <u>3E-06</u> gms./ml	=	Net: <u>-0.0002</u> gms.	
Total:	<u>360</u> ml	Aliquot: <u>360</u> ml	Net: <u>0.0076</u> gms.	
Gross:	<u>66.3292</u> gms.	Tare: <u>66.3208</u> gms.		

**- 10μ Total Weight = 0.0239 gms.**

**Total Weight = 0.0344 gms.**

+ 10 μ	<u>30.67</u> %
- 10 μ	<u>69.33</u> %

**PM10 PARTICULATE WEIGHTS : DATA & CALCULATIONS**

Client : Airway Gins  
 Site : Fresno  
 Unit : Mote  
 Run : 2

Date : 11/21/91  
 Job # : 1045  
 Lab # : 291-186

**BLANKS**

Acetone                      Volume: 100 ml  
 Gross: 67.4637 gms.      Tare: 67.4634 gms.      Residue: 0.0003 gms.

DI Water                      Volume: 100 ml  
 Gross: 66.5226 gms.      Tare: 66.5224 gms.      Residue: 0.0002 gms.

**WEIGHTS & VOLUMES**

Filter      Gross: 0.0894 gms.      Tare: 0.0888 gms.      Net: 0.0006 gms.  
 Filter      Gross: 0.0913 gms.      Tare: 0.0896 gms.      Net: 0.0017 gms.

+ 10 μ Rinse -  
 Acetone: 31 ml \* 3E-06 gms./ml      =      Net: -0.0001 gms.  
 DI Water: 50 ml \* 2E-06 gms./ml      =      Net: -0.0001 gms.  
 Gross: 65.8033 gms.      Tare: 65.7892 gms.      Net: 0.0141 gms.

**+ 10μ Total Weight      =      0.0162 gms.**

Filter      Gross: 0.1294 gms.      Tare: 0.1124 gms.      Net: 0.0170 gms.  
 Filter      Gross: 0.5703 gms.      Tare: 0.5692 gms.      Net: 0.0011 gms.

- 10 μ Rinse  
 DI Water: 382 ml \* 2E-06 gms./ml      =      Net: -0.0008 gms.  
 Acetone: 50 ml \* 3E-06 gms./ml      =      Net: -0.0002 gms.  
 Total: 432 ml      Aliquot: 432 ml  
 Gross: 65.9443 gms.      Tare: 65.9421 gms.      Net: 0.0013 gms.

**- 10μ Total Weight      =      0.0185 gms.**

**Total Weight      =      0.0347 gms.**

+ 10 μ      46.73 %  
 - 10 μ      53.27 %

**PM10 PARTICULATE WEIGHTS : DATA & CALCULATIONS**

Client : <u>Airway Gins</u>	Date : <u>11/21/91</u>
Site : <u>Fresno</u>	Job # : <u>1045</u>
Unit : <u>Mote</u>	Lab # : <u>291-186</u>
Run : <u>3</u>	

**BLANKS**

Acetone	Gross: <u>67.4637</u> gms.	Tare: <u>67.4634</u> gms.	Volume: <u>100</u> ml	Residue: <u>0.0003</u> gms.
DI Water	Gross: <u>66.5226</u> gms.	Tare: <u>66.5224</u> gms.	Volume: <u>100</u> ml	Residue: <u>0.0002</u> gms.

**WEIGHTS & VOLUMES**

Filter	Gross: <u>0.0911</u> gms.	Tare: <u>0.0892</u> gms.	Net: <u>0.0019</u> gms.
Filter	Gross: <u>0.0915</u> gms.	Tare: <u>0.0890</u> gms.	Net: <u>0.0025</u> gms.
+ 10 μ Rinse -			
Acetone:	<u>40</u> ml * <u>3E-06</u> gms./ml	=	Net: <u>-0.0001</u> gms.
DI Water:	<u>50</u> ml * <u>2E-06</u> gms./ml	=	Net: <u>-0.0001</u> gms.
Gross:	<u>65.9914</u> gms.	Tare: <u>65.9805</u> gms.	Net: <u>0.0109</u> gms.
<b>+ 10μ Total Weight</b>			<b>= <u>0.0151</u> gms.</b>
Filter	Gross: <u>0.1365</u> gms.	Tare: <u>0.1185</u> gms.	Net: <u>0.0180</u> gms.
Filter	Gross: <u>0.5695</u> gms.	Tare: <u>0.5691</u> gms.	Net: <u>0.0004</u> gms.
- 10 μ Rinse			
DI Water:	<u>400</u> ml * <u>2E-06</u> gms./ml	=	Net: <u>-0.0008</u> gms.
Acetone:	<u>50</u> ml * <u>3E-06</u> gms./ml	=	Net: <u>-0.0002</u> gms.
Total:	<u>450</u> ml	Aliquot: <u>450</u> ml	Net: <u>-0.0008</u> gms.
Gross:	<u>65.9656</u> gms.	Tare: <u>65.9655</u> gms.	
<b>- 10μ Total Weight</b>			<b>= <u>0.0166</u> gms.</b>
<b>Total Weight</b>			<b>= <u>0.0317</u> gms.</b>
			<b>+ 10 μ <u>47.60</u> %</b>
			<b>- 10 μ <u>52.40</u> %</b>

#3 INCLINE  
CYCLONE

**PM10 PARTICULATE WEIGHTS : DATA & CALCULATIONS**

Client : <u>Airway Gins</u>	Date : <u>11/22/91</u>
Site : <u>Fresno</u>	Job # : <u>1045</u>
Unit : <u>#3 Incline</u>	Lab # : <u>291-186</u>
Run : <u>1</u>	

**BLANKS**

Acetone	Gross: <u>67.4637</u> gms.	Tare: <u>67.4634</u> gms.	Volume: <u>100</u> ml	Residue: <u>0.0003</u> gms.
DI Water	Gross: <u>66.5226</u> gms.	Tare: <u>66.5224</u> gms.	Volume: <u>100</u> ml	Residue: <u>0.0002</u> gms.

**WEIGHTS & VOLUMES**

Filter	Gross: <u>0.0918</u> gms.	Tare: <u>0.0904</u> gms.	Net: <u>0.0014</u> gms.
Filter	Gross: <u>0.0924</u> gms.	Tare: <u>0.0897</u> gms.	Net: <u>0.0027</u> gms.

+ 10 μ Rinse -				
Acetone:	<u>44</u> ml * <u>3E-06</u> gms./ml	=	Net: <u>-0.0001</u> gms.	
DI Water:	<u>50</u> ml * <u>2E-06</u> gms./ml	=	Net: <u>-0.0001</u> gms.	
Gross:	<u>66.6819</u> gms.	Tare: <u>66.6404</u> gms.	Net: <u>0.0415</u> gms.	

**+ 10μ Total Weight = 0.0454 gms.**

Filter	Gross: <u>0.1343</u> gms.	Tare: <u>0.1152</u> gms.	Net: <u>0.0191</u> gms.
Filter	Gross: <u>0.5698</u> gms.	Tare: <u>0.5698</u> gms.	Net: <u>0.0000</u> gms.

- 10 μ Rinse				
DI Water:	<u>392</u> ml * <u>2E-06</u> gms./ml	=	Net: <u>-0.0008</u> gms.	
Acetone :	<u>50</u> ml * <u>3E-06</u> gms./ml	=	Net: <u>-0.0002</u> gms.	
Total:	<u>442</u> ml	Aliquot: <u>442</u> ml		
Gross:	<u>65.6830</u> gms.	Tare: <u>65.6825</u> gms.	Net: <u>-0.0004</u> gms.	

**- 10μ Total Weight = 0.0177 gms.**

**Total Weight = 0.0631 gms.**

+ 10 μ	<u>71.90</u> %
- 10 μ	<u>28.10</u> %

**PM10 PARTICULATE WEIGHTS : DATA & CALCULATIONS**

Client : <u>Airway Gins</u>	Date : <u>11/22/91</u>
Site : <u>Fresno</u>	Job # : <u>1045</u>
Unit : <u>#3 Incline</u>	Lab # : <u>291-186</u>
Run : <u>2</u>	

**BLANKS**

Acetone	Gross: <u>67.4637</u> gms.	Tare: <u>67.4634</u> gms.	Volume: <u>100</u> ml	Residue: <u>0.0003</u> gms.
DI Water	Gross: <u>66.5226</u> gms.	Tare: <u>66.5224</u> gms.	Volume: <u>100</u> ml	Residue: <u>0.0002</u> gms.

**WEIGHTS & VOLUMES**

Filter	Gross: <u>0.0904</u> gms.	Tare: <u>0.0891</u> gms.	Net: <u>0.0013</u> gms.
Filter	Gross: <u>0.0910</u> gms.	Tare: <u>0.0894</u> gms.	Net: <u>0.0016</u> gms.

+ 10 μ Rinse -				
Acetone:	<u>40</u> ml * <u>3E-06</u> gms./ml	=	Net: <u>-0.0001</u> gms.	
DI Water:	<u>50</u> ml * <u>2E-06</u> gms./ml	=	Net: <u>-0.0001</u> gms.	
Gross:	<u>67.2045</u> gms.	Tare: <u>67.1662</u> gms.	Net: <u>0.0383</u> gms.	

**+ 10μ Total Weight = 0.0410 gms.**

Filter	Gross: <u>0.1372</u> gms.	Tare: <u>0.1183</u> gms.	Net: <u>0.0189</u> gms.
Filter	Gross: <u>0.5708</u> gms.	Tare: <u>0.5705</u> gms.	Net: <u>0.0003</u> gms.

- 10 μ Rinse				
DI Water:	<u>334</u> ml * <u>2E-06</u> gms./ml	=	Net: <u>-0.0007</u> gms.	
Acetone :	<u>50</u> ml * <u>3E-06</u> gms./ml	=	Net: <u>-0.0002</u> gms.	
Total:	<u>384</u> ml	Aliquot: <u>384</u> ml		
Gross:	<u>66.2362</u> gms.	Tare: <u>66.2350</u> gms.	Net: <u>0.0004</u> gms.	

**- 10μ Total Weight = 0.0188 gms.**

**Total Weight = 0.0597 gms.**

+ 10 μ	<u>68.59</u> %
- 10 μ	<u>31.41</u> %

**PM10 PARTICULATE WEIGHTS : DATA & CALCULATIONS**

Client : <u>Airway Gins</u>	Date : <u>11/22/91</u>
Site : <u>Fresno</u>	Job # : <u>1045</u>
Unit : <u>#3 Incline</u>	Lab # : <u>291-186</u>
Run : <u>3</u>	

**BLANKS**

Acetone	Gross: <u>67.4637</u> gms.	Tare: <u>67.4634</u> gms.	Volume: <u>100</u> ml	Residue: <u>0.0003</u> gms.
DI Water	Gross: <u>66.5226</u> gms.	Tare: <u>66.5224</u> gms.	Volume: <u>100</u> ml	Residue: <u>0.0002</u> gms.

**WEIGHTS & VOLUMES**

Filter	Gross: <u>0.0920</u> gms.	Tare: <u>0.0904</u> gms.	Net: <u>0.0016</u> gms.
Filter	Gross: <u>0.0917</u> gms.	Tare: <u>0.0905</u> gms.	Net: <u>0.0012</u> gms.
<b>+ 10 μ Rinse -</b>			
Acetone:	<u>24</u> ml * <u>3E-06</u> gms./ml	=	Net: <u>-0.0001</u> gms.
DI Water:	<u>50</u> ml * <u>2E-06</u> gms./ml	=	Net: <u>-0.0001</u> gms.
Gross:	<u>66.1187</u> gms.	Tare: <u>66.0970</u> gms.	Net: <u>0.0217</u> gms.
	<b>+ 10μ Total Weight</b>	=	<u>0.0243</u> gms.
Filter	Gross: <u>0.1275</u> gms.	Tare: <u>0.1116</u> gms.	Net: <u>0.0159</u> gms.
Filter	Gross: <u>0.5682</u> gms.	Tare: <u>0.5681</u> gms.	Net: <u>0.0001</u> gms.
<b>- 10 μ Rinse</b>			
DI Water:	<u>301</u> ml * <u>2E-06</u> gms./ml	=	Net: <u>-0.0006</u> gms.
Acetone :	<u>50</u> ml * <u>3E-06</u> gms./ml	=	Net: <u>-0.0002</u> gms.
Total:	<u>351</u> ml Aliquot: <u>351</u> ml		
Gross:	<u>66.5766</u> gms.	Tare: <u>66.5747</u> gms.	Net: <u>0.0011</u> gms.
	<b>- 10μ Total Weight</b>	=	<u>0.0164</u> gms.
	<b>Total Weight</b>	=	<u>0.0407</u> gms.
	<b>+ 10 μ</b>		<u>59.74</u> %
	<b>- 10 μ</b>		<u>40.26</u> %

OVERFLOW SEPARATOR  
CYCLONE

### PM10 PARTICULATE WEIGHTS : DATA & CALCULATIONS

Client : <u>Airway Gins</u>	Date : <u>11/22/91</u>
Site : <u>Fresno</u>	Job # : <u>1045</u>
Unit : <u>Overflow</u>	Lab # : <u>291-186</u>
Run : <u>1</u>	

#### BLANKS

Acetone	Gross: <u>67.4637</u> gms.	Tare: <u>67.4634</u> gms.	Volume: <u>100</u> ml
			Residue: <u>0.0003</u> gms.
DI Water	Gross: <u>66.5226</u> gms.	Tare: <u>66.5224</u> gms.	Volume: <u>100</u> ml
			Residue: <u>0.0002</u> gms.

#### WEIGHTS & VOLUMES

Filter	Gross: <u>0.0923</u> gms.	Tare: <u>0.0899</u> gms.	Net: <u>0.0024</u> gms.
Filter	Gross: <u>0.0919</u> gms.	Tare: <u>0.0902</u> gms.	Net: <u>0.0017</u> gms.

+ 10 μ Rinse -			
Acetone:	<u>54</u> ml	* <u>3E-06</u> gms./ml	= Net: <u>-0.0002</u> gms.
DI Water:	<u>50</u> ml	* <u>2E-06</u> gms./ml	= Net: <u>-0.0001</u> gms.
Gross:	<u>65.5430</u> gms.	Tare: <u>65.5126</u> gms.	Net: <u>0.0304</u> gms.

**+ 10μ Total Weight = 0.0342 gms.**

Filter	Gross: <u>0.1380</u> gms.	Tare: <u>0.1188</u> gms.	Net: <u>0.0192</u> gms.
Filter	Gross: <u>0.5680</u> gms.	Tare: <u>0.5677</u> gms.	Net: <u>0.0003</u> gms.

- 10 μ Rinse			
DI Water:	<u>305</u> ml	* <u>2E-06</u> gms./ml	= Net: <u>-0.0006</u> gms.
Acetone :	<u>50</u> ml	* <u>3E-06</u> gms./ml	= Net: <u>-0.0002</u> gms.
Total:	<u>355</u> ml	Aliquot: <u>355</u> ml	
Gross:	<u>66.0178</u> gms.	Tare: <u>66.0164</u> gms.	Net: <u>0.0006</u> gms.

**- 10μ Total Weight = 0.0194 gms.**

**Total Weight = 0.0536 gms.**

	<b>+ 10 μ <u>63.86</u> %</b>
- 10 μ	<b><u>36.14</u> %</b>

**PM10 PARTICULATE WEIGHTS : DATA & CALCULATIONS**

Client : <u>Airway Gins</u>	Date : <u>11/22/91</u>
Site : <u>Fresno</u>	Job # : <u>1045</u>
Unit : <u>Overflow</u>	Lab # : <u>291-186</u>
Run : <u>2</u>	

**BLANKS**

Acetone		Volume: <u>100</u> ml
Gross: <u>67.4637</u> gms.	Tare: <u>67.4634</u> gms.	Residue: <u>0.0003</u> gms.
DI Water		Volume: <u>100</u> ml
Gross: <u>66.5226</u> gms.	Tare: <u>66.5224</u> gms.	Residue: <u>0.0002</u> gms.

**WEIGHTS & VOLUMES**

Filter	Gross: <u>0.0890</u> gms.	Tare: <u>0.0880</u> gms.	Net: <u>0.0010</u> gms.
Filter	Gross: <u>0.0909</u> gms.	Tare: <u>0.0898</u> gms.	Net: <u>0.0011</u> gms.

+ 10 μ Rinse -			
Acetone: <u>25</u> ml * <u>3E-06</u> gms./ml	=	Net: <u>-0.0001</u> gms.	
DI Water: <u>50</u> ml * <u>2E-06</u> gms./ml	=	Net: <u>-0.0001</u> gms.	
Gross: <u>67.6818</u> gms.	Tare: <u>67.6505</u> gms.	Net: <u>0.0313</u> gms.	

**+ 10μ Total Weight = 0.0332 gms.**

Filter	Gross: <u>0.1276</u> gms.	Tare: <u>0.1133</u> gms.	Net: <u>0.0143</u> gms.
Filter	Gross: <u>0.5666</u> gms.	Tare: <u>0.5664</u> gms.	Net: <u>0.0002</u> gms.

- 10 μ Rinse			
DI Water: <u>352</u> ml * <u>2E-06</u> gms./ml	=	Net: <u>-0.0007</u> gms.	
Acetone: <u>50</u> ml * <u>3E-06</u> gms./ml	=	Net: <u>-0.0002</u> gms.	
Total: <u>402</u> ml	Aliquot: <u>402</u> ml	Net: <u>0.0019</u> gms.	
Gross: <u>70.7629</u> gms.	Tare: <u>70.7601</u> gms.		

**- 10μ Total Weight = 0.0156 gms.**

**Total Weight = 0.0488 gms.**

+ 10 μ	<u>68.06</u> %
- 10 μ	<u>31.94</u> %

**PM10 PARTICULATE WEIGHTS : DATA & CALCULATIONS**

Client : <u>Airway Gins</u>	Date : <u>11/22/91</u>
Site : <u>Fresno</u>	Job # : <u>1045</u>
Unit : <u>Overflow</u>	Lab # : <u>291-186</u>
Run : <u>3</u>	

**BLANKS**

Acetone	Gross: <u>67.4637</u> gms.	Tare: <u>67.4634</u> gms.	Volume: <u>100</u> ml	Residue: <u>0.0003</u> gms.
DI Water	Gross: <u>66.5226</u> gms.	Tare: <u>66.5224</u> gms.	Volume: <u>100</u> ml	Residue: <u>0.0002</u> gms.

**WEIGHTS & VOLUMES**

Filter	Gross: <u>0.0925</u> gms.	Tare: <u>0.0899</u> gms.	Net: <u>0.0026</u> gms.
Filter	Gross: <u>0.0910</u> gms.	Tare: <u>0.0901</u> gms.	Net: <u>0.0009</u> gms.

+ 10 μ Rinse -			
Acetone:	<u>33</u> ml	* <u>3E-06</u> gms./ml	= Net: <u>-0.0001</u> gms.
DI Water:	<u>50</u> ml	* <u>2E-06</u> gms./ml	= Net: <u>-0.0001</u> gms.
Gross:	<u>67.9673</u> gms.	Tare: <u>67.9553</u> gms.	Net: <u>0.0120</u> gms.

**+ 10μ Total Weight = 0.0153 gms.**

Filter	Gross: <u>0.1243</u> gms.	Tare: <u>0.1127</u> gms.	Net: <u>0.0116</u> gms.
Filter	Gross: <u>0.5703</u> gms.	Tare: <u>0.5702</u> gms.	Net: <u>0.0001</u> gms.

