SDMS DocID 2241252

Tetra Tech EM Inc.

107 Chelsea Parkway ◆ Boothwyn, PA 19061 ◆ (610) 485-6410 ◆ FAX (610) 485-8587

September 13, 2000

Mr. Michael Towle (3HS31)
On-Scene Coordinator
U.S. Environmental Protection Agency
1650 Arch Street
Philadelphia, PA 19103-2029

Subject: **12th Street Landfill Site - Data Quality Report**
TDD Number: 03-007-003

Dear Mr. Towle:

This report provides a general review of the analytical data package submitted by Datachem Laboratories in Cincinnati, Ohio for 19 air samples collected at the 12th Street Landfill Site in Wilmington, Delaware, from August 17 to 25, 2000. The samples were received at Datachem Laboratories in two batches on August 25 and 29, 2000 (batches 5 and 6). EPA requested that the samples be analyzed for arsenic, chromium, and lead.

The samples were analyzed for arsenic, chromium, and lead in accordance with National Institute for Occupational Safety and Health (NIOSH), Manual of Analytical Methods, 3rd Edition, 3rd Supplement, Method 7300.

This data package was reviewed in accordance with the EPA Quality Assurance/Quality Control Guidance for Removal Activities, EPA/540/4-90/004, April 1990. There were no problems associated with the data package that would require data qualifiers to be applied: therefore, Tetra Tech recommends that EPA accept the data as presented.

Please feel free to contact me at (610) 485-6410 regarding any aspect of this report.

Sincerely,

(b) (4)
[redacted]

Senior Chemist

cc: TDD File

contains recycled fiber and is recyclable

DATA CHEM LABORATORIES
A SORENSON COMPANY

Submitted To: (b) (4) [redacted]
Tetra Tech EM Inc.
107 Chelsea Parkway
Boothwyn, PA 19061

Reference Data:	**Metals**
Client Sample No.:	L-6B through D8
P.O. No.:	Not Available
Project Name:	03-007-L05
Project No.:	07003
Sample Type:	Filter
Method Reference:	7300
DCL Set ID No.:	00-S-4683
DCL Sample ID No.:	00-27325 through 00-27336
Sample Receipt Date:	8/25/2000
Preparation Date:	08/25/00
Analysis Date:	08/25/00

The samples were prepared and analyzed in accordance with NIOSH method 7300 using a Perkin Elmer 3000XL (ICP) purged spectrometer. Calibration verification was performed using a CCV (every 10 samples and at end) and an ICV (at beginning of run).

Results relate only to the items tested.

The results are in the enclosed data table.

This report shall not be reproduced except in full, without the written approval of the laboratory.

(b) (4) [redacted]

Analyst

(b) (4) [redacted]

Reviewer

CINCINNATI OFFICE
4388 GLENDALE-MILFORD ROAD
CINCINNATI, OHIO 45242-3706
513 733-5336, FAX 513 733-5347

WEST COAST OFFICE
11 SANTA YORMA COURT
NOVATO, CALIFORNIA 94945
800 280-8071, FAX 415 893-9469

Results
µg/Filter

Client #	L-6B	O-6B	D6	U6	L-7A	
DCL #	00-27325	00-27326	00-27327	00-27328	00-27329	**LOD**
Arsenic	ND	ND	ND	ND	ND	**1.**
Chromium	ND	ND	ND	ND	ND	**2.**
Lead	ND	**1.**	ND	ND	**2.**	**1.**

ND indicates the value is below the limit of detection (LOD)

Results
µg/Filter

Client #	O-7A	U7	D7	L-8A	O-8A	
DCL #	00-27330	00-27331	00-27332	00-27333	00-27334	**LOD**
Arsenic	ND	ND	ND	ND	ND	**1.**
Chromium	ND	ND	ND	ND	ND	**2.**
Lead	**6.**	ND	ND	ND	ND	**1.**

ND indicates the value is below the limit of detection (LOD)

Results
µg/Filter

Client #	U8	D8		% Recovery		
DCL #	00-27335	00-27336	Prep Blank	QC 8883		**LOD**
Arsenic	ND	ND	ND	96.		**1.**
Chromium	ND	ND	ND	106.		**2.**
Lead	ND	ND	ND	98.		**1.**

ND indicates the value is below the limit of detection (LOD)

Robert R. Liversage
Analyst

Reviewer

Results
mg/m^3

Client #	L-6B	O-6B	D6	U6	L-7A
DCL #	00-27325	00-27326	00-27327	00-27328	00-27329
Volume (L)	784.32	822.225	814.23	807.12	1565.
Arsenic	<0.001	<0.001	<0.001	<0.001	<0.0006
Chromium	<0.003	<0.002	<0.002	<0.002	<0.001
Lead	<0.001	**0.001**	<0.001	<0.001	**0.001**

Results
mg/m^3

Client #	O-7A	U7	D7	L-8A	O-8A
DCL #	00-27330	00-27331	00-27332	00-27333	00-27334
Volume (L)	1566.3	1632.7	1689.2	833.57	876.41
Arsenic	<0.0006	<0.0006	<0.0006	<0.001	<0.001
Chromium	<0.001	<0.001	<0.001	<0.002	<0.002
Lead	**0.004**	<0.0006	<0.0006	<0.001	<0.001

Results
mg/m^3

Client #	U8	D8			
DCL #	00-27335	00-27336			
Volume (L)	849.92	811.89			
Arsenic	<0.001	<0.001			
Chromium	<0.002	<0.002			
Lead	<0.001	<0.001			

(b) (4) [redacted]

Analyst

(b) (4) [redacted]

Reviewer

ENVIRONMENTAL PROTECTION AGENCY
Office of Enforcement

RUSH

00-S-4683

CHAIN OF CUSTODY RECORD

REGION 3
Curtis Bldg., 6th & Walnut Sts.
Philadelphia, Pennsylvania 19106

PROJ. NO.: 07003
PROJECT NAME: 03-007-L05
SAMPLERS: (Signature) (b) (4) [redacted]

STA. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	As, Cr, Pb (NIOSH 7300)	00-		REMARKS
~~L-6A~~	~~8/17/00~~	~~1730~~		~~X~~	~~Laborer - Morning~~	~~1~~	~~X~~			~~liters~~ (EMPTY)
L-6B	8/17/00	1730		X	Laborer - Afternoon	1	X	27325	784.32	liters
~~O-6A~~	~~8/17/00~~	~~1730~~		~~X~~	~~Operator - Morning~~	~~1~~	~~X~~			~~liters~~ (RHH)
O-6B	8/17/00	1730		X	Operator - Afternoon	1	X	27326	822.225	liters
D6	8/17/00	1730		X	Downwind	1	X	27327	814.23	liters
U6	8/17/00	1730		X	Upwind	1	X	27328	807.12	liters
L-7A	8/22/00	1730		X	Laborer - All day	1	X	27329	1,565.	liters
O-7A	8/22/00	1730		X	Operator - All day	1	X	27330	1,566.3	liters
U7	8/22/00	1730		X	Decon Area	1	X	27331	1,632.7	liters
D7	8/22/00	1730		X	North Fence	1	X	27332	1,689.2	liters
L-8A	8/23/00	1330		X	Laborer	1	X	27333	833.57	liters
O-8A	8/23/00	1330		X	Operator	1	X	27334	876.41	liters
U8	8/23/00	1330		X	North of Decon	1	X	27335	849.92	liters
D8	8/23/00	1330		X	Decon Area	1	X	27336	811.89	liters

