APPENDIX C

SVE Closure Sample Laboratory Analytical Results and Data Validation Reports

EXECUTIVE SUMMARY - Detection Highlights

E2J170170

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
2_VEW_10B_AV101602_0001 10/16/02 12:57 001				
Methane	0.00024	0.00020	%(v/v)	ASTM D1946
Total Non-Methane Hydrocarbons	11	5.0	ppm(v/v)	EPA-21 TO-14A
Trichlorofluoromethane	0.013 J	0.020	ppm(v/v)	EPA-21 TO-14A
1,1-Dichloroethene	0.72	0.020	ppm(v/v)	EPA-21 TO-14A
Methylene chloride	0.017 J	0.020	ppm(v/v)	EPA-21 TO-14A
1,1-Dichloroethane	0.027	0.020	ppm(v/v)	EPA-21 TO-14A
cis-1,2-Dichloroethene	0.023	0.020	ppm(v/v)	EPA-21 TO-14A
Chloroform	1.5	0.020	ppm(v/v)	EPA-21 TO-14A
1,1,1-Trichloroethane	0.056	0.020	ppm(v/v)	EPA-21 TO-14A
Carbon tetrachloride	0.048	0.020	ppm(v/v)	EPA-21 TO-14A
Trichloroethene	3.9	0.020	ppm(v/v)	EPA-21 TO-14A
Tetrachloroethene	0.18	0.020	ppm(v/v)	EPA-21 TO-14A
Methyl tert-butyl ether (MTBE)	0.013 J	0.10	ppm(v/v)	EPA-21 TO-14A
2_VEW_15B_AV101602_0001 10/16/02 13:10 002				
Methane	0.00020	0.00020	%(v/v)	ASTM D1946
Total Non-Methane Hydrocarbons	10	3.1	ppm(v/v)	EPA-21 TO-14A
Dichlorodifluoromethane	0.036	0.012	ppm(v/v)	EPA-21 TO-14A
Trichlorofluoromethane	0.022	0.012	ppm(v/v)	EPA-21 TO-14A
1,1-Dichloroethene	0.44	0.012	ppm(v/v)	EPA-21 TO-14A
1,1,2-Trichloro-1,2,2-trifluoroethane	0.0034 J	0.012	ppm(v/v)	EPA-21 TO-14A
Acetone	0.012 J	0.062	ppm(v/v)	EPA-21 TO-14A
Methylene chloride	0.0071 J	0.012	ppm(v/v)	EPA-21 TO-14A
1,1-Dichloroethane	0.0092 J	0.012	ppm(v/v)	EPA-21 TO-14A
cis-1,2-Dichloroethene	0.0081 J	0.012	ppm(v/v)	EPA-21 TO-14A
Chloroform	0.32	0.012	ppm(v/v)	EPA-21 TO-14A
1,1,1-Trichloroethane	0.023	0.012	ppm(v/v)	EPA-21 TO-14A
Carbon tetrachloride	0.015	0.012	ppm(v/v)	EPA-21 TO-14A
Trichloroethene	2.7	0.012	ppm(v/v)	EPA-21 TO-14A
Toluene	0.0035 J	0.031	ppm(v/v)	EPA-21 TO-14A
Tetrachloroethene	0.11	0.012	ppm(v/v)	EPA-21 TO-14A
Methyl tert-butyl ether (MTBE)	0.016 J	0.062	ppm(v/v)	EPA-21 TO-14A
2_VEW_11B_AV101602_0001 10/16/02 13:20 003				
Methane	0.00023	0.00020	%(v/v)	ASTM D1946
Total Non-Methane Hydrocarbons	15	4.2	ppm(v/v)	EPA-21 TO-14A
Trichlorofluoromethane	0.051	0.017	ppm(v/v)	EPA-21 TO-14A
1,1-Dichloroethene	2.9	0.017	ppm(v/v)	EPA-21 TO-14A

(Continued on next page)

EXECUTIVE SUMMARY - Detection Highlights

E2J170170

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
2_VEW_11B_AV101602_0001 10/16/02 13:20 003				
1,1,2-Trichloro-1,2,2-trifluoroethane	0.010 J	0.017	ppm(v/v)	EPA-21 TO-14A
Methylene chloride	0.0074 J	0.017	ppm(v/v)	EPA-21 TO-14A
trans-1,2-Dichloroethene	0.013 J	0.017	ppm(v/v)	EPA-21 TO-14A
1,1-Dichloroethane	0.013 J	0.017	ppm(v/v)	EPA-21 TO-14A
cis-1,2-Dichloroethene	0.013 J	0.017	ppm(v/v)	EPA-21 TO-14A
Chloroform	0.058	0.017	ppm(v/v)	EPA-21 TO-14A
1,1,1-Trichloroethane	0.018	0.017	ppm(v/v)	EPA-21 TO-14A
Trichloroethene	3.5	0.017	ppm(v/v)	EPA-21 TO-14A
Toluene	0.010 J	0.042	ppm(v/v)	EPA-21 TO-14A
Tetrachloroethene	0.14	0.017	ppm(v/v)	EPA-21 TO-14A
Ethylbenzene	0.0090 J	0.017	ppm(v/v)	EPA-21 TO-14A
Xylenes (total)	0.066	0.017	ppm(v/v)	EPA-21 TO-14A
4-Ethyltoluene	0.065	0.017	ppm(v/v)	EPA-21 TO-14A
1,3,5-Trimethylbenzene	0.056	0.017	ppm(v/v)	EPA-21 TO-14A
1,2,4-Trimethylbenzene	0.12	0.017	ppm(v/v)	EPA-21 TO-14A
Methyl tert-butyl ether (MTBE)	0.017 J	0.083	ppm(v/v)	EPA-21 TO-14A
2_VEW_19_AV101602_0001 10/16/02 13:28 004				
Total Non-Methane Hydrocarbons	5.0	2.5	ppm(v/v)	EPA-21 TO-14A
Trichlorofluoromethane	0.075	0.010	ppm(v/v)	EPA-21 TO-14A
1,1-Dichloroethene	0.55	0.010	ppm(v/v)	EPA-21 TO-14A
1,1,2-Trichloro-1,2,2-trifluoroethane	0.0069 J	0.010	ppm(v/v)	EPA-21 TO-14A
Acetone	0.012 J	0.050	ppm(v/v)	EPA-21 TO-14A
1,1-Dichloroethane	0.033	0.010	ppm(v/v)	EPA-21 TO-14A
cis-1,2-Dichloroethene	0.0040 J	0.010	ppm(v/v)	EPA-21 TO-14A
Chloroform	0.027	0.010	ppm(v/v)	EPA-21 TO-14A
1,1,1-Trichloroethane	0.0063 J	0.010	ppm(v/v)	EPA-21 TO-14A
Trichloroethene	2.1	0.010	ppm(v/v)	EPA-21 TO-14A
Toluene	0.0030 J	0.025	ppm(v/v)	EPA-21 TO-14A
Tetrachloroethene	0.14	0.010	ppm(v/v)	EPA-21 TO-14A
Methyl tert-butyl ether (MTBE)	0.012 J	0.050	ppm(v/v)	EPA-21 TO-14A
2_VEW_9_AV101602_0001 10/16/02 13:40 005				
Methane	0.00011 J	0.00020	%(v/v)	ASTM D1946
Total Non-Methane Hydrocarbons	4.0	2.0	ppm(v/v)	EPA-21 TO-14A
Trichlorofluoromethane	0.034	0.0080	ppm(v/v)	EPA-21 TO-14A
1,1-Dichloroethene	0.24	0.0080	ppm(v/v)	EPA-21 TO-14A

(Continued on next page)

EXECUTIVE SUMMARY - Detection Highlights

E2J170170

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
2_VEW_9_AV101602_0001 10/16/02 13:40	**005**			
1,1,2-Trichloro-1,2,2-trifluoroethane	0.0031 J	0.0080	ppm(v/v)	EPA-21 TO-14A
1,1-Dichloroethane	0.030	0.0080	ppm(v/v)	EPA-21 TO-14A
cis-1,2-Dichloroethene	0.0056 J	0.0080	ppm(v/v)	EPA-21 TO-14A
Chloroform	0.021	0.0080	ppm(v/v)	EPA-21 TO-14A
1,1,1-Trichloroethane	0.0049 J	0.0080	ppm(v/v)	EPA-21 TO-14A
Trichloroethene	1.9	0.0080	ppm(v/v)	EPA-21 TO-14A
Toluene	0.0062 J	0.020	ppm(v/v)	EPA-21 TO-14A
Tetrachloroethene	0.057	0.0080	ppm(v/v)	EPA-21 TO-14A
Xylenes (total)	0.0045 J	0.0080	ppm(v/v)	EPA-21 TO-14A
Methyl tert-butyl ether (MTBE)	0.0095 J	0.040	ppm(v/v)	EPA-21 TO-14A
GAC0002U_AV101602_0001 10/16/02 16:12	**006**			
Methane	0.00021	0.00020	%(v/v)	ASTM D1946
Total Non-Methane Hydrocarbons	4.8	1.7	ppm(v/v)	EPA-21 TO-14A
Dichlorodifluoromethane	0.0032 J	0.0067	ppm(v/v)	EPA-21 TO-14A
Trichlorofluoromethane	0.019	0.0067	ppm(v/v)	EPA-21 TO-14A
1,1-Dichloroethene	0.39	0.0067	ppm(v/v)	EPA-21 TO-14A
1,1,2-Trichloro-1,2,2-trifluoroethane	0.0032 J	0.0067	ppm(v/v)	EPA-21 TO-14A
Acetone	0.0074 J	0.033	ppm(v/v)	EPA-21 TO-14A
Methylene chloride	0.0032 J	0.0067	ppm(v/v)	EPA-21 TO-14A
1,1-Dichloroethane	0.013	0.0067	ppm(v/v)	EPA-21 TO-14A
cis-1,2-Dichloroethene	0.0073	0.0067	ppm(v/v)	EPA-21 TO-14A
Chloroform	0.33	0.0067	ppm(v/v)	EPA-21 TO-14A
1,1,1-Trichloroethane	0.017	0.0067	ppm(v/v)	EPA-21 TO-14A
Carbon tetrachloride	0.014	0.0067	ppm(v/v)	EPA-21 TO-14A
Benzene	0.0032 J	0.0067	ppm(v/v)	EPA-21 TO-14A
Trichloroethene	1.7	0.0067	ppm(v/v)	EPA-21 TO-14A
Toluene	0.0087 J	0.017	ppm(v/v)	EPA-21 TO-14A
Tetrachloroethene	0.10	0.0067	ppm(v/v)	EPA-21 TO-14A
Ethylbenzene	0.0019 J	0.0067	ppm(v/v)	EPA-21 TO-14A
Xylenes (total)	0.0093	0.0067	ppm(v/v)	EPA-21 TO-14A
4-Ethyltoluene	0.0026 J	0.0067	ppm(v/v)	EPA-21 TO-14A
1,2,4-Trimethylbenzene	0.0023 J	0.0067	ppm(v/v)	EPA-21 TO-14A
Methyl tert-butyl ether (MTBE)	0.011 J	0.033	ppm(v/v)	EPA-21 TO-14A

METHODS SUMMARY

E2J170170

PARAMETER	ANALYTICAL METHOD	PREPARATION METHOD
Fixed Gases	ASTM D1946	ASTM D1946
Volatile Organics by TO-14A	EPA-21 TO-14A	

References:

ASTM Annual Book Of ASTM Standards.

EPA-21 "Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air", Second Edition, EPA/625/R-96/010b, January 1999

SAMPLE SUMMARY

E2J170170

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
E97GV	001	2_VEW_10B_AV101602_0001	10/16/02	12:57
E97G6	002	2_VEW_15B_AV101602_0001	10/16/02	13:10
E97G9	003	2_VEW_11B_AV101602_0001	10/16/02	13:20
E97HH	004	2_VEW_19_AV101602_0001	10/16/02	13:28
E97HL	005	2_VEW_9_AV101602_0001	10/16/02	13:40
E97HR	006	GAC0002U_AV101602_0001	10/16/02	16:12

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

HALEY & ALDRICH INC

Client Sample ID: 2_VEW_10B_AV101602_0001

GC/MS Volatiles

Lot-Sample #...: E2J170170-001 Work Order #...: E97GV1AA Matrix.....: AA
Date Sampled...: 10/16/02 12:57 Date Received..: 10/16/02 19:00 MS Run #.....:
Prep Date.....: 10/17/02 Analysis Date..: 10/17/02
Prep Batch #...: 2291281 Analysis Time..: 14:47
Dilution Factor: 10
Analyst ID.....: 117751 Instrument ID..: MSB
Method.....: EPA-21 TO-14A

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Total Non-Methane Hydrocarbons as Hexane	**11**	**5.0**	**ppm(v/v)**	**1.0**
Dichlorodifluoromethane	ND	0.020	ppm(v/v)	0.0050
Chloromethane	ND	0.040	ppm(v/v)	0.010
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	0.020	ppm(v/v)	0.0080
Vinyl chloride	ND	0.020	ppm(v/v)	0.0080
Bromomethane	ND	0.020	ppm(v/v)	0.010
Chloroethane	ND	0.040	ppm(v/v)	0.0080
Trichlorofluoromethane	**0.013 J**	**0.020**	**ppm(v/v)**	**0.0050**
1,1-Dichloroethene	**0.72**	**0.020**	**ppm(v/v)**	**0.0050**
Carbon disulfide	ND	0.10	ppm(v/v)	0.020
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	0.020	ppm(v/v)	0.0050
Acetone	ND	0.10	ppm(v/v)	0.020
Methylene chloride	**0.017 J**	**0.020**	**ppm(v/v)**	**0.0080**
trans-1,2-Dichloroethene	ND	0.020	ppm(v/v)	0.0050
1,1-Dichloroethane	**0.027**	**0.020**	**ppm(v/v)**	**0.0050**
Vinyl acetate	ND	0.10	ppm(v/v)	0.020
cis-1,2-Dichloroethene	**0.023**	**0.020**	**ppm(v/v)**	**0.0080**
2-Butanone (MEK)	ND	0.10	ppm(v/v)	0.020
Chloroform	**1.5**	**0.020**	**ppm(v/v)**	**0.0080**
1,1,1-Trichloroethane	**0.056**	**0.020**	**ppm(v/v)**	**0.0050**
Carbon tetrachloride	**0.048**	**0.020**	**ppm(v/v)**	**0.0050**
Benzene	ND	0.020	ppm(v/v)	0.0080
1,2-Dichloroethane	ND	0.020	ppm(v/v)	0.0080
Trichloroethene	**3.9**	**0.020**	**ppm(v/v)**	**0.0060**
1,2-Dichloropropane	ND	0.020	ppm(v/v)	0.0080
Bromodichloromethane	ND	0.020	ppm(v/v)	0.0080
cis-1,3-Dichloropropene	ND	0.020	ppm(v/v)	0.0050
4-Methyl-2-pentanone (MIBK)	ND	0.10	ppm(v/v)	0.020
Toluene	ND	0.050	ppm(v/v)	0.0050
trans-1,3-Dichloropropene	ND	0.020	ppm(v/v)	0.0080
1,1,2-Trichloroethane	ND	0.020	ppm(v/v)	0.0060
Tetrachloroethene	**0.18**	**0.020**	**ppm(v/v)**	**0.0050**
2-Hexanone	ND	0.30	ppm(v/v)	0.010

(Continued on next page)

HALEY & ALDRICH INC

Client Sample ID: 2_VEW_10B_AV101602_0001

GC/MS Volatiles

Lot-Sample #...: E2J170170-001 **Work Order #...:** E97GV1AA **Matrix.....:** AA

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Dibromochloromethane	ND	0.020	ppm(v/v)	0.0050
1,2-Dibromoethane (EDB)	ND	0.020	ppm(v/v)	0.0050
Chlorobenzene	ND	0.020	ppm(v/v)	0.0050
Ethylbenzene	ND	0.020	ppm(v/v)	0.0050
Xylenes (total)	ND	0.020	ppm(v/v)	0.0080
Styrene	ND	0.020	ppm(v/v)	0.0060
Bromoform	ND	0.020	ppm(v/v)	0.0050
1,1,2,2-Tetrachloroethane	ND	0.020	ppm(v/v)	0.0050
Benzyl chloride	ND	0.10	ppm(v/v)	0.0080
4-Ethyltoluene	ND	0.020	ppm(v/v)	0.0070
1,3,5-Trimethylbenzene	ND	0.020	ppm(v/v)	0.0080
1,2,4-Trimethylbenzene	ND	0.020	ppm(v/v)	0.0050
1,3-Dichlorobenzene	ND	0.020	ppm(v/v)	0.0060
1,4-Dichlorobenzene	ND	0.020	ppm(v/v)	0.0080
1,2-Dichlorobenzene	ND	0.020	ppm(v/v)	0.0080
1,2,4-Trichloro-benzene	ND	0.20	ppm(v/v)	0.0060
Hexachlorobutadiene	ND	0.040	ppm(v/v)	0.010
Methyl tert-butyl ether (MTBE)	**0.013 J**	**0.10**	**ppm(v/v)**	**0.0050**

NOTE(S):

J Estimated result. Result is less than RL.

