SDC APCD METHOD 5 LAB SHEET

TEST # = 89234

SAMPLE WEIGHTS

	FRONT HALF	BACK HALF
ACETONE		
BKR ID =	69	
f:	49.9289 g	
i:	49.9118 g	
Δ:	0.0171 g	0.0000 g
WATER		
BKR ID =	76	
f:	48.2255 g	
i:	48.2173 g	
Δ:	0.0082 g	0.0000 g
ORGANIC		
BKR ID =		
f:	g	g
i:	g	g
Δ:	0.0000 g	0.0000 g
FILTERS		
ID =	89016	
f:	0.1208 g	g
i:	0.1207 g	g
Δ:	0.0001 g	0.0000 g

SDC APCD METHOD 5 LAB SHEET

TEST # = 89234

(4) FINAL WEIGHTS

(total weight gained)

FRONT HALF= 0.0253 BACK HALF= 0.0000 ORGANIC= 0.0000
(front and back)

WEIGHT GAINED = 0.0253 g

correction for solvents (acetone and water)

WEIGHT GAINED FROM SOLVENTS = 0.0005 g

(5) CORRECTED WEIGHTS

WEIGHT GAINED (CORRECTED) = 0.0248 g

(6) FILTERS

FRONT HALF= 0.0001 BACK HALF= 0.0000

TOTAL WEIGHT GAINED = 0.0249 g

Comments - Filter - light loading of light grey particulates noted.

SAN DIEGO COUNTY AIR POLLUTION CONTROL DISTRICT

TEST # 89 234 DATE: 8-22-89

SITE US SILICA

		AFTER TRAVERSE
Pm, absolute	30	NOTE: T stack HAVE CHANGED
Ps, absolute	30	ΔP's HAVE CHANGED
Tm, absolute	99	100
∂H@ across meter	2.7	
% moisture of stack	~~10%~~ 12%	12%
correction factor	✓ ~~1.44~~ 1.39	1.4
Ts, absolute	121	147 (MEAN)
∂P stack	2.1	2.3 (MEAN)
ideal nozzle diameter	✓ ~~.158~~ .159	.157
nozzle used	.146	
test dfferential pressure	$K = \frac{1.85}{2.95} = .65$	

$\frac{1.85}{3.1} = K = .6$

GO BACK UP USING "REAL WORLD" NOZZLE AND RE-ADJUST NOMAGRAPH TO CORRECT ΔH/ΔP RATIO.

$\Delta H = K \Delta P$

$K = \Delta H / \Delta P$

$\frac{1.85}{2.95} = .63$

dd ΔH = 1.0 rate = .47

ΔH = 2.0 rate = .63

$\bar{x} = .55 ft^3/min$

$58 ft^3 \left(\frac{min}{.55 ft^3} \right) = \frac{90.9 min}{42 pts} = 2.2 min/pt$ go with 3'/pt

$= \frac{90.91}{28} = 3.3$

go with 3.5 min/pt

2 ducts short = no access.

PORTS L → R A – B

CO_2 = 1.4 %
O_2 = 19.5 %

SAN DIEGO COUNTY AIR POLLUTION CONTROL DISTRICT

SITE US SILICA

DATE 22 AUG 89

OPERATOR MAZIS, HAGERTY, WOOD, JACKSON

PRE LEAK Ø cfm @ 15 in. Hg — PASS NOT PASS

POST LEAK Ø cfm @ 8 in. Hg — PASS NOT PASS

PITOT CHECK PRE + POST — PASS NOT PASS

	TRAVERSE POINT NUMBER	SAMPLING TIME, min ~11 20 AM	GAS METER READING (Vm), ft3 9.865	VELOCITY HEAD (dP), inHg	ORIFICE METER (dH), in Hg ACTUAL	DRY GAS METER TEMPERATURE INLET (T1)	DRY GAS METER TEMPERATURE OUTLET (T2)	PUMP VACUUM in Hg	STACK TEMPERATURE (Ts), F	IMPINGER TEMPERATURE
PORT 1	A 7	3.5		.1	.1	94	102	Ø	119	67
	A 6	7	10.440	.1	.1	93	113	Ø	119	65
	A 5	10.5	11.315	.2	.12	92	116	Ø	115	63
	A 4	14.0	12.175	.5	.27	92	119	Ø	115/174	57
	A 3	17.5	13.260	.8	.48	92	122	Ø	161°	53
	A 2	21	14.390	.7	.42	92	122	Ø	153°	53°
	A 1	24.5	15.280	.4	.24	92	122	Ø	147°	55°
Port 2	B 1	3.5	15.790	.15	.18	92	117	Ø	140°	67°
	B 2	7.0	16.380	.35	.21	92	122	Ø	160°	61°
	B 3	10.5	17.530	.60	.36 ~~.60~~	93	126	Ø	152°	54°
	B 4	14.0	18.960	1.65	.70 ~~.60~~	93	128	Ø	145	52°
	B 5	17.5	20.630	1.60	.95	94	130	Ø	138°	51°
	B 6	21.0	22.240	1.6	.95	94	131	Ø	136°	50°
	B 7	24.5	23.648	1.0	.60	94	130	Ø	135	52°

negligible Δp

#3 stack
#4 impingers

P static +3.5

METER BOX # D337

METER dH@ 2.72

NOZZLE I.D. # .146

PROBE LENGTH 6'

should use 3'

* CALIBRATE DRY GAS OUTLET THERMOMETER.

P/O	Site	Test Date	Run	
000236	US Silica	89234	5-1	23 Aug 89

1030 Sample #	DI Sample	DI # Blank	Ace Sample	Ace Blank	Comments
Amt	410 Rinse 200 charge 109.4 Condens 719.4 g	1000 ml	400 ml	500 ml Lot # 8301 Omnisol Glass Distilled EMAX0116-1	Particulate was white + Chalky Rinse Ace Rinse 200 ml + 200 ml DI Rinse 410 ml +
Comments:	in Vac Oven @0707 8/24/89	in Vac oven at 1390 8/23/89		added 30 ml washdown into Beaker # 69	
25 Aug 89 13:00		Transfer to BKR # 71		Transfer to BKR # 70	Filter # 8901 Light Loading of light grey Particulate Desiccator 1100 23 Aug 89
Chaser		+10 ml		+15 ml	

* NOTE: H_2O PRESE RECOVERY SHOWS SOME BLACK FLOATING DEBRIS. THESE ARE SUSPECTED TO BE FROM THE PRESE [illegible].

Imp	#1	#2	#3	#4	Total Condensate
Final	644.7 g	542.6 g	457.3	441.7	
Init.	539.4	540.0 g	456.2	441.3	
	105.3 g	2.6 g	1.1 g	0.4 g	109.4 g