- 10 μ Rinse			
DI Water:	<u>330</u> ml	* <u>2E-06</u> gms./ml	= Net: <u>-0.0007</u> gms.
Acetone :	<u>50</u> ml	* <u>3E-06</u> gms./ml	= Net: <u>-0.0002</u> gms.
Total:	<u>380</u> ml	Aliquot: <u>380</u> ml	
Gross:	<u>67.5063</u> gms.	Tare: <u>67.5059</u> gms.	Net: <u>-0.0004</u> gms.

**- 10μ Total Weight = 0.0105 gms.**

**Total Weight = 0.0258 gms.**

+ 10 μ	<u>59.35</u> %
- 10 μ	<u>40.65</u> %

MOTES TRASH  
CYCLONE

**PARTICULATE WEIGHTS : DATA & CALCULATIONS**

Client : Airway Gins  
Site : Fresno  
Unit : Mote  
Run : 1

Date : 11/21/91  
Job # : 1045  
Lab. # : 291-186

**BLANKS**

Acetone  
Gross: 67.4637 gms.      Tare: 67.4634 gms.      Volume: 100 ml  
Residue: 0.0003 gms.

DI Water  
Gross: 66.5226 gms.      Tare: 66.5224 gms.      Volume: 100 ml  
Residue: 0.0002 gms.

**WEIGHTS & VOLUMES**

Filter      Gross: 0.5864 gms.      Tare: 0.5691 gms.      Net: 0.0173 gms.

Probe Rinse -  
Acetone: 40 ml \* 3E-06 gms./ml      =      Net: -0.0001 gms.

DI Water: 50 ml \* 2E-06 gms./ml      =      Net: -0.0001 gms.

Gross: 65.6226 gms.      Tare: 65.5920 gms.      Net: 0.0306 gms.

Impinger Catch -  
DI Water: 420 ml \* 2E-06 gms./ml      =      Net: -0.0008 gms.

Total: 423 ml      Aliquot: 423 ml

Gross: 65.9763 gms.      Tare: 65.9754 gms.      Net: 0.0001 gms.

**Total Particulate Weight      =      0.0477 gms.**

**PARTICULATE WEIGHTS : DATA & CALCULATIONS**

Client : Airway Gins  
Site : Fresno  
Unit : Mote  
Run : 2

Date : 11/21/91  
Job # : 1045  
Lab # : 291-186

**BLANKS**

Acetone  
Gross: 67.4637 gms.      Tare: 67.4634 gms.      Volume: 100 ml  
Residue: 0.0003 gms.

DI Water  
Gross: 66.5226 gms.      Tare: 66.5224 gms.      Volume: 100 ml  
Residue: 0.0002 gms.

**WEIGHTS & VOLUMES**

Filter      Gross: 0.5805 gms.      Tare: 0.5691 gms.      Net: 0.0114 gms.

Probe Rinse -  
Acetone: 40 ml \* 3E-06 gms./ml      =      Net: -0.0001 gms.

DI Water: 50 ml \* 2E-06 gms./ml      =      Net: -0.0001 gms.

Gross: 65.9022 gms.      Tare: 65.8756 gms.      Net: 0.0266 gms.

Impinger Catch -  
DI Water: 380 ml \* 2E-06 gms./ml      =      Net: -0.0008 gms.

Total: 386 ml      Aliquot: 386 ml

Gross: 71.0502 gms.      Tare: 71.0489 gms.      Net: 0.0005 gms.

**Total Particulate Weight**      =      0.0383 gms.

**PARTICULATE WEIGHTS : DATA & CALCULATIONS**

Client : Airway Gins Date : 11/21/91  
Site : Fresno Job # : 1045  
Unit : Mote Lab # : 291-186  
Run : 3

**BLANKS**

Acetone Gross: 67.4637 gms. Tare: 67.4634 gms. Volume: 100 ml  
Residue: 0.0003 gms.  
DI Water Gross: 66.5226 gms. Tare: 66.5224 gms. Volume: 100 ml  
Residue: 0.0002 gms.

**WEIGHTS & VOLUMES**

Filter Gross: 0.5845 gms. Tare: 0.5692 gms. Net: 0.0153 gms.  
Probe Rinse -  
Acetone: 50 ml \* 3E-06 gms./ml = Net: -0.0002 gms.  
DI Water: 80 ml \* 2E-06 gms./ml = Net: -0.0002 gms.  
Gross: 66.9742 gms. Tare: 66.9426 gms. Net: 0.0316 gms.  
Impinger Catch -  
DI Water: 440 ml \* 2E-06 gms./ml = Net: -0.0009 gms.  
Total: 442 ml Aliquot: 442 ml  
Gross: 73.2418 gms. Tare: 73.2407 gms. Net: 0.0002 gms.  
**Total Particulate Weight = 0.0468 gms.**

#3 INCLINE  
CYCLONE

QZ

**PARTICULATE WEIGHTS : DATA & CALCULATIONS**

Client : Airway Gins                      Date : 11/22/91  
Site : Fresno                                      Job # : 1045  
Unit : #3 Incline                                Lab # : 291-186  
Run : 1

**BLANKS**

Acetone    Volume: 100 ml  
Gross: 67.4637 gms.                      Tare: 67.4634 gms.                      Residue: 0.0003 gms.  
  
DI Water    Volume: 100 ml  
Gross: 66.5226 gms.                      Tare: 66.5224 gms.                      Residue: 0.0002 gms.

**WEIGHTS & VOLUMES**

Filter      Gross: 0.5835 gms.                      Tare: 0.5702 gms.                      Net: 0.0133 gms.  
  
Probe Rinse -  
Acetone: 50 ml \* 3E-06 gms./ml                      =                      Net: -0.0002 gms.  
DI Water: 100 ml \* 2E-06 gms./ml                      =                      Net: -0.0002 gms.  
  
Gross: 66.2106 gms.                      Tare: 66.1322 gms.                      Net: 0.0784 gms.  
  
Impinger Catch -  
DI Water: 440 ml \* 2E-06 gms./ml                      =                      Net: -0.0009 gms.  
  
Total: 445 ml                      Aliquot: 445 ml  
Gross: 67.9772 gms.                      Tare: 67.9756 gms.                      Net: 0.0007 gms.  
  
**Total Particulate Weight                      =                      0.0921 gms.**

**PARTICULATE WEIGHTS : DATA & CALCULATIONS**

Client : Airway Gins  
Site : Fresno  
Unit : #3 Incline  
Run : 2

Date : 11/22/91  
Job # : 1045  
Lab # : 291-186

**BLANKS**

Acetone  
Gross: 67.4637 gms.      Tare: 67.4634 gms.      Volume: 100 ml  
Residue: 0.0003 gms.

DI Water  
Gross: 66.5226 gms.      Tare: 66.5224 gms.      Volume: 100 ml  
Residue: 0.0002 gms.

**WEIGHTS & VOLUMES**

Filter      Gross: 0.5831 gms.      Tare: 0.5712 gms.      Net: 0.0119 gms.

Probe Rinse -  
Acetone: 50 ml \* 3E-06 gms./ml      =      Net: -0.0002 gms.

DI Water: 65 ml \* 2E-06 gms./ml      =      Net: -0.0001 gms.

Gross: 72.7750 gms.      Tare: 72.7063 gms.      Net: 0.0687 gms.

Impinger Catch -  
DI Water: 350 ml \* 2E-06 gms./ml      =      Net: -0.0007 gms.

Total: 359 ml      Aliquot: 359 ml

Gross: 66.1246 gms.      Tare: 66.1233 gms.      Net: 0.0006 gms.

**Total Particulate Weight      =      0.0809 gms.**

**PARTICULATE WEIGHTS : DATA & CALCULATIONS**

Client : Airway Gins Date : 11/22/91  
Site : Fresno Job # : 1045  
Unit : #3 Incline Lab # : 291-186  
Run : 3

**BLANKS**

Acetone Gross: 67.4637 gms. Tare: 67.4634 gms. Volume: 100 ml  
Residue: 0.0003 gms.  
DI Water Gross: 66.5226 gms. Tare: 66.5224 gms. Volume: 100 ml  
Residue: 0.0002 gms.

**WEIGHTS & VOLUMES**

Filter Gross: 0.5860 gms. Tare: 0.5689 gms. Net: 0.0171 gms.  
Probe Rinse -  
Acetone: 50 ml \* 3E-06 gms./ml = Net: -0.0002 gms.  
DI Water: 130 ml \* 2E-06 gms./ml = Net: -0.0003 gms.  
Gross: 66.3222 gms. Tare: 66.2569 gms. Net: 0.0653 gms.  
Impinger Catch -  
DI Water: 370 ml \* 2E-06 gms./ml = Net: -0.0007 gms.  
Total: 376 ml Aliquot: 376 ml  
Gross: 65.7487 gms. Tare: 65.7478 gms. Net: 0.0002 gms.  
**Total Particulate Weight = 0.0821 gms.**

OVERFLOW SEPARATOR  
CYCLONE

**PARTICULATE WEIGHTS : DATA & CALCULATIONS**

Client : Airway Gins Date : 11/22/91  
Site : Fresno Job # : 1045  
Unit : Overflow Lab # : 291-186  
Run : 1

**BLANKS**

Acetone Volume: 100 ml  
Gross: 67.4637 gms. Tare: 67.4634 gms. Residue: 0.0003 gms.

DI Water Volume: 100 ml  
Gross: 66.5226 gms. Tare: 66.5224 gms. Residue: 0.0002 gms.

**WEIGHTS & VOLUMES**

Filter Gross: 0.5884 gms. Tare: 0.5706 gms. Net: 0.0178 gms.

Probe Rinse -  
Acetone: 50 ml \* 3E-06 gms./ml = Net: -0.0002 gms.

DI Water: 85 ml \* 2E-06 gms./ml = Net: -0.0002 gms.

Gross: 65.9764 gms. Tare: 65.9305 gms. Net: 0.0459 gms.

Impinger Catch -  
DI Water: 325 ml \* 2E-06 gms./ml = Net: -0.0007 gms.

Total: 330 ml Aliquot: 330 ml

Gross: 65.9481 gms. Tare: 65.9470 gms. Net: 0.0004 gms.

**Total Particulate Weight = 0.0638 gms.**

**PARTICULATE WEIGHTS : DATA & CALCULATIONS**

Client : Airway Gins  
Site : Fresno  
Unit : Overflow  
Run : 2

Date : 11/22/91  
Job # : 1045  
Lab # : 291-186

**BLANKS**

Acetone  
Gross: 67.4637 gms.      Tare: 67.4634 gms.      Volume: 100 ml  
Residue: 0.0003 gms.

DI Water  
Gross: 66.5226 gms.      Tare: 66.5224 gms.      Volume: 100 ml  
Residue: 0.0002 gms.

**WEIGHTS & VOLUMES**

Filter      Gross: 0.5807 gms.      Tare: 0.5679 gms.      Net: 0.0128 gms.

Probe Rinse -  
Acetone: 50 ml \* 3E-06 gms./ml      =      Net: -0.0002 gms.

DI Water: 79 ml \* 2E-06 gms./ml      =      Net: -0.0002 gms.

Gross: 67.3513 gms.      Tare: 67.3042 gms.      Net: 0.0471 gms.

Impinger Catch -  
DI Water: 370 ml \* 2E-06 gms./ml      =      Net: -0.0007 gms.

Total: 372 ml      Aliquot: 372 ml

Gross: 72.6198 gms.      Tare: 72.6181 gms.      Net: 0.0010 gms.

**Total Particulate Weight = 0.0606 gms.**

**PARTICULATE WEIGHTS : DATA & CALCULATIONS**

Client : Airway Gins Date : 11/22/91  
Site : Fresno Job # : 1045  
Unit : Overflow Lab # : 291-186  
Run : 3

**BLANKS**

Acetone Volume: 100 ml  
Gross: 67.4637 gms. Tare: 67.4634 gms. Residue: 0.0003 gms.

DI Water Volume: 100 ml  
Gross: 66.5226 gms. Tare: 66.5224 gms. Residue: 0.0002 gms.

**WEIGHTS & VOLUMES**

Filter Gross: 0.5802 gms. Tare: 0.5710 gms. Net: 0.0092 gms.

Probe Rinse -  
Acetone: 36 ml \* 3E-06 gms./ml = Net: -0.0001 gms.  
DI Water: 50 ml \* 2E-06 gms./ml = Net: -0.0001 gms.

Gross: 67.7508 gms. Tare: 67.7237 gms. Net: 0.0271 gms.

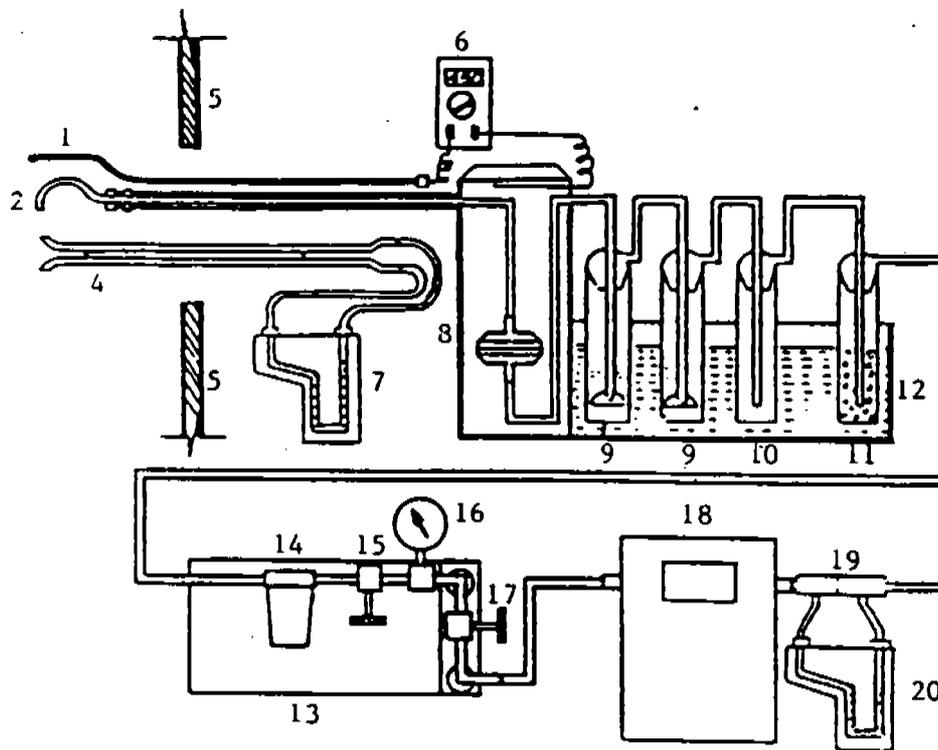
Impinger Catch -  
DI Water: 430 ml \* 2E-06 gms./ml = Net: -0.0009 gms.

Total: 434 ml Aliquot: 434 ml  
Gross: 65.9500 gms. Tare: 65.9490 gms. Net: 0.0001 gms.

**Total Particulate Weight = 0.0362 gms.**

**VI. METHODOLOGY**

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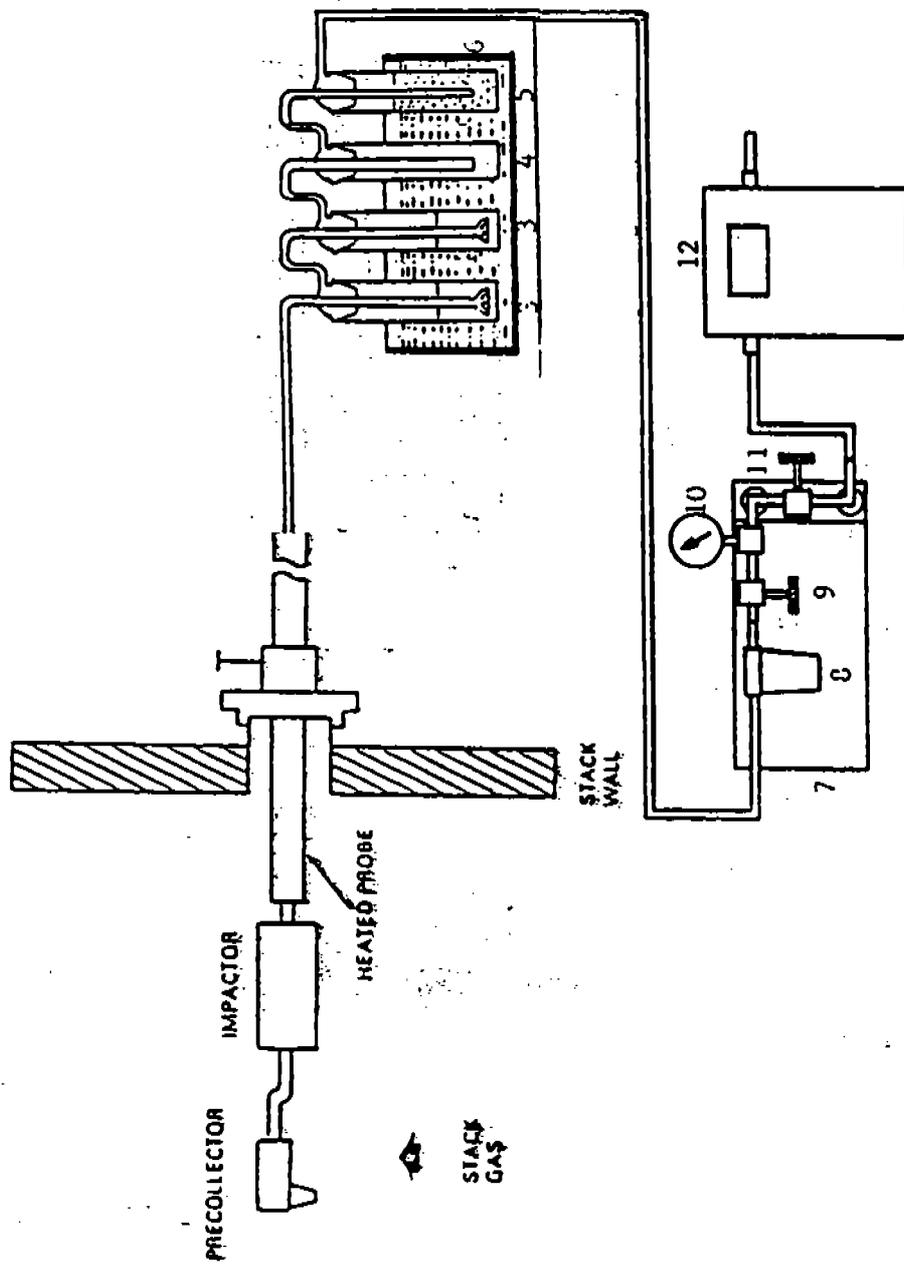


- |   |   |
|---|---|
| 1. Temperature Sensor                       | 11. Bubbler with Silica Gel               |
| 2. Nozzle                                   | 12. Ice Bath                              |
| 3. Glass lined Stainless Steel Probe-Heated | 13. Sealed Pump (Leak Free)               |
| 4. S-type Pitot Tube                        | 14. Filter for Pump                       |
| 5. Stack Wall                               | 15. Metering Valve                        |
| 6. Temperature Sensor Meter                 | 16. Vacuum Gauge                          |
| 7. Pitot Tube Inclined Manometer            | 17. By-pass Valve                         |
| 8. Heated Box with Filter                   | 18. Temperature Compensated Dry Gas Meter |
| 9. Impinger with 100 ml H <sub>2</sub> O    | 19. Orifice                               |
| 10. Empty Bubbler                           | 20. Orifice Inclined Manometer            |

