APPENDIX G

Data Validation Report

LABORATORY DATA CONSULTANTS, INC.
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Haley & Aldrich, Inc.
9040 Friars Road, Suite 220
San Diego, CA 92108
ATTN: Ms. Beth Breitenbach

November 9, 2005

SUBJECT: Boeing C-6 Facility, Data Validation

Dear Ms. Breitenbach,

Enclosed are the final validation reports for the fraction listed below. These SDGs were received on November 1, 2005. Attachment 1 is a summary of the samples that were reviewed for each analysis.

LDC Project # 14214:

SDG #	**Fraction**
E5E200399, E5I210383	Volatiles

The data validation was performed under Tier 1, Tier 2 and Tier 3 guidelines. The analyses were validated using the following documents, as applicable to each method:

- USEPA, Contract Laboratory Program National Functional Guidelines for Organic Data Review, October 1999
- EPA SW 846, Third Edition, Test Methods for Evaluating Solid Waste, update 1, July 1992; update IIA, August 1993; update II, September 1994; update IIB, January 1995; update III, December 1996; update IIIA, April 1998

Please feel free to contact us if you have any questions.

Sincerely,

Erlinda T. Rauto
Operations Manager/Senior Chemist

14214COV.wpd

2 Week TAT (25%)

Attachment 1

Level II

LDC #14214 (Haley & Aldrich, Inc.-San Diego / Boeing Huntington Beach, Bldg C-6)

PO #28882.610

LDC	SDG#	DATE REC'D	(2) DATE DUE	VOA (8260B)																															
Matrix:	Water/Soil			W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S
A	E5E200399	11/01/05	11/15/05	8	0	Tier 1																													
B	E5I210383	11/01/05	11/15/05	5	0	Tier 2																													
B	E5I210383	11/01/05	11/15/05	1	0	Tier 3																													
Total	B/LR			14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14

Shaded cells indicate Tier III validation (all other cells are Tier II validation). Sample counts do not include MS, MSD, or DUP's.

14214ST.wpd

Boeing Huntington Beach, Bldg. C-6
Data Validation Reports
LDC# 14214

Volatiles

LDC

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Boeing Former C-6 Facility

Collection Date: May 20, 2005

LDC Report Date: November 18, 2005

Matrix: Water

Parameters: Volatiles

Validation Level: Tier 1

Laboratory: Severn Trent Laboratories

Sample Delivery Group (SDG): E5E200399

Sample Identification

TB_HA052005_0001
FB_HA052005_0001
FB_HA052005_0002
EB_HA052005_0001
MWG001_WG052005_0001
MWG002_WG052005_0001
MWG002_WG052005_0002
MWC009_WG052005_0001
MWC009_WG052005_0001MS
MWC009_WG052005_0001MSD

Introduction

This data review covers 10 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8260B for Volatiles.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (October 1999) as there are no current guidelines for the method stated above.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical or advisory nature.

Blank results are summarized in Section V.

Field duplicates are summarized in Section XVI.

Raw data were not reviewed for this SDG. The review was based on QC data.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

N Presumptive evidence of presence of the constituent.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. GC/MS Instrument Performance Check

Instrument performance data were not reviewed for Tier 1.

III. Initial Calibration

Initial calibration data were not reviewed for Tier 1.

IV. Continuing Calibration

Continuing calibration data were not reviewed for Tier 1.

V. Blanks

Method blanks were reviewed for each matrix as applicable. No volatile contaminants were found in the method blanks.

VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VII. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were not within QC limits. Since the sample concentration was greater than the spiked concentration, no data were qualified.

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits with the following exceptions:

LCS ID	Compound	%R (Limits)	Associated Samples	Flag	A or P
5143623LCS	Dichlorodifluoromethane	171 (40-160)	All samples in SDG E5E200399	J (all detects)	P
	Chloromethane	160 (60-140)		J (all detects)	
	Bromomethane	182 (60-140)		J (all detects)	
	Acetone	146 (60-140)		J (all detects)	
	tert-Butanol	248 (40-150)		J (all detects)	

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Internal Standards

Internal standard data were not reviewed for Tier 1.

XI. Target Compound Identifications

Raw data were not reviewed for this SDG.

XII. Compound Quantitation and CRQLs

Raw data were not reviewed for this SDG.

XIII. Tentatively Identified Compounds (TICs)

Raw data were not reviewed for this SDG.

XIV. System Performance

Raw data were not reviewed for this SDG.

XV. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

XVI. Field Duplicates

Samples MWG002_WG052005_0001 and MWG002_WG052005_0002 were identified as field duplicates. No volatiles were detected in any of the samples with the following exceptions:

Compound	Concentration (ug/L)		RPD
	MWG002_WG052005_0001	MWG002_WG052005_0002	
Methylene chloride	0.64	0.83	26
Chloroform	0.54	0.64	17
Trichloroethene	56	68	19

XVII. Field Blanks

Sample TB_HA052005_0001 was identified as a trip blank. No volatile contaminants were found in this blank.

Sample EB_HA052005_0001 was identified as an equipment blank. No volatile contaminants were found in this blank with the following exceptions:

Equipment Blank ID	Compound	Concentration (ug/L)
EB_HA052005_0001	Acetone 2-Butanone	15 11

Samples FB_HA052005_0001 and FB_HA052005_0002 were identified as field blanks. No volatile contaminants were found in these blanks.

Boeing Former C-6 Facility
Volatiles - Data Qualification Summary - SDG E5E200399

SDG	Sample	Compound	Flag	A or P	Reason
E5E200399	TB_HA052005_0001 FB_HA052005_0001 FB_HA052005_0002 EB_HA052005_0001 MWG001_WG052005_0001 MWG002_WG052005_0001 MWG002_WG052005_0002 MWC009_WG052005_0001	Dichlorodifluoromethane Chloromethane Bromomethane Acetone tert-Butanol	J (all detects) J (all detects) J (all detects) J (all detects) J (all detects)	P	Laboratory control samples (%R)

Boeing Former C-6 Facility
Volatiles - Laboratory Blank Data Qualification Summary - SDG E5E200399

No Sample Data Qualified in this SDG

A

Haley & Aldrich Inc.

Client Sample ID: TB_HA052005_0001

GC/MS Volatiles

Lot-Sample #...: E5E200399-001 **Work Order #...:** HA2PP1AA **Matrix.....:** WG
Date Sampled...: 05/20/05 10:30 **Date Received..:** 05/20/05 21:05 **MS Run #.....:** 5143394
Prep Date.....: 05/23/05 **Analysis Date..:** 05/23/05
Prep Batch #...: 5143623 **Analysis Time..:** 09:49
Dilution Factor: 1
Analyst ID.....: 015590 **Instrument ID..:** MSR
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Dichlorodifluoromethane	ND	1.0	ug/L	0.40
Chloromethane	ND	2.0	ug/L	0.30
Chloroethane	ND	2.0	ug/L	0.30
Bromomethane	ND	2.0	ug/L	1.0
Trichlorofluoromethane	ND	2.0	ug/L	0.30
1,1-Dichloroethene	ND	1.0	ug/L	0.30
Methylene chloride	ND	1.0	ug/L	0.30
Methyl tert-butyl ether	ND	1.0	ug/L	0.50
Carbon disulfide	ND	1.0	ug/L	0.30
Acetone	ND	10	ug/L	3.0
trans-1,2-Dichloroethene	ND	1.0	ug/L	0.30
1,1-Dichloroethane	ND	1.0	ug/L	0.20
2,2-Dichloropropane	ND	1.0	ug/L	0.30
cis-1,2-Dichloroethene	ND	1.0	ug/L	0.30
Chloroform	ND	1.0	ug/L	0.30
Bromochloromethane	ND	1.0	ug/L	0.30
1,1,1-Trichloroethane	ND	1.0	ug/L	0.20
2-Butanone	ND	5.0	ug/L	3.0
1,1-Dichloropropene	ND	1.0	ug/L	0.30
Carbon tetrachloride	ND	0.50	ug/L	0.30
1,2-Dibromoethane	ND	1.0	ug/L	0.30
Benzene	ND	1.0	ug/L	0.30
Trichloroethene	ND	1.0	ug/L	0.30
Bromodichloromethane	ND	1.0	ug/L	0.30
4-Methyl-2-pentanone	ND	5.0	ug/L	3.0
Toluene	ND	1.0	ug/L	0.30
1,1,2-Trichloroethane	ND	1.0	ug/L	0.30
1,2-Dichloroethane	ND	0.50	ug/L	0.40
Tetrachloroethene	ND	1.0	ug/L	0.30
2-Hexanone	ND	5.0	ug/L	3.0
Dibromochloromethane	ND	1.0	ug/L	0.40
Chlorobenzene	ND	1.0	ug/L	0.30
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	0.30
Ethylbenzene	ND	1.0	ug/L	0.20
Vinyl chloride	ND	0.50	ug/L	0.30
Xylenes (total)	ND	1.0	ug/L	0.80
Styrene	ND	1.0	ug/L	0.30

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11/8/05

Haley & Aldrich Inc.

Client Sample ID: TB_HA052005_0001

GC/MS Volatiles

Lot-Sample #...: E5E200399-001 **Work Order #...:** HA2PP1AA **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Bromoform	ND	1.0	ug/L	0.30
Isopropylbenzene	ND	1.0	ug/L	0.30
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	0.40
1,2,3-Trichloropropane	ND	1.0	ug/L	0.40
n-Propylbenzene	ND	1.0	ug/L	0.40
Bromobenzene	ND	1.0	ug/L	0.30
1,3,5-Trimethylbenzene	ND	1.0	ug/L	0.20
2-Chlorotoluene	ND	1.0	ug/L	0.30
4-Chlorotoluene	ND	1.0	ug/L	0.30
tert-Butylbenzene	ND	1.0	ug/L	0.20
1,2,4-Trimethylbenzene	ND	1.0	ug/L	0.30
sec-Butylbenzene	ND	1.0	ug/L	0.30
p-Isopropyltoluene	ND	1.0	ug/L	0.30
1,3-Dichlorobenzene	ND	1.0	ug/L	0.30
1,4-Dichlorobenzene	ND	1.0	ug/L	0.30
n-Butylbenzene	ND	1.0	ug/L	0.30
1,2-Dichlorobenzene	ND	1.0	ug/L	0.30
1,2-Dibromo-3-chloro-propane	ND	2.0	ug/L	0.70
1,2,4-Trichloro-benzene	ND	1.0	ug/L	0.30
Hexachlorobutadiene	ND	1.0	ug/L	0.30
1,2,3-Trichlorobenzene	ND	1.0	ug/L	0.40
Acrolein	ND	20	ug/L	12
Tert-amyl methyl ether	ND	2.0	ug/L	0.50
Acrylonitrile	ND	20	ug/L	10
Tert-butyl ethyl ether	ND	2.0	ug/L	0.50
t-Butanol	ND	25	ug/L	6.0
Iodomethane	ND	2.0	ug/L	1.0
Isopropyl ether	ND	2.0	ug/L	0.50
2-Chloroethyl vinyl ether	ND	5.0	ug/L	2.0
Tetrahydrofuran	ND	10	ug/L	2.0
Vinyl acetate	ND	5.0	ug/L	2.0

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Bromofluorobenzene	96	(75 - 130)
1,2-Dichloroethane-d4	92	(65 - 135)
Toluene-d8	95	(80 - 130)

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Haley & Aldrich Inc.

Client Sample ID: FB_HA052005_0001

GC/MS Volatiles

Lot-Sample #...: E5E200399-002 **Work Order #...:** HA2PQ1AA **Matrix.....:** WG
Date Sampled...: 05/20/05 10:45 **Date Received..:** 05/20/05 21:05 **MS Run #.....:** 5143394
Prep Date.....: 05/23/05 **Analysis Date..:** 05/23/05
Prep Batch #...: 5143623 **Analysis Time..:** 10:13
Dilution Factor: 1
Analyst ID.....: 015590 **Instrument ID..:** MSR
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Dichlorodifluoromethane	ND	1.0	ug/L	0.40
Chloromethane	ND	2.0	ug/L	0.30
Chloroethane	ND	2.0	ug/L	0.30
Bromomethane	ND	2.0	ug/L	1.0
Trichlorofluoromethane	ND	2.0	ug/L	0.30
1,1-Dichloroethene	ND	1.0	ug/L	0.30
Methylene chloride	ND	1.0	ug/L	0.30
Methyl tert-butyl ether	ND	1.0	ug/L	0.50
Carbon disulfide	ND	1.0	ug/L	0.30
Acetone	ND	10	ug/L	3.0
trans-1,2-Dichloroethene	ND	1.0	ug/L	0.30
1,1-Dichloroethane	ND	1.0	ug/L	0.20
2,2-Dichloropropane	ND	1.0	ug/L	0.30
cis-1,2-Dichloroethene	ND	1.0	ug/L	0.30
Chloroform	ND	1.0	ug/L	0.30
Bromochloromethane	ND	1.0	ug/L	0.30
1,1,1-Trichloroethane	ND	1.0	ug/L	0.20
2-Butanone	ND	5.0	ug/L	3.0
1,1-Dichloropropene	ND	1.0	ug/L	0.30
Carbon tetrachloride	ND	0.50	ug/L	0.30
1,2-Dibromoethane	ND	1.0	ug/L	0.30
Benzene	ND	1.0	ug/L	0.30
Trichloroethene	ND	1.0	ug/L	0.30
Bromodichloromethane	ND	1.0	ug/L	0.30
4-Methyl-2-pentanone	ND	5.0	ug/L	3.0
Toluene	ND	1.0	ug/L	0.30
1,1,2-Trichloroethane	ND	1.0	ug/L	0.30
1,2-Dichloroethane	ND	0.50	ug/L	0.40
Tetrachloroethene	ND	1.0	ug/L	0.30
2-Hexanone	ND	5.0	ug/L	3.0
Dibromochloromethane	ND	1.0	ug/L	0.40
Chlorobenzene	ND	1.0	ug/L	0.30
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	0.30
Ethylbenzene	ND	1.0	ug/L	0.20
Vinyl chloride	ND	0.50	ug/L	0.30
Xylenes (total)	ND	1.0	ug/L	0.80
Styrene	ND	1.0	ug/L	0.30

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11/8/05

Haley & Aldrich Inc.

