WESTFIELD GINNING
11054 West Mount Whitney Avenue
Riverdale, CA 93656
Attn: Mark Borda

PM10 & TOTAL PARTICULATE TESTING
MAIN TRASH STAOCK PILER CYCLONE
#2 INCLINE CYCLONE
GIN FEED TRASH CYCLONE
NOVEMBER 14 & 15, 1991

Prepared By:

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

Job Number
23024

Laboratory Report Number
291-180

Test Team Leader
Cam Donnahoo

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

BTC ENVIRONMENTAL INCORPORATED

WESTFIELD PRE - 1991 Equipment

Item	Quantity	Description
1.	2	Mission 15" O.D. horizontal pipe x 12-1/2" vertical tube "Roller-Tel" combination module wagon suction telescopes
2.	1	Mission 52-3/8" Boll Breaker
3.	1	52-3/8" Murray Type "VS" Separator discharging seed cotton into the automatic bulk feed control
4.	1	#45 Murray Wagon Suction Fan w/60 HP, 1765 RPM Motor discharging 10,000 cfm into 2 - 40" existing "2D-2D" high efficiency cyclone collectors, located in a wall stand, adjacent to the gin building
5.	1	#45 Murray combination #2 Wagon Suction and Overflow Suction Fan (connected to the #1 Moist Air Fan) complete with an Electro-pneumatic "Y" Valve at the Fan Inlet, to facilitate switching the fan suction from one service to the other while discharging 10,000 cfm into 2 - 40" existing "2D-2D" high efficiency cyclone collectors located in an enclosed drive-thru stand
6.	1	52-3/8" Mission "off-set" Hopper automatic bulk feed control unit discharging seed cotton to the #70 Big Reel Drier
7.	1	#40 Murray #1 Hot Air Fan (connected to the wagon suction fan) with 3M BTU/Hr Ransome Propane Gas Burner discharging 6,000 cfm of Hot Air into the #70 Big Reel Drier
8.	1	#70 Murray Big Reel Drier discharging Moist Air and Seed Cotton into the #1 Murray 7-Cylinder Inclined Cleaner
9.	1	72" (#1) Murray 7-Cylinder Inclined Grid Cleaner discharging seed cotton into the 72" Murray "HLST" Stick Machine

Item	Quantity	Description
10.	1	#45-50 Murray combination #1 Cleaner Moist Air and "HLST" Stick Machine Trash Fan w/60 HP, 1765 RPM Motor discharging 8,000 cfm into 2 - 38" existing "2D-2D" high efficiency cyclone collectors located in a drive-thru stand discharging air to atmosphere and trash to an enclosed trash trailer
11.	1	72" Murray "HLST" Hull and Stick Machine discharging seed cotton through a vacuum w/lagging saver and blow box into the Tower Drier
12.	1	New #45 Murray #2 Hot Air Fan (connected to the #2 Moist Air Fan) and 3M BTU/Hr Mitchell Vertimatic Propane Gas Heater discharging 6,000 cfm into the Tower Drier
13.	1	Murray 24-Shelf Tower Drier discharging seed cotton and moist air into the #2 Inclined Cleaner
14.	1	72" (#2) Murray 7-Cylinder Inclined Grid Cleaner discharging seed cotton thru a 72" vacuum w/lagging saver and blow Box into the #2 Tower Drier
15.	1	#45-50 Murray combination #2 Cleaner Moist Air and Big Reel Drier Trash Fan w/60 HP, 1765 RPM Motor discharging 8,000 cfm into 2 - 38" existing "2D-2D" high efficiency cyclone collectors located in an enclosed drive-thru stand
16.	1	New #45 Murray #3 Hot Air Fan w/40 HP, 1765 RPM Motor and 3M BTU/Hr Mitchell Vertimatic Propane Gas Heater discharging 6,000 cfm into the #2 Tower Drier
17.	1	New Murray (#2) 24-Shelf Tower Drier discharging seed cotton and moist air into the #3 Inclined Cleaner

Item	Quantity	Description
18.	1	72" (#3) Murray 7-Cylinder Inclined Cleaner discharging seed cotton into the conveyor distributor
19.	1	#45 Murray combination #3 cleaner moist air, battery condenser screen trap trash, and mote cleaner trash fan w/60 HP 1765 rpm motor discharging 8,000 cfm into 2-38" existing "2D-2D" high efficiency cyclone collectors located in an enclosed drive-thru stand
20.	1	52-3/8" Murray Type "VS" Overflow Separator w/suction telescope discharging seed cotton to the conveyor distributor
21.	1	5-90 Mitchell L.H. Conveyor Distributor discharging seed cotton to the Gin Stand Feeders
22.	5	66" Mitchell 7-Saw Super Champ Feeders discharging seed cotton to the gin stands
23.	1	#45 Murray Air Blast Fan (connected to the #3 Cleaner Moist Air Fan) discharging 8,000 cfm into the gin stand air nozzles
24.	5	90-Saw Murray Model 50 Air Blast Gin Stands discharging trash, seed, motes and lint
25.	1	9" Gin Stand Trash and Feeder Trash Conveyors discharging sticks, burrs, and hulls to the trash fan
26.	1	#40 Murray combination gin stand trash and feeder trash fan w/40 HP 1765 rpm motor discharging 6,000 cfm into 2-38" existing "2D-2D" high efficiency cyclone collectors located in an enclosed drive-thru stand
27.	1	9" Seed Conveyor and Elevator discharging to the Seed Scale and Bulk Seed Storage Bunker
28.	1	Conveyco, Belt Type Seed Scale discharging white seed through a rotary feeder valve to the pneumatic seed conveyor system
29.	1	#717 Roots seed pump w/15 HP motor discharging white seed and 1500 cfm to a 1-28" O.D. existing "2D-2D" cyclone collector located over a 9" seed conveyor to the planting seed storage bunker or thru a series of "Y" valves to the mill seed storage slabs
30.	1	#1 Moss Gordin Super Constellation 1st Stage Lint Cleaner w/2-20 HP motors and 1-42" M/G Clean Air Fan w/15 HP, 1765 rpm motor discharging 10,000 cfm through an 8 mesh x 21 gauge galvanized condenser screen into a 6' O.D. x 7' Shell Screen Trap

Item	Quantity	Description
31.	1	#2 M/G Super Constellation 2nd Stage Lint Cleaner w/2 - 20 HP Motors and 1 - 42" M/G Clean Air Fan w/25 HP, 1760 RPM Motor discharging 10,000 cfm through an 8 mesh x 21 gauge galvanized condenser screen into a 6' O.D. x 7' shell screen trap
32.	1	Murray '51 Model Bottom Exhaust Battery Condenser w/1 HP Motor and 1 - 42" Combination Battery Condenser Clean Air and Seed Scale Aspiration Hood Suction Fan w/15 HP, 1765 RPM Motor discharging 10,000 cfm through an 8 mesh x 21 gauge galvanized condenser screen into a 6' O.D. x 6' shell screen trap
33.	1	New Murray 82 Model Type "PHX-1" all-steel 20" x 54" Up-packing Bale Press
34.	1	#45 Murray Lint Cleaner Motes Robber Fan w/50 HP, 1765 RPM Motor discharging 8,000 cfm into 1 - 60" "1D-3D" Long Cone Cyclone Collector located over the Motes Cleaner
35.	1	24" Wide x 4-Drum Motes Cleaner w/3 HP Motor, discharging Gin Motes to the Clean Mote Bin
36.	1	#F-2 (#1) Motes Transfer Fan w/10 HP, 1765 RPM Motor discharging clean Motes and 2,000 cfm into the cotton house
37.	1	#35 Phelps #2 Motes Transfer Fan w/30 HP, 1765 RPM Motor discharging clean motes and 4,000 cfm from the cotton house to the Battery Condenser

TABLE OF CONTENTS

PARTICULATE EMISSION SUMMARY
MAIN TRASH STOCK PILER CYCLONE

	Run #1	Run #2	Run #3	Average
Total Particulate				
gr/DSCF	0.1165	0.0915	0.1210	***0.1097***
lb/hr	3.96	3.15	4.18	***3.76***
lb/Bale	0.30	0.20	0.28	~~***0.26***~~
	.317	.217	.299	.278
Particule Size Distribution				
+10µ (%)	63.15	44.43	65.73	***57.77***
+10µ (lb/hr)	2.50	1.40	2.75	***2.22***
+10µ (lb/Bale)	0.19	0.09	0.18	***0.15***
-10µ (%)	36.85	55.57	36.27	***42.90***
-10µ (lb/hr)	1.46	1.75	1.52	***1.58***
-10µ (lb/Bale)	0.11	0.11	0.10	***0.11***

#2 INCLINE CYCLONE

	Run #1	Run #2	Run #3	Average
Total Particulate				
gr/DSCF	0.0527	0.0617	0.0690	***0.0611***
lb/hr	1.43	1.70	1.87	***1.67***
lb/Bale	0.10	0.11	0.12	***0.11***
	.102	.121	.134	.119
Particule Size Distribution				
+10µ (%)	71.54	57.62	48.14	***59.10***
+10µ (lb/hr)	1.02	0.98	0.90	***0.97***
+10µ (lb/Bale)	0.07	0.06	0.06	***0.06***
-10µ (%)	28.46	42.38	51.86	***40.90***
-10µ (lb/hr)	0.41	0.72	0.97	***0.70***
-10µ (lb/Bale)	0.03	0.05	0.06	***0.05***

GIN FEED TRASH CYCLONE

	Run #1	Run #2	Run #3	Average
Total Particulate				
gr/DSCF	0.0202	0.0181	0.0178	***0.0187***
lb/hr	0.54	0.49	0.47	***0.50***
lb/Bale	0.04	0.03	0.03	***0.03***
	.042	.035	.033	.037
Particule Size Distribution				
+10µ (%)	44.53	42.82	33.04	***40.13***
+10µ (lb/hr)	0.24	0.21	0.16	***0.20***
+10µ (lb/Bale)	0.02	0.01	0.01	***0.01***
-10µ (%)	55.47	57.18	66.96	***59.87***
-10µ (lb/hr)	0.30	0.28	0.31	***0.30***
-10µ (lb/Bale)	0.02	0.02	0.02	***0.02***

I. INTRODUCTION

INTRODUCTION

On November 14 &15, 1991, BTC Environmental performed source emissions tests for PM-10 particulate matter on a Main Trash Stock Piler Cyclone, #2 Incline Cyclone and a Gin Feed Trash Cyclone 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) Main Trasch Stock Piler Cyclone - 16.6 bales per hour
2) #2 Incline cyclone - 15 bales per hour
3) Gin Feed Trash Cyclone - 14.7 bales per hour

} Avg. rates. Run-by-run provided on pages 115-118.

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 ±10% of the horizontal ΔP 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 +10µ and the backup filter and impingers are -10µ. 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 +10µ and the -10µ fraction. The total weight obtained from the total particulate runs are used to determine the +10µ and the -10µ 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^{0}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

II. WET TEST METHODS DATA SUMMARIES

FIELD DATA SUMMARY
PM10 PARTICULATE

Main Trash Stock Piler	Run#1	Run#2	Run#3
Vlc - Volume of water collected, ml	4.5	6.2	6.1
Vm - Gas volume, meter cond., dcf	31.613	32.332	32.689
Y - Meter calibration factor	0.942	0.942	0.942
Pbar - Barometric pressure, in. Hg	29.84	29.72	29.74
Pg - Stack static pressure, in. H20	-0.05	-0.05	-0.05
ΔH - Avg. meter press. diff., in. H20	1.135	1.125	1.183
Tm - Absolute meter temperature, °R	524.2	533.9	537.9
Vm(std) - Standard sample gas vol., dscf	29.5289	29.5308	29.6607
Bws - Water vapor part in gas stream	0.7	1.0	0.9
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	28.768	28.739	28.741
Cp - Pitot tube coef., dimensionless	0.846	0.846	0.846
Δp - Avg. of sq. roots of each Δp	0.325	0.325	0.325
Ts - Absolute stack Temp. °R	516.4	512.3	523.3
A - Area of stack, square feet	3.69	3.69	3.69
Qstd - Volumetric flow rate, dscfm	4022	4021	3981
An - Area of nozzel, square feet	0.0004909	0.0004909	0.0004909
θ - Sampling time, minutes	60	60	60
I - Isokinetic variation, percent	97.6	97.6	99.0

FIELD DATA SUMMARY
PM10 PARTICULATE

#2 Incline	Run#1	Run#2	Run#3
Vlc - Volume of water collected, ml	8.9	5.4	7.5
Vm - Gas volume, meter cond., dcf	31.004	31.563	34.699
Y - Meter calibration factor	0.982	0.982	0.982
Pbar - Barometric pressure, in. Hg	29.68	29.65	29.61
Pg - Stack static pressure, in. H20	-0.01	-0.01	-0.01
ΔH - Avg. meter press. diff., in. H20	0.936	1.009	1.009
Tm - Absolute meter temperature, °R	527.9	534.8	533.6
Vm(std) - Standard sample gas vol., dscf	29.8146	29.9382	32.9420
Bws - Water vapor part in gas stream	1.4	0.8	1.0
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	28.695	28.754	28.730
Cp - Pitot tube coef., dimensionless	0.846	0.846	0.846
Δp - Avg. of sq. roots of each Δp	0.255	0.270	0.266
Ts - Absolute stack Temp. °R	525.6	533.3	552.4
A - Area of stack, square feet	3.69	3.69	3.69
Qstd - Volumetric flow rate, dscfm	3105	3276	3160
An - Area of nozzel, square feet	0.0005761	0.0005761	0.0005761
ø - Sampling time, minutes	60	60	60
I - Isokinetic variation, percent	104.3	99.3	113.2

FIELD DATA SUMMARY
PM10 PARTICULATE

Gin Feed Trash	Run#1	Run#2	Run#3
Vlc - Volume of water collected, ml	2.4	2.9	3.6
Vm - Gas volume, meter cond., dcf	33.557	35.195	35.238
Y - Meter calibration factor	0.942	0.942	0.942
Pbar - Barometric pressure, in. Hg	29.55	29.55	29.58
Pg - Stack static pressure, in. H20	-0.01	-0.01	-0.01
ΔH - Avg. meter press. diff., in. H20	1.166	1.178	1.178
Tm - Absolute meter temperature, °R	536.0	540.8	541.3
Vm(std) - Standard sample gas vol., dscf	30.3596	31.5613	31.6026
Bws - Water vapor part in gas stream	0.4	0.4	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	28.804	28.798	28.787
Cp - Pitot tube coef., dimensionless	0.846	0.846	0.846
Δp - Avg. of sq. roots of each Δp	0.252	0.260	0.253
Ts - Absolute stack Temp. °R	523.5	520.3	532.4
A - Area of stack, square feet	3.69	3.69	3.69
Qstd - Volumetric flow rate, dscfm	3091	3194	3076
An - Area of nozzel, square feet	0.0005761	0.0005761	0.0005761
ø - Sampling time, minutes	60	60	60
I - Isokinetic variation, percent	111.3	111.9	116.4

FIELD DATA SUMMARY
TOTAL PARTICULATE

Main Trash Stock Piler	Run#1	Run#2	Run#3
Vlc - Volume of water collected, ml	-	-	-
Vm - Gas volume, meter cond., dcf	37.890	36.327	33.180
Y - Meter calibration factor	0.982	0.982	0.982
Pbar - Barometric pressure, in. Hg	29.84	29.72	29.74
Pg - Stack static pressure, in. H20	-0.05	-0.05	-0.05
ΔH - Avg. meter press. diff., in. H20	1.355	1.358	1.450
Tm - Absolute meter temperature, °R	523.4	532.9	538.9
Vm(std) - Standard sample gas vol., dscf	36.9876	34.6883	31.3605
Bws - Water vapor part in gas stream	0.7	1.0	0.9
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	28.768	28.736	28.746
Cp - Pitot tube coef., dimensionless	0.846	0.846	0.846
Δp - Avg. of sq. roots of each Δp	0.321	0.325	0.329
Ts - Absolute stack Temp. °R	517.5	512.5	523.3
A - Area of stack, square feet	3.69	3.69	3.69
Qstd - Volumetric flow rate, dscfm	3970	4019	4032
An - Area of nozzel, square feet	0.0005761	0.0005761	0.0005761
ø - Sampling time, minutes	60	60	60
I - Isokinetic variation, percent	100.8	93.3	84.1

FIELD DATA SUMMARY
TOTAL PARTICULATE

#2 Incline	Run#1	Run#2	Run#3
Vlc - Volume of water collected, ml	-	-	-
Vm - Gas volume, meter cond., dcf	38.315	38.458	39.184
Y - Meter calibration factor	0.942	0.942	0.942
Pbar - Barometric pressure, in. Hg	29.68	29.65	29.61
Pg - Stack static pressure, in. H20	-0.01	-0.01	-0.01
ΔH - Avg. meter press. diff., in. H20	1.339	1.360	1.360
Tm - Absolute meter temperature, °R	526.6	538.9	540.9
Vm(std) - Standard sample gas vol., dscf	35.4542	34.7406	35.2161
Bws - Water vapor part in gas stream	1.4	0.8	1.0
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	28.692	28.757	28.736
Cp - Pitot tube coef., dimensionless	0.846	0.846	0.846
Δp - Avg. of sq. roots of each Δp	0.261	0.266	0.266
Ts - Absolute stack Temp. °R	527.8	533.8	552.9
A - Area of stack, square feet	3.69	3.69	3.69
Qstd - Volumetric flow rate, dscfm	3170	3223	3159
An - Area of nozzel, square feet	0.0007670	0.0007670	0.0007670
ø - Sampling time, minutes	60	60	60
I - Isokinetic variation, percent	94.5	91.3	94.3

FIELD DATA SUMMARY
TOTAL PARTICULATE

Gin Feed Trash	Run#1	Run#2	Run#3
Vlc - Volume of water collected, ml	-	-	-
Vm - Gas volume, meter cond., dcf	39.532	40.351	39.422
Y - Meter calibration factor	0.982	0.982	0.982
Pbar - Barometric pressure, in. Hg	29.55	29.55	29.58
Pg - Stack static pressure, in. H20	-0.01	-0.01	-0.01
ΔH - Avg. meter press. diff., in. H20	1.378	1.378	1.378
Tm - Absolute meter temperature, °R	542.9	546.5	545.4
Vm(std) - Standard sample gas vol., dscf	36.8461	37.3609	36.6101
Bws - Water vapor part in gas stream	0.4	0.4	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	28.801	28.801	28.790
Cp - Pitot tube coef., dimensionless	0.846	0.846	0.846
Δp - Avg. of sq. roots of each Δp	0.254	0.254	0.254
Ts - Absolute stack Temp. °R	523.5	520.6	531.6
A - Area of stack, square feet	3.69	3.69	3.69
Qstd - Volumetric flow rate, dscfm	3116	3126	3092
An - Area of nozzel, square feet	0.0007507	0.0007507	0.0007507
ø - Sampling time, minutes	60	60	60
I - Isokinetic variation, percent	98.4	99.4	98.4

MAIN TRASH STOCK PILER
CYCLONE

FIELD DATA & CALCULATIONS SUMMARY

Client: **Westfield Gins**
Site: **Fresno**
Unit: **Main Trash**

Date: **11/15/91**
Type: ***T std = 60 F***
Run: **1-PM10**

Wlc	Water Condensate Weight	4.5	g		
Vlc	Water Condensate Volume	**4.5**	**ml**		
Vm	Metered Sample Gas Volume	**31.613**	**dcf**		
Lp	Avg. Leak Rate	0.000	cf		
Vn	Leak Corrected Sample Gas Volume	31.613	dcf		
Y	Dry Gas Meter Calibration Factor	**0.942**			
Pbar	Barometric Pressure	**29.84**	**in. Hg**		
Pg	Static Pressure	**-0.045**	**in. H20**		
Ps	Stack Pressure, Absolute	29.84	in. Hg		
Δ H	Dry Gas Meter Press. Differential, Average	**1.135**	**in. H20**		
Tm	Dry Gas Meter Temperature, Average	64.2	deg. F	**524.2**	**deg. R**
Vm(std)	Sample Gas Volume	**29.5289**	**dscf**		
Vm(wet)	Sample Gas Volume, Wet	29.7383	scf		
Vw(std)	Water Vapor Volume	0.2093	scf		
Bws	Water Content of Stack Gas	0.007		**0.7**	**%**
CO2	Carbon Dioxide, Dry	**0.1**	**%**		
O2	Oxygen, Dry	**20.9**	**%**		
N2	Nitrogen, Dry	79.1	%		
Md	Molecular Wt. of Stack Gas, Dry	**28.844**	**lb/lb mole**		
Ms	Molecular Wt. of Stack Gas, Wet	**28.768**	**lb/lb mole**		
Cp	Pitot Calibration Factor	**0.846**			
Δ P	Velocity Head, Average Square Root	**0.325**	**in. H20**		
Ts	Stack Gas Temperature, Average	**56.4**	deg. F	516.4	deg. R
As	Area of Stack	**3.69**	**sq ft**	26.0	in. dia.
Vs	Stack Gas Velocity	18.23	ft/sec		
Qa	Actual Flow Rate	4,034	cfm		
Qad	Actual Flow Rate, Dry	4,005	dcfm		
Q(std)	Stack Gas Flow Rate	**4,022**	**dscfm**		
An	Nozzle Area	**0.0004909**	**sq ft**	0.300	in. dia.
Theta	Sampling Time	**60**	**min.**		
I	Isokinetics	**97.6**	**%**		

FIELD DATA & CALCULATIONS SUMMARY

Client: **Westfield Gins**
Site: **Fresno**
Unit: **Main Trash**

Date: **11/15/91**
Type: ***T std = 60 F***
Run: **2-PM10**

Wlc	Water Condensate Weight	6.2	g		
Vlc	Water Condensate Volume	**6.2**	**ml**		
Vm	Metered Sample Gas Volume	**32.332**	**dcf**		
Lp	Avg. Leak Rate	0.000	cf		
Vn	Leak Corrected Sample Gas Volume	32.332	dcf		
Y	Dry Gas Meter Calibration Factor	**0.942**			
Pbar	Barometric Pressure	**29.72**	**in. Hg**		
Pg	Static Pressure	**-0.045**	**in. H20**		
Ps	Stack Pressure, Absolute	29.72	in. Hg		
Δ H	Dry Gas Meter Press. Differential, Average	**1.125**	**in. H20**		
Tm	Dry Gas Meter Temperature, Average	73.9	deg. F	**533.9**	**deg. R**
Vm(std)	Sample Gas Volume	**29.5308**	**dscf**		
Vm(wet)	Sample Gas Volume, Wet	29.8192	scf		
Vw(std)	Water Vapor Volume	0.2884	scf		
Bws	Water Content of Stack Gas	0.010		**1.0**	**%**
CO2	Carbon Dioxide, Dry	**0.1**	**%**		
O2	Oxygen, Dry	**20.9**	**%**		
N2	Nitrogen, Dry	79.1	%		
Md	Molecular Wt. of Stack Gas, Dry	**28.844**	**lb/lb mole**		
Ms	Molecular Wt. of Stack Gas, Wet	**28.739**	**lb/lb mole**		
Cp	Pitot Calibration Factor	**0.846**			
Δ P	Velocity Head, Average Square Root	**0.325**	**in. H20**		
Ts	Stack Gas Temperature, Average	**52.3**	deg. F	512.3	deg. R
As	Area of Stack	**3.69**	**sq ft**	26.0	in. dia.
Vs	Stack Gas Velocity	18.21	ft/sec		
Qa	Actual Flow Rate	4,028	cfm		
Qad	Actual Flow Rate, Dry	3,989	dcfm		
Q(std)	Stack Gas Flow Rate	**4,021**	**dscfm**		
An	Nozzle Area	**0.0004909**	**sq ft**	0.300	in. dia.
Theta	Sampling Time	**60**	**min.**		
I	Isokinetics	**97.6**	**%**		

FIELD DATA & CALCULATIONS SUMMARY

Client: **Westfield Gins**
Site: **Fresno**
Unit: **Main Trash**

Date: **11/15/91**
Type: ***T std = 60 F***
Run: **3-PM10**

Wlc	Water Condensate Weight	6.1	g		
Vlc	Water Condensate Volume	**6.1**	**ml**		
Vm	Metered Sample Gas Volume	**32.689**	**dcf**		
Lp	Avg. Leak Rate	0.000	cf		
Vn	Leak Corrected Sample Gas Volume	32.689	dcf		
Y	Dry Gas Meter Calibration Factor	**0.942**			
Pbar	Barometric Pressure	**29.74**	**in. Hg**		
Pg	Static Pressure	**-0.045**	**in. H20**		
Ps	Stack Pressure, Absolute	29.74	in. Hg		
Δ H	Dry Gas Meter Press. Differential, Average	**1.183**	**in. H20**		
Tm	Dry Gas Meter Temperature, Average	77.9	deg. F	**537.9**	**deg. R**
Vm(std)	Sample Gas Volume	**29.6607**	**dscf**		
Vm(wet)	Sample Gas Volume, Wet	29.9445	scf		
Vw(std)	Water Vapor Volume	0.2838	scf		
Bws	Water Content of Stack Gas	0.009		**0.9**	**%**
CO2	Carbon Dioxide, Dry	**0.1**	**%**		
O2	Oxygen, Dry	**20.9**	**%**		
N2	Nitrogen, Dry	79.1	%		
Md	Molecular Wt. of Stack Gas, Dry	**28.844**	**lb/lb mole**		
Ms	Molecular Wt. of Stack Gas, Wet	**28.741**	**lb/lb mole**		
Cp	Pitot Calibration Factor	**0.846**			
Δ P	Velocity Head, Average Square Root	**0.325**	**in. H20**		
Ts	Stack Gas Temperature, Average	**63.3**	deg. F	523.3	deg. R
As	Area of Stack	**3.69**	**sq ft**	26.0	in. dia.
Vs	Stack Gas Velocity	18.39	ft/sec		
Qa	Actual Flow Rate	4,069	cfm		
Qad	Actual Flow Rate, Dry	4,030	dcfm		
Q(std)	Stack Gas Flow Rate	**3,981**	**dscfm**		
An	Nozzle Area	**0.0004909**	**sq ft**	0.300	in. dia.
Theta	Sampling Time	**60**	**min.**		
I	Isokinetics	**99.0**	**%**		