HALEY & ALDRICH INC

2_VEW_10B_AV101602_0001

GC/MS Volatiles

Lot-Sample #: E2J170170-001 **Work Order #:** E97GV1AA **Matrix:** AA

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT	RETENTION TIME	UNITS
None				ppm(v/v)

HALEY & ALDRICH INC

Client Sample ID: 2_VEW_10B_AV101602_0001

GC Volatiles

Lot-Sample #...:	E2J170170-001	Work Order #...:	E97GV1AC	Matrix.....:	AA
Date Sampled...:	10/16/02 12:57	Date Received..:	10/16/02 19:00	MS Run #.....:	
Prep Date.....:	10/18/02	Analysis Date..:	10/18/02		
Prep Batch #...:	2291461	Analysis Time..:	14:21		
Dilution Factor:	1				
Analyst ID.....:	101605	Instrument ID..:	GC3		
		Method.....:	ASTM D1946		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Methane	0.00024	0.00020	%(v/v)	0.000080

HALEY & ALDRICH INC

Client Sample ID: 2_VEW_15B_AV101602_0001

GC/MS Volatiles

Lot-Sample #...: E2J170170-002 Work Order #...: E97G61AA Matrix.....: AA
Date Sampled...: 10/16/02 13:10 Date Received..: 10/16/02 19:00 MS Run #.....:
Prep Date.....: 10/17/02 Analysis Date..: 10/17/02
Prep Batch #...: 2291281 Analysis Time..: 15:20
Dilution Factor: 6.25
Analyst ID.....: 117751 Instrument ID..: MSB
Method.....: EPA-21 TO-14A

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Total Non-Methane Hydrocarbons as Hexane	**10**	**3.1**	**ppm(v/v)**	**0.62**
Dichlorodifluoromethane	**0.036**	**0.012**	**ppm(v/v)**	**0.0031**
Chloromethane	ND	0.025	ppm(v/v)	0.0062
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	0.012	ppm(v/v)	0.0050
Vinyl chloride	ND	0.012	ppm(v/v)	0.0050
Bromomethane	ND	0.012	ppm(v/v)	0.0062
Chloroethane	ND	0.025	ppm(v/v)	0.0050
Trichlorofluoromethane	**0.022**	**0.012**	**ppm(v/v)**	**0.0031**
1,1-Dichloroethene	**0.44**	**0.012**	**ppm(v/v)**	**0.0031**
Carbon disulfide	ND	0.062	ppm(v/v)	0.012
1,1,2-Trichloro-1,2,2-trifluoroethane	**0.0034 J**	**0.012**	**ppm(v/v)**	**0.0031**
Acetone	**0.012 J**	**0.062**	**ppm(v/v)**	**0.012**
Methylene chloride	**0.0071 J**	**0.012**	**ppm(v/v)**	**0.0050**
trans-1,2-Dichloroethene	ND	0.012	ppm(v/v)	0.0031
1,1-Dichloroethane	**0.0092 J**	**0.012**	**ppm(v/v)**	**0.0031**
Vinyl acetate	ND	0.062	ppm(v/v)	0.012
cis-1,2-Dichloroethene	**0.0081 J**	**0.012**	**ppm(v/v)**	**0.0050**
2-Butanone (MEK)	ND	0.062	ppm(v/v)	0.012
Chloroform	**0.32**	**0.012**	**ppm(v/v)**	**0.0050**
1,1,1-Trichloroethane	**0.023**	**0.012**	**ppm(v/v)**	**0.0031**
Carbon tetrachloride	**0.015**	**0.012**	**ppm(v/v)**	**0.0031**
Benzene	ND	0.012	ppm(v/v)	0.0050
1,2-Dichloroethane	ND	0.012	ppm(v/v)	0.0050
Trichloroethene	**2.7**	**0.012**	**ppm(v/v)**	**0.0038**
1,2-Dichloropropane	ND	0.012	ppm(v/v)	0.0050
Bromodichloromethane	ND	0.012	ppm(v/v)	0.0050
cis-1,3-Dichloropropene	ND	0.012	ppm(v/v)	0.0031
4-Methyl-2-pentanone (MIBK)	ND	0.062	ppm(v/v)	0.012
Toluene	**0.0035 J**	**0.031**	**ppm(v/v)**	**0.0031**
trans-1,3-Dichloropropene	ND	0.012	ppm(v/v)	0.0050
1,1,2-Trichloroethane	ND	0.012	ppm(v/v)	0.0038
Tetrachloroethene	**0.11**	**0.012**	**ppm(v/v)**	**0.0031**
2-Hexanone	ND	0.19	ppm(v/v)	0.0062

(Continued on next page)

HALEY & ALDRICH INC

Client Sample ID: 2_VEW_15B_AV101602_0001

GC/MS Volatiles

Lot-Sample #...: E2J170170-002 **Work Order #...:** E97G61AA **Matrix.....:** AA

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Dibromochloromethane	ND	0.012	ppm(v/v)	0.0031
1,2-Dibromoethane (EDB)	ND	0.012	ppm(v/v)	0.0031
Chlorobenzene	ND	0.012	ppm(v/v)	0.0031
Ethylbenzene	ND	0.012	ppm(v/v)	0.0031
Xylenes (total)	ND	0.012	ppm(v/v)	0.0050
Styrene	ND	0.012	ppm(v/v)	0.0038
Bromoform	ND	0.012	ppm(v/v)	0.0031
1,1,2,2-Tetrachloroethane	ND	0.012	ppm(v/v)	0.0031
Benzyl chloride	ND	0.062	ppm(v/v)	0.0050
4-Ethyltoluene	ND	0.012	ppm(v/v)	0.0044
1,3,5-Trimethylbenzene	ND	0.012	ppm(v/v)	0.0050
1,2,4-Trimethylbenzene	ND	0.012	ppm(v/v)	0.0031
1,3-Dichlorobenzene	ND	0.012	ppm(v/v)	0.0038
1,4-Dichlorobenzene	ND	0.012	ppm(v/v)	0.0050
1,2-Dichlorobenzene	ND	0.012	ppm(v/v)	0.0050
1,2,4-Trichloro-benzene	ND	0.12	ppm(v/v)	0.0038
Hexachlorobutadiene	ND	0.025	ppm(v/v)	0.0062
Methyl tert-butyl ether (MTBE)	**0.016 J**	**0.062**	**ppm(v/v)**	**0.0031**

NOTE(S):

J Estimated result. Result is less than RL.

HALEY & ALDRICH INC

2_VEW_15B_AV101602_0001

GC/MS Volatiles

Lot-Sample #: E2J170170-002 **Work Order #:** E97G61AA **Matrix:** AA

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT		RETENTION TIME	UNITS
butane	106-97-8	0.072	M	2.6223	ppm(v/v)
butane, 2-methyl-	78-78-4	0.83	M	3.4798	ppm(v/v)
unknown branched alkane		0.050	M	7.6048	ppm(v/v)
unknown branched alkane		0.13	M	9.1844	ppm(v/v)
unknown branched alkane		0.24	M	9.6176	ppm(v/v)
cyclohexane, methyl-	108-87-2	0.061	M	10.926	ppm(v/v)

NOTE(S):

M: Result was measured against nearest internal standard assuming a response factor of 1.

HALEY & ALDRICH INC

Client Sample ID: 2_VEW_15B_AV101602_0001

GC Volatiles

Lot-Sample #...:	E2J170170-002	Work Order #...:	E97G61AC	Matrix.....:	AA
Date Sampled...:	10/16/02 13:10	Date Received..:	10/16/02 19:00	MS Run #.....:	
Prep Date.....:	10/18/02	Analysis Date..:	10/18/02		
Prep Batch #...:	2291461	Analysis Time..:	14:46		
Dilution Factor:	1				
Analyst ID.....:	101605	Instrument ID..:	GC3		
		Method.....:	ASTM D1946		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Methane	0.00020	0.00020	%(v/v)	0.000080

HALEY & ALDRICH INC

Client Sample ID: 2_VEW_11B_AV101602_0001

GC/MS Volatiles

Lot-Sample #...:	E2J170170-003	**Work Order #...:**	E97G91AA	**Matrix.....:**	AA
Date Sampled...:	10/16/02 13:20	**Date Received..:**	10/16/02 19:00	**MS Run #.....:**	
Prep Date.....:	10/17/02	**Analysis Date..:**	10/17/02		
Prep Batch #...:	2291281	**Analysis Time..:**	16:01		
Dilution Factor:	8.33				
Analyst ID.....:	117751	**Instrument ID..:**	MSB		
		Method.....:	EPA-21 TO-14A		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Total Non-Methane Hydrocarbons as Hexane	**15**	**4.2**	**ppm(v/v)**	**0.83**
Dichlorodifluoromethane	ND	0.017	ppm(v/v)	0.0042
Chloromethane	ND	0.033	ppm(v/v)	0.0083
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	0.017	ppm(v/v)	0.0067
Vinyl chloride	ND	0.017	ppm(v/v)	0.0067
Bromomethane	ND	0.017	ppm(v/v)	0.0083
Chloroethane	ND	0.033	ppm(v/v)	0.0067
Trichlorofluoromethane	**0.051**	**0.017**	**ppm(v/v)**	**0.0042**
1,1-Dichloroethene	**2.9**	**0.017**	**ppm(v/v)**	**0.0042**
Carbon disulfide	ND	0.083	ppm(v/v)	0.017
1,1,2-Trichloro-1,2,2-trifluoroethane	**0.010 J**	**0.017**	**ppm(v/v)**	**0.0042**
Acetone	ND	0.083	ppm(v/v)	0.017
Methylene chloride	**0.0074 J**	**0.017**	**ppm(v/v)**	**0.0067**
trans-1,2-Dichloroethene	**0.013 J**	**0.017**	**ppm(v/v)**	**0.0042**
1,1-Dichloroethane	**0.013 J**	**0.017**	**ppm(v/v)**	**0.0042**
Vinyl acetate	ND	0.083	ppm(v/v)	0.017
cis-1,2-Dichloroethene	**0.013 J**	**0.017**	**ppm(v/v)**	**0.0067**
2-Butanone (MEK)	ND	0.083	ppm(v/v)	0.017
Chloroform	**0.058**	**0.017**	**ppm(v/v)**	**0.0067**
1,1,1-Trichloroethane	**0.018**	**0.017**	**ppm(v/v)**	**0.0042**
Carbon tetrachloride	ND	0.017	ppm(v/v)	0.0042
Benzene	ND	0.017	ppm(v/v)	0.0067
1,2-Dichloroethane	ND	0.017	ppm(v/v)	0.0067
Trichloroethene	**3.5**	**0.017**	**ppm(v/v)**	**0.0050**
1,2-Dichloropropane	ND	0.017	ppm(v/v)	0.0067
Bromodichloromethane	ND	0.017	ppm(v/v)	0.0067
cis-1,3-Dichloropropene	ND	0.017	ppm(v/v)	0.0042
4-Methyl-2-pentanone (MIBK)	ND	0.083	ppm(v/v)	0.017
Toluene	**0.010 J**	**0.042**	**ppm(v/v)**	**0.0042**
trans-1,3-Dichloropropene	ND	0.017	ppm(v/v)	0.0067
1,1,2-Trichloroethane	ND	0.017	ppm(v/v)	0.0050
Tetrachloroethene	**0.14**	**0.017**	**ppm(v/v)**	**0.0042**
2-Hexanone	ND	0.25	ppm(v/v)	0.0083

(Continued on next page)

HALEY & ALDRICH INC

Client Sample ID: 2_VEW_11B_AV101602_0001

GC/MS Volatiles

Lot-Sample #...: E2J170170-003 Work Order #...: E97G91AA Matrix.....: AA

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Dibromochloromethane	ND	0.017	ppm(v/v)	0.0042
1,2-Dibromoethane (EDB)	ND	0.017	ppm(v/v)	0.0042
Chlorobenzene	ND	0.017	ppm(v/v)	0.0042
Ethylbenzene	**0.0090 J**	**0.017**	**ppm(v/v)**	**0.0042**
Xylenes (total)	**0.066**	**0.017**	**ppm(v/v)**	**0.0067**
Styrene	ND	0.017	ppm(v/v)	0.0050
Bromoform	ND	0.017	ppm(v/v)	0.0042
1,1,2,2-Tetrachloroethane	ND	0.017	ppm(v/v)	0.0042
Benzyl chloride	ND	0.083	ppm(v/v)	0.0067
4-Ethyltoluene	**0.065**	**0.017**	**ppm(v/v)**	**0.0058**
1,3,5-Trimethylbenzene	**0.056**	**0.017**	**ppm(v/v)**	**0.0067**
1,2,4-Trimethylbenzene	**0.12**	**0.017**	**ppm(v/v)**	**0.0042**
1,3-Dichlorobenzene	ND	0.017	ppm(v/v)	0.0050
1,4-Dichlorobenzene	ND	0.017	ppm(v/v)	0.0067
1,2-Dichlorobenzene	ND	0.017	ppm(v/v)	0.0067
1,2,4-Trichloro-benzene	ND	0.17	ppm(v/v)	0.0050
Hexachlorobutadiene	ND	0.033	ppm(v/v)	0.0083
Methyl tert-butyl ether (MTBE)	**0.017 J**	**0.083**	**ppm(v/v)**	**0.0042**

NOTE(S):

J Estimated result. Result is less than RL.

HALEY & ALDRICH INC

2_VEW_11B_AV101602_0001

GC/MS Volatiles

Lot-Sample #: E2J170170-003 Work Order #: E97G91AA Matrix: AA

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT		RETENTION TIME	UNITS
unknown cycloalkane		0.083	M	14.537	ppm(v/v)
unknown cycloalkane		0.16	M	16.937	ppm(v/v)
unknown cycloalkane		0.15	M	17.154	ppm(v/v)
unknown branched alkane		0.12	M	19.158	ppm(v/v)
unknown cycloalkane		0.11	M	19.763	ppm(v/v)
unknown aromatic		0.13	M	20.692	ppm(v/v)
undecane	1120-21-4	0.16	M	20.945	ppm(v/v)
unknown aromatic		0.11	M	21.279	ppm(v/v)
unknown aromatic		0.092	M	22.66	ppm(v/v)

NOTE(S):

M: Result was measured against nearest internal standard assuming a response factor of 1.

HALEY & ALDRICH INC

Client Sample ID: 2_VEW_11B_AV101602_0001

GC Volatiles

Lot-Sample #...:	E2J170170-003	Work Order #...:	E97G91AC	Matrix.....:	AA
Date Sampled...:	10/16/02 13:20	Date Received..:	10/16/02 19:00	MS Run #.....:	
Prep Date.....:	10/18/02	Analysis Date..:	10/18/02		
Prep Batch #...:	2291461	Analysis Time..:	15:12		
Dilution Factor:	1				
Analyst ID.....:	101605	Instrument ID..:	GC3		
		Method.....:	ASTM D1946		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Methane	0.00023	0.00020	%(v/v)	0.000080

HALEY & ALDRICH INC

Client Sample ID: 2_VEW_19_AV101602_0001

GC/MS Volatiles

Lot-Sample #...: E2J170170-004 Work Order #...: E97HH1AA Matrix.....: AA
Date Sampled...: 10/16/02 13:28 Date Received..: 10/16/02 19:00 MS Run #.....:
Prep Date.....: 10/17/02 Analysis Date..: 10/17/02
Prep Batch #...: 2291281 Analysis Time..: 16:36
Dilution Factor: 5
Analyst ID.....: 117751 Instrument ID..: MSB
Method.....: EPA-21 TO-14A

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Total Non-Methane Hydrocarbons as Hexane	**5.0**	**2.5**	**ppm(v/v)**	**0.50**
Dichlorodifluoromethane	ND	0.010	ppm(v/v)	0.0025
Chloromethane	ND	0.020	ppm(v/v)	0.0050
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	0.010	ppm(v/v)	0.0040
Vinyl chloride	ND	0.010	ppm(v/v)	0.0040
Bromomethane	ND	0.010	ppm(v/v)	0.0050
Chloroethane	ND	0.020	ppm(v/v)	0.0040
Trichlorofluoromethane	**0.075**	**0.010**	**ppm(v/v)**	**0.0025**
1,1-Dichloroethene	**0.55**	**0.010**	**ppm(v/v)**	**0.0025**
Carbon disulfide	ND	0.050	ppm(v/v)	0.010
1,1,2-Trichloro-1,2,2-trifluoroethane	**0.0069 J**	**0.010**	**ppm(v/v)**	**0.0025**
Acetone	**0.012 J**	**0.050**	**ppm(v/v)**	**0.010**
Methylene chloride	ND	0.010	ppm(v/v)	0.0040
trans-1,2-Dichloroethene	ND	0.010	ppm(v/v)	0.0025
1,1-Dichloroethane	**0.033**	**0.010**	**ppm(v/v)**	**0.0025**
Vinyl acetate	ND	0.050	ppm(v/v)	0.010
cis-1,2-Dichloroethene	**0.0040 J**	**0.010**	**ppm(v/v)**	**0.0040**
2-Butanone (MEK)	ND	0.050	ppm(v/v)	0.010
Chloroform	**0.027**	**0.010**	**ppm(v/v)**	**0.0040**
1,1,1-Trichloroethane	**0.0063 J**	**0.010**	**ppm(v/v)**	**0.0025**
Carbon tetrachloride	ND	0.010	ppm(v/v)	0.0025
Benzene	ND	0.010	ppm(v/v)	0.0040
1,2-Dichloroethane	ND	0.010	ppm(v/v)	0.0040
Trichloroethene	**2.1**	**0.010**	**ppm(v/v)**	**0.0030**
1,2-Dichloropropane	ND	0.010	ppm(v/v)	0.0040
Bromodichloromethane	ND	0.010	ppm(v/v)	0.0040
cis-1,3-Dichloropropene	ND	0.010	ppm(v/v)	0.0025
4-Methyl-2-pentanone (MIBK)	ND	0.050	ppm(v/v)	0.010
Toluene	**0.0030 J**	**0.025**	**ppm(v/v)**	**0.0025**
trans-1,3-Dichloropropene	ND	0.010	ppm(v/v)	0.0040
1,1,2-Trichloroethane	ND	0.010	ppm(v/v)	0.0030
Tetrachloroethene	**0.14**	**0.010**	**ppm(v/v)**	**0.0025**
2-Hexanone	ND	0.15	ppm(v/v)	0.0050

(Continued on next page)

HALEY & ALDRICH INC

Client Sample ID: 2_VEW_19_AV101602_0001

GC/MS Volatiles

Lot-Sample #...: E2J170170-004 **Work Order #...:** E97HH1AA **Matrix.....:** AA

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Dibromochloromethane	ND	0.010	ppm(v/v)	0.0025
1,2-Dibromoethane (EDB)	ND	0.010	ppm(v/v)	0.0025
Chlorobenzene	ND	0.010	ppm(v/v)	0.0025
Ethylbenzene	ND	0.010	ppm(v/v)	0.0025
Xylenes (total)	ND	0.010	ppm(v/v)	0.0040
Styrene	ND	0.010	ppm(v/v)	0.0030
Bromoform	ND	0.010	ppm(v/v)	0.0025
1,1,2,2-Tetrachloroethane	ND	0.010	ppm(v/v)	0.0025
Benzyl chloride	ND	0.050	ppm(v/v)	0.0040
4-Ethyltoluene	ND	0.010	ppm(v/v)	0.0035
1,3,5-Trimethylbenzene	ND	0.010	ppm(v/v)	0.0040
1,2,4-Trimethylbenzene	ND	0.010	ppm(v/v)	0.0025
1,3-Dichlorobenzene	ND	0.010	ppm(v/v)	0.0030
1,4-Dichlorobenzene	ND	0.010	ppm(v/v)	0.0040
1,2-Dichlorobenzene	ND	0.010	ppm(v/v)	0.0040
1,2,4-Trichloro-benzene	ND	0.10	ppm(v/v)	0.0030
Hexachlorobutadiene	ND	0.020	ppm(v/v)	0.0050
Methyl tert-butyl ether (MTBE)	**0.012 J**	**0.050**	**ppm(v/v)**	**0.0025**

NOTE(S):

J Estimated result. Result is less than RL.