Client Sample ID: FB_HA052005_0001

GC/MS Volatiles

Lot-Sample #...: E5E200399-002 **Work Order #...:** HA2PQ1AA **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Bromoform	ND	1.0	ug/L	0.30
Isopropylbenzene	ND	1.0	ug/L	0.30
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	0.40
1,2,3-Trichloropropane	ND	1.0	ug/L	0.40
n-Propylbenzene	ND	1.0	ug/L	0.40
Bromobenzene	ND	1.0	ug/L	0.30
1,3,5-Trimethylbenzene	ND	1.0	ug/L	0.20
2-Chlorotoluene	ND	1.0	ug/L	0.30
4-Chlorotoluene	ND	1.0	ug/L	0.30
tert-Butylbenzene	ND	1.0	ug/L	0.20
1,2,4-Trimethylbenzene	ND	1.0	ug/L	0.30
sec-Butylbenzene	ND	1.0	ug/L	0.30
p-Isopropyltoluene	ND	1.0	ug/L	0.30
1,3-Dichlorobenzene	ND	1.0	ug/L	0.30
1,4-Dichlorobenzene	ND	1.0	ug/L	0.30
n-Butylbenzene	ND	1.0	ug/L	0.30
1,2-Dichlorobenzene	ND	1.0	ug/L	0.30
1,2-Dibromo-3-chloro-propane	ND	2.0	ug/L	0.70
1,2,4-Trichloro-benzene	ND	1.0	ug/L	0.30
Hexachlorobutadiene	ND	1.0	ug/L	0.30
1,2,3-Trichlorobenzene	ND	1.0	ug/L	0.40
Acrolein	ND	20	ug/L	12
Tert-amyl methyl ether	ND	2.0	ug/L	0.50
Acrylonitrile	ND	20	ug/L	10
Tert-butyl ethyl ether	ND	2.0	ug/L	0.50
t-Butanol	ND	25	ug/L	6.0
Iodomethane	ND	2.0	ug/L	1.0
Isopropyl ether	ND	2.0	ug/L	0.50
2-Chloroethyl vinyl ether	ND	5.0	ug/L	2.0
Tetrahydrofuran	ND	10	ug/L	2.0
Vinyl acetate	ND	5.0	ug/L	2.0

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Bromofluorobenzene	94	(75 - 130)
1,2-Dichloroethane-d4	99	(65 - 135)
Toluene-d8	91	(80 - 130)

11/8/05

Haley & Aldrich Inc.

Client Sample ID: FB_HA052005_0002

GC/MS Volatiles

Lot-Sample #...: E5E200399-003 **Work Order #...:** HA2PR1AA **Matrix.....:** WG
Date Sampled...: 05/20/05 11:00 **Date Received..:** 05/20/05 21:05 **MS Run #.....:** 5143394
Prep Date.....: 05/23/05 **Analysis Date..:** 05/23/05
Prep Batch #...: 5143623 **Analysis Time..:** 10:36
Dilution Factor: 1
Analyst ID.....: 015590 **Instrument ID..:** MSR
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Dichlorodifluoromethane	ND	1.0	ug/L	0.40
Chloromethane	ND	2.0	ug/L	0.30
Chloroethane	ND	2.0	ug/L	0.30
Bromomethane	ND	2.0	ug/L	1.0
Trichlorofluoromethane	ND	2.0	ug/L	0.30
1,1-Dichloroethene	ND	1.0	ug/L	0.30
Methylene chloride	ND	1.0	ug/L	0.30
Methyl tert-butyl ether	ND	1.0	ug/L	0.50
Carbon disulfide	ND	1.0	ug/L	0.30
Acetone	ND	10	ug/L	3.0
trans-1,2-Dichloroethene	ND	1.0	ug/L	0.30
1,1-Dichloroethane	ND	1.0	ug/L	0.20
2,2-Dichloropropane	ND	1.0	ug/L	0.30
cis-1,2-Dichloroethene	ND	1.0	ug/L	0.30
Chloroform	ND	1.0	ug/L	0.30
Bromochloromethane	ND	1.0	ug/L	0.30
1,1,1-Trichloroethane	ND	1.0	ug/L	0.20
2-Butanone	ND	5.0	ug/L	3.0
1,1-Dichloropropene	ND	1.0	ug/L	0.30
Carbon tetrachloride	ND	0.50	ug/L	0.30
1,2-Dibromoethane	ND	1.0	ug/L	0.30
Benzene	ND	1.0	ug/L	0.30
Trichloroethene	ND	1.0	ug/L	0.30
Bromodichloromethane	ND	1.0	ug/L	0.30
4-Methyl-2-pentanone	ND	5.0	ug/L	3.0
Toluene	ND	1.0	ug/L	0.30
1,1,2-Trichloroethane	ND	1.0	ug/L	0.30
1,2-Dichloroethane	ND	0.50	ug/L	0.40
Tetrachloroethene	ND	1.0	ug/L	0.30
2-Hexanone	ND	5.0	ug/L	3.0
Dibromochloromethane	ND	1.0	ug/L	0.40
Chlorobenzene	ND	1.0	ug/L	0.30
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	0.30
Ethylbenzene	ND	1.0	ug/L	0.20
Vinyl chloride	ND	0.50	ug/L	0.30
Xylenes (total)	ND	1.0	ug/L	0.80
Styrene	ND	1.0	ug/L	0.30

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11/8/05

Haley & Aldrich Inc.

Client Sample ID: FB_HA052005_0002

GC/MS Volatiles

Lot-Sample #...: E5E200399-003 **Work Order #...:** HA2PR1AA **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Bromoform	ND	1.0	ug/L	0.30
Isopropylbenzene	ND	1.0	ug/L	0.30
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	0.40
1,2,3-Trichloropropane	ND	1.0	ug/L	0.40
n-Propylbenzene	ND	1.0	ug/L	0.40
Bromobenzene	ND	1.0	ug/L	0.30
1,3,5-Trimethylbenzene	ND	1.0	ug/L	0.20
2-Chlorotoluene	ND	1.0	ug/L	0.30
4-Chlorotoluene	ND	1.0	ug/L	0.30
tert-Butylbenzene	ND	1.0	ug/L	0.20
1,2,4-Trimethylbenzene	ND	1.0	ug/L	0.30
sec-Butylbenzene	ND	1.0	ug/L	0.30
p-Isopropyltoluene	ND	1.0	ug/L	0.30
1,3-Dichlorobenzene	ND	1.0	ug/L	0.30
1,4-Dichlorobenzene	ND	1.0	ug/L	0.30
n-Butylbenzene	ND	1.0	ug/L	0.30
1,2-Dichlorobenzene	ND	1.0	ug/L	0.30
1,2-Dibromo-3-chloro-propane	ND	2.0	ug/L	0.70
1,2,4-Trichloro-benzene	ND	1.0	ug/L	0.30
Hexachlorobutadiene	ND	1.0	ug/L	0.30
1,2,3-Trichlorobenzene	ND	1.0	ug/L	0.40
Acrolein	ND	20	ug/L	12
Tert-amyl methyl ether	ND	2.0	ug/L	0.50
Acrylonitrile	ND	20	ug/L	10
Tert-butyl ethyl ether	ND	2.0	ug/L	0.50
t-Butanol	ND	25	ug/L	6.0
Iodomethane	ND	2.0	ug/L	1.0
Isopropyl ether	ND	2.0	ug/L	0.50
2-Chloroethyl vinyl ether	ND	5.0	ug/L	2.0
Tetrahydrofuran	ND	10	ug/L	2.0
Vinyl acetate	ND	5.0	ug/L	2.0

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Bromofluorobenzene	101	(75 - 130)
1,2-Dichloroethane-d4	100	(65 - 135)
Toluene-d8	95	(80 - 130)

11/8/05

Haley & Aldrich Inc.

Client Sample ID: EB_HA052005_0001

GC/MS Volatiles

Lot-Sample #...: E5E200399-004 **Work Order #...:** HA2PT1AA **Matrix.....:** WG
Date Sampled...: 05/20/05 11:45 **Date Received..:** 05/20/05 21:05 **MS Run #.....:** 5143394
Prep Date.....: 05/23/05 **Analysis Date..:** 05/23/05
Prep Batch #...: 5143623 **Analysis Time..:** 11:04
Dilution Factor: 1
Analyst ID.....: 015590 **Instrument ID..:** MSR
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Dichlorodifluoromethane	ND	1.0	ug/L	0.40
Chloromethane	ND	2.0	ug/L	0.30
Chloroethane	ND	2.0	ug/L	0.30
Bromomethane	ND	2.0	ug/L	1.0
Trichlorofluoromethane	ND	2.0	ug/L	0.30
1,1-Dichloroethene	ND	1.0	ug/L	0.30
Methylene chloride	ND	1.0	ug/L	0.30
Methyl tert-butyl ether	ND	1.0	ug/L	0.50
Carbon disulfide	ND	1.0	ug/L	0.30
Acetone	**15** J	**10**	**ug/L**	**3.0**
trans-1,2-Dichloroethene	ND	1.0	ug/L	0.30
1,1-Dichloroethane	ND	1.0	ug/L	0.20
2,2-Dichloropropane	ND	1.0	ug/L	0.30
cis-1,2-Dichloroethene	ND	1.0	ug/L	0.30
Chloroform	ND	1.0	ug/L	0.30
Bromochloromethane	ND	1.0	ug/L	0.30
1,1,1-Trichloroethane	ND	1.0	ug/L	0.20
2-Butanone	**11**	**5.0**	**ug/L**	**3.0**
1,1-Dichloropropene	ND	1.0	ug/L	0.30
Carbon tetrachloride	ND	0.50	ug/L	0.30
1,2-Dibromoethane	ND	1.0	ug/L	0.30
Benzene	ND	1.0	ug/L	0.30
Trichloroethene	ND	1.0	ug/L	0.30
Bromodichloromethane	ND	1.0	ug/L	0.30
4-Methyl-2-pentanone	ND	5.0	ug/L	3.0
Toluene	ND	1.0	ug/L	0.30
1,1,2-Trichloroethane	ND	1.0	ug/L	0.30
1,2-Dichloroethane	ND	0.50	ug/L	0.40
Tetrachloroethene	ND	1.0	ug/L	0.30
2-Hexanone	ND	5.0	ug/L	3.0
Dibromochloromethane	ND	1.0	ug/L	0.40
Chlorobenzene	ND	1.0	ug/L	0.30
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	0.30
Ethylbenzene	ND	1.0	ug/L	0.20
Vinyl chloride	ND	0.50	ug/L	0.30
Xylenes (total)	ND	1.0	ug/L	0.80
Styrene	ND	1.0	ug/L	0.30

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6/1/8/05

Haley & Aldrich Inc.

Client Sample ID: EB_HA052005_0001

GC/MS Volatiles

Lot-Sample #...: E5E200399-004 **Work Order #...:** HA2PT1AA **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Bromoform	ND	1.0	ug/L	0.30
Isopropylbenzene	ND	1.0	ug/L	0.30
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	0.40
1,2,3-Trichloropropane	ND	1.0	ug/L	0.40
n-Propylbenzene	ND	1.0	ug/L	0.40
Bromobenzene	ND	1.0	ug/L	0.30
1,3,5-Trimethylbenzene	ND	1.0	ug/L	0.20
2-Chlorotoluene	ND	1.0	ug/L	0.30
4-Chlorotoluene	ND	1.0	ug/L	0.30
tert-Butylbenzene	ND	1.0	ug/L	0.20
1,2,4-Trimethylbenzene	ND	1.0	ug/L	0.30
sec-Butylbenzene	ND	1.0	ug/L	0.30
p-Isopropyltoluene	ND	1.0	ug/L	0.30
1,3-Dichlorobenzene	ND	1.0	ug/L	0.30
1,4-Dichlorobenzene	ND	1.0	ug/L	0.30
n-Butylbenzene	ND	1.0	ug/L	0.30
1,2-Dichlorobenzene	ND	1.0	ug/L	0.30
1,2-Dibromo-3-chloro-propane	ND	2.0	ug/L	0.70
1,2,4-Trichloro-benzene	ND	1.0	ug/L	0.30
Hexachlorobutadiene	ND	1.0	ug/L	0.30
1,2,3-Trichlorobenzene	ND	1.0	ug/L	0.40
Acrolein	ND	20	ug/L	12
Tert-amyl methyl ether	ND	2.0	ug/L	0.50
Acrylonitrile	ND	20	ug/L	10
Tert-butyl ethyl ether	ND	2.0	ug/L	0.50
t-Butanol	ND	25	ug/L	6.0
Iodomethane	ND	2.0	ug/L	1.0
Isopropyl ether	ND	2.0	ug/L	0.50
2-Chloroethyl vinyl ether	ND	5.0	ug/L	2.0
Tetrahydrofuran	ND	10	ug/L	2.0
Vinyl acetate	ND	5.0	ug/L	2.0

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Bromofluorobenzene	104	(75 - 130)
1,2-Dichloroethane-d4	107	(65 - 135)
Toluene-d8	90	(80 - 130)

6/8/05

Haley & Aldrich Inc.

Client Sample ID: MWG001_WG052005_0001

GC/MS Volatiles

Lot-Sample #...:	E5E200399-005	**Work Order #...:**	HA2PV1AA	**Matrix.....:**	WG
Date Sampled...:	05/20/05 14:05	**Date Received..:**	05/20/05 21:05	**MS Run #.....:**	5143394
Prep Date.....:	05/23/05	**Analysis Date..:**	05/23/05		
Prep Batch #...:	5143623	**Analysis Time..:**	11:28		
Dilution Factor:	1				
Analyst ID.....:	015590	**Instrument ID..:**	MSR		
		Method.....:	SW846 8260B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Dichlorodifluoromethane	ND	1.0	ug/L	0.40
Chloromethane	ND	2.0	ug/L	0.30
Chloroethane	ND	2.0	ug/L	0.30
Bromomethane	ND	2.0	ug/L	1.0
Trichlorofluoromethane	ND	2.0	ug/L	0.30
1,1-Dichloroethene	**3.7**	**1.0**	**ug/L**	**0.30**
Methylene chloride	ND	1.0	ug/L	0.30
Methyl tert-butyl ether	ND	1.0	ug/L	0.50
Carbon disulfide	ND	1.0	ug/L	0.30
Acetone	ND	10	ug/L	3.0
trans-1,2-Dichloroethene	ND	1.0	ug/L	0.30
1,1-Dichloroethane	ND	1.0	ug/L	0.20
2,2-Dichloropropane	ND	1.0	ug/L	0.30
cis-1,2-Dichloroethene	**2.5**	**1.0**	**ug/L**	**0.30**
Chloroform	ND	1.0	ug/L	0.30
Bromochloromethane	ND	1.0	ug/L	0.30
1,1,1-Trichloroethane	ND	1.0	ug/L	0.20
2-Butanone	ND	5.0	ug/L	3.0
1,1-Dichloropropene	ND	1.0	ug/L	0.30
Carbon tetrachloride	ND	0.50	ug/L	0.30
1,2-Dibromoethane	ND	1.0	ug/L	0.30
Benzene	ND	1.0	ug/L	0.30
Trichloroethene	**9.3**	**1.0**	**ug/L**	**0.30**
Bromodichloromethane	ND	1.0	ug/L	0.30
4-Methyl-2-pentanone	ND	5.0	ug/L	3.0
Toluene	ND	1.0	ug/L	0.30
1,1,2-Trichloroethane	ND	1.0	ug/L	0.30
1,2-Dichloroethane	ND	0.50	ug/L	0.40
Tetrachloroethene	ND	1.0	ug/L	0.30
2-Hexanone	ND	5.0	ug/L	3.0
Dibromochloromethane	ND	1.0	ug/L	0.40
Chlorobenzene	ND	1.0	ug/L	0.30
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	0.30
Ethylbenzene	ND	1.0	ug/L	0.20
Vinyl chloride	ND	0.50	ug/L	0.30
Xylenes (total)	ND	1.0	ug/L	0.80
Styrene	ND	1.0	ug/L	0.30

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6/8/05

Haley & Aldrich Inc.