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
(b) (4) [redacted]	08/23/00 1630				
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	(b) (4) [redacted]	Date / Time	Remarks	
			8/25/00 1047		

Distribution: Original Accompanies Shipment; Copy to Coordinator Field Files

DATACHEM LABORATORIES QC FILTER SPIKE

Date: 8/25/00 **Set ID:** 00-S-4681,4683

Method #: Mod NIOSH 7300 Sheet and Control Limits updated 4/4/00

Analyst: rrl

Matrix Spike #: QC- 8883 **Matrix Spike Dup. #:** QC- 8884 **(enter # only)**

Matrix (Wipe or Filter): filter **Prep Method:**

	Amount Found (ug) LCS	Amount Found (ug) LCS Dup	Amount Added (ug)	% LCS Recovery	%LCS Dup. Recovery	LCS Pass/Fail	LCSDup. Pass/Fail	Control Limits
Ag:	9.71	9.64	10	97.1	96.4	Pass	Pass	80-102
Al:	8.88	8.66	10	88.8	86.6	Pass	Pass	65-112
As:	9.55	9.53	10	95.5	95.3	Pass	Pass	76-102
B:	9.83	9.74	10	98.3	97.4	Pass	Pass	39-133
Ba:	9.93	9.96	10	99.3	99.6	Pass	Pass	83-111
Be:	9.45	9.59	10	94.5	95.9	Pass	Pass	78-100
Ca:	13	13.2	10	130.0	132.0	Pass	Pass	109-199
Cd:	9.62	9.91	10	96.2	99.1	Pass	Pass	76-107
Co:	10.2	10.3	10	102.0	103.0	Pass	Pass	83-106
Cr:	10.6	10.9	10	106.0	109.0	Pass	Pass	87-110
Cu:	11	11	10	110.0	110.0	Pass	Pass	81-114
Fe:	11	11.2	10	110.0	112.0	Pass	Pass	45-140
K:	99.4	96.6	100	99.4	96.6	Pass	Pass	62-118
Mg:	9.7	9.82	10	97.0	98.2	Pass	Pass	79-110
Mn:	10	10.2	10	100.0	102.0	Pass	Pass	82-108
Mo:	9.99	10.2	10	99.9	102.0	Pass	Pass	87-104
Na:	14.5	14	10	145.0	140.0	Pass	Pass	50-150
Ni:	9.95	10.1	10	99.5	101.0	Pass	Pass	78-109
Pb:	9.83	10	10	98.3	100.0	Pass	Pass	84-103
Sb:	9.28	9.26	10	92.8	92.6	Pass	Pass	47-113
Se:	10	10.4	10	100.0	104.0	Pass	Pass	70-106
Ti:	9.9	10	10	99.0	100.0	Pass	Pass	84-102
Tl:	6.62	6.59	10	66.2	65.9	Pass	Pass	41-123
V:	9.95	10	10	99.5	100.0	Pass	Pass	83-105
Zn:	10.2	10.5	10	102.0	105.0	Pass	Pass	59-136

Reviewer: (b) (4) [redacted]

Notes::

DCL Set #	Sample #	Client	Method	Method
00-SW-4687	00-27309-12	Biomax	7300	5010
00-S-4683	00-27325-36	"	7300	5004

Spiking:

	QC8883(G)	QC8884(G)
QC10198:	0.1053	0.1035
QC10199:	0.1041	0.1054

Test samples were prepared in accordance with NADSH 7300. The samples were hot block digested with 1.0 ml conc HNO_3 (Lot # 662370A05) and 1.0 ml conc HCl (Lot # 5587N3558). A blank, blank filter, and 2 QC filters #8883 and #8884 were also prepared. The samples were taken to 20 ml with Type II H_2O.

*Sample #00-27336 was taken to 50 ml with type II H_2O because sample was on backing pad. 2.5 ml conc of HNO_3 and HCl were used for the sample.

HNO_3 pipette: 1.0 ml = 1.0 ml
2.5 ml = 2.5 ml
HCl pipette: 1.0 ml = 1.0 ml
2.5 ml = 2.6 ml
Hot block ID: 108421
Spike pipette ID: 422896
H_2O pipette: 18 ml = 18.0875 g
45 ml = 45.0007 g

AC 8/25/00

AC 8/25/00

Continued on Page 18

Read and Understood By

(b) (4) [redacted]
Signed
8/25/00
Date

(b) (4) [redacted]
Signed
8/25/00
Date

TEST REPORT
Page 1 of 3
8/28/00

DATA CHEM LABORATORIES
A MORENCY COMPANY

Submitted To: (b) (4) [redacted]
Tetra Tech EM Inc.
107 Chelsea Parkway
Boothwyn, PA 19061

Reference Data:	**Metals**
Client Sample No.:	L-6B through D8
P.O. No.:	Not Available
Project Name:	03-007-L05
Project No.:	07003
Sample Type:	Filter
Method Reference:	7300
DCL Set ID No.:	00-S-4683
DCL Sample ID No.:	00-27325 through 00-27336
Sample Receipt Date:	8/25/2000
Preparation Date:	08/25/00
Analysis Date:	08/25/00

The samples were prepared and analyzed in accordance with NIOSH method 7300 using a Perkin Elmer 3000XL (ICP) purged spectrometer. Calibration verification was performed using a CCV (every 10 samples and at end) and an ICV (at beginning of run).

Results relate only to the items tested.

The results are in the enclosed data table.

This report shall not be reproduced except in full, without the written approval of the laboratory.

(b) (4) [redacted]
Analyst

(b) (4) [redacted]
Reviewer

Results
µg/Filter

Client #	L-6B	O-6B	D6	U6	L-7A	
DCL #	00-27325	00-27326	00-27327	00-27328	00-27329	LOD
Arsenic	ND	ND	ND	ND	ND	1.
Chromium	ND	ND	ND	ND	ND	2.
Lead	ND	1.	ND	ND	2.	1.

ND indicates the value is below the limit of detection (LOD)

Results
µg/Filter

Client #	O-7A	U7	D7	L-8A	O-8A	
DCL #	00-27330	00-27331	00-27332	00-27333	00-27334	LOD
Arsenic	ND	ND	ND	ND	ND	1.
Chromium	ND	ND	ND	ND	ND	2.
Lead	6.	ND	ND	ND	ND	1.

ND indicates the value is below the limit of detection (LOD)

Results
µg/Filter

Client #	U8	D8		% Recovery		
DCL #	00-27335	00-27336	Prep Blank	QC 8883		LOD
Arsenic	ND	ND	ND	96.		1.
Chromium	ND	ND	ND	106.		2.
Lead	ND	ND	ND	98.		1.