HALEY & ALDRICH INC

2_VEW_19_AV101602_0001

GC/MS Volatiles

Lot-Sample #: E2J170170-004 Work Order #: E97HH1AA Matrix: AA

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT	RETENTION TIME	UNITS
None				ppm(v/v)

HALEY & ALDRICH INC

Client Sample ID: 2_VEW_19_AV101602_0001

GC Volatiles

Lot-Sample #...:	E2J170170-004	**Work Order #...:**	E97HH1AC	**Matrix.....:**	AA
Date Sampled...:	10/16/02 13:28	**Date Received..:**	10/16/02 19:00	**MS Run #.....:**	
Prep Date.....:	10/18/02	**Analysis Date..:**	10/18/02		
Prep Batch #...:	2291461	**Analysis Time..:**	12:15		
Dilution Factor:	1				
Analyst ID.....:	101605	**Instrument ID..:**	GC3		
		Method.....:	ASTM D1946		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Methane	ND	0.00020	%(v/v)	0.000080

HALEY & ALDRICH INC

Client Sample ID: 2_VEW_9_AV101602_0001

GC/MS Volatiles

Lot-Sample #...:	E2J170170-005	Work Order #...:	E97HL1AA	Matrix.....:	AA
Date Sampled...:	10/16/02 13:40	Date Received..:	10/16/02 19:00	MS Run #.....:	
Prep Date.....:	10/17/02	Analysis Date..:	10/17/02		
Prep Batch #...:	2291281	Analysis Time..:	17:09		
Dilution Factor:	4				
Analyst ID.....:	117751	Instrument ID..:	MSB		
		Method.....:	EPA-21 TO-14A		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Total Non-Methane Hydrocarbons as Hexane	**4.0**	**2.0**	**ppm(v/v)**	**0.40**
Dichlorodifluoromethane	ND	0.0080	ppm(v/v)	0.0020
Chloromethane	ND	0.016	ppm(v/v)	0.0040
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	0.0080	ppm(v/v)	0.0032
Vinyl chloride	ND	0.0080	ppm(v/v)	0.0032
Bromomethane	ND	0.0080	ppm(v/v)	0.0040
Chloroethane	ND	0.016	ppm(v/v)	0.0032
Trichlorofluoromethane	**0.034**	**0.0080**	**ppm(v/v)**	**0.0020**
1,1-Dichloroethene	**0.24**	**0.0080**	**ppm(v/v)**	**0.0020**
Carbon disulfide	ND	0.040	ppm(v/v)	0.0080
1,1,2-Trichloro-1,2,2-trifluoroethane	**0.0031 J**	**0.0080**	**ppm(v/v)**	**0.0020**
Acetone	ND	0.040	ppm(v/v)	0.0080
Methylene chloride	ND	0.0080	ppm(v/v)	0.0032
trans-1,2-Dichloroethene	ND	0.0080	ppm(v/v)	0.0020
1,1-Dichloroethane	**0.030**	**0.0080**	**ppm(v/v)**	**0.0020**
Vinyl acetate	ND	0.040	ppm(v/v)	0.0080
cis-1,2-Dichloroethene	**0.0056 J**	**0.0080**	**ppm(v/v)**	**0.0032**
2-Butanone (MEK)	ND	0.040	ppm(v/v)	0.0080
Chloroform	**0.021**	**0.0080**	**ppm(v/v)**	**0.0032**
1,1,1-Trichloroethane	**0.0049 J**	**0.0080**	**ppm(v/v)**	**0.0020**
Carbon tetrachloride	ND	0.0080	ppm(v/v)	0.0020
Benzene	ND	0.0080	ppm(v/v)	0.0032
1,2-Dichloroethane	ND	0.0080	ppm(v/v)	0.0032
Trichloroethene	**1.9**	**0.0080**	**ppm(v/v)**	**0.0024**
1,2-Dichloropropane	ND	0.0080	ppm(v/v)	0.0032
Bromodichloromethane	ND	0.0080	ppm(v/v)	0.0032
cis-1,3-Dichloropropene	ND	0.0080	ppm(v/v)	0.0020
4-Methyl-2-pentanone (MIBK)	ND	0.040	ppm(v/v)	0.0080
Toluene	**0.0062 J**	**0.020**	**ppm(v/v)**	**0.0020**
trans-1,3-Dichloropropene	ND	0.0080	ppm(v/v)	0.0032
1,1,2-Trichloroethane	ND	0.0080	ppm(v/v)	0.0024
Tetrachloroethene	**0.057**	**0.0080**	**ppm(v/v)**	**0.0020**
2-Hexanone	ND	0.12	ppm(v/v)	0.0040

(Continued on next page)

HALEY & ALDRICH INC

Client Sample ID: 2_VEW_9_AV101602_0001

GC/MS Volatiles

Lot-Sample #...: E2J170170-005 **Work Order #...:** E97HL1AA **Matrix.....:** AA

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Dibromochloromethane	ND	0.0080	ppm(v/v)	0.0020
1,2-Dibromoethane (EDB)	ND	0.0080	ppm(v/v)	0.0020
Chlorobenzene	ND	0.0080	ppm(v/v)	0.0020
Ethylbenzene	ND	0.0080	ppm(v/v)	0.0020
Xylenes (total)	**0.0045 J**	**0.0080**	**ppm(v/v)**	**0.0032**
Styrene	ND	0.0080	ppm(v/v)	0.0024
Bromoform	ND	0.0080	ppm(v/v)	0.0020
1,1,2,2-Tetrachloroethane	ND	0.0080	ppm(v/v)	0.0020
Benzyl chloride	ND	0.040	ppm(v/v)	0.0032
4-Ethyltoluene	ND	0.0080	ppm(v/v)	0.0028
1,3,5-Trimethylbenzene	ND	0.0080	ppm(v/v)	0.0032
1,2,4-Trimethylbenzene	ND	0.0080	ppm(v/v)	0.0020
1,3-Dichlorobenzene	ND	0.0080	ppm(v/v)	0.0024
1,4-Dichlorobenzene	ND	0.0080	ppm(v/v)	0.0032
1,2-Dichlorobenzene	ND	0.0080	ppm(v/v)	0.0032
1,2,4-Trichloro-benzene	ND	0.080	ppm(v/v)	0.0024
Hexachlorobutadiene	ND	0.016	ppm(v/v)	0.0040
Methyl tert-butyl ether (MTBE)	**0.0095 J**	**0.040**	**ppm(v/v)**	**0.0020**

NOTE(S):

J Estimated result. Result is less than RL.

HALEY & ALDRICH INC

2_VEW_9_AV101602_0001

GC/MS Volatiles

Lot-Sample #: E2J170170-005 Work Order #: E97HL1AA Matrix: AA

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT	RETENTION TIME	UNITS
None				ppm(v/v)

HALEY & ALDRICH INC

Client Sample ID: 2_VEW_9_AV101602_0001

GC Volatiles

Lot-Sample #...:	E2J170170-005	Work Order #...:	E97HL1AC	Matrix.....:	AA
Date Sampled...:	10/16/02 13:40	Date Received..:	10/16/02 19:00	MS Run #.....:	
Prep Date.....:	10/18/02	Analysis Date..:	10/18/02		
Prep Batch #...:	2291461	Analysis Time..:	12:40		
Dilution Factor:	1				
Analyst ID.....:	101605	Instrument ID..:	GC3		
		Method.....:	ASTM D1946		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Methane	0.00011 J	0.00020	%(v/v)	0.000080

NOTE(S):

J Estimated result. Result is less than RL.

HALEY & ALDRICH INC

Client Sample ID: GAC0002U_AV101602_0001

GC/MS Volatiles

Lot-Sample #...:	E2J170170-006	Work Order #...:	E97HR1AA	Matrix.....:	AA
Date Sampled...:	10/16/02 16:12	Date Received..:	10/16/02 19:00	MS Run #.....:	
Prep Date.....:	10/17/02	Analysis Date..:	10/17/02		
Prep Batch #...:	2291281	Analysis Time..:	17:43		
Dilution Factor:	3.33				
Analyst ID.....:	117751	Instrument ID..:	MSB		
		Method.....:	EPA-21 TO-14A		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Total Non-Methane Hydrocarbons as Hexane	**4.8**	**1.7**	**ppm(v/v)**	**0.33**
Dichlorodifluoromethane	**0.0032 J**	**0.0067**	**ppm(v/v)**	**0.0017**
Chloromethane	ND	0.013	ppm(v/v)	0.0033
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	0.0067	ppm(v/v)	0.0027
Vinyl chloride	ND	0.0067	ppm(v/v)	0.0027
Bromomethane	ND	0.0067	ppm(v/v)	0.0033
Chloroethane	ND	0.013	ppm(v/v)	0.0027
Trichlorofluoromethane	**0.019**	**0.0067**	**ppm(v/v)**	**0.0017**
1,1-Dichloroethene	**0.39**	**0.0067**	**ppm(v/v)**	**0.0017**
Carbon disulfide	ND	0.033	ppm(v/v)	0.0067
1,1,2-Trichloro-1,2,2-trifluoroethane	**0.0032 J**	**0.0067**	**ppm(v/v)**	**0.0017**
Acetone	**0.0074 J**	**0.033**	**ppm(v/v)**	**0.0067**
Methylene chloride	**0.0032 J**	**0.0067**	**ppm(v/v)**	**0.0027**
trans-1,2-Dichloroethene	ND	0.0067	ppm(v/v)	0.0017
1,1-Dichloroethane	**0.013**	**0.0067**	**ppm(v/v)**	**0.0017**
Vinyl acetate	ND	0.033	ppm(v/v)	0.0067
cis-1,2-Dichloroethene	**0.0073**	**0.0067**	**ppm(v/v)**	**0.0027**
2-Butanone (MEK)	ND	0.033	ppm(v/v)	0.0067
Chloroform	**0.33**	**0.0067**	**ppm(v/v)**	**0.0027**
1,1,1-Trichloroethane	**0.017**	**0.0067**	**ppm(v/v)**	**0.0017**
Carbon tetrachloride	**0.014**	**0.0067**	**ppm(v/v)**	**0.0017**
Benzene	**0.0032 J**	**0.0067**	**ppm(v/v)**	**0.0027**
1,2-Dichloroethane	ND	0.0067	ppm(v/v)	0.0027
Trichloroethene	**1.7**	**0.0067**	**ppm(v/v)**	**0.0020**
1,2-Dichloropropane	ND	0.0067	ppm(v/v)	0.0027
Bromodichloromethane	ND	0.0067	ppm(v/v)	0.0027
cis-1,3-Dichloropropene	ND	0.0067	ppm(v/v)	0.0017
4-Methyl-2-pentanone (MIBK)	ND	0.033	ppm(v/v)	0.0067
Toluene	**0.0087 J**	**0.017**	**ppm(v/v)**	**0.0017**
trans-1,3-Dichloropropene	ND	0.0067	ppm(v/v)	0.0027
1,1,2-Trichloroethane	ND	0.0067	ppm(v/v)	0.0020
Tetrachloroethene	**0.10**	**0.0067**	**ppm(v/v)**	**0.0017**
2-Hexanone	ND	0.10	ppm(v/v)	0.0033

(Continued on next page)

HALEY & ALDRICH INC

Client Sample ID: GAC0002U_AV101602_0001

GC/MS Volatiles

Lot-Sample #...: E2J170170-006 **Work Order #...:** E97HR1AA **Matrix.....:** AA

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Dibromochloromethane	ND	0.0067	ppm(v/v)	0.0017
1,2-Dibromoethane (EDB)	ND	0.0067	ppm(v/v)	0.0017
Chlorobenzene	ND	0.0067	ppm(v/v)	0.0017
Ethylbenzene	**0.0019 J**	**0.0067**	**ppm(v/v)**	**0.0017**
Xylenes (total)	**0.0093**	**0.0067**	**ppm(v/v)**	**0.0027**
Styrene	ND	0.0067	ppm(v/v)	0.0020
Bromoform	ND	0.0067	ppm(v/v)	0.0017
1,1,2,2-Tetrachloroethane	ND	0.0067	ppm(v/v)	0.0017
Benzyl chloride	ND	0.033	ppm(v/v)	0.0027
4-Ethyltoluene	**0.0026 J**	**0.0067**	**ppm(v/v)**	**0.0023**
1,3,5-Trimethylbenzene	ND	0.0067	ppm(v/v)	0.0027
1,2,4-Trimethylbenzene	**0.0023 J**	**0.0067**	**ppm(v/v)**	**0.0017**
1,3-Dichlorobenzene	ND	0.0067	ppm(v/v)	0.0020
1,4-Dichlorobenzene	ND	0.0067	ppm(v/v)	0.0027
1,2-Dichlorobenzene	ND	0.0067	ppm(v/v)	0.0027
1,2,4-Trichloro-benzene	ND	0.067	ppm(v/v)	0.0020
Hexachlorobutadiene	ND	0.013	ppm(v/v)	0.0033
Methyl tert-butyl ether (MTBE)	**0.011 J**	**0.033**	**ppm(v/v)**	**0.0017**

NOTE(S):

J Estimated result. Result is less than RL.

HALEY & ALDRICH INC

GAC0002U_AV101602_0001

GC/MS Volatiles

Lot-Sample #: E2J170170-006 Work Order #: E97HR1AA Matrix: AA

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT	RETENTION TIME	UNITS
None				ppm(v/v)

HALEY & ALDRICH INC

Client Sample ID: GAC0002U_AV101602_0001

GC Volatiles

Lot-Sample #...:	E2J170170-006	Work Order #...:	E97HR1AC	Matrix.....:	AA
Date Sampled...:	10/16/02 16:12	Date Received..:	10/16/02 19:00	MS Run #.....:	
Prep Date.....:	10/18/02	Analysis Date..:	10/18/02		
Prep Batch #...:	2291461	Analysis Time..:	13:05		
Dilution Factor:	1				
Analyst ID.....:	101605	Instrument ID..:	GC3		
		Method.....:	ASTM D1946		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Methane	0.00021	0.00020	%(v/v)	0.000080

QC DATA ASSOCIATION SUMMARY

E2J170170

Sample Preparation and Analysis Control Numbers

SAMPLE#	MATRIX	ANALYTICAL METHOD	LEACH BATCH #	PREP BATCH #	MS RUN#
001	AA	ASTM D1946		2291461	
	AA	EPA-21 TO-14A		2291281	
002	AA	ASTM D1946		2291461	
	AA	EPA-21 TO-14A		2291281	
003	AA	ASTM D1946		2291461	
	AA	EPA-21 TO-14A		2291281	
004	AA	ASTM D1946		2291461	
	AA	EPA-21 TO-14A		2291281	
005	AA	ASTM D1946		2291461	
	AA	EPA-21 TO-14A		2291281	
006	AA	ASTM D1946		2291461	
	AA	EPA-21 TO-14A		2291281	

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: E2J170170
MB Lot-Sample #: M2J180000-281

Analysis Date..: 10/17/02
Dilution Factor: 1

Work Order #...: E999T1AA

Prep Date.....: 10/17/02
Prep Batch #...: 2291281

Analyst ID.....: 117751

Matrix.....: AIR

Analysis Time..: 12:01
Instrument ID..: MSB

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Total Non-Methane Hydroca	ND	0.50	ppm(v/v)	EPA-21 TO-14A
Dichlorodifluoromethane	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
Chloromethane	ND	0.0040	ppm(v/v)	EPA-21 TO-14A
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
Vinyl chloride	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
Bromomethane	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
Chloroethane	ND	0.0040	ppm(v/v)	EPA-21 TO-14A
Trichlorofluoromethane	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
1,1-Dichloroethene	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
Carbon disulfide	ND	0.010	ppm(v/v)	EPA-21 TO-14A
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
Acetone	ND	0.010	ppm(v/v)	EPA-21 TO-14A
Methylene chloride	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
trans-1,2-Dichloroethene	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
1,1-Dichloroethane	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
Vinyl acetate	ND	0.010	ppm(v/v)	EPA-21 TO-14A
cis-1,2-Dichloroethene	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
2-Butanone (MEK)	ND	0.010	ppm(v/v)	EPA-21 TO-14A
Chloroform	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
1,1,1-Trichloroethane	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
Carbon tetrachloride	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
Benzene	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
1,2-Dichloroethane	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
Trichloroethene	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
1,2-Dichloropropane	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
Bromodichloromethane	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
cis-1,3-Dichloropropene	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
4-Methyl-2-pentanone (MIBK)	ND	0.010	ppm(v/v)	EPA-21 TO-14A
Toluene	ND	0.0050	ppm(v/v)	EPA-21 TO-14A
trans-1,3-Dichloropropene	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
1,1,2-Trichloroethane	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
Tetrachloroethene	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
2-Hexanone	ND	0.030	ppm(v/v)	EPA-21 TO-14A
Dibromochloromethane	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
1,2-Dibromoethane (EDB)	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
Chlorobenzene	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
Ethylbenzene	ND	0.0020	ppm(v/v)	EPA-21 TO-14A

(Continued on next page)

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: E2J170170 **Work Order #...:** E999T1AA **Matrix.....:** AIR

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Xylenes (total)	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
Styrene	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
Bromoform	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
1,1,2,2-Tetrachloroethane	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
Benzyl chloride	ND	0.010	ppm(v/v)	EPA-21 TO-14A
4-Ethyltoluene	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
1,3,5-Trimethylbenzene	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
1,2,4-Trimethylbenzene	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
1,3-Dichlorobenzene	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
1,4-Dichlorobenzene	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
1,2-Dichlorobenzene	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
1,2,4-Trichloro-benzene	ND	0.020	ppm(v/v)	EPA-21 TO-14A
Hexachlorobutadiene	ND	0.0040	ppm(v/v)	EPA-21 TO-14A
Methyl tert-butyl ether (MTBE)	ND	0.010	ppm(v/v)	EPA-21 TO-14A

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

METHOD BLANK REPORT

GC Volatiles

Client Lot #...: E2J170170
MB Lot-Sample #: M2J180000-461

Work Order #...: FACTW1AA

Matrix.....: AIR

Prep Date.....: 10/18/02

Analysis Time..: 11:49

Analysis Date..: 10/18/02

Prep Batch #...: 2291461

Instrument ID..: GC3

Dilution Factor: 1

Analyst ID.....: 101605

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Methane	ND	0.00020	%(v/v)	ASTM D1946

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: E2J170170 Work Order #...: E999T1AC-LCS Matrix.....: AIR
LCS Lot-Sample#: M2J180000-281 E999T1AD-LCSD
Prep Date.....: 10/17/02 Analysis Date..: 10/17/02
Prep Batch #...: 2291281 Analysis Time..: 10:54
Dilution Factor: 1 Instrument ID..: MSB
Analyst ID.....: 117751

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,1-Dichloroethene	115	(70 - 125)			EPA-21 TO-14A
	115	(70 - 125)	0.33	(0-20)	EPA-21 TO-14A
Methylene chloride	99	(75 - 120)			EPA-21 TO-14A
	100	(75 - 120)	1.0	(0-20)	EPA-21 TO-14A
Trichloroethene	100	(80 - 125)			EPA-21 TO-14A
	101	(80 - 125)	1.4	(0-20)	EPA-21 TO-14A
Toluene	104	(70 - 120)			EPA-21 TO-14A
	103	(70 - 120)	0.86	(0-20)	EPA-21 TO-14A
1,1,2,2-Tetrachloroethane	95	(70 - 130)			EPA-21 TO-14A
	98	(70 - 130)	3.4	(0-20)	EPA-21 TO-14A

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...: E2J170170 Work Order #...: E999T1AC-LCS Matrix.....: AIR
LCS Lot-Sample#: M2J180000-281 E999T1AD-LCSD
Prep Date.....: 10/17/02 Analysis Date..: 10/17/02
Prep Batch #...: 2291281 Analysis Time..: 10:54
Dilution Factor: 1 Instrument ID..: MSB
Analyst ID.....: 117751

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	RPD	METHOD
1,1-Dichloroethene	0.0591	0.0681	ppm(v/v)	115		EPA-21 TO-14A
	0.0591	0.0678	ppm(v/v)	115	0.33	EPA-21 TO-14A
Methylene chloride	0.0587	0.0579	ppm(v/v)	99		EPA-21 TO-14A
	0.0587	0.0585	ppm(v/v)	100	1.0	EPA-21 TO-14A
Trichloroethene	0.0595	0.0594	ppm(v/v)	100		EPA-21 TO-14A
	0.0595	0.0602	ppm(v/v)	101	1.4	EPA-21 TO-14A
Toluene	0.0557	0.0580	ppm(v/v)	104		EPA-21 TO-14A
	0.0557	0.0576	ppm(v/v)	103	0.86	EPA-21 TO-14A
1,1,2,2-Tetrachloroethane	0.0554	0.0524	ppm(v/v)	95		EPA-21 TO-14A
	0.0554	0.0542	ppm(v/v)	98	3.4	EPA-21 TO-14A