Figure 5.2-1

Particulate Sampling Train Set-up with Heated Probe and Heated Filter

PM-10 PARTICULATE SAMPLING TRAIN

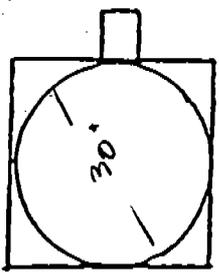
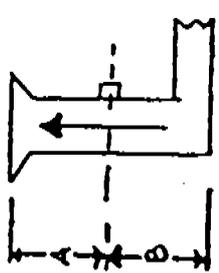


- |   |   |
|---|---|
| 1. Stack Wall                               | 8. Filter for Pump                        |
| 2. Probe                                    | 9. Metering Valve                         |
| 3. Impinger with 100 ml of H <sub>2</sub> O | 10. Vacuum Gauge                          |
| 4. Empty Bubbler                            | 11. By-pass Valve                         |
| 5. Bubbler with Silica Gel                  | 12. Temperature Compensated Dry Gas Meter |
| 6. Ice Bath                                 |   |
| 7. Sealed Pump (Leak Free)                  |   |

**VII. RAW DATA**

MOTES TRASH  
CYCLONE

PLANT: Airways  
 LOCATION: Gale Ave  
 COUNTY: Fresno  
 UNIT: MOP  
 DATE: 11/21/91  
 RUN NO/METHOD: 1 - PM10  
 COLD BOX NO.: 4  
 METER BOX NO.: B  
 METER FACTOR: 945,  $\Delta H_0 = 2.3026$   
 PITOT #/FACTOR: 6 - 841  
 PYROMETER #: 74  
 MAGNEHELIC FACTOR:  $\Delta P$  M3  $\Delta H$  ML



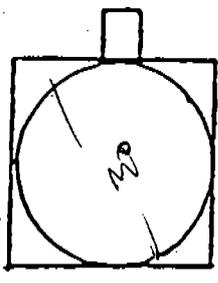
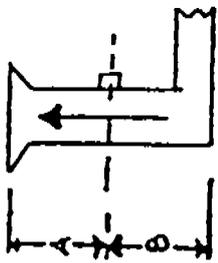
FILTER NO. B 28  
 AMBIENT TEMP.: 70  
 BAROMETRIC PRESS., IN. HG.: 20.3  
 ASSUMED MOISTURE: 5  
 HEATER BOX SETTING: 51  
 PROBE LENGTH, FT.: 51  
 NOZZLE DIAMETER, IN.: 22 - .23  
 PROBE HEATER SETTING: 22  
 APPROX. WIND VEL., MPH: 2.2  
 SAMPLE BOX TEMP., (F): amb  
 STATIC PRESSURE: -1.23 \*H2O  
 OFFSET: 0 in. PORT DIA.: in. (M / F)

TRAVERSE POINT NUMBER	DISTANCE INCHES	O2 (%)	CO2 (%)	SAMPLE TIME MIN.	STACK TEMP. (Ts), F	VELOCITY IN. H2O		PRESSURE DIFF. ORIFICE METER ( $\Delta H$ ) IN. H2O	DRY GAS SAMPLE VOLUME (VM), FT.	GAS SAMPLE TEMP. @ DRY GAS METER		PUMP VACUUM IN. HG.	TEMP. LAST IMPINGER (F)
						$\Delta P$	$\Delta P$			INLET (Tm),	OUTLET (Tm)		
1		20.9	.05	12:40	57	.38		1.34	508.094	66	66		
2				5	57	.40		1.41	511.3	69	65		
3				10	57	.415		1.47	514.2	71	66	8	
4				15	57	.43		1.52	517.7	71	67		
5				20	57	.44		1.55	520.7	75	73	9	
6				25	57	.45		1.59	523.5	79	72		
1				30	57	.32		1.13	526.8	82	73		
2				35	58	.35		1.24	529.6	83	76		
3				40	58	.42		1.48	532.3	84	79		
4				45	59	.46		1.62	535.2	85	79	9	
5				50	59	.47		1.66	538.5	87	81		
6				55	59	.47		1.66	542.068	87	81		
	ZERO SPAN			60									
AVERAGE		20.9	0.05	60	57.7		0.645	1.473	3397.4	75.8			

**PITOT LEAK CHECK:**  
 BEFORE: TOP  $\Delta P = 3.1$ , BOTTOM  $\Delta P = 3.2$   
 AFTER: TOP  $\Delta P = 3.1$ , BOTTOM  $\Delta P = 3.2$   
**SAMPLE TRAIN LEAK:**  
 BEFORE: CRM@ 4,005 IN. HG.  
 AFTER: CRM@ 15 IN. HG.

COMMENTS: PURGE

PLANT: Airway  
 LOCATION: Coal Ave.  
 COUNTY: Franklin  
 UNIT: Alate  
 DATE: 11/21/91  
 RUN NO/METHOD: 2 PM 13  
 COLD BOX NO.: 1  
 METER BOX NO.: B  
 METER FACTOR: 9415, ΔH = 2.3026  
 PITOT #/FACTOR: 6 - .841  
 PYROMETER #: 74  
 MAGNETIC FACTOR: ΔP M.F. ΔH M.F.



FILTER NO. B-30  
 AMBIENT TEMP.: 70  
 BAROMETRIC PRESS., IN. HG.: 30.3  
 ASSUMED MOISTURE: 5  
 HEATER BOX SETTING: 1  
 PROBE LENGTH, FT.: 51  
 NOZZLE DIAMETER, IN.: 23 ~ 23  
 PROBE HEATER SETTING: 1  
 APPROX. WIND VEL., MPH: Ende gusty  
 SAMPLE BOX TEMP., (F): Amb  
 STATIC PRESSURE: - .23 H<sub>2</sub>O  
 OFFSET: 0 in. PORT DIA.:     in. ( M / F )

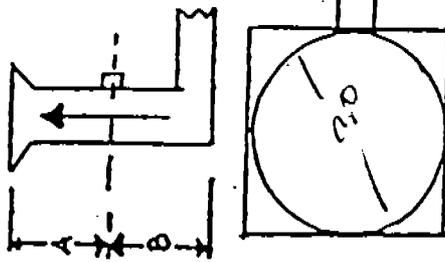
TRAVERSE POINT NUMBER	DISTANCE INCHES	O2 (%)	CO2 (%)	SAMPLE TIME MIN.	STACK TEMP. (Ts), F	VELOCITY IN. H2O		PRESSURE DIFF. ORIFICE METER (ΔH) IN. H2O	DRY GAS SAMPLE VOLUME (VM), FT.	GAS SAMPLE TEMP. @ DRY GASMETER		PUMP VACUUM IN. HG.	TEMP. LAST IMPINGER (F)
						ΔP	ΔP			INLET (Tm),	OUTLET (Tm)		
1		20.9	0.5	1:55	50	.40		1.49	545.476	82	82	8	
2				5	54	.40		1.49	548.6	82	82		
3				10	57	.41		1.53	552.0	84	80		
4				15	58	.43		1.61	555.1	85	80		
5				20	59	.44		1.64	558.2	85	81		
6				25	59	.45		1.68		86	81		
1				30	59	.2		1.72	565.2	87	81		
2				35	59	.3		1.72	567.3	88	82		
3				40	59	.40		1.72	570.0	90	83		
4				45	59	.46		1.72	573.4	91	83		
5				50	59	.47		1.76	577.0	91	83		
6				53	59	.47		1.76	580.6	91	83		
				60					583.295				
AVERAGE		20.9	0.05	60	57.6		0.631	1.503	37.819	87.3			

PITOT LEAK CHECK:  
 BEFORE: TOP ΔP = 3.1 BOTTOM ΔP = 3.2  
 ΔP = 3.1 ΔP = 3.2  
 AFTER: TOP ΔP = 3.2 BOTTOM ΔP = 3.4  
 ΔP = 3.2 ΔP = 3.4

BEFORE: 6,005 CRM@ 15 IN. HG.  
 AFTER: 6,005 CRM@ 8 IN. HG.

COMMENTS:     PURGE

PLANT: Airway  
 LOCATION: Gate Area  
 COUNTY: Essex  
 UNIT: Note  
 DATE: 11/2/91  
 RUN NO./METHOD: 2-4 PM10  
 COLD BOX NO.: 4  
 METER BOX NO.: B  
 METER FACTOR: 9415, 6400, 2.3036  
 PITOT #/FACTOR: 6-841  
 PYROMETER #: 14  
 MAGNETIC FACTOR: AP M3 ΔH M4



FILTER NO. B-32  
 AMBIENT TEMP.: 70  
 BAROMETRIC PRESS., IN. HG.: 29.3  
 ASSUMED MOISTURE: 5  
 HEATER BOX SETTING: 5  
 PROBE LENGTH, FT.: 5  
 NOZZLE DIAMETER, IN.: 23 - 23  
 PROBE HEATER SETTING: 4 usfy  
 APPROX. WIND VEL., MPH: 4 mb  
 SAMPLE BOX TEMP., (F): 23  
 STATIC PRESSURE: 0 in. H<sub>2</sub>O  
 OFFSET: 0 in. PORT DIA.: 1 in. (M / F)

TRAVERSE POINT NUMBER	DISTANCE INCHES	O2 (%)	CO2 (%)	SAMPLE TIME MIN.	STACK TEMP. (Ts), F	VELOCITY IN. H2O		PRESSURE DIFF. ORIFICE METER (ΔH) IN. H2O	DRY GAS SAMPLE VOLUME (VM), FT.	GAS SAMPLE TEMP. @ DRY GAS METER		PUMP VACUUM IN. HG.	TEMP. LAST IMPINGER (F)
						ΔP	HEAD			INLET (Tm),	OUTLET (Tm)		
1		20.9	0.5	3:12.0	56	0.46		1.49	583.106	82	82	0	
2				5	57	0.46		1.49	586.14	82	82		
3				10	57	0.41		1.53	590.0	83	79		
4				15	57	0.43		1.61	593.5	85	81		
5				20	57	0.44		1.64	596.6	86	86		
6				25	57	0.45		1.68	600	86	86		
1				30	58	0.30		1.12	604.9	87	87		
2				35	58	0.40		1.50	606.1	87	87		
3				40	58	0.45		1.69	608.9	88	88		
4				45	58	0.46		1.72	613.0	89	89		
5				50	58	0.49		1.83	616.4	91	91		
6				55	58	0.50		1.87	619.872	91	91		
				60	58			1.58	36.466	86.0			
AVERAGE		20.9	0.05	60	57.9		0.653						

PITOT LEAK CHECK:  
 BEFORE: TOP ΔP = 3.1 ΔP = 3.1 BOTTOM ΔP = 3.0  
 AFTER: TOP ΔP = 3.1 ΔP = 3.1 BOTTOM ΔP = 3.1

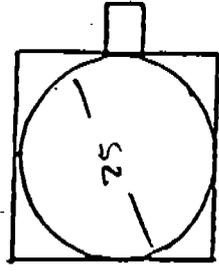
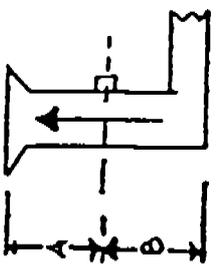
SAMPLE TRAIN LEAK:  
 BEFORE: CRM@ 1.005 IN. HG.  
 AFTER: CRM@ 1.005 IN. HG.

COMMENTS: PURGE

#3 INCLINE  
CYCLONE

108

PLANT: Aurora  
 LOCATION: Cole Ave  
 COUNTY: Franklin  
 UNIT: #3 Incline  
 DATE: 11/22/91  
 RUN NO/METHOD: 1 - PM 10  
 COLD BOX NO.: 6  
 METER BOX NO.: B  
 METER FACTOR: .945 ATH = 2.3076  
 PITOT #/FACTOR: 6 - .84  
 PYROMETER #: 14  
 MAGNETIC FACTOR: ΔP M<sup>3</sup> ΔH M<sup>14</sup>



FILTER NO. B-34  
 AMBIENT TEMP.: 45  
 BAROMETRIC PRESS., IN. HG.: 30.15  
 ASSUMED MOISTURE: 5  
 HEATER BOX SETTING: 51  
 PROBE LENGTH, FT.: 51  
 NOZZLE DIAMETER, IN.: 3/8 - .313  
 PROBE HEATER SETTING: amb  
 APPROX. WIND VEL., MPH: amb  
 SAMPLE BOX TEMP., (F): H2O  
 STATIC PRESSURE: .104 PORT DIA.: in.  
 OFFSET: 6 in.

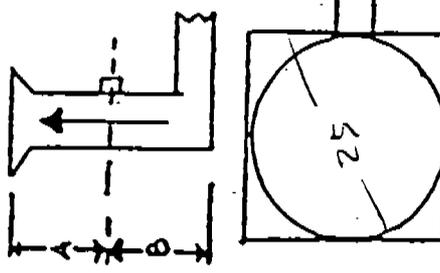
TRAVERSE POINT NUMBER	DISTANCE INCHES	O2 (%)	CO2 (%)	SAMPLE TIME MIN.	STACK TEMP. (Ts), F	VELOCITY IN. H2O		PRESSURE DIFF ORIFICE METER (ΔH) IN. H2O	DRY GAS SAMPLE VOLUME (VM), FT.	GAS SAMPLE TEMP. @ DRY GASMETER		PUMP VACUUM IN. HG.	TEMP. LAST IMPINGER (F)
						ΔP	ΔVAP			INLET (Tm),	OUTLET (Tm)		
1		20.9	0.05	6:50	42	0.07		.84	624.550	51	50		
2				6	42	0.08		.96	627.0	51	50		
3				12	42	0.09		1.08	629.8	51	50		
4				18	42	0.10		1.20	633.5	51	50		
5				24	41	0.10		1.20	636.3	52	51		
6				30	41	0.11		1.32	639.7	53	52	7	
1				36	41	0.11		1.32	643.3	54	53		
2				42	42	0.10		1.20	646.2	55	55		
3				48	43	0.10		1.2	649.6	55	55		
4				54	44	0.10		1.2	653.1	55	55		
5				60	44	0.09		1.08	657.8	56	55		
6				66	44	0.09		1.08	659.3	56	55		
	ZERO SPAN			72					662.754				
AVERAGE		20.9	0.05	92	42.3		0.308	1.140	38.204	53.0			

PITOT LEAK CHECK:  
 BEFORE: TOP ΔP = 3.1 BOTTOM ΔP = 3.2  
 ΔP = 3.1 ΔP = 3.2  
 AFTER: TOP ΔP = 3.2 BOTTOM ΔP = 3.1  
 ΔP = 3.2 ΔP = 3.1

SAMPLE TRAIN LEAK:  
 BEFORE = 61005 CRM@ 15 IN. HG.  
 AFTER = 61805 CRM@ 10 IN. HG.

COMMENTS: \_\_\_\_\_ PURGE \_\_\_\_\_

PLANT: Acacia  
 LOCATION: Gale Ave  
 COUNTY: Franklin  
 UNIT: #3 Indane  
 DATE: 11/22/91  
 RUN NO/METHOD: 2 ~ PM10  
 COLD BOX NO.: 4  
 METER BOX NO.: B  
 METER FACTOR: 0.415, AFD = 2.3236  
 PITOT #/FACTOR: 6 ~ .847  
 PYROMETER #: 74  
 MAGNETIC FACTOR: AP 0.124  $\Delta H$  M4

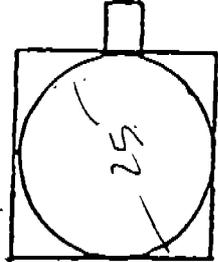
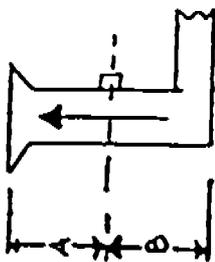


FILTER NO. B-36  
 AMBIENT TEMP.: 55  
 BAROMETRIC PRESS., IN. HG.: 29.85  
 ASSUMED MOISTURE: 5  
 HEATER BOX SETTING: 51  
 PROBE LENGTH, FT.: 26 ~ 1.713  
 NOZZLE DIAMETER, IN.: 0.25  
 PROBE HEATER SETTING: 2.5  
 APPROX. WIND VEL., MPH: 0.5  
 SAMPLE BOX TEMP., (F): 0.5  
 STATIC PRESSURE: 0 in. 0.5 H<sub>2</sub>O  
 OFFSET: 0 in. PORT DIA.: 0.5 in. (M / F)

TRAVERSE POINT NUMBER	DISTANCE INCHES	O2 (%)	CO2 (%)	SAMPLE TIME MIN.	STACK TEMP. (Ts), F	VELOCITY HEAD IN. H2O		PRESSURE DIFF. ORIFICE METER ( $\Delta H$ ) IN. H2O	DRY GAS SAMPLE VOLUME (VM), FT.	GAS SAMPLE TEMP. @ ORY GAS METER		PUMP VACUUM IN. HG.	TEMP. LAST IMPINGER (F)
						$\Delta P$	$\Delta P$			INLET (Tm),	OUTLET (Tm)		
1		20.9	0.05	0	69	0.10		1.27	662.504	72	72		
2				5	70	0.10		1.28	665.7	73	69		
3				10	72	0.11		1.31	668.8	74	70		
4				15	74	0.11		1.31	671.2	76	71		
5				20	76	0.11		1.31	674.4	78	71		
6				25	78	0.11		1.31	677.2	79	72		
7				30	78	0.11		1.31	682.2	80	73	8	
8				35	79	0.11		1.31	683.1	81	74		
9				40	79	0.11		1.31	687.4	84	76		
10				45	79	0.11		1.31	689.8	85	76		
11				50	79	0.10		1.19	691.9	86	77		
12				55	79	0.10		1.19	694.2	86	77		
13				60	76	0.10		1.19	697.0	86	77		
AVERAGE		20.9	0.05	60	76	0.327		1.284	345.98	76.3			

PTOT LEAK CHECK:  
 BEFORE: TOP  $\Delta P$  = 3.1 BOTTOM  $\Delta P$  = 3.2  
 AFTER: TOP  $\Delta P$  = 3.1 BOTTOM  $\Delta P$  = 3.2  
 SAMPLE TRAIN LEAK:  
 BEFORE: CRM@ 15 IN. HG.  
 AFTER: CRM@ 8 IN. HG.  
 COMMENTS: PURGE

PLANT: Alway  
 LOCATION: Galb Ave  
 COUNTY: Franklin  
 UNIT: #3 (old)  
 DATE: 11/22/91  
 RUN NO/METHOD: 3-1 PM10  
 COLD BOX NO.: 1  
 METER BOX NO.: B  
 METER FACTOR: 945 ΔHC = 2.3076  
 PITOT #/FACTOR: 6-1891  
 PYROMETER #: T4  
 MAGNEHELC FACTOR: ΔP 3 ΔH 4