#2 INCLINE
CYCLONE

FIELD DATA & CALCULATIONS SUMMARY

Client: **Westfield Gins**
Site: **Fresno**
Unit: **#2 Incline**

Date: **11/14/91**
Type: ***T std = 60 F***
Run: **1-PM10**

Wlc	Water Condensate Weight	8.9	g		
Vlc	Water Condensate Volume	**8.9**	**ml**		
Vm	Metered Sample Gas Volume	**31.004**	**dcf**		
Lp	Avg. Leak Rate	0.000	cf		
Vn	Leak Corrected Sample Gas Volume	31.004	dcf		
Y	Dry Gas Meter Calibration Factor	**0.982**			
Pbar	Barometric Pressure	**29.68**	**in. Hg**		
Pg	Static Pressure	**-0.01**	**in. H20**		
Ps	Stack Pressure, Absolute	29.68	in. Hg		
Δ H	Dry Gas Meter Press. Differential, Average	**0.936**	**in. H20**		
Tm	Dry Gas Meter Temperature, Average	67.9	deg. F	**527.9**	**deg. R**
Vm(std)	Sample Gas Volume	**29.8146**	**dscf**		
Vm(wet)	Sample Gas Volume, Wet	30.2287	scf		
Vw(std)	Water Vapor Volume	0.4140	scf		
Bws	Water Content of Stack Gas	0.014		**1.4**	**%**
CO2	Carbon Dioxide, Dry	**0.1**	**%**		
O2	Oxygen, Dry	**20.9**	**%**		
N2	Nitrogen, Dry	79.1	%		
Md	Molecular Wt. of Stack Gas, Dry	**28.844**	**lb/lb mole**		
Ms	Molecular Wt. of Stack Gas, Wet	**28.695**	**lb/lb mole**		
Cp	Pitot Calibration Factor	**0.846**			
Δ P	Velocity Head, Average Square Root	**0.255**	**in. H20**		
Ts	Stack Gas Temperature, Average	**65.6**	deg. F	525.6	deg. R
As	Area of Stack	**3.69**	**sq ft**	26.0	in. dia.
Vs	Stack Gas Velocity	14.50	ft/sec		
Qa	Actual Flow Rate	3,208	cfm		
Qad	Actual Flow Rate, Dry	3,164	dcfm		
Q(std)	Stack Gas Flow Rate	**3,105**	**dscfm**		
An	Nozzle Area	**0.0005761**	**sq ft**	0.325	in. dia.
Theta	Sampling Time	**60**	**min.**		
I	Isokinetics	**104.3**	**%**		

FIELD DATA & CALCULATIONS SUMMARY

Client: **Westfield Gins**
Site: **Fresno**
Unit: **#2 Incline**

Date: **11/14/91**
Type: ***T std = 60 F***
Run: **2-PM10**

Wlc	Water Condensate Weight	5.4	g		
Vlc	Water Condensate Volume	**5.4**	**ml**		
Vm	Metered Sample Gas Volume	**31.563**	**dcf**		
Lp	Avg. Leak Rate	0.000	cf		
Vn	Leak Corrected Sample Gas Volume	31.563	dcf		
Y	Dry Gas Meter Calibration Factor	**0.982**			
Pbar	Barometric Pressure	**29.65**	**in. Hg**		
Pg	Static Pressure	**-0.01**	**in. H20**		
Ps	Stack Pressure, Absolute	29.65	in. Hg		
Δ H	Dry Gas Meter Press. Differential, Average	**1.009**	**in. H20**		
Tm	Dry Gas Meter Temperature, Average	74.8	deg. F	**534.8**	**deg. R**
Vm(std)	Sample Gas Volume	**29.9382**	**dscf**		
Vm(wet)	Sample Gas Volume, Wet	30.1894	scf		
Vw(std)	Water Vapor Volume	0.2512	scf		
Bws	Water Content of Stack Gas	0.008		**0.8**	**%**
CO2	Carbon Dioxide, Dry	**0.1**	**%**		
O2	Oxygen, Dry	**20.9**	**%**		
N2	Nitrogen, Dry	79.1	%		
Md	Molecular Wt. of Stack Gas, Dry	**28.844**	**lb/lb mole**		
Ms	Molecular Wt. of Stack Gas, Wet	**28.754**	**lb/lb mole**		
Cp	Pitot Calibration Factor	**0.846**			
Δ P	Velocity Head, Average Square Root	**0.270**	**in. H20**		
Ts	Stack Gas Temperature, Average	**73.3**	deg. F	533.3	deg. R
As	Area of Stack	**3.69**	**sq ft**	26.0	in. dia.
Vs	Stack Gas Velocity	15.45	ft/sec		
Qa	Actual Flow Rate	3,418	cfm		
Qad	Actual Flow Rate, Dry	3,390	dcfm		
Q(std)	Stack Gas Flow Rate	**3,276**	**dscfm**		
An	Nozzle Area	**0.0005761**	**sq ft**	0.325	in. dia.
Theta	Sampling Time	**60**	**min.**		
I	Isokinetics	**99.3**	**%**		

FIELD DATA & CALCULATIONS SUMMARY

Client: **Westfield Gins**
Site: **Fresno**
Unit: **#2 Incline**

Date: **11/14/91**
Type: ***T std = 60 F***
Run: **3-PM10**

Wlc	Water Condensate Weight	7.5	g		
Vlc	Water Condensate Volume	**7.5**	**ml**		
Vm	Metered Sample Gas Volume	**34.699**	**dcf**		
Lp	Avg. Leak Rate	0.000	cf		
Vn	Leak Corrected Sample Gas Volume	34.699	dcf		
Y	Dry Gas Meter Calibration Factor	**0.982**			
Pbar	Barometric Pressure	**29.61**	**in. Hg**		
Pg	Static Pressure	**-0.01**	**in. H20**		
Ps	Stack Pressure, Absolute	29.61	in. Hg		
Δ H	Dry Gas Meter Press. Differential, Average	**1.009**	**in. H20**		
Tm	Dry Gas Meter Temperature, Average	73.6	deg. F	**533.6**	**deg. R**
Vm(std)	Sample Gas Volume	**32.9420**	**dscf**		
Vm(wet)	Sample Gas Volume, Wet	33.2909	scf		
Vw(std)	Water Vapor Volume	0.3489	scf		
Bws	Water Content of Stack Gas	0.010		**1.0**	**%**
CO2	Carbon Dioxide, Dry	**0.1**	**%**		
O2	Oxygen, Dry	**20.9**	**%**		
N2	Nitrogen, Dry	79.1	%		
Md	Molecular Wt. of Stack Gas, Dry	**28.844**	**lb/lb mole**		
Ms	Molecular Wt. of Stack Gas, Wet	**28.730**	**lb/lb mole**		
Cp	Pitot Calibration Factor	**0.846**			
Δ P	Velocity Head, Average Square Root	**0.266**	**in. H20**		
Ts	Stack Gas Temperature, Average	**92.4**	deg. F	552.4	deg. R
As	Area of Stack	**3.69**	**sq ft**	26.0	in. dia.
Vs	Stack Gas Velocity	15.49	ft/sec		
Qa	Actual Flow Rate	3,428	cfm		
Qad	Actual Flow Rate, Dry	3,392	dcfm		
Q(std)	Stack Gas Flow Rate	**3,160**	**dscfm**		
An	Nozzle Area	**0.0005761**	**sq ft**	0.325	in. dia.
Theta	Sampling Time	**60**	**min.**		
I	Isokinetics	**113.2**	**%**		

GIN FEED TRASH
CYCLONE

FIELD DATA & CALCULATIONS SUMMARY

Client: **Westfield Gins**
Site: **Fresno**
Unit: **Gin Feed Trash Cyclone**

Date: **11/14/91**
Type: ***T std = 60 F***
Run: **1-PM10**

Wlc	Water Condensate Weight	2.4	g		
Vlc	Water Condensate Volume	**2.4**	**ml**		
Vm	Metered Sample Gas Volume	**33.557**	**dcf**		
Lp	Avg. Leak Rate	0.000	cf		
Vn	Leak Corrected Sample Gas Volume	33.557	dcf		
Y	Dry Gas Meter Calibration Factor	**0.942**			
Pbar	Barometric Pressure	**29.55**	**in. Hg**		
Pg	Static Pressure	**-0.01**	**in. H20**		
Ps	Stack Pressure, Absolute	29.55	in. Hg		
Δ H	Dry Gas Meter Press. Differential, Average	**1.166**	**in. H20**		
Tm	Dry Gas Meter Temperature, Average	76.0	deg. F	**536.0**	**deg. R**
Vm(std)	Sample Gas Volume	**30.3596**	**dscf**		
Vm(wet)	Sample Gas Volume, Wet	30.4713	scf		
Vw(std)	Water Vapor Volume	0.1116	scf		
Bws	Water Content of Stack Gas	0.004		**0.4**	**%**
CO2	Carbon Dioxide, Dry	**0.1**	**%**		
O2	Oxygen, Dry	**20.9**	**%**		
N2	Nitrogen, Dry	79.1	%		
Md	Molecular Wt. of Stack Gas, Dry	**28.844**	**lb/lb mole**		
Ms	Molecular Wt. of Stack Gas, Wet	**28.804**	**lb/lb mole**		
Cp	Pitot Calibration Factor	**0.846**			
Δ P	Velocity Head, Average Square Root	**0.252**	**in. H20**		
Ts	Stack Gas Temperature, Average	**63.5**	deg. F	523.5	deg. R
As	Area of Stack	**3.69**	**sq ft**	26.0	in. dia.
Vs	Stack Gas Velocity	14.29	ft/sec		
Qa	Actual Flow Rate	3,162	cfm		
Qad	Actual Flow Rate, Dry	3,151	dcfm		
Q(std)	Stack Gas Flow Rate	**3,091**	**dscfm**		
An	Nozzle Area	**0.0005761**	**sq ft**	0.325	in. dia.
Theta	Sampling Time	**60**	**min.**		
I	Isokinetics	**111.3**	**%**		

FIELD DATA & CALCULATIONS SUMMARY

Client: **Westfield Gins**
Site: **Fresno**
Unit: **Gin Feed Trash Cyclone**

Date: **11/14/91**
Type: ***T std = 60 F***
Run: **2-PM10**

Wlc	Water Condensate Weight	2.9	g		
Vlc	Water Condensate Volume	**2.9**	**ml**		
Vm	Metered Sample Gas Volume	**35.195**	**dcf**		
Lp	Avg. Leak Rate	0.000	cf		
Vn	Leak Corrected Sample Gas Volume	35.195	dcf		
Y	Dry Gas Meter Calibration Factor	**0.942**			
Pbar	Barometric Pressure	**29.55**	**in. Hg**		
Pg	Static Pressure	**-0.01**	**in. H20**		
Ps	Stack Pressure, Absolute	29.55	in. Hg		
Δ H	Dry Gas Meter Press. Differential, Average	**1.178**	**in. H20**		
Tm	Dry Gas Meter Temperature, Average	80.8	deg. F	**540.8**	**deg. R**
Vm(std)	Sample Gas Volume	**31.5613**	**dscf**		
Vm(wet)	Sample Gas Volume, Wet	31.6962	scf		
Vw(std)	Water Vapor Volume	0.1349	scf		
Bws	Water Content of Stack Gas	0.004		**0.4**	**%**
CO2	Carbon Dioxide, Dry	**0.1**	**%**		
O2	Oxygen, Dry	**20.9**	**%**		
N2	Nitrogen, Dry	79.1	%		
Md	Molecular Wt. of Stack Gas, Dry	**28.844**	**lb/lb mole**		
Ms	Molecular Wt. of Stack Gas, Wet	**28.798**	**lb/lb mole**		
Cp	Pitot Calibration Factor	**0.846**			
Δ P	Velocity Head, Average Square Root	**0.260**	**in. H20**		
Ts	Stack Gas Temperature, Average	**60.3**	deg. F	520.3	deg. R
As	Area of Stack	**3.69**	**sq ft**	26.0	in. dia.
Vs	Stack Gas Velocity	14.69	ft/sec		
Qa	Actual Flow Rate	3,250	cfm		
Qad	Actual Flow Rate, Dry	3,236	dcfm		
Q(std)	Stack Gas Flow Rate	**3,194**	**dscfm**		
An	Nozzle Area	**0.0005761**	**sq ft**	0.325	in. dia.
Theta	Sampling Time	**60**	**min.**		
I	Isokinetics	**111.9**	**%**		

FIELD DATA & CALCULATIONS SUMMARY

Client: **Westfield Gins**
Site: **Fresno**
Unit: **Gin Feed Trash Cyclone**

Date: **11/14/91**
Type: ***T std = 60 F***
Run: **3-PM10**

Wlc	Water Condensate Weight	3.6	g		
Vlc	Water Condensate Volume	**3.6**	**ml**		
Vm	Metered Sample Gas Volume	**35.238**	**dcf**		
Lp	Avg. Leak Rate	0.000	cf		
Vn	Leak Corrected Sample Gas Volume	35.238	dcf		
Y	Dry Gas Meter Calibration Factor	**0.942**			
Pbar	Barometric Pressure	**29.58**	**in. Hg**		
Pg	Static Pressure	**-0.01**	**in. H20**		
Ps	Stack Pressure, Absolute	29.58	in. Hg		
Δ H	Dry Gas Meter Press. Differential, Average	**1.178**	**in. H20**		
Tm	Dry Gas Meter Temperature, Average	81.3	deg. F	**541.3**	**deg. R**
Vm(std)	Sample Gas Volume	**31.6026**	**dscf**		
Vm(wet)	Sample Gas Volume, Wet	31.7701	scf		
Vw(std)	Water Vapor Volume	0.1675	scf		
Bws	Water Content of Stack Gas	0.005		**0.5**	**%**
CO2	Carbon Dioxide, Dry	**0.1**	**%**		
O2	Oxygen, Dry	**20.9**	**%**		
N2	Nitrogen, Dry	79.1	%		
Md	Molecular Wt. of Stack Gas, Dry	**28.844**	**lb/lb mole**		
Ms	Molecular Wt. of Stack Gas, Wet	**28.787**	**lb/lb mole**		
Cp	Pitot Calibration Factor	**0.846**			
Δ P	Velocity Head, Average Square Root	**0.253**	**in. H20**		
Ts	Stack Gas Temperature, Average	**72.4**	deg. F	532.4	deg. R
As	Area of Stack	**3.69**	**sq ft**	26.0	in. dia.
Vs	Stack Gas Velocity	14.48	ft/sec		
Qa	Actual Flow Rate	3,203	cfm		
Qad	Actual Flow Rate, Dry	3,186	dcfm		
Q(std)	Stack Gas Flow Rate	**3,076**	**dscfm**		
An	Nozzle Area	**0.0005761**	**sq ft**	0.325	in. dia.
Theta	Sampling Time	**60**	**min.**		
I	Isokinetics	**116.4**	**%**		

MAIN TRASH STOCK PILER CYCLONE

FIELD DATA & CALCULATIONS SUMMARY

Client: **Westfield Gins**
Site: **Fresno**
Unit: **Main Trash**

Date: **11/15/91**
Type: ***T std = 60 F***
Run: **1-Part**

Vm	Metered Sample Gas Volume	**37.890**	**dcf**		
Lp	Avg. Leak Rate	0.000	cf		
Vn	Leak Corrected Sample Gas Volume	37.890	dcf		
Y	Dry Gas Meter Calibration Factor	**0.982**			
Pbar	Barometric Pressure	**29.84**	**in. Hg**		
Pg	Static Pressure	**-0.045**	**in. H20**		
Ps	Stack Pressure, Absolute	29.84	in. Hg		
Δ H	Dry Gas Meter Press. Differential, Average	**1.355**	**in. H20**		
Tm	Dry Gas Meter Temperature, Average	63.4	deg. F	**523.4**	**deg. R**
Vm(std)	Sample Gas Volume	**36.9876**	**dscf**		
Bws	Water Content of Stack Gas	0.007		**0.7**	**%**
CO2	Carbon Dioxide, Dry	**0.1**	**%**		
O2	Oxygen, Dry	**20.9**	**%**		
N2	Nitrogen, Dry	79.1	%		
Md	Molecular Wt. of Stack Gas, Dry	**28.844**	**lb/lb mole**		
Ms	Molecular Wt. of Stack Gas, Wet	**28.768**	**lb/lb mole**		
Cp	Pitot Calibration Factor	**0.846**			
Δ P	Velocity Head, Average Square Root	**0.321**	**in. H20**		
Ts	Stack Gas Temperature, Average	**57.5**	deg. F	517.5	deg. R
As	Area of Stack	**3.69**	**sq ft**	26.0	in. dia.
Vs	Stack Gas Velocity	18.03	ft/sec		
Qa	Actual Flow Rate	3,989	cfm		
Qad	Actual Flow Rate, Dry	3,962	dcfm		
Q(std)	Stack Gas Flow Rate	**3,970**	**dscfm**		
An	Nozzle Area	**0.0005761**	**sq ft**	0.325	in. dia.
Theta	Sampling Time	**60**	**min.**		
I	Isokinetics	**100.8**	**%**		

FIELD DATA & CALCULATIONS SUMMARY

Client: **Westfield Gins**
Site: **Fresno**
Unit: **Main Trash**

Date: **11/15/91**
Type: ***T std = 60 F***
Run: **2-Part**

Vm	Metered Sample Gas Volume	**36.327**	**dcf**		
Lp	Avg. Leak Rate	0.000	cf		
Vn	Leak Corrected Sample Gas Volume	36.327	dcf		
Y	Dry Gas Meter Calibration Factor	**0.982**			
Pbar	Barometric Pressure	**29.72**	**in. Hg**		
Pg	Static Pressure	**-0.045**	**in. H20**		
Ps	Stack Pressure, Absolute	29.72	in. Hg		
Δ H	Dry Gas Meter Press. Differential, Average	**1.358**	**in. H20**		
Tm	Dry Gas Meter Temperature, Average	72.9	deg. F	**532.9**	**deg. R**
Vm(std)	Sample Gas Volume	**34.6883**	**dscf**		
Bws	Water Content of Stack Gas	0.010		**1.0**	**%**
CO2	Carbon Dioxide, Dry	**0.1**	**%**		
O2	Oxygen, Dry	**20.9**	**%**		
N2	Nitrogen, Dry	79.1	%		
Md	Molecular Wt. of Stack Gas, Dry	**28.844**	**lb/lb mole**		
Ms	Molecular Wt. of Stack Gas, Wet	**28.736**	**lb/lb mole**		
Cp	Pitot Calibration Factor	**0.846**			
Δ P	Velocity Head, Average Square Root	**0.325**	**in. H20**		
Ts	Stack Gas Temperature, Average	**52.5**	deg. F	512.5	deg. R
As	Area of Stack	**3.69**	**sq ft**	26.0	in. dia.
Vs	Stack Gas Velocity	18.21	ft/sec		
Qa	Actual Flow Rate	4,029	cfm		
Qad	Actual Flow Rate, Dry	3,988	dcfm		
Q(std)	Stack Gas Flow Rate	**4,019**	**dscfm**		
An	Nozzle Area	**0.0005761**	**sq ft**	0.325	in. dia.
Theta	Sampling Time	**60**	**min.**		
I	Isokinetics	**93.3**	**%**		

FIELD DATA & CALCULATIONS SUMMARY

Client: **Westfield Gins**
Site: **Fresno**
Unit: **Main Trash**

Date: **11/15/91**
Type: ***T std = 60 F***
Run: **3-Part**

Vm	Metered Sample Gas Volume	**33.180**	**dcf**		
Lp	Avg. Leak Rate	0.000	cf		
Vn	Leak Corrected Sample Gas Volume	33.180	dcf		
Y	Dry Gas Meter Calibration Factor	**0.982**			
Pbar	Barometric Pressure	**29.74**	**in. Hg**		
Pg	Static Pressure	**-0.045**	**in. H20**		
Ps	Stack Pressure, Absolute	29.74	in. Hg		
Δ H	Dry Gas Meter Press. Differential, Average	**1.450**	**in. H20**		
Tm	Dry Gas Meter Temperature, Average	78.9	deg. F	**538.9**	**deg. R**
Vm(std)	Sample Gas Volume	**31.3605**	**dscf**		
Bws	Water Content of Stack Gas	0.009		**0.9**	**%**
CO2	Carbon Dioxide, Dry	**0.1**	**%**		
O2	Oxygen, Dry	**20.9**	**%**		
N2	Nitrogen, Dry	79.1	%		
Md	Molecular Wt. of Stack Gas, Dry	**28.844**	**lb/lb mole**		
Ms	Molecular Wt. of Stack Gas, Wet	**28.746**	**lb/lb mole**		
Cp	Pitot Calibration Factor	**0.846**			
Δ P	Velocity Head, Average Square Root	**0.329**	**in. H20**		
Ts	Stack Gas Temperature, Average	**63.3**	deg. F	523.3	deg. R
As	Area of Stack	**3.69**	**sq ft**	26.0	in. dia.
Vs	Stack Gas Velocity	18.62	ft/sec		
Qa	Actual Flow Rate	4,119	cfm		
Qad	Actual Flow Rate, Dry	4,082	dcfm		
Q(std)	Stack Gas Flow Rate	**4,032**	**dscfm**		
An	Nozzle Area	**0.0005761**	**sq ft**	0.325	in. dia.
Theta	Sampling Time	**60**	**min.**		
I	Isokinetics	**84.1**	**%**		

#2 INCLINE
CYCLONE

FIELD DATA & CALCULATIONS SUMMARY

Client: **Westfield Gins**
Site: **Fresno**
Unit: **#2 Incline**

Date: **11/14/91**
Type: ***T std = 60 F***
Run: **1-Part**

Vm	Metered Sample Gas Volume	**38.315**	**dcf**		
Lp	Avg. Leak Rate	0.000	cf		
Vn	Leak Corrected Sample Gas Volume	38.315	dcf		
Y	Dry Gas Meter Calibration Factor	**0.942**			
Pbar	Barometric Pressure	**29.68**	**in. Hg**		
Pg	Static Pressure	**-0.01**	**in. H20**		
Ps	Stack Pressure, Absolute	29.68	in. Hg		
Δ H	Dry Gas Meter Press. Differential, Average	**1.339**	**in. H20**		
Tm	Dry Gas Meter Temperature, Average	66.6	deg. F	**526.6**	**deg. R**
Vm(std)	Sample Gas Volume	**35.4542**	**dscf**		
Bws	Water Content of Stack Gas	0.014		**1.4**	**%**
CO2	Carbon Dioxide, Dry	**0.1**	**%**		
O2	Oxygen, Dry	**20.9**	**%**		
N2	Nitrogen, Dry	79.1	%		
Md	Molecular Wt. of Stack Gas, Dry	**28.844**	**lb/lb mole**		
Ms	Molecular Wt. of Stack Gas, Wet	**28.692**	**lb/lb mole**		
Cp	Pitot Calibration Factor	**0.846**			
Δ P	Velocity Head, Average Square Root	**0.261**	**in. H20**		
Ts	Stack Gas Temperature, Average	**67.8**	deg. F	527.8	deg. R
As	Area of Stack	**3.69**	**sq ft**	26.0	in. dia.
Vs	Stack Gas Velocity	14.87	ft/sec		
Qa	Actual Flow Rate	3,289	cfm		
Qad	Actual Flow Rate, Dry	3,243	dcfm		
Q(std)	Stack Gas Flow Rate	**3,170**	**dscfm**		
An	Nozzle Area	**0.000767**	**sq ft**	0.375	in. dia.
Theta	Sampling Time	**60**	**min.**		
I	Isokinetics	**94.5**	**%**		

FIELD DATA & CALCULATIONS SUMMARY

Client: **Westfield Gins**
Site: **Fresno**
Unit: **#2 Incline**

Date: **11/14/91**
Type: ***T std = 60 F***
Run: **2-Part**

Vm	Metered Sample Gas Volume	**38.458**	**dcf**		
Lp	Avg. Leak Rate	0.000	cf		
Vn	Leak Corrected Sample Gas Volume	38.458	dcf		
Y	Dry Gas Meter Calibration Factor	**0.942**			
Pbar	Barometric Pressure	**29.65**	**in. Hg**		
Pg	Static Pressure	**-0.01**	**in. H20**		
Ps	Stack Pressure, Absolute	29.65	in. Hg		
Δ H	Dry Gas Meter Press. Differential, Average	**1.360**	**in. H20**		
Tm	Dry Gas Meter Temperature, Average	78.9	deg. F	**538.9**	**deg. R**
Vm(std)	Sample Gas Volume	**34.7406**	**dscf**		
Bws	Water Content of Stack Gas	0.008		**0.8**	**%**
CO2	Carbon Dioxide, Dry	**0.1**	**%**		
O2	Oxygen, Dry	**20.9**	**%**		
N2	Nitrogen, Dry	79.1	%		
Md	Molecular Wt. of Stack Gas, Dry	**28.844**	**lb/lb mole**		
Ms	Molecular Wt. of Stack Gas, Wet	**28.757**	**lb/lb mole**		
Cp	Pitot Calibration Factor	**0.846**			
Δ P	Velocity Head, Average Square Root	**0.266**	**in. H20**		
Ts	Stack Gas Temperature, Average	**73.8**	deg. F	533.8	deg. R
As	Area of Stack	**3.69**	**sq ft**	26.0	in. dia.
Vs	Stack Gas Velocity	15.21	ft/sec		
Qa	Actual Flow Rate	3,365	cfm		
Qad	Actual Flow Rate, Dry	3,339	dcfm		
Q(std)	Stack Gas Flow Rate	**3,223**	**dscfm**		
An	Nozzle Area	**0.000767**	**sq ft**	0.375	in. dia.
Theta	Sampling Time	**60**	**min.**		
I	Isokinetics	**91.3**	**%**		