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC Volatiles

Client Lot #...: E2J170170 Work Order #...: FACTW1AC-LCS Matrix.....: AIR
LCS Lot-Sample#: M2J180000-461 FACTW1AD-LCSD
Prep Date.....: 10/18/02 Analysis Date..: 10/18/02
Prep Batch #...: 2291461 Analysis Time..: 10:59
Dilution Factor: 1 Instrument ID..: GC3
Analyst ID.....: 101605

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Carbon dioxide	**100**	**(75 - 125)**			**ASTM D1946**
	101	**(75 - 125)**	**0.49**	**(0-20)**	**ASTM D1946**
Methane	**101**	**(60 - 120)**			**ASTM D1946**
	101	**(60 - 120)**	**0.36**	**(0-20)**	**ASTM D1946**

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE DATA REPORT

GC Volatiles

Client Lot #...: E2J170170
LCS Lot-Sample#: M2J180000-461
Prep Date.....: 10/18/02
Prep Batch #...: 2291461
Dilution Factor: 1
Analyst ID.....: 101605

Work Order #...: FACTW1AC-LCS
FACTW1AD-LCSD
Analysis Date..: 10/18/02
Analysis Time..: 10:59
Instrument ID..: GC3

Matrix.....: AIR

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	RPD	METHOD
Carbon dioxide	1.00	1.00	%(v/v)	100		ASTM D1946
	1.00	1.01	%(v/v)	101	0.49	ASTM D1946
Methane	0.0500	0.0506	%(v/v)	101		ASTM D1946
	0.0500	0.0504	%(v/v)	101	0.36	ASTM D1946

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

EXECUTIVE SUMMARY - Detection Highlights

E2K120134

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
2VEW_1B_AV111102_0001 11/11/02 10:15 001				
Total Non-Methane Hydrocarbons	26	25	ppm(v/v)	EPA-21 TO-14A
1,1-Dichloroethene	0.27	0.10	ppm(v/v)	EPA-21 TO-14A
1,1-Dichloroethane	0.025 J	0.10	ppm(v/v)	EPA-21 TO-14A
1,1,1-Trichloroethane	0.038 J	0.10	ppm(v/v)	EPA-21 TO-14A
Trichloroethene	15	0.10	ppm(v/v)	EPA-21 TO-14A
2VEW_4_AV111102_0001 11/11/02 10:30 002				
Total Non-Methane Hydrocarbons	4.5	2.5	ppm(v/v)	EPA-21 TO-14A
1,1-Dichloroethene	0.023	0.010	ppm(v/v)	EPA-21 TO-14A
Acetone	0.014 J	0.050	ppm(v/v)	EPA-21 TO-14A
1,1-Dichloroethane	0.0072 J	0.010	ppm(v/v)	EPA-21 TO-14A
1,1,1-Trichloroethane	0.057	0.010	ppm(v/v)	EPA-21 TO-14A
Trichloroethene	1.9	0.010	ppm(v/v)	EPA-21 TO-14A
Toluene	0.012 J	0.025	ppm(v/v)	EPA-21 TO-14A
Tetrachloroethene	0.0039 J	0.010	ppm(v/v)	EPA-21 TO-14A
Ethylbenzene	0.0028 J	0.010	ppm(v/v)	EPA-21 TO-14A
Xylenes (total)	0.016	0.010	ppm(v/v)	EPA-21 TO-14A
4-Ethyltoluene	0.0053 J	0.010	ppm(v/v)	EPA-21 TO-14A
1,2,4-Trimethylbenzene	0.0063 J	0.010	ppm(v/v)	EPA-21 TO-14A
Methyl tert-butyl ether (MTBE)	0.0039 J	0.050	ppm(v/v)	EPA-21 TO-14A
2VEW_8B_AV111102_0001 11/11/02 10:45 003				
Total Non-Methane Hydrocarbons	7.2	2.5	ppm(v/v)	EPA-21 TO-14A
Trichlorofluoromethane	0.031	0.010	ppm(v/v)	EPA-21 TO-14A
1,1-Dichloroethene	0.62	0.010	ppm(v/v)	EPA-21 TO-14A
1,1,2-Trichloro-1,2,2-trifluoroethane	0.0035 J	0.010	ppm(v/v)	EPA-21 TO-14A
Acetone	0.014 J	0.050	ppm(v/v)	EPA-21 TO-14A
Methylene chloride	0.0071 J	0.010	ppm(v/v)	EPA-21 TO-14A
1,1-Dichloroethane	0.017	0.010	ppm(v/v)	EPA-21 TO-14A
cis-1,2-Dichloroethene	0.014	0.010	ppm(v/v)	EPA-21 TO-14A
Chloroform	0.35	0.010	ppm(v/v)	EPA-21 TO-14A
1,1,1-Trichloroethane	0.027	0.010	ppm(v/v)	EPA-21 TO-14A
Carbon tetrachloride	0.013	0.010	ppm(v/v)	EPA-21 TO-14A
Trichloroethene	2.7	0.025	ppm(v/v)	EPA-21 TO-14A
Toluene	0.0089 J	0.025	ppm(v/v)	EPA-21 TO-14A
Tetrachloroethene	0.11	0.010	ppm(v/v)	EPA-21 TO-14A
Xylenes (total)	0.013	0.010	ppm(v/v)	EPA-21 TO-14A
4-Ethyltoluene	0.0043 J	0.010	ppm(v/v)	EPA-21 TO-14A
1,2,4-Trimethylbenzene	0.0049 J	0.010	ppm(v/v)	EPA-21 TO-14A

(Continued on next page)

EXECUTIVE SUMMARY - Detection Highlights

E2K120134

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
2VEW_8B_AV111102_0001 11/11/02 10:45	**003**			
Methyl tert-butyl ether (MTBE)	0.0033 J	0.050	ppm(v/v)	EPA-21 TO-14A
GAC0024_AV111102_0001 11/11/02 14:30	**004**			
Total Non-Methane Hydrocarbons	4.2	1.2	ppm(v/v)	EPA-21 TO-14A
Trichlorofluoromethane	0.0099	0.0050	ppm(v/v)	EPA-21 TO-14A
1,1-Dichloroethene	0.30	0.0050	ppm(v/v)	EPA-21 TO-14A
1,1,2-Trichloro-1,2,2-trifluoroethane	0.0020 J	0.0050	ppm(v/v)	EPA-21 TO-14A
Acetone	0.014 J	0.025	ppm(v/v)	EPA-21 TO-14A
Methylene chloride	0.0026 J	0.0050	ppm(v/v)	EPA-21 TO-14A
1,1-Dichloroethane	0.010	0.0050	ppm(v/v)	EPA-21 TO-14A
cis-1,2-Dichloroethene	0.0095	0.0050	ppm(v/v)	EPA-21 TO-14A
Chloroform	0.75	0.0050	ppm(v/v)	EPA-21 TO-14A
1,1,1-Trichloroethane	0.031	0.0050	ppm(v/v)	EPA-21 TO-14A
Carbon tetrachloride	0.022	0.0050	ppm(v/v)	EPA-21 TO-14A
1,2-Dichloroethane	0.0031 J	0.0050	ppm(v/v)	EPA-21 TO-14A
Trichloroethene	1.4	0.020	ppm(v/v)	EPA-21 TO-14A
Toluene	0.0045 J	0.012	ppm(v/v)	EPA-21 TO-14A
Tetrachloroethene	0.097	0.0050	ppm(v/v)	EPA-21 TO-14A
Xylenes (total)	0.0031 J	0.0050	ppm(v/v)	EPA-21 TO-14A
1,2,4-Trimethylbenzene	0.0014 J	0.0050	ppm(v/v)	EPA-21 TO-14A
Methyl tert-butyl ether (MTBE)	0.0029 J	0.025	ppm(v/v)	EPA-21 TO-14A

METHODS SUMMARY

E2K120134

PARAMETER	ANALYTICAL METHOD	PREPARATION METHOD
Volatile Organics by TO-14A	EPA-21 TO-14A	

References:

EPA-21 "Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air", Second Edition, EPA/625/R-96/010b, January 1999

SAMPLE SUMMARY

E2K120134

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
FCWNX	001	2VEW_1B_AV111102_0001	11/11/02	10:15
FCWN1	002	2VEW_4_AV111102_0001	11/11/02	10:30
FCWN4	003	2VEW_8B_AV111102_0001	11/11/02	10:45
FCWN7	004	GAC0024_AV111102_0001	11/11/02	14:30

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

HALEY & ALDRICH INC

Client Sample ID: 2VEW_1B_AV111102_0001

GC/MS Volatiles

Lot-Sample #...:	E2K120134-001	**Work Order #...:**	FCWNX1AA	**Matrix.....:**	AA
Date Sampled...:	11/11/02 10:15	**Date Received..:**	11/12/02 08:45	**MS Run #.....:**	
Prep Date.....:	11/12/02	**Analysis Date..:**	11/12/02		
Prep Batch #...:	2317479	**Analysis Time..:**	15:19		
Dilution Factor:	50				
Analyst ID.....:	117751	**Instrument ID..:**	MSA		
		Method.....:	EPA-21 TO-14A		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Total Non-Methane Hydrocarbons as Hexane	**26**	**25**	**ppm(v/v)**	**5.0**
Dichlorodifluoromethane	ND	0.10	ppm(v/v)	0.025
Chloromethane	ND	0.20	ppm(v/v)	0.050
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	0.10	ppm(v/v)	0.040
Vinyl chloride	ND	0.10	ppm(v/v)	0.040
Bromomethane	ND	0.10	ppm(v/v)	0.050
Chloroethane	ND	0.20	ppm(v/v)	0.040
Trichlorofluoromethane	ND	0.10	ppm(v/v)	0.025
1,1-Dichloroethene	**0.27**	**0.10**	**ppm(v/v)**	**0.025**
Carbon disulfide	ND	0.50	ppm(v/v)	0.10
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	0.10	ppm(v/v)	0.025
Acetone	ND	0.50	ppm(v/v)	0.10
Methylene chloride	ND	0.10	ppm(v/v)	0.040
trans-1,2-Dichloroethene	ND	0.10	ppm(v/v)	0.025
1,1-Dichloroethane	**0.025 J**	**0.10**	**ppm(v/v)**	**0.025**
Vinyl acetate	ND	0.50	ppm(v/v)	0.10
cis-1,2-Dichloroethene	ND	0.10	ppm(v/v)	0.040
2-Butanone (MEK)	ND	0.50	ppm(v/v)	0.10
Chloroform	ND	0.10	ppm(v/v)	0.040
1,1,1-Trichloroethane	**0.038 J**	**0.10**	**ppm(v/v)**	**0.025**
Carbon tetrachloride	ND	0.10	ppm(v/v)	0.025
Benzene	ND	0.10	ppm(v/v)	0.040
1,2-Dichloroethane	ND	0.10	ppm(v/v)	0.040
Trichloroethene	**15**	**0.10**	**ppm(v/v)**	**0.030**
1,2-Dichloropropane	ND	0.10	ppm(v/v)	0.040
Bromodichloromethane	ND	0.10	ppm(v/v)	0.040
cis-1,3-Dichloropropene	ND	0.10	ppm(v/v)	0.025
4-Methyl-2-pentanone (MIBK)	ND	0.50	ppm(v/v)	0.10
Toluene	ND	0.25	ppm(v/v)	0.025
trans-1,3-Dichloropropene	ND	0.10	ppm(v/v)	0.040
1,1,2-Trichloroethane	ND	0.10	ppm(v/v)	0.030
Tetrachloroethene	ND	0.10	ppm(v/v)	0.025
2-Hexanone	ND	1.5	ppm(v/v)	0.050

(Continued on next page)

HALEY & ALDRICH INC

Client Sample ID: 2VEW_1B_AV111102_0001

GC/MS Volatiles

Lot-Sample #...: E2K120134-001 Work Order #...: FCWNX1AA Matrix.....: AA

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Dibromochloromethane	ND	0.10	ppm(v/v)	0.025
1,2-Dibromoethane (EDB)	ND	0.10	ppm(v/v)	0.025
Chlorobenzene	ND	0.10	ppm(v/v)	0.025
Ethylbenzene	ND	0.10	ppm(v/v)	0.025
Xylenes (total)	ND	0.10	ppm(v/v)	0.040
Styrene	ND	0.10	ppm(v/v)	0.030
Bromoform	ND	0.10	ppm(v/v)	0.025
1,1,2,2-Tetrachloroethane	ND	0.10	ppm(v/v)	0.025
Benzyl chloride	ND	0.50	ppm(v/v)	0.040
4-Ethyltoluene	ND	0.10	ppm(v/v)	0.035
1,3,5-Trimethylbenzene	ND	0.10	ppm(v/v)	0.040
1,2,4-Trimethylbenzene	ND	0.10	ppm(v/v)	0.025
1,3-Dichlorobenzene	ND	0.10	ppm(v/v)	0.030
1,4-Dichlorobenzene	ND	0.10	ppm(v/v)	0.040
1,2-Dichlorobenzene	ND	0.10	ppm(v/v)	0.040
1,2,4-Trichloro-benzene	ND	1.0	ppm(v/v)	0.030
Hexachlorobutadiene	ND	0.20	ppm(v/v)	0.050
Methyl tert-butyl ether (MTBE)	ND	0.50	ppm(v/v)	0.025

NOTE(S):

J Estimated result. Result is less than RL.

HALEY & ALDRICH INC

2VEW_1B_AV111102_0001

GC/MS Volatiles

Lot-Sample #: E2K120134-001 Work Order #: FCWNX1AA Matrix: AA

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT	RETENTION TIME	UNITS
None				ppm(v/v)

HALEY & ALDRICH INC

Client Sample ID: 2VEW_4_AV111102_0001

GC/MS Volatiles

Lot-Sample #...:	E2K120134-002	Work Order #...:	FCWN11AA	Matrix.....:	AA
Date Sampled...:	11/11/02 10:30	Date Received..:	11/12/02 08:45	MS Run #.....:	
Prep Date.....:	11/12/02	Analysis Date..:	11/12/02		
Prep Batch #...:	2317479	Analysis Time..:	15:50		
Dilution Factor:	5				
Analyst ID.....:	117751	Instrument ID..:	MSA		
		Method.....:	EPA-21 TO-14A		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Total Non-Methane Hydrocarbons as Hexane	**4.5**	**2.5**	**ppm(v/v)**	**0.50**
Dichlorodifluoromethane	ND	0.010	ppm(v/v)	0.0025
Chloromethane	ND	0.020	ppm(v/v)	0.0050
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	0.010	ppm(v/v)	0.0040
Vinyl chloride	ND	0.010	ppm(v/v)	0.0040
Bromomethane	ND	0.010	ppm(v/v)	0.0050
Chloroethane	ND	0.020	ppm(v/v)	0.0040
Trichlorofluoromethane	ND	0.010	ppm(v/v)	0.0025
1,1-Dichloroethene	**0.023**	**0.010**	**ppm(v/v)**	**0.0025**
Carbon disulfide	ND	0.050	ppm(v/v)	0.010
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	0.010	ppm(v/v)	0.0025
Acetone	**0.014 J**	**0.050**	**ppm(v/v)**	**0.010**
Methylene chloride	ND	0.010	ppm(v/v)	0.0040
trans-1,2-Dichloroethene	ND	0.010	ppm(v/v)	0.0025
1,1-Dichloroethane	**0.0072 J**	**0.010**	**ppm(v/v)**	**0.0025**
Vinyl acetate	ND	0.050	ppm(v/v)	0.010
cis-1,2-Dichloroethene	ND	0.010	ppm(v/v)	0.0040
2-Butanone (MEK)	ND	0.050	ppm(v/v)	0.010
Chloroform	ND	0.010	ppm(v/v)	0.0040
1,1,1-Trichloroethane	**0.057**	**0.010**	**ppm(v/v)**	**0.0025**
Carbon tetrachloride	ND	0.010	ppm(v/v)	0.0025
Benzene	ND	0.010	ppm(v/v)	0.0040
1,2-Dichloroethane	ND	0.010	ppm(v/v)	0.0040
Trichloroethene	**1.9**	**0.010**	**ppm(v/v)**	**0.0030**
1,2-Dichloropropane	ND	0.010	ppm(v/v)	0.0040
Bromodichloromethane	ND	0.010	ppm(v/v)	0.0040
cis-1,3-Dichloropropene	ND	0.010	ppm(v/v)	0.0025
4-Methyl-2-pentanone (MIBK)	ND	0.050	ppm(v/v)	0.010
Toluene	**0.012 J**	**0.025**	**ppm(v/v)**	**0.0025**
trans-1,3-Dichloropropene	ND	0.010	ppm(v/v)	0.0040
1,1,2-Trichloroethane	ND	0.010	ppm(v/v)	0.0030
Tetrachloroethene	**0.0039 J**	**0.010**	**ppm(v/v)**	**0.0025**
2-Hexanone	ND	0.15	ppm(v/v)	0.0050

(Continued on next page)

HALEY & ALDRICH INC

Client Sample ID: 2VEW_4_AV111102_0001

GC/MS Volatiles

Lot-Sample #...: E2K120134-002 Work Order #...: FCWN11AA Matrix.....: AA

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Dibromochloromethane	ND	0.010	ppm(v/v)	0.0025
1,2-Dibromoethane (EDB)	ND	0.010	ppm(v/v)	0.0025
Chlorobenzene	ND	0.010	ppm(v/v)	0.0025
Ethylbenzene	**0.0028 J**	**0.010**	**ppm(v/v)**	**0.0025**
Xylenes (total)	**0.016**	**0.010**	**ppm(v/v)**	**0.0040**
Styrene	ND	0.010	ppm(v/v)	0.0030
Bromoform	ND	0.010	ppm(v/v)	0.0025
1,1,2,2-Tetrachloroethane	ND	0.010	ppm(v/v)	0.0025
Benzyl chloride	ND	0.050	ppm(v/v)	0.0040
4-Ethyltoluene	**0.0053 J**	**0.010**	**ppm(v/v)**	**0.0035**
1,3,5-Trimethylbenzene	ND	0.010	ppm(v/v)	0.0040
1,2,4-Trimethylbenzene	**0.0063 J**	**0.010**	**ppm(v/v)**	**0.0025**
1,3-Dichlorobenzene	ND	0.010	ppm(v/v)	0.0030
1,4-Dichlorobenzene	ND	0.010	ppm(v/v)	0.0040
1,2-Dichlorobenzene	ND	0.010	ppm(v/v)	0.0040
1,2,4-Trichloro-benzene	ND	0.10	ppm(v/v)	0.0030
Hexachlorobutadiene	ND	0.020	ppm(v/v)	0.0050
Methyl tert-butyl ether (MTBE)	**0.0039 J**	**0.050**	**ppm(v/v)**	**0.0025**

NOTE(S):

J Estimated result. Result is less than RL.