ND indicates the value is below the limit of detection (LOD)

(b) (4) [redacted]

Analyst

(b) (4) [redacted]

Reviewer

ORIGINAL

TEST REPORT
Page 3 of 3
00-S-4683

Results
mg/m^3

Client #	L-6B	O-6B	D6	U6	L-7A
DCL #	00-27325	00-27326	00-27327	00-27328	00-27329
Volume (L)	784.32	822.225	814.23	807.12	1565.
Arsenic	<0.001	<0.001	<0.001	<0.001	<0.0006
Chromium	<0.003	<0.002	<0.002	<0.002	<0.001
Lead	<0.001	**0.001**	<0.001	<0.001	**0.001**

Results
mg/m^3

Client #	O-7A	U7	D7	L-8A	O-8A
DCL #	00-27330	00-27331	00-27332	00-27333	00-27334
Volume (L)	1566.3	1632.7	1689.2	833.57	876.41
Arsenic	<0.0006	<0.0006	<0.0006	<0.001	<0.001
Chromium	<0.001	<0.001	<0.001	<0.002	<0.002
Lead	**0.004**	<0.0006	<0.0006	<0.001	<0.001

Results
mg/m^3

Client #	U8	D8			
DCL #	00-27335	00-27336			
Volume (L)	849.92	811.89			
Arsenic	<0.001	<0.001			
Chromium	<0.002	<0.002			
Lead	<0.001	<0.001			

Robert R. Liversage
Analyst

Reviewer

Office of Enforcement

RUSH

UU-J-4683

CHAIN OF CUSTODY RECORD

REGION 3
Curtis Bldg., 6th & Walnut Sts.
Philadelphia, Pennsylvania 19106

PROJ. NO.: Ø7ØØ3
PROJECT NAME: Ø3-ØØ7-LØ5

SAMPLERS: (Signature) (b) (4) [redacted]

STA. NO.	DATE	TIME	COMP	GRAB	STATION LOCATION	NO. OF CONTAINERS	As, Cr, Pb (NIOSH) 7300	ØØ-		REMARKS
~~L-6A~~	~~8/17/00~~	~~1730~~		~~X~~	~~Laborer - Morning~~	~~1~~	~~X~~			~~liters~~ (Emp)
L-6B	8/17/00	1730		X	Laborer - Afternoon	1	X	27325	784.32	liters
~~O-6A~~	~~8/17/00~~	~~1730~~		~~X~~	~~Operator - Morning~~	~~1~~	~~X~~			~~liters~~ (Rec)
O-6B	8/17/00	1730		X	Operator - Afternoon	1	X	27326	822.225	liters
D6	8/17/00	1730		X	Downwind	1	X	27327	814.23	liters
U6	8/17/00	1730		X	Upwind	1	X	27328	807.12	liters
L-7A	8/22/00	1730		X	Laborer - All day	1	X	27329	1,565.	liters
O-7A	8/22/00	1730		X	Operator - All day	1	X	27330	1,568.3	liters
U7	8/22/00	1730		X	Decon Area	1	X	27331	1,632.7	liters
D7	8/22/00	1730		X	North Fence	1	X	27332	1,689.2	liters
L-8A	8/22/00	1330		X	Laborer	1	X	27333	833.57	liters
O-8A	8/22/00	1330		X	Operator	1	X	27334	876.41	liters
U8	8/22/00	1330		X	North of Decon	1	X	27335	849.92	liters
D8	8/22/00	1330		X	Decon Area	1	X	27336	811.89	liters

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
(b) (4) [redacted]	08/22/00 1630				
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:	Date / Time	Remarks	
(b) (4) [redacted]			8/25/00 1047		

Distribution: Original Accompanies Shipment; Copy to Coordinator Field Files

3-21579

Office of Enforcement

CHAIN OF CUSTODY RECORD

Curtis Bldg., 6th & Walnut Sts.
Philadelphia, Pennsylvania 19106

[redacted] J. NO.: 07003
PROJECT NAME: 03-007-L05

SAMPLERS: (Signature)
(b) (4) [redacted]

STA. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	As, Cr, Pb (NIOSH 7300)						REMARKS
~~L-6A~~	~~8/17/00~~	~~1730~~		~~X~~	~~Laborer - Morning~~	~~1~~	~~X~~						~~liters~~ (EMH)
L-6B	8/17/00	1730		X	Laborer - Afternoon	1	X					784.32	liters
~~O-6A~~	~~8/17/00~~	~~1730~~		~~X~~	~~Operator - Morning~~	~~1~~	~~X~~						~~liters~~ (RHH)
O-6B	8/17/00	1730		X	Operator - Afternoon	1	X					822.225	liters
D6	8/17/00	1730		X	Downwind	1	X					814.23	liters
U6	8/17/00	1730		X	Upwind	1	X					807.12	liters
L-7A	8/22/00	1730		X	Laborer - All day	1	X					1,565.	liters
O-7A	8/22/00	1730		X	Operator - All day	1	X					1,566.3	liters
U7	8/22/00	1730		X	Decon Area	1	X					1,632.7	liters
D7	8/22/00	1730		X	North Fence	1	X					1,689.2	liters
L-8A	8/23/00	1330		X	Laborer	1	X					833.57	liters
O-8A	8/23/00	1330		X	Operator	1	X					876.41	liters
U8	8/23/00	1330		X	North of Decon	1	X					849.92	liters
D8	8/23/00	1330		X	Decon Area	1	X					811.89	liters

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
(b) (4) [redacted]	08/23/00 1630				
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	Remarks	

Distribution: Original Accompanies Shipment; Copy to Coordinator Field Files

3-24578

Air Monitoring Worksheet

ORIGINAL

Date of sampling = 8/22/00 & 8/22/00

N of decon cassette was on Backwards

Pump #	Sample ID#	Location	Pre-Cal 1	Pre-Cal 2	Pre-Cal 3	Pre-Cal avg.	Start Time	Stop Time	Post-Cal 1	Post-Cal 2	Post-Cal 3	Post-Cal avg.	Total Time	Average (Lpm)	TWA	PDM
13841	L6A	L-8A	2732	2740	2732	2735	0806	1311	2728	2724	2740	2.731	305	2.733	.06	~~5824~~
13843	L6B	U8	2840	2826	2918	2861	0810	1313	2740	2757	2749	2.749	303	~~2.780~~	~~N/A~~	2.805
13839	O6A	D8	2672	2664	2668	2668	0810	1318	2617	2610	2584	2.604	308	2.636	.01	6327
13840	O6B	O-8A	2720	2724	2720	2721	0806	1324	2708	3020	2712	2.792	318	2.756	.00	6311
	~~IP6~~															
	~~LP6~~															

8/22/00

Pump #	Sample ID#	Location	Pre-Cal 1	Pre-Cal 2	Pre-Cal 3	Pre-Cal avg.	Start Time	Stop Time	Post-Cal 1	Post-Cal 2	Post-Cal 3	Post-Cal avg.	Total Time	Average (Lpm)	TWA	PDM #
13843	L-7A	Micro-Lab	2862	2867	2867	2865	815	1720	2876	2876	2876	2876	545	2.8705	.00	6311
13841	O 7A	Oper-Mir	2862	2858	2853	2858	817	1726	2853	2853	2835	2847	549	2.853	.05	6327
13839	U7	Decon	2679	2691	2687	2686	715	1724	2664	2683	2679	2675	609	2681	.00	5824
13840	D7	N Fence	~~2778~~	2862	2813	~~2831~~ 2835	717	1722	2700	2778	2770	2749	605	2.792	N/A	