FIELD DATA & CALCULATIONS SUMMARY

Client: **Westfield Gins**
Site: **Fresno**
Unit: **#2 Incline**

Date: **11/14/91**
Type: ***T std = 60 F***
Run: **3-Part**

Vm	Metered Sample Gas Volume	**39.184**	**dcf**		
Lp	Avg. Leak Rate	0.000	cf		
Vn	Leak Corrected Sample Gas Volume	39.184	dcf		
Y	Dry Gas Meter Calibration Factor	**0.942**			
Pbar	Barometric Pressure	**29.61**	**in. Hg**		
Pg	Static Pressure	**-0.01**	**in. H20**		
Ps	Stack Pressure, Absolute	29.61	in. Hg		
Δ H	Dry Gas Meter Press. Differential, Average	**1.360**	**in. H20**		
Tm	Dry Gas Meter Temperature, Average	80.9	deg. F	**540.9**	**deg. R**
Vm(std)	Sample Gas Volume	**35.2161**	**dscf**		
Bws	Water Content of Stack Gas	0.010		**1.0**	**%**
CO2	Carbon Dioxide, Dry	**0.1**	**%**		
O2	Oxygen, Dry	**20.9**	**%**		
N2	Nitrogen, Dry	79.1	%		
Md	Molecular Wt. of Stack Gas, Dry	**28.844**	**lb/lb mole**		
Ms	Molecular Wt. of Stack Gas, Wet	**28.736**	**lb/lb mole**		
Cp	Pitot Calibration Factor	**0.846**			
Δ P	Velocity Head, Average Square Root	**0.266**	**in. H20**		
Ts	Stack Gas Temperature, Average	**92.9**	deg. F	552.9	deg. R
As	Area of Stack	**3.69**	**sq ft**	26.0	in. dia.
Vs	Stack Gas Velocity	15.50	ft/sec		
Qa	Actual Flow Rate	3,429	cfm		
Qad	Actual Flow Rate, Dry	3,394	dcfm		
Q(std)	Stack Gas Flow Rate	**3,159**	**dscfm**		
An	Nozzle Area	**0.000767**	**sq ft**	0.375	in. dia.
Theta	Sampling Time	**60**	**min.**		
I	Isokinetics	**94.3**	**%**		

GIN FEED TRASH
CYCLONE

FIELD DATA & CALCULATIONS SUMMARY

Client: **Westfield Gins**
Site: **Fresno**
Unit: **Gin Feed Trash Cyclone**

Date: **11/14/91**
Type: ***T std = 60 F***
Run: **1-Part**

Vm	Metered Sample Gas Volume	**39.532**	**dcf**		
Lp	Avg. Leak Rate	0.000	cf		
Vn	Leak Corrected Sample Gas Volume	39.532	dcf		
Y	Dry Gas Meter Calibration Factor	**0.982**			
Pbar	Barometric Pressure	**29.55**	**in. Hg**		
Pg	Static Pressure	**-0.01**	**in. H20**		
Ps	Stack Pressure, Absolute	29.55	in. Hg		
Δ H	Dry Gas Meter Press. Differential, Average	**1.378**	**in. H20**		
Tm	Dry Gas Meter Temperature, Average	82.9	deg. F	**542.9**	**deg. R**
Vm(std)	Sample Gas Volume	**36.8461**	**dscf**		
Bws	Water Content of Stack Gas	0.004		**0.4**	**%**
CO2	Carbon Dioxide, Dry	**0.1**	**%**		
O2	Oxygen, Dry	**20.9**	**%**		
N2	Nitrogen, Dry	79.1	%		
Md	Molecular Wt. of Stack Gas, Dry	**28.844**	**lb/lb mole**		
Ms	Molecular Wt. of Stack Gas, Wet	**28.801**	**lb/lb mole**		
Cp	Pitot Calibration Factor	**0.846**			
Δ P	Velocity Head, Average Square Root	**0.254**	**in. H20**		
Ts	Stack Gas Temperature, Average	**63.5**	deg. F	523.5	deg. R
As	Area of Stack	**3.69**	**sq ft**	26.0	in. dia.
Vs	Stack Gas Velocity	14.41	ft/sec		
Qa	Actual Flow Rate	3,189	cfm		
Qad	Actual Flow Rate, Dry	3,176	dcfm		
Q(std)	Stack Gas Flow Rate	**3,116**	**dscfm**		
An	Nozzle Area	**0.0007507**	**sq ft**	0.371	in. dia.
Theta	Sampling Time	**60**	**min.**		
I	Isokinetics	**98.4**	**%**		

FIELD DATA & CALCULATIONS SUMMARY

Client: **Westfield Gins**
Site: **Fresno**
Unit: **Gin Feed Trash Cyclone**

Date: **11/14/91**
Type: ***T std = 60 F***
Run: **2-Part**

Vm	Metered Sample Gas Volume	**40.351**	**dcf**		
Lp	Avg. Leak Rate	0.000	cf		
Vn	Leak Corrected Sample Gas Volume	40.351	dcf		
Y	Dry Gas Meter Calibration Factor	**0.982**			
Pbar	Barometric Pressure	**29.55**	**in. Hg**		
Pg	Static Pressure	**-0.01**	**in. H20**		
Ps	Stack Pressure, Absolute	29.55	in. Hg		
Δ H	Dry Gas Meter Press. Differential, Average	**1.378**	**in. H20**		
Tm	Dry Gas Meter Temperature, Average	86.5	deg. F	**546.5**	**deg. R**
Vm(std)	Sample Gas Volume	**37.3609**	**dscf**		
Bws	Water Content of Stack Gas	0.004		**0.4**	**%**
CO2	Carbon Dioxide, Dry	**0.1**	**%**		
O2	Oxygen, Dry	**20.9**	**%**		
N2	Nitrogen, Dry	79.1	%		
Md	Molecular Wt. of Stack Gas, Dry	**28.844**	**lb/lb mole**		
Ms	Molecular Wt. of Stack Gas, Wet	**28.801**	**lb/lb mole**		
Cp	Pitot Calibration Factor	**0.846**			
Δ P	Velocity Head, Average Square Root	**0.254**	**in. H20**		
Ts	Stack Gas Temperature, Average	**60.6**	deg. F	520.6	deg. R
As	Area of Stack	**3.69**	**sq ft**	26.0	in. dia.
Vs	Stack Gas Velocity	14.38	ft/sec		
Qa	Actual Flow Rate	3,182	cfm		
Qad	Actual Flow Rate, Dry	3,169	dcfm		
Q(std)	Stack Gas Flow Rate	**3,126**	**dscfm**		
An	Nozzle Area	**0.0007507**	**sq ft**	0.371	in. dia.
Theta	Sampling Time	**60**	**min.**		
I	Isokinetics	**99.4**	**%**		

FIELD DATA & CALCULATIONS SUMMARY

Client: **Westfield Gins**
Site: **Fresno**
Unit: **Gin Feed Trash Cyclone**

Date: **11/14/91**
Type: ***T std = 60 F***
Run: **3-Part**

Vm	Metered Sample Gas Volume	**39.422**	**dcf**		
Lp	Avg. Leak Rate	0.000	cf		
Vn	Leak Corrected Sample Gas Volume	39.422	dcf		
Y	Dry Gas Meter Calibration Factor	**0.982**			
Pbar	Barometric Pressure	**29.58**	**in. Hg**		
Pg	Static Pressure	**-0.01**	**in. H20**		
Ps	Stack Pressure, Absolute	29.58	in. Hg		
Δ H	Dry Gas Meter Press. Differential, Average	**1.378**	**in. H20**		
Tm	Dry Gas Meter Temperature, Average	85.4	deg. F	**545.4**	**deg. R**
Vm(std)	Sample Gas Volume	**36.6101**	**dscf**		
Bws	Water Content of Stack Gas	0.005		**0.5**	**%**
CO2	Carbon Dioxide, Dry	**0.1**	**%**		
O2	Oxygen, Dry	**20.9**	**%**		
N2	Nitrogen, Dry	79.1	%		
Md	Molecular Wt. of Stack Gas, Dry	**28.844**	**lb/lb mole**		
Ms	Molecular Wt. of Stack Gas, Wet	**28.790**	**lb/lb mole**		
Cp	Pitot Calibration Factor	**0.846**			
Δ P	Velocity Head, Average Square Root	**0.254**	**in. H20**		
Ts	Stack Gas Temperature, Average	**71.6**	deg. F	531.6	deg. R
As	Area of Stack	**3.69**	**sq ft**	26.0	in. dia.
Vs	Stack Gas Velocity	14.53	ft/sec		
Qa	Actual Flow Rate	3,214	cfm		
Qad	Actual Flow Rate, Dry	3,198	dcfm		
Q(std)	Stack Gas Flow Rate	**3,092**	**dscfm**		
An	Nozzle Area	**0.0007507**	**sq ft**	0.371	in. dia.
Theta	Sampling Time	**60**	**min.**		
I	Isokinetics	**98.4**	**%**		

III. WET TEST METHODS CALCULATIONS

MAIN TRASH STOCK PILER CYCLONE

CALCULATED EMISSION RESULTS

Client: **Westfield Gins**
Site: **Fresno**
Unit: **Main Trash**

Date: **11/15/91**
Type: ***T std = 60 F***
Run: **1-Part**

PM10 PARTICULATE

Wt	Total Particulate Weight	0.2793	g
Ct	Total Particulate Emissions	**0.1165**	grain/dscf
CFt	Particulate Flow Rate	**3.96**	lb/hr
	+10µ Particulate	**63.15**	%
	+10µ Particulate	**2.50**	lb/hr
	-10µ Particulate	**36.85**	%
	-10µ Particulate	**1.46**	lb/hr

CALCULATED EMISSION RESULTS

Client: **Westfield Gins**
Site: **Fresno**
Unit: **Main Trash**

Date: **11/15/91**
Type: ***T std = 60 F***
Run: **2-Part**

PM10 PARTICULATE

Wt	Total Particulate Weight	0.2058	g
Ct	Total Particulate Emissions	**0.0915**	grain/dscf
CFt	Particulate Flow Rate	**3.15**	lb/hr
	+10µ Particulate	**44.43**	%
	+10µ Particulate	**1.40**	lb/hr
	-10µ Particulate	**55.57**	%
	-10µ Particulate	**1.75**	lb/hr

CALCULATED EMISSION RESULTS

Client: **Westfield Gins**
Site: **Fresno**
Unit: **Main Trash**

Date: **11/15/91**
Type: ***T std = 60 F***
Run: **3-Part**

PM10 PARTICULATE

Wt	Total Particulate Weight	0.2459	g
Ct	Total Particulate Emissions	**0.1210**	grain/dscf
CFt	Particulate Flow Rate	**4.18**	lb/hr
	+10µ Particulate	**65.73**	%
	+10µ Particulate	**2.75**	lb/hr
	-10µ Particulate	**36.27**	%
	-10µ Particulate	**1.52**	lb/hr

#2 INCLINE
CYCLONE

CALCULATED EMISSION RESULTS

Client: **Westfield Gins**
Site: **Fresno**
Unit: **#2 Incline**

Date: **11/14/91**
Type: ***T std = 60 F***
Run: **1-Part**

PM10 PARTICULATE

Wt	Total Particulate Weight	0.1211	g
Ct	Total Particulate Emissions	**0.0527**	grain/dscf
CFt	Particulate Flow Rate	**1.43**	lb/hr
	+10µ Particulate	**71.54**	%
	+10µ Particulate	**1.02**	lb/hr
	-10µ Particulate	**28.46**	%
	-10µ Particulate	**0.41**	lb/hr

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CALCULATED EMISSION RESULTS

Client: **Westfield Gins**
Site: **Fresno**
Unit: **#2 Incline**

Date: **11/14/91**
Type: ***T std = 60 F***
Run: **2-Part**

PM10 PARTICULATE

Wt	Total Particulate Weight	0.1389	g
Ct	Total Particulate Emissions	**0.0617**	grain/dscf
CFt	Particulate Flow Rate	**1.70**	lb/hr
	+10µ Particulate	**57.62**	%
	+10µ Particulate	**0.98**	lb/hr
	-10µ Particulate	**42.38**	%
	-10µ Particulate	**0.72**	lb/hr

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CALCULATED EMISSION RESULTS

Client: **Westfield Gins**
Site: **Fresno**
Unit: **#2 Incline**

Date: **11/14/91**
Type: ***T std = 60 F***
Run: **3-Part**

PM10 PARTICULATE

Wt	Total Particulate Weight	0.1575	g
Ct	Total Particulate Emissions	**0.0690**	grain/dscf
CFt	Particulate Flow Rate	**1.87**	lb/hr
	+10µ Particulate	**48.14**	%
	+10µ Particulate	**0.90**	lb/hr
	-10µ Particulate	**51.86**	%
	-10µ Particulate	**0.97**	lb/hr

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GIN FEED TRASH CYCLONE

CALCULATED EMISSION RESULTS

Client: **Westfield Gins**
Site: **Fresno**
Unit: **Gin Feed Trash Cyclone**

Date: **11/14/91**
Type: ***T std = 60 F***
Run: **1-Part**

PM10 PARTICULATE

Wt	Total Particulate Weight	0.0483	g
Ct	Total Particulate Emissions	**0.0202**	grain/dscf
CFt	Particulate Flow Rate	**0.54**	lb/hr
	+10µ Particulate	**44.53**	%
	+10µ Particulate	**0.24**	lb/hr
	-10µ Particulate	**55.47**	%
	-10µ Particulate	**0.30**	lb/hr

CALCULATED EMISSION RESULTS

Client: **Westfield Gins**
Site: **Fresno**
Unit: **Gin Feed Trash Cyclone**

Date: **11/14/91**
Type: ***T std = 60 F***
Run: **2-Part**

PM10 PARTICULATE

Wt	Total Particulate Weight	0.0439	g
Ct	Total Particulate Emissions	**0.0181**	grain/dscf
CFt	Particulate Flow Rate	**0.49**	lb/hr
	+10µ Particulate	**42.82**	%
	+10µ Particulate	**0.21**	lb/hr
	-10µ Particulate	**57.18**	%
	-10µ Particulate	**0.28**	lb/hr

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CALCULATED EMISSION RESULTS

Client: **Westfield Gins**
Site: **Fresno**
Unit: **Gin Feed Trash Cyclone**

Date: **11/14/91**
Type: ***T std = 60 F***
Run: **3-Part**

PM10 PARTICULATE

Wt	Total Particulate Weight	0.0423	g
Ct	Total Particulate Emissions	**0.0178**	grain/dscf
CFt	Particulate Flow Rate	**0.47**	lb/hr
	+10µ Particulate	**33.04**	%
	+10µ Particulate	**0.16**	lb/hr
	-10µ Particulate	**66.96**	%
	-10µ Particulate	**0.32**	lb/hr

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ver. 1.3

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

CONSTANTS & CONVERSIONS

Tstd = 60, 68, or 70 °F
Pstd = 29.92 in. Hg
R = 21.85(in. Hg-cu ft/lb mole-°R)
Dw = 0.9982(g/ml)
MW(H2O) = 18.0 lb/lb mole
MW(Sulfur) = 32.03 lb/lb mole
M(H2SO4) = 98.08 lb/lb mole
MW(SO2) = 64.06 lb/lb mole
K(H2SO4) = 0.5 mg-g mole/g-meq
K(SO2) = 0.5 mg-g mole/g-meq

1 in. Hg = 13.6 in. H2O
1 lb = 453.6 g
1 lb = 7000 grain
1 g = 15.432 grain
1 mg = 0.001 g
1 hr = 60 min.
1 part/vol X = 1*10^6 ppmv X
1 bbl = 42 gal
M = 1000
La = 0.02 cfm

Kp = 85.49(ft/sec(sqrt{lb/lb mole-in.Hg/°R-in. H2O})
Kw,[cu ft/g-°R] = R / (453.6*MW(H2O)*Pstd)
Kf,[scf-ppm/lb mole] = R * (Tstd+460) * (1*10^6) / Pstd

INTERMEDIATE CALCULATIONS

F,[scf/MMBtu] = F Factor * (Tstd + 460) / 528
Ph,[in. Hg] = Pbar + (ΔH / 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), [sdcf] = Vm * Y * ((Tstd+460) / (Tm+460)) * Ph / Pstd
eq. 2-9 Vs, [ft./sec.] = Kp*Cp*(ΔP*(Ts+460)/(Ps*Ms))^0.5
eq. 2-10 Qstd, [dscfm] =Qad*(Tstd+460)*Ps/((Ts+460)*Pstd)
eq. 5-8 I,[%] =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.

V. LABORATORY ANALYSIS

MAIN TRASH STOCK PILER CYCLONE

Run Set Up Sheet

Client : Westfield Gin
Site : Fresno
Unit: Main Trash Stock Piler

Date : 11/15/91
Job #: 23024
Lab #: 291-180

Method#:	PM10	Probe#:	1	Pryo#:	T-1
Run#:	1	Stack box#:	B	Nozzle#:	0.371
Hot box#:	-	Cold box#:	3	Pitot#:	0.846

Imp. #1:	gross	572.7
	tare	569.4
	final	3.3
Imp. #2:	gross	551.8
	tare	551.2
	final	0.6
Imp. #3:	gross	456.1
	tare	456.0
	final	0.1
Imp. #4:	gross	652.8
	tare	652.3
	final	0.5
	Total	4.5

Solution blank	DI
Solution blank	Acetone

Filter Nos:	G-102
Filter Nos:	G-36
Filter Nos:	G-133

Comments:

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Run Set Up Sheet

Client : Westfield Gin
Site : Fresno
Unit: Main Trash Stock Piler

Date : 11/15/91
Job #: 23024
Lab #: 291-180

Method#:	PM10	Probe#:	1	Pryo#:	T-1
Run#:	2	Stack box#:	B	Nozzle#:	0.371
Hot box#:	-	Cold box#:	2	Pitot#:	0.846

Imp. #1:	gross	657.5
	tare	653.7
	final	3.8
Imp. #2:	gross	623.7
	tare	622.5
	final	1.2
Imp. #3:	gross	470.4
	tare	469.2
	final	1.2
Imp. #4:	gross	633.4
	tare	633.4
	final	0.0
	Total	6.2

Solution blank	DI
Solution blank	Acetone

Filter Nos:	G-46
Filter Nos:	G-50
Filter Nos:	G-158

Comments:

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Run Set Up Sheet

Client : Westfield Gin
Site : Fresno
Unit: Main Trash Stock Piler

Date : 11/15/91
Job #: 23024
Lab #: 291-180

Method#:	PM10	Probe#:	1	Pryo#:	T-1
Run#:	3	Stack box#:	B	Nozzle#:	0.371
Hot box#:	-	Cold box#:	4	Pitot#:	0.846

Imp. #1:	gross	571.9
	tare	570.6
	final	1.3
Imp. #2:	gross	630.8
	tare	627.2
	final	3.6
Imp. #3:	gross	374.5
	tare	373.8
	final	0.7
Imp. #4:	gross	658.3
	tare	657.8
	final	0.5
Total		6.1

Solution blank	DI
Solution blank	Acetone

Filter Nos:	G-15
Filter Nos:	G-44
Filter Nos:	G-140

Comments:

#2 INCLINE
CYCLONE

Run Set Up Sheet

Client : Westfield Gin
Site : Fresno
Unit: #2 Incline

Date : 11/14/91
Job #: 23024
Lab #: 291-180

Method#:	PM10	Probe#:	1	Pryo#:	T-1
Run#:	1	Stack box#:	A	Nozzle#:	0.375
Hot box#:	-	Cold box#:	3	Pitot#:	0.846

Imp. #1:	gross	603.5
	tare	599.5
	final	4.0
Imp. #2:	gross	579.3
	tare	578.1
	final	1.2
Imp. #3:	gross	456.5
	tare	455.5
	final	1.0
Imp. #4:	gross	649.5
	tare	646.8
	final	2.7
	Total	8.9

Solution blank	DI
Solution blank	Acetone

Filter Nos:	G-109
Filter Nos:	G-79
Filter Nos:	G-118

Comments:

Run Set Up Sheet

Client : Westfield Gin
Site : Fresno
Unit: #2 Incline

Date : 11/14/91
Job #: 23024
Lab #: 291-180

Method#:	PM10	Probe#:	1	Pryo#:	T-1
Run#:	2	Stack box#:	A	Nozzle#:	0.375
Hot box#:	-	Cold box#:	2	Pitot#:	0.846

Imp. #1:	gross	585.0
	tare	580.7
	final	4.3
Imp. #2:	gross	569.8
	tare	569.8
	final	0.0
Imp. #3:	gross	467.8
	tare	467.2
	final	0.6
Imp. #4:	gross	638.3
	tare	637.8
	final	0.5
	Total	5.4

Solution blank	DI
Solution blank	Acetone

Filter Nos:	G-96
Filter Nos:	G-38
Filter Nos:	G-124

Comments:

Run Set Up Sheet

Client : Westfield Gin
Site : Fresno
Unit: #2 Incline

Date : 11/14/91
Job #: 23024
Lab #: 291-180

Method#:	PM10	Probe#:	1	Pryo#:	T-1
Run#:	3	Stack box#:	A	Nozzle#:	0.375
Hot box#:	-	Cold box#:	4	Pitot#:	0.846

Imp. #1:	gross	605.8
	tare	599.8
	final	6.0
Imp. #2:	gross	617.4
	tare	616.7
	final	0.7
Imp. #3:	gross	373.2
	tare	373.5
	final	-0.3
Imp. #4:	gross	656.1
	tare	655.0
	final	1.1
	Total	7.5

Solution blank	DI
Solution blank	Acetone

Filter Nos:	G-112
Filter Nos:	G-111
Filter Nos:	G-10

Comments:

GIN FEED TRASH CYCLONE

Run Set Up Sheet

Client : Westfield Gin
Site : Fresno
Unit: Gin Feed Trash

Date : 11/14/91
Job #: 23024
Lab #: 291-180

Method#:	PM10	Probe#:	1	Pryo#:	T-1
Run#:	1	Stack box#:	B	Nozzle#:	0.411
Hot box#:	-	Cold box#:	3	Pitot#:	0.846

Imp. #1:	gross	583.2
	tare	583.9
	final	-0.7
Imp. #2:	gross	551.4
	tare	551.3
	final	0.1
Imp. #3:	gross	456.6
	tare	456.3
	final	0.3
Imp. #4:	gross	652.3
	tare	649.6
	final	2.7
	Total	2.4

Solution blank	DI
Solution blank	Acetone

Filter Nos:	G-101
Filter Nos:	G-105
Filter Nos:	G-121

Comments:

Run Set Up Sheet

Client : Westfield Gin
Site : Fresno
Unit: Gin Feed Trash

Date : 11/14/91
Job #: 23024
Lab #: 291-180

Method#:	PM10	Probe#:	1	Pryo#:	T-1
Run#:	2	Stack box#:	B	Nozzle#:	0.411
Hot box#:	-	Cold box#:	2	Pitot#:	0.846

Imp. #1:	gross	617.9
	tare	617.8
	final	0.1
Imp. #2:	gross	618.3
	tare	617.8
	final	0.5
Imp. #3:	gross	467.2
	tare	467.1
	final	0.1
Imp. #4:	gross	639.8
	tare	637.6
	final	2.2
	Total	2.9

Solution blank	DI
Solution blank	Acetone

Filter Nos:	G-110
Filter Nos:	G-89
Filter Nos:	G-143

Comments:

Run Set Up Sheet

Client : Westfield Gin
Site : Fresno
Unit: Gin Feed Trash

Date : 11/14/91
Job #: 23024
Lab #: 291-180

Method#:	PM10	Probe#:	1	Pryo#:	T-1
Run#:	3	Stack box#:	B	Nozzle#:	0.411
Hot box#:	-	Cold box#:	4	Pitot#:	0.846

Imp. #1:	gross	664.3
	tare	663.7
	final	0.6
Imp. #2:	gross	651.9
	tare	651.7
	final	0.2
Imp. #3:	gross	373.8
	tare	373.1
	final	0.7
Imp. #4:	gross	658.4
	tare	656.3
	final	2.1
	Total	3.6

Solution blank	DI
Solution blank	Acetone

Filter Nos:	G-64
Filter Nos:	G-69
Filter Nos:	G-162

Comments:

MAIN TRASH STOCK PILER CYCLONE

PM10 PARTICULATE WEIGHTS : DATA & CALCULATIONS

Client : Westfield Gins
Site : Fresno
Unit : Main Trash
Run : 1

Date : 11/15/91
Job #: 23024
Lab #: 291-180

BLANKS

Acetone — Gross: 68.4504 gms. Tare: 68.4498 gms. Volume: 100 ml Residue: 0.0006 gms.