HALEY & ALDRICH INC

2VEW_4_AV111102_0001

GC/MS Volatiles

Lot-Sample #: E2K120134-002 Work Order #: FCWN11AA Matrix: AA

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT	RETENTION TIME	UNITS
None				ppm(v/v)

HALEY & ALDRICH INC

Client Sample ID: 2VEW_8B_AV111102_0001

GC/MS Volatiles

Lot-Sample #...: E2K120134-003 Work Order #...: FCWN41AA Matrix.....: AA
Date Sampled...: 11/11/02 10:45 Date Received..: 11/12/02 08:45 MS Run #.....:
Prep Date.....: 11/12/02 Analysis Date..: 11/12/02
Prep Batch #...: 2317479 Analysis Time..: 16:22
Dilution Factor: 5
Analyst ID.....: 117751 Instrument ID..: MSA
Method.....: EPA-21 TO-14A

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Total Non-Methane Hydrocarbons as Hexane	**7.2**	**2.5**	**ppm(v/v)**	**0.50**
Dichlorodifluoromethane	ND	0.010	ppm(v/v)	0.0025
Chloromethane	ND	0.020	ppm(v/v)	0.0050
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	0.010	ppm(v/v)	0.0040
Vinyl chloride	ND	0.010	ppm(v/v)	0.0040
Bromomethane	ND	0.010	ppm(v/v)	0.0050
Chloroethane	ND	0.020	ppm(v/v)	0.0040
Trichlorofluoromethane	**0.031**	**0.010**	**ppm(v/v)**	**0.0025**
1,1-Dichloroethene	**0.62**	**0.010**	**ppm(v/v)**	**0.0025**
Carbon disulfide	ND	0.050	ppm(v/v)	0.010
1,1,2-Trichloro-1,2,2-trifluoroethane	**0.0035 J**	**0.010**	**ppm(v/v)**	**0.0025**
Acetone	**0.014 J**	**0.050**	**ppm(v/v)**	**0.010**
Methylene chloride	**0.0071 J**	**0.010**	**ppm(v/v)**	**0.0040**
trans-1,2-Dichloroethene	ND	0.010	ppm(v/v)	0.0025
1,1-Dichloroethane	**0.017**	**0.010**	**ppm(v/v)**	**0.0025**
Vinyl acetate	ND	0.050	ppm(v/v)	0.010
cis-1,2-Dichloroethene	**0.014**	**0.010**	**ppm(v/v)**	**0.0040**
2-Butanone (MEK)	ND	0.050	ppm(v/v)	0.010
Chloroform	**0.35**	**0.010**	**ppm(v/v)**	**0.0040**
1,1,1-Trichloroethane	**0.027**	**0.010**	**ppm(v/v)**	**0.0025**
Carbon tetrachloride	**0.013**	**0.010**	**ppm(v/v)**	**0.0025**
Benzene	ND	0.010	ppm(v/v)	0.0040
1,2-Dichloroethane	ND	0.010	ppm(v/v)	0.0040
1,2-Dichloropropane	ND	0.010	ppm(v/v)	0.0040
Bromodichloromethane	ND	0.010	ppm(v/v)	0.0040
cis-1,3-Dichloropropene	ND	0.010	ppm(v/v)	0.0025
4-Methyl-2-pentanone (MIBK)	ND	0.050	ppm(v/v)	0.010
Toluene	**0.0089 J**	**0.025**	**ppm(v/v)**	**0.0025**
trans-1,3-Dichloropropene	ND	0.010	ppm(v/v)	0.0040
1,1,2-Trichloroethane	ND	0.010	ppm(v/v)	0.0030
Tetrachloroethene	**0.11**	**0.010**	**ppm(v/v)**	**0.0025**
2-Hexanone	ND	0.15	ppm(v/v)	0.0050
Dibromochloromethane	ND	0.010	ppm(v/v)	0.0025

(Continued on next page)

HALEY & ALDRICH INC

Client Sample ID: 2VEW_8B_AV111102_0001

GC/MS Volatiles

Lot-Sample #...: E2K120134-003 Work Order #...: FCWN41AA Matrix.....: AA

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
1,2-Dibromoethane (EDB)	ND	0.010	ppm(v/v)	0.0025
Chlorobenzene	ND	0.010	ppm(v/v)	0.0025
Ethylbenzene	ND	0.010	ppm(v/v)	0.0025
Xylenes (total)	**0.013**	**0.010**	**ppm(v/v)**	**0.0040**
Styrene	ND	0.010	ppm(v/v)	0.0030
Bromoform	ND	0.010	ppm(v/v)	0.0025
1,1,2,2-Tetrachloroethane	ND	0.010	ppm(v/v)	0.0025
Benzyl chloride	ND	0.050	ppm(v/v)	0.0040
4-Ethyltoluene	**0.0043 J**	**0.010**	**ppm(v/v)**	**0.0035**
1,3,5-Trimethylbenzene	ND	0.010	ppm(v/v)	0.0040
1,2,4-Trimethylbenzene	**0.0049 J**	**0.010**	**ppm(v/v)**	**0.0025**
1,3-Dichlorobenzene	ND	0.010	ppm(v/v)	0.0030
1,4-Dichlorobenzene	ND	0.010	ppm(v/v)	0.0040
1,2-Dichlorobenzene	ND	0.010	ppm(v/v)	0.0040
1,2,4-Trichloro-benzene	ND	0.10	ppm(v/v)	0.0030
Hexachlorobutadiene	ND	0.020	ppm(v/v)	0.0050
Methyl tert-butyl ether (MTBE)	**0.0033 J**	**0.050**	**ppm(v/v)**	**0.0025**

NOTE(S):

J Estimated result. Result is less than RL.

HALEY & ALDRICH INC

2VEW_8B_AV111102_0001

GC/MS Volatiles

Lot-Sample #: E2K120134-003 **Work Order #:** FCWN41AA **Matrix:** AA

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT	RETENTION TIME	UNITS
None				ppm(v/v)

HALEY & ALDRICH INC

Client Sample ID: 2VEW_8B_AV111102_0001

GC/MS Volatiles

Lot-Sample #...:	E2K120134-003	**Work Order #...:**	FCWN42AA	**Matrix.....:**	AA
Date Sampled...:	11/11/02 10:45	**Date Received..:**	11/12/02 08:45	**MS Run #.....:**	
Prep Date.....:	11/13/02	**Analysis Date..:**	11/13/02		
Prep Batch #...:	2317479	**Analysis Time..:**	01:26		
Dilution Factor:	12.5				
Analyst ID.....:	117751	**Instrument ID..:**	MSA		
		Method.....:	EPA-21 TO-14A		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Trichloroethene	2.7	0.025	ppm(v/v)	0.0075

HALEY & ALDRICH INC

Client Sample ID: GAC0024_AV111102_0001

GC/MS Volatiles

Lot-Sample #...:	E2K120134-004	Work Order #...:	FCWN71AA	Matrix.....:	AA
Date Sampled...:	11/11/02 14:30	Date Received..:	11/12/02 08:45	MS Run #.....:	
Prep Date.....:	11/12/02	Analysis Date..:	11/12/02		
Prep Batch #...:	2317479	Analysis Time..:	16:56		
Dilution Factor:	2.5				
Analyst ID.....:	117751	Instrument ID..:	MSA		
		Method.....:	EPA-21 TO-14A		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Total Non-Methane Hydrocarbons as Hexane	**4.2**	**1.2**	**ppm(v/v)**	**0.25**
Dichlorodifluoromethane	ND	0.0050	ppm(v/v)	0.0012
Chloromethane	ND	0.010	ppm(v/v)	0.0025
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	0.0050	ppm(v/v)	0.0020
Vinyl chloride	ND	0.0050	ppm(v/v)	0.0020
Bromomethane	ND	0.0050	ppm(v/v)	0.0025
Chloroethane	ND	0.010	ppm(v/v)	0.0020
Trichlorofluoromethane	**0.0099**	**0.0050**	**ppm(v/v)**	**0.0012**
1,1-Dichloroethene	**0.30**	**0.0050**	**ppm(v/v)**	**0.0012**
Carbon disulfide	ND	0.025	ppm(v/v)	0.0050
1,1,2-Trichloro-1,2,2-trifluoroethane	**0.0020 J**	**0.0050**	**ppm(v/v)**	**0.0012**
Acetone	**0.014 J**	**0.025**	**ppm(v/v)**	**0.0050**
Methylene chloride	**0.0026 J**	**0.0050**	**ppm(v/v)**	**0.0020**
trans-1,2-Dichloroethene	ND	0.0050	ppm(v/v)	0.0012
1,1-Dichloroethane	**0.010**	**0.0050**	**ppm(v/v)**	**0.0012**
Vinyl acetate	ND	0.025	ppm(v/v)	0.0050
cis-1,2-Dichloroethene	**0.0095**	**0.0050**	**ppm(v/v)**	**0.0020**
2-Butanone (MEK)	ND	0.025	ppm(v/v)	0.0050
Chloroform	**0.75**	**0.0050**	**ppm(v/v)**	**0.0020**
1,1,1-Trichloroethane	**0.031**	**0.0050**	**ppm(v/v)**	**0.0012**
Carbon tetrachloride	**0.022**	**0.0050**	**ppm(v/v)**	**0.0012**
Benzene	ND	0.0050	ppm(v/v)	0.0020
1,2-Dichloroethane	**0.0031 J**	**0.0050**	**ppm(v/v)**	**0.0020**
1,2-Dichloropropane	ND	0.0050	ppm(v/v)	0.0020
Bromodichloromethane	ND	0.0050	ppm(v/v)	0.0020
cis-1,3-Dichloropropene	ND	0.0050	ppm(v/v)	0.0012
4-Methyl-2-pentanone (MIBK)	ND	0.025	ppm(v/v)	0.0050
Toluene	**0.0045 J**	**0.012**	**ppm(v/v)**	**0.0012**
trans-1,3-Dichloropropene	ND	0.0050	ppm(v/v)	0.0020
1,1,2-Trichloroethane	ND	0.0050	ppm(v/v)	0.0015
Tetrachloroethene	**0.097**	**0.0050**	**ppm(v/v)**	**0.0012**
2-Hexanone	ND	0.075	ppm(v/v)	0.0025
Dibromochloromethane	ND	0.0050	ppm(v/v)	0.0012

(Continued on next page)

HALEY & ALDRICH INC

Client Sample ID: GAC0024_AV111102_0001

GC/MS Volatiles

Lot-Sample #...: E2K120134-004 Work Order #...: FCWN71AA Matrix.....: AA

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
1,2-Dibromoethane (EDB)	ND	0.0050	ppm(v/v)	0.0012
Chlorobenzene	ND	0.0050	ppm(v/v)	0.0012
Ethylbenzene	ND	0.0050	ppm(v/v)	0.0012
Xylenes (total)	**0.0031 J**	**0.0050**	**ppm(v/v)**	**0.0020**
Styrene	ND	0.0050	ppm(v/v)	0.0015
Bromoform	ND	0.0050	ppm(v/v)	0.0012
1,1,2,2-Tetrachloroethane	ND	0.0050	ppm(v/v)	0.0012
Benzyl chloride	ND	0.025	ppm(v/v)	0.0020
4-Ethyltoluene	ND	0.0050	ppm(v/v)	0.0018
1,3,5-Trimethylbenzene	ND	0.0050	ppm(v/v)	0.0020
1,2,4-Trimethylbenzene	**0.0014 J**	**0.0050**	**ppm(v/v)**	**0.0012**
1,3-Dichlorobenzene	ND	0.0050	ppm(v/v)	0.0015
1,4-Dichlorobenzene	ND	0.0050	ppm(v/v)	0.0020
1,2-Dichlorobenzene	ND	0.0050	ppm(v/v)	0.0020
1,2,4-Trichloro-benzene	ND	0.050	ppm(v/v)	0.0015
Hexachlorobutadiene	ND	0.010	ppm(v/v)	0.0025
Methyl tert-butyl ether (MTBE)	**0.0029 J**	**0.025**	**ppm(v/v)**	**0.0012**

NOTE(S):

J Estimated result. Result is less than RL.

HALEY & ALDRICH INC

GAC0024_AV111102_0001

GC/MS Volatiles

Lot-Sample #: E2K120134-004 Work Order #: FCWN71AA Matrix: AA

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT	RETENTION TIME	UNITS
None				ppm(v/v)

HALEY & ALDRICH INC

Client Sample ID: GAC0024_AV111102_0001

GC/MS Volatiles

Lot-Sample #...:	E2K120134-004	Work Order #...:	FCWN72AA	Matrix.....:	AA
Date Sampled...:	11/11/02 14:30	Date Received..:	11/12/02 08:45	MS Run #.....:	
Prep Date.....:	11/13/02	Analysis Date..:	11/13/02		
Prep Batch #...:	2317479	Analysis Time..:	02:00		
Dilution Factor:	10				
Analyst ID.....:	117751	Instrument ID..:	MSA		
		Method.....:	EPA-21 TO-14A		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Trichloroethene	1.4	0.020	ppm(v/v)	0.0060

QC DATA ASSOCIATION SUMMARY

E2K120134

Sample Preparation and Analysis Control Numbers

SAMPLE#	MATRIX	ANALYTICAL METHOD	LEACH BATCH #	PREP BATCH #	MS RUN#
001	AA	EPA-21 TO-14A		2317479	
002	AA	EPA-21 TO-14A		2317479	
003	AA	EPA-21 TO-14A		2317479	
004	AA	EPA-21 TO-14A		2317479	

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: E2K120134
MB Lot-Sample #: M2K130000-479

Work Order #...: FC16M1AA

Matrix.....: AIR

Prep Date.....: 11/12/02
Prep Batch #...: 2317479

Analysis Time..: 11:57
Instrument ID..: MSA

Analysis Date..: 11/12/02
Dilution Factor: 1

Analyst ID.....: 117751

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Total Non-Methane Hydroca	ND	0.50	ppm(v/v)	EPA-21 TO-14A
Dichlorodifluoromethane	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
Chloromethane	ND	0.0040	ppm(v/v)	EPA-21 TO-14A
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
Vinyl chloride	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
Bromomethane	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
Chloroethane	ND	0.0040	ppm(v/v)	EPA-21 TO-14A
Trichlorofluoromethane	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
1,1-Dichloroethene	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
Carbon disulfide	ND	0.010	ppm(v/v)	EPA-21 TO-14A
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
Acetone	ND	0.010	ppm(v/v)	EPA-21 TO-14A
Methylene chloride	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
trans-1,2-Dichloroethene	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
1,1-Dichloroethane	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
Vinyl acetate	ND	0.010	ppm(v/v)	EPA-21 TO-14A
cis-1,2-Dichloroethene	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
2-Butanone (MEK)	ND	0.010	ppm(v/v)	EPA-21 TO-14A
Chloroform	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
1,1,1-Trichloroethane	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
Carbon tetrachloride	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
Benzene	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
1,2-Dichloroethane	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
Trichloroethene	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
1,2-Dichloropropane	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
Bromodichloromethane	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
cis-1,3-Dichloropropene	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
4-Methyl-2-pentanone (MIBK)	ND	0.010	ppm(v/v)	EPA-21 TO-14A
Toluene	ND	0.0050	ppm(v/v)	EPA-21 TO-14A
trans-1,3-Dichloropropene	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
1,1,2-Trichloroethane	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
Tetrachloroethene	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
2-Hexanone	ND	0.030	ppm(v/v)	EPA-21 TO-14A
Dibromochloromethane	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
1,2-Dibromoethane (EDB)	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
Chlorobenzene	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
Ethylbenzene	ND	0.0020	ppm(v/v)	EPA-21 TO-14A

(Continued on next page)

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: E2K120134 Work Order #...: FC16M1AA Matrix.....: AIR

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Xylenes (total)	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
Styrene	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
Bromoform	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
1,1,2,2-Tetrachloroethane	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
Benzyl chloride	ND	0.010	ppm(v/v)	EPA-21 TO-14A
4-Ethyltoluene	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
1,3,5-Trimethylbenzene	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
1,2,4-Trimethylbenzene	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
1,3-Dichlorobenzene	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
1,4-Dichlorobenzene	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
1,2-Dichlorobenzene	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
1,2,4-Trichloro-benzene	ND	0.020	ppm(v/v)	EPA-21 TO-14A
Hexachlorobutadiene	ND	0.0040	ppm(v/v)	EPA-21 TO-14A
Methyl tert-butyl ether (MTBE)	ND	0.010	ppm(v/v)	EPA-21 TO-14A

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: E2K120134
LCS Lot-Sample#: M2K130000-479
Prep Date.....: 11/12/02
Prep Batch #...: 2317479
Dilution Factor: 1
Analyst ID.....: 117751

Work Order #...: FC16M1AC-LCS
FC16M1AD-LCSD
Analysis Date..: 11/12/02
Analysis Time..: 10:45
Instrument ID..: MSA

Matrix.....: AIR

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,1-Dichloroethene	112	(70 - 125)			EPA-21 TO-14A
	109	(70 - 125)	2.2	(0-20)	EPA-21 TO-14A
Methylene chloride	94	(75 - 120)			EPA-21 TO-14A
	94	(75 - 120)	0.21	(0-20)	EPA-21 TO-14A
Trichloroethene	99	(80 - 125)			EPA-21 TO-14A
	100	(80 - 125)	0.40	(0-20)	EPA-21 TO-14A
Toluene	100	(70 - 120)			EPA-21 TO-14A
	99	(70 - 120)	0.98	(0-20)	EPA-21 TO-14A
1,1,2,2-Tetrachloroethane	86	(70 - 130)			EPA-21 TO-14A
	89	(70 - 130)	2.7	(0-20)	EPA-21 TO-14A

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...: E2K120134 Work Order #...: FC16M1AC-LCS Matrix.....: AIR
LCS Lot-Sample#: M2K130000-479 FC16M1AD-LCSD
Prep Date.....: 11/12/02 Analysis Date..: 11/12/02
Prep Batch #...: 2317479 Analysis Time..: 10:45
Dilution Factor: 1 Instrument ID..: MSA
Analyst ID.....: 117751

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	RPD	METHOD
1,1-Dichloroethene	0.0591	0.0659	ppm(v/v)	112		EPA-21 TO-14A
	0.0591	0.0645	ppm(v/v)	109	2.2	EPA-21 TO-14A
Methylene chloride	0.0587	0.0552	ppm(v/v)	94		EPA-21 TO-14A
	0.0587	0.0553	ppm(v/v)	94	0.21	EPA-21 TO-14A
Trichloroethene	0.0595	0.0590	ppm(v/v)	99		EPA-21 TO-14A
	0.0595	0.0592	ppm(v/v)	100	0.40	EPA-21 TO-14A
Toluene	0.0557	0.0559	ppm(v/v)	100		EPA-21 TO-14A
	0.0557	0.0554	ppm(v/v)	99	0.98	EPA-21 TO-14A
1,1,2,2-Tetrachloroethane	0.0554	0.0479	ppm(v/v)	86		EPA-21 TO-14A
	0.0554	0.0492	ppm(v/v)	89	2.7	EPA-21 TO-14A