Air Monitoring Worksheet

Date of sampling = ~~8/11/00~~ 8/17/00

Pump #	Sample ID#	Location	Pre-Cal 1	Pre-Cal 2	Pre-Cal 3	Pre-Cal avg.	Start Time	Stop Time	Post-Cal 1	Post-Cal 2	Post-Cal 3	Post-Cal avg.	Total Time	Average (Lpm)	TWA	pDM #
13840	L-5A	Lab-M	2.716	2.712	2.736	2.721	0731	1212	2.614	2.685	2.681	2.665	281		0.42	5820
	L-5B	Lab-A														
13842	O-5A	Op-M	2.745	2.732	2.724	2.734	0733	1216	2.625	2.648	2.625	2.633	283		0.0	6327
	O-5B	Op-A														
	D5	Down														
	U5	Up														

Pump #	Sample ID#	Location	Pre-Cal 1	Pre-Cal 2	Pre-Cal 3	Pre-Cal avg.	Start Time	Stop Time	Post-Cal 1	Post-Cal 2	Post-Cal 3	Post-Cal avg.	Total Time	Average (Lpm)	TWA
13839	L-6B	Lower-A	2.826	2.800	2.791	2.806	1245	1730	2.691	2.708	2.695	2.698	285	2.752	.02
13843	O-6B	Operator-A	2.890	2.899	2.913	2.901	1245	1730	2.844	2.880	2.880	2.868	285	2.885	.03
13841	D6	decon area	2.831	2.835	2.853	2.840	1248	1732	2.894	2.904	2.885	2.894	284	2.867	.08
13840	U6	N fence	2.778	2.787	2.787	2.784	1245	1730	2.904	2.862	2.876	2.881	285	2.832	

Air Sampling Data Sheet

ORIGINAL

PDM # 5824

Date: 8/23/00

Sample ID No.: L-8A

Time:

Pump No.: 13841

Site Name: 12th St. Landfill

Pump Type

☐ DuPont Alpha 1

☒ Gillian HFS-113

Particulate Collection Devices

☒ 37mm Polystyrene 3-piece Filter Cassette

☐ 25mm Polystyrene 3-piece Filter Cassette

☐ 25mm Carbon filled black polypropylene w/cowl Filter Cassette

☐ Cyclone

☐ Cascade

Particulate Collection Media

☐ Cellulose*

☒ MCE (.8 µm)*

☐ MCE (.45 µm)*

☐ MCE (1.2 µm)*

☐ PVC (.8 µm)*

☐ PVC (.45 µm)*

☐ PVC (5.0 µm)*

☐ PTFE (.8 µm)*

☐ PTFE (.45 µm)*

☐ PTFE (.5 µm)*

☐ PTFE (1.0 µm)*

☐ PTFE (2.0 µm)*

☐ PTFE (5.0 µm)*

☐ Glass Fiber (1.0 µm)

☐ VAC (.8 µm)

☐ Silver membrane (.45 µm)

☐ Silver membrane (.8 µm)

*** Requires Support Pad**

Gas / Vapor Collection Devices

☐ Charcoal Sorbent Tube

☐ Chromosorb Sorbent Tube

☐ Porapak-T Sorbent Tube

☐ Cryogenic Trap

☐ Tenax Sorbent Tube

☐ Anasorb Sorbent Tube

☐ Hopcalite Sorbent Tube

☐ Impinger

☐ XAD Sorbent Tube

☐ Silica Gel Sorbent Tube

☐ Tedlar Bag

☐ PUF

Calibration Data

	Run # 1	Run # 2	Run # 3	Average	Pre-Post Avg.
Pre-Cal	2732 lpm	2740 lpm	2732 lpm	2735 lpm	
Post-Cal	2728 lpm	2724 lpm	2740 lpm	2731 lpm	
Pre-Post					2.733 lpm (V)

Sample Start Time: 0806

Total Time Sampled: 305 minutes **(TIME)**

Sample Stop Time: 1311

Volume Calculations

305 **(TIME)** x 2.733 **(V)** = 833.57 liters **(VOLUME SAMPLED)**

ORIGINAL

Air Sampling Data Sheet

PDM # 6311

Date: 8/23/00

Sample ID No.: O-8A

Time:

Pump No.: 13840

Site Name: 12th St. Landfill

Pump Type

- ☐ DuPont Alpha 1
- ☒ Gillian HFS-113

Particulate Collection Devices

- ☒ 37mm Polystyrene 3-piece Filter Cassette
- ☐ 25mm Polystyrene 3-piece Filter Cassette
- ☐ 25mm Carbon filled black polypropylene w/cowl Filter Cassette
- ☐ Cyclone
- ☐ Cascade

Particulate Collection Media

- ☐ Cellulose*
- ☒ MCE (.8 µm)*
- ☐ MCE (.45 µm)*
- ☐ MCE (1.2 µm)*
- ☐ PVC (.8 µm)*
- ☐ PVC (.45 µm)*
- ☐ PVC (5.0 µm)*
- ☐ PTFE (.8 µm)*
- ☐ PTFE (.45 µm)*
- ☐ PTFE (.5 µm)*
- ☐ PTFE (1.0 µm)*
- ☐ PTFE (2.0 µm)*
- ☐ PTFE (5.0 µm)*
- ☐ Glass Fiber (1.0 µm)
- ☐ VAC (.8 µm)
- ☐ Silver membrane (.45 µm)
- ☐ Silver membrane (.8 µm)

*** Requires Support Pad**

Gas / Vapor Collection Devices

- ☐ Charcoal Sorbent Tube
- ☐ Chromosorb Sorbent Tube
- ☐ Porapak-T Sorbent Tube
- ☐ Cryogenic Trap
- ☐ Tenax Sorbent Tube
- ☐ Anasorb Sorbent Tube
- ☐ Hopcalite Sorbent Tube
- ☐ Impinger
- ☐ XAD Sorbent Tube
- ☐ Silica Gel Sorbent Tube
- ☐ Tedlar Bag
- ☐ PUF

Calibration Data

	Run # 1	Run # 2	Run # 3	Average	Pre-Post Avg.
Pre-Cal	2720 lpm	2724 lpm	2720 lpm	2721 lpm	
Post-Cal	2708 lpm	3020 lpm	2712 lpm	2792 lpm	
Pre-Post					2.756 lpm (V)

Sample Start Time: 0806

Total Time Sampled: 318 minutes (TIME)

Sample Stop Time: 1324

Volume Calculations

318 (TIME) x 2.756 (V) = 876.41 liters (VOLUME SAMPLED)

Air Sampling Data Sheet

ORIGINAL

Date: 8/23 **Sample ID No.:** D8

Time: **Pump No.:** 13839

Site Name: 12th St. Landfill

Pump Type

- ☐ DuPont Alpha 1
- ☒ Gillian HFS-113

Particulate Collection Devices

- ☒ 37mm Polystyrene 3-piece Filter Cassette
- ☐ 25mm Polystyrene 3-piece Filter Cassette
- ☐ 25mm Carbon filled black polypropylene w/cowl Filter Cassette
- ☐ Cyclone
- ☐ Cascade