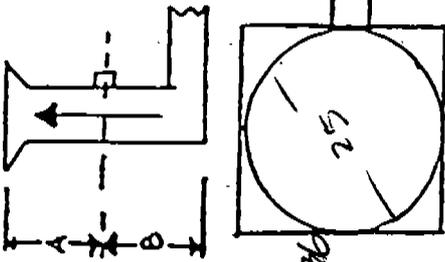
FILTER NO. B 38  
 AMBIENT TEMP.: 60  
 BARAMETRIC PRESS., IN. HG.: 20.13  
 ASSUMED MOISTURE: 5  
 HEATER BOX SETTING: 5  
 PROBE LENGTH, FT.: 5  
 NOZZLE DIAMETER, IN.: 36 - 313  
 PROBE HEATER SETTING: calm  
 APPROX. WIND VEL., MPH: calm  
 SAMPLE BOX TEMP., (F): amb  
 STATIC PRESSURE: - .01 H2O  
 OFFSET: 0 In. PORT DIA.:     In. ( M / F )

TRAVERSE POINT NUMBER	DISTANCE INCHES	O2 (%)	CO2 (%)	SAMPLE TIME MIN.	STACK TEMP. (Ts), F	VELOCITY IN. H2O		PRESSURE DIFF ORIFICE METER (ΔH) IN. H2O	DRY GAS SAMPLE VOLUME (VM), FT.	GAS SAMPLE TEMP. @ DRY GAS METER		PUMP VACUUM IN. HG.	TEMP. LAST IMPINGER (F)
						ΔP	ΔP			INLET (TM),	OUTLET (TM)		
1		10.8	.05	9:45	77	.10		1.19	697.205	75	75		
2				9	77	.10		1.19	700.4	76	71		
3				10	77	.11		1.31	703.0	76	70		
4				15	77	.11		1.31	706.1	76	71		
5				20	77	.11		1.31	708.4	76	71		
6				26	77	.11		1.31	711.9	76	71		
1				30	77	.11		1.31		78	72	8	
2				34	77	.10		1.19	717.8	80	74		
3				40	77	.10		1.19	720.1	83	75		
4				45	77	.10		1.19	723.5	84	77		
5				60	78	.11		1.31	725.6	85	78		
6				53	78	.11		1.31	728.7	86	79		
				60					731.245				
AVERAGE													
PITOT LEAK CHECK:													
BEFORE:	TOP ΔP =	3.1	BOTTOM ΔP =	3.1				1.260	34.090	76.5			
AFTER:	TOP ΔP =	3.1	BOTTOM ΔP =	3.1									
	TOP ΔP =	3.1	BOTTOM ΔP =	3.0									
	ΔP =	3.1	ΔP =	3.0									

SAMPLE TRAIN LEAK:  
 BEFORE: 6.005 CFM @ 15 IN. HG.  
 AFTER: 6.005 CFM @ 8 IN. HG.  
 COMMENTS: PURGE

OVERFLOW SEPARATOR  
CYCLONE

PLANT: Airmax  
 LOCATION: Gate Ave.  
 COUNTY: Fresno  
 UNIT: Oxyflex  
 DATE: 11/27/91  
 RUN NO/METHOD: 1 - PMA 10  
 COLD BOX NO.: 4  
 METER BOX NO.: B  
 METER FACTOR: 945  $\Delta P = 2.3086$   
 PITOT #/FACTOR: 6 - 84  
 PYROMETER #: 11  
 MAGNETIC FACTOR: AP M3  $\Delta H M7$



FILTER NO. B-2140  
 AMBIENT TEMP.: 69  
 BAROMETRIC PRESS., IN. HG.: 30.15  
 ASSUMED MOISTURE: 3  
 HEATER BOX SETTING: 5  
 PROBE LENGTH, FT.: 5  
 NOZZLE DIAMETER, IN.: 28 - 281  
 PROBE HEATER SETTING: Cal  
 APPROX. WIND VEL., MPH: amb  
 SAMPLE BOX TEMP., (F): -15 °H2O  
 STATIC PRESSURE: -15 IN.  
 OFFSET:     IN. (M / F)

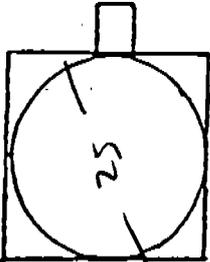
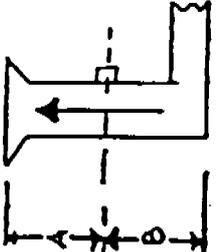
TRAVERSE POINT NUMBER	DISTANCE INCHES	O2 (%)	CO2 (%)	SAMPLE TIME MIN.	STACK TEMP. (Ts), F	VELOCITY IN. H2O		PRESSURE DIFF. ORIFICE METER (ΔH) IN. H2O	DRY GAS SAMPLE VOLUME (VM), FT.	GAS SAMPLE TEMP. @ DRY GAS METER		PUMP VACUUM IN. HG.	TEMP. LAST IMPINGER (F)
						ΔP	√ΔP			INLET (Tm),	OUTLET (Tm)		
1		20.9	0.05	11:18	80	0.15	0.73	1.16	731.378	75	75		
2				5	80	0.17		1.31	827.345	75	75		
3				10	80	0.18		1.39	737.3	78	73		
4				15	80	0.19		1.47	740.7	79	71		
5				20	80	0.19		1.47	743.8	79	74		
6				25	80	0.19		1.47	746.8	82	75		
1				30	80	0.17		1.31	748.9	83	76		
2				35	80	0.19		1.47	757.1	84	77		
3				40	80	0.20		1.54	757.1	86	78		
4				45	80	0.21		1.62	758.8	87	78		
5				50	81	0.21		1.62	761.5	88	79		
6				55	81	0.26		1.54	764.9	88	80		
	ZERO SPAN			60					767.877				
AVERAGE		20.9	0.05	60	80.2		0.733	1.495	36.539	79.0			

PITOT LEAK CHECK:  
 BEFORE: TOP ΔP = 2.1 BOTTOM ΔP = 3.2  
 ΔP = 3.1 ΔP = 4.2  
 AFTER: TOP ΔP = 2.1 BOTTOM ΔP = 2.0  
 ΔP = 4.1 ΔP = 3.0

SAMPLE TRAIN LEAK:  
 BEFORE = 6,005 CRM@ 15 IN. HG.  
 AFTER = 6,003 CRM@ 7 IN. HG.

COMMENTS:     PURGE

PLANT: Arroyo  
 LOCATION: Gate Ave  
 COUNTY: Franklin  
 UNIT: 11/23/91  
 DATE: 06/1/91  
 RUN NO/METHOD: 2-PM10  
 COLD BOX NO.: 1  
 METER BOX NO.: B  
 METER FACTOR: 9115, Δ110-2.3074  
 PITOT #/FACTOR: 6-841  
 PYROMETER #: 74  
 MAGNETIC FACTOR: ΔPM3 ΔH M4



FILTER NO. B-42  
 AMBIENT TEMP.: 70  
 BAROMETRIC PRESS., IN. HG.: 20.15  
 ASSUMED MOISTURE: 5  
 HEATER BOX SETTING: 5  
 PROBE LENGTH, FT.: 5  
 NOZZLE DIAMETER, IN.: 28-281  
 PROBE HEATER SETTING: amb  
 APPROX. WIND VEL., MPH: amb  
 SAMPLE BOX TEMP., (F): -15 °H2O  
 STATIC PRESSURE: 0 in.  
 OFFSET: 0 in. (M / F)

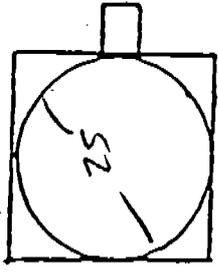
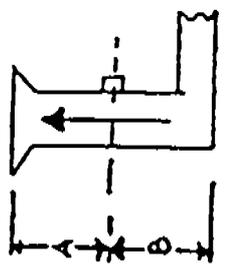
TRAVERSE POINT NUMBER	DISTANCE INCHES	O2 (%)	CO2 (%)	SAMPLE TIME MIN.	STACK TEMP. (Ts), F	VELOCITY IN. H2O		PRESSURE DIFF ORIFICE METER (ΔH) IN. H2O	DRY GAS SAMPLE VOLUME (VM), FT.	GAS SAMPLE TEMP. & DRY GAS METER		PUMP VACUUM IN. HG.	TEMP. LAST IMPINGER (F)
						ΔP	ΔP			INLET (Tm),	OUTLET (Tm)		
1		20.1	0.5	17:30	75	0.19		1.47	767.878	75	75		
2				5	75	0.21		1.61	771.4	76	73		
3				10	75	0.21		1.61	774.3	77	72		
4				15	75	0.21		1.61	777.4	78	70		
5				20	75	0.21		1.61	779.5	78	70		
6				25	75	0.21		1.61	782.4	78	70		
7				30	75	0.17		1.31	786.9	79	70		
8				35	75	0.19		1.47	789.9	79	70		
9				40	75	0.19		1.47	793.0	80	70		
10				45	75	0.20		1.54	796.4	82	71		
11				50	75	0.21		1.62	800.3	82	72		
12				55	75	0.20		1.54	804.0	82	72		
13				AD					806.28				
AVERAGE		20.9	0.05	60	75.0		0.19	1.539	38.457	75.0			

PITOT LEAK CHECK:  
 BEFORE: TOP ΔP = 3.2 BOTTOM ΔP = 3.1  
 ΔP = 3.1  
 AFTER: TOP ΔP = 2.0 BOTTOM ΔP = 2.0  
 ΔP = 2.0

SAMPLE TRAIN LEAK:  
 BEFORE: CRM@ 15 IN. HG.  
 AFTER: CRM@ 9 IN. HG.

COMMENTS: PURGE

PLANT: Airway  
 LOCATION: Gate A/B  
 COUNTY: Fairfield  
 UNIT: Overhaul  
 DATE: 11/27/91  
 RUN NO/METHOD: 2 - PM10  
 COLD BOX NO.: 4  
 METER BOX NO.: B  
 METER FACTOR: 1.415 ΔH2 = 2.3036  
 PITOT #/FACTOR: 6 - .841  
 PYROMETER #: 1-4  
 MAGNETIC FACTOR: ΔP M3 ΔH M4



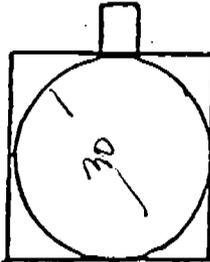
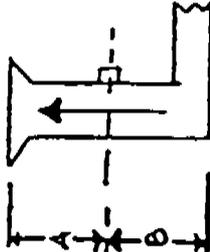
FILTER NO.: B-44  
 AMBIENT TEMP.: 70  
 BAROMETRIC PRESS., IN. HG.: 30.15  
 ASSUMED MOISTURE: 5  
 HEATER BOX SETTING: 5  
 PROBE LENGTH, FT.: 5  
 NOZZLE DIAMETER, IN.: 285.281  
 PROBE HEATER SETTING: cal  
 APPROX. WIND VEL., MPH: amb  
 SAMPLE BOX TEMP., (F): amb  
 STATIC PRESSURE: - .15 "H2O  
 OFFSET: 0 in. PORT DIA.:     in. (M / F)

TRAVERSE POINT NUMBER	DISTANCE INCHES	O2 (%)	CO2 (%)	SAMPLE TIME MIN.	STACK TEMP. (Ts), F	VELOCITY IN. H2O		PRESSURE DIFF. ORIFICE METER (ΔH) IN. H2O	DRY GAS SAMPLE VOLUME (VM), FT.	GAS SAMPLE TEMP. @ DRY GAS METER		PUMP VACUUM IN. HG.	TEMP. LAST IMPINGING (F)
						ΔP	ΔP			INLET (Tm),	OUTLET (Tm)		
1		20.9	.05	1:12	75	.17		1.31	405.091	75	75		
2				5	75	.19		1.47	808.3	75	75		
3				10	75	.21		1.62	811.1	75	75		
4				15	75	.21		1.62	814.1	75	76		
5				20	75	.21		1.62	817.8	78	78		
6				25	75	.21		1.62	821.7	83	79		
7				30	75	.16		1.24	825.4	87	81		
8				35	75	.17		1.47	828.2	87	81		
9				40	75	.21		1.62	831.4	88	81		
10				45	75	.21		1.62	834.4	88	81		
11				50	75	.21		1.62	838.1	88	81		
12				55	75	.21		1.62	840.2	88	81		
13				60	75	.21		1.62	840.2	88	81		
AVERAGE		20.9	0.05	60	75.0			1.538	35.195	81.6			

PITOT LEAK CHECK:  
 BEFORE: TOP ΔP = 2.1 BOTTOM ΔP = 2.2  
 AFTER: TOP ΔP = 2.1 BOTTOM ΔP = 2.1  
 SAMPLE TRAIN LEAK:  
 BEFORE: CRM@ 1.00 IN. HG.  
 AFTER: CRM@ 4.00 IN. HG.  
 COMMENTS: PURGE

MOTES TRASH  
CYCLONE

PLANT: Alumina  
 LOCATION: Gale Ave  
 COUNTY: FALCON  
 UNIT: Mgts  
 DATE: 11/21/91  
 RUN NO. METHOD: 1 - Post  
 COLD BOX NO.: 11  
 METER BOX NO.: A  
 METER FACTOR: 9819  $\Delta H_0 = 2.1218$   
 PITOT #/FACTOR: 6 - 841  
 PYROMETER #: 14  
 MAGNETIC FACTOR:  $\Delta P/M$  14  $\Delta H/M$  22

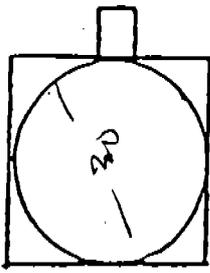
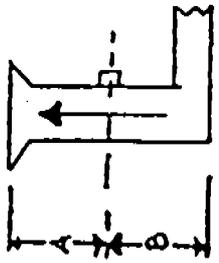


FILTER NO. B-28 B-17  
 AMBIENT TEMP.: 70  
 BARAMETRIC PRESS., IN. HG.: 30.3  
 ASSUMED MOISTURE: 5  
 HEATER BOX SETTINGS: —  
 PROBE LENGTH, FT.: 21  
 NOZZLE DIAMETER, IN.: 24 - 24  
 PROBE HEATER SETTINGS: —  
 APPROX. WIND VEL., MPH: 0.0  
 SAMPLE BOX TEMP., (F): 0.0  
 STATIC PRESSURE: -1.73 \*H2O  
 OFFSET: 0 In. PORT DIA.: — In. (M / F)

TRAVERSE POINT NUMBER	DISTANCE INCHES	O2 (%)	CO2 (%)	SAMPLE TIME MIN.	STACK TEMP. (Ts), F	VELOCITY IN. H2O		PRESSURE DIFF. ORIFICE METER ( $\Delta H$ ) IN. H2O	DRY GAS SAMPLE VOLUME (VM), FT.	GAS SAMPLE TEMP. @ DRY GAS METER		PUMP VACUUM IN. HG.	TEMP. LAST IMPINGER (F)
						$\Delta P$	$\Delta P$			INLET (Tm),	OUTLET (Tm)		
1		20.9	0.0%	12:40	57	0.32		1.23	439.928	70	70		
2				5	57	0.35		1.35	442.4	69	69		
3				10	57	0.42		1.42	445.7	70	70		
4				15	57	0.46		1.71	449.7	71	71		
5				20	57	0.47		1.81	453.0	72	71		
6				25	58	0.47		1.81	456.7	72	71		
1				30	58	0.38		1.47	459.8	72	71		
2				35	58	0.40		1.54	463.4	72	71		
3				40	59	0.45		1.66	467.0	72	71		
4				45	59	0.43		1.66	469.9	73	72		
5				50	59	0.44		1.70	473.3	73	72		
6				55	59	0.45		1.74	477.2	73	72		
	ZERO SPAN			60					480.698				
AVERAGE		20.9	0.0%	60	57.8		0.625	1.608	480.698	71.3			

SAMPLE TRAIN LEAK: BEFORE = 2.1 IN. HG. AFTER = 1.5 IN. HG.  
 PITOT LEAK CHECK: BEFORE: TOP  $\Delta P =$  3.1  $\Delta P =$  2.1 BOTTOM  $\Delta P =$  3.1  
 AFTER: TOP  $\Delta P =$  2.0  $\Delta P =$  2.0 BOTTOM  $\Delta P =$  2.2  $\Delta P =$  2.0  
 COMMENTS: PURGE

PLANT: Airway  
 LOCATION: Gale Ave  
 COUNTY: Franklin  
 UNIT: Moly  
 DATE: 11/21/91  
 RUN NO. METHOD: 2 - Part  
 COLD BOX NO.: 10  
 METER BOX NO.: A  
 METER FACTOR: 9819  $\Delta H = 1.1218$   
 PITOT #/FACTOR: 6-1841  
 PYROMETER #: 674  
 MAGNETIC FACTOR:  $\Delta P$  M1  $\Delta H$  M2

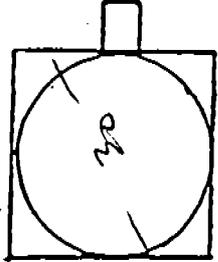
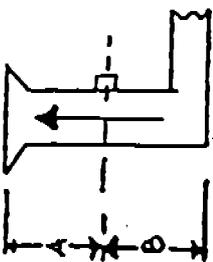


FILTER NO. B-29  
 AMBIENT TEMP.: 70  
 BAROMETRIC PRESS., IN. HG.: 30.3  
 ASSUMED MOISTURE: 5  
 HEATER BOX SETTING: 3  
 PROBE LENGTH, FT.: 3  
 NOZZLE DIAMETER, IN.: 1/4 - .24  
 PROBE HEATER SETTING: Just  
 APPROX. WIND VEL., MPH: Just  
 SAMPLE BOX TEMP., (F): Just  
 STATIC PRESSURE: -.23  $^{\circ}\text{H}_2\text{O}$   
 OFFSET: 0 in. PORT DIA.:     in. ( M / F )

TRAVERSE POINT NUMBER	DISTANCE INCHES	O2 (%)	CO2 (%)	SAMPLE TIME MIN.	STACK TEMP. (Ts), F	VELOCITY IN. H2O		PRESSURE DIFF. ORIFICE METER ( $\Delta H$ ) IN. H2O	DRY GAS SAMPLE VOLUME (VM), FT.	GAS SAMPLE TEMP. @ DRY GAS METER		PUMP VACUUM IN. HG.	TEMP. LAST IMPINGER (F)
						$\Delta P$	$\Delta P$			INLET (Tm),	OUTLET (Tm)		
1		20.1	0.05	1:59	50	1.20		.8	481.001	75	75	2	
2				5	54	.32		1.28	483.4	76	75		
3				10	57	.40		1.60	486.8	76	75		
4				15	59	.47		1.68	490.1	76	78.		
5				20	59	.46		1.84	493.5	77	77		
6				25	59	.47		1.88		77	77		
1				30	59	.40		1.60	501.2	77	77		
2				35	59	.40		1.60	504.7	77	77		
3				40	59	.42		1.68	508.0	77	77		
4				45	54	.43		1.72	511.5	77	77		
5				50	54	.44		1.76	515.0	77	77		
6				55	59	.45		1.80	519.2	77	77		
	ZERO			60					522.000		77		
AVERAGE		20.1	0.05	60	57.6		0.1630	1.603	481.919	76.6			