Client Sample ID: MWG001_WG052005_0001

GC/MS Volatiles

Lot-Sample #...: E5E200399-005 **Work Order #...:** HA2PV1AA **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Bromoform	ND	1.0	ug/L	0.30
Isopropylbenzene	ND	1.0	ug/L	0.30
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	0.40
1,2,3-Trichloropropane	ND	1.0	ug/L	0.40
n-Propylbenzene	ND	1.0	ug/L	0.40
Bromobenzene	ND	1.0	ug/L	0.30
1,3,5-Trimethylbenzene	ND	1.0	ug/L	0.20
2-Chlorotoluene	ND	1.0	ug/L	0.30
4-Chlorotoluene	ND	1.0	ug/L	0.30
tert-Butylbenzene	ND	1.0	ug/L	0.20
1,2,4-Trimethylbenzene	ND	1.0	ug/L	0.30
sec-Butylbenzene	ND	1.0	ug/L	0.30
p-Isopropyltoluene	ND	1.0	ug/L	0.30
1,3-Dichlorobenzene	ND	1.0	ug/L	0.30
1,4-Dichlorobenzene	ND	1.0	ug/L	0.30
n-Butylbenzene	ND	1.0	ug/L	0.30
1,2-Dichlorobenzene	ND	1.0	ug/L	0.30
1,2-Dibromo-3-chloro-propane	ND	2.0	ug/L	0.70
1,2,4-Trichloro-benzene	ND	1.0	ug/L	0.30
Hexachlorobutadiene	ND	1.0	ug/L	0.30
1,2,3-Trichlorobenzene	ND	1.0	ug/L	0.40
Acrolein	ND	20	ug/L	12
Tert-amyl methyl ether	ND	2.0	ug/L	0.50
Acrylonitrile	ND	20	ug/L	10
Tert-butyl ethyl ether	ND	2.0	ug/L	0.50
t-Butanol	ND	25	ug/L	6.0
Iodomethane	ND	2.0	ug/L	1.0
Isopropyl ether	ND	2.0	ug/L	0.50
2-Chloroethyl vinyl ether	ND	5.0	ug/L	2.0
Tetrahydrofuran	ND	10	ug/L	2.0
Vinyl acetate	ND	5.0	ug/L	2.0

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Bromofluorobenzene	98	(75 - 130)
1,2-Dichloroethane-d4	103	(65 - 135)
Toluene-d8	95	(80 - 130)

6/8/05

Haley & Aldrich Inc.

Client Sample ID: MWG002_WG052005_0001

GC/MS Volatiles

Lot-Sample #...: E5E200399-006 **Work Order #...:** HA2PW1AA **Matrix.....:** WG
Date Sampled...: 05/20/05 16:25 **Date Received..:** 05/20/05 21:05 **MS Run #.....:** 5143394
Prep Date.....: 05/23/05 **Analysis Date..:** 05/23/05
Prep Batch #...: 5143623 **Analysis Time..:** 11:51
Dilution Factor: 1
Analyst ID.....: 015590 **Instrument ID..:** MSR
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Dichlorodifluoromethane	ND	1.0	ug/L	0.40
Chloromethane	ND	2.0	ug/L	0.30
Chloroethane	ND	2.0	ug/L	0.30
Bromomethane	ND	2.0	ug/L	1.0
Trichlorofluoromethane	ND	2.0	ug/L	0.30
1,1-Dichloroethene	ND	1.0	ug/L	0.30
Methylene chloride	**0.64 J**	**1.0**	**ug/L**	**0.30**
Methyl tert-butyl ether	ND	1.0	ug/L	0.50
Carbon disulfide	ND	1.0	ug/L	0.30
Acetone	ND	10	ug/L	3.0
trans-1,2-Dichloroethene	ND	1.0	ug/L	0.30
1,1-Dichloroethane	ND	1.0	ug/L	0.20
2,2-Dichloropropane	ND	1.0	ug/L	0.30
cis-1,2-Dichloroethene	ND	1.0	ug/L	0.30
Chloroform	**0.54 J**	**1.0**	**ug/L**	**0.30**
Bromochloromethane	ND	1.0	ug/L	0.30
1,1,1-Trichloroethane	ND	1.0	ug/L	0.20
2-Butanone	ND	5.0	ug/L	3.0
1,1-Dichloropropene	ND	1.0	ug/L	0.30
Carbon tetrachloride	ND	0.50	ug/L	0.30
1,2-Dibromoethane	ND	1.0	ug/L	0.30
Benzene	ND	1.0	ug/L	0.30
Trichloroethene	**56**	**1.0**	**ug/L**	**0.30**
Bromodichloromethane	ND	1.0	ug/L	0.30
4-Methyl-2-pentanone	ND	5.0	ug/L	3.0
Toluene	ND	1.0	ug/L	0.30
1,1,2-Trichloroethane	ND	1.0	ug/L	0.30
1,2-Dichloroethane	ND	0.50	ug/L	0.40
Tetrachloroethene	ND	1.0	ug/L	0.30
2-Hexanone	ND	5.0	ug/L	3.0
Dibromochloromethane	ND	1.0	ug/L	0.40
Chlorobenzene	ND	1.0	ug/L	0.30
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	0.30
Ethylbenzene	ND	1.0	ug/L	0.20
Vinyl chloride	ND	0.50	ug/L	0.30
Xylenes (total)	ND	1.0	ug/L	0.80
Styrene	ND	1.0	ug/L	0.30

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11/8/05

Haley & Aldrich Inc.

Client Sample ID: MWG002_WG052005_0001

GC/MS Volatiles

Lot-Sample #...: E5E200399-006 **Work Order #...:** HA2PW1AA **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Bromoform	ND	1.0	ug/L	0.30
Isopropylbenzene	ND	1.0	ug/L	0.30
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	0.40
1,2,3-Trichloropropane	ND	1.0	ug/L	0.40
n-Propylbenzene	ND	1.0	ug/L	0.40
Bromobenzene	ND	1.0	ug/L	0.30
1,3,5-Trimethylbenzene	ND	1.0	ug/L	0.20
2-Chlorotoluene	ND	1.0	ug/L	0.30
4-Chlorotoluene	ND	1.0	ug/L	0.30
tert-Butylbenzene	ND	1.0	ug/L	0.20
1,2,4-Trimethylbenzene	ND	1.0	ug/L	0.30
sec-Butylbenzene	ND	1.0	ug/L	0.30
p-Isopropyltoluene	ND	1.0	ug/L	0.30
1,3-Dichlorobenzene	ND	1.0	ug/L	0.30
1,4-Dichlorobenzene	ND	1.0	ug/L	0.30
n-Butylbenzene	ND	1.0	ug/L	0.30
1,2-Dichlorobenzene	ND	1.0	ug/L	0.30
1,2-Dibromo-3-chloro-propane	ND	2.0	ug/L	0.70
1,2,4-Trichloro-benzene	ND	1.0	ug/L	0.30
Hexachlorobutadiene	ND	1.0	ug/L	0.30
1,2,3-Trichlorobenzene	ND	1.0	ug/L	0.40
Acrolein	ND	20	ug/L	12
Tert-amyl methyl ether	ND	2.0	ug/L	0.50
Acrylonitrile	ND	20	ug/L	10
Tert-butyl ethyl ether	ND	2.0	ug/L	0.50
t-Butanol	ND	25	ug/L	6.0
Iodomethane	ND	2.0	ug/L	1.0
Isopropyl ether	ND	2.0	ug/L	0.50
2-Chloroethyl vinyl ether	ND	5.0	ug/L	2.0
Tetrahydrofuran	ND	10	ug/L	2.0
Vinyl acetate	ND	5.0	ug/L	2.0

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Bromofluorobenzene	93	(75 - 130)
1,2-Dichloroethane-d4	101	(65 - 135)
Toluene-d8	90	(80 - 130)

NOTE(S):

J Estimated result. Result is less than RL.

6/18/05

Haley & Aldrich Inc.

Client Sample ID: MWG002_WG052005_0002

GC/MS Volatiles

Lot-Sample #...:	E5E200399-007	**Work Order #...:**	HA2PX1AA	**Matrix.....:**	WG
Date Sampled...:	05/20/05 16:30	**Date Received..:**	05/20/05 21:05	**MS Run #.....:**	5143394
Prep Date.....:	05/23/05	**Analysis Date..:**	05/23/05		
Prep Batch #...:	5143623	**Analysis Time..:**	12:15		
Dilution Factor:	1				
Analyst ID.....:	015590	**Instrument ID..:**	MSR		
		Method.....:	SW846 8260B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Dichlorodifluoromethane	ND	1.0	ug/L	0.40
Chloromethane	ND	2.0	ug/L	0.30
Chloroethane	ND	2.0	ug/L	0.30
Bromomethane	ND	2.0	ug/L	1.0
Trichlorofluoromethane	ND	2.0	ug/L	0.30
1,1-Dichloroethene	ND	1.0	ug/L	0.30
Methylene chloride	**0.83 J**	**1.0**	**ug/L**	**0.30**
Methyl tert-butyl ether	ND	1.0	ug/L	0.50
Carbon disulfide	ND	1.0	ug/L	0.30
Acetone	ND	10	ug/L	3.0
trans-1,2-Dichloroethene	ND	1.0	ug/L	0.30
1,1-Dichloroethane	ND	1.0	ug/L	0.20
2,2-Dichloropropane	ND	1.0	ug/L	0.30
cis-1,2-Dichloroethene	ND	1.0	ug/L	0.30
Chloroform	**0.64 J**	**1.0**	**ug/L**	**0.30**
Bromochloromethane	ND	1.0	ug/L	0.30
1,1,1-Trichloroethane	ND	1.0	ug/L	0.20
2-Butanone	ND	5.0	ug/L	3.0
1,1-Dichloropropene	ND	1.0	ug/L	0.30
Carbon tetrachloride	ND	0.50	ug/L	0.30
1,2-Dibromoethane	ND	1.0	ug/L	0.30
Benzene	ND	1.0	ug/L	0.30
Trichloroethene	**68**	**1.0**	**ug/L**	**0.30**
Bromodichloromethane	ND	1.0	ug/L	0.30
4-Methyl-2-pentanone	ND	5.0	ug/L	3.0
Toluene	ND	1.0	ug/L	0.30
1,1,2-Trichloroethane	ND	1.0	ug/L	0.30
1,2-Dichloroethane	ND	0.50	ug/L	0.40
Tetrachloroethene	ND	1.0	ug/L	0.30
2-Hexanone	ND	5.0	ug/L	3.0
Dibromochloromethane	ND	1.0	ug/L	0.40
Chlorobenzene	ND	1.0	ug/L	0.30
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	0.30
Ethylbenzene	ND	1.0	ug/L	0.20
Vinyl chloride	ND	0.50	ug/L	0.30
Xylenes (total)	ND	1.0	ug/L	0.80
Styrene	ND	1.0	ug/L	0.30

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11/8/05

Haley & Aldrich Inc.

Client Sample ID: MWG002_WG052005_0002

GC/MS Volatiles

Lot-Sample #...: E5E200399-007 **Work Order #...:** HA2PX1AA **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Bromoform	ND	1.0	ug/L	0.30
Isopropylbenzene	ND	1.0	ug/L	0.30
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	0.40
1,2,3-Trichloropropane	ND	1.0	ug/L	0.40
n-Propylbenzene	ND	1.0	ug/L	0.40
Bromobenzene	ND	1.0	ug/L	0.30
1,3,5-Trimethylbenzene	ND	1.0	ug/L	0.20
2-Chlorotoluene	ND	1.0	ug/L	0.30
4-Chlorotoluene	ND	1.0	ug/L	0.30
tert-Butylbenzene	ND	1.0	ug/L	0.20
1,2,4-Trimethylbenzene	ND	1.0	ug/L	0.30
sec-Butylbenzene	ND	1.0	ug/L	0.30
p-Isopropyltoluene	ND	1.0	ug/L	0.30
1,3-Dichlorobenzene	ND	1.0	ug/L	0.30
1,4-Dichlorobenzene	ND	1.0	ug/L	0.30
n-Butylbenzene	ND	1.0	ug/L	0.30
1,2-Dichlorobenzene	ND	1.0	ug/L	0.30
1,2-Dibromo-3-chloro-propane	ND	2.0	ug/L	0.70
1,2,4-Trichloro-benzene	ND	1.0	ug/L	0.30
Hexachlorobutadiene	ND	1.0	ug/L	0.30
1,2,3-Trichlorobenzene	ND	1.0	ug/L	0.40
Acrolein	ND	20	ug/L	12
Tert-amyl methyl ether	ND	2.0	ug/L	0.50
Acrylonitrile	ND	20	ug/L	10
Tert-butyl ethyl ether	ND	2.0	ug/L	0.50
t-Butanol	ND	25	ug/L	6.0
Iodomethane	ND	2.0	ug/L	1.0
Isopropyl ether	ND	2.0	ug/L	0.50
2-Chloroethyl vinyl ether	ND	5.0	ug/L	2.0
Tetrahydrofuran	ND	10	ug/L	2.0
Vinyl acetate	ND	5.0	ug/L	2.0

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Bromofluorobenzene	97	(75 - 130)
1,2-Dichloroethane-d4	112	(65 - 135)
Toluene-d8	90	(80 - 130)

NOTE(S):

J Estimated result. Result is less than RL.

Jul 8/05

Haley & Aldrich Inc.

Client Sample ID: MWC009_WG052005_0001

GC/MS Volatiles

Lot-Sample #...: E5E200399-008 **Work Order #...:** HA2P01AA **Matrix.....:** WG
Date Sampled...: 05/20/05 18:15 **Date Received..:** 05/20/05 21:05 **MS Run #.....:** 5143394
Prep Date.....: 05/23/05 **Analysis Date..:** 05/23/05
Prep Batch #...: 5143623 **Analysis Time..:** 12:38
Dilution Factor: 25
Analyst ID.....: 015590 **Instrument ID..:** MSR
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Dichlorodifluoromethane	ND	25	ug/L	10
Chloromethane	ND	50	ug/L	7.5
Chloroethane	ND	50	ug/L	7.5
Bromomethane	ND	50	ug/L	25
Trichlorofluoromethane	ND	50	ug/L	7.5
1,1-Dichloroethene	**1200**	**25**	**ug/L**	**7.5**
Methylene chloride	ND	25	ug/L	7.5
Methyl tert-butyl ether	ND	25	ug/L	12
Carbon disulfide	ND	25	ug/L	7.5
Acetone	ND	250	ug/L	75
trans-1,2-Dichloroethene	**22 J**	**25**	**ug/L**	**7.5**
1,1-Dichloroethane	**8.9 J**	**25**	**ug/L**	**5.0**
2,2-Dichloropropane	ND	25	ug/L	7.5
cis-1,2-Dichloroethene	**28**	**25**	**ug/L**	**7.5**
Chloroform	ND	25	ug/L	7.5
Bromochloromethane	ND	25	ug/L	7.5
1,1,1-Trichloroethane	ND	25	ug/L	5.0
2-Butanone	ND	120	ug/L	75
1,1-Dichloropropene	ND	25	ug/L	7.5
Carbon tetrachloride	ND	12	ug/L	7.5
1,2-Dibromoethane	ND	25	ug/L	7.5
Benzene	ND	25	ug/L	7.5
Trichloroethene	**300**	**25**	**ug/L**	**7.5**
Bromodichloromethane	ND	25	ug/L	7.5
4-Methyl-2-pentanone	ND	120	ug/L	75
Toluene	ND	25	ug/L	7.5
1,1,2-Trichloroethane	**8.8 J**	**25**	**ug/L**	**7.5**
1,2-Dichloroethane	**10 J**	**12**	**ug/L**	**10**
Tetrachloroethene	ND	25	ug/L	7.5
2-Hexanone	ND	120	ug/L	75
Dibromochloromethane	ND	25	ug/L	10
Chlorobenzene	ND	25	ug/L	7.5
1,1,1,2-Tetrachloroethane	ND	25	ug/L	7.5
Ethylbenzene	ND	25	ug/L	5.0
Vinyl chloride	ND	12	ug/L	7.5
Xylenes (total)	ND	25	ug/L	20
Styrene	ND	25	ug/L	7.5

(Continued on next page)

6/8/05

Haley & Aldrich Inc.