Particulate Collection Media

- ☐ Cellulose*
- ☒ MCE (.8 µm)*
- ☐ MCE (.45 µm)*
- ☐ MCE (1.2 µm)*
- ☐ PVC (.8 µm)*
- ☐ PVC (.45 µm)*
- ☐ PVC (5.0 µm)*
- ☐ PTFE (.8 µm)*
- ☐ PTFE (.45 µm)*
- ☐ PTFE (.5 µm)*
- ☐ PTFE (1.0 µm)*
- ☐ PTFE (2.0 µm)*
- ☐ PTFE (5.0 µm)*
- ☐ Glass Fiber (1.0 µm)
- ☐ VAC (.8 µm)
- ☐ Silver membrane (.45 µm)
- ☐ Silver membrane (.8 µm)

*** Requires Support Pad**

Gas / Vapor Collection Devices

- ☐ Charcoal Sorbent Tube
- ☐ Chromosorb Sorbent Tube
- ☐ Porapak-T Sorbent Tube
- ☐ Cryogenic Trap
- ☐ Tenax Sorbent Tube
- ☐ Anasorb Sorbent Tube
- ☐ Hopcalite Sorbent Tube
- ☐ Impinger
- ☐ XAD Sorbent Tube
- ☐ Silica Gel Sorbent Tube
- ☐ Tedlar Bag
- ☐ PUF

Calibration Data

	Run # 1	Run # 2	Run # 3	Average	Pre-Post Avg.
Pre-Cal	2672 lpm	2664 lpm	2668 lpm	2668 lpm	
Post-Cal	2617 lpm	2610 lpm	2584 lpm	2.604 lpm	
Pre-Post					2.636 lpm (V)

Sample Start Time: 0810 **Sample Stop Time:** 1318

Total Time Sampled: 308 minutes **(TIME)**

Volume Calculations

308 **(TIME)** x 2.636 **(V)** = 811.89 liters **(VOLUME SAMPLED)**

Air Sampling Data Sheet

ORIGINAL

Date: 8/23/00 **Sample ID No.:** 48

Time: _____ **Pump No.:** 13843

Site Name: 12th St. Landfill

Pump Type

- ☐ DuPont Alpha 1
- ☒ Gillian HFS-113

Particulate Collection Devices

- ☒ 37mm Polystyrene 3-piece Filter Cassette
- ☐ 25mm Polystyrene 3-piece Filter Cassette
- ☐ 25mm Carbon filled black polypropylene w/cowl Filter Cassette
- ☐ Cyclone
- ☐ Cascade

Particulate Collection Media

- ☐ Cellulose*
- ☒ MCE (.8 µm)*
- ☐ MCE (.45 µm)*
- ☐ MCE (1.2 µm)*
- ☐ PVC (.8 µm)*
- ☐ PVC (.45 µm)*
- ☐ PVC (5.0 µm)*
- ☐ PTFE (.8 µm)*
- ☐ PTFE (.45 µm)*
- ☐ PTFE (.5 µm)*
- ☐ PTFE (1.0 µm)*
- ☐ PTFE (2.0 µm)*
- ☐ PTFE (5.0 µm)*
- ☐ Glass Fiber (1.0 µm)
- ☐ VAC (.8 µm)
- ☐ Silver membrane (.45 µm)
- ☐ Silver membrane (.8 µm)

*** Requires Support Pad**

Gas / Vapor Collection Devices

- ☐ Charcoal Sorbent Tube
- ☐ Chromosorb Sorbent Tube
- ☐ Porapak-T Sorbent Tube
- ☐ Cryogenic Trap
- ☐ Tenax Sorbent Tube
- ☐ Anasorb Sorbent Tube
- ☐ Hopcalite Sorbent Tube
- ☐ Impinger
- ☐ XAD Sorbent Tube
- ☐ Silica Gel Sorbent Tube
- ☐ Tedlar Bag
- ☐ PUF

Calibration Data

	Run # 1	Run # 2	Run # 3	Average	Pre-Post Avg.
Pre-Cal	2840 lpm	2826 lpm	2918 lpm	2861 lpm	
Post-Cal	2740 lpm	2757 lpm	2749 lpm	2749 lpm	
Pre-Post					2.805 lpm (V)

Sample Start Time: 0810 **Sample Stop Time:** 1313

Total Time Sampled: 303 minutes **(TIME)**

Volume Calculations

303 **(TIME)** x 2.805 **(V)** = 849.92 liters **(VOLUME SAMPLED)**

ORIGINAL

Air Sampling Data Sheet

Date: 8/22

Sample ID No.: ~~L-6A~~ L-7A

Time:

Pump No.: 13843

Site Name: 12th St. Landfill

Pump Type

- ☐ DuPont Alpha 1
- ☒ Gillian HFS-113

Particulate Collection Devices

- ☒ 37mm Polystyrene 3-piece Filter Cassette
- ☐ 25mm Polystyrene 3-piece Filter Cassette
- ☐ 25mm Carbon filled black polypropylene w/cowl Filter Cassette
- ☐ Cyclone
- ☐ Cascade

Particulate Collection Media

- ☐ Cellulose*
- ☒ MCE (.8 µm)*
- ☐ MCE (.45 µm)*
- ☐ MCE (1.2 µm)*
- ☐ PVC (.8 µm)*
- ☐ PVC (.45 µm)*
- ☐ PVC (5.0 µm)*
- ☐ PTFE (.8 µm)*
- ☐ PTFE (.45 µm)*
- ☐ PTFE (.5 µm)*
- ☐ PTFE (1.0 µm)*
- ☐ PTFE (2.0 µm)*
- ☐ PTFE (5.0 µm)*
- ☐ Glass Fiber (1.0 µm)
- ☐ VAC (.8 µm)
- ☐ Silver membrane (.45 µm)
- ☐ Silver membrane (.8 µm)

*** Requires Support Pad**

Gas / Vapor Collection Devices

- ☐ Charcoal Sorbent Tube
- ☐ Chromosorb Sorbent Tube
- ☐ Porapak-T Sorbent Tube
- ☐ Cryogenic Trap
- ☐ Tenax Sorbent Tube
- ☐ Anasorb Sorbent Tube
- ☐ Hopcalite Sorbent Tube
- ☐ Impinger
- ☐ XAD Sorbent Tube
- ☐ Silica Gel Sorbent Tube
- ☐ Tedlar Bag
- ☐ PUF

Calibration Data

	Run # 1	Run # 2	Run # 3	Average	Pre-Post Avg.
Pre-Cal	2862 lpm	2867 lpm	2867 lpm	2865 lpm	
Post-Cal	2876 lpm	2876 lpm	2876 lpm	2876 lpm	
Pre-Post					2871 lpm (V)

Sample Start Time: 0815

Sample Stop Time: 1720

Total Time Sampled: 545 minutes (TIME)

Volume Calculations

545 (TIME) x 2.871 (V) = 1565 liters (VOLUME SAMPLED)

ORIGINAL

Air Sampling Data Sheet

Date: 8/22

Sample ID No.: ~~1-6B~~ 0-7A

Time:

Pump No.: 13841

Site Name: 12th St. Landfill

Pump Type

- ☐ DuPont Alpha 1
- ☒ Gillian HFS-113

Particulate Collection Devices

- ☒ 37mm Polystyrene 3-piece Filter Cassette
- ☐ 25mm Polystyrene 3-piece Filter Cassette
- ☐ 25mm Carbon filled black polypropylene w/cowl Filter Cassette
- ☐ Cyclone
- ☐ Cascade

Particulate Collection Media

- ☐ Cellulose*
- ☒ MCE (.8 µm)*
- ☐ MCE (.45 µm)*
- ☐ MCE (1.2 µm)*
- ☐ PVC (.8 µm)*
- ☐ PVC (.45 µm)*
- ☐ PVC (5.0 µm)*
- ☐ PTFE (.8 µm)*
- ☐ PTFE (.45 µm)*
- ☐ PTFE (.5 µm)*
- ☐ PTFE (1.0 µm)*
- ☐ PTFE (2.0 µm)*
- ☐ PTFE (5.0 µm)*
- ☐ Glass Fiber (1.0 µm)
- ☐ VAC (.8 µm)
- ☐ Silver membrane (.45 µm)
- ☐ Silver membrane (.8 µm)

*** Requires Support Pad**

Gas / Vapor Collection Devices

- ☐ Charcoal Sorbent Tube
- ☐ Chromosorb Sorbent Tube
- ☐ Porapak-T Sorbent Tube
- ☐ Cryogenic Trap
- ☐ Tenax Sorbent Tube
- ☐ Anasorb Sorbent Tube
- ☐ Hopcalite Sorbent Tube
- ☐ Impinger
- ☐ XAD Sorbent Tube
- ☐ Silica Gel Sorbent Tube
- ☐ Tedlar Bag
- ☐ PUF

Calibration Data

	Run # 1	Run # 2	Run # 3	Average	Pre-Post Avg.
Pre-Cal	2862 lpm	2858 lpm	2853 lpm	2858 lpm	
Post-Cal	2853 lpm	2853 lpm	2835 lpm	2847 lpm	
Pre-Post					2.853 lpm (V)

Sample Start Time: 0817

Sample Stop Time: ~~0~~ 1726

Total Time Sampled: 549 minutes (TIME)

Volume Calculations

549 (TIME) x 2.853 (V) = 1566.3 liters (VOLUME SAMPLED)

Air Sampling Data Sheet

ORIGINAL

Date: 8/22

Sample ID No.: ~~06A~~ 47

Time:

Pump No.: 13839

Site Name: 12th St. Landfill

Pump Type

- ☐ DuPont Alpha 1
- ☒ Gillian HFS-113

Particulate Collection Devices

- ☒ 37mm Polystyrene 3-piece Filter Cassette
- ☐ 25mm Polystyrene 3-piece Filter Cassette
- ☐ 25mm Carbon filled black polypropylene w/cowl Filter Cassette
- ☐ Cyclone
- ☐ Cascade

Particulate Collection Media

- ☐ Cellulose*
- ☒ MCE (.8 µm)*
- ☐ MCE (.45 µm)*
- ☐ MCE (1.2 µm)*
- ☐ PVC (.8 µm)*
- ☐ PVC (.45 µm)*
- ☐ PVC (5.0 µm)*
- ☐ PTFE (.8 µm)*
- ☐ PTFE (.45 µm)*
- ☐ PTFE (.5 µm)*
- ☐ PTFE (1.0 µm)*
- ☐ PTFE (2.0 µm)*
- ☐ PTFE (5.0 µm)*
- ☐ Glass Fiber (1.0 µm)
- ☐ VAC (.8 µm)
- ☐ Silver membrane (.45 µm)
- ☐ Silver membrane (.8 µm)

*** Requires Support Pad**

Gas / Vapor Collection Devices

- ☐ Charcoal Sorbent Tube
- ☐ Chromosorb Sorbent Tube
- ☐ Porapak-T Sorbent Tube
- ☐ Cryogenic Trap
- ☐ Tenax Sorbent Tube
- ☐ Anasorb Sorbent Tube
- ☐ Hopcalite Sorbent Tube
- ☐ Impinger
- ☐ XAD Sorbent Tube
- ☐ Silica Gel Sorbent Tube
- ☐ Tedlar Bag
- ☐ PUF

Calibration Data

	Run # 1	Run # 2	Run # 3	Average	Pre-Post Avg.
Pre-Cal	2679 lpm	2691 lpm	2687 lpm	2686 lpm	
Post-Cal	2664 lpm	2683 lpm	2679 lpm	2675 lpm	
Pre-Post					2681 lpm (V)

Sample Start Time: 0715

Sample Stop Time: 1724

Total Time Sampled: 609 minutes **(TIME)**

Volume Calculations

609 **(TIME)** x 2.681 **(V)** = 1632.7 liters **(VOLUME SAMPLED)**

ORIGINAL

Air Sampling Data Sheet

Date: 8/22

Sample ID No.: ~~06B~~ D7

Time:

Pump No.: 13840

Site Name: 12th St. Landfill

Pump Type

- ☐ DuPont Alpha 1
- ☒ Gillian HFS-113

Particulate Collection Devices

- ☒ 37mm Polystyrene 3-piece Filter Cassette
- ☐ 25mm Polystyrene 3-piece Filter Cassette
- ☐ 25mm Carbon filled black polypropylene w/cowl Filter Cassette
- ☐ Cyclone
- ☐ Cascade

Particulate Collection Media

- ☐ Cellulose*
- ☒ MCE (.8 µm)*
- ☐ MCE (.45 µm)*
- ☐ MCE (1.2 µm)*
- ☐ PVC (.8 µm)*
- ☐ PVC (.45 µm)*
- ☐ PVC (5.0 µm)*
- ☐ PTFE (.8 µm)*
- ☐ PTFE (.45 µm)*
- ☐ PTFE (.5 µm)*
- ☐ PTFE (1.0 µm)*
- ☐ PTFE (2.0 µm)*
- ☐ PTFE (5.0 µm)*
- ☐ Glass Fiber (1.0 µm)
- ☐ VAC (.8 µm)
- ☐ Silver membrane (.45 µm)
- ☐ Silver membrane (.8 µm)

*** Requires Support Pad**

Gas / Vapor Collection Devices

- ☐ Charcoal Sorbent Tube
- ☐ Chromosorb Sorbent Tube
- ☐ Porapak-T Sorbent Tube
- ☐ Cryogenic Trap
- ☐ Tenax Sorbent Tube
- ☐ Anasorb Sorbent Tube
- ☐ Hopcalite Sorbent Tube
- ☐ Impinger
- ☐ XAD Sorbent Tube
- ☐ Silica Gel Sorbent Tube
- ☐ Tedlar Bag
- ☐ PUF

Calibration Data

	Run # 1	Run # 2	Run # 3	Average	Pre-Post Avg.
Pre-Cal	2862 lpm	2813 lpm	2831 lpm	2835 lpm	
Post-Cal	2700 lpm	2778 lpm	2770 lpm	2749 lpm	
Pre-Post					2.792 lpm (V)