PITOT LEAK CHECK:  
 BEFORE: TOP  $\Delta P =$  3.1 BOTTOM  $\Delta P =$  3.2  
 AFTER: TOP  $\Delta P =$  3.1 BOTTOM  $\Delta P =$  3.2  
 SAMPLE TRAIN LEAK:  
 BEFORE: 15 IN. HG. CFM@      
 AFTER:     IN. HG. CFM@      
 COMMENTS: PURGE

PLANT: Airway  
 LOCATION: Gale Ave  
 COUNTY: Fauquier  
 UNIT: Metc  
 DATE: 11/21/91  
 RUN NO/METHOD: 3 - Fast  
 COLD BOX NO.: 11  
 METER BOX NO.: A  
 METER FACTOR: 9819  $\Delta P = 2.1210$   
 PITOT #/FACTOR: 6 - 841  
 PYROMETER #: 14  
 MAGNEHELC FACTOR:  $\Delta P$  MI  $\Delta H$  MZ



FILTER NO. 7-31  
 AMBIENT TEMP.: 70  
 BARAMETRIC PRESS., IN. HG.: 30.3  
 ASSUMED MOISTURE: 5  
 HEATER BOX SETTING: 5  
 PROBE LENGTH, FT.: 5  
 NOZZLE DIAMETER, IN.: 24 - .24  
 PROBE HEATER SETTING: 400  
 APPROX. WIND VEL., MPH: Janub  
 SAMPLE BOX TEMP., (F): Janub  
 STATIC PRESSURE: 23 "H2O  
 OFFSET: 0 in. PORT DIA.:     in. (M / F)

TRAVERSE POINT NUMBER	DISTANCE INCHES	O2 (%)	CO2 (%)	SAMPLE TIME MIN.	STACK TEMP. (Ts), F	VELOCITY IN. H2O		PRESSURE DIFF. ORIFICE METER (ΔH) IN. H2O	DRY GAS SAMPLE VOLUME (VM), FT.	GAS SAMPLE TEMP. @ DRY GAS METER (TM),		PUMP VACUUM IN. HG.	TEMP. LAST IMPINGER (F)
						ΔP	ΔP			INLET	OUTLET		
1		20.9	0.09	3:12	56	1.30		1.2	522.231	76	78	2	
2				5	57	1.38		1.92	522.5	77	77		
3				10	57	1.44		1.76	529.2	77	77		
4				15	57	1.46		1.84	532.9	77	77		
5				20	57	1.48		1.92	536.4	77	77		
6				25	57	1.50		2.0	540.4	76	78		
1				30	58	1.40		1.60	544.3	78	78		
2				35	58	1.46		1.6	548.1	78	78		
3				40	58	1.47		1.64	550.9	78	78		
4				45	58	1.43		1.72	555.0	78	78		
5				50	58	1.43		1.72	558.6	78	78		
6				55	58	1.44		1.75	562.4	78	78		
	ZERO SPAN			60					566.241				
AVERAGE		20.9	0.05	60	57.4			1.684	490.0	77.7			

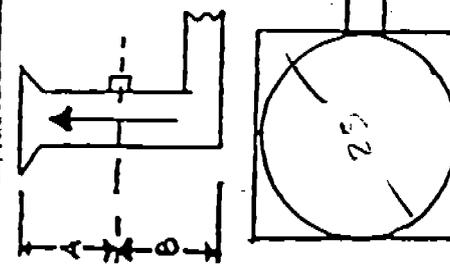
PITOT LEAK CHECK:  
 BEFORE: TOP ΔP = 3.1 BOTTOM ΔP = 3.0  
 ΔP = 3.1 ΔP = 3.0  
 AFTER: TOP ΔP = 3.0 BOTTOM ΔP = 3.1  
 ΔP = 3.1 ΔP = 3.1

COMMENTS: PURGE

SAMPLE TRAIN LEAK:  
 BEFORE: CRM@ 15 IN. HG.  
 AFTER: CRM@ 5 IN. HG.

#3 INCLINE  
CYCLONE

PLANT: Arroyo  
 LOCATION: Calle Ave  
 COUNTY: Los Angeles  
 UNIT: #3 (Ink)  
 DATE: 1/27/81  
 RUN NO/METHOD: 1-2 Post  
 COLD BOX NO.: 10  
 METER BOX NO.: A  
 METER FACTOR: 9819  $\Delta P = 2.1218$   
 PITOT # FACTOR: 6-1841  
 PYROMETER #: T-4  
 MAGNETIC FACTOR:  $\Delta P/M$  ΔH MZ



FILTER NO. B-33  
 AMBIENT TEMP.: 55  
 BARAMETRIC PRESS., IN. HG.: 20.15  
 ASSUMED MOISTURE: 5  
 HEATER BOX SETTING: ✓  
 PROBE LENGTH, FT.: 5  
 NOZZLE DIAMETER, IN.: 35-325  
 PROBE HEATER SETTING: ✓  
 APPROX. WIND VEL., MPH: 10  
 SAMPLE BOX TEMP., (F): 61.6  
 STATIC PRESSURE: -1.00 'H2O  
 OFFSET: 0 in. PORT DIA.:     in. (M / F)

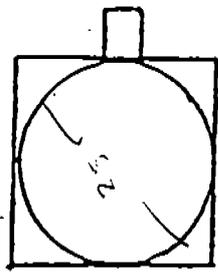
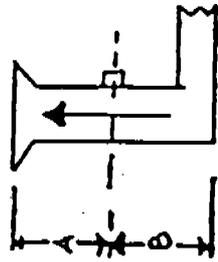
TRAVERSE POINT NUMBER	DISTANCE INCHES	O2 (%)	CO2 (%)	SAMPLE TIME MIN.	STACK TEMP. (Ts), F	VELOCITY IN. H2O		PRESSURE DIFF. ORIFICE METER (ΔH) IN. H2O	DRY GAS SAMPLE VOLUME (VM), FT.	GAS SAMPLE TEMP. & GORY GAS METER		PUMP VACUUM IN. HG.	TEMP. LAST IMPINGER (F)
						ΔP	ΔP			INLET (Tm),	OUTLET (Tm)		
1		20.9	0.5	6:50	0		.07	.90	560.456	48	48		
2				6	42		.10	1.28	569.13	48	48		
3				12	42		.11	1.41	572.7	49	48		
4				18	42		.11	1.41	577.1	50	50		
5				24	41		.10	1.38	580.1	51	51		
6				30	41		.10	1.48	584.2	52	52		
1				36	41		.10	1.28	587.8	55	55		
2				42	41		.10	1.48	590.3	57	55		
3				48	41		.10	1.48	594.6	60	57		
4				54	42		.10	1.28	598.4	61	58		
5				60	42		.09	1.16	603.6	61	58		
6				66	42		.09	1.16	609.4	64	58		
	ZERO								608.734				
	SPAN												
AVERAGE		20.9	0.05	72	41.6			1.250	62.278	53.9			

PITOT LEAK CHECK:  
 BEFORE: TOP ΔP = 1.1 BOTTOM ΔP = 1.1  
 ΔP = 0.1 ΔP = 0.2  
 AFTER: TOP ΔP = 0.2 BOTTOM ΔP = 0.1  
 ΔP = 1.0 ΔP = 1.1

SAMPLE TRAIN LEAK:  
 BEFORE: 15 IN. HG.  
 AFTER: 5 IN. HG.

COMMENTS: PURGE

PLANT: Airway  
 LOCATION: Grill Area  
 COUNTY: Franklin  
 UNIT: #3 Indium  
 DATE: 11/27/91  
 RUN NO/METHOD: 2 - PIST  
 COLD BOX NO.: 11  
 METER BOX NO.: A  
 METER FACTOR: 1.819, AHG = 2.1218  
 PITOT #/FACTOR: 6 - .841  
 PYROMETER #: TD  
 MAGNETIC FACTOR: AP 1.11  $\Delta H 1.12$



FILTER NO. B-35  
 AMBIENT TEMP.: 55  
 BAROMETRIC PRESS., IN. HG.: 30.15  
 ASSUMED MOISTURE: 1.5  
 HEATER BOX SETTING: 5  
 PROBE LENGTH, FT.: 5  
 NOZZLE DIAMETER, IN.: #35, 1.325  
 PROBE HEATER SETTING: calm  
 APPROX. WIND VEL., MPH: amb  
 SAMPLE BOX TEMP., (F): amb  
 STATIC PRESSURE: -.05 "H2O  
 OFFSET: 0 in. PORT DIA.: in. (M / F)

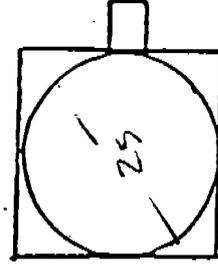
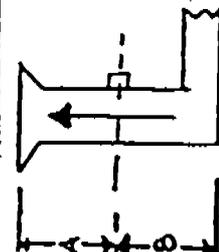
TRAVERSE POINT NUMBER	DISTANCE INCHES	O2 (%)	CO2 (%)	SAMPLE TIME MIN.	STACK TEMP. (Ts), F	VELOCITY HEAD IN. H2O		PRESSURE DIFF. ORIFICE METER (ΔH) IN. H2O	DRY GAS SAMPLE VOLUME (VM), FT.	GAS SAMPLE TEMP. @ DRY GAS METER (Tm), (F)		PUMP VACUUM IN. HG.	TEMP. LAST IMPINGER (F)
						ΔP	√ΔP			INLET	OUTLET		
1		20.9	0.05	0	66.8	.09		1.24	608.892	70	70		
2				5	70	.11		1.51	612.3	70	70		
3				10	72	.11		1.51	615.9	70	70		
4				15	74	.11		1.51	618.4	70	70		
5				20	78	.11		1.51	622.5	69	69		
6				25	78	.10		1.27	625.5	69	69		
7				30	78	.10		1.27	630.3	70	70		
8				35	78	.11		1.40	631.4	71	70		
9				40	78	.11		1.40	635.2	71	70		
10				45	79	.11		1.40	636.4	71	70		
11				50	79	.10		1.27	641.4	71	70		
12				55	79	.10		1.27	643.8	71	70		
13				60					647.218		70		
AVERAGE		20.9	0.05	60	75.9		0.329	1.380	58.328	70.0			

PITOT LEAK CHECK:  
 BEFORE: TOP ΔP = 9.0 BOTTOM ΔP = 2.0  
 ΔP = 2.0  
 AFTER: TOP ΔP = 3.0 BOTTOM ΔP = 2.1  
 ΔP = 1.9

SAMPLE TRAIN LEAK:  
 BEFORE: 1.005 IN. HG.  
 AFTER: 2.005 IN. HG.

COMMENTS: PURGE

PLANT: Amway  
 LOCATION: Gale, Ariz  
 COUNTY: Yavapai  
 UNIT: #3 Washburn  
 DATE: 11/22/91  
 RUN NO/METHOD: 3 - PHS  
 COLD BOX NO.: 10  
 METER BOX NO.: A  
 METER FACTOR: 1.817, ΔH = 2.1218  
 PITOT #/FACTOR: 6 - 8.4  
 PYROMETER #: T-4  
 MAGNETIC FACTOR: ΔP 1 ΔH 2



FILTER NO. B-27  
 AMBIENT TEMP.: 60  
 BAROMETRIC PRESS., IN. HG.: 30.13  
 ASSUMED MOISTURE: 5  
 HEATER BOX SETTING: 7  
 PROBE LENGTH, FT.: 7  
 NOZZLE DIAMETER, IN.: 3.5 - 1.325  
 PROBE HEATER SETTING: 2.5  
 APPROX. WIND VEL., MPH: amb  
 SAMPLE BOX TEMP., (F): amb  
 STATIC PRESSURE: -1.05 "H2O  
 OFFSET: 7 in. PORT DIA.: in. (M / F)

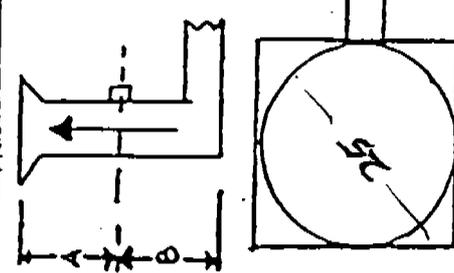
TRAVERSE POINT NUMBER	DISTANCE INCHES	O2 (%)	CO2 (%)	SAMPLE TIME MIN.	STACK TEMP. (Ts), F	VELOCITY IN. H2O		PRESSURE DIFF. ORIFICE METER (ΔH) IN. H2O	DRY GAS SAMPLE VOLUME (VM), FT.	GAS SAMPLE TEMP. @ DRY GAS METER		PUMP VACUUM IN. HG.	TEMP. LAST IMPINGER (F)
						ΔP	ΔP			INLET (Tm)	OUTLET (Tm)		
2		20.9	0.9	9.49	77	.09		1.15	647.328	73	73		
3				10	77	.10		1.27	650.8	72	72		
4				16	77	.11		1.40	653.9	71	71		
5				20	77	.11		1.40	656.9	72	71		
6				24	77	.11		1.40	660.0	72	71		
1				28	77	.11		1.40	663.3	72	71		
2				32	77	.10		1.29	669.0	73	72	2	
3				40	78	.10		1.29	674.3	74	72		
4				45	78	.11		1.40	675.9	74	72		
5				50	78	.11		1.40	678.4	73	72		
6				55	78	.11		1.40	681.9	76	74		
				60					684.745				
AVERAGE		20.9	0.95	6.0	77.3		0.324	1.338	37.417	72.5			

PITOT LEAK CHECK:  
 BEFORE: TOP ΔP = 3.1  
 ΔP = 3.1  
 AFTER: TOP ΔP = 3.1  
 ΔP = 3.1

SAMPLE TRAIN LEAK:  
 BEFORE: 1.005 IN. HG.  
 AFTER: 1.005 IN. HG.  
 COMMENTS: PURGE

OVERFLOW SEPARATOR  
CYCLONE

PLANT: Alwegas  
 LOCATION: Gale Ave  
 COUNTY: Furness  
 UNIT: Parafflow  
 DATE: 11/22/91  
 RUN NO./METHOD: 1 ~ Part 1  
 COLD BOX NO.: 11  
 METER BOX NO.: A  
 METER FACTOR: 0.9819 [110 = 2.12/8  
 PITOT #/FACTOR: 6 ~ 241  
 PYROMETER #: TJ  
 MAGNETIC FACTOR: ΔP M ΔH 212



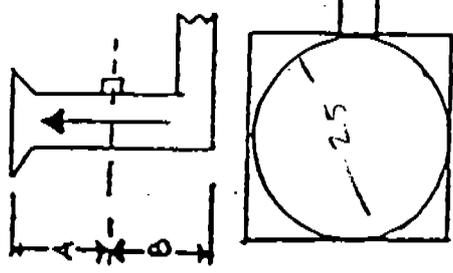
FILTER NO. F-19  
 AMBIENT TEMP.: 65  
 BAROMETRIC PRESS., IN. HG.: 30.15  
 ASSUMED MOISTURE: 3  
 HEATER BOX SETTING: 1  
 PROBE LENGTH, FT.: 5  
 NOZZLE DIAMETER, IN.: 73 - .262  
 PROBE HEATER SETTING: 1  
 APPROX. WIND VEL., MPH: calh  
 SAMPLE BOX TEMP., (F): amb  
 STATIC PRESSURE: 0 IN. PORT DIA.: 1 IN. (M / F)

TRAVERSE POINT NUMBER	DISTANCE INCHES	O2 (%)	CO2 (%)	SAMPLE TIME MIN.	STACK TEMP. (Ts), F	VELOCITY IN. H2O		PRESSURE DIFF. ORIFICE METER (ΔH) IN. H2O	DRY GAS SAMPLE VOLUME (VM), FT.	GAS SAMPLE TEMP. @ DRY GAS METER		PUMP VACUUM IN. HG.	TEMP. LAST IMPINGER (F)
						ΔP	ΔAP			INLET (Tm),	OUTLET (Tm)		
1		20.9	0.5	11:10	80	0.17		1.91	684.915	73	75		
2					80	0.19		6.01	1088.1	74	74		
3				10	80	0.20		1.07	1914	74	74		
4				20	80	0.20		1.07	693.7	74	74		
5				30	80	0.20		1.07	695.8	75	75		
6				45	80	0.20		1.07	698.9	74	74		
7				60	80	0.17		0.91	701.1	75	75		
8				75	80	0.21		1.13	703.6	75	75		
9				90	80	0.21		1.13	706.6	77	76		
10				105	80	0.21		1.13	709.4	78	77		
11				120	80	0.21		1.13	712.4	76	77		
12				135	80	0.20		1.07	715.4	75	76		
13				150	80	0.20			717.9				
AVERAGE		20.9	0.05	60	80			1.058	33.019	75.2			

ZERO SPAN  
 PITOT LEAK CHECK: BEFORE: TOP ΔP = 3.11 ΔP = 3.11 BOTTOM ΔP = 2.2 ΔP = 2.2  
 AFTER: TOP ΔP = 3.11 ΔP = 3.11 BOTTOM ΔP = 2.10 ΔP = 2.10

SAMPLE TRAIN LEAK: BEFORE = 6.005 CRM@ IN. HG. AFTER = 6.005 CRM@ IN. HG.  
 COMMENTS: PURGE

PLANT: Airway  
 LOCATION: Cale Ave  
 COUNTY: Essex  
 UNIT: Overlow  
 DATE: 11/22/91  
 RUN NO/METHOD: 2-10 Part  
 COLD BOX NO.: 16  
 METER BOX NO.: 1  
 METER FACTOR: 98.9 ΔHD = 2.1218  
 PITOT #/FACTOR: 6-1841  
 PYROMETER #: 74  
 MAGNETIC FACTOR: ΔP 111 / ΔH 1.2

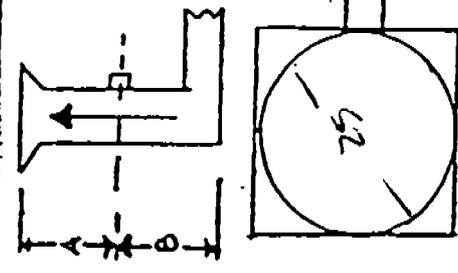


FILTER NO.: B-41  
 AMBIENT TEMP.: 70  
 BARAMETRIC PRESS., IN. HG.: 30.15  
 ASSUMED MOISTURE: 5  
 HEATER BOX SETTING: 5  
 PROBE LENGTH, FT.: 5  
 NOZZLE DIAMETER, IN.: 2.5  
 PROBE HEATER SETTING: Calum  
 APPROX. WIND VEL., MPH: 0  
 SAMPLE BOX TEMP., (F): 0  
 STATIC PRESSURE: -0.15 \*H2O  
 OFFSET: 0 in. PORT DIA.:     in. ( M / F )

TRAVERSE POINT NUMBER	DISTANCE INCHES	O2 (%)	CO2 (%)	SAMPLE TIME MIN.	STACK TEMP. (Ts), F	VELOCITY IN. H2O		PRESSURE DIFF. ORIFICE METER (ΔH) IN. H2O	DRY GAS SAMPLE VOLUME (VM), FT.	GAS SAMPLE TEMP. @ DRY GAS METER		PUMP VACUUM IN. HG.	TEMP. LAST IMPINGER (F)
						ΔP	ΔP			INLET (Tm),	OUTLET (Tm)		
1		20.4	0.5	12:58	71	0.17		0.91	718.348	75	75		
2				5	76	0.20		1.07	721.0	76	76		
3				10	75	0.21		1.13	723.9	75	75		
4				15	74	0.21		1.13	727.1	75	75		
5				20	74	0.21		1.13	729.5	74	74		
6				25	74	0.21		1.13	732.4	73	73		
1				30	74	0.20		1.07	735.8	77	76		
2				35	75	0.20		1.07	738.4	77	76		
3				40	75	0.21		1.13	741.8	78	77		
4				45	75	0.21		1.13	745.2	79	77		
5				50	75	0.21		1.13	747.6	79	77		
6				55	76	0.20		1.07	749.8	79	76		
	ZERO												
	SPAN												
AVERAGE		20.9	0.05	60	75.0			1.092	31,480	76.2			