DI Water — Gross: 65.9157 gms. Tare: 65.9155 gms. Volume: 100 ml Residue: 0.0002 gms.

WEIGHTS & VOLUMES

Filter Gross: 0.1033 gms. Tare: 0.0905 gms. Net: **0.0128** gms.
Filter Gross: 0.0975 gms. Tare: 0.0892 gms. Net: **0.0083** gms.

+10 µ Rinse –
Acetone: 50 ml * 6E-06 gms./ml = Net: **-0.0003** gms.
DI Water: 175 ml * 2E-06 gms./ml = Net: **-0.0004** gms.
Gross: 65.9237 gms. Tare: 65.7474 gms. Net: **0.1763** gms.

+10µ Total Weight = 0.1967 gms.

Filter Gross: 0.2302 gms. Tare: 0.1196 gms. Net: **0.1106** gms.

-10 µ Rinse
DI Water: 375 ml * 2E-06 gms./ml = Net: **-0.0008** gms.
Acetone : 50 ml * 6E-06 gms./ml = Net: **-0.0003** gms.
Total: 425 ml Aliquot: 425 ml
Gross: 67.2475 gms. Tare: 67.2412 gms. Net: **0.0052** gms.

-10µ Total Weight = 0.1148 gms.

Total Weight = 0.3115 gms.

+ 10 µ 63.15 %
- 10 µ 36.85 %

PM10 PARTICULATE WEIGHTS : DATA & CALCULATIONS

Client : Westfield Gins
Site : Fresno
Unit : Main Trash
Run : 2

Date : 11/15/91
Job #: 23024
Lab #: 291-180

BLANKS

Acetone — Gross: 68.4504 gms. Tare: 68.4498 gms. Volume: 100 ml Residue: 0.0006 gms.

DI Water — Gross: 65.9157 gms. Tare: 65.9155 gms. Volume: 100 ml Residue: 0.0002 gms.

WEIGHTS & VOLUMES

Filter Gross: 0.0932 gms. Tare: 0.0907 gms. Net: **0.0025** gms.
Filter Gross: 0.0924 gms. Tare: 0.0889 gms. Net: **0.0035** gms.

+10 µ Rinse -
Acetone: 50 ml * 6E-06 gms./ml = Net: **-0.0003** gms.
DI Water: 175 ml * 2E-06 gms./ml = Net: **-0.0004** gms.
Gross: 66.0254 gms. Tare: 65.9300 gms. Net: **0.0954** gms.

+10µ Total Weight = 0.1007 gms.

Filter Gross: 0.1530 gms. Tare: 0.1117 gms. Net: **0.0413** gms.

-10 µ Rinse
DI Water: 375 ml * 2E-06 gms./ml = Net: **-0.0008** gms.
Acetone : 50 ml * 6E-06 gms./ml = Net: **-0.0003** gms.
Total: 425 ml Aliquot: 425 ml
Gross: 66.6084 gms. Tare: 66.5216 gms. Net: **0.0857** gms.

-10µ Total Weight = 0.1260 gms.

Total Weight = 0.2267 gms.

+ 10 µ 44.43 %
- 10 µ 55.57 %

PM10 PARTICULATE WEIGHTS : DATA & CALCULATIONS

Client : Westfield Gins
Site : Fresno
Unit : Main Trash
Run : 3

Date : 11/15/91
Job #: 23024
Lab #: 291-180

BLANKS

Acetone — Gross: 68.4504 gms. Tare: 68.4498 gms. Volume: 100 ml Residue: 0.0006 gms.

DI Water — Gross: 65.9157 gms. Tare: 65.9155 gms. Volume: 100 ml Residue: 0.0002 gms.

WEIGHTS & VOLUMES

Filter Gross: 0.0897 gms. Tare: 0.0895 gms. Net: **0.0002** gms.
Filter Gross: 0.0917 gms. Tare: 0.0913 gms. Net: **0.0004** gms.

+10 µ Rinse -
Acetone: 50 ml * 6E-06 gms./ml = Net: **-0.0003** gms.
DI Water: 175 ml * 2E-06 gms./ml = Net: **-0.0004** gms.
Gross: 66.0840 gms. Tare: 65.9474 gms. Net: **0.1366** gms.

+10µ Total Weight = 0.1365 gms.

Filter Gross: 0.1899 gms. Tare: 0.1187 gms. Net: **0.0712** gms.

-10 µ Rinse
DI Water: 375 ml * 2E-06 gms./ml = Net: **-0.0008** gms.
Acetone : 50 ml * 6E-06 gms./ml = Net: **-0.0003** gms.
Total: 425 ml Aliquot: 425 ml
Gross: 66.8694 gms. Tare: 66.8608 gms. Net: **0.0075** gms.

-10µ Total Weight = 0.0777 gms.

Total Weight = 0.2142 gms.

+ 10 µ 63.73 %
- 10 µ 36.27 %

#2 INCLINE
CYCLONE

PM10 PARTICULATE WEIGHTS : DATA & CALCULATIONS

Client : Westfield Gins
Site : Fresno
Unit : #2 Incline
Run : 1

Date : 11/14/91
Job #: 23024
Lab #: 291-180

BLANKS

Acetone — Gross: 68.4504 gms. Tare: 68.4498 gms. Volume: 100 ml Residue: 0.0006 gms.

DI Water — Gross: 65.9157 gms. Tare: 65.9155 gms. Volume: 100 ml Residue: 0.0002 gms.

WEIGHTS & VOLUMES

Filter Gross: 0.0916 gms. Tare: 0.0889 gms. Net: **0.0027** gms.
Filter Gross: 0.1012 gms. Tare: 0.0885 gms. Net: **0.0127** gms.

+10 µ Rinse –
Acetone: 50 ml * 6E-06 gms./ml = Net: **-0.0003** gms.
DI Water: 200 ml * 2E-06 gms./ml = Net: **-0.0004** gms.
Gross: 67.9852 gms. Tare: 67.9544 gms. Net: **0.0308** gms.

+10µ Total Weight = 0.0455 gms.

Filter Gross: 0.1213 gms. Tare: 0.1179 gms. Net: **0.0034** gms.

-10 µ Rinse
DI Water: 375 ml * 2E-06 gms./ml = Net: **-0.0008** gms.
Acetone : 50 ml * 6E-06 gms./ml = Net: **-0.0003** gms.
Total: 425 ml Aliquot: 425 ml
Gross: 66.6569 gms. Tare: 66.6401 gms. Net: **0.0157** gms.

-10µ Total Weight = 0.0181 gms.

Total Weight = 0.0636 gms.

+ 10 µ 71.54 %
- 10 µ 28.46 %

PM10 PARTICULATE WEIGHTS : DATA & CALCULATIONS

Client : Westfield Gins
Site : Fresno
Unit : #2 Incline
Run : 2

Date : 11/14/91
Job #: 23024
Lab #: 291-180

BLANKS

Acetone — Gross: 68.4504 gms. Tare: 68.4498 gms. Volume: 100 ml Residue: 0.0006 gms.

DI Water — Gross: 65.9157 gms. Tare: 65.9155 gms. Volume: 100 ml Residue: 0.0002 gms.

WEIGHTS & VOLUMES

Filter Gross: 0.0920 gms. Tare: 0.0898 gms. Net: **0.0022** gms.
Filter Gross: 0.0922 gms. Tare: 0.0889 gms. Net: **0.0033** gms.

+10 µ Rinse -
Acetone: 50 ml * 6E-06 gms./ml = Net: **-0.0003** gms.
DI Water: 175 ml * 2E-06 gms./ml = Net: **-0.0004** gms.
Gross: 67.5654 gms. Tare: 67.5071 gms. Net: **0.0583** gms.

+10µ Total Weight = **0.0631 gms.**

Filter Gross: 0.1558 gms. Tare: 0.1152 gms. Net: **0.0406** gms.

-10 µ Rinse
DI Water: 390 ml * 2E-06 gms./ml = Net: **-0.0008** gms.
Acetone : 50 ml * 6E-06 gms./ml = Net: **-0.0003** gms.
Total: 440 ml Aliquot: 440 ml
Gross: 65.6900 gms. Tare: 65.6820 gms. Net: **0.0069** gms.

-10µ Total Weight = **0.0464 gms.**

Total Weight = **0.1096 gms.**

+ 10 µ **57.62 %**
- 10 µ **42.38 %**

PM10 PARTICULATE WEIGHTS : DATA & CALCULATIONS

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

Date : 11/14/91
Job #: 23024
Lab #: 291-180

BLANKS

Acetone — Gross: 68.4504 gms. Tare: 68.4498 gms. Volume: 100 ml Residue: 0.0006 gms.

DI Water — Gross: 65.9157 gms. Tare: 65.9155 gms. Volume: 100 ml Residue: 0.0002 gms.

WEIGHTS & VOLUMES

Filter Gross: 0.0938 gms. Tare: 0.0874 gms. Net: **0.0064** gms.
Filter Gross: 0.0933 gms. Tare: 0.0881 gms. Net: **0.0052** gms.

+10 µ Rinse –
Acetone: 50 ml * 6E-06 gms./ml = Net: **-0.0003** gms.
DI Water: 175 ml * 2E-06 gms./ml = Net: **-0.0004** gms.
Gross: 67.5425 gms. Tare: 67.4636 gms. Net: **0.0789** gms.

+10µ Total Weight = **0.0898 gms.**

Filter Gross: 0.1541 gms. Tare: 0.0905 gms. Net: **0.0636** gms.

-10 µ Rinse
DI Water: 400 ml * 2E-06 gms./ml = Net: **-0.0008** gms.
Acetone : 50 ml * 6E-06 gms./ml = Net: **-0.0003** gms.
Total: 450 ml Aliquot: 450 ml
Gross: 67.2018 gms. Tare: 67.1664 gms. Net: **0.0343** gms.

-10µ Total Weight = **0.0968 gms.**

Total Weight = **0.1866 gms.**

+ 10 µ **48.14 %**
- 10 µ **51.86 %**

GIN FEED TRASH
CYCLONE

PM10 PARTICULATE WEIGHTS : DATA & CALCULATIONS

Client : Westfield Gins
Site : Fresno
Unit : Gin Feed Trash
Run : 1

Date : 11/14/91
Job #: 23024
Lab #: 291-180

BLANKS

Acetone — Gross: 68.4504 gms. Tare: 68.4498 gms. Volume: 100 ml Residue: 0.0006 gms.

DI Water — Gross: 65.9157 gms. Tare: 65.9155 gms. Volume: 100 ml Residue: 0.0002 gms.

WEIGHTS & VOLUMES

Filter Gross: 0.0901 gms. Tare: 0.0894 gms. Net: **0.0007** gms.
Filter Gross: 0.0905 gms. Tare: 0.0894 gms. Net: **0.0011** gms.

+10 µ Rinse -
Acetone: 50 ml * 6E-06 gms./ml = Net: **-0.0003** gms.
DI Water: 175 ml * 2E-06 gms./ml = Net: **-0.0004** gms.
Gross: 71.0618 gms. Tare: 71.0489 gms. Net: **0.0129** gms.

+10µ Total Weight = 0.0140 gms.

Filter Gross: 0.1277 gms. Tare: 0.1194 gms. Net: **0.0083** gms.

-10 µ Rinse
DI Water: 400 ml * 2E-06 gms./ml = Net: **-0.0008** gms.
Acetone : 50 ml * 6E-06 gms./ml = Net: **-0.0003** gms.
Total: 450 ml Aliquot: 450 ml
Gross: 66.3360 gms. Tare: 66.3246 gms. Net: **0.0103** gms.

-10µ Total Weight = 0.0175 gms.

Total Weight = 0.0315 gms.

+ 10 µ 44.53 %
- 10 µ 55.47 %

PM10 PARTICULATE WEIGHTS : DATA & CALCULATIONS

Client : Westfield Gins
Site : Fresno
Unit : Gin Feed Trash
Run : 2

Date : 11/14/91
Job #: 23024
Lab #: 291-180

BLANKS

Acetone	Gross: 68.4504 gms.	Tare: 68.4498 gms.	Volume: 100 ml Residue: 0.0006 gms.
DI Water	Gross: 65.9157 gms.	Tare: 65.9155 gms.	Volume: 100 ml Residue: 0.0002 gms.

WEIGHTS & VOLUMES

Filter	Gross: 0.0907 gms.	Tare: 0.0899 gms.	Net: **0.0008** gms.
Filter	Gross: 0.0900 gms.	Tare: 0.0889 gms.	Net: **0.0011** gms.

+10 µ Rinse -

Acetone:	50 ml *	6E-06 gms./ml	=	Net: **-0.0003** gms.
DI Water:	200 ml *	2E-06 gms./ml	=	Net: **-0.0004** gms.
Gross:	66.9574 gms.	Tare: 66.9425 gms.		Net: **0.0149** gms.

+10µ Total Weight = **0.0161 gms.**

Filter	Gross: 0.1313 gms.	Tare: 0.1215 gms.	Net: **0.0098** gms.

-10 µ Rinse

DI Water:	375 ml *	2E-06 gms./ml	=	Net: **-0.0008** gms.
Acetone :	50 ml *	6E-06 gms./ml	=	Net: **-0.0003** gms.
Total:	425 ml	Aliquot: 425 ml		
Gross:	66.1096 gms.	Tare: 66.0958 gms.		Net: **0.0127** gms.

-10µ Total Weight = **0.0215 gms.**

Total Weight = **0.0376 gms.**

+ 10 µ **42.82 %**
- 10 µ **57.18 %**

PM10 PARTICULATE WEIGHTS : DATA & CALCULATIONS

Client : Westfield Gins
Site : Fresno
Unit : Gin Feed Trash
Run : 3

Date : 11/14/91
Job #: 23024
Lab #: 291-180

BLANKS

Acetone — Gross: 68.4504 gms. Tare: 68.4498 gms. Volume: 100 ml Residue: 0.0006 gms.

DI Water — Gross: 65.9157 gms. Tare: 65.9155 gms. Volume: 100 ml Residue: 0.0002 gms.

WEIGHTS & VOLUMES

Filter Gross: 0.0908 gms. Tare: 0.0903 gms. Net: **0.0005** gms.
Filter Gross: 0.0921 gms. Tare: 0.0903 gms. Net: **0.0018** gms.

+10 µ Rinse –
Acetone: 50 ml * 6E-06 gms./ml = Net: **-0.0003** gms.
DI Water: 200 ml * 2E-06 gms./ml = Net: **-0.0004** gms.
Gross: 66.1457 gms. Tare: 66.1321 gms. Net: **0.0136** gms.

+10µ Total Weight = 0.0152 gms.

Filter Gross: 0.1241 gms. Tare: 0.1081 gms. Net: **0.0160** gms.

-10 µ Rinse
DI Water: 400 ml * 2E-06 gms./ml = Net: **-0.0008** gms.
Acetone : 50 ml * 6E-06 gms./ml = Net: **-0.0003** gms.
Total: 450 ml Aliquot: 450 ml
Gross: 66.3705 gms. Tare: 66.3535 gms. Net: **0.0159** gms.

-10µ Total Weight = 0.0308 gms.

Total Weight = 0.0460 gms.

+ 10 µ 33.04 %
- 10 µ 66.96 %

MAIN TRASH STOCK PILER CYCLONE

PARTICULATE WEIGHTS : DATA & CALCULATIONS

Client : Westfield Gins
Site : Fresno
Unit : Main Trash Stock Piler
Run : 1

Date : 11/15/91
Job #: 23024
Lab #: 291-180

BLANKS

Acetone — Gross: 68.4504 gms. Tare: 68.4498 gms. Volume: 100 ml Residue: 0.0006 gms.

DI Water — Gross: 65.9157 gms. Tare: 65.9155 gms. Volume: 100 ml Residue: 0.0002 gms.

WEIGHTS & VOLUMES

Filter Gross: 0.4319 gms. Tare: 0.4113 gms. Net: **0.0206** gms.

Probe Rinse -
Acetone: 50 ml * 6E-06 gms./ml = Net: **-0.0003** gms.

DI Water: 55 ml * 2E-06 gms./ml = Net: **-0.0001** gms.

Gross: 66.2033 gms. Tare: 65.9496 gms. Net: **0.2537** gms.

Impinger Catch -
DI Water: 400 ml * 2E-06 gms./ml = Net: **-0.0008** gms.

Total: 401 ml Aliquot: 401 ml

Gross: 67.6559 gms. Tare: 67.6497 gms. Net: **0.0054** gms.

Total Particulate Weight = 0.2793 gms.

PARTICULATE WEIGHTS : DATA & CALCULATIONS

Client : Westfield Gins
Site : Fresno
Unit : Main Trash Stock Piler
Run : 2

Date : 11/15/91
Job #: 23024
Lab #: 291-180

BLANKS

Acetone
Gross: 68.4504 gms. Tare: 68.4498 gms. Volume: 100 ml Residue: 0.0006 gms.

DI Water
Gross: 65.9157 gms. Tare: 65.9155 gms. Volume: 100 ml Residue: 0.0002 gms.

WEIGHTS & VOLUMES

Filter Gross: 0.4355 gms. Tare: 0.4039 gms. Net: **0.0316** gms.

Probe Rinse -
Acetone: 50 ml * 6E-06 gms./ml = Net: **-0.0003** gms.

DI Water: 60 ml * 2E-06 gms./ml = Net: **-0.0001** gms.

Gross: 66.1302 gms. Tare: 65.9644 gms. Net: **0.1658** gms.

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

Total: 386 ml Aliquot: 386 ml

Gross: 67.0816 gms. Tare: 67.0720 gms. Net: **0.0088** gms.

Total Particulate Weight = 0.2058 gms.

PARTICULATE WEIGHTS : DATA & CALCULATIONS

Client : Westfield Gins
Site : Fresno
Unit : Main Trash Stock Piler
Run : 3

Date : 11/15/91
Job #: 23024
Lab #: 291-180

BLANKS

Acetone
Gross: 68.4504 gms. Tare: 68.4498 gms. Volume: 100 ml Residue: 0.0006 gms.

DI Water
Gross: 65.9157 gms. Tare: 65.9155 gms. Volume: 100 ml Residue: 0.0002 gms.

WEIGHTS & VOLUMES

Filter Gross: 0.4766 gms. Tare: 0.4060 gms. Net: **0.0706** gms.

Probe Rinse -
Acetone: 50 ml * 6E-06 gms./ml = Net: **-0.0003** gms.

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

Gross: 66.1481 gms. Tare: 65.9798 gms. Net: **0.1683** gms.

Impinger Catch -
DI Water: 510 ml * 2E-06 gms./ml = Net: **-0.0010** gms.

Total: 515 ml Aliquot: 515 ml

Gross: 70.7664 gms. Tare: 70.7580 gms. Net: **0.0074** gms.

Total Particulate Weight = 0.2459 gms.

#2 INCLINE
CYCLONE

PARTICULATE WEIGHTS : DATA & CALCULATIONS

Client : Westfield Gins
Site : Fresno
Unit : #2 Incline
Run : 1

Date : 11/14/91
Job #: 23024
Lab #: 291-180

BLANKS

Acetone
Gross: 68.4504 gms. Tare: 68.4498 gms. Volume: 100 ml Residue: 0.0006 gms.

DI Water
Gross: 65.9157 gms. Tare: 65.9155 gms. Volume: 100 ml Residue: 0.0002 gms.

WEIGHTS & VOLUMES

Filter Gross: 0.4247 gms. Tare: 0.4040 gms. Net: **0.0207** gms.

Probe Rinse -
Acetone: 50 ml * 6E-06 gms./ml = Net: **-0.0003** gms.

DI Water: 75 ml * 2E-06 gms./ml = Net: **-0.0002** gms.

Gross: 66.6084 gms. Tare: 66.5216 gms. Net: **0.0868** gms.

Impinger Catch -
DI Water: 275 ml * 2E-06 gms./ml = Net: **-0.0006** gms.

Total: 283 ml Aliquot: 283 ml

Gross: 66.0600 gms. Tare: 66.0454 gms. Net: **0.0141** gms.

Total Particulate Weight = 0.1211 gms.

PARTICULATE WEIGHTS : DATA & CALCULATIONS

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

Date : 11/14/91
Job #: 23024
Lab #: 291-180

BLANKS

Acetone — Gross: 68.4504 gms. Tare: 68.4498 gms. Volume: 100 ml Residue: 0.0006 gms.

DI Water — Gross: 65.9157 gms. Tare: 65.9155 gms. Volume: 100 ml Residue: 0.0002 gms.

WEIGHTS & VOLUMES

Filter Gross: 0.4867 gms. Tare: 0.4057 gms. Net: **0.0810** gms.

Probe Rinse -
Acetone: 50 ml * 6E-06 gms./ml = Net: **-0.0003** gms.

DI Water: 90 ml * 2E-06 gms./ml = Net: **-0.0002** gms.

Gross: 66.0454 gms. Tare: 65.9770 gms. Net: **0.0684** gms.

Impinger Catch -
DI Water: 540 ml * 2E-06 gms./ml = Net: **-0.0011** gms.

Total: 542 ml Aliquot: 542 ml

Gross: 66.0305 gms. Tare: 66.0208 gms. Net: **0.0086** gms.

Total Particulate Weight = 0.1575 gms.

GIN FEED TRASH
CYCLONE

PARTICULATE WEIGHTS : DATA & CALCULATIONS

Client : Westfield Gins
Site : Fresno
Unit : Gin Feed Trash
Run : 1

Date : 11/14/91
Job #: 23024
Lab #: 291-180

BLANKS

Acetone
Gross: 68.4504 gms. Tare: 68.4498 gms. Volume: 100 ml Residue: 0.0006 gms.

DI Water
Gross: 65.9157 gms. Tare: 65.9155 gms. Volume: 100 ml Residue: 0.0002 gms.

WEIGHTS & VOLUMES

Filter Gross: 0.4312 gms. Tare: 0.4022 gms. Net: **0.0290** gms.

Probe Rinse -
Acetone: 50 ml * 6E-06 gms./ml = Net: **-0.0003** gms.

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

Gross: 67.9897 gms. Tare: 67.9760 gms. Net: **0.0137** gms.

Impinger Catch -
DI Water: 340 ml * 2E-06 gms./ml = Net: **-0.0007** gms.

Total: 343 ml Aliquot: 343 ml

Gross: 66.0485 gms. Tare: 66.0418 gms. Net: **0.0060** gms.

Total Particulate Weight = 0.0483 gms.

PARTICULATE WEIGHTS : DATA & CALCULATIONS

Client : Westfield Gins
Site : Fresno
Unit : Gin Feed Trash
Run : 2

Date : 11/14/91
Job #: 23024
Lab #: 291-180

BLANKS

Acetone
Gross: 68.4504 gms. Tare: 68.4498 gms. Volume: 100 ml Residue: 0.0006 gms.

DI Water
Gross: 65.9157 gms. Tare: 65.9155 gms. Volume: 100 ml Residue: 0.0002 gms.

WEIGHTS & VOLUMES

Filter Gross: 0.4159 gms. Tare: 0.4032 gms. Net: **0.0127** gms.

Probe Rinse -
Acetone: 50 ml * 6E-06 gms./ml = Net: **-0.0003** gms.

DI Water: 110 ml * 2E-06 gms./ml = Net: **-0.0002** gms.

Gross: 72.7336 gms. Tare: 72.7062 gms. Net: **0.0274** gms.

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

Total: 423 ml Aliquot: 423 ml

Gross: 66.5796 gms. Tare: 66.5744 gms. Net: **0.0044** gms.

Total Particulate Weight = 0.0439 gms.

PARTICULATE WEIGHTS : DATA & CALCULATIONS

Client : Westfield Gins
Site : Fresno
Unit : Gin Feed Trash
Run : 3

Date : 11/14/91
Job #: 23024
Lab #: 291-180

BLANKS

Acetone — Gross: 68.4504 gms. Tare: 68.4498 gms. Volume: 100 ml Residue: 0.0006 gms.

DI Water — Gross: 65.9157 gms. Tare: 65.9155 gms. Volume: 100 ml Residue: 0.0002 gms.

WEIGHTS & VOLUMES

Filter Gross: 0.4195 gms. Tare: 0.4041 gms. Net: **0.0154** gms.

Probe Rinse -
Acetone: 50 ml * 6E-06 gms./ml = Net: **-0.0003** gms.

DI Water: 40 ml * 2E-06 gms./ml = Net: **-0.0001** gms.

Gross: 66.1437 gms. Tare: 66.1239 gms. Net: **0.0198** gms.