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

EXECUTIVE SUMMARY - Detection Highlights

E2K080194

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
GAC002E_AV110702_0001 11/07/02 15:15	001			
Total Non-Methane Hydrocarbons	1.4	0.50	ppm(v/v)	EPA-21 TO-14A
Trichlorofluoromethane	0.0065	0.0020	ppm(v/v)	EPA-21 TO-14A
1,1-Dichloroethene	0.38	0.0020	ppm(v/v)	EPA-21 TO-14A
1,1,2-Trichloro-1,2,2-trifluoroethane	0.0021	0.0020	ppm(v/v)	EPA-21 TO-14A
Acetone	0.0039 J	0.010	ppm(v/v)	EPA-21 TO-14A
Methylene chloride	0.0023	0.0020	ppm(v/v)	EPA-21 TO-14A
1,1-Dichloroethane	0.015	0.0020	ppm(v/v)	EPA-21 TO-14A
cis-1,2-Dichloroethene	0.0082	0.0020	ppm(v/v)	EPA-21 TO-14A
Chloroform	0.80	0.020	ppm(v/v)	EPA-21 TO-14A
1,1,1-Trichloroethane	0.029	0.0020	ppm(v/v)	EPA-21 TO-14A
Carbon tetrachloride	0.0042	0.0020	ppm(v/v)	EPA-21 TO-14A
Trichloroethene	0.0071	0.0020	ppm(v/v)	EPA-21 TO-14A
Toluene	0.0025 J	0.0050	ppm(v/v)	EPA-21 TO-14A
Tetrachloroethene	0.00085 J	0.0020	ppm(v/v)	EPA-21 TO-14A
Ethylbenzene	0.00052 J	0.0020	ppm(v/v)	EPA-21 TO-14A
Xylenes (total)	0.0029	0.0020	ppm(v/v)	EPA-21 TO-14A
4-Ethyltoluene	0.0015 J	0.0020	ppm(v/v)	EPA-21 TO-14A
1,2,4-Trimethylbenzene	0.0021	0.0020	ppm(v/v)	EPA-21 TO-14A
GAC002U_AV110702_0001 11/07/02 15:20	002			
Total Non-Methane Hydrocarbons	6.9	5.0	ppm(v/v)	EPA-21 TO-14A
Trichlorofluoromethane	0.0076 J	0.020	ppm(v/v)	EPA-21 TO-14A
1,1-Dichloroethene	0.36	0.020	ppm(v/v)	EPA-21 TO-14A
1,1-Dichloroethane	0.014 J	0.020	ppm(v/v)	EPA-21 TO-14A
cis-1,2-Dichloroethene	0.014 J	0.020	ppm(v/v)	EPA-21 TO-14A
Chloroform	0.69	0.020	ppm(v/v)	EPA-21 TO-14A
1,1,1-Trichloroethane	0.051	0.020	ppm(v/v)	EPA-21 TO-14A
Carbon tetrachloride	0.019 J	0.020	ppm(v/v)	EPA-21 TO-14A
Trichloroethene	3.0	0.020	ppm(v/v)	EPA-21 TO-14A
Tetrachloroethene	0.091	0.020	ppm(v/v)	EPA-21 TO-14A
GAC002D_AV110702_0001 11/07/02 15:25	003			
Total Non-Methane Hydrocarbons	4.5	2.5	ppm(v/v)	EPA-21 TO-14A
Trichlorofluoromethane	0.0066 J	0.010	ppm(v/v)	EPA-21 TO-14A
1,1-Dichloroethene	0.29	0.010	ppm(v/v)	EPA-21 TO-14A
Acetone	0.016 J	0.050	ppm(v/v)	EPA-21 TO-14A
Methylene chloride	0.0040 J	0.010	ppm(v/v)	EPA-21 TO-14A
1,1-Dichloroethane	0.011	0.010	ppm(v/v)	EPA-21 TO-14A
cis-1,2-Dichloroethene	0.011	0.010	ppm(v/v)	EPA-21 TO-14A
Chloroform	0.52	0.010	ppm(v/v)	EPA-21 TO-14A

(Continued on next page)

EXECUTIVE SUMMARY - Detection Highlights

E2K080194

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
GAC002D_AV110702_0001 11/07/02 15:25	003			
1,1,1-Trichloroethane	0.039	0.010	ppm(v/v)	EPA-21 TO-14A
Carbon tetrachloride	0.015	0.010	ppm(v/v)	EPA-21 TO-14A
Trichloroethene	2.0	0.010	ppm(v/v)	EPA-21 TO-14A
Toluene	0.011 J	0.025	ppm(v/v)	EPA-21 TO-14A
Tetrachloroethene	0.050	0.010	ppm(v/v)	EPA-21 TO-14A
Xylenes (total)	0.013	0.010	ppm(v/v)	EPA-21 TO-14A
4-Ethyltoluene	0.0053 J	0.010	ppm(v/v)	EPA-21 TO-14A
1,2,4-Trimethylbenzene	0.0059 J	0.010	ppm(v/v)	EPA-21 TO-14A
Methyl tert-butyl ether (MTBE)	0.0078 J	0.050	ppm(v/v)	EPA-21 TO-14A

METHODS SUMMARY

E2K080194

PARAMETER	ANALYTICAL METHOD	PREPARATION METHOD
Volatile Organics by TO-14A	EPA-21 TO-14A	

References:

EPA-21 "Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air", Second Edition, EPA/625/R-96/010b, January 1999

SAMPLE SUMMARY

E2K080194

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
FCNWW	001	GAC002E_AV110702_0001	11/07/02	15:15
FCNW6	002	GAC002U_AV110702_0001	11/07/02	15:20
FCNW8	003	GAC002D_AV110702_0001	11/07/02	15:25

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

HALEY & ALDRICH INC

Client Sample ID: GAC002E_AV110702_0001

GC/MS Volatiles

Lot-Sample #...: E2K080194-001 **Work Order #...:** FCNWW1AA **Matrix.....:** AA
Date Sampled...: 11/07/02 15:15 **Date Received..:** 11/08/02 09:55 **MS Run #.....:**
Prep Date.....: 11/08/02 **Analysis Date..:** 11/08/02
Prep Batch #...: 2316492 **Analysis Time..:** 22:38
Dilution Factor: 1
Analyst ID.....: 117751 **Instrument ID..:** MSA
Method.....: EPA-21 TO-14A

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Total Non-Methane Hydrocarbons as Hexane	**1.4**	**0.50**	**ppm(v/v)**	**0.10**
Dichlorodifluoromethane	ND	0.0020	ppm(v/v)	0.00050
Chloromethane	ND	0.0040	ppm(v/v)	0.0010
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	0.0020	ppm(v/v)	0.00080
Vinyl chloride	ND	0.0020	ppm(v/v)	0.00080
Bromomethane	ND	0.0020	ppm(v/v)	0.0010
Chloroethane	ND	0.0040	ppm(v/v)	0.00080
Trichlorofluoromethane	**0.0065**	**0.0020**	**ppm(v/v)**	**0.00050**
1,1-Dichloroethene	**0.38**	**0.0020**	**ppm(v/v)**	**0.00050**
Carbon disulfide	ND	0.010	ppm(v/v)	0.0020
1,1,2-Trichloro-1,2,2-trifluoroethane	**0.0021**	**0.0020**	**ppm(v/v)**	**0.00050**
Acetone	**0.0039 J**	**0.010**	**ppm(v/v)**	**0.0020**
Methylene chloride	**0.0023**	**0.0020**	**ppm(v/v)**	**0.00080**
trans-1,2-Dichloroethene	ND	0.0020	ppm(v/v)	0.00050
1,1-Dichloroethane	**0.015**	**0.0020**	**ppm(v/v)**	**0.00050**
Vinyl acetate	ND	0.010	ppm(v/v)	0.0020
cis-1,2-Dichloroethene	**0.0082**	**0.0020**	**ppm(v/v)**	**0.00080**
2-Butanone (MEK)	ND	0.010	ppm(v/v)	0.0020
1,1,1-Trichloroethane	**0.029**	**0.0020**	**ppm(v/v)**	**0.00050**
Carbon tetrachloride	**0.0042**	**0.0020**	**ppm(v/v)**	**0.00050**
Benzene	ND	0.0020	ppm(v/v)	0.00080
1,2-Dichloroethane	ND	0.0020	ppm(v/v)	0.00080
Trichloroethene	**0.0071**	**0.0020**	**ppm(v/v)**	**0.00060**
1,2-Dichloropropane	ND	0.0020	ppm(v/v)	0.00080
Bromodichloromethane	ND	0.0020	ppm(v/v)	0.00080
cis-1,3-Dichloropropene	ND	0.0020	ppm(v/v)	0.00050
4-Methyl-2-pentanone (MIBK)	ND	0.010	ppm(v/v)	0.0020
Toluene	**0.0025 J**	**0.0050**	**ppm(v/v)**	**0.00050**
trans-1,3-Dichloropropene	ND	0.0020	ppm(v/v)	0.00080
1,1,2-Trichloroethane	ND	0.0020	ppm(v/v)	0.00060
Tetrachloroethene	**0.00085 J**	**0.0020**	**ppm(v/v)**	**0.00050**
2-Hexanone	ND	0.030	ppm(v/v)	0.0010
Dibromochloromethane	ND	0.0020	ppm(v/v)	0.00050

(Continued on next page)

HALEY & ALDRICH INC

Client Sample ID: GAC002E_AV110702_0001

GC/MS Volatiles

Lot-Sample #...: E2K080194-001 **Work Order #...:** FCNWW1AA **Matrix.....:** AA

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
1,2-Dibromoethane (EDB)	ND	0.0020	ppm(v/v)	0.00050
Chlorobenzene	ND	0.0020	ppm(v/v)	0.00050
Ethylbenzene	**0.00052 J**	**0.0020**	**ppm(v/v)**	**0.00050**
Xylenes (total)	**0.0029**	**0.0020**	**ppm(v/v)**	**0.00080**
Styrene	ND	0.0020	ppm(v/v)	0.00060
Bromoform	ND	0.0020	ppm(v/v)	0.00050
1,1,2,2-Tetrachloroethane	ND	0.0020	ppm(v/v)	0.00050
Benzyl chloride	ND	0.010	ppm(v/v)	0.00080
4-Ethyltoluene	**0.0015 J**	**0.0020**	**ppm(v/v)**	**0.00070**
1,3,5-Trimethylbenzene	ND	0.0020	ppm(v/v)	0.00080
1,2,4-Trimethylbenzene	**0.0021**	**0.0020**	**ppm(v/v)**	**0.00050**
1,3-Dichlorobenzene	ND	0.0020	ppm(v/v)	0.00060
1,4-Dichlorobenzene	ND	0.0020	ppm(v/v)	0.00080
1,2-Dichlorobenzene	ND	0.0020	ppm(v/v)	0.00080
1,2,4-Trichloro-benzene	ND	0.020	ppm(v/v)	0.00060
Hexachlorobutadiene	ND	0.0040	ppm(v/v)	0.0010
Methyl tert-butyl ether (MTBE)	ND	0.010	ppm(v/v)	0.00050

NOTE(S):

J Estimated result. Result is less than RL.

HALEY & ALDRICH INC

GAC002E_AV110702_0001

GC/MS Volatiles

Lot-Sample #: E2K080194-001 Work Order #: FCNWW1AA Matrix: AA

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT		RETENTION TIME	UNITS
butane, 2-methyl-	78-78-4	0.035	M	3.7921	ppm(v/v)

NOTE(S):

M: Result was measured against nearest internal standard assuming a response factor of 1.

HALEY & ALDRICH INC

Client Sample ID: GAC002E_AV110702_0001

GC/MS Volatiles

Lot-Sample #...:	E2K080194-001	Work Order #...:	FCNWW2AA	Matrix.....:	AA
Date Sampled...:	11/07/02 15:15	Date Received..:	11/08/02 09:55	MS Run #.....:	
Prep Date.....:	11/09/02	Analysis Date..:	11/09/02		
Prep Batch #...:	2316495	Analysis Time..:	17:11		
Dilution Factor:	10				
Analyst ID.....:	117751	Instrument ID..:	MSA		
		Method.....:	EPA-21 TO-14A		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Chloroform	0.80	0.020	ppm(v/v)	0.0080

HALEY & ALDRICH INC

Client Sample ID: GAC002U_AV110702_0001

GC/MS Volatiles

Lot-Sample #...:	E2K080194-002	Work Order #...:	FCNW61AA	Matrix.....:	AA
Date Sampled...:	11/07/02 15:20	Date Received..:	11/08/02 09:55	MS Run #.....:	
Prep Date.....:	11/08/02	Analysis Date..:	11/08/02		
Prep Batch #...:	2316492	Analysis Time..:	23:12		
Dilution Factor:	10				
Analyst ID.....:	117751	Instrument ID..:	MSA		
		Method.....:	EPA-21 TO-14A		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Total Non-Methane Hydrocarbons as Hexane	**6.9**	**5.0**	**ppm(v/v)**	**1.0**
Dichlorodifluoromethane	ND	0.020	ppm(v/v)	0.0050
Chloromethane	ND	0.040	ppm(v/v)	0.010
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	0.020	ppm(v/v)	0.0080
Vinyl chloride	ND	0.020	ppm(v/v)	0.0080
Bromomethane	ND	0.020	ppm(v/v)	0.010
Chloroethane	ND	0.040	ppm(v/v)	0.0080
Trichlorofluoromethane	**0.0076 J**	**0.020**	**ppm(v/v)**	**0.0050**
1,1-Dichloroethene	**0.36**	**0.020**	**ppm(v/v)**	**0.0050**
Carbon disulfide	ND	0.10	ppm(v/v)	0.020
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	0.020	ppm(v/v)	0.0050
Acetone	ND	0.10	ppm(v/v)	0.020
Methylene chloride	ND	0.020	ppm(v/v)	0.0080
trans-1,2-Dichloroethene	ND	0.020	ppm(v/v)	0.0050
1,1-Dichloroethane	**0.014 J**	**0.020**	**ppm(v/v)**	**0.0050**
Vinyl acetate	ND	0.10	ppm(v/v)	0.020
cis-1,2-Dichloroethene	**0.014 J**	**0.020**	**ppm(v/v)**	**0.0080**
2-Butanone (MEK)	ND	0.10	ppm(v/v)	0.020
Chloroform	**0.69**	**0.020**	**ppm(v/v)**	**0.0080**
1,1,1-Trichloroethane	**0.051**	**0.020**	**ppm(v/v)**	**0.0050**
Carbon tetrachloride	**0.019 J**	**0.020**	**ppm(v/v)**	**0.0050**
Benzene	ND	0.020	ppm(v/v)	0.0080
1,2-Dichloroethane	ND	0.020	ppm(v/v)	0.0080
Trichloroethene	**3.0**	**0.020**	**ppm(v/v)**	**0.0060**
1,2-Dichloropropane	ND	0.020	ppm(v/v)	0.0080
Bromodichloromethane	ND	0.020	ppm(v/v)	0.0080
cis-1,3-Dichloropropene	ND	0.020	ppm(v/v)	0.0050
4-Methyl-2-pentanone (MIBK)	ND	0.10	ppm(v/v)	0.020
Toluene	ND	0.050	ppm(v/v)	0.0050
trans-1,3-Dichloropropene	ND	0.020	ppm(v/v)	0.0080
1,1,2-Trichloroethane	ND	0.020	ppm(v/v)	0.0060
Tetrachloroethene	**0.091**	**0.020**	**ppm(v/v)**	**0.0050**
2-Hexanone	ND	0.30	ppm(v/v)	0.010

(Continued on next page)

HALEY & ALDRICH INC

Client Sample ID: GAC002U_AV110702_0001

GC/MS Volatiles

Lot-Sample #...: E2K080194-002 **Work Order #...:** FCNW61AA **Matrix.....:** AA

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Dibromochloromethane	ND	0.020	ppm(v/v)	0.0050
1,2-Dibromoethane (EDB)	ND	0.020	ppm(v/v)	0.0050
Chlorobenzene	ND	0.020	ppm(v/v)	0.0050
Ethylbenzene	ND	0.020	ppm(v/v)	0.0050
Xylenes (total)	ND	0.020	ppm(v/v)	0.0080
Styrene	ND	0.020	ppm(v/v)	0.0060
Bromoform	ND	0.020	ppm(v/v)	0.0050
1,1,2,2-Tetrachloroethane	ND	0.020	ppm(v/v)	0.0050
Benzyl chloride	ND	0.10	ppm(v/v)	0.0080
4-Ethyltoluene	ND	0.020	ppm(v/v)	0.0070
1,3,5-Trimethylbenzene	ND	0.020	ppm(v/v)	0.0080
1,2,4-Trimethylbenzene	ND	0.020	ppm(v/v)	0.0050
1,3-Dichlorobenzene	ND	0.020	ppm(v/v)	0.0060
1,4-Dichlorobenzene	ND	0.020	ppm(v/v)	0.0080
1,2-Dichlorobenzene	ND	0.020	ppm(v/v)	0.0080
1,2,4-Trichloro-benzene	ND	0.20	ppm(v/v)	0.0060
Hexachlorobutadiene	ND	0.040	ppm(v/v)	0.010
Methyl tert-butyl ether (MTBE)	ND	0.10	ppm(v/v)	0.0050

NOTE(S):

J Estimated result. Result is less than RL.

HALEY & ALDRICH INC

GAC002U_AV110702_0001

GC/MS Volatiles

Lot-Sample #: E2K080194-002 Work Order #: FCNW61AA Matrix: AA

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT	RETENTION TIME	UNITS
None				ppm(v/v)

HALEY & ALDRICH INC

Client Sample ID: GAC002D_AV110702_0001

GC/MS Volatiles

Lot-Sample #...: E2K080194-003 **Work Order #...:** FCNW81AA **Matrix.....:** AA
Date Sampled...: 11/07/02 15:25 **Date Received..:** 11/08/02 09:55 **MS Run #.....:**
Prep Date.....: 11/09/02 **Analysis Date..:** 11/09/02
Prep Batch #...: 2316495 **Analysis Time..:** 17:44
Dilution Factor: 5
Analyst ID.....: 117751 **Instrument ID..:** MSA
Method.....: EPA-21 TO-14A

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Total Non-Methane Hydrocarbons as Hexane	**4.5**	**2.5**	**ppm(v/v)**	**0.50**
Dichlorodifluoromethane	ND	0.010	ppm(v/v)	0.0025
Chloromethane	ND	0.020	ppm(v/v)	0.0050
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	0.010	ppm(v/v)	0.0040
Vinyl chloride	ND	0.010	ppm(v/v)	0.0040
Bromomethane	ND	0.010	ppm(v/v)	0.0050
Chloroethane	ND	0.020	ppm(v/v)	0.0040
Trichlorofluoromethane	**0.0066 J**	**0.010**	**ppm(v/v)**	**0.0025**
1,1-Dichloroethene	**0.29**	**0.010**	**ppm(v/v)**	**0.0025**
Carbon disulfide	ND	0.050	ppm(v/v)	0.010
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	0.010	ppm(v/v)	0.0025
Acetone	**0.016 J**	**0.050**	**ppm(v/v)**	**0.010**
Methylene chloride	**0.0040 J**	**0.010**	**ppm(v/v)**	**0.0040**
trans-1,2-Dichloroethene	ND	0.010	ppm(v/v)	0.0025
1,1-Dichloroethane	**0.011**	**0.010**	**ppm(v/v)**	**0.0025**
Vinyl acetate	ND	0.050	ppm(v/v)	0.010
cis-1,2-Dichloroethene	**0.011**	**0.010**	**ppm(v/v)**	**0.0040**
2-Butanone (MEK)	ND	0.050	ppm(v/v)	0.010
Chloroform	**0.52**	**0.010**	**ppm(v/v)**	**0.0040**
1,1,1-Trichloroethane	**0.039**	**0.010**	**ppm(v/v)**	**0.0025**
Carbon tetrachloride	**0.015**	**0.010**	**ppm(v/v)**	**0.0025**
Benzene	ND	0.010	ppm(v/v)	0.0040
1,2-Dichloroethane	ND	0.010	ppm(v/v)	0.0040
Trichloroethene	**2.0**	**0.010**	**ppm(v/v)**	**0.0030**
1,2-Dichloropropane	ND	0.010	ppm(v/v)	0.0040
Bromodichloromethane	ND	0.010	ppm(v/v)	0.0040
cis-1,3-Dichloropropene	ND	0.010	ppm(v/v)	0.0025
4-Methyl-2-pentanone (MIBK)	ND	0.050	ppm(v/v)	0.010
Toluene	**0.011 J**	**0.025**	**ppm(v/v)**	**0.0025**
trans-1,3-Dichloropropene	ND	0.010	ppm(v/v)	0.0040
1,1,2-Trichloroethane	ND	0.010	ppm(v/v)	0.0030
Tetrachloroethene	**0.050**	**0.010**	**ppm(v/v)**	**0.0025**
2-Hexanone	ND	0.15	ppm(v/v)	0.0050

(Continued on next page)

HALEY & ALDRICH INC

Client Sample ID: GAC002D_AV110702_0001

GC/MS Volatiles

Lot-Sample #...: E2K080194-003 Work Order #...: FCNW81AA Matrix.....: AA

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Dibromochloromethane	ND	0.010	ppm(v/v)	0.0025
1,2-Dibromoethane (EDB)	ND	0.010	ppm(v/v)	0.0025
Chlorobenzene	ND	0.010	ppm(v/v)	0.0025
Ethylbenzene	ND	0.010	ppm(v/v)	0.0025
Xylenes (total)	**0.013**	**0.010**	**ppm(v/v)**	**0.0040**
Styrene	ND	0.010	ppm(v/v)	0.0030
Bromoform	ND	0.010	ppm(v/v)	0.0025
1,1,2,2-Tetrachloroethane	ND	0.010	ppm(v/v)	0.0025
Benzyl chloride	ND	0.050	ppm(v/v)	0.0040
4-Ethyltoluene	**0.0053 J**	**0.010**	**ppm(v/v)**	**0.0035**
1,3,5-Trimethylbenzene	ND	0.010	ppm(v/v)	0.0040
1,2,4-Trimethylbenzene	**0.0059 J**	**0.010**	**ppm(v/v)**	**0.0025**
1,3-Dichlorobenzene	ND	0.010	ppm(v/v)	0.0030
1,4-Dichlorobenzene	ND	0.010	ppm(v/v)	0.0040
1,2-Dichlorobenzene	ND	0.010	ppm(v/v)	0.0040
1,2,4-Trichloro-benzene	ND	0.10	ppm(v/v)	0.0030
Hexachlorobutadiene	ND	0.020	ppm(v/v)	0.0050
Methyl tert-butyl ether (MTBE)	**0.0078 J**	**0.050**	**ppm(v/v)**	**0.0025**

NOTE(S):

J Estimated result. Result is less than RL.