Client Sample ID: MWC009_WG052005_0001

GC/MS Volatiles

Lot-Sample #...: E5E200399-008 **Work Order #...:** HA2P01AA **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Bromoform	ND	25	ug/L	7.5
Isopropylbenzene	ND	25	ug/L	7.5
1,1,2,2-Tetrachloroethane	ND	25	ug/L	10
1,2,3-Trichloropropane	ND	25	ug/L	10
n-Propylbenzene	ND	25	ug/L	10
Bromobenzene	ND	25	ug/L	7.5
1,3,5-Trimethylbenzene	ND	25	ug/L	5.0
2-Chlorotoluene	ND	25	ug/L	7.5
4-Chlorotoluene	ND	25	ug/L	7.5
tert-Butylbenzene	ND	25	ug/L	5.0
1,2,4-Trimethylbenzene	ND	25	ug/L	7.5
sec-Butylbenzene	ND	25	ug/L	7.5
p-Isopropyltoluene	ND	25	ug/L	7.5
1,3-Dichlorobenzene	ND	25	ug/L	7.5
1,4-Dichlorobenzene	ND	25	ug/L	7.5
n-Butylbenzene	ND	25	ug/L	7.5
1,2-Dichlorobenzene	ND	25	ug/L	7.5
1,2-Dibromo-3-chloro-propane	ND	50	ug/L	18
1,2,4-Trichloro-benzene	ND	25	ug/L	7.5
Hexachlorobutadiene	ND	25	ug/L	7.5
1,2,3-Trichlorobenzene	ND	25	ug/L	10
Acrolein	ND	500	ug/L	300
Tert-amyl methyl ether	ND	50	ug/L	12
Acrylonitrile	ND	500	ug/L	250
Tert-butyl ethyl ether	ND	50	ug/L	12
t-Butanol	ND	620	ug/L	150
Iodomethane	ND	50	ug/L	25
Isopropyl ether	ND	50	ug/L	12
2-Chloroethyl vinyl ether	ND	120	ug/L	50
Tetrahydrofuran	ND	250	ug/L	50
Vinyl acetate	ND	120	ug/L	50

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Bromofluorobenzene	95	(75 - 130)
1,2-Dichloroethane-d4	105	(65 - 135)
Toluene-d8	92	(80 - 130)

NOTE(S):

J Estimated result. Result is less than RL.

LDC #: 14214A1a

VALIDATION COMPLETENESS WORKSHEET

Date: 11/07/05

SDG #: E5E200399

Level ~~II~~ Tier 1

Page: 1 of 1

Laboratory: Severn Trent Laboratories, Inc.

Reviewer: JVC

2nd Reviewer: [illegible]

METHOD: GC/MS Volatiles (EPA SW 846 Method 8260B)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	~~N~~ A	Sampling dates: 5/20/05
II.	GC/MS Instrument performance check	N	
III.	Initial calibration	N	
IV.	Continuing calibration	N	
V.	Blanks	~~N~~ A	
VI.	Surrogate spikes	~~N~~ A	
VII.	Matrix spike/Matrix spike duplicates	~~N~~ SW	
VIII.	Laboratory control samples	~~N~~ SW	LCS
IX.	Regional Quality Assurance and Quality Control	N	
X.	Internal standards	N	
XI.	Target compound identification	N	
XII.	Compound quantitation/CRQLs	N	
XIII.	Tentitatively identified compounds (TICs)	N	
XIV.	System performance	N	
XV.	Overall assessment of data	~~N~~ A	
XVI.	Field duplicates	SW	D = 6, 7
XVII.	Field blanks	SW	*TB = 1 *FB = 2, 3 EB = 4

Note: A = Acceptable
N = Not provided/applicable
SW = See worksheet
*ND = No compounds detected D = Duplicate
R = Rinsate
FB = Field blank
TB = Trip blank
EB = Equipment blank

Validated Samples:

Water

1	TB_HA052005_0001	11	5143623 MB	21		31	
2	FB_HA052005_0001	12		22		32	
3	FB_HA052005_0002	13		23		33	
4	EB_HA052005_0001	14		24		34	
5	MWG001_WG052005_0001	15		25		35	
6	MWG002_WG052005_0001	16		26		36	
7	MWG002_WG052005_0002	17		27		37	
8	MWC009_WG052005_0001	18		28		38	
9	MWC009_WG052005_0001MS	19		29		39	
10	MWC009_WG052005_0001MSD	20		30		40	

TARGET COMPOUND WORKSHEET

ETHOD: VOA (EPA SW 846 Method 8260B)

A. Chloromethane*	S. Trichloroethene	KK. Trichlorofluoromethane	CCC. tert-Butylbenzene	UUU. 1,2-Dichlorotetrafluoroethane
B. Bromomethane	T. Dibromochloromethane	LL. Methyl-tert-butyl ether	DDD. 1,2,4-Trimethylbenzene	VVV. 4-Ethyltoluene
C. Vinyl choride**	U. 1,1,2-Trichloroethane	MM. 1,2-Dibromo-3-chloropropane	EEE. sec-Butylbenzene	WWW. Ethanol
D. Chloroethane	V. Benzene	NN. Methyl ethyl ketone	FFF. 1,3-Dichlorobenzene	XXX. Di-isopropyl ether
E. Methylene chloride	W. trans-1,3-Dichloropropene	OO. 2,2-Dichloropropane	GGG. p-Isopropyltoluene	YYY. tert-Butanol
F. Acetone	X. Bromoform*	PP. Bromochloromethane	HHH. 1,4-Dichlorobenzene	ZZZ. tert-Butyl alcohol
G. Carbon disulfide	Y. 4-Methyl-2-pentanone	QQ. 1,1-Dichloropropene	III. n-Butylbenzene	AAAA. Ethyl tert-butyl ether
H. 1,1-Dichloroethene**	Z. 2-Hexanone	RR. Dibromomethane	JJJ. 1,2-Dichlorobenzene	BBBB. tert-Amyl methyl ether
I. 1,1-Dichloroethane*	AA. Tetrachloroethene	SS. 1,3-Dichloropropane	KKK. 1,2,4-Trichlorobenzene	CCCC.1-Chlorohexane
J. 1,2-Dichloroethene, total	BB. 1,1,2,2-Tetrachloroethane*	TT. 1,2-Dibromoethane	LLL. Hexachlorobutadiene	DDDD. Isopropyl alcohol
K. Chloroform**	CC. Toluene**	UU. 1,1,1,2-Tetrachloroethane	MMM. Naphthalene	EEEE. Acetonitrile
L. 1,2-Dichloroethane	DD. Chlorobenzene*	VV. Isopropylbenzene	NNN. 1,2,3-Trichlorobenzene	FFFF. Acrolein
M. 2-Butanone	EE. Ethylbenzene**	WW. Bromobenzene	OOO. 1,3,5-Trichlorobenzene	GGGG. Acrylonitrile
N. 1,1,1-Trichloroethane	FF. Styrene	XX. 1,2,3-Trichloropropane	PPP. trans-1,2-Dichloroethene	HHHH. 1,4-Dioxane
O. Carbon tetrachloride	GG. Xylenes, total	YY. n-Propylbenzene	QQQ. cis-1,2-Dichloroethene	IIII. Isobutyl alcohol
P. Bromodichloromethane	HH. Vinyl acetate	ZZ. 2-Chlorotoluene	RRR. m,p-Xylenes	JJJJ. Methacrylonitrile
Q. 1,2-Dichloropropane**	II. 2-Chloroethylvinyl ether	AAA. 1,3,5-Trimethylbenzene	SSS. o-Xylene	KKKK. Propionitrile
R. cis-1,3-Dichloropropene	JJ. Dichlorodifluoromethane	BBB. 4-Chlorotoluene	TTT. 1,1,2-Trichloro-1,2,2-trifluoroethane	LLLL.

* = System performance check compounds (SPCC) for RRF ; ** = Calibration check compounds (CCC) for %RSD.

COMPNDL.wpd

LDC #: 14214 A1a
SDG #: ESE200399

VALIDATION FINDINGS WORKSHEET
Laboratory Control Samples (LCS)

Page: 1 of 1
Reviewer: JVG
2nd Reviewer: [illegible]

METHOD: GC/MS VOA (EPA SW 846 Method 8260B)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y N N/A Was a LCS required?
Y N N/A Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?

#	Date	LCS/LCSD ID	Compound	LCS %R (Limits)	LCSD %R (Limits)	RPD (Limits)	Associated Samples	Qualifications
		5143623 LCS	JJ	171 (40-160)	( )	( )	All + Blk	J/ets /P
			A	160 (60-140)	( )	( )		
			B	182 (60-140)	( )	( )		
			F	146 (↓)	( )	( )		
			YYY	248 (40-150)	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		

LCSLCSD.1SB

LDC #: 14214A1a
SDG #: ESE200399

VALIDATION FINDINGS WORKSHEET
Field Duplicates

Page: 1 of 1
Reviewer: JVG
2nd reviewer: [illegible]

METHOD: GC/MS VOA (EPA SW 846 Method 8260)

Y N N/A Were field duplicate pairs identified in this SDG?
Y N N/A Were target compounds detected in the field duplicate pairs?

Compound	Concentration (ug/L)		RPD
	6	7	
E	0.64	0.83	26
K	0.54	0.64	17
S	56	68	19

Compound	Concentration ( )		RPD

Compound	Concentration ( )		RPD

Compound	Concentration ( )		RPD

FLDUP4.1S

LDC #: 14214 A1a
SDG #: E5E200399

VALIDATION FINDINGS WORKSHEET
Field Blanks

Page: 1 of 1
Reviewer: JTG
2nd reviewer: [illegible]

METHOD: GC/MS VOA (EPA SW 846 Method 8260B)

Y N N/A Were field blanks identified in this SDG?
Y N N/A Were target compounds detected in the field blanks?

Sample: 4 EB Field Blank / Trip Blank / Rinsate / Other _____ (circle one)

Compound	Concentration Units (ug/L)
F	15
M	11

Sample: _____ Field Blank / Trip Blank / Rinsate / Other_____ (circle one)

Compound	Concentration Units ( )

Sample: _____ Field Blank / Trip Blank / Rinsate / Other_____ (circle one)

Compound	Concentration Units ( )

FLDBLK.1SB

LDC #: 14214 A1a
SDG #: E5E200399

VALIDATION FINDINGS WORKSHEET
Matrix Spike/Matrix Spike Duplicates

Page: 1 of 1
Reviewer: JVG
2nd Reviewer: [illegible]

METHOD : GC/MS VOA (EPA SW 846 Method 8260B)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y N N/A Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD. Soil / Water.

Y N N/A Was a MS/MSD analyzed every 20 samples of each matrix?

Y N N/A Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?

#	Date	MS/MSD ID	Compound	MS %R (Limits)	MSD %R (Limits)	RPD (Limits)	Associated Samples	Qualifications
		9/10	H	55 (65-135)	34 (65-135)	( )	8	~~J/UJ/A~~ No qual
				( )	( )	( )		(parent conc. > 2x
				( )	( )	( )		spike amt.)
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		

	Compound	QC Limits (Soil)	RPD (Soil)	QC Limits (Water)	RPD (Water)
H.	1,1-Dichloroethene	59-172%	≤ 22%	61-145%	≤ 14%
S.	Trichloroethene	62-137%	≤ 24%	71-120%	≤ 14%
V.	Benzene	66-142%	≤ 21%	76-127%	≤ 11%
CC.	Toluene	59-139%	≤ 21%	76-125%	≤ 13%
DD.	Chlorobenzene	60-133%	≤ 21%	75-130%	≤ 13%

MSD.1SB

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Boeing Former C-6 Facility

Collection Date: September 21, 2005

LDC Report Date: November 18, 2005

Matrix: Water

Parameters: Volatiles

Validation Level: Tier 2 & Tier 3

Laboratory: Severn Trent Laboratories

Sample Delivery Group (SDG): E5I210383

Sample Identification

FB_HA092105_0001
TB_HA092105_0001
MWG003_WG092105_0001
MWG003_WG092105_0002**
MWG004_WG092105_0001
EB_HA092105_0001

**Indicates sample underwent a Tier 3 review

Introduction

This data review covers 6 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8260B for Volatiles.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (October 1999) as there are no current guidelines for the method stated above.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical or advisory nature.

Blank results are summarized in Section V.

Field duplicates are summarized in Section XVI.

Samples indicated by a double asterisk on the front cover underwent a Tier 3 review. A Tier 2 review was performed on all of the other samples. Raw data were not evaluated for the samples reviewed by Tier 2 or Tier 1 criteria since this review is based on QC data.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

N Presumptive evidence of presence of the constituent.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. GC/MS Instrument Performance Check

Instrument performance was checked at 12 hour intervals.

All ion abundance requirements were met.

III. Initial Calibration

Initial calibration was performed using required standard concentrations.

Percent relative standard deviations (%RSD) were less than or equal to 15.0% for each individual compound and less than or equal to 30.0% for calibration check compounds (CCCs).

For the purposes of technical evaluation, all compounds were evaluated against the 30.0% (%RSD) National Functional Guideline criteria. Unless noted above, all compounds were within the validation criteria with the following exceptions:

Date	Compound	%RSD	Associated Samples	Flag	A or P
9/21/05	Tetrahydrofuran	36.470	All samples in SDG E5I210383	J (all detects) UJ (all non-detects)	A

Average relative response factors (RRF) for all volatile target compounds and system performance check compounds (SPCCs) were within method and validation criteria with the following exceptions:

Date	Compound	RRF (Limits)	Associated Samples	Flag	A or P
9/21/05	Acrolein Acetone tert-Butanol Acrylonitrile 2-Butanone Tetrahydrofuran 2-Chloroethylvinyl ether	0.02111 (≥0.05) 0.02250 (≥0.05) 0.00543 (≥0.05) 0.03397 (≥0.05) 0.04393 (≥0.05) 0.03144 (≥0.05) 0.03826 (≥0.05)	All samples in SDG E5I210383	J (all detects) UJ (all non-detects)	A

IV. Continuing Calibration

Continuing calibration was performed at the required frequencies.