SAMPLE TRAIN LEAK:  
 BEFORE: 1.005 IN. HG. CFM@ 15  
 AFTER: 1.000 IN. HG. CFM@ 2  
 COMMENTS: PURGE

PLANT: Airway  
 LOCATION: Coke Oven  
 COUNTY: Lucas  
 UNIT: Coventry  
 DATE: 11/22/71  
 RUN NO/METHOD: 3-2 Pit  
 COLD BOX NO.: 11  
 METER BOX NO.: A  
 METER FACTOR: 0.019 ΔH = 2.11618  
 PITOT #/FACTOR: 62, 841  
 PYROMETER #: 7-4  
 MAGNETIC FACTOR: ΔP M1 ΔH A12



FILTER NO. B-43  
 AMBIENT TEMP.: 70  
 BAROMETRIC PRESS., IN. HG.: 30.115  
 ASSUMED MOISTURE: 2  
 HEATER BOX SETTING: 5  
 PROBE LENGTH, FT.: 5  
 NOZZLE DIAMETER, IN.: 1.23 6262  
 PROBE HEATER SETTING: 1  
 APPROX. WIND VEL., MPH: calm  
 SAMPLE BOX TEMP., (F): amb  
 STATIC PRESSURE: -15 °H<sub>2</sub>O  
 OFFSET: 2 in. PORT DIA.:     in. ( M / F )

TRAVERSE POINT NUMBER	DISTANCE INCHES	O <sub>2</sub> (%)	CO <sub>2</sub> (%)	SAMPLE TIME MIN.	STACK TEMP. (Ts), F	VELOCITY IN. H <sub>2</sub> O		PRESSURE DIFF. ORIFICE METER (ΔH) IN. H <sub>2</sub> O	DRY GAS SAMPLE VOLUME (VM), FT.	GAS SAMPLE TEMP. @ DRY GAS METER		PUMP VACUUM IN. HG.	TEMP. LAST IMPINGER (F)
						ΔP	ΔP			INLET (Tm),	OUTLET (Tm)		
1		20.9	0.5	1:12	75	0.17		1.91	552.119	78	78		
2				0	75	0.19		1.02	754.9	78	78		
3				10	75	0.20		1.07	757.8	78	78		
4				15	75	0.21		1.07	760.1	78	78		
5				20	75	0.21		1.07	763.2	78	78		
6				25	75	0.21		1.07	766.5	78	78		
1				30	75	0.17		1.91	769.4	79	79		
2				35	75	0.19		1.02	771.7	79	80		
3				40	75	0.21		1.07	775.3	79	80		
4				45	75	0.21		1.07	777.9	79	80		
5				50	75	0.21		1.07	779.4	80	80		
6				55	75	0.21		1.07	782.0	80	80		
				60		0.24			785.418	80	80		
AVERAGE				60	75.0			1.035	33.319	78.8			

PITOT LEAK CHECK: BEFORE: TOP ΔP = 3.1 BOTTOM ΔP = 3.0  
 AFTER: TOP ΔP = 3.1 BOTTOM ΔP = 3.2  
 SAMPLE TRAIN LEAK: BEFORE: CRM @ 15 IN. HG.  
 AFTER: CRM @ 5 IN. HG.  
 COMMENTS:     PURGE

MOTES TRASH  
CYCLONE

11-21-91

**SAN JOAQUIN VALLEY UNIFIED AIR POLLUTION CONTROL DISTRICT  
 • FRESNO ZONE •  
 COTTON GIN SOURCE TEST - PROCESS WEIGHT FORM**

<b>COTTON GIN SOURCE TEST DATA</b>								
GINNING PROCESS - <i>note</i> - #1 TEST								
Air-way								
TEST RUN #1			TEST RUN #2			TEST RUN #3		
BALES	BLEWT	TIME	BALES	BLEWT	TIME	BALES	BLEWT	TIME
25314	500	12:36.4	25334	497	1:32.48			
25315	498	12:39.27	25335	505	1:35.44			
25316	497		25336	499	1:38.32			
25317	506	12:44.54	25337	508	1:41.25			
25318	514	12:47.42	25338					
25319	516	12:50.31						
25320	506	12:53.20						
25321	510	12:56.10						
25322	517	12:59.03						
25323	505	1:01.42						
25324	509	1:04.30						
25325	510	1:07.20						
25326	510	1:10.10						
25327	510	1:13.03						
25328	509	1:15.55						
25329	503	1:18.49						
25330	488	1:21.33						
25331	489	1:24.20						
25332	509	1:27.08						
25333	504	1:29.59						
<b>TOTAL</b>	<b>BALES =</b> <u>24</u>	<u>23</u>	<b>TOTAL</b>	<b>BALES =</b> _____		<b>TOTAL</b>	<b>BALES =</b> _____	
<b>TIME =</b> <u>11</u>	<b>(hrs)</b> <u>1.1</u>		<b>TIME =</b> _____	<b>(hrs)</b>		<b>TIME =</b> _____	<b>(hrs)</b>	
<b>BALES/HR =</b> <u>21.8</u>	<u>20.9</u>		<b>BALES/HR =</b> _____			<b>BALES/HR =</b> _____		
<b>AVERAGE PROCESS RATE = _____ (bales/hr)</b>								

DISTRICT REPRESENTATIVE: \_\_\_\_\_

DATE: \_\_\_\_\_

**SAN JOAQUIN VALLEY UNIFIED AIR POLLUTION CONTROL DISTRICT**  
**• FRESNO ZONE •**  
**COTTON GIN SOURCE TEST - PROCESS WEIGHT FORM**

<b>COTTON GIN SOURCE TEST DATA</b>								
<b>GINNING PROCESS -</b>								
Air-way			note - # 2 Test					
TEST RUN #1			TEST RUN #2			TEST RUN #3		
BALES	WEIGHT	TIME	BALES	WEIGHT	TIME	BALES	WEIGHT	TIME
25342	505	1:55 30	25362	508	2:51 02			
25343	512	1:58 24	25363	502	2:53 46			
25344	511	2:01 16	25364	505	2:56 31			
25345	503	2:04 02	25365					
25346	507	2:06 51						
25347	498	2:09 31						
25348	505	2:12 13						
25349	502	2:14 53						
25350	512	2:17 38						
25351	512	2:20 24						
25352	514	2:23 10						
25353	514	2:25 54						
25354	518	2:28 39						
25355	525	2:31 30						
25356	516	2:34 18						
25357	513	2:37 07						
25358	497	2:39 51						
25359	508	2:42 40						
25360	504	2:45 30						
25361	504	2:48 14						
<b>TOTAL</b> <b>BALES =</b> <u>23</u> 22	<b>TOTAL</b> <b>BALES =</b> _____		<b>TOTAL</b> <b>BALES =</b> _____			<b>TOTAL</b> <b>BALES =</b> _____		
<b>TIME =</b> <u>1.0</u> (hrs) 1.0	<b>TIME =</b> _____ (hrs)		<b>TIME =</b> _____ (hrs)			<b>TIME =</b> _____ (hrs)		
<b>BALES/HR =</b> <u>23</u> 22	<b>BALES/HR =</b> _____		<b>BALES/HR =</b> _____			<b>BALES/HR =</b> _____		
<b>AVERAGE PROCESS RATE = _____ (bales/hr)</b>								

DISTRICT REPRESENTATIVE: \_\_\_\_\_

DATE: \_\_\_\_\_

**SAN JOAQUIN VALLEY UNIFIED AIR POLLUTION CONTROL DISTRICT**  
**\* FRESNO ZONE \***  
**COTTON GIN SOURCE TEST - PROCESS WEIGHT FORM**

COTTON GIN SOURCE TEST DATA								
GINNING PROCESS -								
AIR WAY			note - <sup>12</sup> 3 TEST					
TEST RUN #1			TEST RUN #2			TEST RUN #3		
BALES	BLEWT	TIME	BALES	BLEWT	TIME	BALES	BLEWT	TIME
25371	504	3:1539	25391	508	4:1005			
25372	511	3:1813	25392	503	4:1258			
25373	505	3:2050	25393	514	4:1532			
25374	498	3:2322	25394	509	4:1819			
25375	502	3:2603	25395					
25376	508	3:2844						
25377	512	3:3128						
25378	500	3:3412						
25379	494	3:3654						
25380	505	3:3938						
25381	511	3:4222						
25382	508	3:4508						
25383	508	3:4753						
25384	512	3:5043						
25385	502	3:5334						
25386	495	3:5618						
25387	512	3:5904						
25388	509	4:0150						
25389	508	4:0432						
25390	508	4:0720						
<b>TOTAL</b> BALES = <u>24</u> 23			<b>TOTAL</b> BALES = _____			<b>TOTAL</b> BALES = _____		
TIME = <u>1.05</u> (hrs) <sup>1.05</sup>			TIME = _____ (hrs)			TIME = _____ (hrs)		
BALES/HR = <u>22.9</u> <sup>21.94</sup>			BALES/HR = _____			BALES/HR = _____		
<b>AVERAGE PROCESS RATE = _____ (bales/hr)</b>								

DISTRICT REPRESENTATIVE: \_\_\_\_\_

DATE: \_\_\_\_\_

#3 INCLINE  
CYCLONE

132

**SAN JOAQUIN VALLEY UNIFIED AIR POLLUTION CONTROL DISTRICT**  
**• FRESNO ZONE •**  
**COTTON GIN SOURCE TEST - PROCESS WEIGHT FORM**

COTTON GIN SOURCE TEST DATA								
GINNING PROCESS - # 3 Inclined cleaner - # 1 TEST								
AIR-WAY								
TEST RUN #1			TEST RUN #2			TEST RUN #3		
BALES	BLWT	TIME	BALES	BLWT	TIME	BALES	BLWT	TIME
25719	502	6:59 <sup>20</sup>	25739	499	7:52 <sup>22</sup>			
25720	514	7:02 <sup>04</sup>	25740	495	7:55 <sup>44</sup>			
25721	515	7:04 <sup>42</sup>	25741	506	7:58 <sup>05</sup>			
25722	499	7:07 <sup>49</sup>	25742	507	8:00 <sup>53</sup>			
25723	513	7:10 <sup>07</sup>	25743	512	8:03 <sup>44</sup>			
25724	521	7:12 <sup>42</sup>	25744	507	8:06 <sup>30</sup>			
25725	523	7:15 <sup>20</sup>	25745		8:09 <sup>15</sup>			
25726	502	7:17 <sup>54</sup>						
25727	502	7:20 <sup>20</sup>						
25728	499	7:23 <sup>02</sup>						
25729	507	7:25 <sup>48</sup>						
25730	495	7:28 <sup>28</sup>						
25731	498	7:31 <sup>02</sup>						
25732	492	7:33 <sup>26</sup>						
25733	507	7:36 <sup>12</sup>						
25734	508	7:38 <sup>58</sup>						
25735	500	7:41 <sup>33</sup>						
25736	500	7:44 <sup>18</sup>						
25737	496	7:47 <sup>02</sup>						
25738	492	7:49 <sup>49</sup>						
TOTAL BALES = <u>26</u> 25			TOTAL BALES = _____			TOTAL BALES = _____		
TIME = <u>1.1</u> (hrs) 1.1			TIME = _____ (hrs)			TIME = _____ (hrs)		
BALES/HR = <u>23.6</u> 22.7			BALES/HR = _____			BALES/HR = _____		
AVERAGE PROCESS RATE = _____ (bales/hr)								

DISTRICT REPRESENTATIVE: \_\_\_\_\_

DATE: \_\_\_\_\_

**SAN JOAQUIN VALLEY UNIFIED AIR POLLUTION CONTROL DISTRICT**  
**• FRESNO ZONE •**  
**COTTON GIN SOURCE TEST - PROCESS WEIGHT FORM**

<b>COTTON GIN SOURCE TEST DATA</b>								
GINNING PROCESS - #3 Inclined cleaner #2 Test								
Air-Way								
TEST RUN #1			TEST RUN #2			TEST RUN #3		
BALES	BLWT	TIME	BALES	BLWT	TIME	BALES	BLWT	TIME
25753	504	8:30 <sup>36</sup>	25773	499	9:26 <sup>21</sup>			
25754	514	8:33 <sup>26</sup>	25774	493	9:28 <sup>56</sup>			
25755	505	8:36 <sup>10</sup>	25775	503	9:31 <sup>33</sup>			
25756	507	8:38 <sup>52</sup>						
25757	570	8:41 <sup>48</sup>						
25758	506	8:44 <sup>36</sup>						
25759	504	8:47 <sup>22</sup>						
25760	504	8:50 <sup>23</sup>						
25761	495	8:53 <sup>11</sup>						
25762	495	8:56 <sup>00</sup>						
25763	490	8:58 <sup>45</sup>						
25764	501	9:01 <sup>25</sup>						
25765	501	9:04 <sup>10</sup>						
25766	497	9:06 <sup>52</sup>						
25767	498	9:09 <sup>39</sup>						
25768	514	9:12 <sup>25</sup>						
25769	517	9:15 <sup>15</sup>						
25770	516	9:18 <sup>04</sup>						
25771	522	9:20 <sup>58</sup>						
25772	504	9:23 <sup>42</sup>						
<b>TOTAL</b> BALES = <u>23</u> 22			<b>TOTAL</b> BALES = _____			<b>TOTAL</b> BALES = _____		
TIME = <u>1.0</u> (hrs) 1.0			TIME = _____ (hrs)			TIME = _____ (hrs)		
BALES/HR = <u>23</u> 22			BALES/HR = _____			BALES/HR = _____		
<b>AVERAGE PROCESS RATE = _____ (bales/hr)</b>								

DISTRICT REPRESENTATIVE: \_\_\_\_\_

DATE: \_\_\_\_\_

**SAN JOAQUIN VALLEY UNIFIED AIR POLLUTION CONTROL DISTRICT**  
**• FRESNO ZONE •**  
**COTTON GIN SOURCE TEST - PROCESS WEIGHT FORM**

<b>COTTON GIN SOURCE TEST DATA</b>								
GINNING PROCESS - #3 Inclined cleaner #3 TEST								
TEST RUN #1			TEST RUN #2			TEST RUN #3		
BALES	BLEWT	TIME	BALES	BLEWT	TIME	BALES	BLEWT	TIME
25781	510	9:48 <sup>22</sup>	25801	519	10:43 <sup>25</sup>			
25782	510	9:51 <sup>15</sup>	25802	525	10:46 <sup>14</sup>			
25783	507	9:54 <sup>02</sup>	25803	505	10:48 <sup>48</sup>			
25784	498	9:56 <sup>51</sup>						
25785	502	9:59 <sup>44</sup>						
25786	494	10:02 <sup>32</sup>						
25787	506	10:05 <sup>20</sup>						
25788	499	10:07 <sup>52</sup>						
25789	501	10:10 <sup>30</sup>						
25790	497	10:13 <sup>10</sup>						
25791	511	10:15 <sup>55</sup>						
25792	511	10:18 <sup>45</sup>						
25793	508	10:21 <sup>02</sup>						
25794	499	10:24 <sup>09</sup>						
25795	514	10:26 <sup>50</sup>						
25796	510	10:29 <sup>10</sup>						
25797	507	10:32 <sup>20</sup>						
25798	578	10:35 <sup>19</sup>						
25799	522	10:38 <sup>07</sup>						
25800	516	10:40 <sup>53</sup>						
TOTAL BALES = <u>23</u> 22			TOTAL BALES = _____			TOTAL BALES = _____		
TIME = <u>1.0</u> (hrs) 1.0			TIME = _____ (hrs)			TIME = _____ (hrs)		
BALES/HR = <u>23</u> 22			BALES/HR = _____			BALES/HR = _____		
AVERAGE PROCESS RATE = _____ (bales/hr)								

DISTRICT REPRESENTATIVE: \_\_\_\_\_

DATE: \_\_\_\_\_

OVERFLOW SEPARATOR  
CYCLONE

136

11-22-91

SAN JOAQUIN VALLEY UNIFIED AIR POLLUTION CONTROL DISTRICT  
• FRESNO ZONE •  
COTTON GIN SOURCE TEST - PROCESS WEIGHT FORM

COTTON GIN SOURCE TEST DATA								
GINNING PROCESS - OVER-Flow = 1 Test								
TEST RUN #1			TEST RUN #2			TEST RUN #3		
BALE #	BALE WT	TIME	BALE #	BALE WT	TIME	BALE #	BALE WT	TIME
25812	503	11:18 <sup>04</sup>	25832	500	12:06 <sup>41</sup>			
25813	513	11:15 <sup>28</sup>	25833	511	12:09 <sup>35</sup>			
25814	515	11:17 <sup>54</sup>	25834	476	12:12 <sup>06</sup>			
25815	498	11:20 <sup>52</sup>						
25816	509	11:23 <sup>26</sup>						
25817	506	11:26 <sup>15</sup>						
25818	500	11:29 <sup>03</sup>						
25819	495	11:31 <sup>33</sup>						
25820	503	11:34 <sup>12</sup>						
25821	510	11:37 <sup>04</sup>						
25822	504	11:39 <sup>39</sup>						
25823	502	11:42 <sup>23</sup>						
25824	500	11:45 <sup>02</sup>						
25825	511	11:47 <sup>31</sup>						
25826	499	11:50 <sup>32</sup>						
25827	512	11:53 <sup>00</sup>						
25828	511	11:55 <sup>34</sup>						
25829	507	11:58 <sup>32</sup>						
25830	496	12:01 <sup>11</sup>						
25831	500	12:03 <sup>53</sup>						
TOTAL BALES = <u>23</u> <sup>22</sup>			TOTAL BALES = _____			TOTAL BALES = _____		
TIME = <u>1</u> (hrs) <sup>1</sup>			TIME = _____ (hrs)			TIME = _____ (hrs)		
BALES/HR = <u>23</u> <sup>22</sup>			BALES/HR = _____			BALES/HR = _____		
AVERAGE PROCESS RATE = _____ (bales/hr)								

DISTRICT REPRESENTATIVE: \_\_\_\_\_

DATE: \_\_\_\_\_

**SAN JOAQUIN VALLEY UNIFIED AIR POLLUTION CONTROL DISTRICT**  
**\* FRESNO ZONE \***  
**COTTON GIN SOURCE TEST - PROCESS WEIGHT FORM**