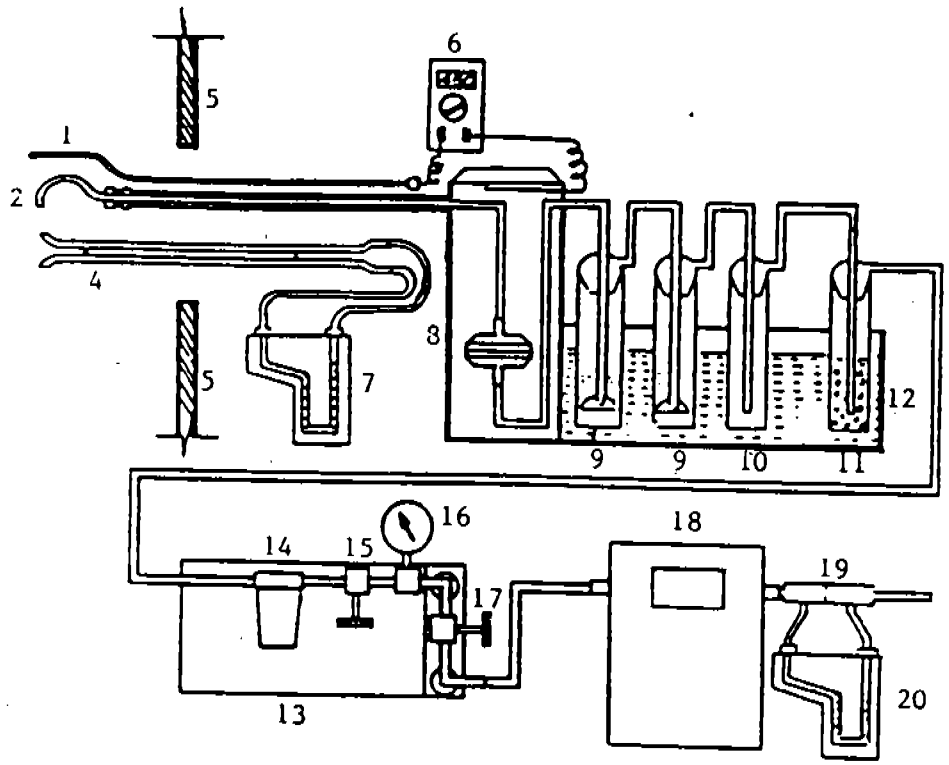
Impinger Catch -
DI Water: 540 ml * 2E-06 gms./ml = Net: **-0.0011** gms.

Total: 543 ml Aliquot: 543 ml

Gross: 65.5203 gms. Tare: 65.5117 gms. Net: **0.0075** gms.

Total Particulate Weight = 0.0423 gms.

VI. METHODOLOGY

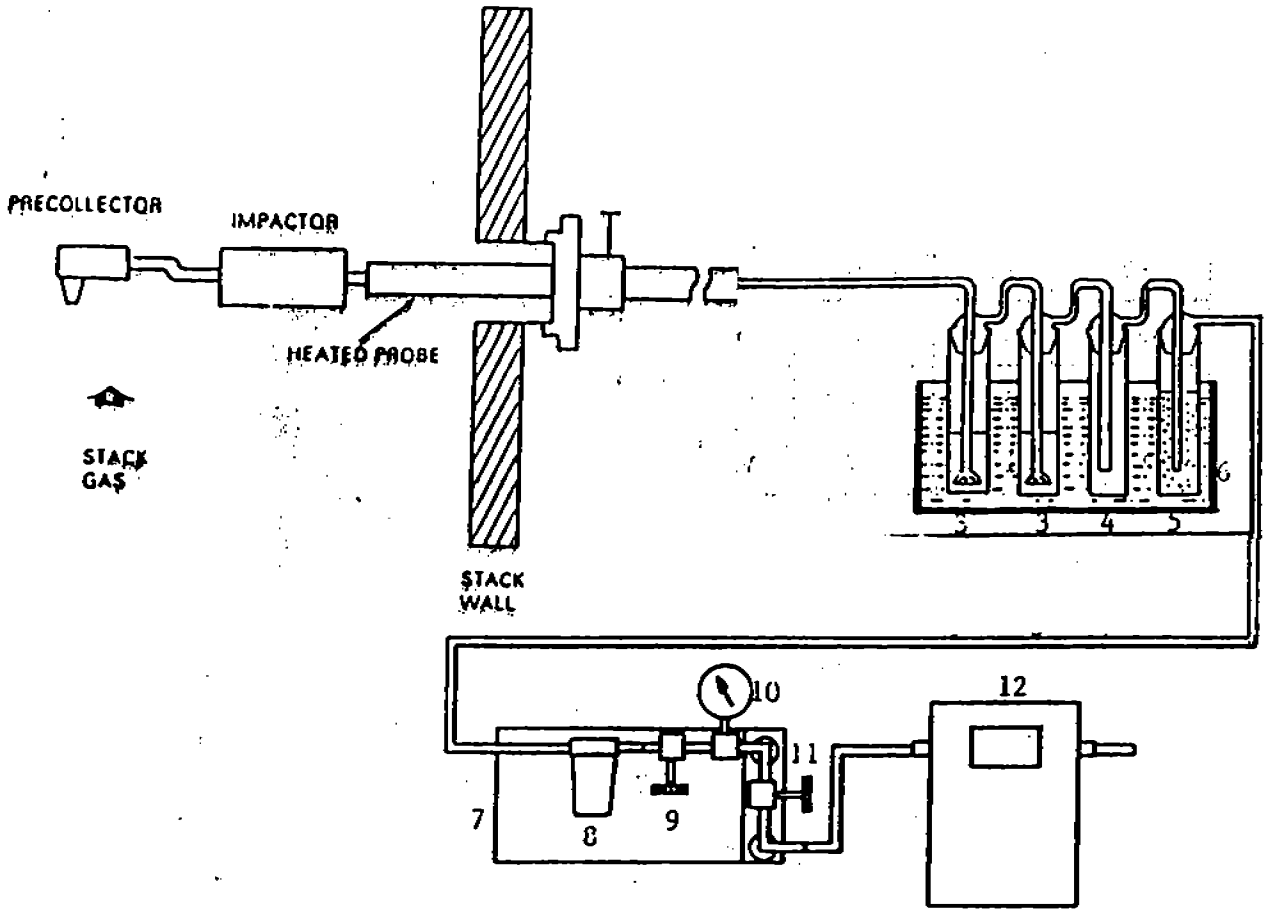


1. Temperature Sensor
2. Nozzle
3. Glass lined Stainless Steel Probe-Heated
4. S-type Pitot Tube
5. Stack Wall
6. Temperature Sensor Meter
7. Pitot Tube Inclined Manometer
8. Heated Box with Filter
9. Impinger with 100 ml H_2O
10. Empty Bubbler
11. Bubbler with Silica Gel
12. Ice Bath
13. Sealed Pump (Leak Free)
14. Filter for Pump
15. Metering Valve
16. Vacuum Gauge
17. By-pass Valve
18. Temperature Compensated Dry Gas Meter
19. Orifice
20. Orifice Inclined Manometer

Figure 5.2-1

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

PM-10 PARTICULATE SAMPLING TRAIN

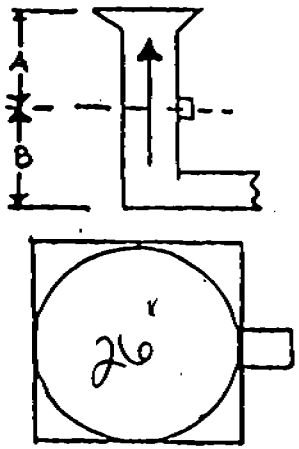


1. Stack Wall
2. Probe
3. Impinger with 100 ml of H_2O
4. Empty Bubbler
5. Bubbler with Silica Gel
6. Ice Bath
7. Sealed Pump (Leak Free)
8. Filter for Pump
9. Metering Valve
10. Vacuum Gauge
11. By-pass Valve
12. Temperature Compensated Dry Gas Meter

VII. RAW DATA

MAIN TRASH STOCK PILER CYCLONE

PLANT: West Field Gin
LOCATION: Bottle Ave
COUNTY: King Fresno
UNIT: Main Trash
DATE: 11/19/91
RUN NO./METHOD: 1 / 5M-10
COLD BOX NO.: 3
METER BOX NO.: B
METER FACTOR: 0.9915
PITOT #/ FACTOR: 10.846
PYROMETER #: T1
MAGNEHELIC FACTOR: ΔP ΔH @ 0.54



FILTER NO. G102, G36, G133
AMBIENT TEMP.: 60
BAROMETRIC PRESS.,IN.HG.: 29.84
ASSUMED MOISTURE: .05
HEATER BOX SETTING: ace
PROBE LENGTH,FT. 5
NOZZLE DIAMETER,IN.: 0.300
PROBE HEATER SETTING: ·ace
APPROX.WIND VEL.,MPH: ·calm
SAMPLE BOX TEMP.,(F): Ambient
STATIC PREASURE: .7045 "H2O
OFFSET: ____ In. PORT DIA.: ____ In. (M / F)

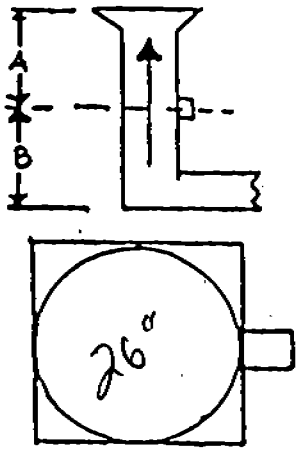
TRAVERSE POINT NUMBER	DISTANCE INCHES	O2 (%)	CO2 (%)	SAMPLE TIME MIN. 150	STACK TEMP. (Ts), F	VELOCITY HEAD IN. H2O ΔP	VELOCITY HEAD IN. H2O √ΔP	PRESSURE DIFF ORIFICE METER (ΔH) IN.H2O	DRY GAS SAMPLE VOLUME (VM),FT.	GAS SAMPLE TEMP. @DRY GAS METER INLET (Tm),	GAS SAMPLE TEMP. @DRY GAS METER OUTLET (TM)	PUMP VACUUM IN.HG	TEMP. LAST IMPINGER (F)
1				0	54	0.08	0.8	0.83	975.663	58	58		
2				7.5	54	0.09		0.96	979.2	55	59	8	
3				15	54	0.10		1.07	982.2	63	56		
4				22.5	57	0.10		1.07	986.1	66	59	7	
5				30	56	0.11		1.18	990.1	70	60		
6				37.5	57	0.12		1.28	993.9	71	64		
7				45	58	0.13		1.39	998.2	74	66		
8				52.5	61	0.12		1.28	1002.6	75	70		
				60					1007.276				
					72								
	ZERO												
	SPAN									73	75		
AVERAGE		20.9	0.05	60	56.4		0.325	1.135	31.613	64.2			

PITOT LEAK CHECK:
BEFORE: TOP ΔP= ____ BOTTOM ΔP= ____
ΔP= ____ ΔP= ____
AFTER: TOP ΔP= ____ BOTTOM ΔP= ____
ΔP= ____ ΔP= ____

SAMPLE TRAIN LEAK:
BEFORE= 0.006 CFM@ 20 IN. HG.
AFTER= 0.002 CFM@ 9 IN. HG.

COMMENTS: PURGE 10.625

PLANT: West Field Gin
LOCATION: Burle Ave
COUNTY: Fresno
UNIT: MAIN Trash
DATE: 11/19/91
RUN NO./METHOD: 2 PM -10
COLD BOX NO.: 2
METER BOX NO.: B
METER FACTOR: 0.9915
PITOT #/ FACTOR: 1 0.846
PYROMETER #: T1
MAGNEHELIC FACTOR: ΔP ΔH M-4 0.99



FILTER NO. G-46, G-50, G-158
AMBIENT TEMP.: 29, 66
BARAMETRIC PRESS.,IN.HG.: 29.72
ASSUMED MOISTURE: .05
HEATER BOX SETTING: off
PROBE LENGTH,FT. 5
NOZZLE DIAMETER,IN.: 0.500
PROBE HEATER SETTING: off
APPROX.WIND VEL.,MPH: Calm
SAMPLE BOX TEMP.,(F): Amb
STATIC PREASURE: "H2O
OFFSET: In. PORT DIA.: In. (M / F)

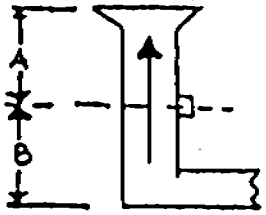
TRAVERSE POINT NUMBER	DISTANCE INCHES	O2 (%)	CO2 (%)	SAMPLE TIME MIN. 9:20	STACK TEMP. (Ts), F	VELOCITY HEAD IN. H2O ΔP	VELOCITY HEAD IN. H2O √ΔP	PRESSURE DIFF ORIFICE METER (ΔH) IN.H2O	DRY GAS SAMPLE VOLUME (VM),FT.	GAS SAMPLE TEMP. @DRY GAS METER INLET (Tm),	GAS SAMPLE TEMP. @DRY GAS METER OUTLET (TM)	PUMP VACUUM IN.HG	TEMP. LAST IMPINGER (F)
1				0	51	0.08		0.85	1007.428	71	71		10916
2				7.5	51	0.09		0.96	11.9	71	68		
3				15	47	0.1		1.07	15.3	74	67		
4				22.5	53	0.10		1.07	19.5	76	69		
5				30	54	0.11		1.18	22.7	78	69		
6				37.5	54	0.12		1.28	27.2	80	72	?	
7				45	54	0.13		1.37	32.1	83	74		
8				52.5	54	0.12		1.28	36.3	83	77		
				60					1039.760				
	ZERO												
	SPAN												
AVERAGE		20.9	0.05	1.0	52.3		0.375	1.125	32.332	93.9			

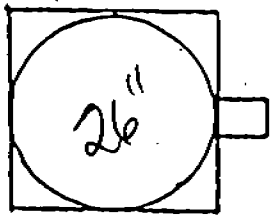
PITOT LEAK CHECK:
BEFORE: TOP ΔP= ____ BOTTOM ΔP= ____
ΔP= ____ ΔP= ____
AFTER: TOP ΔP= ____ BOTTOM ΔP= ____
ΔP= ____ ΔP= ____

SAMPLE TRAIN LEAK:
BEFORE= 0.004 CFM@ 17 IN. HG.
AFTER= 0.0012 CFM@ 10 IN. HG.

COMMENTS: PURGE ____

PLANT: WestField Gen
LOCATION: Butte Ave
COUNTY: Kings Fresno
UNIT: MAIN Fresh
DATE: 11/18/91
RUN NO./METHOD: 3 PM10
COLD BOX NO.: 4
METER BOX NO.: B
METER FACTOR: 0.9415
PITOT #/ FACTOR: 1 0.846
PYROMETER #: T1
MAGNEHELIC FACTOR: ΔP ΔH mH 0.993





FILTER NO. G-15, G-44, G-140
AMBIENT TEMP.: 66-13
BAROMETRIC PRESS.,IN.HG.: 29.74
ASSUMED MOISTURE: .05
HEATER BOX SETTING: OFF
PROBE LENGTH,FT. 5
NOZZLE DIAMETER,IN.: 0.3000
PROBE HEATER SETTING: OFF
APPROX.WIND VEL.,MPH: Calm
SAMPLE BOX TEMP.,(F): Ambient
STATIC PREASURE: "H2O
OFFSET: In. PORT DIA.: In. (M / F)

TRAVERSE POINT NUMBER	DISTANCE INCHES	O2 (%)	CO2 (%)	SAMPLE TIME MIN. 10:45	STACK TEMP. (Ts), F	VELOCITY HEAD IN. H2O ΔP	VELOCITY HEAD IN. H2O √ΔP	PRESSURE DIFF ORIFICE METER (ΔH) IN.H2O	DRY GAS SAMPLE VOLUME (VM), FT.	GAS SAMPLE TEMP. @DRY GAS METER INLET (Tm),	GAS SAMPLE TEMP. @DRY GAS METER OUTLET (TM)	PUMP VACUUM IN.HG	TEMP. LAST IMPINGER (F)
1				0	61	0.08		0.89	40.004	76	76		10938
2				7.5	61	0.09		1.0	43.6	75	71		
3				15	63	0.1		1.11	47.4	78	70		
4				22.5	63	0.1		1.11	51.8	80	71		
5				30	64	0.11		1.22	55.3	82	75		
6				37.5	65	0.12		1.34	59.8	83	76		
7				45	64	0.13		1.45	63.2	86	79	10	
8				52.5	65	0.12		1.34	68.0	88	80		
				60					72.693				
	ZERO												
	SPAN												
AVERAGE		20.9	0.07	60	65.3		0.325	1.163	32.689	[illegible]	77.9		

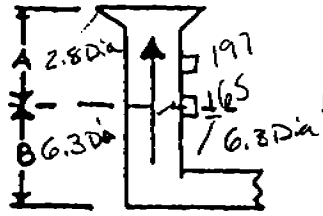
PITOT LEAK CHECK:
BEFORE: TOP ΔP= ΔP= BOTTOM ΔP= ΔP=
AFTER: TOP ΔP= ΔP= BOTTOM ΔP= ΔP=

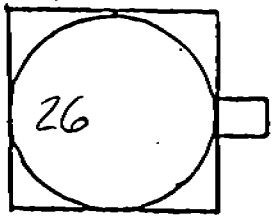
SAMPLE TRAIN LEAK:
BEFORE= 0.003 CFM@ 15 IN. HG.
AFTER= 0.007 CFM@ 10 IN. HG.

COMMENTS: PURGE

#2 INCLINE CYCLONE

PLANT: West Field Gin
LOCATION: Butte Ave
COUNTY: ~~King~~ Fresno
UNIT: #2 Incline
DATE: 11/4/91
RUN NO./METHOD: 1 / Pm-10
COLD BOX NO.: 3
METER BOX NO.: A
METER FACTOR: 0.9869
PITOT #/ FACTOR: #1 0.846
PYROMETER #: T1
MAGNEHELIC FACTOR: ΔP M-1 1.000 ΔH M-2 OFF





FILTER NO. 6 118, 79, 109
AMBIENT TEMP.: 62
BARAMETRIC PRESS.,IN.HG.: 29.68
ASSUMED MOISTURE: .05
HEATER BOX SETTING: OFF
PROBE LENGTH,FT. 5
NOZZLE DIAMETER,IN.: .325 #5
PROBE HEATER SETTING: OFF
APPROX.WIND VEL.,MPH: ~~Calm~~ 30 NW
SAMPLE BOX TEMP.,(F): Ambient
STATIC PREASURE: -0.01 "H2O
OFFSET: ____ In. PORT DIA.: ____ In. (M / F)

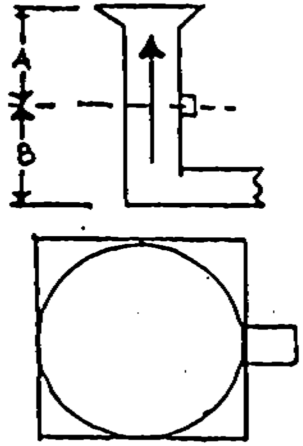
TRAVERSE POINT NUMBER	DISTANCE INCHES	O2 (%) 20.9	CO2 (%) .05	SAMPLE TIME MIN. 9:00	STACK TEMP. (Ts), F	VELOCITY HEAD IN. H2O ΔP	VELOCITY HEAD IN. H2O √ΔP	PRESSURE DIFF ORIFICE METER (ΔH) IN.H2O	DRY GAS SAMPLE VOLUME (VM),FT.	GAS SAMPLE TEMP. @DRY GAS METER INLET (Tm),	GAS SAMPLE TEMP. @DRY GAS METER OUTLET (TM)	PUMP VACUUM IN.HG	~~TEMP. LAST IMPINGER~~ Bulb (F)
1	.85			0	66	.045		.64	774.000	59	58	7	10,069
2	2.75			7.5	62	.055		.78	777.2	62	58		
3	5.05			15	62	.07		1.00	780.6	67	61	8	
4	8.35			22.5	64	.07		1.00	784.1	71	62	8	
5	17.65			30	66	.07		1.00	788.2	74	65		
6	20.95			37.5	68	.07		1.00	792.1	76	69		
7	23.25			45	71	.07		1.00	796.1	78	72	9	
8	25.15			52.5	72	.075		1.07	798.1	78	73		
				60					865.004				10623
	ZERO												
	SPAN				72								
AVERAGE		20.9	0.05	60	65.6		0.255	0.936	31.004	67.9	82 / 85		

PITOT LEAK CHECK:
BEFORE: TOP ΔP= ____ BOTTOM ΔP= ____
ΔP= ____ ΔP= ____
AFTER: TOP ΔP= ____ BOTTOM ΔP= ____
ΔP= ____ ΔP= ____

SAMPLE TRAIN LEAK:
BEFORE= 0.000 CFM@ 10 IN. HG.
AFTER= 0.014 CFM@ 20 IN. HG.

COMMENTS: PURGE F=14.285

PLANT: West Field Gin
LOCATION: Butte Ave
COUNTY: King
UNIT: #2 Incline (1st 2 cross sys
DATE: 11/14/91
RUN NO./METHOD: 2 - Pm10
COLD BOX NO.: 2
METER BOX NO.: A
METER FACTOR: 0.986
PITOT #/ FACTOR: #1 0.846
PYROMETER #: T1
MAGNEHELIC FACTOR: ΔP M-1 1.000 ΔH M-2 0.986



FILTER NO. G 96, G 88, G 124
AMBIENT TEMP.: ~~29.65~~ 64
BARAMETRIC PRESS., IN.HG.: 29.65
ASSUMED MOISTURE: .05
HEATER BOX SETTING: OFF
PROBE LENGTH, FT. 5
NOZZLE DIAMETER, IN.: #3 .325
PROBE HEATER SETTING: OFF
APPROX. WIND VEL., MPH: 30 mph NW
SAMPLE BOX TEMP., (F): Ambient
STATIC PREASURE: "H2O
OFFSET: ____ In. PORT DIA.: ____ In. (M / F)

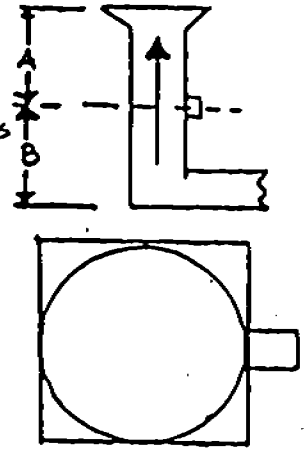
TRAVERSE POINT NUMBER	DISTANCE INCHES	O2 (%)	CO2 (%)	SAMPLE TIME MIN.	STACK TEMP. (Ts), F	VELOCITY HEAD IN. H2O ΔP	VELOCITY HEAD IN. H2O √ΔP	PRESSURE DIFF ORIFICE METER (ΔH) IN.H2O	DRY GAS SAMPLE VOLUME (VM), FT.	GAS SAMPLE TEMP. @DRY GAS METER INLET (Tm)	GAS SAMPLE TEMP. @DRY GAS METER OUTLET (TM)	PUMP VACUUM IN.HG	TEMP. LAST IMPINGER (F)
1				0	62	0.089		0.93	805.165	68	68	5	
2				7.5	63	0.07		1.0	809.0	72	67		
3				15	64	0.07		1.0	812.5	74	68		
4				22.5	64	0.07		1.0	816.2	78	69	6	
5				30	65	0.07		1.0	820.2	80	72		
6				37.5	91	0.085		1.07	823.9	81	75		
7				45	89	0.075		1.07	828.1	84	76		
8				52.5	88	0.07		1.0	832.4	88	78		
				60					836.728				
	ZERO												
	SPAN												
AVERAGE		20.9	0.05	60	73.3		0.270	1.009	31.563	77.8			

PITOT LEAK CHECK:
BEFORE: TOP ΔP= ____ BOTTOM ΔP= ____
ΔP= ____ ΔP= ____
AFTER: TOP ΔP= ____ BOTTOM ΔP= ____
ΔP= ____ ΔP= ____

SAMPLE TRAIN LEAK:
BEFORE= 0.003 CFM@ 10 IN. HG.
AFTER= 0.004 CFM@ 7 IN. HG.

COMMENTS: PURGE 14.285

PLANT: West Field Cogen
LOCATION: Butte Ave
COUNTY: Kern
UNIT: #2 Engine/#2 meter SYS
DATE: 11/14/91
RUN NO./METHOD: 3 Pm10
COLD BOX NO.: 4
METER BOX NO.: A
METER FACTOR: 0.9819
PITOT #/ FACTOR: # 1 0.8496
PYROMETER #: T1
MAGNEHELIC FACTOR: ΔP M-1 1.000 ΔH M-2 0.94



FILTER NO. G-12, G-11, G-10
AMBIENT TEMP.: 68 / /
BAROMETRIC PRESS.,IN.HG.: 29.61
ASSUMED MOISTURE: .05
HEATER BOX SETTING: 0CF
PROBE LENGTH,FT. 5
NOZZLE DIAMETER,IN.: #3 .375
PROBE HEATER SETTING: OFF
APPROX.WIND VEL.,MPH: 30 NW
SAMPLE BOX TEMP.,(F): Ambient
STATIC PREASURE: "H2O
OFFSET: In. PORT DIA.: in. (M / F)

TRAVERSE POINT NUMBER	DISTANCE INCHES	O2 (%)	CO2 (%)	SAMPLE TIME MIN.	STACK TEMP. (Ts), F	VELOCITY HEAD IN. H2O ΔP	VELOCITY HEAD IN. H2O √ΔP	PRESSURE DIFF ORIFICE METER (ΔH) IN.H2O	DRY GAS SAMPLE VOLUME (VM),FT.	GAS SAMPLE TEMP. @DRY GAS METER INLET (Tm),	GAS SAMPLE TEMP. @DRY GAS METER OUTLET (TM)	PUMP VACUUM IN.HG	TEMP. LAST IMPINGER (F)
1				0	89	0.065		0.93	836.531	66	66		
2				7.5	87	0.07		1.0	842.3	67	65	6	
3				15	94	0.07		1.0	846.1	73	66		
4				22.5	93	0.07		1.0	849.9	76	67	7	
5				30	93	0.07		1.0	853.9	78	71		
6				37.5	95	0.075		1.07	857.8	82	73		
7				45	92	0.075		1.07	862.2	85	76		
8				52.5	91	0.07		1.0	865.9	87	79		
				60					871.230				
	ZERO												
	SPAN												
AVERAGE		20.9	0.05	60	92.4		Delta	1.009	34.699	73.6			

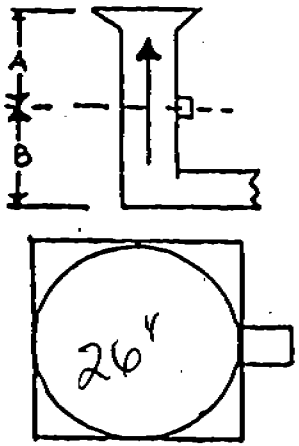
PITOT LEAK CHECK:
BEFORE: TOP ΔP= ____ BOTTOM ΔP= ____
ΔP= ____ ΔP= ____
AFTER: TOP ΔP= ____ BOTTOM ΔP= ____
ΔP= ____ ΔP= ____

SAMPLE TRAIN LEAK:
BEFORE= 0.005 CFM@ 20 IN. HG.
AFTER= 0.022 CFM@ 16 IN. HG.