Percent differences (%D) between the initial calibration RRF and the continuing calibration RRF were within the method criteria of less than or equal to 20.0% for calibration check compounds (CCCs).

For the purposes of technical evaluation, all compounds were evaluated against the 25.0% (%D) National Functional Guideline criteria. Unless noted above, all compounds were within the validation criteria with the following exceptions:

Date	Compound	%D	Associated Samples	Flag	A or P
9/23/05	Chloroethane Acetone tert-Butanol	25.46328 25.87999 35.19012	All samples in SDG E5I210383	J (all detects) UJ (all non-detects)	A

All of the continuing calibration RRF values were within method and validation criteria with the following exceptions:

Date	Compound	RRF (Limits)	Associated Samples	Flag	A or P
9/23/05	Acrolein Acetone tert-Butanol Acrylonitrile 2-Butanone Tetrahydrofuran 2-Chloroethylvinyl ether	0.02486 (≥0.05) 0.02833 (≥0.05) 0.00734 (≥0.05) 0.03883 (≥0.05) 0.04786 (≥0.05) 0.02714 (≥0.05) 0.03906 (≥0.05)	All samples in SDG E5I210383	J (all detects) UJ (all non-detects)	A

The percent differences (%D) of the second source calibration standard were less than or equal to 25.0% for all compounds with the following exceptions:

Date	Compound	%D	Associated Samples	Flag	A or P
9/21/05	Bromomethane Vinyl acetate	33.08328 39.286	All samples in SDG E5I210383	J (all detects) UJ (all non-detects) J (all detects) UJ (all non-detects)	A

V. Blanks

Method blanks were reviewed for each matrix as applicable. No volatile contaminants were found in the method blanks.

VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VII. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits with the following exceptions:

LCS ID	Compound	%R (Limits)	Associated Samples	Flag	A or P
5266561LCS	Bromomethane	157 (60-140)	All samples in SDG E5I210383	J (all detects)	P

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Internal Standards

All internal standard areas and retention times were within QC limits.

XI. Target Compound Identifications

All target compound identifications were within validation criteria for samples on which a Tier 3 review was performed. Raw data were not evaluated for the samples reviewed by Tier 2 criteria.

XII. Compound Quantitation and CRQLs

All compound quantitation and CRQLs were within validation criteria for samples on which a Tier 3 review was performed. Raw data were not evaluated for the samples reviewed by Tier 2 criteria.

XIII. Tentatively Identified Compounds (TICs)

Tentatively identified compounds were not reported by the laboratory.

XIV. System Performance

The system performance was within validation criteria for samples on which a Tier 3 review was performed. Raw data were not evaluated for the samples reviewed by Tier 2 criteria.

XV. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

XVI. Field Duplicates

Samples MWG003_WG092105_0001 and MWG003_WG092105_0002** were identified as field duplicates. No volatiles were detected in any of the samples with the following exceptions:

Compound	Concentration (ug/L)		RPD
	MWG003_WG092105_0001	MWG003_WG092105_0002**	
trans-1,2-Dichloroethene	0.45	0.42	7
cis-1,2-Dichloroethene	15	14	7
Chloroform	0.59	0.60	2
Trichloroethene	74	72	3

XVII. Field Blanks

Sample TB_HA092105_0001 was identified as a trip blank. No volatile contaminants were found in this blank with the following exceptions:

Trip Blank ID	Compound	Concentration (ug/L)
TB_HA092105_0001	Acetone	5.2

Sample EB_HA092105_0001 was identified as an equipment blank. No volatile contaminants were found in this blank.

Sample FB_HA092105_0001 was identified as a field blank. No volatile contaminants were found in this blank.

Boeing Former C-6 Facility
Volatiles - Data Qualification Summary - SDG E5I210383

SDG	Sample	Compound	Flag	A or P	Reason
E5I210383	FB_HA092105_0001 TB_HA092105_0001 MWG003_WG092105_0001 MWG003_WG092105_0002** MWG004_WG092105_0001 EB_HA092105_0001	Tetrahydrofuran	J (all detects) UJ (all non-detects)	A	Initial calibration (%RSD)
E5I210383	FB_HA092105_0001 TB_HA092105_0001 MWG003_WG092105_0001 MWG003_WG092105_0002** MWG004_WG092105_0001 EB_HA092105_0001	Acrolein Acetone tert-Butanol Acrylonitrile 2-Butanone Tetrahydrofuran 2-Chloroethylvinyl ether	J (all detects) UJ (all non-detects)	A	Initial calibration (RRF)
E5I210383	FB_HA092105_0001 TB_HA092105_0001 MWG003_WG092105_0001 MWG003_WG092105_0002** MWG004_WG092105_0001 EB_HA092105_0001	Chloroethane Acetone tert-Butanol	J (all detects) UJ (all non-detects)	A	Continuing calibration (%D)
E5I210383	FB_HA092105_0001 TB_HA092105_0001 MWG003_WG092105_0001 MWG003_WG092105_0002** MWG004_WG092105_0001 EB_HA092105_0001	Acrolein Acetone tert-Butanol Acrylonitrile 2-Butanone Tetrahydrofuran 2-Chloroethylvinyl ether	J (all detects) UJ (all non-detects)	A	Continuing calibration (RRF)
E5I210383	FB_HA092105_0001 TB_HA092105_0001 MWG003_WG092105_0001 MWG003_WG092105_0002** MWG004_WG092105_0001 EB_HA092105_0001	Bromomethane Vinyl acetate	J (all detects) UJ (all non-detects) J (all detects) UJ (all non-detects)	A	Continuing calibration (ICV %D)
E5I210383	FB_HA092105_0001 TB_HA092105_0001 MWG003_WG092105_0001 MWG003_WG092105_0002** MWG004_WG092105_0001 EB_HA092105_0001	Bromomethane	J (all detects)	P	Laboratory control samples (%R)

Boeing Former C-6 Facility
Volatiles - Laboratory Blank Data Qualification Summary - SDG E5I210383

No Sample Data Qualified in this SDG

B

Haley & Aldrich Inc.

Client Sample ID: FB_HA092105_0001

GC/MS Volatiles

Lot-Sample #...: E5I210383-001 **Work Order #...:** HK3931AA **Matrix.....:** WG
Date Sampled...: 09/21/05 11:55 **Date Received..:** 09/21/05 17:10 **MS Run #.....:** 5266348
Prep Date.....: 09/23/05 **Analysis Date..:** 09/23/05
Prep Batch #...: 5266561 **Analysis Time..:** 13:26
Dilution Factor: 1
Analyst ID.....: 015590 **Instrument ID..:** MSQ
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Dichlorodifluoromethane	ND	1.0	ug/L	0.40
Chloromethane	ND	2.0	ug/L	0.30
Chloroethane	ND UJ	2.0	ug/L	0.40
Bromomethane	ND UJ	2.0	ug/L	1.0
Trichlorofluoromethane	ND	2.0	ug/L	0.30
1,1-Dichloroethene	ND	1.0	ug/L	0.30
Methylene chloride	ND	1.0	ug/L	0.30
Methyl tert-butyl ether	ND	1.0	ug/L	0.50
Carbon disulfide	ND	1.0	ug/L	0.40
Acetone	ND UJ	10	ug/L	2.0
trans-1,2-Dichloroethene	ND	1.0	ug/L	0.30
1,1-Dichloroethane	ND	1.0	ug/L	0.20
2,2-Dichloropropane	ND	1.0	ug/L	0.40
cis-1,2-Dichloroethene	ND	1.0	ug/L	0.30
Chloroform	ND	1.0	ug/L	0.30
Bromochloromethane	ND	1.0	ug/L	0.40
1,1,1-Trichloroethane	ND	1.0	ug/L	0.20
2-Butanone	ND UJ	5.0	ug/L	2.5
1,1-Dichloropropene	ND	1.0	ug/L	0.30
Carbon tetrachloride	ND	0.50	ug/L	0.30
1,2-Dibromoethane	ND	1.0	ug/L	0.30
Benzene	ND	1.0	ug/L	0.30
Trichloroethene	ND	1.0	ug/L	0.30
Bromodichloromethane	ND	1.0	ug/L	0.30
4-Methyl-2-pentanone	ND	5.0	ug/L	2.0
Toluene	ND	1.0	ug/L	0.30
1,1,2-Trichloroethane	ND	1.0	ug/L	0.30
1,2-Dichloroethane	ND	0.50	ug/L	0.40
Tetrachloroethene	ND	1.0	ug/L	0.40
2-Hexanone	ND	5.0	ug/L	2.0
Dibromochloromethane	ND	1.0	ug/L	0.40
Chlorobenzene	ND	1.0	ug/L	0.30
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	0.30
Ethylbenzene	ND	1.0	ug/L	0.30
Vinyl chloride	ND	0.50	ug/L	0.30
Xylenes (total)	ND	1.0	ug/L	0.50
Styrene	ND	1.0	ug/L	0.30

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11/8/05

Haley & Aldrich Inc.

Client Sample ID: FB_HA092105_0001

GC/MS Volatiles

Lot-Sample #...: E5I210383-001 **Work Order #...:** HK3931AA **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Bromoform	ND	1.0	ug/L	0.40
Isopropylbenzene	ND	1.0	ug/L	0.30
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	0.40
1,2,3-Trichloropropane	ND	1.0	ug/L	0.40
n-Propylbenzene	ND	1.0	ug/L	0.40
Bromobenzene	ND	1.0	ug/L	0.30
1,3,5-Trimethylbenzene	ND	1.0	ug/L	0.20
2-Chlorotoluene	ND	1.0	ug/L	0.30
4-Chlorotoluene	ND	1.0	ug/L	0.30
tert-Butylbenzene	ND	1.0	ug/L	0.20
1,2,4-Trimethylbenzene	ND	1.0	ug/L	0.30
sec-Butylbenzene	ND	1.0	ug/L	0.30
p-Isopropyltoluene	ND	1.0	ug/L	0.30
1,3-Dichlorobenzene	ND	1.0	ug/L	0.30
1,4-Dichlorobenzene	ND	1.0	ug/L	0.30
n-Butylbenzene	ND	1.0	ug/L	0.30
1,2-Dichlorobenzene	ND	1.0	ug/L	0.30
1,2-Dibromo-3-chloro-propane	ND	2.0	ug/L	1.0
1,2,4-Trichloro-benzene	ND	1.0	ug/L	0.30
Hexachlorobutadiene	ND	1.0	ug/L	0.30
1,2,3-Trichlorobenzene	ND	1.0	ug/L	0.40
Acrolein	ND UJ	20	ug/L	10
Tert-amyl methyl ether	ND	2.0	ug/L	0.50
Acrylonitrile	ND UJ	20	ug/L	10
Tert-butyl ethyl ether	ND	2.0	ug/L	0.50
t-Butanol	ND UJ	25	ug/L	6.0
Iodomethane	ND	2.0	ug/L	1.0
Isopropyl ether	ND	2.0	ug/L	0.50
2-Chloroethyl vinyl ether	ND UJ	5.0	ug/L	2.0
Tetrahydrofuran	ND UJ	10	ug/L	2.0
Vinyl acetate	ND UJ	5.0	ug/L	2.0

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Bromofluorobenzene	89	(75 - 130)
1,2-Dichloroethane-d4	97	(65 - 135)
Toluene-d8	97	(80 - 130)

11/8/05

Haley & Aldrich Inc.

Client Sample ID: TB_HA092105_0001

GC/MS Volatiles

Lot-Sample #...:	E5I210383-002	**Work Order #...:**	HK3981AA	**Matrix.....:**	WG
Date Sampled...:	09/21/05 12:00	**Date Received..:**	09/21/05 17:10	**MS Run #.....:**	5266348
Prep Date.....:	09/23/05	**Analysis Date..:**	09/23/05		
Prep Batch #...:	5266561	**Analysis Time..:**	13:49		
Dilution Factor:	1				
Analyst ID.....:	015590	**Instrument ID..:**	MSQ		
		Method.....:	SW846 8260B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Dichlorodifluoromethane	ND	1.0	ug/L	0.40
Chloromethane	ND	2.0	ug/L	0.30
Chloroethane	ND UJ	2.0	ug/L	0.40
Bromomethane	ND UJ	2.0	ug/L	1.0
Trichlorofluoromethane	ND	2.0	ug/L	0.30
1,1-Dichloroethene	ND	1.0	ug/L	0.30
Methylene chloride	ND	1.0	ug/L	0.30
Methyl tert-butyl ether	ND	1.0	ug/L	0.50
Carbon disulfide	ND	1.0	ug/L	0.40
Acetone	**5.2 J** J	**10**	**ug/L**	**2.0**
trans-1,2-Dichloroethene	ND	1.0	ug/L	0.30
1,1-Dichloroethane	ND	1.0	ug/L	0.20
2,2-Dichloropropane	ND	1.0	ug/L	0.40
cis-1,2-Dichloroethene	ND	1.0	ug/L	0.30
Chloroform	ND	1.0	ug/L	0.30
Bromochloromethane	ND	1.0	ug/L	0.40
1,1,1-Trichloroethane	ND	1.0	ug/L	0.20
2-Butanone	ND UJ	5.0	ug/L	2.5
1,1-Dichloropropene	ND	1.0	ug/L	0.30
Carbon tetrachloride	ND	0.50	ug/L	0.30
1,2-Dibromoethane	ND	1.0	ug/L	0.30
Benzene	ND	1.0	ug/L	0.30
Trichloroethene	ND	1.0	ug/L	0.30
Bromodichloromethane	ND	1.0	ug/L	0.30
4-Methyl-2-pentanone	ND	5.0	ug/L	2.0
Toluene	ND	1.0	ug/L	0.30
1,1,2-Trichloroethane	ND	1.0	ug/L	0.30
1,2-Dichloroethane	ND	0.50	ug/L	0.40
Tetrachloroethene	ND	1.0	ug/L	0.40
2-Hexanone	ND	5.0	ug/L	2.0
Dibromochloromethane	ND	1.0	ug/L	0.40
Chlorobenzene	ND	1.0	ug/L	0.30
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	0.30
Ethylbenzene	ND	1.0	ug/L	0.30
Vinyl chloride	ND	0.50	ug/L	0.30
Xylenes (total)	ND	1.0	ug/L	0.50
Styrene	ND	1.0	ug/L	0.30

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11/8/01

Haley & Aldrich Inc.

