

CHAIN OF CUSTODY RECORD

SOUTH  
 WEST  
 ENVIRONMENTAL  
 COMPANY

CLIENT: *REN*

JOB #: *71263*

LAB: *Atmospheric Assessment*

Samplers: (signature)  
*[Signature]*

Run Number	Station Location	Date	Time	Sample Type			Sample ID #	Analysis Required
				Water	grab	AIR		
<i>1</i>	<i>ICE#1 - Exhaust</i>	<i>4/3</i>	<i>1400</i>			<i>✓</i>	<i>#1</i>	<i>Benzene, Methylene chloride, Vinyl Chloride</i>
<i>2</i>	<i>" " "</i>	<i>4/3</i>	<i>1400</i>			<i>✓</i>	<i>#2</i>	<i>" " "</i>
<i>3</i>	<i>" " "</i>	<i>4/3</i>	<i>1412</i>			<i>✓</i>	<i>#3</i>	<i>" " "</i>
<i>1</i>	<i>ICE#1 - FUEL InLET</i>	<i>4/3</i>	<i>13:00</i>			<i>✓</i>	<i>#1 - InLET</i>	<i>HCL, Benzene, Vinyl Cl, MECL, Chlorine, Sulfur</i>
<i>2</i>	<i>"#2 - FUEL InLET</i>	<i>4/3</i>	<i>1400</i>			<i>✓</i>	<i>#2 - InLET</i>	<i>"</i>
<i>3</i>	<i>#3 - FUEL InLET</i>	<i>4/3</i>	<i>1414</i>			<i>✓</i>	<i>#3 - InLET</i>	<i>"</i>

RELINQUISHED BY: (SIGNATURE) *[Signature]* RECEIVED BY: (SIGNATURE) DATE/TIME *4/3 1500*

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RELINQUISHED BY: (SIGNATURE) RECEIVED BY: (SIGNATURE) DATE/TIME

DISPATCHED BY: (SIGNATURE) DATE/TIME RECEIVED BY LAB BY: DATE/TIME

METHOD OF SHIPMENT:



A Corning Company

- 2810 Bunsen Ave., Unit A Ventura, CA 93003, (805) 650-0546
- 2325 Skyway Dr., Unit K, Santa Maria, CA 93455, (805) 922-2776
- 9537 Teistar Ave., Unit 118, El Monte, CA 91731, (818) 442-8400
- Mobile Labs, (800) ENSECO-8

WAIN B, JUSTICE / REWARD  
 Date 4-12-91 Page 1 of 1  
 Lab Number 6-9110-N  
 6-9109928

CLIENT Enseco-CRL Garden Grove  
 ADDRESS 701 South Coast Environmental  
 PROJECT NAME TIRGS PEN  
 CONTRACT / PURCHASE ORDER / QUOTE # \_\_\_\_\_

PROJECT MANAGER Neal Conroy  
 PHONE NUMBER (714) 898-6370  
 SITE CONTACT Kieth Shannon

Sample No. / Identification	Date	Time	Lab Sample Number	SAMPLE TYPE			No. of Con-tainers	Sample Condition/REMARKS
				LIQ.	AIR	SOLID		
Run #1 Front & Back Half	4/13		9109928001	X			2	
Run #2 Front	4/15		-002	X			1	
Run #3 Front	↓		-003	X			1	
Run #1 HCC-Filter #1	4/13		-001		X		1	Returning Samplesto Client
Run #2	4/15		-002		X		1	
Run #3	↓		-003		X		1	

**SAMPLERS: (Signature)**  
 Received by: (Signature) \_\_\_\_\_ Date \_\_\_\_\_  
 Relinquished by: (Signature) Michael Conroy Date \_\_\_\_\_  
 Relinquished by: (Signature) \_\_\_\_\_ Date \_\_\_\_\_

Received for Laboratory by:  
 Date \_\_\_\_\_ Time \_\_\_\_\_  
 Date RECEIVED \_\_\_\_\_ Time \_\_\_\_\_  
 Date ACCEPTED \_\_\_\_\_ Time \_\_\_\_\_

Method of Shipment: Fed-Ex #9532730130

Special Instructions:

**SAMPLE DISPOSITION:**  
 1. Storage time requested: \_\_\_\_\_ days  
 (Samples will be stored for 30 days without additional charges; thereafter storage charges will be billed at the published rates.)  
 2. Sample to be returned to client: Y N  
 (Enseco will dispose of unreturned samples at no extra charge. Disposal will be by incineration wherever possible; otherwise, as appropriate, according to legal requirements.)