COMMENTS: PURGE ____

GIN FEED TRASH CYCLONE

PLANT: West Field Gin
LOCATION: Butte Ave
COUNTY: Fresno
UNIT: Trash (Cotton Seed)
DATE: 11/18/91
RUN NO./METHOD: 1/PM10
COLD BOX NO.: 3
METER BOX NO.: B
METER FACTOR: 0.9915
PITOT #/ FACTOR: #1 0.846
PYROMETER #: T1
MAGNEHELIC FACTOR: ΔP ΔH @ 0.993



FILTER NO. 6-101, 6105, 6127
AMBIENT TEMP.: 69
BARAMETRIC PRESS.,IN.HG.: 29.55
ASSUMED MOISTURE: .05
HEATER BOX SETTING: 250
PROBE LENGTH,FT. 5
NOZZLE DIAMETER,IN.: 0.325
PROBE HEATER SETTING: 250
APPROX.WIND VEL.,MPH: Calm
SAMPLE BOX TEMP.,(F): Ambient
STATIC PREASURE: "H2O
OFFSET: -0.04 in. PORT DIA.: in. (M / F)

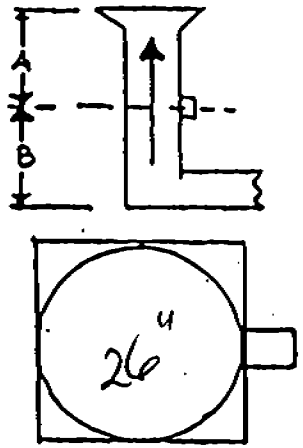
TRAVERSE POINT NUMBER	DISTANCE INCHES	O2 (%)	CO2 (%)	SAMPLE TIME MIN. 31.5	STACK TEMP. (Ts), F	VELOCITY HEAD IN. H2O ΔP	VELOCITY HEAD IN. H2O √ΔP	PRESSURE DIFF ORIFICE METER (ΔH) IN.H2O	DRY GAS SAMPLE VOLUME (VM),FT.	GAS SAMPLE TEMP. @DRY GAS METER INLET (Tm),	GAS SAMPLE TEMP. @DRY GAS METER OUTLET (TM)	PUMP VACUUM IN.HG	TEMP. LAST IMPINGER (F)
1		20.9	0.05	0	69	0.05		0.92	871.318	70	70		
2				7.5	63	0.055		1.0	875.6	73	68		
3				15	63	0.06		1.10	879.2	74	68	6	
4				22.5	64	0.065		1.19	883.1	78	70		
5				30	63	0.07		1.28	887.8	81	74		
6				37.5	62	0.07		1.28	891.9	83	77	9	
7				45	62	0.07		1.28	896.2	85	78		
8				52.5	62	0.07		1.28	900.6	88	79		
9				60					904.823				70693
	ZERO												
	SPAN												
AVERAGE		20.9	0.05	60	63.5		0252	1.166	33.557	76.0			

PITOT LEAK CHECK:
BEFORE: TOP ΔP= ____ BOTTOM ΔP= ____
ΔP= ____ ΔP= ____
AFTER: TOP ΔP= ____ BOTTOM ΔP= ____
ΔP= ____ ΔP= ____

SAMPLE TRAIN LEAK:
BEFORE= 0.006 CFM@ 10 IN. HG.
AFTER= 0.004 CFM@ 15 IN. HG.

COMMENTS: PURGE ~~4.73~~ 18.32

PLANT: Westfield Gin
LOCATION: Buttle Ave
COUNTY: King
UNIT: Trash (Gin Feed)
DATE: 11/15/91
RUN NO./METHOD: 2
COLD BOX NO.: B
METER BOX NO.: B
METER FACTOR: 0.9915
PITOT #/ FACTOR: #1 0.846
PYROMETER #: T1
MAGNEHELIC FACTOR: ΔP ΔH in-w 0.99



FILTER NO. G110, G-89, G143
AMBIENT TEMP.: 70
BARAMETRIC PRESS.,IN.HG.: 29.55
ASSUMED MOISTURE: .65%
HEATER BOX SETTING: OFF
PROBE LENGTH,FT. 5
NOZZLE DIAMETER,IN.: 0.325
PROBE HEATER SETTING: 2
APPROX.WIND VEL.,MPH: Calm
SAMPLE BOX TEMP.,(F): OFF
STATIC PREASURE: "H2O
OFFSET: In. PORT DIA.: In. (M / F)

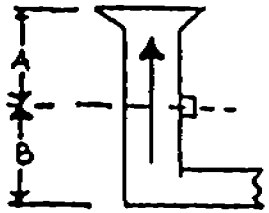
TRAVERSE POINT NUMBER	DISTANCE INCHES	O2 (%)	CO2 (%)	SAMPLE TIME MIN. 4:35	STACK TEMP. (Ts), F	VELOCITY HEAD IN. H2O ΔP	VELOCITY HEAD IN. H2O √ΔP	PRESSURE DIFF ORIFICE METER (ΔH) IN.H2O	DRY GAS SAMPLE VOLUME (VM),FT.	GAS SAMPLE TEMP. @DRY GAS METER INLET (Tm),	GAS SAMPLE TEMP. @DRY GAS METER OUTLET (TM)	PUMP VACUUM IN.HG	TEMP. LAST IMPINGER (F)
1				0	58	0.15		0.92	905.024	80	81		
2				7.5	59	0.055		1.0	909.0	77	76	6	
3				15	62	0.065		1.19	914.7	75	75	7	
4				22.5	61	0.07		1.28	918.4	83	75.		
5				30	61	0.07		1.28	922.7	84	78		
6				37.5	60	0.07		1.28	927.1	86	79		
7				45	61	0.07		1.28	931.2	187	81	8	
8				52.5	60	0.065		1.19	935.6	89	82		
				60					940.219				
	ZERO												
	SPAN												
AVERAGE		20.9	0.05	60	60.3		0.260	1.128	35.195	80.8			

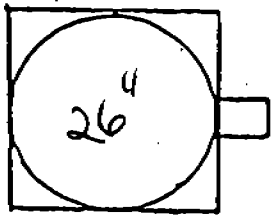
PITOT LEAK CHECK:
BEFORE: TOP ΔP= ____ BOTTOM ΔP= ____
ΔP= ____ ΔP= ____
AFTER: TOP ΔP= ____ BOTTOM ΔP= ____
ΔP= ____ ΔP= ____

SAMPLE TRAIN LEAK:
BEFORE= 0.007 CFM@ 16 IN. HG.
AFTER= 0.002 CFM@ 10 IN. HG.

COMMENTS: PURGE 15.31

PLANT: West Side Gin
LOCATION: Burrell
COUNTY: Fresno
UNIT: Trash (Gin coal)
DATE: 11/14/91
RUN NO./METHOD: 3/PM10
COLD BOX NO.: #1
METER BOX NO.: B
METER FACTOR: 0.9915
PITOT #/ FACTOR: #1 0.846
PYROMETER #: T1
MAGNEHELIC FACTOR: ΔP ΔH w-4 0.99





FILTER NO. G-64, G-69, G-162
AMBIENT TEMP.: 70F
BARAMETRIC PRESS.,IN.HG.: 29.88
ASSUMED MOISTURE: 10%
HEATER BOX SETTING: over
PROBE LENGTH,FT.: 5
NOZZLE DIAMETER,IN.: 0.325
PROBE HEATER SETTING: ACC
APPROX.WIND VEL.,MPH: 5.0 NW
SAMPLE BOX TEMP.,(F): 02
STATIC PREASURE: "H2O
OFFSET: In. PORT DIA.: In. (M / F)

TRAVERSE POINT NUMBER	DISTANCE INCHES	O2 (%)	CO2 (%)	SAMPLE TIME MIN.	STACK TEMP. (Ts), F	VELOCITY HEAD IN. H2O ΔP	VELOCITY HEAD IN. H2O √ΔP	PRESSURE DIFF ORIFICE METER (ΔH) IN.H2O	DRY GAS SAMPLE VOLUME (VM),FT.	GAS SAMPLE TEMP. @DRY GAS METER INLET (Tm),	GAS SAMPLE TEMP. @DRY GAS METER OUTLET (TM)	PUMP VACUUM IN.HG	TEMP. LAST IMPINGER (F)
				0	70	0.06		0.92	940.325	80	81		10717
				7.5	70	0.055		1.0	945.2	86	77		
				15	72	0.065		1.19	949.1	81	78		
				22.5	72	0.07		1.28	953.3	82	76		
				30	74	0.07		1.24	957.7	80	77	7	
				37.5	74	0.07		1.28	962.4	86	79		
				45	72	0.07		1.28	967.4	88	80		
				52.5	75	0.065		1.19	972.9	88	82		
				60					975563				10780
	ZERO												
	SPAN												
AVERAGE		20.9	0.05	60	72.4		0.253	1.178	35.1738	81.3			

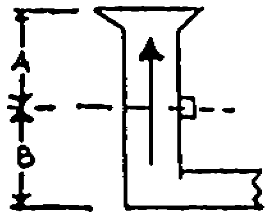
PITOT LEAK CHECK:
BEFORE: TOP ΔP= ΔP= BOTTOM ΔP= ΔP=
AFTER: TOP ΔP= ΔP= BOTTOM ΔP= ΔP=

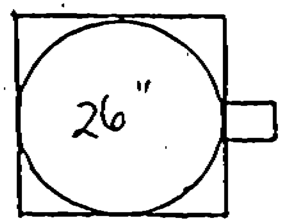
SAMPLE TRAIN LEAK:
BEFORE= 0.009 CFM@ 21 IN. HG.
AFTER= 0.005 CFM@ 15 IN. HG.

COMMENTS: PURGE

MAIN TRASH STOCK PILER CYCLONE

PLANT: West Field Gin
LOCATION: Bristo Ave
COUNTY: Fresno
UNIT: Main Trash
DATE: 11/18/91
RUN NO./METHOD: 1/5
COLD BOX NO.: 6
METER BOX NO.: A
METER FACTOR: 0.9819
PITOT #/ FACTOR: #1 0.846
PYROMETER #: T1
MAGNEHELIC FACTOR: ΔP M-1 1.000 ΔH M-2 0.991





FILTER NO. A-1
AMBIENT TEMP.: 60
BARAMETRIC PRESS., IN.HG.: 29.84
ASSUMED MOISTURE: .05
HEATER BOX SETTING: off
PROBE LENGTH, FT.: 5
NOZZLE DIAMETER, IN.: #37 0.366
PROBE HEATER SETTING: off
APPROX. WIND VEL., MPH: Calm
SAMPLE BOX TEMP., (F): Ambient
STATIC PREASURE: "H2O
OFFSET: In. PORT DIA.: In. (M / F)

TRAVERSE POINT NUMBER	DISTANCE INCHES	O2 (%)	CO2 (%)	SAMPLE TIME MIN. 7:50	STACK TEMP. (Ts), F	VELOCITY HEAD IN. H2O ΔP	√ΔP	PRESSURE DIFF ORIFICE METER (ΔH) IN.H2O	DRY GAS SAMPLE VOLUME (VM), FT.	GAS SAMPLE TEMP. @DRY GAS METER INLET (Tm)	OUTLET (TM)	PUMP VACUUM IN.HG	TEMP. LAST IMPINGER (F)
1				0	54	0.08		1.02	848.665	57	57		
2				7.5	54	0.09		1.15	852.4	58	58		
3				15	57	0.10		1.28	856.7	61	60	3	
4				22.5	56	0.10		1.29	861.4	63	63		
5				30	57	0.11		1.41	865.6	66	65		
6				37.5	58	0.12		1.53	870.7	67	67		
				45	61	0.13		1.66	875.9	69	68		
				52.5	63	0.12		1.53	880.8	69	69		
				60					886.585				
					72					75	75		
	ZERO												
	SPAN												
AVERAGE		20.9	0.05	60	57.5		0.321	1.355	37.890	63.4			

PITOT LEAK CHECK:

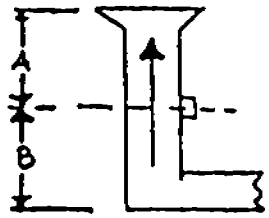
BEFORE: TOP ΔP= 2.9 BOTTOM ΔP= 2.3
ΔP= 2.9 ΔP= 2.3

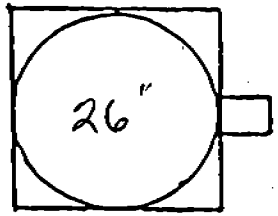
AFTER: TOP ΔP= 1.4 BOTTOM ΔP= 2.8
ΔP= 1.4 ΔP= 2.8

SAMPLE TRAIN LEAK:
BEFORE= 0.004 CFM@ 15 IN. HG.
AFTER= 0.000 CFM@ 20 IN. HG.

COMMENTS: PURGE 12.75

PLANT: Westfield G'n
LOCATION: Burle Ave
COUNTY: ~~Kern~~ Fresno
UNIT: Mainstack
DATE: 11/15/91
RUN NO./METHOD: 2/5
COLD BOX NO.: 7
METER BOX NO.: A
METER FACTOR: 0.989
PITOT #/ FACTOR: #1 0.846
PYROMETER #: T
MAGNEHELIC FACTOR: ΔP M-4 1.000 ΔH M-2 .991





FILTER NO. P-73
AMBIENT TEMP.: lab
BARAMETRIC PRESS.,IN.HG.: 29.92
ASSUMED MOISTURE: .05
HEATER BOX SETTING: off
PROBE LENGTH,FT. 5
NOZZLE DIAMETER,IN.: #37 .366
PROBE HEATER SETTING: off
APPROX.WIND VEL.,MPH: Calm
SAMPLE BOX TEMP.,(F): Ambt
STATIC PREASURE: "H2O
OFFSET: In. PORT DIA.: In. (M / F)

TRAVERSE POINT NUMBER	DISTANCE INCHES	O2 (%)	CO2 (%)	SAMPLE TIME MIN.	STACK TEMP. (Ts), F	VELOCITY HEAD IN. H2O ΔP	VELOCITY HEAD IN. H2O √ΔP	PRESSURE DIFF ORIFICE METER (ΔH) IN.H2O	DRY GAS SAMPLE VOLUME (VM),FT.	GAS SAMPLE TEMP. @DRY GAS METER INLET (Tm),	GAS SAMPLE TEMP. @DRY GAS METER OUTLET (TM)	PUMP VACUUM IN.HG	TEMP. LAST IMPINGER (F)
1				0	51	0.08		1.02	886.673	72	71		
2				7.5	47	0.09		1.15	891.4	72	72		
3				15	53	0.10		1.28	895.2	72	72		
4				22.5	54	0.10		1.28	898.6	72	72		
5				30	54	0.11		1.41	903.3	73	73		
6				37.5	54	0.12		1.53	906.7	74	73		
7				45	54	0.13		1.66	913.2	74	75		
8				52.5	53	0.12		1.53	917.8	75	75		
				60					925.000				
	ZERO												
	SPAN												
AVERAGE		20.9	0.05	60	52.5		0.325	1.358	36.327	72.9			

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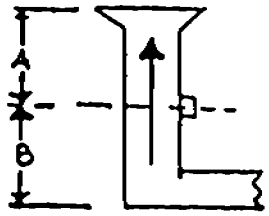
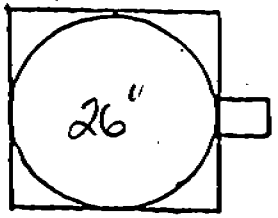
PITOT LEAK CHECK:
BEFORE: TOP ΔP= 2.2 ΔP= 2.2
AFTER: TOP ΔP= 3.4 ΔP= 3.4
BOTTOM ΔP= 2.8 ΔP= 2.8
BOTTOM ΔP= 1.9 ΔP= 1.9

SAMPLE TRAIN LEAK:
BEFORE= 0.009 CFM@ 21 IN. HG.
AFTER= 0.006 CFM@ 10 IN. HG.

COMMENTS: PURGE

PLANT: West Field Gin
LOCATION: Butte Ave
COUNTY: Fresno
UNIT: Main Trail
DATE: 11/15/91
RUN NO./METHOD: 2/5
COLD BOX NO.: 5
METER BOX NO.: A
METER FACTOR: 0.9819
PITOT #/ FACTOR: #1 0.846
PYROMETER #: T1
MAGNEHELIC FACTOR: ΔP M-1 1.000 ΔH M-2 5.961





FILTER NO. B-10
AMBIENT TEMP.: 66
BARAMETRIC PRESS.,IN.HG.: 29.84
ASSUMED MOISTURE: 5%
HEATER BOX SETTING: 65
PROBE LENGTH,FT. 5
NOZZLE DIAMETER,IN.: #37 0.366
PROBE HEATER SETTING: 65
APPROX.WIND VEL.,MPH: Calm
SAMPLE BOX TEMP.,(F): Ambient
STATIC PREASURE: "H2O
OFFSET: In. PORT DIA.: In. (M / F)

TRAVERSE POINT NUMBER	DISTANCE INCHES	O2 (%)	CO2 (%)	SAMPLE TIME MIN.	STACK TEMP. (Ts), F	VELOCITY HEAD IN. H2O ΔP	VELOCITY HEAD IN. H2O √ΔP	PRESSURE DIFF ORIFICE METER (ΔH) IN.H2O	DRY GAS SAMPLE VOLUME (VM),FT.	GAS SAMPLE TEMP. @DRY GAS METER INLET (Tm),	GAS SAMPLE TEMP. @DRY GAS METER OUTLET (TM)	PUMP VACUUM IN.HG	TEMP. LAST IMPINGER (F)
1				0	61	0.09		1.20	935.120	79	75		
2				75	63	0.09		1.20	929.6	77	77		
3				225	63	0.1		1.33	934.2	77	77		
4				225	64	0.11		1.47	939.0	77	78		
5				30	64	0.12		1.60	944.1	78	78		
6				375	65	0.12		1.60	948.1	79	79		
7				45	65	0.13		1.73	953.4	80	79	9	
8				525	65	0.11		1.47	958.3	80	81		
				60									
	ZERO												
	SPAN												
AVERAGE		20.9	0.0	60	63.3		0.329	1.45	33,180	78.9			

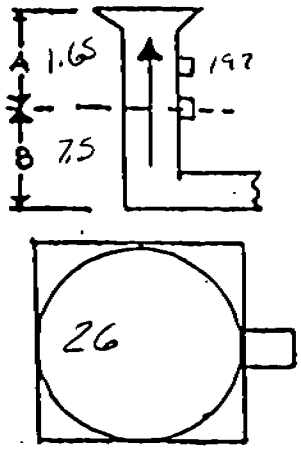
PITOT LEAK CHECK:
BEFORE: TOP ΔP= 3.9 ΔP= 3.9 BOTTOM ΔP= 3.8 ΔP= 3.8
AFTER: TOP ΔP= 2.7 ΔP= 2.7 BOTTOM ΔP= 2.9 ΔP= 2.9

SAMPLE TRAIN LEAK:
BEFORE= 0.007 CFM@ 18 IN. HG.
AFTER= CFM@ IN. HG.

COMMENTS: PURGE

#2 INCLINE
CYCLONE

PLANT: Westside Gin
LOCATION: Battle Ave
COUNTY: Fresno
UNIT: #2 Incline / #2 Moisture
DATE: 11/14/91
RUN NO./METHOD: 1 / Part 5
COLD BOX NO.: 6
METER BOX NO.: B
METER FACTOR: 0.9915
PITOT #/ FACTOR: #1 0.846
PYROMETER #: T1
MAGNEHELIC FACTOR: ΔP ΔH in-4 0.999



FILTER NO. 640
AMBIENT TEMP.: ~~25~~ 62
BARAMETRIC PRESS.,IN.HG.: 29.68
ASSUMED MOISTURE: .05
HEATER BOX SETTING: 000
PROBE LENGTH,FT. 5
NOZZLE DIAMETER,IN.: .0376
PROBE HEATER SETTING: 000
APPROX.WIND VEL.,MPH: [redacted] 25 NW
SAMPLE BOX TEMP.,(F): Amb
STATIC PREASURE: "H2O
OFFSET: In. PORT DIA.: In. (M / F)

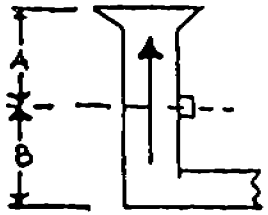
TRAVERSE POINT NUMBER	DISTANCE INCHES	O2 (%) 20.9	CO2 (%) .05	SAMPLE TIME MIN. 9.07	STACK TEMP. (Ts), F	VELOCITY HEAD IN. H2O ΔP	VELOCITY HEAD IN. H2O √ΔP	PRESSURE DIFF ORIFICE METER (ΔH) IN.H2O	DRY GAS SAMPLE VOLUME (VM),FT.	GAS SAMPLE TEMP. @DRY GAS METER INLET (Tm),	GAS SAMPLE TEMP. @DRY GAS METER OUTLET (TM)	PUMP VACUUM IN.HG	TEMP. LAST IMPINGER (F)
1	0.83			0 7.5	65	.064		1.21	610.495	60	61	2	
2	2.75			7.5 15	64	.07		1.33	614.6	62	61		
3	5.05			15 22.5	64	.07		1.33	619.9	64	63	2	
4	8.35			22.5 30	66	.07		1.34	624.3	66	63		
5	17.65			30 37.5	68	.07		1.33	629.0	69	68		
6	20.95			37.5 45	71	.075		1.43	634.2	71	70	2	
7	23.25			45 52.5	72	.075		1.43	638.8	72	71		
8	25.15			52.5 60	72	.057		1.3	644.3	.72	27		
				60 67.5					648.510				
	ZERO												
	SPAN												
AVERAGE		20.91	0.05	60	67.8		0.261	1.339	38.315	66.6	.075 x	1.48	

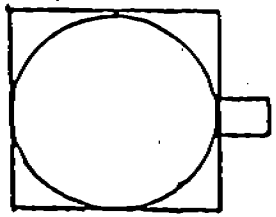
PITOT LEAK CHECK:
BEFORE: TOP ΔP= 1.5 BOTTOM ΔP= 2.7
ΔP= 1.5 ΔP= 2.7
AFTER: TOP ΔP= 2.3 BOTTOM ΔP= 3.2
ΔP= 2.3 ΔP= 3.2

SAMPLE TRAIN LEAK:
BEFORE= 0.007 CFM@ 20 IN. HG.
AFTER= 0.000 CFM@ 5 IN. HG.

COMMENTS: PURGE 19.733

PLANT: West Field Gin
LOCATION: Butte Ave
COUNTY: ~~Fresno~~ Fresno
UNIT: #2 Incline / #2 Modesto
DATE: 11/14/91
RUN NO./METHOD: 2 / Part
COLD BOX NO.: 5
METER BOX NO.: 3
METER FACTOR: 0.9915
PITOT #/ FACTOR: #1 0.846
PYROMETER #: T1
MAGNEHELIC FACTOR: ΔP ΔH mc-4 0.993





FILTER NO. D 12
AMBIENT TEMP.: 69
BAROMETRIC PRESS.,IN.HG.: 29.65
ASSUMED MOISTURE: .05
HEATER BOX SETTING: 0FF
PROBE LENGTH,FT. 5
NOZZLE DIAMETER,IN.: 0.376
PROBE HEATER SETTING: OFF
APPROX.WIND VEL.,MPH: ~~Calm~~ 30 NW
SAMPLE BOX TEMP.,(F): Amb
STATIC PREASURE: "H2O
OFFSET: In. PORT DIA.: in. (M / F)

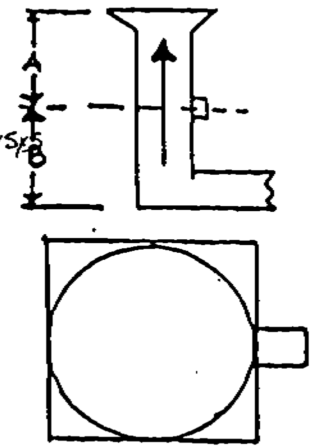
TRAVERSE POINT NUMBER	DISTANCE INCHES	O2 (%)	CO2 (%)	SAMPLE TIME MIN.	STACK TEMP. (Ts), F	VELOCITY HEAD IN. H2O ΔP	VELOCITY HEAD IN. H2O √ΔP	PRESSURE DIFF ORIFICE METER (ΔH) IN.H2O	DRY GAS SAMPLE VOLUME (VM),FT.	GAS SAMPLE TEMP. @DRY GAS METER INLET (Tm),	GAS SAMPLE TEMP. @DRY GAS METER OUTLET (TM)	PUMP VACUUM IN.HG	TEMP. LAST IMPINGER (F)
1				0 7.5	60	0065		1.25	651.100	75	77		
2				7.5 15	64	0.01		1.35	655.7	78	79		
3				15 22.5	64	0.01		1.35	660.2	79	79		
4				22.5 30	63	0.01		1.35	663.3	25	29		
5				30 37.5	91	0.07		1.35	670.1	79	29	6	
6				37.5 45	89	0.070		1.35	675.4	79	79		
7				45 52.5	89	0.075		1.44	680.4	180	79		
8				52.5 60	66	0.075		1.44	684.9	81	81		
				60 67.5		0.09		~~1.36~~	689.358				
	ZERO												
	SPAN												
AVERAGE		20.9	0.05	60	73.4		0.266	1.360	38.458	78.9			

PITOT LEAK CHECK:
BEFORE: TOP ΔP= 2.6 BOTTOM ΔP= 3.1
ΔP= 2.6 ΔP= 3.1
AFTER: TOP ΔP= 3.4 BOTTOM ΔP= 3.2
ΔP= 3.4 ΔP= 3.2

SAMPLE TRAIN LEAK:
BEFORE= <0.001 CFM@ 3 IN. HG.
AFTER= 0.000 CFM@ 9 IN. HG.