Client Sample ID: TB_HA092105_0001

GC/MS Volatiles

Lot-Sample #...: E5I210383-002 **Work Order #...:** HK3981AA **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Bromoform	ND	1.0	ug/L	0.40
Isopropylbenzene	ND	1.0	ug/L	0.30
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	0.40
1,2,3-Trichloropropane	ND	1.0	ug/L	0.40
n-Propylbenzene	ND	1.0	ug/L	0.40
Bromobenzene	ND	1.0	ug/L	0.30
1,3,5-Trimethylbenzene	ND	1.0	ug/L	0.20
2-Chlorotoluene	ND	1.0	ug/L	0.30
4-Chlorotoluene	ND	1.0	ug/L	0.30
tert-Butylbenzene	ND	1.0	ug/L	0.20
1,2,4-Trimethylbenzene	ND	1.0	ug/L	0.30
sec-Butylbenzene	ND	1.0	ug/L	0.30
p-Isopropyltoluene	ND	1.0	ug/L	0.30
1,3-Dichlorobenzene	ND	1.0	ug/L	0.30
1,4-Dichlorobenzene	ND	1.0	ug/L	0.30
n-Butylbenzene	ND	1.0	ug/L	0.30
1,2-Dichlorobenzene	ND	1.0	ug/L	0.30
1,2-Dibromo-3-chloro-propane	ND	2.0	ug/L	1.0
1,2,4-Trichloro-benzene	ND	1.0	ug/L	0.30
Hexachlorobutadiene	ND	1.0	ug/L	0.30
1,2,3-Trichlorobenzene	ND	1.0	ug/L	0.40
Acrolein	ND UJ	20	ug/L	10
Tert-amyl methyl ether	ND	2.0	ug/L	0.50
Acrylonitrile	ND UJ	20	ug/L	10
Tert-butyl ethyl ether	ND	2.0	ug/L	0.50
t-Butanol	ND UJ	25	ug/L	6.0
Iodomethane	ND	2.0	ug/L	1.0
Isopropyl ether	ND	2.0	ug/L	0.50
2-Chloroethyl vinyl ether	ND UJ	5.0	ug/L	2.0
Tetrahydrofuran	ND	10	ug/L	2.0
Vinyl acetate	ND	5.0	ug/L	2.0

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Bromofluorobenzene	89	(75 - 130)
1,2-Dichloroethane-d4	97	(65 - 135)
Toluene-d8	96	(80 - 130)

NOTE(S):

J Estimated result. Result is less than RL.

11/8/01

Haley & Aldrich Inc.

Client Sample ID: MWG003_WG092105_0001

GC/MS Volatiles

Lot-Sample #...: E5I210383-003 **Work Order #...:** HK4AC1AA **Matrix.....:** WG
Date Sampled...: 09/21/05 12:05 **Date Received..:** 09/21/05 17:10 **MS Run #.....:** 5266348
Prep Date.....: 09/23/05 **Analysis Date..:** 09/23/05
Prep Batch #...: 5266561 **Analysis Time..:** 14:12
Dilution Factor: 1
Analyst ID.....: 015590 **Instrument ID..:** MSQ
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Dichlorodifluoromethane	ND	1.0	ug/L	0.40
Chloromethane	ND	2.0	ug/L	0.30
Chloroethane	ND UJ	2.0	ug/L	0.40
Bromomethane	ND UJ	2.0	ug/L	1.0
Trichlorofluoromethane	ND	2.0	ug/L	0.30
1,1-Dichloroethene	ND	1.0	ug/L	0.30
Methylene chloride	ND	1.0	ug/L	0.30
Methyl tert-butyl ether	ND	1.0	ug/L	0.50
Carbon disulfide	ND	1.0	ug/L	0.40
Acetone	ND J	10	ug/L	2.0
trans-1,2-Dichloroethene	**0.45 J**	**1.0**	**ug/L**	**0.30**
1,1-Dichloroethane	ND	1.0	ug/L	0.20
2,2-Dichloropropane	ND	1.0	ug/L	0.40
cis-1,2-Dichloroethene	**15**	**1.0**	**ug/L**	**0.30**
Chloroform	**0.59 J**	**1.0**	**ug/L**	**0.30**
Bromochloromethane	ND	1.0	ug/L	0.40
1,1,1-Trichloroethane	ND	1.0	ug/L	0.20
2-Butanone	ND UJ	5.0	ug/L	2.5
1,1-Dichloropropene	ND	1.0	ug/L	0.30
Carbon tetrachloride	ND	0.50	ug/L	0.30
1,2-Dibromoethane	ND	1.0	ug/L	0.30
Benzene	ND	1.0	ug/L	0.30
Trichloroethene	**74**	**1.0**	**ug/L**	**0.30**
Bromodichloromethane	ND	1.0	ug/L	0.30
4-Methyl-2-pentanone	ND	5.0	ug/L	2.0
Toluene	ND	1.0	ug/L	0.30
1,1,2-Trichloroethane	ND	1.0	ug/L	0.30
1,2-Dichloroethane	ND	0.50	ug/L	0.40
Tetrachloroethene	ND	1.0	ug/L	0.40
2-Hexanone	ND	5.0	ug/L	2.0
Dibromochloromethane	ND	1.0	ug/L	0.40
Chlorobenzene	ND	1.0	ug/L	0.30
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	0.30
Ethylbenzene	ND	1.0	ug/L	0.30
Vinyl chloride	ND	0.50	ug/L	0.30
Xylenes (total)	ND	1.0	ug/L	0.50
Styrene	ND	1.0	ug/L	0.30

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Haley & Aldrich Inc.

Client Sample ID: MWG003_WG092105_0001

GC/MS Volatiles

Lot-Sample #...: E5I210383-003 **Work Order #...:** HK4AC1AA **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Bromoform	ND	1.0	ug/L	0.40
Isopropylbenzene	ND	1.0	ug/L	0.30
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	0.40
1,2,3-Trichloropropane	ND	1.0	ug/L	0.40
n-Propylbenzene	ND	1.0	ug/L	0.40
Bromobenzene	ND	1.0	ug/L	0.30
1,3,5-Trimethylbenzene	ND	1.0	ug/L	0.20
2-Chlorotoluene	ND	1.0	ug/L	0.30
4-Chlorotoluene	ND	1.0	ug/L	0.30
tert-Butylbenzene	ND	1.0	ug/L	0.20
1,2,4-Trimethylbenzene	ND	1.0	ug/L	0.30
sec-Butylbenzene	ND	1.0	ug/L	0.30
p-Isopropyltoluene	ND	1.0	ug/L	0.30
1,3-Dichlorobenzene	ND	1.0	ug/L	0.30
1,4-Dichlorobenzene	ND	1.0	ug/L	0.30
n-Butylbenzene	ND	1.0	ug/L	0.30
1,2-Dichlorobenzene	ND	1.0	ug/L	0.30
1,2-Dibromo-3-chloro-propane	ND	2.0	ug/L	1.0
1,2,4-Trichloro-benzene	ND	1.0	ug/L	0.30
Hexachlorobutadiene	ND	1.0	ug/L	0.30
1,2,3-Trichlorobenzene	ND	1.0	ug/L	0.40
Acrolein	ND UJ	20	ug/L	10
Tert-amyl methyl ether	ND	2.0	ug/L	0.50
Acrylonitrile	ND UJ	20	ug/L	10
Tert-butyl ethyl ether	ND	2.0	ug/L	0.50
t-Butanol	ND UJ	25	ug/L	6.0
Iodomethane	ND	2.0	ug/L	1.0
Isopropyl ether	ND	2.0	ug/L	0.50
2-Chloroethyl vinyl ether	ND UJ	5.0	ug/L	2.0
Tetrahydrofuran	ND	10	ug/L	2.0
Vinyl acetate	ND	5.0	ug/L	2.0

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Bromofluorobenzene	90	(75 - 130)
1,2-Dichloroethane-d4	98	(65 - 135)
Toluene-d8	98	(80 - 130)

NOTE(S):

J Estimated result. Result is less than RL.

11/8/05

Haley & Aldrich Inc.

Client Sample ID: MWG003_WG092105_0002

GC/MS Volatiles

Lot-Sample #...:	E5I210383-004	**Work Order #...:**	HK4AF1AA	**Matrix.....:**	WG
Date Sampled...:	09/21/05 12:10	**Date Received..:**	09/21/05 17:10	**MS Run #.....:**	5266348
Prep Date.....:	09/23/05	**Analysis Date..:**	09/23/05		
Prep Batch #...:	5266561	**Analysis Time..:**	14:35		
Dilution Factor:	1				
Analyst ID.....:	015590	**Instrument ID..:**	MSQ		
		Method.....:	SW846 8260B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Dichlorodifluoromethane	ND	1.0	ug/L	0.40
Chloromethane	ND	2.0	ug/L	0.30
Chloroethane	ND UJ	2.0	ug/L	0.40
Bromomethane	ND UJ	2.0	ug/L	1.0
Trichlorofluoromethane	ND	2.0	ug/L	0.30
1,1-Dichloroethene	ND	1.0	ug/L	0.30
Methylene chloride	ND	1.0	ug/L	0.30
Methyl tert-butyl ether	ND	1.0	ug/L	0.50
Carbon disulfide	ND	1.0	ug/L	0.40
Acetone	ND UJ	10	ug/L	2.0
trans-1,2-Dichloroethene	**0.42 J**	**1.0**	**ug/L**	**0.30**
1,1-Dichloroethane	ND	1.0	ug/L	0.20
2,2-Dichloropropane	ND	1.0	ug/L	0.40
cis-1,2-Dichloroethene	**14**	**1.0**	**ug/L**	**0.30**
Chloroform	**0.60 J**	**1.0**	**ug/L**	**0.30**
Bromochloromethane	ND	1.0	ug/L	0.40
1,1,1-Trichloroethane	ND	1.0	ug/L	0.20
2-Butanone	ND UJ	5.0	ug/L	2.5
1,1-Dichloropropene	ND	1.0	ug/L	0.30
Carbon tetrachloride	ND	0.50	ug/L	0.30
1,2-Dibromoethane	ND	1.0	ug/L	0.30
Benzene	ND	1.0	ug/L	0.30
Trichloroethene	**72**	**1.0**	**ug/L**	**0.30**
Bromodichloromethane	ND	1.0	ug/L	0.30
4-Methyl-2-pentanone	ND	5.0	ug/L	2.0
Toluene	ND	1.0	ug/L	0.30
1,1,2-Trichloroethane	ND	1.0	ug/L	0.30
1,2-Dichloroethane	ND	0.50	ug/L	0.40
Tetrachloroethene	ND	1.0	ug/L	0.40
2-Hexanone	ND	5.0	ug/L	2.0
Dibromochloromethane	ND	1.0	ug/L	0.40
Chlorobenzene	ND	1.0	ug/L	0.30
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	0.30
Ethylbenzene	ND	1.0	ug/L	0.30
Vinyl chloride	ND	0.50	ug/L	0.30
Xylenes (total)	ND	1.0	ug/L	0.50
Styrene	ND	1.0	ug/L	0.30

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11/8/05

Haley & Aldrich Inc.

Client Sample ID: MWG003_WG092105_0002

GC/MS Volatiles

Lot-Sample #...: E5I210383-004 **Work Order #...:** HK4AF1AA **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Bromoform	ND	1.0	ug/L	0.40
Isopropylbenzene	ND	1.0	ug/L	0.30
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	0.40
1,2,3-Trichloropropane	ND	1.0	ug/L	0.40
n-Propylbenzene	ND	1.0	ug/L	0.40
Bromobenzene	ND	1.0	ug/L	0.30
1,3,5-Trimethylbenzene	ND	1.0	ug/L	0.20
2-Chlorotoluene	ND	1.0	ug/L	0.30
4-Chlorotoluene	ND	1.0	ug/L	0.30
tert-Butylbenzene	ND	1.0	ug/L	0.20
1,2,4-Trimethylbenzene	ND	1.0	ug/L	0.30
sec-Butylbenzene	ND	1.0	ug/L	0.30
p-Isopropyltoluene	ND	1.0	ug/L	0.30
1,3-Dichlorobenzene	ND	1.0	ug/L	0.30
1,4-Dichlorobenzene	ND	1.0	ug/L	0.30
n-Butylbenzene	ND	1.0	ug/L	0.30
1,2-Dichlorobenzene	ND	1.0	ug/L	0.30
1,2-Dibromo-3-chloro-propane	ND	2.0	ug/L	1.0
1,2,4-Trichloro-benzene	ND	1.0	ug/L	0.30
Hexachlorobutadiene	ND	1.0	ug/L	0.30
1,2,3-Trichlorobenzene	ND	1.0	ug/L	0.40
Acrolein	ND UJ	20	ug/L	10
Tert-amyl methyl ether	ND	2.0	ug/L	0.50
Acrylonitrile	ND UJ	20	ug/L	10
Tert-butyl ethyl ether	ND	2.0	ug/L	0.50
t-Butanol	ND UJ	25	ug/L	6.0
Iodomethane	ND	2.0	ug/L	1.0
Isopropyl ether	ND	2.0	ug/L	0.50
2-Chloroethyl vinyl ether	ND UJ	5.0	ug/L	2.0
Tetrahydrofuran	ND	10	ug/L	2.0
Vinyl acetate	ND	5.0	ug/L	2.0

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Bromofluorobenzene	87	(75 - 130)
1,2-Dichloroethane-d4	98	(65 - 135)
Toluene-d8	95	(80 - 130)

NOTE(S):

J Estimated result. Result is less than RL.

11/8/05

Haley & Aldrich Inc.

Client Sample ID: MWG004_WG092105_0001

GC/MS Volatiles

Lot-Sample #...: E5I210383-005 **Work Order #...:** HK4AG1AA **Matrix.....:** WG
Date Sampled...: 09/21/05 14:35 **Date Received..:** 09/21/05 17:10 **MS Run #.....:** 5266348
Prep Date.....: 09/23/05 **Analysis Date..:** 09/23/05
Prep Batch #...: 5266561 **Analysis Time..:** 14:57
Dilution Factor: 1
Analyst ID.....: 015590 **Instrument ID..:** MSQ
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Dichlorodifluoromethane	ND	1.0	ug/L	0.40
Chloromethane	ND	2.0	ug/L	0.30
Chloroethane	ND UJ	2.0	ug/L	0.40
Bromomethane	ND UJ	2.0	ug/L	1.0
Trichlorofluoromethane	ND	2.0	ug/L	0.30
1,1-Dichloroethene	ND	1.0	ug/L	0.30
Methylene chloride	ND	1.0	ug/L	0.30
Methyl tert-butyl ether	ND	1.0	ug/L	0.50
Carbon disulfide	ND	1.0	ug/L	0.40
Acetone	ND UJ	10	ug/L	2.0
trans-1,2-Dichloroethene	ND	1.0	ug/L	0.30
1,1-Dichloroethane	ND	1.0	ug/L	0.20
2,2-Dichloropropane	ND	1.0	ug/L	0.40
cis-1,2-Dichloroethene	ND	1.0	ug/L	0.30
Chloroform	ND	1.0	ug/L	0.30
Bromochloromethane	ND	1.0	ug/L	0.40
1,1,1-Trichloroethane	ND	1.0	ug/L	0.20
2-Butanone	ND UJ	5.0	ug/L	2.5
1,1-Dichloropropene	ND	1.0	ug/L	0.30
Carbon tetrachloride	ND	0.50	ug/L	0.30
1,2-Dibromoethane	ND	1.0	ug/L	0.30
Benzene	ND	1.0	ug/L	0.30
Trichloroethene	**13**	**1.0**	**ug/L**	**0.30**
Bromodichloromethane	ND	1.0	ug/L	0.30
4-Methyl-2-pentanone	ND	5.0	ug/L	2.0
Toluene	ND	1.0	ug/L	0.30
1,1,2-Trichloroethane	ND	1.0	ug/L	0.30
1,2-Dichloroethane	ND	0.50	ug/L	0.40
Tetrachloroethene	ND	1.0	ug/L	0.40
2-Hexanone	ND	5.0	ug/L	2.0
Dibromochloromethane	ND	1.0	ug/L	0.40
Chlorobenzene	ND	1.0	ug/L	0.30
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	0.30
Ethylbenzene	ND	1.0	ug/L	0.30
Vinyl chloride	ND	0.50	ug/L	0.30
Xylenes (total)	ND	1.0	ug/L	0.50
Styrene	ND	1.0	ug/L	0.30

(Continued on next page)

11/8/05

Haley & Aldrich Inc.