Sample Start Time: 0717

Sample Stop Time: 1722

Total Time Sampled: 605 minutes **(TIME)**

Volume Calculations

605 **(TIME)** x 2.792 **(V)** = 1689.2 liters **(VOLUME SAMPLED)**

ORIGINAL

Air Sampling Data Sheet

Date: 8-17-00 **Sample ID No.:** L-6B

Time: 1210 **Pump No.:** 13839

Site Name: 12th St. Landfill

Pump Type

- ☐ DuPont Alpha 1
- ☒ Gillian HFS-113

Particulate Collection Devices

- ☒ 37mm Polystyrene 3-piece Filter Cassette
- ☐ 25mm Polystyrene 3-piece Filter Cassette
- ☐ 25mm Carbon filled black polypropylene w/cowl Filter Cassette
- ☐ Cyclone
- ☐ Cascade

Particulate Collection Media

- ☐ Cellulose*
- ☒ MCE (.8 µm)*
- ☐ MCE (.45 µm)*
- ☐ MCE (1.2 µm)*
- ☐ PVC (.8 µm)*
- ☐ PVC (.45 µm)*
- ☐ PVC (5.0 µm)*
- ☐ PTFE (.8 µm)*
- ☐ PTFE (.45 µm)*
- ☐ PTFE (.5 µm)*
- ☐ PTFE (1.0 µm)*
- ☐ PTFE (2.0 µm)*
- ☐ PTFE (5.0 µm)*
- ☐ Glass Fiber (1.0 µm)
- ☐ VAC (.8 µm)
- ☐ Silver membrane (.45 µm)
- ☐ Silver membrane (.8 µm)

*** Requires Support Pad**

Gas / Vapor Collection Devices

- ☐ Charcoal Sorbent Tube
- ☐ Chromosorb Sorbent Tube
- ☐ Porapak-T Sorbent Tube
- ☐ Cryogenic Trap
- ☐ Tenax Sorbent Tube
- ☐ Anasorb Sorbent Tube
- ☐ Hopcalite Sorbent Tube
- ☐ Impinger
- ☐ XAD Sorbent Tube
- ☐ Silica Gel Sorbent Tube
- ☐ Tedlar Bag
- ☐ PUF

Calibration Data

	Run # 1	Run # 2	Run # 3	Average	Pre-Post Avg.
Pre-Cal	2.826 lpm	2.800 lpm	2.791 lpm	2.806 lpm	
Post-Cal	2.691 lpm	2.708 lpm	2.695 lpm	2.698 lpm	
Pre-Post					2.752 lpm (V)

Sample Start Time: 1245 **Sample Stop Time:** 1730

Total Time Sampled: 285 minutes **(TIME)**

Volume Calculations

285 **(TIME)** x 2.752 **(V)** = 784.32 liters **(VOLUME SAMPLED)**

ORIGINAL

Air Sampling Data Sheet

Date: 8-17-00 **Sample ID No.:** O-6B

Time: 1213 **Pump No.:** 13843

Site Name: 12th St. Landfill

Pump Type

- ☐ DuPont Alpha 1
- ☒ Gillian HFS-113

Particulate Collection Devices

- ☒ 37mm Polystyrene 3-piece Filter Cassette
- ☐ 25mm Polystyrene 3-piece Filter Cassette
- ☐ 25mm Carbon filled black polypropylene w/cowl Filter Cassette
- ☐ Cyclone
- ☐ Cascade

Particulate Collection Media

- ☐ Cellulose*
- ☒ MCE (.8 µm)*
- ☐ MCE (.45 µm)*
- ☐ MCE (1.2 µm)*
- ☐ PVC (.8 µm)*
- ☐ PVC (.45 µm)*
- ☐ PVC (5.0 µm)*
- ☐ PTFE (.8 µm)*
- ☐ PTFE (.45 µm)*
- ☐ PTFE (.5 µm)*
- ☐ PTFE (1.0 µm)*
- ☐ PTFE (2.0 µm)*
- ☐ PTFE (5.0 µm)*
- ☐ Glass Fiber (1.0 µm)
- ☐ VAC (.8 µm)
- ☐ Silver membrane (.45 µm)
- ☐ Silver membrane (.8 µm)

*** Requires Support Pad**

Gas / Vapor Collection Devices

- ☐ Charcoal Sorbent Tube
- ☐ Chromosorb Sorbent Tube
- ☐ Porapak-T Sorbent Tube
- ☐ Cryogenic Trap
- ☐ Tenax Sorbent Tube
- ☐ Anasorb Sorbent Tube
- ☐ Hopcalite Sorbent Tube
- ☐ Impinger
- ☐ XAD Sorbent Tube
- ☐ Silica Gel Sorbent Tube
- ☐ Tedlar Bag
- ☐ PUF

Calibration Data

	Run # 1	Run # 2	Run # 3	Average	Pre-Post Avg.
Pre-Cal	2.890 lpm	2.899 lpm	2.913 lpm	2.901 lpm	
Post-Cal	2.844 lpm	2.880 lpm	2.880 lpm	2.868 lpm	
Pre-Post					2.885 lpm (V)

Sample Start Time: 1245 **Sample Stop Time:** 1730

Total Time Sampled: 285 minutes **(TIME)**

Volume Calculations

285 **(TIME)** x 2.885 **(V)** = 822.225 liters **(VOLUME SAMPLED)**

Air Sampling Data Sheet

ORIGINAL

Date: 8-17-00 **Sample ID No.:** D6

Time: 1216 **Pump No.:** 13841

Site Name: 12th St. Landfill

Pump Type

- ☐ DuPont Alpha 1
- ☒ Gillian HFS-113

Particulate Collection Devices

- ☒ 37mm Polystyrene 3-piece Filter Cassette
- ☐ 25mm Polystyrene 3-piece Filter Cassette
- ☐ 25mm Carbon filled black polypropylene w/cowl Filter Cassette
- ☐ Cyclone
- ☐ Cascade

Particulate Collection Media

- ☐ Cellulose*
- ☒ MCE (.8 µm)*
- ☐ MCE (.45 µm)*
- ☐ MCE (1.2 µm)*
- ☐ PVC (.8 µm)*
- ☐ PVC (.45 µm)*
- ☐ PVC (5.0 µm)*
- ☐ PTFE (.8 µm)*
- ☐ PTFE (.45 µm)*
- ☐ PTFE (.5 µm)*
- ☐ PTFE (1.0 µm)*
- ☐ PTFE (2.0 µm)*
- ☐ PTFE (5.0 µm)*
- ☐ Glass Fiber (1.0 µm)
- ☐ VAC (.8 µm)
- ☐ Silver membrane (.45 µm)
- ☐ Silver membrane (.8 µm)

*** Requires Support Pad**

Gas / Vapor Collection Devices

- ☐ Charcoal Sorbent Tube
- ☐ Chromosorb Sorbent Tube
- ☐ Porapak-T Sorbent Tube
- ☐ Cryogenic Trap
- ☐ Tenax Sorbent Tube
- ☐ Anasorb Sorbent Tube
- ☐ Hopcalite Sorbent Tube
- ☐ Impinger
- ☐ XAD Sorbent Tube
- ☐ Silica Gel Sorbent Tube
- ☐ Tedlar Bag
- ☐ PUF