COMMENTS: PURGE 19.733

PLANT: West Field Gin
LOCATION: Butle Ave
COUNTY: ~~[illegible]~~ Grand
UNIT: #2 Tw[illegible] / #2 Moi[illegible]
DATE: 11/14/91
RUN NO./METHOD: 3/ mt 5
COLD BOX NO.: 7
METER BOX NO.: B
METER FACTOR: 0.9415
PITOT #/ FACTOR: #1 0.846
PYROMETER #: T1
MAGNEHELIC FACTOR: ΔP ΔH m-4 0.993



FILTER NO. E39
AMBIENT TEMP.: 68
BARAMETRIC PRESS.,IN.HG.: 29.61
ASSUMED MOISTURE: .05
HEATER BOX SETTING: off
PROBE LENGTH,FT.: 5
NOZZLE DIAMETER,IN.: 0.37[illegible]
PROBE HEATER SETTING: off
APPROX.WIND VEL.,MPH: 30 NW
SAMPLE BOX TEMP.,(F): Amb
STATIC PREASURE: "H2O
OFFSET: In. PORT DIA.: In. (M / F)

TRAVERSE POINT NUMBER	DISTANCE INCHES	O2 (%)	CO2 (%)	SAMPLE TIME MIN.	STACK TEMP. (Ts), F	VELOCITY HEAD IN. H2O ΔP	√ΔP	PRESSURE DIFF ORIFICE METER (ΔH) IN.H2O	DRY GAS SAMPLE VOLUME (VM),FT.	GAS SAMPLE TEMP. @DRY GAS METER INLET (Tm)	OUTLET (TM)	PUMP VACUUM IN.HG	TEMP. LAST IMPINGER (F)
1				0	87	0.065		1.25	689.604	78	79	5	10653
2				7.5	94	0.07		1.35	694.2	80	80	5	
3				15	93	0.07		1.35	698.7	80	80		
4				22.5	96	0.07		1.35	703.4	80	80		
5				30	95	0.07		1.35	~~[illegible]~~	80	80		
6				37.5	92	0.07		1.35	714.1	82	81	5	
7				45	91	0.075		1.44	718.7	82	81		
8				52.5	93	0.075		1.44	720.1	83	82		
				60		~~0.07~~		~~1.35~~	723.5	83	83	6	
				~~60~~					728.788				10667
	ZERO												
	SPAN												
AVERAGE		20.9	0.05	60	92.9		0.266	1.360	34.184	80.9			

PITOT LEAK CHECK:
BEFORE: TOP ΔP= 3.0 ΔP= 3.0 BOTTOM ΔP= 2.8 ΔP= 2.8
AFTER: TOP ΔP= 2.8 ΔP= 2.8 BOTTOM ΔP= 3.0 ΔP= 3.0

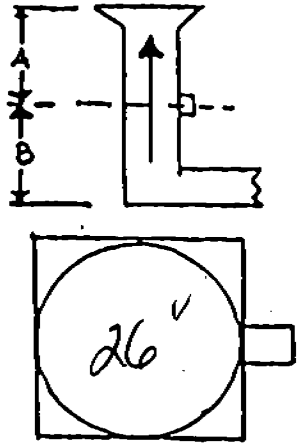
SAMPLE TRAIN LEAK:
BEFORE= 0.002 CFM@ 10 IN. HG.
AFTER= 0.005 CFM@ 15 IN. HG.

COMMENTS: PURGE

340
0497

GIN FEED TRASH CYCLONE

PLANT:	West Field Ginning
LOCATION:	Biola Ave
COUNTY:	Fresno
UNIT:	Trash (Gin Feed)
DATE:	11/11/91
RUN NO./METHOD:	1/MS
COLD BOX NO.:	
METER BOX NO.:	A
METER FACTOR:	0.9819
PITOT #/ FACTOR:	#1 0.846
PYROMETER #:	T1
MAGNEHELIC FACTOR:	ΔP M-1 1.000 ΔH M-2 0.981



FILTER NO.	B-1
AMBIENT TEMP.:	69
BARAMETRIC PRESS.,IN.HG.:	29.55
ASSUMED MOISTURE:	.05
HEATER BOX SETTING:	off
PROBE LENGTH,FT.:	5
NOZZLE DIAMETER,IN.:	0.378
PROBE HEATER SETTING:	off
APPROX.WIND VEL.,MPH:	Calm
SAMPLE BOX TEMP.,(F):	Amb.
STATIC PREASURE:	-0.01 "H2O
OFFSET:	In.
PORT DIA.:	In. (M / F)

TRAVERSE POINT NUMBER	DISTANCE INCHES	O2 (%)	CO2 (%)	SAMPLE TIME MIN.	STACK TEMP. (Ts), F	VELOCITY HEAD IN. H2O ΔP	VELOCITY HEAD IN. H2O √ΔP	PRESSURE DIFF ORIFICE METER (ΔH) IN.H2O	DRY GAS SAMPLE VOLUME (VM),FT.	GAS SAMPLE TEMP. @DRY GAS METER INLET (Tm),	GAS SAMPLE TEMP. @DRY GAS METER OUTLET (TM)	PUMP VACUUM IN.HG	TEMP. LAST IMPINGER (F)
1		20.9	0.05	0	69	0.05		1.07	728.891	82	83		
2				7.5	63	0.06		1.28	733.6	82	83	5	
3				15	64	0.065		1.39	738.3	82	82		
4				22.5	63	0.07		1.50	743.7	82	82		
5				30	62	0.07		1.50	748.6	83	83		
6				37.5	62	0.07		1.50	753.5	84	82		
7				45	63	0.07		1.50	758.5	84	83		
8				52.5	62	0.065		1.28	763.6	85	84		
				60					768.431				
	ZERO												
	SPAN												
AVERAGE		20.9	0.05	60	63.5		0.254	1.378	39.532	82.9			

PITOT LEAK CHECK:

BEFORE: TOP ΔP= 3.4 ΔP= 3.4 BOTTOM ΔP= 2.5 ΔP= 2.5

AFTER: TOP ΔP= ΔP= BOTTOM ΔP= ΔP=

SAMPLE TRAIN LEAK:

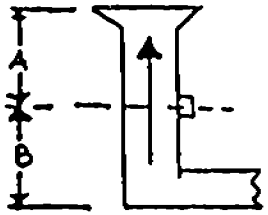
BEFORE= 0.000 CFM@ 10 IN. HG.

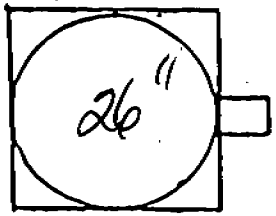
AFTER= 0.001 CFM@ 20 IN. HG.

COMMENTS: PURGE 21.43

112

PLANT: Westfield Gin
LOCATION: Bottle Ave
COUNTY: ~~King~~ Fresno
UNIT: Tsuda (Gin Feed)
DATE: 11/15/91
RUN NO./METHOD: 3/5
COLD BOX NO.: ~~3~~
METER BOX NO.: A
METER FACTOR: 0.9819
PITOT #/ FACTOR: #1 0.846
PYROMETER #: T1
MAGNEHELIC FACTOR: ΔP M-1 1.000 ΔH M-2 .981





FILTER NO. B-3
AMBIENT TEMP.: 70
BARAMETRIC PRESS.,IN.HG.: 29.55
ASSUMED MOISTURE: ~~0~~ .05
HEATER BOX SETTING: OFF
PROBE LENGTH,FT.: 5
NOZZLE DIAMETER,IN.: 0.375
PROBE HEATER SETTING: OFF
APPROX.WIND VEL.,MPH: Calm
SAMPLE BOX TEMP.,(F): Amb
STATIC PREASURE: -0.01 "H2O
OFFSET: ____ In. PORT DIA.: ____ In. (M / F)

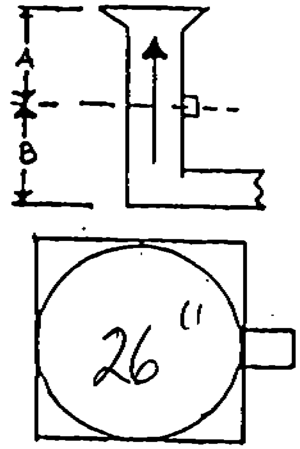
TRAVERSE POINT NUMBER	DISTANCE INCHES	O2 (%)	CO2 (%)	SAMPLE TIME MIN.	STACK TEMP. (Ts), F	VELOCITY HEAD IN. H2O ΔP	VELOCITY HEAD IN. H2O √ΔP	PRESSURE DIFF ORIFICE METER (ΔH) IN.H2O	DRY GAS SAMPLE VOLUME (VM),FT.	GAS SAMPLE TEMP. @DRY GAS METER INLET (Tm),	GAS SAMPLE TEMP. @DRY GAS METER OUTLET (TM)	PUMP VACUUM IN.HG	TEMP. LAST IMPINGER (F)
1				0	59	0.05		1.07	768.704	85	86		
2				7.5	62	0.055		1.17	773.4	87	87	7	
3				15	61	0.065		1.28	777.6	86	86		
4				25	61	0.07		1.5	1823	85	85		
5				30	60	0.07		1.5	787.9	86	86		
6				37.5	61	0.07		1.5	792.8	87	87		
7				45	60	0.07		1.5	798.1	87	87		
8				52.5	61	0.07		1.5	803.7	88	89		
				60					809.055				
	ZERO												
	SPAN												
AVERAGE		20.9	0.05	60	60.6		0.254	1.378	40.351	86.5			

PITOT LEAK CHECK:
BEFORE: TOP ΔP= 2.7 ΔP= 2.7 BOTTOM ΔP= 1.2 ΔP= 1.2
AFTER: TOP ΔP= 3.9 ΔP= 3.9 BOTTOM ΔP= 4.5 ΔP= 4.5

SAMPLE TRAIN LEAK:
BEFORE= 0.005 CFM@ 13 IN. HG.
AFTER= 0.005 CFM@ 20 IN. HG.

COMMENTS: PURGE

PLANT: West Field Gin
LOCATION: Butte Ave
COUNTY: ~~Butte~~ Fresno
UNIT: Trash (Gin Feed)
DATE: 11/15/91
RUN NO./METHOD: 3/5
COLD BOX NO.: 4
METER BOX NO.: A
METER FACTOR: 0.986
PITOT #/ FACTOR: #1 0.846
PYROMETER #: T1
MAGNEHELIC FACTOR: ΔP M-1 1.000 ΔH M-2 0.981



FILTER NO. B-2
AMBIENT TEMP.: 29.58
BARAMETRIC PRESS.,IN.HG.: 68
ASSUMED MOISTURE: .05
HEATER BOX SETTING: OFF
PROBE LENGTH,FT. 5
NOZZLE DIAMETER,IN.: 0.371
PROBE HEATER SETTING: OFF
APPROX.WIND VEL.,MPH: Calm
SAMPLE BOX TEMP.,(F): Ambient
STATIC PREASURE: -0.01 "H2O
OFFSET: ____ In. PORT DIA.: ____ In. (M / F)

TRAVERSE POINT NUMBER	DISTANCE INCHES	O2 (%)	CO2 (%)	SAMPLE TIME MIN.	STACK TEMP. (Ts), F	VELOCITY HEAD IN. H2O ΔP	VELOCITY HEAD IN. H2O √ΔP	PRESSURE DIFF ORIFICE METER (ΔH) IN.H2O	DRY GAS SAMPLE VOLUME (VM),FT.	GAS SAMPLE TEMP. @DRY GAS METER INLET (Tm)	GAS SAMPLE TEMP. @DRY GAS METER OUTLET (TM)	PUMP VACUUM IN.HG	TEMP. LAST IMPINGER (F)
1				0	76	0.05		.607	809.135	85	86		
2				7.5	70	0.055		1.17	815.5	85	88		
3				15	72	0.065		1.28	818.0	85	85	4	
4				2.5	72	0.07		1.5	822.7	86	85	6	
5				30	74	0.07		1.5	825.2	85	85		
6				37.5	72	0.07		1.5	834.1	85	83		
7				45	73	0.07		1.5	838.1	86	86		
8				52.5	72	0.07		1.5	842.6	86	86		
				60					848.537				
	ZERO												
	SPAN												
AVERAGE		20.9	0.05	60	71.6		0.254	1.378	39.422	854			

PITOT LEAK CHECK:
BEFORE: TOP ΔP= 1.4 ΔP= 1.4 BOTTOM ΔP= 2.1 ΔP= 2.1
AFTER: TOP ΔP= 3.7 ΔP= 3.7 BOTTOM ΔP= 2.8 ΔP= 2.8

SAMPLE TRAIN LEAK:
BEFORE= 0.000 CFM@ 15 IN. HG.
AFTER= ____ CFM@ ____ IN. HG.

COMMENTS:
PURGE ____

Westfield Ginning Co.

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

COTTON GIN SOURCE TEST DATA

GINNING PROCESS - Main Trash Stock Piler

TEST RUN #1			TEST RUN #2			TEST RUN #3		
BALE #	BALE WT	TIME	BALE #	BALE WT	TIME	BALE #	BALE WT	TIME
10898	520	7:58	10916	528	9:19	10938	525	10:44
10899	524		10917	514		10939	530	
10900	520		10918	538		10940	522	
10901	516		10919	528		10941	526	
10902	530		10920	556		10942	522	
10903	530		10921	536		10943	526	
10904	520		10922	526		10944	504	
10905	524		10923	514		10945	516	
10906	532		10924	530		10946	512	
10907	513		10925	538		10947	506	
10908	528		10926	524		10948	514	
10909	512		10927	536		10949	526	
10910	520		10928	516		10950	520	
10911	518		10929	538		10951	552	
10912	522	9:05	10930	526		10952	538	
			10531	526	~~9:23~~	10953	530	11:18
			10532	508	10:23			

TOTAL BALES = 15 14	**TOTAL BALES =** 17 16	**TOTAL BALES =** 16 15
TIME = 1.02 (hrs)	**TIME =** 1.10 (hrs)	**TIME =** 1.07 (hrs)
BALES/HR = 13.4 12.5	**BALES/HR =** 15.5 14.5	**BALES/HR =** 150 14.0

AVERAGE PROCESS RATE = 14.6 **(bales/hr)**

DISTRICT REPRESENTATIVE: _____

DATE: 11/15/91

Stock Piler

115

Westfield Ginning Co.

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

COTTON GIN SOURCE TEST DATA

GINNING PROCESS - #2 Incline

TEST RUN #1			TEST RUN #2			TEST RUN #3		
BALE #	BALE WT	TIME	BALE #	BALE WT	TIME	BALE #	BALE WT	TIME
10609	486	900						
10610	498							
10611	498							
10612	486							
10613	490							
10614	470							
10615	462							
10616	486							
10617	470							
10618	470							
10619	500							
10620	522							
10621	506							
10622	503							
10623	498	10:00						

TOTAL	TOTAL	TOTAL
BALES = 15 14	BALES = _____	BALES = _____
TIME = 1 (hrs)	TIME = _____ (hrs)	TIME = _____ (hrs)
BALES/HR = 14	BALES/HR = _____	BALES/HR = _____

AVERAGE PROCESS RATE = _____ (bales/hr)

DISTRICT REPRESENTATIVE: _____

DATE: _____

#2 MA

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

COTTON GIN SOURCE TEST DATA

GINNING PROCESS - #2 Incline

TEST RUN #1			TEST RUN #2			TEST RUN #3		
BALE #	BALE WT	TIME	BALE #	BALE WT	TIME	BALE #	BALE WT	TIME
10630	518	10:42	10653	510	1:19	10		
10631	520		10654	530				
10632	532		10655	522				
10633	514		10656	520				
10634	515		10657	527				
10635	532		10658	542				
10636	530		10659	531				
10637	530		10660	518				
10638	526		10661	520				
10639	526		10662	532				
10640	532		10663	532				
10641	524		10664	532				
10642	538		10665	518				
10643	510		10666	508				
10644	514	11:42	10667	516	2:19			

TOTAL	TOTAL	TOTAL
BALES = 15 14	BALES = 15 14	BALES = _____
TIME = 1 (hrs)	TIME = 1 (hrs)	TIME = _____ (hrs)
BALES/HR = 14	BALES/HR = 14	BALES/HR = _____

AVERAGE PROCESS RATE = 15 14 (bales/hr)

DISTRICT REPRESENTATIVE: _____

DATE: 11/14

#2 MA.

Westfield Ginning Co.

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

COTTON GIN SOURCE TEST DATA

GINNING PROCESS - Gin Feed Trash

TEST RUN #1			TEST RUN #2			TEST RUN #3		
BALE #	BALE WT	TIME	BALE #	BALE WT	TIME	BALE #	BALE WT	TIME
10680	526	3:15	10699	533	4:36	10717	500	5:51
10681	518		10700	550		10718	526	
10682	530		10701	530		10719	526	
10683	539		10702	514		10720	522	
10684	530		10703	510		10721	534	
10685	526		10704	518		10722	537	
10686	530		10705	526		10723	511	
10687	516		10706	521		10724	524	
10688	526		10707	530		10725	516	
10689	510		10708	537		26	527	
10690	526		10709	538		10727	521	
10691	536		10710	534		10728	539	
10692	518		10711	510		10729	516	
10693	525	4:15	10712	510		10730	514	
			10713	530	5:36	10731	537	6:31
						10732	531	6:53

TOTAL	TOTAL	TOTAL
BALES = 14 13	BALES = 15 14	BALES = 16 15
TIME = 1 (hrs)	TIME = 1 (hrs)	TIME = 1.05 (hrs)
BALES/HR = 14 13	BALES/HR = 15 14	BALES/HR = 15.2 14.3

AVERAGE PROCESS RATE = 14.7 (bales/hr)

DISTRICT REPRESENTATIVE: _____

DATE: _____

Main Trash
From Gin Stands
118

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 Dry IN Td,	Temperature Dry Out Tdo,	Temperature Ave f Td,	Time e min	Y	DH@Y
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:

$$Y = (Vw*Pb)*(Td+460))/Vdt-Vdb)+(DelH/13.6))*(((Wt+wt)/2)+460))$$

$$Del\ H = (0.0317*Del)*(((((WT+Wt)/2)+460)*e)/Vw)^2)/((Pb*(Td+460)$$

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 Dry IN Td,	Temperature Dry Out Tdo,	Temperature Ave f Td,	Time e min	Y	DH@Y
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

Reviewed by: CDD

Meter Factor: 0.9415

Delta H: 2.3036

Equations:

$$Y = (Vw * Pb) * (Td+460))/Vdt-Vdb)+(DelH/13.6)) * (((Wt+wt)/2)+460))$$

$$Del\ H = (0.0317 * Del) * (((((WT+Wt)/2)+460) * e)/Vw)^2)/((Pb * (Td+460)$$

PITOT TUBE CALIBRATION

Ambient Conditions

DATE: 12/31/91

TEMPERATURE 63 F

RH: 25 %

UNIT NUMBER: 1

BAROMETER: 30.19 in. hg.

Run #	Velocity fpm	ΔP (std) in. H2O	ΔP (s) in. H2O		Cp(s)	| Dev |	Cp(s)	| Dev |
			A	B	A	A	B	B
1	4055	*1.03*	*1.42*	*1.45*	0.843	0.000	0.834	0.001
2		*1.03*	*1.42*	*1.46*	0.843	0.000	0.832	0.002
3		*1.03*	*1.42*	*1.45*	0.843	0.000	0.834	0.001
Avg		*1.03*	1.42	1.45	~0.843	0.000*	~0.833	0.001*

AVERAGE: (Cp(s)A+Cp(s)B)/2 0.838

| ~Cp(s)A-~Cp(s)B | = 0.010 *

1	4496	*1.26*	*1.63*	*1.71*	0.870	0.000	0.870	0.000
2		*1.26*	*1.63*	*1.72*	0.870	0.000	0.870	0.000
3		*1.26*	*1.63*	*1.72*	0.870	0.000	0.870	0.000
Avg		*1.26*	1.63	1.72	~0.870	0.000*	~0.870	0.000*

AVERAGE: (Cp(s)A+Cp(s)B)/2 0.870

| ~Cp(s)A-~Cp(s)B | = 0.000 *

1	4653	*1.35*	*1.92*	*1.88*	0.830	0.000	0.830	0.000
2		*1.35*	*1.92*	*1.88*	0.830	0.000	0.830	0.000
3		*1.35*	*1.92*	*1.88*	0.830	0.000	0.830	0.000
Avg		1.35	1.92	1.88	~0.830	0.000*	~0.830	0.000*

AVERAGE: (Cp(s)A+Cp(s)B)/2 0.830

|~Cp(s)A-~Cp(s)B | = 0.000 *

PITOT CALIBRATION VALUE: 0.846

~ Denotes average value

* Denotes values which must be ≤ to 0.01 for calibration to be valid.

Calibrated by: CGD *Reviewed by:* MRP

PYROMETER CALIBRATION

Date: 12/30/91 Unit: T-1

Point	* Standard Temperature *Tstd* deg. F	Pyrometer Temperature *Tpyr* deg. F	Error % ** *(Tstd-Tpyr)/Tstd*
1 Ambient	60.0	53.0	1.35%
2 Ice	32.0	34.0	0.41%
3 Boil	195.0	191.0	0.61%
4 Oil	1.0	1.0	0.00%

Std. Corr. Factor 1.024

Calibration by: CD

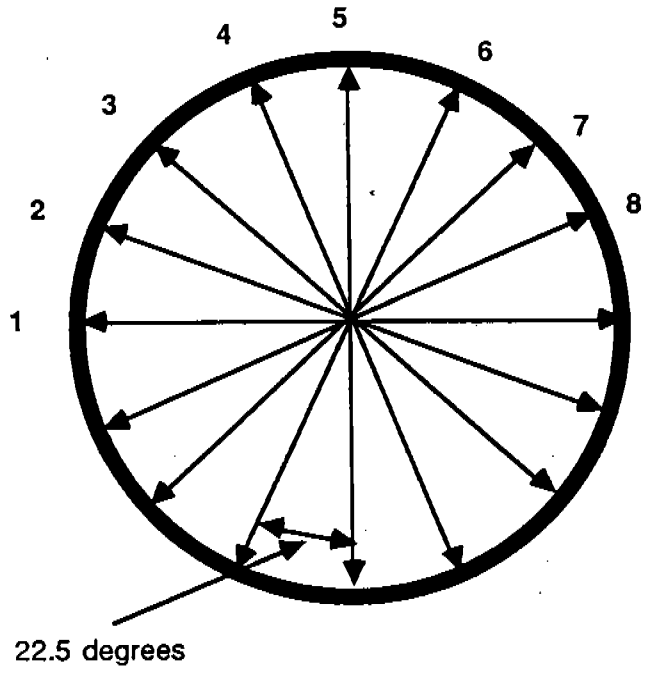
Reviewed by: CD

* Standard ID: Hg, in glass

* * in deg. K

Nozzle Calibration

Nozzle I.D. : 37 Date : 6/20/91



Points

1 - .369
2 - .370
3- .372
4- .370
5- .370
6- .374
7- .374
8- .374

Average Nozzle Diameter = .371

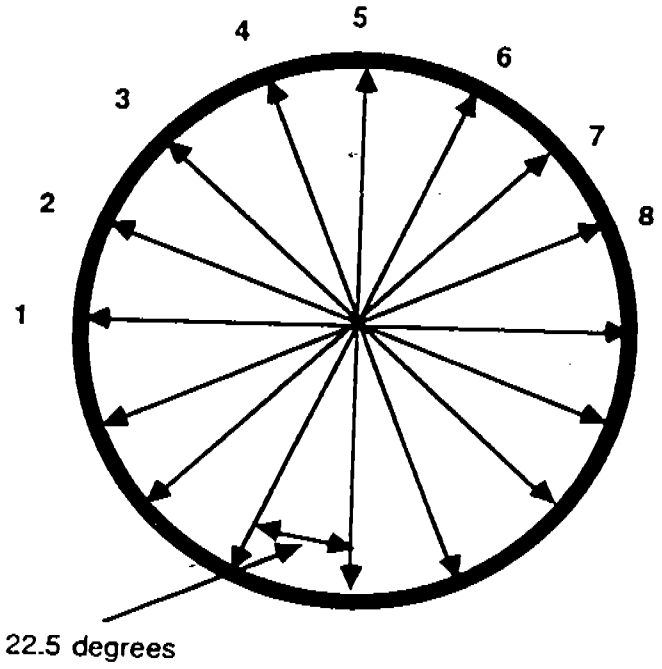
Analyst : sally Reviewed :