Dry Gas Meter Sample Calibration Data  
(English units)

Date 8-1-90 Calibrated by Cecil Johnson Meter box number 66M 684806 (NoTech I)  
 Barometer pressure,  $P_m =$  30.27 in. Hg Wet test meter number Ref #1  
 Dry test meter temperature correction factor \_\_\_\_\_ °F

Reference Wet-test meter pressure drop (D <sub>m</sub> ) <sup>a</sup> in. H <sub>2</sub> O	Rota- meter setting (R <sub>L</sub> ) R <sup>2</sup> /min	Reference Wet-test meter gas volume (V <sub>w</sub> ) <sup>b</sup> ft <sup>3</sup>	Dry test meter gas volume (V <sub>d</sub> ) <sup>b</sup> ft <sup>3</sup>		Reference Wet-test meter gas temp (t <sub>w</sub> ) °F	Dry test meter			Average ratio (Y <sub>1</sub> ) <sup>c</sup>
			Initial	Final		Inlet gas temp (t <sub>1</sub> ) °F	Outlet gas temp (t <sub>2</sub> ) °F	Average gas temp (t <sub>av</sub> ) °F	
2		10.518	5.100	15.519	70	73	72	14	1.0007
±0.75		10.824	16.252	26.581	70.5	76	74.5	22	1.0052
±6.0		10.409	27.973	38.372	71	81	79	8.0	1.0014

<sup>a</sup> D<sub>m</sub> expressed as a negative number.  
<sup>b</sup> Volume passing through meter. Dry gas volume is minimum for at least five revolutions of the meter.  
<sup>c</sup> The average of t<sub>1</sub> and t<sub>2</sub> if using two thermometers; the actual reading if using one thermometer.  
<sup>d</sup> The time it takes to complete the calibration run.  
 \*With Y defined as the average ratio of volumes for the wet test and the dry test meters,  $Y_1 = Y \pm 0.02 Y$  for calibration and  $Y_1 = Y \pm 0.05 Y$  for the posttest checks; thus:  

$$Y_1 = \frac{V_w(t_w + 460^\circ F)(P_m + (D_m/13.6))}{V_d(t_d + 460^\circ F)(P_m)} \quad \text{(Eq. 1)} \quad Y = \frac{Y_1 + Y_2 + Y_3}{3} \quad \text{(Eq. 2)}$$
 \*With Y<sub>1</sub> defined as the average ratio of volumetric measurement by wet test meter to rotameter. Tolerance Y<sub>1</sub> = 1 ± 0.05 for calibration and Y<sub>1</sub> = ± 0.1 for posttest checks  

$$Y_{11} = \frac{V_w(t_w + 460^\circ F)(P_m + (D_m/13.6))}{\theta(t_w + 460^\circ F)(P_m)} \quad \text{(Eq. 3)} \quad Y_1 = \frac{Y_{11} + Y_{12} + Y_{13}}{3} \quad \text{(Eq. 4)}$$

Dry Gas Meter Sample Calibration Data  
(English units)

Date 8.1.79 Calibrated by Ceslie Johnson Meter box number 190-529 Anderson

Barometer pressure,  $P_m =$  29.46 in. Hg Wet test meter number \_\_\_\_\_

Dry test meter temperature correction factor \_\_\_\_\_ of \_\_\_\_\_

Wet test meter pressure drop ( $D_m$ ) <sup>a</sup> in. H <sub>2</sub> O	Rotameter setting ( $R_d$ ) ft <sup>3</sup> /min	Wet test meter gas volume ( $V_w$ ) <sup>b</sup> ft <sup>3</sup>	Dry test meter gas volume ( $V_d$ ) <sup>c</sup> ft <sup>3</sup>		Wet test meter gas temp ( $t_w$ ) <sup>e</sup> °F	Dry test meter				Average ratio ( $Y$ ) <sup>d</sup>
			Initial	Final		Inlet gas temp ( $t_{i1}$ ) <sup>e</sup> °F	Outlet gas temp ( $t_{e0}$ ) <sup>e</sup> °F	Average gas temp ( $t_{av}$ ) <sup>e</sup> °F	Time of run ( $\theta$ ) <sup>d</sup> min	
1	5	5	16.245	21.310	77	89	83	86	8.6	0.9775
2	5	5	22.425	27.485	78	90	86	87	6.25	1.0020
4	5	5	29.600	34.635	78	91	87	89	4.40	1.0088

<sup>a</sup>  $D_m$  expressed as a negative number.  
<sup>b</sup> Volume passing through meter. Dry gas volume is minimum for at least five revolutions of the meter.  
<sup>c</sup> The average of  $t_{i1}$  and  $t_{e0}$  if using two thermometers; the actual reading if using one thermometer.  
<sup>d</sup> The time it takes to complete the calibration run.  
<sup>e</sup> With  $Y$  defined as the average ratio of volumes for the wet test and the dry test meters,  $Y_1 = Y \pm 0.02 Y$  for calibration and  $Y_1 = Y \pm 0.05 Y$  for the posttest checks; thus,

$$Y_1 = \frac{V_w (t_w + 460^\circ F) [P_m + (D_m / 13.6)]}{V_d (t_w + 460^\circ F) [P_m]} \quad \text{(Eq. 1)} \quad Y = \frac{Y_1 + Y_2 + Y_3}{3} = 1.0009 \quad \text{(Eq. 2)}$$

<sup>f</sup> With  $Y$  defined as the average ratio of volumetric measurement by wet test meter to rotameter. Tolerance  $Y_1 = 1 \pm 0.05$  for calibration and  $Y_1 = Y \pm 0.05 Y$  for the posttest checks

$$Y_1 = \frac{V_w (t_w + 460^\circ F) [P_m + (D_m / 13.6)] [60]}{\theta (t_w + 460^\circ F) [P_m]} \quad \text{(Eq. 3)} \quad Y_1 = \frac{Y_1 + Y_2 + Y_3}{3} = \quad \text{(Eq. 4)}$$