Calibration Data

	Run # 1	Run # 2	Run # 3	Average	Pre-Post Avg.
Pre-Cal	2.831 lpm	2.835 lpm	2.853 lpm	2.840 lpm	
Post-Cal	2.894 lpm	2.904 lpm	2.885 lpm	2.894 lpm	
Pre-Post					2.867 lpm (V)

Sample Start Time: 1248 **Sample Stop Time:** 1732

Total Time Sampled: 287 minutes **(TIME)**

Volume Calculations

287 **(TIME)** x 2.867 **(V)** = 814.228 liters **(VOLUME SAMPLED)**

ORIGINAL

Air Sampling Data Sheet

Date: 8-17-00 **Sample ID No.:** 16

Time: 1219 **Pump No.:** 13840

Site Name: 12th St. Landfill

Pump Type

- ☐ DuPont Alpha 1
- ☒ Gillian HFS-113

Particulate Collection Devices

- ☒ 37mm Polystyrene 3-piece Filter Cassette
- ☐ 25mm Polystyrene 3-piece Filter Cassette
- ☐ 25mm Carbon filled black polypropylene w/cowl Filter Cassette
- ☐ Cyclone
- ☐ Cascade

Particulate Collection Media

- ☐ Cellulose*
- ☒ MCE (.8 µm)*
- ☐ MCE (.45 µm)*
- ☐ MCE (1.2 µm)*
- ☐ PVC (.8 µm)*
- ☐ PVC (.45 µm)*
- ☐ PVC (5.0 µm)*
- ☐ PTFE (.8 µm)*
- ☐ PTFE (.45 µm)*
- ☐ PTFE (.5 µm)*
- ☐ PTFE (1.0 µm)*
- ☐ PTFE (2.0 µm)*
- ☐ PTFE (5.0 µm)*
- ☐ Glass Fiber (1.0 µm)
- ☐ VAC (.8 µm)
- ☐ Silver membrane (.45 µm)
- ☐ Silver membrane (.8 µm)

*** Requires Support Pad**

Gas / Vapor Collection Devices

- ☐ Charcoal Sorbent Tube
- ☐ Chromosorb Sorbent Tube
- ☐ Porapak-T Sorbent Tube
- ☐ Cryogenic Trap
- ☐ Tenax Sorbent Tube
- ☐ Anasorb Sorbent Tube
- ☐ Hopcalite Sorbent Tube
- ☐ Impinger
- ☐ XAD Sorbent Tube
- ☐ Silica Gel Sorbent Tube
- ☐ Tedlar Bag
- ☐ PUF

Calibration Data

	Run # 1	Run # 2	Run # 3	Average	Pre-Post Avg.
Pre-Cal	2.778 lpm	2.787 lpm	2.787 lpm	2.784 lpm	
Post-Cal	2.904 lpm	2.862 lpm	2.876 lpm	2.881 lpm	
Pre-Post					2.832 lpm (V)

Sample Start Time: 1245 **Sample Stop Time:** 1730

Total Time Sampled: 285 minutes **(TIME)**

Volume Calculations

285 **(TIME)** x 2.832 **(V)** = 807.12 liters **(VOLUME SAMPLED)**

FedEx USA Airbill FedEx Tracking Number 8221 4879 2611

SPH43

Form I.D. No. 0215 Sender's Copy

From Please print and press hard.

Date 8/23/00 Sender's FedEx Account Number 2551-4203-8

Sender's Name (b) (4) [redacted] Phone (610) 485-6410

Company TETRA TECH EM INC

Address 107 CHELSEA PKWY Dept./Floor/Suite/Room

City MARCUS HOOK State PA ZIP 19061

Your Internal Billing Reference G9003IR0007003
First 24 characters will appear on invoice.

To Recipient Name (b) (4) [redacted] Phone (513) 733-5336

Company DATACHEM

Address 4388 Glendale-Milford Rd.
To "HOLD" at FedEx location, print FedEx address. We cannot deliver to P.O. boxes or P.O. ZIP codes.

Dept./Floor/Suite/Room

City Cincinnati State OH ZIP 45242

Peel and Stick FedEx USA Airbill

See back for application instructions.

Questions? Call 1·800·Go·FedEx® (800-463-3339)
Visit our Web site at www.fedex.com

By using this Airbill you agree to the service conditions on the back of this Airbill and in our current Service Guide, including terms that limit our liability.

0149302180

4a Express Package Service — *Packages up to 150 lbs.* Delivery commitment may be later in some areas.

- [X] FedEx Priority Overnight — Next business morning
- [ ] FedEx Standard Overnight — Next business afternoon
- [ ] FedEx First Overnight — Earliest next business morning delivery to select locations
- [ ] FedEx 2Day* — Second business day
- [ ] FedEx Express Saver* — Third business day

* FedEx Envelope/Letter Rate not available. Minimum charge: One-pound rate.

4b Express Freight Service — *Packages over 150 lbs.* Delivery commitment may be later in some areas.

- [ ] FedEx 1Day Freight* — Next business day
- [ ] FedEx 2Day Freight — Second business day
- [ ] FedEx 3Day Freight — Third business day

* Call for Confirmation: _____

5 Packaging — * Declared value limit $500

- [ ] FedEx Envelope/Letter*
- [ ] FedEx Pak*
- [X] Other Pkg. — Includes FedEx Box, FedEx Tube, and customer pkg.

6 Special Handling — Include FedEx address in Section 3.

- [ ] SATURDAY Delivery — Available for FedEx Priority Overnight and FedEx 2Day to select ZIP codes
- [ ] SUNDAY Delivery — Available for FedEx Priority Overnight to select ZIP codes
- [ ] HOLD Weekday at FedEx Location — Not available with FedEx First Overnight
- [ ] HOLD Saturday at FedEx Location — Available for FedEx Priority Overnight and FedEx 2Day to select locations

Does this shipment contain dangerous goods? One box must be checked.

- [X] No
- [ ] Yes — As per attached Shipper's Declaration
- [ ] Yes — Shipper's Declaration not required
- [ ] Dry Ice — Dry Ice, 9, UN 1845 ____ x ____ kg
- [ ] Cargo Aircraft Only

Dangerous Goods cannot be shipped in FedEx packaging.

7 Payment *Bill to:* Enter FedEx Acct. No. or Credit Card No. below.

- [ ] Sender — Acct. No. in Section 1 will be billed.
- [ ] Recipient
- [X] Third Party
- [ ] Credit Card
- [ ] Cash/Check

FedEx Acct. No. / Credit Card No. 1822-3292-0 Exp. Date

Total Packages | Total Weight | Total Declared Value† $ .00

†Our liability is limited to $100 unless you declare a higher value. See back for details.

FedEx Use Only

8 Release Signature *Sign to authorize delivery without obtaining signature.*

By signing you authorize us to deliver this shipment without obtaining a signature and agree to indemnify and hold us harmless from any resulting claims.

402

SRS 400 • Rev. Date 3/00 • Part #155912S • ©1994–2000 FedEx • PRINTED IN U.S.A.

PULL AND RETAIN THIS COPY BEFORE AIRBILL TO THE PACKAGE