BTC Environmental, Inc. - 1989

Nozzle Calibration

Nozzle I.D. : #37

Date : 7/28/90



Points	
1 -	0.366
2 -	0.365
3-	0.366
4-	0.368
5-	0.363
6-	0.366
7-	0.369
8-	0.367

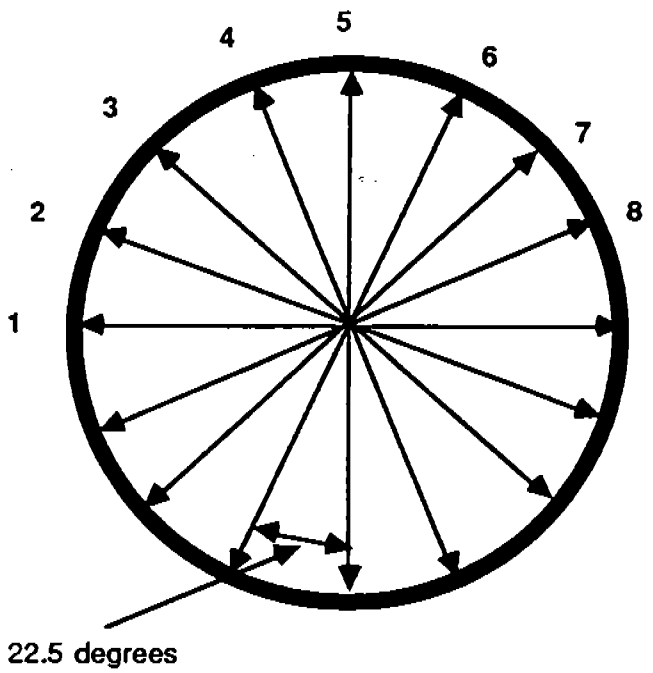
Average Nozzle Diameter = 0.366

Analyst : RTR

Reviewed :

Nozzle Calibration

Nozzle I.D. : 35 Date : 6/19/91



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

Average Nozzle Diameter = .325

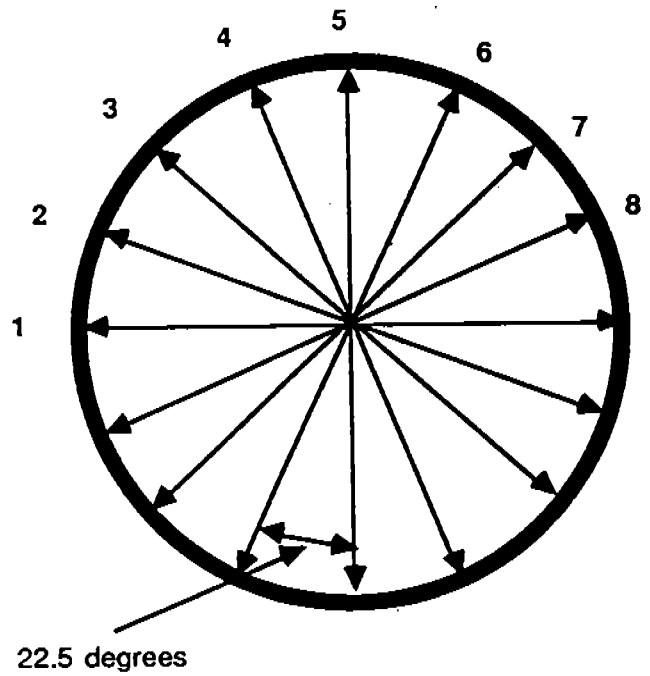
Analyst : sally Reviewed :

BTC Environmental, Inc. - 1989

Nozzle Calibration

Nozzle I.D. : 34

Date : 6/19/91



Points

1 - .299
2 - .299
3- .302
4- .302
5- .298
6- .300
7- .302
8- .301

Average Nozzle Diameter = .300

Analyst : sally

Reviewed :

BTC Environmental, Inc. - 1989

MAGNEHELIC CALIBRATION

DATE: 2/8/91
GAGE ID # M-4
RANGE 0-2" in. H20

SCHEULED CALIBRATION:
SEMI ANNUAL ☐
BI-MONTHLY ☐
OTHER ☐

REFERENCE ID # 0-10" DWYER MANO

LEAK CHECK :

System:	† Set @ 10 in. H20	vacuum 10 in. P F	pressure 10 in. P F
Point:	†† Set @ 90 % FS in. H20	vacuum in. P F	pressure in. P F

Point	Incline Delta P *Pinc*	Magnehelic Delta P *Pmag*	% Deviation *(Pinc-Pmag)/Pinc x 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	**0.991**
AVERAGE DEVIATION	0.009
STANDARD DEVIATION	0.009
95% CONFIDENCE INTERVAL	0.021
PRECISION(within +/- 3%)	-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:* _____

MAGNEHELIC CALIBRATION

DATE: 2/7/91
GAGE ID # M-2
RANGE 0-2 in. H20

SCHEULED CALIBRATION:
SEMI ANNUAL ☐
BI-MONTHLY ☐
OTHER ☐

REFERENCE
ID # 0-10 DWYER MANO

LEAK CHECK :

System:	† Set @ 10 in. H20	vacuum 10 in. P F	pressure 10 in. P F
Point:	†† Set @ 90 % FS in. H20	vacuum in. P F	pressure in. P F

Point	Incline Delta P *Pinc*	Magnehelic Delta P *Pmag*	% Deviation *(Pinc-Pmag)/Pinc x 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	**0.981**
AVERAGE DEVIATION	0.022
STANDARD DEVIATION	0.009
95% CONFIDENCE INTERVAL	0.023
PRECISION(within +/- 3%)	-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-1
RANGE 0-5" in. H20

SCHEULED CALIBRATION:
SEMI ANNUAL ☐
BI-MONTHLY ☐
OTHER ☐

REFERENCE ID # 0-10" DWYER MANO

LEAK CHECK :

System:	† Set @ 10 in. H20	vacuum 10 in. P F	pressure 10 in. P F
Point:	†† Set @ 90 % FS in. H20	vacuum in. P F	pressure in. P F

Point	Incline Delta P *Pinc*	Magnehelic Delta P *Pmag*	% Deviation *(Pinc-Pmag)/Pinc x 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	**1.000**
AVERAGE DEVIATION	0.000
STANDARD DEVIATION	0.000
95% CONFIDENCE INTERVAL	0.000
PRECISION(within +/- 3%)	-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:* _____

SOURCE TESTING SAMPLE INFORMATION SHEET
****

PM10 PART. ANALYSIS
****

METHOD: PM-10

CLIENT: Westfield Gin

LAB NO GIVEN: 912256

PROJECT NAME:

PROJECT NO: 291-180

SITE: Coalinga

SAMPLER: CD/GD

DATE SAMPLED: 11/14/91

NO.	RUN 1 Cyclone #2 Incline	# of cont	TOT VOL or FIL #	TOT RES	GROSS WT		
1	FILTER (slotted) +10	1	#G109	N/A	X		
2	FILTER (slotted) +10	1	#G79	N/A	X		
3	FILTER (solid) -10	1	#108	N/A	X		
4	IMPACTOR (front half) +10	1	250	X			
5	PROBE+IMPINGERS(back half) -10	1	425	X			

NO.	RUN 2 cyclone #2 Incline	# of cont	TOT VOL or FIL #	TOT RES	GROSS WT		
6	FILTER (slotted) +10		#G [illegible]	N/A			
7	FILTER (slotted) +10		#G-38	N/A			
8	FILTER (solid) -10		#124	N/A			
9	IMPACTOR (front half) +10		225				
10	PROBE+IMPINGERS(back half) -10		440				

NO.	RUN 3 cyclone #2 incline	# of cont	TOT VOL or FIL #	TOT RES	GROSS WT		
11	FILTER (slotted) +10		#G-112	N/A			
12	FILTER (slotted) +10		#G-111	N/A			
13	FILTER (solid) -10		#G-10	N/A			
14	IMPACTOR (front half) +10		225				
15	PROBE+IMPINGERS(back half) -10		450				

Comments:

131

SOURCE TESTING SAMPLE INFORMATION SHEET
****

PARTICULATE ANALYSIS
****

METHOD: ~~Reactivate~~ Method 5

CLIENT: West Field Gin

LAB NO GIVEN: 912256

PROJECT NAME: _____

PROJECT NO: 291-180

SITE: Coalinga

SAMPLER: CD/GD

DATE SAMPLED: 11/14/91

NO.	RUN 1 Cyclone #2 incline	# of cont	TOT VOL	TOT WGHT	GROSS WGHT		
16	PROBE (Front Half)	1	123 ml	↓			
17	IMPINGERS # 1+2+3	1	283 ml	↓			
18	FILTER E-40	1	N/A		X		

NO.	RUN 2 Cyclone #2 incline	# of cont	TOT VOL	TOT WGHT	GROSS WGHT		
19	PROBE (Front Half)	1	140 ml	↓			
20	IMPINGERS # 1+2+3	1	426 ml	↓			
21	FILTER D-112	1	N/A		X		

NO.	RUN 3 Cyclone #2 incline	# of cont	TOT VOL	TOT WGHT	GROSS WGHT		
22	PROBE (Front Half)	1	140 ml	↓			
23	IMPINGERS # 1+2+3	1	542 ml	↓			
24	FILTER B-39	1	N/A		X		
25	Blank DI	1					
26	Blank Acetone	1					

Comments: _____

SOURCE TESTING SAMPLE INFORMATION SHEET
****

PM10 PART. ANALYSIS
****

METHOD: PM-10

CLIENT: West Field Gin

LAB NO GIVEN: 912256

PROJECT NAME:

PROJECT NO: 291-180

SITE: Cowlinga

SAMPLER: CD/GD

DATE SAMPLED: 11/14/91

NO.	RUN 1 Trash Feed	# of cont	TOT VOL or FIL #	TOT RES	GROSS WT		
28	FILTER (slotted) +10	1	#G-101	N/A			
29	FILTER (slotted) +10 G-	1	#G-105	N/A			
30	FILTER (solid) -10 ~~G-121~~	1	#G-121	N/A	↓		
31	IMPACTOR (front half) +10	1	225				
32	PROBE+IMPINGERS(back half) -10	1	450	↓			

NO.	RUN 2 Trash Feed	# of cont	TOT VOL or FIL #	TOT RES	GROSS WT		
33	FILTER (slotted) +10	1	#G-110	N/A			
34	FILTER (slotted) +10	1	#G-89	N/A			
35	FILTER (solid) -10	1	#G-143	N/A	↓		
36	IMPACTOR (front half) +10	1	280				
37	PROBE+IMPINGERS(back half) -10	1	425	↓			

NO.	RUN 3 Trash Feed	# of cont	TOT VOL or FIL #	TOT RES	GROSS WT		
38	FILTER (slotted) +10	1	#G-64	N/A			
39	FILTER (slotted) +10	1	#G-69	N/A			
40	FILTER (solid) -10	1	#G-162	N/A	↓		
41	IMPACTOR (front half) +10	1	280				
42	PROBE+IMPINGERS(back half) -10	1	450	↓			

Comments:

133

SOURCE TESTING SAMPLE INFORMATION SHEET
****

PARTICULATE ANALYSIS
****

METHOD: METHOD 5

CLIENT: West Field Gin

LAB NO GIVEN: 912256

PROJECT NAME:

PROJECT NO: 291-180

SITE: Coalinga

SAMPLER: CD/GD

DATE SAMPLED: 11/14/91

NO.	RUN 1 Trash Feed	# of cont	TOT VOL	TOT WGHT	GROSS WGHT		
43	PROBE (Front Half)	1	98 ml	↓			
44	IMPINGERS # 1+2+3	1	343 ml	↓			
45	FILTER B-1	1	N/A		X		

NO.	RUN 2 Trash Feed	# of cont	TOT VOL	TOT WGHT	GROSS WGHT		
46	PROBE (Front Half)	1	157 ml	↓			
47	IMPINGERS # 1+2+3	1	423 ml	↓			
48	FILTER B-3	1	N/A		X		

NO.	RUN 3 Trash Feed	# of cont	TOT VOL	TOT WGHT	GROSS WGHT		
49	PROBE (Front Half)	1	90 ml	↓			
50	IMPINGERS # 1+2+3	1	543 ml	↓			
51	FILTER B-2	1	N/A		X		

Comments:

SOURCE TESTING SAMPLE INFORMATION SHEET
****

PM10 PART. ANALYSIS
****

METHOD: P-M-10

CLIENT: West Field Gin

LAB NO GIVEN: 912256

PROJECT NAME:

PROJECT NO: 291-180

SITE: Coalinga

SAMPLER: CD/GD

DATE SAMPLED: 11/15/91

NO.	RUN 1 Trash Pile	# of cont	TOT VOL or FIL #	TOT RES	GROSS WT		
52	FILTER (slotted) +10	1	#G-102	N/A			
53	FILTER (slotted) +10	1	#G-36	N/A			
54	FILTER (solid) -10	1	#G-133	N/A			
55	IMPACTOR (front half) +10	1	225				
56	PROBE+IMPINGERS(back half) -10	1	425				

NO.	RUN 2 Trash Pile	# of cont	TOT VOL or FIL #	TOT RES	GROSS WT		
57	FILTER (slotted) +10	1	#G-46	N/A			
58	FILTER (slotted) +10	1	#G-50	N/A			
59	FILTER (solid) -10	1	#G-158	N/A			
60	IMPACTOR (front half) +10	1	225				
61	PROBE+IMPINGERS(back half) -10	1	425				

NO.	RUN 3 Trash Pile	# of cont	TOT VOL or FIL #	TOT RES	GROSS WT		
62	FILTER (slotted) +10	1	#G-15	N/A			
63	FILTER (slotted) +10	1	#G-44	N/A			
64	FILTER (solid) -10	1	#G-140	N/A			
65	IMPACTOR (front half) +10	1	225				
66	PROBE+IMPINGERS(back half) -10	1	425				

Comments:

135

SOURCE TESTING SAMPLE INFORMATION SHEET
****

PARTICULATE ANALYSIS
****

METHOD: METOD - 5

CLIENT: West Field Gin

LAB NO GIVEN: 912256

PROJECT NAME: _____

PROJECT NO: 291-180

SITE: Coalinga

SAMPLER: CD/GD

DATE SAMPLED: 11/15/91

NO.	RUN 1 Trash Pile	# of cont	TOT VOL	TOT WGHT	GROSS WGHT		
67	PROBE (Front Half)		106 ml	↓			
68	IMPINGERS # 1+2+3		401 ml				
69	FILTER A-1		N/A		X		

NO.	RUN 2 Trash Pile	# of cont	TOT VOL	TOT WGHT	GROSS WGHT		
70	PROBE (Front Half)		109 ml	↓			
71	IMPINGERS # 1+2+3		386 ml				
72	FILTER P-73		N/A		X		

NO.	RUN 3 Trash Pile	# of cont	TOT VOL	TOT WGHT	GROSS WGHT		
73	PROBE (Front Half)		102 ml	↓			
74	IMPINGERS # 1+2+3		515 ml				
75	FILTER B-10		N/A		X		

Comments: _____

136

INCORPORATED

Ventura, CA 93003
(805) 644-1095

A.R Test
912256

CHAIN OF CUSTODY RECORD

PROJ. NO.	PROJECT NAME
291-80	Westfield Gin #2 Incline

SAMPLERS: *(Signature)*
Cam

NO.	DATE	TIME	COMP	GRAB	SAMPLE I.D.	NO. OF CONTAINERS	ANALYSIS: Total Residue	REMARKS	CHECK IF RUSH
	11/14/91				1	1			
					2	1			
					3	1			
					4	1			
					5	1			
					6	1			
					7	1			
					8	1			
					9	1			
					10	1			
					11	1			
					12	1			
					13	1			
					14	1			
					15	1			

Relinquished by: *(Signature)*	Date/Time 11-19-91	Received by: *(Signature)* 11/19/91 10:30 Gena Ditmore	Relinquished by: *(Signature)*	Date/Time / Received by: *(Signature)*
Relinquished by: *(Signature)*	Date/Time	Received by: *(Signature)*	Relinquished by: *(Signature)*	Date/Time / Received by: *(Signature)*
Relinquished by: *(Signature)*	Date/Time	Received for Laboratory by: *(Signature)*	Date/Time	NAME ADDRESS PHONE NO.

WHITE COPY_____ CANARY COPY_____ PINK COPY_____

DIC INCORPORATED

Ventura, CA 93003
(805) 644-1095

Air Test
912256

CHAIN OF CUSTODY RECORD

PROJ. NO.	PROJECT NAME
291-180	West Field Gin

SAMPLERS: *(Signature)*

NO.	DATE	TIME	COMP	GRAB	SAMPLE I.D.	NO. OF CONTAINERS	ANALYSIS: Total Resins	REMARKS
16	11/14/91				16	1	↓	
17					17	1		
18					18	1		
					19	1		
					20	1		
					21	1		
					22	1		
					23	1		
					24	1		
					25	1		
					26	1		

CHECK IF RUSH

Relinquished by: *(Signature)*	Date/Time 11-19 | 91	Received by: *(Signature)* 11/19/91 Gena Dimke 10:30	Relinquished by: *(Signature)*	Date/Time	Received by: *(Signature)*
Relinquished by: *(Signature)*	Date/Time	Received by: *(Signature)*	Relinquished by: *(Signature)*	Date/Time	Received by: *(Signature)*
Relinquished by: *(Signature)*	Date/Time	Received for Laboratory by: *(Signature)*	Date/Time	NAME ADDRESS PHONE NO.	

WHITE COPY_____ CANARY COPY_____ PINK COPY_____

INCORPORATED

Ventura, CA 93003
(805) 644-1095

CHAIN OF CUSTODY RECORD

912256

PROJ. NO. 291-180 | PROJECT NAME West Field Gin

SAMPLERS: *(Signature)*

NO.	DATE	TIME	COMP	GRAB	SAMPLE I.D.	NO. OF CONTAINERS	ANALYSIS Toxic Residue	REMARKS	CHECK IF RUSH
	11/14/9				28	1			
					29	1			
					30	1			
					31	1			
					32	1			
					33	1			
					34	1			
					35	1			
					36	1			
					37	1			
					38	1			
					39	1			
					40	1			
					41	1			
					42	1			

Relinquished by: *(Signature)*	Date/Time 11-19 91	Received by: *(Signature)* Yona Ditmore	11/19/91 10:30	Relinquished by: *(Signature)*	Date/Time / Received by: *(Signature)*
Relinquished by: *(Signature)*	Date/Time	Received by: *(Signature)*		Relinquished by: *(Signature)*	Date/Time / Received by: *(Signature)*
Relinquished by: *(Signature)*	Date/Time	Received for Laboratory by: *(Signature)*	Date/Time	NAME ADDRESS PHONE NO.	

WHITE COPY_____ CANARY COPY_____ PINK COPY_____

DIC INCORPORATED

Ventura, CA 93003
(805) 644-1095

912256

CHAIN OF CUSTODY RECORD

PROJ. NO.	PROJECT NAME
291-180	West Field Gin

SAMPLERS: *(Signature)*

NO.	DATE	TIME	COMP	GRAB	SAMPLE I.D.	NO. OF CONTAINERS	ANALYSIS: Total Residue	REMARKS
	11/14				43	1		
					44	1		
					45	1		
					46	1		
					47	1		
					48	1		
					49	1		
					50	1		
					51	1		

CHECK IF RUSH

Relinquished by: *(Signature)* C. [illegible]	Date/Time 11-19 | 91	Received by: *(Signature)* Gina Detmore	Date/Time 11/19/91 10:30	Relinquished by: *(Signature)*
Relinquished by: *(Signature)*	Date/Time	Received by: *(Signature)*		Relinquished by: *(Signature)*
Relinquished by: *(Signature)*	Date/Time	Received for Laboratory by: *(Signature)*	Date/Time	NAME ADDRESS PHONE NO.

Date/Time | Received by: *(Signature)*

Date/Time | Received by: *(Signature)*

WHITE COPY_____ CANARY COPY_____ PINK COPY_____

DIC INCORPORATED

Ventura, CA 93003
(805) 644-1095

Air Test

CHAIN OF CUSTODY RECORD

012256

PROJ. NO.	PROJECT NAME
291-180	west Field Gin

SAMPLERS: *(Signature)*

NO.	DATE	TIME	COMP	GRAB	SAMPLE I.D.	NO. OF CONTAINERS	ANALYSIS: Total Residue	REMARKS	CHECK IF RUSH
	11/15				52	1	✓		
					53	1	✓		
					54	1	✓		
					55	1	✓		
					56	1	✓		
					57	1	✓		
					58	1	✓		
52					59	1	✓		
					60	1	✓		
					61	1	✓		
					62	1	✓		
					63	1	✓		
					64	1	✓		
					65	1	✓		
					66	1	✓		

Relinquished by: *(Signature)*	Date/Time	Received by: *(Signature)* 11/19/91	Relinquished by: *(Signature)*	Date/Time	Received by: *(Signature)*
[signature]	11-14 91	Gena Ditmore 10:30			
Relinquished by: *(Signature)*	Date/Time	Received by: *(Signature)*	Relinquished by: *(Signature)*	Date/Time	Received by: *(Signature)*
Relinquished by: *(Signature)*	Date/Time	Received for Laboratory by: *(Signature)*	Date/Time	NAME ADDRESS PHONE NO.	

WHITE COPY_____ CANARY COPY_____ PINK COPY_____

DIC ENVIRONMENTAL INCORPORATED

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

CHAIN OF CUSTODY RECORD

Address: _____

Phone #: (____) _____ Contact: _____

PROJ. NO. 291-100 | PROJECT NAME: West Field Gin

SAMPLERS: *(Signature)*

NO.	DATE	TIME	COMP	GRAB	SAMPLE I.D.	NO. OF CONTAINERS	ANALYSIS: Total Recoverable	REMARKS	CHECK IF RUSH
	11/15/91				67	1			
					68	1			
					69	1			
					70	1			
					71	1			
					72	1			
					73	1			
					74	1			
					75	1			

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)*	Relinquished by: *(Signature)*	Date/Time	Received by: *(Signature)*
[signature]	11-19 91	11/19/91 10:30 Gena Dittmore			
Relinquished by: *(Signature)*	Date/Time	Received for Laboratory by: *(Signature)*	Date/Time	NAME	
				ADDRESS	
				PHONE NO.	

WHITE COPY_____ CANARY COPY_____ PINK COPY_____

SUMMARY OF SOURCE TEST RESULTS

Company Westfield Ginning Company Test Date 11-15-91 APCD Permit No. 1030041901

Unit Description Cotton Gin - Trash Stock Piler Cyclone Observed by R. Isom

Pollutants	Inlet gr/scf @ 12% CO_2	Inlet ppmv	Mass Flow rate lb/hr	Outlet gr/scf @ 12% CO_2	Outlet ppmv	Mass Flow rate lb/hr	Removal efficiency %	Emission Factor gr/scf, lb/MMSCF lb/MMBTU lb/ton	Applicable Rule & limits
Particulate				.1097	[redacted]	3.76		0.278 lb/bale	0.1 g/dsct
Sulfate									
SO_2 (Wet)									
NO_2 (dry)									
CO (dry)									
NMHC (dry)									

PROCESS WEIGHT	tons/hr	1000 gal/hr	MMCF/hr	13.7 bales/hr

COMPLIANCE SUMMARY Violation of District Rule 404. exceeded Particulate Matter Concentration Limit of 0.1 g/dsct.

PREPARED BY: Roger Isom DATE: 2-28-92 REVIEWED BY [signature] DATE: 4/9/92

SUMMARY OF SOURCE TEST RESULTS

Company Westfield Ginning Company Test Date 11-14-91 APCD Permit No. 1030041901

Unit Description Cotton Gin - #2 Incline Cleaner Observed by R. Ison

Pollutants	Inlet gr/scf @ 12% CO_2	Inlet ppmv	Mass Flow rate lb/hr	Outlet gr/scf @ 12% CO_2	Outlet ppmv	Mass Flow rate lb/hr	Removal efficiency %	Emission Factor gr/scf, lb/MMSCF lb/MMBTU lb/ton	Applicable Rule & limits
Particulate				.0611		1.67		0.119 lb/bale	0.1 g/dscf
Sulfate									
SO_2 (Wet)									
NO_2 (dry)									
CO (dry)									
NMHC (dry)									

PROCESS WEIGHT	tons/hr	1000 gal/hr	MMCF/hr	14 bales/hr

COMPLIANCE SUMMARY Incompliance w/ Rule 404.

PREPARED BY: Roger Ison DATE: 2-28-92 REVIEWED BY [signature] DATE: 4/7/92

SUMMARY OF SOURCE TEST RESULTS

Company Westfield Ginning Company Test Date 11-14-91 APCD Permit No. 1030041901

Unit Description Cotton Gin - Main Gin Stand Trash Observed by R. Esau

Pollutants	Inlet gr/scf @ 12% CO_2	Inlet ppmv	Mass Flow rate lb/hr	Outlet gr/scf @ 12% CO_2	Outlet ppmv	Mass Flow rate lb/hr	Removal efficiency %	Emission Factor gr/scf, lb/MMSCF lb/MMBTU lb/ton	Applicable Rule & limits
Particulate				.0187		0.50		.037 lb/bale	0.1 g/dsct
Sulfate									
SO_2 (Wet)									
NO_2 (dry)									
CO (dry)									
NMHC (dry)									

PROCESS WEIGHT	tons/hr	1000 gal/hr	MMCF/hr	13.77 bales/hr

COMPLIANCE SUMMARY In compliance w/ Rule 404

PREPARED BY: Roya Esau DATE: 2-28-92 REVIEWED BY [signature] DATE: 4/9/92