HALEY & ALDRICH INC

GAC002D_AV110702_0001

GC/MS Volatiles

Lot-Sample #: E2K080194-003 **Work Order #:** FCNW81AA **Matrix:** AA

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT	RETENTION TIME	UNITS
None				ppm(v/v)

QC DATA ASSOCIATION SUMMARY

E2K080194

Sample Preparation and Analysis Control Numbers

SAMPLE#	MATRIX	ANALYTICAL METHOD	LEACH BATCH #	PREP BATCH #	MS RUN#
001	AA	EPA-21 TO-14A		2316492	
	AA	EPA-21 TO-14A		2316495	
002	AA	EPA-21 TO-14A		2316492	
003	AA	EPA-21 TO-14A		2316495	

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: E2K080194
MB Lot-Sample #: M2K120000-492

Work Order #...: FCX5L1AA

Matrix.....: AIR

Prep Date.....: 11/08/02

Analysis Time..: 11:23

Analysis Date..: 11/08/02
Dilution Factor: 1

Prep Batch #...: 2316492

Instrument ID..: MSA

Analyst ID.....: 117751

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Total Non-Methane Hydroca	ND	0.50	ppm(v/v)	EPA-21 TO-14A
Dichlorodifluoromethane	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
Chloromethane	ND	0.0040	ppm(v/v)	EPA-21 TO-14A
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
Vinyl chloride	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
Bromomethane	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
Chloroethane	ND	0.0040	ppm(v/v)	EPA-21 TO-14A
Trichlorofluoromethane	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
1,1-Dichloroethene	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
Carbon disulfide	ND	0.010	ppm(v/v)	EPA-21 TO-14A
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
Acetone	ND	0.010	ppm(v/v)	EPA-21 TO-14A
Methylene chloride	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
trans-1,2-Dichloroethene	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
1,1-Dichloroethane	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
Vinyl acetate	ND	0.010	ppm(v/v)	EPA-21 TO-14A
cis-1,2-Dichloroethene	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
2-Butanone (MEK)	ND	0.010	ppm(v/v)	EPA-21 TO-14A
Chloroform	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
1,1,1-Trichloroethane	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
Carbon tetrachloride	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
Benzene	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
1,2-Dichloroethane	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
Trichloroethene	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
1,2-Dichloropropane	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
Bromodichloromethane	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
cis-1,3-Dichloropropene	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
4-Methyl-2-pentanone (MIBK)	ND	0.010	ppm(v/v)	EPA-21 TO-14A
Toluene	ND	0.0050	ppm(v/v)	EPA-21 TO-14A
trans-1,3-Dichloropropene	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
1,1,2-Trichloroethane	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
Tetrachloroethene	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
2-Hexanone	ND	0.030	ppm(v/v)	EPA-21 TO-14A
Dibromochloromethane	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
1,2-Dibromoethane (EDB)	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
Chlorobenzene	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
Ethylbenzene	ND	0.0020	ppm(v/v)	EPA-21 TO-14A

(Continued on next page)

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: E2K080194 Work Order #...: FCX5L1AA Matrix.....: AIR

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Xylenes (total)	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
Styrene	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
Bromoform	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
1,1,2,2-Tetrachloroethane	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
Benzyl chloride	ND	0.010	ppm(v/v)	EPA-21 TO-14A
4-Ethyltoluene	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
1,3,5-Trimethylbenzene	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
1,2,4-Trimethylbenzene	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
1,3-Dichlorobenzene	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
1,4-Dichlorobenzene	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
1,2-Dichlorobenzene	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
1,2,4-Trichloro-benzene	ND	0.020	ppm(v/v)	EPA-21 TO-14A
Hexachlorobutadiene	ND	0.0040	ppm(v/v)	EPA-21 TO-14A
Methyl tert-butyl ether (MTBE)	ND	0.010	ppm(v/v)	EPA-21 TO-14A

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: E2K080194
MB Lot-Sample #: M2K120000-495

Work Order #...: FCX6P1AA

Matrix.....: AIR

Prep Date.....: 11/09/02

Analysis Time..: 10:43

Analysis Date..: 11/09/02

Prep Batch #...: 2316495

Instrument ID..: MSA

Dilution Factor: 1

Analyst ID.....: 117751

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Total Non-Methane Hydroca	ND	0.50	ppm(v/v)	EPA-21 TO-14A
Dichlorodifluoromethane	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
Chloromethane	ND	0.0040	ppm(v/v)	EPA-21 TO-14A
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
Vinyl chloride	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
Bromomethane	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
Chloroethane	ND	0.0040	ppm(v/v)	EPA-21 TO-14A
Trichlorofluoromethane	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
1,1-Dichloroethene	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
Carbon disulfide	ND	0.010	ppm(v/v)	EPA-21 TO-14A
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
Acetone	ND	0.010	ppm(v/v)	EPA-21 TO-14A
Methylene chloride	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
trans-1,2-Dichloroethene	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
1,1-Dichloroethane	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
Vinyl acetate	ND	0.010	ppm(v/v)	EPA-21 TO-14A
cis-1,2-Dichloroethene	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
2-Butanone (MEK)	ND	0.010	ppm(v/v)	EPA-21 TO-14A
Chloroform	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
1,1,1-Trichloroethane	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
Carbon tetrachloride	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
Benzene	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
1,2-Dichloroethane	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
Trichloroethene	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
1,2-Dichloropropane	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
Bromodichloromethane	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
cis-1,3-Dichloropropene	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
4-Methyl-2-pentanone (MIBK)	ND	0.010	ppm(v/v)	EPA-21 TO-14A
Toluene	ND	0.0050	ppm(v/v)	EPA-21 TO-14A
trans-1,3-Dichloropropene	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
1,1,2-Trichloroethane	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
Tetrachloroethene	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
2-Hexanone	ND	0.030	ppm(v/v)	EPA-21 TO-14A
Dibromochloromethane	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
1,2-Dibromoethane (EDB)	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
Chlorobenzene	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
Ethylbenzene	ND	0.0020	ppm(v/v)	EPA-21 TO-14A

(Continued on next page)

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: E2K080194 **Work Order #...:** FCX6P1AA **Matrix.....:** AIR

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Xylenes (total)	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
Styrene	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
Bromoform	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
1,1,2,2-Tetrachloroethane	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
Benzyl chloride	ND	0.010	ppm(v/v)	EPA-21 TO-14A
4-Ethyltoluene	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
1,3,5-Trimethylbenzene	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
1,2,4-Trimethylbenzene	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
1,3-Dichlorobenzene	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
1,4-Dichlorobenzene	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
1,2-Dichlorobenzene	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
1,2,4-Trichloro-benzene	ND	0.020	ppm(v/v)	EPA-21 TO-14A
Hexachlorobutadiene	ND	0.0040	ppm(v/v)	EPA-21 TO-14A
Methyl tert-butyl ether (MTBE)	ND	0.010	ppm(v/v)	EPA-21 TO-14A

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: E2K080194
LCS Lot-Sample#: M2K120000-492
Prep Date.....: 11/08/02
Prep Batch #...: 2316492
Dilution Factor: 1
Analyst ID.....: 117751

Work Order #...: FCX5L1AC-LCS
FCX5L1AD-LCSD
Analysis Date..: 11/08/02
Analysis Time..: 10:20
Instrument ID..: MSA

Matrix.....: AIR

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,1-Dichloroethene	109	(70 - 125)			EPA-21 TO-14A
	109	(70 - 125)	0.090	(0-20)	EPA-21 TO-14A
Methylene chloride	98	(75 - 120)			EPA-21 TO-14A
	97	(75 - 120)	1.9	(0-20)	EPA-21 TO-14A
Trichloroethene	102	(80 - 125)			EPA-21 TO-14A
	102	(80 - 125)	0.020	(0-20)	EPA-21 TO-14A
Toluene	100	(70 - 120)			EPA-21 TO-14A
	101	(70 - 120)	1.1	(0-20)	EPA-21 TO-14A
1,1,2,2-Tetrachloroethane	100	(70 - 130)			EPA-21 TO-14A
	102	(70 - 130)	1.7	(0-20)	EPA-21 TO-14A

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...: E2K080194 Work Order #...: FCX5L1AC-LCS Matrix.....: AIR
LCS Lot-Sample#: M2K120000-492 FCX5L1AD-LCSD
Prep Date.....: 11/08/02 Analysis Date..: 11/08/02
Prep Batch #...: 2316492 Analysis Time..: 10:20
Dilution Factor: 1 Instrument ID..: MSA
Analyst ID.....: 117751

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	RPD	METHOD
1,1-Dichloroethene	0.0500	0.0544	ppm(v/v)	109		EPA-21 TO-14A
	0.0500	0.0543	ppm(v/v)	109	0.090	EPA-21 TO-14A
Methylene chloride	0.0500	0.0492	ppm(v/v)	98		EPA-21 TO-14A
	0.0500	0.0483	ppm(v/v)	97	1.9	EPA-21 TO-14A
Trichloroethene	0.0500	0.0512	ppm(v/v)	102		EPA-21 TO-14A
	0.0500	0.0512	ppm(v/v)	102	0.020	EPA-21 TO-14A
Toluene	0.0500	0.0498	ppm(v/v)	100		EPA-21 TO-14A
	0.0500	0.0504	ppm(v/v)	101	1.1	EPA-21 TO-14A
1,1,2,2-Tetrachloroethane	0.0500	0.0499	ppm(v/v)	100		EPA-21 TO-14A
	0.0500	0.0508	ppm(v/v)	102	1.7	EPA-21 TO-14A

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: E2K080194 Work Order #...: FCX6P1AC-LCS Matrix.....: AIR
LCS Lot-Sample#: M2K120000-495 FCX6P1AD-LCSD
Prep Date.....: 11/09/02 Analysis Date..: 11/09/02
Prep Batch #...: 2316495 Analysis Time..: 09:39
Dilution Factor: 1 Instrument ID..: MSA
Analyst ID.....: 117751

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,1-Dichloroethene	110	(70 - 125)			EPA-21 TO-14A
	109	(70 - 125)	1.6	(0-20)	EPA-21 TO-14A
Methylene chloride	98	(75 - 120)			EPA-21 TO-14A
	97	(75 - 120)	1.0	(0-20)	EPA-21 TO-14A
Trichloroethene	102	(80 - 125)			EPA-21 TO-14A
	102	(80 - 125)	0.11	(0-20)	EPA-21 TO-14A
Toluene	100	(70 - 120)			EPA-21 TO-14A
	100	(70 - 120)	0.26	(0-20)	EPA-21 TO-14A
1,1,2,2-Tetrachloroethane	101	(70 - 130)			EPA-21 TO-14A
	93	(70 - 130)	8.7	(0-20)	EPA-21 TO-14A

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...: E2K080194
LCS Lot-Sample#: M2K120000-495
Prep Date.....: 11/09/02
Prep Batch #...: 2316495
Dilution Factor: 1
Analyst ID.....: 117751

Work Order #...: FCX6P1AC-LCS
FCX6P1AD-LCSD
Analysis Date..: 11/09/02
Analysis Time..: 09:39
Instrument ID..: MSA

Matrix.....: AIR

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	RPD	METHOD
1,1-Dichloroethene	0.0500	0.0552	ppm(v/v)	110		EPA-21 TO-14A
	0.0500	0.0544	ppm(v/v)	109	1.6	EPA-21 TO-14A
Methylene chloride	0.0500	0.0491	ppm(v/v)	98		EPA-21 TO-14A
	0.0500	0.0486	ppm(v/v)	97	1.0	EPA-21 TO-14A
Trichloroethene	0.0500	0.0512	ppm(v/v)	102		EPA-21 TO-14A
	0.0500	0.0511	ppm(v/v)	102	0.11	EPA-21 TO-14A
Toluene	0.0500	0.0498	ppm(v/v)	100		EPA-21 TO-14A
	0.0500	0.0500	ppm(v/v)	100	0.26	EPA-21 TO-14A
1,1,2,2-Tetrachloroethane	0.0500	0.0507	ppm(v/v)	101		EPA-21 TO-14A
	0.0500	0.0465	ppm(v/v)	93	8.7	EPA-21 TO-14A

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

EXECUTIVE SUMMARY - Detection Highlights

E3B190275

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
2_VEW_15B_AV021903_0001 02/19/03 11:50 001				
Total Non-Methane Hydrocarbons	11	10	ppm(v/v)	EPA-21 TO-14A
Dichlorodifluoromethane	0.013 J	0.040	ppm(v/v)	EPA-21 TO-14A
1,1-Dichloroethene	0.48	0.040	ppm(v/v)	EPA-21 TO-14A
Chloroform	0.058	0.040	ppm(v/v)	EPA-21 TO-14A
Trichloroethene	5.4	0.040	ppm(v/v)	EPA-21 TO-14A
Toluene	0.023 J	0.10	ppm(v/v)	EPA-21 TO-14A
Tetrachloroethene	0.14	0.040	ppm(v/v)	EPA-21 TO-14A
2_VEW_19_AV021903_0001 02/19/03 12:20 002				
Total Non-Methane Hydrocarbons	9.7	8.3	ppm(v/v)	EPA-21 TO-14A
1,1-Dichloroethene	0.43	0.033	ppm(v/v)	EPA-21 TO-14A
Chloroform	0.016 J	0.033	ppm(v/v)	EPA-21 TO-14A
Trichloroethene	4.9	0.033	ppm(v/v)	EPA-21 TO-14A
Toluene	0.024 J	0.083	ppm(v/v)	EPA-21 TO-14A
Tetrachloroethene	0.074	0.033	ppm(v/v)	EPA-21 TO-14A
Xylenes (total)	0.021 J	0.033	ppm(v/v)	EPA-21 TO-14A
2_VEW_11B_AV021903_0001 02/19/03 12:30 003				
Total Non-Methane Hydrocarbons	4.9	3.6	ppm(v/v)	EPA-21 TO-14A
1,1-Dichloroethene	0.28	0.014	ppm(v/v)	EPA-21 TO-14A
2-Butanone (MEK)	0.023 J	0.071	ppm(v/v)	EPA-21 TO-14A
Chloroform	0.0091 J	0.014	ppm(v/v)	EPA-21 TO-14A
Trichloroethene	2.4	0.014	ppm(v/v)	EPA-21 TO-14A
Toluene	0.020 J	0.036	ppm(v/v)	EPA-21 TO-14A
Tetrachloroethene	0.043	0.014	ppm(v/v)	EPA-21 TO-14A
Ethylbenzene	0.0040 J	0.014	ppm(v/v)	EPA-21 TO-14A
Xylenes (total)	0.023	0.014	ppm(v/v)	EPA-21 TO-14A
4-Ethyltoluene	0.0084 J	0.014	ppm(v/v)	EPA-21 TO-14A
1,2,4-Trimethylbenzene	0.0072 J	0.014	ppm(v/v)	EPA-21 TO-14A
2_VEW_9_AV021903_0001 02/19/03 12:45 004				
Total Non-Methane Hydrocarbons	10	8.3	ppm(v/v)	EPA-21 TO-14A
1,1-Dichloroethene	0.29	0.033	ppm(v/v)	EPA-21 TO-14A
Chloroform	0.020 J	0.033	ppm(v/v)	EPA-21 TO-14A
Trichloroethene	5.2	0.033	ppm(v/v)	EPA-21 TO-14A
Toluene	0.016 J	0.083	ppm(v/v)	EPA-21 TO-14A
Tetrachloroethene	0.045	0.033	ppm(v/v)	EPA-21 TO-14A

(Continued on next page)