<b>COTTON GIN SOURCE TEST DATA</b>								
<b>GINNING PROCESS -</b> <i>over-flow #2 Test</i>								
<i>Air-way</i>								
<b>TEST RUN #1</b>			<b>TEST RUN #2</b>			<b>TEST RUN #3</b>		
BALES	BALE WT	TIME	BALES	BALE WT	TIME	BALES	BALE WT	TIME
25836	787	12:58:35	25836	508	1:46:25			
25837	507	12:53:00	25837	575	1:49:10			
25838	530	12:57:40	25837	510	1:51:30			
25839	722	1:00:33	25859	514	1:59:20			
25840	512	1:03:23	25860	523	1:59:40			
25841	508	1:06:20	25861	516	2:01:50			
25842	516	1:08:50						
25843	529	1:11:25						
25844	512	1:14:01						
25845	517	1:16:43						
25846	570	1:19:30						
25847	517	1:22:00						
25848	518	1:24:30						
25849	579	1:27:30						
25850	508	1:30:00						
25851	520	1:32:40						
25852	520	1:35:31						
25853	519	1:38:16						
25854	520	1:41:01						
25855	519	1:43:42						
<b>TOTAL</b> BALES = <u>26</u> 25			<b>TOTAL</b> BALES = _____			<b>TOTAL</b> BALES = _____		
TIME = <u>1.2</u> (hrs) 1.2			TIME = _____ (hrs)			TIME = _____ (hrs)		
BALES/HR = <u>21.7</u> 20.8			BALES/HR = _____			BALES/HR = _____		
<b>AVERAGE PROCESS RATE = _____ (bales/hr)</b>								

DISTRICT REPRESENTATIVE: \_\_\_\_\_

DATE: \_\_\_\_\_

**SAN JOAQUIN VALLEY UNIFIED AIR POLLUTION CONTROL DISTRICT**  
**\* FRESNO ZONE \***  
**COTTON GIN SOURCE TEST - PROCESS WEIGHT FORM**

<b>COTTON GIN SOURCE TEST DATA</b>								
<b>GINNING PROCESS -</b> OVER-Flow # 3 test								
<b>TEST RUN #1</b>			<b>TEST RUN #2</b>			<b>TEST RUN #3</b>		
<b>BALES</b>	<b>BALE WT</b>	<b>TIME</b>	<b>BALES</b>	<b>BALE WT</b>	<b>TIME</b>	<b>BALES</b>	<b>BALE WT</b>	<b>TIME</b>
25866	504	2:17 <sup>25</sup>	25886	505	3:13 <sup>42</sup>			
25867	508	2:20 <sup>48</sup>	25887	509	3:16 <sup>35</sup>			
25868	510	2:23 <sup>19</sup>	25888	497	3:19 <sup>08</sup>			
25869	510	2:25 <sup>00</sup>						
25870	496	2:28 <sup>47</sup>						
25871	506	2:31 <sup>32</sup>						
25872	497	2:34 <sup>20</sup>						
25873	497	2:36 <sup>44</sup>						
25874	500	2:39 <sup>21</sup>						
25875	499	2:42 <sup>03</sup>						
25876	576	2:47 <sup>00</sup>	(4)					
25877	506	2:49 <sup>32</sup>						
25878	511	2:52 <sup>11</sup>						
25879	509	2:55 <sup>36</sup>						
25880	501	2:57 <sup>54</sup>						
25881	502	3:00 <sup>16</sup>						
25882	498	3:02 <sup>51</sup>						
25883	507	3:05 <sup>22</sup>						
25884	509	3:08 <sup>25</sup>						
25885	507	3:11 <sup>03</sup>						
<b>TOTAL</b>	<b>BALES =</b> 23 <sup>22</sup>		<b>TOTAL</b>	<b>BALES =</b> _____		<b>TOTAL</b>	<b>BALES =</b> _____	
	<b>TIME =</b> 1 (hrs) <sup>1</sup>			<b>TIME =</b> _____ (hrs)			<b>TIME =</b> _____ (hrs)	
	<b>BALES/HR =</b> 23 <sup>22</sup>			<b>BALES/HR =</b> _____			<b>BALES/HR =</b> _____	
<b>AVERAGE PROCESS RATE = _____ (bales/hr)</b>								

**DISTRICT REPRESENTATIVE:** \_\_\_\_\_

**DATE:** \_\_\_\_\_

**VIII. QUALITY ASSURANCE**

**DRY GAS METER CALIBRATION**

Date: 11/7/91

Unit: A

Ambient Conditions

Temp: 73.5 F/C

Baro: 30.04 in.Hg

ORIFICE MANOMETER SETTING D,H	GAS VOLUME WET TEST METER V,w	GAS VOLUME DRY GAS METER Vb,	wet test tw f	Temperature				Y	DH@Y
				Dry IN	Dry Out	Ave f	Time e min		
				Td,	Tdo,	Td,			
0.5	5	315.852	75	72	71	72.25	14.35	0.9793	2.3383
		310.779	75	73	73				
1	5	321.134	75	73	73	74.50	9.52	0.9434	2.0486
		315.852	75	75	77				
1.5	5	326.369	75	75	77	77.00	8.02	0.9991	2.1707
		321.364	75	78	78				
2	5	331.656	75	80	80	80.50	6.57	1.0060	1.9297
		326.659	75	81	81				
								0.9819	2.1218

Calibration by: RTR

**Meter Factor:** 0.9819

Reviewed by: CDD

**Delta H:** 2.1218

Equations:

$$Y = (V_w * P_b) * (T_d + 460) / (V_d t - V_d b) + (D_e H / 13.6) * (((W_t + w_t) / 2) + 460)$$

$$D_e H = (0.0317 * D_e) * (((((W_t + w_t) / 2) + 460) * e) / (V_w)^2) / ((P_b * (T_d + 460)))$$

**DRY GAS METER CALIBRATION**

Date: 11/7/91

Unit: B

Ambient Conditions

Temp: 68 F/C

Baro: 30.03 in.Hg

ORIFICE MANOMETER SETTING D,H	GAS VOLUME WET TEST METER V,w	GAS VOLUME DRY GAS METER Vb,	wet test tw f	Temperature				Y	DH@Y
				Dry IN	Dry Out	Ave f	Time e min		
				Td,	Tdo,	Td,			
0.5	5	661.534	75	61	61	64.50	14.44	0.9722	2.4023
		656.498	75	71	65				
1	5	666.998	75	71	66	71.00	10.04	0.9378	2.2943
		661.719	75	77	70				
1.5	5	672.609	75	77	71	75.50	8.16	0.9272	2.2542
		667.231	75	80	74				
2	5	678.231	75	80	75	78.25	7.10	0.9287	2.2638
		672.841	75	83	75				
								0.9415	2.3036

Calibration by: RTR

**Meter Factor: 0.9415**

Reviewed by: CDD

**Delta H: 2.3036**

Equations:

$$Y = (V_w * P_b) * (T_d + 460) / (V_d t - V_d b) + (D_e H / 13.6) * (((W_t + w_t) / 2) + 460)$$

$$\Delta H = (0.0317 * D_e) * (((((W_t + w_t) / 2) + 460) * e) / V_w)^2 / ((P_b * (T_d + 460))$$



### THERMO COUPLE CALIBRATION

Date: 7/23/91

Unit: T-4

Point	* Standard Temperature <i>Tstd</i>		Pyrometer Temperature <i>Tpyr</i>		Error % ** $(Tstd - Tpyr) / Tstd$
	deg. F		deg. F		
1 Ambient	69.8		72.6		0.53%
2 Ice	32.0		33.2		0.24%
3 Boil	212.0		211.6		0.06%
4 Oil					0.00%

Std. Corr. Factor 0.976

Calibration by: SW

\* Standard ID: ASTM #86429 -5+300C

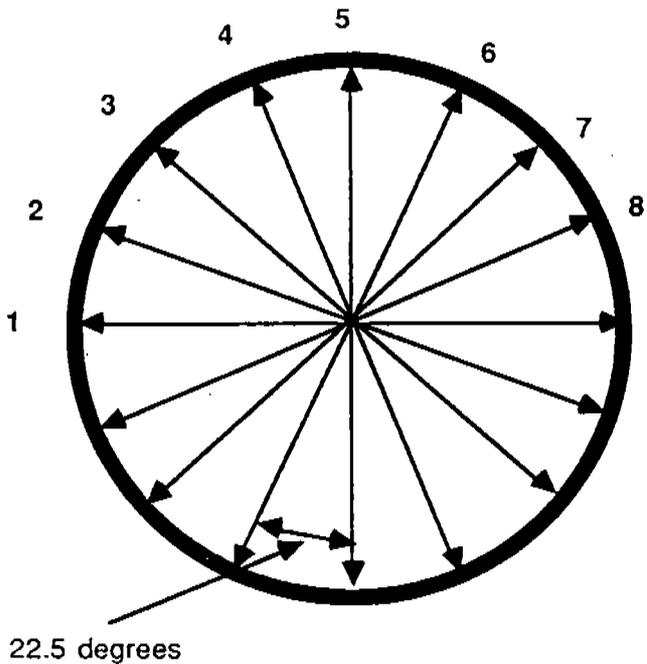
Reviewed by: RTR

\* \* in deg. K

# Nozzle Calibration

Nozzle I.D. : 24

Date : 8/24/90



## Points

1 -	<u>0.233</u>
2 -	<u>0.230</u>
3 -	<u>0.232</u>
4 -	<u>0.234</u>
5 -	<u>0.238</u>
6 -	<u>0.238</u>
7 -	<u>0.236</u>
8 -	<u>0.232</u>

Average Nozzle Diameter = 0.263

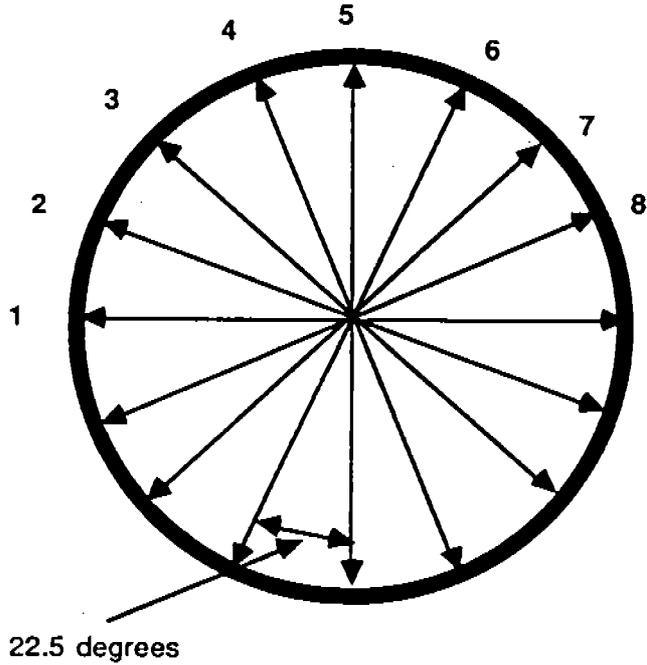
Analyst : SW

Reviewed :

# Nozzle Calibration

Nozzle I.D. : 36

Date : 6/19/91



## Points

1 -	<u>.316</u>
2 -	<u>.313</u>
3 -	<u>.311</u>
4 -	<u>.314</u>
5 -	<u>.315</u>
6 -	<u>.313</u>
7 -	<u>.311</u>
8 -	<u>.312</u>

Average Nozzle Diameter = .313

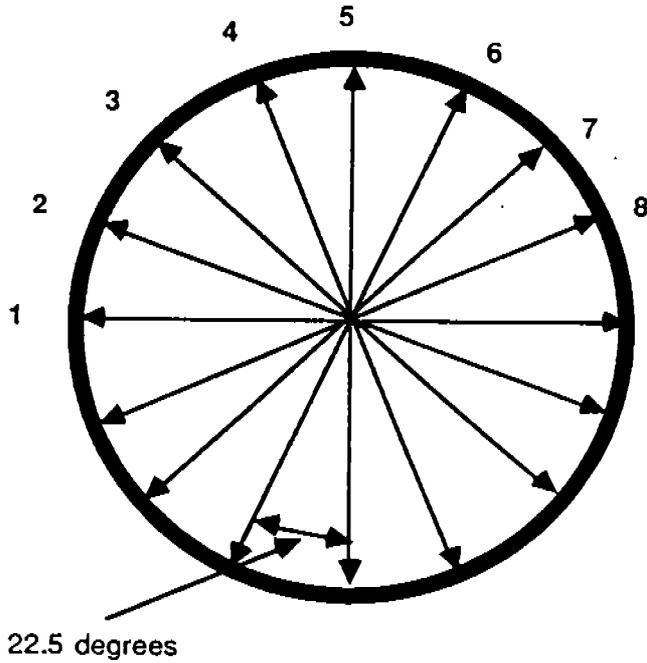
Analyst : sally

Reviewed :

# Nozzle Calibration

Nozzle I.D. : 35

Date : 6/19/91



	Points
1 -	<u>.329</u>
2 -	<u>.326</u>
3 -	<u>.327</u>
4 -	<u>.325</u>
5 -	<u>.319</u>
6 -	<u>.327</u>
7 -	<u>.321</u>
8 -	<u>.322</u>

Average Nozzle Diameter = .325

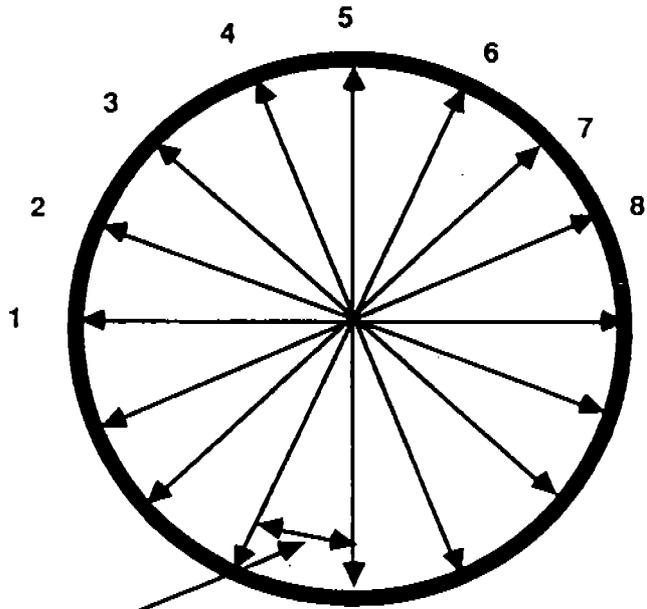
Analyst : sally

Reviewed :

# Nozzle Calibration

Nozzle I.D. : 28

Date : 6/19/91



22.5 degrees

	Points
1 -	<u>.282</u>
2 -	<u>.277</u>
3 -	<u>.284</u>
4 -	<u>.285</u>
5 -	<u>.280</u>
6 -	<u>.280</u>
7 -	<u>.277</u>
8 -	<u>.280</u>

Average Nozzle Diameter = .281

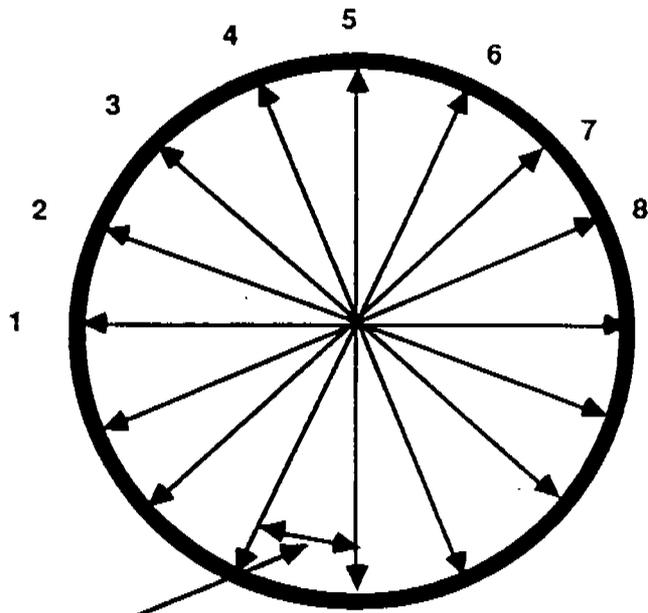
Analyst : sally

Reviewed :

# Nozzle Calibration

Nozzle I.D. : 24

Date : 6/19/91



### Points

1 -	<u>.237</u>
2 -	<u>.237</u>
3 -	<u>.240</u>
4 -	<u>.240</u>
5 -	<u>.243</u>
6 -	<u>.240</u>
7 -	<u>.241</u>
8 -	<u>.240</u>

22.5 degrees

Average Nozzle Diameter = .240

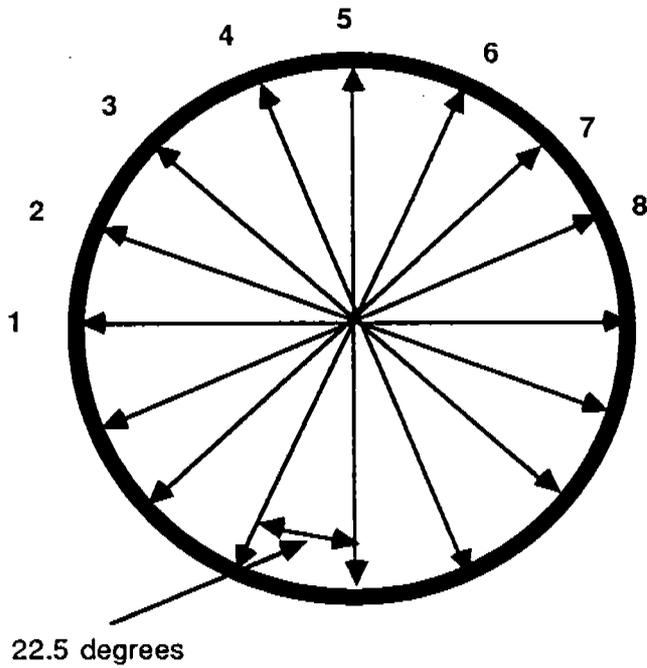
Analyst : sally

Reviewed :

# Nozzle Calibration

Nozzle I.D. : 22

Date : 6/20/91



	Points
1 -	<u>.227</u>
2 -	<u>.230</u>
3 -	<u>.232</u>
4 -	<u>.233</u>
5 -	<u>.229</u>
6 -	<u>.230</u>
7 -	<u>.231</u>
8 -	<u>.232</u>

Average Nozzle Diameter = .230

Analyst : sally

Reviewed :

BTC Environmental, Inc. - 1989

### MAGNEHELIC CALIBRATION

DATE: 2/8/91  
 GAGE ID # M-1  
 RANGE 0-5" in. H2O

SCHEDULED CALIBRATION:  
 SEMI ANNUAL   
 BI-MONTHLY   
 OTHER

REFERENCE  
 ID # 0-10" DWYER MANO

**LEAK CHECK:**

System:	† Set @ 10 in. H2O	vacuum 10 in. P F	pressure 10 in. P F
Point:	†† Set @ 90 % FS in. H2O	vacuum in. P F	pressure in. P F

Point	Incline Delta P <i>Pinc</i>	Magnehelic Delta P <i>Pmag</i>	% Deviation $(Pinc - Pmag) / Pinc \times 100$
1	4.95	4.95	0.000%
	4.95	4.95	0.000%
	4.95	4.95	0.000%
average	4.95	4.95	** 0.000%
2	4.00	4.00	0.000%
	4.00	4.00	0.000%
	4.00	4.00	0.000%
average	4.00	4.00	** 0.000%
3	3.10	3.10	0.000%
	3.10	3.10	0.000%
	3.10	3.10	0.000%
average	3.10	3.10	** 0.000%
4	2.00	2.00	0.000%
	2.00	2.00	0.000%
	2.00	2.00	0.000%
average	2.00	2.00	** 0.000%
5	1.20	1.20	0.000%
	1.20	1.20	0.000%
	1.20	1.20	0.000%
average	1.20	1.20	** 0.000%

**STANDARD CORRECTION FACTOR**

AVERAGE DEVIATION  
 STANDARD DEVIATION  
 95% CONFIDENCE INTERVAL  
 PRECISION( within +/- 3%)

1.000
0.000
0.000
0.000
-1.00

† If pressure or vacuum decreases by more than 1 in. in 5 minutes then remove from service.  
 †† If pressure or vacuum decreases by more than 5% in 5 minutes then remove from service.  
 \*\* These values must be within +/- 5% before the magnehelic can be put into operation.