Client Sample ID: MWG004_WG092105_0001

GC/MS Volatiles

Lot-Sample #...: E5I210383-005 **Work Order #...:** HK4AG1AA **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Bromoform	ND	1.0	ug/L	0.40
Isopropylbenzene	ND	1.0	ug/L	0.30
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	0.40
1,2,3-Trichloropropane	ND	1.0	ug/L	0.40
n-Propylbenzene	ND	1.0	ug/L	0.40
Bromobenzene	ND	1.0	ug/L	0.30
1,3,5-Trimethylbenzene	ND	1.0	ug/L	0.20
2-Chlorotoluene	ND	1.0	ug/L	0.30
4-Chlorotoluene	ND	1.0	ug/L	0.30
tert-Butylbenzene	ND	1.0	ug/L	0.20
1,2,4-Trimethylbenzene	ND	1.0	ug/L	0.30
sec-Butylbenzene	ND	1.0	ug/L	0.30
p-Isopropyltoluene	ND	1.0	ug/L	0.30
1,3-Dichlorobenzene	ND	1.0	ug/L	0.30
1,4-Dichlorobenzene	ND	1.0	ug/L	0.30
n-Butylbenzene	ND	1.0	ug/L	0.30
1,2-Dichlorobenzene	ND	1.0	ug/L	0.30
1,2-Dibromo-3-chloro-propane	ND	2.0	ug/L	1.0
1,2,4-Trichloro-benzene	ND	1.0	ug/L	0.30
Hexachlorobutadiene	ND	1.0	ug/L	0.30
1,2,3-Trichlorobenzene	ND	1.0	ug/L	0.40
Acrolein	ND UJ	20	ug/L	10
Tert-amyl methyl ether	ND	2.0	ug/L	0.50
Acrylonitrile	ND UJ	20	ug/L	10
Tert-butyl ethyl ether	ND	2.0	ug/L	0.50
t-Butanol	ND UJ	25	ug/L	6.0
Iodomethane	ND	2.0	ug/L	1.0
Isopropyl ether	ND	2.0	ug/L	0.50
2-Chloroethyl vinyl ether	ND UJ	5.0	ug/L	2.0
Tetrahydrofuran	ND	10	ug/L	2.0
Vinyl acetate	ND	5.0	ug/L	2.0

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Bromofluorobenzene	90	(75 - 130)
1,2-Dichloroethane-d4	100	(65 - 135)
Toluene-d8	96	(80 - 130)

11/8/05

Haley & Aldrich Inc.

Client Sample ID: EB_HA092105_0001

GC/MS Volatiles

Lot-Sample #...: E5I210383-006 **Work Order #...:** HK4AJ1AA **Matrix.....:** WG
Date Sampled...: 09/21/05 13:00 **Date Received..:** 09/21/05 17:10 **MS Run #.....:** 5266348
Prep Date.....: 09/23/05 **Analysis Date..:** 09/23/05
Prep Batch #...: 5266561 **Analysis Time..:** 15:20
Dilution Factor: 1
Analyst ID.....: 015590 **Instrument ID..:** MSQ
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Dichlorodifluoromethane	ND	1.0	ug/L	0.40
Chloromethane	ND	2.0	ug/L	0.30
Chloroethane	ND UJ	2.0	ug/L	0.40
Bromomethane	ND UJ	2.0	ug/L	1.0
Trichlorofluoromethane	ND	2.0	ug/L	0.30
1,1-Dichloroethene	ND	1.0	ug/L	0.30
Methylene chloride	ND	1.0	ug/L	0.30
Methyl tert-butyl ether	ND	1.0	ug/L	0.50
Carbon disulfide	ND	1.0	ug/L	0.40
Acetone	ND UJ	10	ug/L	2.0
trans-1,2-Dichloroethene	ND	1.0	ug/L	0.30
1,1-Dichloroethane	ND	1.0	ug/L	0.20
2,2-Dichloropropane	ND	1.0	ug/L	0.40
cis-1,2-Dichloroethene	ND	1.0	ug/L	0.30
Chloroform	ND	1.0	ug/L	0.30
Bromochloromethane	ND	1.0	ug/L	0.40
1,1,1-Trichloroethane	ND	1.0	ug/L	0.20
2-Butanone	ND UJ	5.0	ug/L	2.5
1,1-Dichloropropene	ND	1.0	ug/L	0.30
Carbon tetrachloride	ND	0.50	ug/L	0.30
1,2-Dibromoethane	ND	1.0	ug/L	0.30
Benzene	ND	1.0	ug/L	0.30
Trichloroethene	ND	1.0	ug/L	0.30
Bromodichloromethane	ND	1.0	ug/L	0.30
4-Methyl-2-pentanone	ND	5.0	ug/L	2.0
Toluene	ND	1.0	ug/L	0.30
1,1,2-Trichloroethane	ND	1.0	ug/L	0.30
1,2-Dichloroethane	ND	0.50	ug/L	0.40
Tetrachloroethene	ND	1.0	ug/L	0.40
2-Hexanone	ND	5.0	ug/L	2.0
Dibromochloromethane	ND	1.0	ug/L	0.40
Chlorobenzene	ND	1.0	ug/L	0.30
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	0.30
Ethylbenzene	ND	1.0	ug/L	0.30
Vinyl chloride	ND	0.50	ug/L	0.30
Xylenes (total)	ND	1.0	ug/L	0.50
Styrene	ND	1.0	ug/L	0.30

(Continued on next page)

10/8/05

Haley & Aldrich Inc.

Client Sample ID: EB_HA092105_0001

GC/MS Volatiles

Lot-Sample #...: E5I210383-006 **Work Order #...:** HK4AJ1AA **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Bromoform	ND	1.0	ug/L	0.40
Isopropylbenzene	ND	1.0	ug/L	0.30
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	0.40
1,2,3-Trichloropropane	ND	1.0	ug/L	0.40
n-Propylbenzene	ND	1.0	ug/L	0.40
Bromobenzene	ND	1.0	ug/L	0.30
1,3,5-Trimethylbenzene	ND	1.0	ug/L	0.20
2-Chlorotoluene	ND	1.0	ug/L	0.30
4-Chlorotoluene	ND	1.0	ug/L	0.30
tert-Butylbenzene	ND	1.0	ug/L	0.20
1,2,4-Trimethylbenzene	ND	1.0	ug/L	0.30
sec-Butylbenzene	ND	1.0	ug/L	0.30
p-Isopropyltoluene	ND	1.0	ug/L	0.30
1,3-Dichlorobenzene	ND	1.0	ug/L	0.30
1,4-Dichlorobenzene	ND	1.0	ug/L	0.30
n-Butylbenzene	ND	1.0	ug/L	0.30
1,2-Dichlorobenzene	ND	1.0	ug/L	0.30
1,2-Dibromo-3-chloro-propane	ND	2.0	ug/L	1.0
1,2,4-Trichloro-benzene	ND	1.0	ug/L	0.30
Hexachlorobutadiene	ND	1.0	ug/L	0.30
1,2,3-Trichlorobenzene	ND	1.0	ug/L	0.40
Acrolein	ND UJ	20	ug/L	10
Tert-amyl methyl ether	ND	2.0	ug/L	0.50
Acrylonitrile	ND UJ	20	ug/L	10
Tert-butyl ethyl ether	ND	2.0	ug/L	0.50
t-Butanol	ND UJ	25	ug/L	6.0
Iodomethane	ND	2.0	ug/L	1.0
Isopropyl ether	ND	2.0	ug/L	0.50
2-Chloroethyl vinyl ether	ND UJ	5.0	ug/L	2.0
Tetrahydrofuran	ND	10	ug/L	2.0
Vinyl acetate	ND J	5.0	ug/L	2.0

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Bromofluorobenzene	89	(75 - 130)
1,2-Dichloroethane-d4	95	(65 - 135)
Toluene-d8	95	(80 - 130)

11/18/05

LDC #: 14214B1a

VALIDATION COMPLETENESS WORKSHEET

SDG #: E5I210383

Level III / IV Tier 2/3

Laboratory: Severn Trent Laboratories, Inc.

Date: 11/07/05

Page: 1 of 1

Reviewer: JC

2nd Reviewer: DC

METHOD: GC/MS Volatiles (EPA SW 846 Method 8260B)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	~~N~~ A	Sampling dates: 9/21/05
II.	GC/MS Instrument performance check	A	
III.	Initial calibration	SW	
IV.	Continuing calibration	SW	CCV/ICV
V.	Blanks	~~N~~ A	
VI.	Surrogate spikes	~~N~~ A	
VII.	Matrix spike/Matrix spike duplicates	~~N~~ A	None / P (non-client sample)
VIII.	Laboratory control samples	~~N~~ SW	LCS
IX.	Regional Quality Assurance and Quality Control	N	
X.	Internal standards	~~N~~ A	
XI.	Target compound identification	~~N~~ A	Not reviewed for ~~level~~ Tier 2 validation
XII.	Compound quantitation/CRQLs	~~N~~ A	
XIII.	Tentitatively identified compounds (TICs)	N	
XIV.	System performance	~~N~~ A	
XV.	Overall assessment of data	~~N~~ A	
XVI.	Field duplicates	SW	D = 3, 4
XVII.	Field blanks	SW	FB = 1 TB = 2 EB = 6

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples: ** level IV

Water

1	FB_HA092105_0001	11		21		31	
2	TB_HA092105_0001	12		22		32	
3	MWG003_WG092105_0001	13		23		33	
4	MWG003_WG092105_0002 **	14		24		34	
5	MWG004_WG092105_0001	15		25		35	
6	EB_HA092105_0001	16		26		36	
7	MB	17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

LDC #: 14214 B19
SDG #: E5I210383

VALIDATION FINDINGS CHECKLIST

Reviewer: NG
2nd Reviewer: R

Method: Volatiles (EPA SW 846 Method 8260B)

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
All technical holding times were met.	✓			
Cooler temperature criteria was met.	✓			
II. GC/MS Instrument performance check				
Were the BFB performance results reviewed and found to be within the specified criteria?	✓			
Were all samples analyzed within the 12 hour clock criteria?	✓			
III. Initial calibration				
Did the laboratory perform a 5 point calibration prior to sample analysis?	✓			
Were all percent relative standard deviations (%RSD) and relative response factors (RRF) within method criteria for all CCCs and SPCCs?	✓			
Was a curve fit used for evaluation?		✓		
Did the initial calibration meet the curve fit acceptance criteria of ≥ 0.990?			✓	
Were all percent relative standard deviations (%RSD) ≤ 30% and relative response factors (RRF) ≥ 0.05?	✓	✓		
IV. Continuing calibration				
Was a continuing calibration standard analyzed at least once every 12 hours for each instrument?	✓			
Were all percent differences (%D) and relative response factors (RRF) within method criteria for all CCCs and SPCCs?	✓			
Were all percent differences (%D) ≤ 25% and relative response factors (RRF) ≥ 0.05?		✓		
V. Blanks				
Was a method blank associated with every sample in this SDG?	✓			
Was a method blank analyzed at least once every 12 hours for each matrix and concentration?	✓			
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.		✓		
VI. Surrogate spikes				
Were all surrogate %R within QC limits?	✓			
If the percent recovery (%R) for one or more surrogates was out of QC limits, was a reanalysis performed to confirm samples with %R outside of criteria?			✓	
VII. Matrix spike/Matrix spike duplicates				
Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD. Soil / Water.		✓		
Was a MS/MSD analyzed every 20 samples of each matrix?		✓		
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?			✓	
VIII. Laboratory control samples				
Was an LCS analyzed for this SDG?		✓		

LDC #: 14214 B1a
SDG #: E5I210383

VALIDATION FINDINGS CHECKLIST

Reviewer: JVG
2nd Reviewer: [illegible]

Validation Area	Yes	No	NA	Findings/Comments
Was an LCS analyzed per analytical batch?	✓			
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?		✓		
IX. Regional Quality Assurance and Quality Control				
Were performance evaluation (PE) samples performed?		✓		
Were the performance evaluation (PE) samples within the acceptance limits?			✓	
X. Internal standards				
Were internal standard area counts within -50% or +100% of the associated calibration standard?	✓			
Were retention times within ± 30 seconds of the associated calibration standard?	✓			
XI. Target compound identification				
Were relative retention times (RRT's) within ± 0.06 RRT units of the standard?	✓			
Did compound spectra meet specified EPA "Functional Guidelines" criteria?	✓			
Were chromatogram peaks verified and accounted for?		✓		
XII. Compound quantitation/CRQLs				
Were the correct internal standard (IS), quantitation ion and relative response factor (RRF) used to quantitate the compound?	✓			
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	✓			
XIII. Tentatively identified compounds (TICs)				
Were the major ions (> 10 percent relative intensity) in the reference spectrum evaluated in sample spectrum?			✓	
Were relative intensities of the major ions within ± 20% between the sample and the reference spectra?			✓	
Did the raw data indicate that the laboratory performed a library search for all required peaks in the chromatograms (samples and blanks)?		✓		
XIV. System performance				
System performance was found to be acceptable.	✓			
XV. Overall assessment of data				
Overall assessment of data was found to be acceptable.	✓			
XVI. Field duplicates				
Field duplicate pairs were identified in this SDG.	✓			
Target compounds were detected in the field duplicates.	✓			
XVII. Field blanks				
Field blanks were identified in this SDG.	✓			
Target compounds were detected in the field blanks.	✓			

TARGET COMPOUND WORKSHEET

METHOD: VOA (EPA SW 846 Method 8260B)