Calibration by: BO BO TECH

Reviewed by: \_\_\_\_\_

### MAGNEHELIC CALIBRATION

DATE: 2/7/91  
 GAGE ID # M-2  
 RANGE 0-2 in. H2O

SCHEDULED CALIBRATION:  
 SEMI ANNUAL   
 BI-MONTHLY   
 OTHER

REFERENCE ID # 0-10 DWYER MANO

**LEAK CHECK :**

System:	† Set @ 10 in. H2O	vacuum 10 in. P F	pressure 10 in. P F
Point:	†† Set @ 90 % FS in. H2O	vacuum in. P F	pressure in. P F

Point	Incline Delta P <i>Pinc</i>	Magnehelic Delta P <i>Pmag</i>	% Deviation $(Pinc - Pmag) / Pinc \times 100$
1	1.91	1.90	0.524%
	1.91	1.90	0.524%
	1.91	1.90	0.524%
average	1.91	1.90	** 0.524%
2	1.71	1.75	2.339%
	1.71	1.74	1.754%
	1.71	1.74	1.754%
average	1.71	1.74	** 1.949%
3	1.33	1.37	3.008%
	1.33	1.37	3.008%
	1.33	1.37	3.008%
average	1.33	1.37	** 3.008%
4	1.21	1.24	2.479%
	1.21	1.24	2.479%
	1.21	1.24	2.479%
average	1.21	1.24	** 2.479%
5	0.70	0.72	2.857%
	0.70	0.72	2.857%
	0.70	0.72	2.857%
average	0.70	0.72	** 2.857%

**STANDARD CORRECTION FACTOR**  
 AVERAGE DEVIATION  
 STANDARD DEVIATION  
 95% CONFIDENCE INTERVAL  
 PRECISION( within +/- 3%)

0.981
0.022
0.009
0.023
-0.96

† If pressure or vacuum decreases by more than 1 in. in 5 minutes then remove from service.  
 †† If pressure or vacuum decreases by more than 5% in 5 minutes then remove from service.  
 \*\* These values must be within +/- 5% before the magnehelic can be put into operation.

Calibration by: RTR Reviewed by: \_\_\_\_\_

### MAGNEHELIC CALIBRATION

DATE: 2/8/91  
 GAGE ID # M-3  
 RANGE 0-5 in. H2O

SCHEDULED CALIBRATION:  
 SEMI ANNUAL   
 BI-MONTHLY   
 OTHER

REFERENCE ID # 0-10 DWYER MANO

**LEAK CHECK:**

System:	† Set @ 10 in. H2O	vacuum 10 in. P F	pressure 10 in. P F
Point:	†† Set @ 90 % FS in. H2O	vacuum in. P F	pressure in. P F

Point	Incline Delta P <i>Pinc</i>	Magnehelic Delta P <i>Pmag</i>	% Deviation $(Pinc - Pmag) / Pinc \times 100$
1	4.80	5.05	5.208%
	4.80	5.05	5.208%
	4.80	5.05	5.208%
average	4.80	5.05	** 5.208%
2	3.90	3.90	0.000%
	3.90	3.90	0.000%
	3.90	3.90	0.000%
average	3.90	3.90	** 0.000%
3	3.00	3.00	0.000%
	3.00	3.00	0.000%
	3.00	3.00	0.000%
average	3.00	3.00	** 0.000%
4	2.00	2.05	2.500%
	2.00	2.05	2.500%
	2.00	2.05	2.500%
average	2.00	2.05	** 2.500%
5	1.05	1.06	0.952%
	1.05	1.06	0.952%
	1.05	1.06	0.952%
average	1.05	1.06	** 0.952%

**STANDARD CORRECTION FACTOR**  
 AVERAGE DEVIATION  
 STANDARD DEVIATION  
 95% CONFIDENCE INTERVAL  
 PRECISION( within +/- 3%)

0.983
0.017
0.020
0.049
-0.97

† If pressure or vacuum decreases by more than 1 in. in 5 minutes then remove from service.  
 †† If pressure or vacuum decreases by more than 5% in 5 minutes then remove from service.  
 \*\* These values must be within +/- 5% before the magnehelic can be put into operation.

Calibration by: RTR

Reviewed by: \_\_\_\_\_

### MAGNEHELIC CALIBRATION

DATE: 2/8/91  
 GAGE ID # M-4  
 RANGE 0-2" in. H2O

SCHEDULED CALIBRATION:  
 SEMI ANNUAL   
 BI-MONTHLY   
 OTHER

REFERENCE ID # 0-10" DWYER MANO

**LEAK CHECK:**

System:	† Set @ 10 in. H2O	vacuum 10 in. P F	pressure 10 in. P F
Point:	†† Set @ 90 % FS in. H2O	vacuum in. P F	pressure in. P F

Point	Incline Delta P <i>Pinc</i>	Magnehelic Delta P <i>Pmag</i>	% Deviation $(Pinc - Pmag) / Pinc \times 100$
1	1.950	1.95	0.000%
	1.950	1.95	0.000%
	1.950	1.95	0.000%
average	1.95	1.95	** 0.000%
2	1.750	1.75	0.000%
	1.750	1.75	0.000%
	1.750	1.75	0.000%
average	1.75	1.75	** 0.000%
3	1.250	1.26	0.800%
	1.250	1.26	0.800%
	1.250	1.26	0.800%
average	1.25	1.26	** 0.800%
4	0.980	1.00	2.041%
	0.980	1.00	2.041%
	0.980	1.00	2.041%
average	0.98	1.00	** 2.041%
5	0.570	0.58	1.754%
	0.570	0.58	1.754%
	0.570	0.58	1.754%
average	0.57	0.58	** 1.754%

**STANDARD CORRECTION FACTOR**

AVERAGE DEVIATION  
 STANDARD DEVIATION  
 95% CONFIDENCE INTERVAL  
 PRECISION( within +/- 3%)

0.991
0.009
0.009
0.021
-0.98

† If pressure or vacuum decreases by more than 1 in. in 5 minutes then remove from service.  
 †† If pressure or vacuum decreases by more than 5% in 5 minutes then remove from service.  
 \*\* These values must be within +/- 5% before the magnehelic can be put into operation.

Calibration by: RTR

Reviewed by: \_\_\_\_\_



1536 Eastman Avenue  
Ventura, CA 93003  
(805) 644-1095

Address: 912326

CHAIN OF CUSTODY RECORD

Phone #: \_\_\_\_\_ Contact: \_\_\_\_\_

PROJ. NO.	PROJECT NAME	SAMPLERS: (Signature)		NO.	DATE	TIME	QTY	BY	SAMPLE I.D.	NO. OF CONTAINERS	REMARKS	CHECK IF RUSH
		1	2									
	AirWAYS			1	11-21		X			1		
				2						1		
				3						2		
				4						1		
				5						1		
				6						1		
				7						1		
				8						2		
				9						1		
				10						1		
				11						1		
				12						1		
				13						2		
				14						1		
				15						1		

ANALYSIS  
 by: [Signature]  
 Date: 11/21/05

The undersigned hereby acknowledges having received a copy of the Fee Schedule/General Information and Conditions, the provisions of which are a part of this agreement.

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time
[Signature]	11-25 10:30	[Signature]					
Relinquished by: (Signature)	Date/Time	Received for Laboratory by: (Signature)	Date/Time	NAME	ADDRESS	PHONE NO.	
[Signature]		[Signature]					

WHITE COPY \_\_\_\_\_ CANARY COPY \_\_\_\_\_ PINK COPY \_\_\_\_\_





1536 Eastman Avenue  
Ventura, CA 93003  
(805) 644-1095

014326

Address:

CHAIN OF CUSTODY RECORD

Phone #: ( ) - ( ) - ( ) Contact:

NO.	DATE	TIME	SAB	SAMPLE I.D.	NO. OF CONTAINERS	ANALYSIS	REMARKS	CHECK IF RUSH
291-186								
SAMPLERS: (Signature) <i>Ken King</i>								
	11-22		X		1			
					1			
					2			
					1			
					1			
					1			
					1			
					2			
					1			
					1			
					1			
					2			
					1			
					1			

*Tom / Analysis Gross Curial*

The undersigned hereby acknowledges having received a copy of the Fee Schedule/General Information and Conditions, the provisions of which are a part of this agreement.

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time	Received by: (Signature)	Date/Time
<i>[Signature]</i>	11-25 10:30	<i>[Signature]</i>		<i>[Signature]</i>	
Relinquished by: (Signature)	Date/Time	Received for Laboratory by: (Signature)	Date/Time	NAME	ADDRESS
		<i>[Signature]</i>			
					PHONE NO.

WHITE COPY \_\_\_\_\_ CANARY COPY \_\_\_\_\_ PINK COPY \_\_\_\_\_



SOURCE TESTING SAMPLE INFORMATION SHEET

\*\*\*\*\*

PM10 PART. ANALYSIS

\*\*\*\*\*

METHOD: PM10

CLIENT: AIRWAYS

LAB NO GIVEN: 912326

PROJECT NAME: Ⓟ

PROJECT NO: 291-186

SITE: GALE AVE.

SAMPLER: K<sub>1</sub> K

DATE SAMPLED: \_\_\_\_\_

NO.	RUN 1 <u>note</u>	# of cont	TOT VOL or FIL #	TOT RES	GROSS WT		
1	FILTER (slotted) +10	1	# G-25	N/A	X		
2	FILTER (slotted) +10	1	# G-48	N/A	X		
3	FILTER (solid) -10	2	# G-149 B-28	N/A	X		
4	IMPACTOR (front half) +10	1	61	X			
5	PROBE+IMPINGERS (back half) -10	1	360	X			

NO.	RUN 2 <u>note</u>	# of cont	TOT VOL or FIL #	TOT RES	GROSS WT		
6	FILTER (slotted) +10	1	# G-52	N/A	X		
7	FILTER (slotted) +10	1	# G-24	N/A	X		
8	FILTER (solid) -10	2	# G-156 B-30	N/A	X		
9	IMPACTOR (front half) +10	1	81	X			
10	PROBE+IMPINGERS (back half) -10	1	432	X			

NO.	RUN 3 <u>note</u>	# of cont	TOT VOL or FIL #	TOT RES	GROSS WT		
11	FILTER (slotted) +10	1	# G-77	N/A	X		
12	FILTER (slotted) +10	1	# G-66	N/A	X		
13	FILTER (solid) -10	2	# G-131 B-32	N/A	X		
14	IMPACTOR (front half) +10	1	90	X			
15	PROBE+IMPINGERS (back half) -10	1	450	X			

Comments: \_\_\_\_\_

SOURCE TESTING SAMPLE INFORMATION SHEET  
 \*\*\*\*\*

PM10 PART. ANALYSIS  
 \*\*\*\*\*

METHOD: PM10

CLIENT: AirWAYS

LAB NO GIVEN: 81326

PROJECT NAME: \_\_\_\_\_

PROJECT NO: 291-186

SITE: GALE AVE

SAMPLER: Kerr King

DATE SAMPLED: 11-22-91

NO.	RUN 1 <u>#3 INCLINE</u>	# of cont	TOT VOL or FIL #	TOT RES	GROSS WT		
16	FILTER (slotted) +10	1	# G-42	N/A	X		
17	FILTER (slotted) +10	1	# G-86	N/A	X		
18	FILTER (solid) -10	2	# G-129	N/A	X		
19	IMPACTOR (front half) +10	1	94	X			
20	PROBE+IMPINGERS (back half) -10	1	442	X			

NO.	RUN 2 <u>#3 INCLINE</u>	# of cont	TOT VOL or FIL #	TOT RES	GROSS WT		
21	FILTER (slotted) +10	1	# G-16	N/A	X		
22	FILTER (slotted) +10	1	# G-54	N/A	X		
23	FILTER (solid) -10	2	# G-128 B-36	N/A	X		
24	IMPACTOR (front half) +10	1	90	X			
25	PROBE+IMPINGERS (back half) -10	1	384	X			

NO.	RUN 3 <u>#3 INCLINE</u>	# of cont	TOT VOL or FIL #	TOT RES	GROSS WT		
26	FILTER (slotted) +10	1	# G-7	N/A	X		
27	FILTER (slotted) +10	1	# G-8	N/A	X		
28	FILTER (solid) -10	2	# G-9 B-38	N/A	X		
29	IMPACTOR (front half) +10	1	74	X			
30	PROBE+IMPINGERS (back half) -10	1	351	X			

Comments: \_\_\_\_\_

160

**CHAIN OF CUSTODY RECORD**

Address: \_\_\_\_\_ 1 0 2 3

Phone #: ( ) \_\_\_\_\_ Contact: \_\_\_\_\_

PROJ. NO.	PROJECT NAME	NO.	DATE	TIME	COMP	GRAB	SAMPLE I.D.	NO. OF CONTAINERS	ANALYSIS	REMARKS	CHECK IF RUSH
291-186	Air Way	1	11-21		1			1	X		
		2							X		
		3							X		
		4							X		
		5							X		
		6							X		
		7							X		
		8							X		
		9							X		
		10							X		
		11							X		
		12							X		
		13							X		
		14							X		
		15							X		

*Total (with Gross Weight)*

The undersigned hereby acknowledges having received a copy of the Fee Schedule/General Information and Conditions, the provisions of which are a part of this agreement.

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time
<i>K. K.</i>							
Relinquished by: (Signature)	Date/Time	Received for Laboratory by: (Signature)	Date/Time	NAME	ADDRESS	PHONE NO.	
<i>K. K.</i>	11-25 10:30	<i>Y. Nadim</i>					



1536 Eastman Avenue  
Ventura, CA 93003  
(805) 644-1095

**CHAIN OF CUSTODY RECORD**

Address: \_\_\_\_\_

Contact: \_\_\_\_\_

Phone #: ( \_\_\_\_\_ ) \_\_\_\_\_

PROJ. NO.	PROJECT NAME	NO.	DATE	TIME	GPS	GPS	SAMPLE I.D.	NO. OF CONTAINERS	ANALYSIS	REMARKS	CHECK IF RUSH
291-186	Air Way		11-22		1		16	1	X		
							17		X		
							18		X		
							19		X		
							20		X		
							21		X		
							22		X		
							23		X		
							24		X		
							25		X		
							26		X		
							27		X		

*Total Custody Gross Weight*

The undersigned hereby acknowledges having received a copy of the Fee Schedule/General Information and Conditions, the provisions of which are a part of this agreement.

Relinquished by: (Signature) <i>[Signature]</i>	Date/Time 11-25 10:30	Received by: (Signature) <i>[Signature]</i>	Date/Time
Relinquished by: (Signature)	Date/Time	Received for Laboratory by: (Signature) <i>[Signature]</i>	Date/Time
NAME ADDRESS		PHONE NO.	

WHITE COPY \_\_\_\_\_ CANARY COPY \_\_\_\_\_ PINK COPY \_\_\_\_\_

SOURCE TESTING SAMPLE INFORMATION SHEET  
 \*\*\*\*\*

PARTICULATE ANALYSIS  
 \*\*\*\*\*

METHOD: PART

CLIENT: ~~ATI~~ Air Way

LAB NO GIVEN: 912323

PROJECT NAME: MOLE

PROJECT NO: 291-186

SITE: GALE AVE

SAMPLER: K<sub>1</sub>

DATE SAMPLED: 11-21-91

NO.	RUN 1 <u>MOLE</u>	# of cont	TOT VOL	TOT WGHT	GROSS WGHT		
1	PROBE (Front Half)	1	94	X			
2	IMPINGERS # 1+2+3	1	423	X			
3	FILTER B-27	1	N/A		X		

NO.	RUN 2 <u>MOLE</u>	# of cont	TOT VOL	TOT WGHT	GROSS WGHT		
4	PROBE (Front Half)	1	88ml	X			
5	IMPINGERS # 1+2+3	1	386ml	X			
6	FILTER B-29	1	N/A		X		

NO.	RUN 3 <u>MOLE</u>	# of cont	TOT VOL	TOT WGHT	GROSS WGHT		
7	PROBE (Front Half)	1	130ml	X			
8	IMPINGERS # 1+2+3	1	442	X			
9	FILTER B-31	1	N/A		X		

Comments: \_\_\_\_\_

SOURCE TESTING SAMPLE INFORMATION SHEET  
 \*\*\*\*\*

PARTICULATE ANALYSIS  
 \*\*\*\*\*

METHOD: PART  
 CLIENT: Air WAY  
 PROJECT NAME: Metro  
 SITE: GALE AVE  
 SAMPLER: KK

LAB NO GIVEN: 912323  
 PROJECT NO: 291-186  
 DATE SAMPLED: \_\_\_\_\_

NO.	RUN 1 <u>#3 incline</u>	# of cont	TOT VOL	TOT WGHT	GROSS WGHT		
10	PROBE (Front Half)	1	150	X			
11	IMPINGERS # 1+2+3	1	445	X			
12	FILTER B-33		N/A		X		

NO.	RUN 2 <u>incline</u>	# of cont	TOT VOL	TOT WGHT	GROSS WGHT		
13	PROBE (Front Half)	1	115	X			
14	IMPINGERS # 1+2+3	1	359	X			
15	FILTER B-35	1	N/A		X		

NO.	RUN 3 <u>incline</u>	# of cont	TOT VOL	TOT WGHT	GROSS WGHT		
16	PROBE (Front Half)	1	180	X			
17	IMPINGERS # 1+2+3	1	376	X			
18	FILTER B-37	1	N/A		X		

Comments: \_\_\_\_\_

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SOURCE TESTING SAMPLE INFORMATION SHEET  
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PARTICULATE ANALYSIS  
 \*\*\*\*\*

METHOD: PART  
 CLIENT: Bi Way  
 PROJECT NAME: overflow  
 SITE: GALE AVE  
 SAMPLER: \_\_\_\_\_

LAB NO GIVEN: 012323  
 PROJECT NO: 291-186  
 DATE SAMPLED: 11-22-91

NO.	RUN 1 <u>overflow</u>	# of cont	TOT VOL	TOT WGHT	GROSS WGHT		
19	PROBE (Front Half)	1	135ml	X			
20	IMPINGERS # 1+2+3	1	330ml	X			
21	FILTER B-39	1	N/A		X		

NO.	RUN 2 <u>overflow</u>	# of cont	TOT VOL	TOT WGHT	GROSS WGHT		
22	PROBE (Front Half)	1	129ml	X			
23	IMPINGERS # 1+2+3	1	372ml	X			
24	FILTER B-41	1	N/A		X		
<del>25</del>							

NO.	RUN 3 <u>overflow</u>	# of cont	TOT VOL	TOT WGHT	GROSS WGHT		
25	PROBE (Front Half)	1	86	X			
26	IMPINGERS # 1+2+3	1	434	X			
27	FILTER B-43	1	N/A		X		

Comments: \_\_\_\_\_