A. Chloromethane*	U. 1,1,2-Trichloroethane	OO. 2,2-Dichloropropane	III. n-Butylbenzene	CCCC.1-Chlorohexane
B. Bromomethane	V. Benzene	PP. Bromochloromethane	JJJ. 1,2-Dichlorobenzene	DDDD. Isopropyl alcohol
C. Vinyl choride**	W. trans-1,3-Dichloropropene	QQ. 1,1-Dichloropropene	KKK. 1,2,4-Trichlorobenzene	EEEE. Acetonitrile
D. Chloroethane	X. Bromoform*	RR. Dibromomethane	LLL. Hexachlorobutadiene	FFFF. Acrolein
E. Methylene chloride	Y. 4-Methyl-2-pentanone	SS. 1,3-Dichloropropane	MMM. Naphthalene	GGGG. Acrylonitrile
F. Acetone	Z. 2-Hexanone	TT. 1,2-Dibromoethane	NNN. 1,2,3-Trichlorobenzene	HHHH. 1,4-Dioxane
G. Carbon disulfide	AA. Tetrachloroethene	UU. 1,1,1,2-Tetrachloroethane	OOO. 1,3,5-Trichlorobenzene	IIII. Isobutyl alcohol
H. 1,1-Dichloroethene**	BB. 1,1,2,2-Tetrachloroethane*	VV. Isopropylbenzene	PPP. trans-1,2-Dichloroethene	JJJJ. Methacrylonitrile
I. 1,1-Dichloroethane*	CC. Toluene**	WW. Bromobenzene	QQQ. cis-1,2-Dichloroethene	KKKK. Propionitrile
J. 1,2-Dichloroethene, total	DD. Chlorobenzene*	XX. 1,2,3-Trichloropropane	RRR. m,p-Xylenes	LLLL. Tetrahydrofuran
K. Chloroform**	EE. Ethylbenzene**	YY. n-Propylbenzene	SSS. o-Xylene	MMMM.
L. 1,2-Dichloroethane	FF. Styrene	ZZ. 2-Chlorotoluene	TTT. 1,1,2-Trichloro-1,2,2-trifluoroethane	NNN.
M. 2-Butanone	GG. Xylenes, total	AAA. 1,3,5-Trimethylbenzene	UUU. 1,2-Dichlorotetrafluoroethane	OOOO.
N. 1,1,1-Trichloroethane	HH. Vinyl acetate	BBB. 4-Chlorotoluene	VVV. 4-Ethyltoluene	PPPP.
O. Carbon tetrachloride	II. 2-Chloroethylvinyl ether	CCC. tert-Butylbenzene	WWW. Ethanol	QQQQ.
P. Bromodichloromethane	JJ. Dichlorodifluoromethane	DDD. 1,2,4-Trimethylbenzene	XXX. Di-isopropyl ether	RRRR.
Q. 1,2-Dichloropropane**	KK. Trichlorofluoromethane	EEE. sec-Butylbenzene	YYY. tert-Butanol	SSSS.
R. cis-1,3-Dichloropropene	LL. Methyl-tert-butyl ether	FFF. 1,3-Dichlorobenzene	ZZZ. tert-Butyl alcohol	TTTT.
S. Trichloroethene	MM. 1,2-Dibromo-3-chloropropane	GGG. p-Isopropyltoluene	AAAA. Ethyl tert-butyl ether	UUUU.
T. Dibromochloromethane	NN. Methyl ethyl ketone	HHH. 1,4-Dichlorobenzene	BBBB. tert-Amyl methyl ether	VVVV.

* = System performance check compounds (SPCC) for RRF ; ** = Calibration check compounds (CCC) for %RSD.

COMPNDL.1sb.wpd

LDC #: 14214 B1a
SDG #: ~~E5~~ I210383

VALIDATION FINDINGS WORKSHEET
Initial Calibration

Page: 1 of 1
Reviewer: JVG
2nd Reviewer: [illegible]

METHOD: GC/MS VOA (EPA SW 846 Method 8260B)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y N N/A Did the laboratory perform a 5 point calibration prior to sample analysis?
Y N N/A Were percent relative standard deviations (%RSD) and relative response factors (RRF) within method criteria for all CCC's and SPCC's?
Y N N/A Was a curve fit used for evaluation? If yes, what was the acceptance criteria used for evaluation?_____
Y N N/A Did the initial calibration meet the acceptance criteria?
Y N N/A Were all %RSDs and RRFs within the validation criteria of ≤30 %RSD and ≥0.05 RRF ?

#	Date	Standard ID	Compound	Finding %RSD (Limit: ≤30.0%)	Finding RRF (Limit: ≥0.05)	Associated Samples	Qualifications
	9/21/05	ICAL	FFFF		0.02111	All + Blk	J/UJ/A
			F		0.02250		
			YYY		0.00543		
			GGGG		0.03397		
			M		0.04393		
			LLLL	36.470	0.03144		
			II		0.03826		
			~~HHH~~				

INICAL 1SB

LDC #: 14214 B1a
SDG #: E5I210383

VALIDATION FINDINGS WORKSHEET
Continuing Calibration

Page: 1 of 1
Reviewer: JVG
2nd Reviewer: [illegible]

METHOD: GC/MS VOA (EPA SW 846 Method 8260)
Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

(Y) N N/A Was a continuing calibration standard analyzed at least once every 12 hours for each instrument?
(Y) N N/A Were percent differences (%D) and relative response factors (RRF) within method criteria for all CCC's and SPCC's ?
Y (N) N/A Were all %D and RRFs within the validation criteria of ≤25 %D and ≥0.05 RRF ?

#	Date	Standard ID	Compound	Finding %D (Limit: ≤25.0%)	Finding RRF (Limit: ≥0.05)	Associated Samples	Qualifications
	9/21/05	Q 12721	B	33.08328		All + Blk	J/UJ/A
		(ICV)	HH	39.286		↓	↓
	9/23/05	QS 2769	D	25.46328		All + Blk	J/UJ/A
			F	25.87999			
			YYY	35.19012			
			FFFF		0.02486		
			F		0.02833		
			YYY		0.00734		
			GGGG		0.03883		
			M		0.04786		
			LLLL		0.02714		
			II		0.03906		

LDC #: 14214 B1a
SDG #: E5I210383

VALIDATION FINDINGS WORKSHEET
Laboratory Control Samples (LCS)

Page: 1 of 1
Reviewer: JVC
2nd Reviewer: [illegible]

METHOD: GC/MS VOA (EPA SW 846 Method 8260B)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y N N/A Was a LCS required?
Y N N/A Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?

#	Date	LCS/LCSD ID	Compound	LCS %R (Limits)	LCSD %R (Limits)	RPD (Limits)	Associated Samples	Qualifications
		5266561 LCS	B	157 (60-140)	( )	( )	All + Blk	J dets /P
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		

LCSLCSD.1SB

LDC #: 14214 B1a
SDG #: E512 10383

VALIDATION FINDINGS WORKSHEET
Field Duplicates

Page: 1 of 1
Reviewer: JVC
2nd reviewer: [illegible]

METHOD: GC/MS VOA (EPA SW 846 Method 8260)

Y N N/A Were field duplicate pairs identified in this SDG?
Y N N/A Were target compounds detected in the field duplicate pairs?

Compound	Concentration (ug/L)		RPD
	3	4	
PPP	0.45	0.42	7
QQQ	15	14	7
K	0.59	0.60	2
S	74	72	3

Compound	Concentration ( )		RPD

Compound	Concentration ( )		RPD

Compound	Concentration ( )		RPD

FLDUP4.1S

LDC #: 14214 B1a
SDG #: E51210383

VALIDATION FINDINGS WORKSHEET
Field Blanks

Page: 1 of 1
Reviewer: JVG
2nd reviewer: M

METHOD: GC/MS VOA (EPA SW 846 Method 8260B)

Y N N/A Were field blanks identified in this SDG?
Y N N/A Were target compounds detected in the field blanks?

Sample: 2 Field Blank / Trip Blank / Rinsate / Other _____ (circle one)

Compound	Concentration Units (ug/L)
P	5.2

Sample: _____ Field Blank / Trip Blank / Rinsate / Other_____ (circle one)

Compound	Concentration Units ( )

Sample: _____ Field Blank / Trip Blank / Rinsate / Other_____ (circle one)

Compound	Concentration Units ( )

FLDBLK.1SB

LDC #: 14214 B1a
SDG #: E5I210383

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Page: 1 of 1
Reviewer: JC
2nd Reviewer: DC

METHOD: GC/MS VOA (EPA SW 846 Method 8260B)

The Relative Response Factor (RRF), average RRF, and percent relative standard deviation (%RSD) were recalculated for the compounds identified below using the following calculations:

RRF = $(A_x)(C_{is})/(A_{is})(C_x)$
average RRF = sum of the RRFs/number of standards
%RSD = 100 * (S/X)

A_x = Area of compound,
C_x = Concentration of compound,
S = Standard deviation of the RRFs
X = Mean of the RRFs

A_{is} = Area of associated internal standard
C_{is} = Concentration of internal standard

#	Standard ID	Calibration Date	Compound (Reference Internal Standard)	Reported RRF (10 std)	Recalculated RRF (10 std)	Reported Average RRF (Initial)	Recalculated Average RRF (Initial)	Reported %RSD	Recalculated %RSD
1	LCAL	9/21/05	Methylene chloride (1st internal standard)	0.24039	0.24039	0.24407	0.24407	6.712	6.711
			~~Trichlorethene~~ EE (2nd internal standard)	2.0779	2.07790	2.08333	2.08333	2.225	2.225
			~~Toluene~~ 1,1,2,2-TCA (3rd internal standard)	0.38394	0.38394	0.44800	0.44800	11.885	11.886
2			Methylene chloride (1st internal standard)						
			Trichlorethene (2nd internal standard)						
			Toluene (3rd internal standard)						
3			Methylene chloride (1st internal standard)						
			Trichlorethene (2nd internal standard)						
			Toluene (3rd internal standard)						
4			Methylene chloride (1st internal standard)						
			Trichlorethene (2nd internal standard)						
			Toluene (3rd internal standard)						

Comments: Refer to Initial Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

INICLC.1SB

LDC #: 14214 B1a
SDG #: ~~E~~5I21083

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Results Verification

Page: 1 of 1
Reviewer: JVG
2nd Reviewer: K

METHOD: GC/MS VOA (EPA SW 846 Method 8260B)

The percent difference (%D) of the initial calibration average Relative Response Factors (RRFs) and the continuing calibration RRFs were recalculated for the compounds identified below using the following calculation:

% Difference = 100 * (ave. RRF - RRF)/ave. RRF
RRF = $(A_x)(C_{is})/(A_{is})(C_x)$

Where: ave. RRF = initial calibration average RRF
RRF = continuing calibration RRF
A_x = Area of compound, A_{is} = Area of associated internal standard
C_x = Concentration of compound, C_{is} = Concentration of internal standard

#	Standard ID	Calibration Date	Compound (Reference Internal Standard)	Average RRF (Initial)	Reported RRF (CC)	Recalculated RRF (CC)	Reported %D	Recalculated %D
1	QS2769	9/23/05	Methylene chloride (1st internal standard)	0.24407	0.28036	0.28036	14.87020	14.8679
			~~Trichlorethene~~ EE (2nd internal standard)	2.08333	2.08543	2.08543	0.10103	0.10088
			~~Toluene~~ BB (3rd internal standard)	0.44800	0.47052	0.47052	5.02847	5.0275
2			Methylene chloride (1st internal standard)					
			Trichlorethene (2nd internal standard)					
			Toluene (3rd internal standard)					
3			Methylene chloride (1st internal standard)					
			Trichlorethene (2nd internal standard)					
			Toluene (3rd internal standard)					
4			Methylene chloride (1st internal standard)					
			Trichlorethene (2nd internal standard)					
			Toluene (3rd internal standard)					

Comments: Refer to Continuing Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

CONCLC.1SB

LDC #: 14214 B1a
SDG #: ESI 210383

VALIDATION FINDINGS WORKSHEET
Surrogate Results Verification

Page: 1 of 1
Reviewer: JVC
2nd reviewer: R

METHOD: GC/MS VOA (EPA SW 846 Method 8260B)

The percent recoveries (%R) of surrogates were recalculated for the compounds identified below using the following calculation:

% Recovery: SF/SS * 100

Where: SF = Surrogate Found
SS = Surrogate Spiked

Sample ID: #4

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Toluene-d8	10	9.48069	95	95	0
Bromofluorobenzene	↓	~~8.73929.4869~~	87	87	↓
1,2-Dichloroethane-d4	↓	9.82118	98	98	↓
Dibromofluoromethane					

Sample ID:

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Toluene-d8					
Bromofluorobenzene					
1,2-Dichloroethane-d4					
Dibromofluoromethane					

Sample ID:

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Toluene-d8					
Bromofluorobenzene					
1,2-Dichloroethane-d4					
Dibromofluoromethane					

Sample ID:

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Toluene-d8					
Bromofluorobenzene					
1,2-Dichloroethane-d4					
Dibromofluoromethane					

Sample ID:

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Toluene-d8					
Bromofluorobenzene					
1,2-Dichloroethane-d4					
Dibromofluoromethane					

LDC #: 14214 B1a
SDG #: ESI 210383

VALIDATION FINDINGS WORKSHEET
Laboratory Control Sample Results Verification

Page: 1 of 1
Reviewer: DVG
2nd Reviewer: AC

METHOD: GC/MS VOA (EPA SW 846 Method 8260B)

The percent recoveries (%R) and Relative Percent Difference (RPD) of the laboratoy control sample and laboratory control sample duplicate (if applicable) were recalculated for the compounds identified below using the following calculation:

% Recovery = 100 * SSC/SA Where: SSC = Spiked sample concentration
SA = Spike added

RPD = I LCS - LCSD I * 2/(LCS + LCSD) LCS = Laboraotry control sample percent recovery LCSD = Laboratory control sample duplicate percent recovery

LCS ID: 5266561 LCS

Compound	Spike Added (ug/L)		Spiked Sample Concentration (ug/L)		LCS Percent Recovery		LCSD Percent Recovery		LCS/LCSD RPD	
	LCS	LCSD	LCS	LCSD	Reported	Recalc.	Reported	Recalc.	Reported	Recalculated
1,1-Dichloroethene	10	NA	12.0	NA	120	120				
Trichloroethene			8.88		89	89				
Benzene			9.57		96	96				
Toluene			9.39		94	94				
Chlorobenzene			8.86		89	89				

Comments: Refer to Laboratory Control Sample findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LCSCLC.1SB

LDC #: 14214 B1a
SDG #: E5I210383

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Page: 1 of 1
Reviewer: JR
2nd reviewer: K

METHOD: GC/MS VOA (EPA SW 846 Method 8260B)

Y N N/A Were all reported results recalculated and verified for all level IV samples?
Y N N/A Were all recalculated results for detected target compounds agree within 10.0% of the reported results?

$$\text{Concentration} = \frac{(A_x)(I_s)(DF)}{(A_{is})(RRF)(V_o)(\%S)}$$

A_x = Area of the characteristic ion (EICP) for the compound to be measured

A_{is} = Area of the characteristic ion (EICP) for the specific internal standard

I_s = Amount of Internal standard added in nanograms (ng)

RRF = Relative response factor of the calibration standard.

V_o = Volume or weight of sample pruged in milliliters (ml) or grams (g).

Df = Dilution factor.

%S = Percent solids, applicable to soils and solid matrices only.

Example:

Sample I.D. 4, QQQ:

Conc. = (132974)(10)( )
(309627)(0.3008)( )( )
= 14.2770
≈ 14.0 ug/L

#	Sample ID	Compound	Reported Concentration ( )	Calculated Concentration ( )	Qualification

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HALEY & ALDRICH

Letter of Transmittal

Date	8 December 2005
File Number	28882-610
From	Beth Breitenbach

To	Regional Water Quality Control Board – Los Angeles Region 320 W. 4th Street, Suite 200 Los Angeles, California 90013
Attention	Mrs. Ana Townsend
Subject	The Boeing Company's Former C-6 Facility

Copies	Date	Description
2	12/8/2005	Well Completion Report Groundwater Monitoring Wells MWG001, MWG002, MWG003, MWG004, and MWC009

Transmitted via £ First class mail S Overnight express £ Hand delivery £ Other

Remarks