EXECUTIVE SUMMARY - Detection Highlights

E3B190275

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
2_VEW_10B_AV021903_0001 02/19/03 13:05 005				
Total Non-Methane Hydrocarbons	18	12	ppm(v/v)	EPA-21 TO-14A
1,1-Dichloroethene	0.31	0.050	ppm(v/v)	EPA-21 TO-14A
1,1-Dichloroethane	0.014 J	0.050	ppm(v/v)	EPA-21 TO-14A
2-Butanone (MEK)	1.0	0.25	ppm(v/v)	EPA-21 TO-14A
Chloroform	0.32	0.050	ppm(v/v)	EPA-21 TO-14A
Trichloroethene	8.5	0.050	ppm(v/v)	EPA-21 TO-14A
Tetrachloroethene	0.069	0.050	ppm(v/v)	EPA-21 TO-14A
2_VEW_8B_AV021903_0001 02/19/03 13:20 006				
Total Non-Methane Hydrocarbons	20	12	ppm(v/v)	EPA-21 TO-14A
1,1-Dichloroethene	0.94	0.050	ppm(v/v)	EPA-21 TO-14A
1,1-Dichloroethane	0.034 J	0.050	ppm(v/v)	EPA-21 TO-14A
cis-1,2-Dichloroethene	0.058	0.050	ppm(v/v)	EPA-21 TO-14A
Chloroform	0.33	0.050	ppm(v/v)	EPA-21 TO-14A
1,1,1-Trichloroethane	0.051	0.050	ppm(v/v)	EPA-21 TO-14A
Carbon tetrachloride	0.013 J	0.050	ppm(v/v)	EPA-21 TO-14A
Trichloroethene	9.7	0.050	ppm(v/v)	EPA-21 TO-14A
Tetrachloroethene	0.13	0.050	ppm(v/v)	EPA-21 TO-14A
2_VEW_4_AV021903_0001 02/19/03 13:35 007				
Total Non-Methane Hydrocarbons	9.9	6.2	ppm(v/v)	EPA-21 TO-14A
1,1-Dichloroethene	0.072	0.025	ppm(v/v)	EPA-21 TO-14A
1,1-Dichloroethane	0.024 J	0.025	ppm(v/v)	EPA-21 TO-14A
cis-1,2-Dichloroethene	0.017 J	0.025	ppm(v/v)	EPA-21 TO-14A
Chloroform	0.034	0.025	ppm(v/v)	EPA-21 TO-14A
1,1,1-Trichloroethane	0.22	0.025	ppm(v/v)	EPA-21 TO-14A
Trichloroethene	4.9	0.025	ppm(v/v)	EPA-21 TO-14A
Toluene	0.0063 J	0.062	ppm(v/v)	EPA-21 TO-14A
Tetrachloroethene	0.023 J	0.025	ppm(v/v)	EPA-21 TO-14A
2_VEW_1B_AV021903_0001 02/19/03 13:55 008				
Total Non-Methane Hydrocarbons	4.6	2.5	ppm(v/v)	EPA-21 TO-14A
1,1-Dichloroethene	0.11	0.010	ppm(v/v)	EPA-21 TO-14A
1,1-Dichloroethane	0.0043 J	0.010	ppm(v/v)	EPA-21 TO-14A
cis-1,2-Dichloroethene	0.0055 J	0.010	ppm(v/v)	EPA-21 TO-14A
Chloroform	0.0081 J	0.010	ppm(v/v)	EPA-21 TO-14A
1,1,1-Trichloroethane	0.0076 J	0.010	ppm(v/v)	EPA-21 TO-14A
Trichloroethene	2.3	0.010	ppm(v/v)	EPA-21 TO-14A
Toluene	0.0077 J	0.025	ppm(v/v)	EPA-21 TO-14A
Tetrachloroethene	0.010	0.010	ppm(v/v)	EPA-21 TO-14A

(Continued on next page)

EXECUTIVE SUMMARY - Detection Highlights

E3B190275

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
2_VEW_1B_AV021903_0001 02/19/03 13:55 008				
Xylenes (total)	0.0086 J	0.010	ppm(v/v)	EPA-21 TO-14A
4-Ethyltoluene	0.0052 J	0.010	ppm(v/v)	EPA-21 TO-14A
1,2,4-Trimethylbenzene	0.0045 J	0.010	ppm(v/v)	EPA-21 TO-14A

METHODS SUMMARY

E3B190275

PARAMETER	ANALYTICAL METHOD	PREPARATION METHOD
Volatile Organics by TO-14A	EPA-21 TO-14A	

References:

EPA-21 "Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air", Second Edition, EPA/625/R-96/010b, January 1999

SAMPLE SUMMARY

E3B190275

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
FHWLN	001	2_VEW_15B_AV021903_0001	02/19/03	11:50
FHWLP	002	2_VEW_19_AV021903_0001	02/19/03	12:20
FHWLQ	003	2_VEW_11B_AV021903_0001	02/19/03	12:30
FHWLR	004	2_VEW_9_AV021903_0001	02/19/03	12:45
FHWLT	005	2_VEW_10B_AV021903_0001	02/19/03	13:05
FHWLV	006	2_VEW_8B_AV021903_0001	02/19/03	13:20
FHWLW	007	2_VEW_4_AV021903_0001	02/19/03	13:35
FHWLX	008	2_VEW_1B_AV021903_0001	02/19/03	13:55

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

HALEY & ALDRICH INC

Client Sample ID: 2_VEW_15B_AV021903_0001

GC/MS Volatiles

Lot-Sample #...: E3B190275-001 Work Order #...: FHWLN1AA Matrix.....: AIR
Date Sampled...: 02/19/03 11:50 Date Received..: 02/19/03 16:50 MS Run #.....:
Prep Date.....: 02/19/03 Analysis Date..: 02/19/03
Prep Batch #...: 3051247 Analysis Time..: 21:42
Dilution Factor: 20
Analyst ID.....: 117751 Instrument ID..: MSB
Method.....: EPA-21 TO-14A

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Total Non-Methane Hydrocarbons as Hexane	**11**	**10**	**ppm(v/v)**	**2.0**
Dichlorodifluoromethane	**0.013 J**	**0.040**	**ppm(v/v)**	**0.010**
Chloromethane	ND	0.080	ppm(v/v)	0.020
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	0.040	ppm(v/v)	0.016
Vinyl chloride	ND	0.040	ppm(v/v)	0.016
Bromomethane	ND	0.040	ppm(v/v)	0.020
Chloroethane	ND	0.080	ppm(v/v)	0.016
Trichlorofluoromethane	ND	0.040	ppm(v/v)	0.010
1,1-Dichloroethene	**0.48**	**0.040**	**ppm(v/v)**	**0.010**
Carbon disulfide	ND	0.20	ppm(v/v)	0.040
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	0.040	ppm(v/v)	0.010
Acetone	ND	0.20	ppm(v/v)	0.040
Methylene chloride	ND	0.040	ppm(v/v)	0.016
trans-1,2-Dichloroethene	ND	0.040	ppm(v/v)	0.010
1,1-Dichloroethane	ND	0.040	ppm(v/v)	0.010
Vinyl acetate	ND	0.20	ppm(v/v)	0.040
cis-1,2-Dichloroethene	ND	0.040	ppm(v/v)	0.016
2-Butanone (MEK)	ND	0.20	ppm(v/v)	0.040
Chloroform	**0.058**	**0.040**	**ppm(v/v)**	**0.016**
1,1,1-Trichloroethane	ND	0.040	ppm(v/v)	0.010
Carbon tetrachloride	ND	0.040	ppm(v/v)	0.010
Benzene	ND	0.040	ppm(v/v)	0.016
1,2-Dichloroethane	ND	0.040	ppm(v/v)	0.016
Trichloroethene	**5.4**	**0.040**	**ppm(v/v)**	**0.010**
1,2-Dichloropropane	ND	0.040	ppm(v/v)	0.016
Bromodichloromethane	ND	0.040	ppm(v/v)	0.016
cis-1,3-Dichloropropene	ND	0.040	ppm(v/v)	0.010
4-Methyl-2-pentanone (MIBK)	ND	0.20	ppm(v/v)	0.040
Toluene	**0.023 J**	**0.10**	**ppm(v/v)**	**0.010**
trans-1,3-Dichloropropene	ND	0.040	ppm(v/v)	0.016
1,1,2-Trichloroethane	ND	0.040	ppm(v/v)	0.012
Tetrachloroethene	**0.14**	**0.040**	**ppm(v/v)**	**0.012**
2-Hexanone	ND	0.60	ppm(v/v)	0.020

(Continued on next page)

HALEY & ALDRICH INC

Client Sample ID: 2_VEW_15B_AV021903_0001

GC/MS Volatiles

Lot-Sample #...: E3B190275-001 **Work Order #...:** FHWLN1AA **Matrix.....:** AIR

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Dibromochloromethane	ND	0.040	ppm(v/v)	0.010
1,2-Dibromoethane (EDB)	ND	0.040	ppm(v/v)	0.010
Chlorobenzene	ND	0.040	ppm(v/v)	0.010
Ethylbenzene	ND	0.040	ppm(v/v)	0.010
Xylenes (total)	ND	0.040	ppm(v/v)	0.016
Styrene	ND	0.040	ppm(v/v)	0.012
Bromoform	ND	0.040	ppm(v/v)	0.010
1,1,2,2-Tetrachloroethane	ND	0.040	ppm(v/v)	0.010
Benzyl chloride	ND	0.20	ppm(v/v)	0.016
4-Ethyltoluene	ND	0.040	ppm(v/v)	0.014
1,3,5-Trimethylbenzene	ND	0.040	ppm(v/v)	0.016
1,2,4-Trimethylbenzene	ND	0.040	ppm(v/v)	0.016
1,3-Dichlorobenzene	ND	0.040	ppm(v/v)	0.014
1,4-Dichlorobenzene	ND	0.040	ppm(v/v)	0.016
1,2-Dichlorobenzene	ND	0.040	ppm(v/v)	0.016
1,2,4-Trichloro-benzene	ND	0.40	ppm(v/v)	0.020
Hexachlorobutadiene	ND	0.080	ppm(v/v)	0.020
Methyl tert-butyl ether (MTBE)	ND	0.20	ppm(v/v)	0.010

NOTE(S):

J Estimated result. Result is less than RL.

HALEY & ALDRICH INC

2_VEW_15B_AV021903_0001

GC/MS Volatiles

Lot-Sample #: E3B190275-001 **Work Order #:** FHWLN1AA **Matrix:** AIR

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT		RETENTION TIME	UNITS
butane, 2-methyl-	78-78-4	0.25	M	3.4564	ppm(v/v)

NOTE(S):

M: Result was measured against nearest internal standard assuming a response factor of 1.

HALEY & ALDRICH INC

Client Sample ID: 2_VEW_19_AV021903_0001

GC/MS Volatiles

Lot-Sample #...:	E3B190275-002	Work Order #...:	FHWLP1AA	Matrix.....:	AIR
Date Sampled...:	02/19/03 12:20	Date Received..:	02/19/03 16:50	MS Run #.....:	
Prep Date.....:	02/19/03	Analysis Date..:	02/19/03		
Prep Batch #...:	3051247	Analysis Time..:	22:16		
Dilution Factor:	16.67				
Analyst ID.....:	117751	Instrument ID..:	MSB		
		Method.....:	EPA-21 TO-14A		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Total Non-Methane Hydrocarbons as Hexane	**9.7**	**8.3**	**ppm(v/v)**	1.7
Dichlorodifluoromethane	ND	0.033	ppm(v/v)	0.0083
Chloromethane	ND	0.067	ppm(v/v)	0.017
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	0.033	ppm(v/v)	0.013
Vinyl chloride	ND	0.033	ppm(v/v)	0.013
Bromomethane	ND	0.033	ppm(v/v)	0.017
Chloroethane	ND	0.067	ppm(v/v)	0.013
Trichlorofluoromethane	ND	0.033	ppm(v/v)	0.0083
1,1-Dichloroethene	**0.43**	**0.033**	**ppm(v/v)**	**0.0083**
Carbon disulfide	ND	0.17	ppm(v/v)	0.033
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	0.033	ppm(v/v)	0.0083
Acetone	ND	0.17	ppm(v/v)	0.033
Methylene chloride	ND	0.033	ppm(v/v)	0.013
trans-1,2-Dichloroethene	ND	0.033	ppm(v/v)	0.0083
1,1-Dichloroethane	ND	0.033	ppm(v/v)	0.0083
Vinyl acetate	ND	0.17	ppm(v/v)	0.033
cis-1,2-Dichloroethene	ND	0.033	ppm(v/v)	0.013
2-Butanone (MEK)	ND	0.17	ppm(v/v)	0.033
Chloroform	**0.016 J**	**0.033**	**ppm(v/v)**	**0.013**
1,1,1-Trichloroethane	ND	0.033	ppm(v/v)	0.0083
Carbon tetrachloride	ND	0.033	ppm(v/v)	0.0083
Benzene	ND	0.033	ppm(v/v)	0.013
1,2-Dichloroethane	ND	0.033	ppm(v/v)	0.013
Trichloroethene	**4.9**	**0.033**	**ppm(v/v)**	**0.0083**
1,2-Dichloropropane	ND	0.033	ppm(v/v)	0.013
Bromodichloromethane	ND	0.033	ppm(v/v)	0.013
cis-1,3-Dichloropropene	ND	0.033	ppm(v/v)	0.0083
4-Methyl-2-pentanone (MIBK)	ND	0.17	ppm(v/v)	0.033
Toluene	**0.024 J**	**0.083**	**ppm(v/v)**	**0.0083**
trans-1,3-Dichloropropene	ND	0.033	ppm(v/v)	0.013
1,1,2-Trichloroethane	ND	0.033	ppm(v/v)	0.010
Tetrachloroethene	**0.074**	**0.033**	**ppm(v/v)**	**0.010**
2-Hexanone	ND	0.50	ppm(v/v)	0.017

(Continued on next page)

HALEY & ALDRICH INC

Client Sample ID: 2_VEW_19_AV021903_0001

GC/MS Volatiles

Lot-Sample #...: E3B190275-002 **Work Order #...:** FHWLP1AA **Matrix.....:** AIR

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Dibromochloromethane	ND	0.033	ppm(v/v)	0.0083
1,2-Dibromoethane (EDB)	ND	0.033	ppm(v/v)	0.0083
Chlorobenzene	ND	0.033	ppm(v/v)	0.0083
Ethylbenzene	ND	0.033	ppm(v/v)	0.0083
Xylenes (total)	**0.021 J**	**0.033**	**ppm(v/v)**	**0.013**
Styrene	ND	0.033	ppm(v/v)	0.010
Bromoform	ND	0.033	ppm(v/v)	0.0083
1,1,2,2-Tetrachloroethane	ND	0.033	ppm(v/v)	0.0083
Benzyl chloride	ND	0.17	ppm(v/v)	0.013
4-Ethyltoluene	ND	0.033	ppm(v/v)	0.012
1,3,5-Trimethylbenzene	ND	0.033	ppm(v/v)	0.013
1,2,4-Trimethylbenzene	ND	0.033	ppm(v/v)	0.013
1,3-Dichlorobenzene	ND	0.033	ppm(v/v)	0.012
1,4-Dichlorobenzene	ND	0.033	ppm(v/v)	0.013
1,2-Dichlorobenzene	ND	0.033	ppm(v/v)	0.013
1,2,4-Trichloro-benzene	ND	0.33	ppm(v/v)	0.017
Hexachlorobutadiene	ND	0.067	ppm(v/v)	0.017
Methyl tert-butyl ether (MTBE)	ND	0.17	ppm(v/v)	0.0083

NOTE(S):

J Estimated result. Result is less than RL.

HALEY & ALDRICH INC

2_VEW_19_AV021903_0001

GC/MS Volatiles

Lot-Sample #: E3B190275-002 **Work Order #:** FHWLP1AA **Matrix:** AIR

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT	RETENTION TIME	UNITS
None				ppm(v/v)

HALEY & ALDRICH INC

Client Sample ID: 2_VEW_11B_AV021903_0001

GC/MS Volatiles

Lot-Sample #...:	E3B190275-003	Work Order #...:	FHWLQ1AA	Matrix.....:	AIR
Date Sampled...:	02/19/03 12:30	Date Received..:	02/19/03 16:50	MS Run #.....:	
Prep Date.....:	02/19/03	Analysis Date..:	02/19/03		
Prep Batch #...:	3051247	Analysis Time..:	22:50		
Dilution Factor:	7.14				
Analyst ID.....:	117751	Instrument ID..:	MSB		
		Method.....:	EPA-21 TO-14A		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Total Non-Methane Hydrocarbons as Hexane	**4.9**	**3.6**	**ppm(v/v)**	**0.71**
Dichlorodifluoromethane	ND	0.014	ppm(v/v)	0.0036
Chloromethane	ND	0.029	ppm(v/v)	0.0071
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	0.014	ppm(v/v)	0.0057
Vinyl chloride	ND	0.014	ppm(v/v)	0.0057
Bromomethane	ND	0.014	ppm(v/v)	0.0071
Chloroethane	ND	0.029	ppm(v/v)	0.0057
Trichlorofluoromethane	ND	0.014	ppm(v/v)	0.0036
1,1-Dichloroethene	**0.28**	**0.014**	**ppm(v/v)**	**0.0036**
Carbon disulfide	ND	0.071	ppm(v/v)	0.014
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	0.014	ppm(v/v)	0.0036
Acetone	ND	0.071	ppm(v/v)	0.014
Methylene chloride	ND	0.014	ppm(v/v)	0.0057
trans-1,2-Dichloroethene	ND	0.014	ppm(v/v)	0.0036
1,1-Dichloroethane	ND	0.014	ppm(v/v)	0.0036
Vinyl acetate	ND	0.071	ppm(v/v)	0.014
cis-1,2-Dichloroethene	ND	0.014	ppm(v/v)	0.0057
2-Butanone (MEK)	**0.023 J**	**0.071**	**ppm(v/v)**	**0.014**
Chloroform	**0.0091 J**	**0.014**	**ppm(v/v)**	**0.0057**
1,1,1-Trichloroethane	ND	0.014	ppm(v/v)	0.0036
Carbon tetrachloride	ND	0.014	ppm(v/v)	0.0036
Benzene	ND	0.014	ppm(v/v)	0.0057
1,2-Dichloroethane	ND	0.014	ppm(v/v)	0.0057
Trichloroethene	**2.4**	**0.014**	**ppm(v/v)**	**0.0036**
1,2-Dichloropropane	ND	0.014	ppm(v/v)	0.0057
Bromodichloromethane	ND	0.014	ppm(v/v)	0.0057
cis-1,3-Dichloropropene	ND	0.014	ppm(v/v)	0.0036
4-Methyl-2-pentanone (MIBK)	ND	0.071	ppm(v/v)	0.014
Toluene	**0.020 J**	**0.036**	**ppm(v/v)**	**0.0036**
trans-1,3-Dichloropropene	ND	0.014	ppm(v/v)	0.0057
1,1,2-Trichloroethane	ND	0.014	ppm(v/v)	0.0043
Tetrachloroethene	**0.043**	**0.014**	**ppm(v/v)**	**0.0043**
2-Hexanone	ND	0.21	ppm(v/v)	0.0071

(Continued on next page)

HALEY & ALDRICH INC

Client Sample ID: 2_VEW_11B_AV021903_0001

GC/MS Volatiles

Lot-Sample #...: E3B190275-003 **Work Order #...:** FHWLQ1AA **Matrix.....:** AIR

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Dibromochloromethane	ND	0.014	ppm(v/v)	0.0036
1,2-Dibromoethane (EDB)	ND	0.014	ppm(v/v)	0.0036
Chlorobenzene	ND	0.014	ppm(v/v)	0.0036
Ethylbenzene	**0.0040 J**	**0.014**	**ppm(v/v)**	**0.0036**
Xylenes (total)	**0.023**	**0.014**	**ppm(v/v)**	**0.0057**
Styrene	ND	0.014	ppm(v/v)	0.0043
Bromoform	ND	0.014	ppm(v/v)	0.0036
1,1,2,2-Tetrachloroethane	ND	0.014	ppm(v/v)	0.0036
Benzyl chloride	ND	0.071	ppm(v/v)	0.0057
4-Ethyltoluene	**0.0084 J**	**0.014**	**ppm(v/v)**	**0.0050**
1,3,5-Trimethylbenzene	ND	0.014	ppm(v/v)	0.0057
1,2,4-Trimethylbenzene	**0.0072 J**	**0.014**	**ppm(v/v)**	**0.0057**
1,3-Dichlorobenzene	ND	0.014	ppm(v/v)	0.0050
1,4-Dichlorobenzene	ND	0.014	ppm(v/v)	0.0057
1,2-Dichlorobenzene	ND	0.014	ppm(v/v)	0.0057
1,2,4-Trichloro-benzene	ND	0.14	ppm(v/v)	0.0071
Hexachlorobutadiene	ND	0.029	ppm(v/v)	0.0071
Methyl tert-butyl ether (MTBE)	ND	0.071	ppm(v/v)	0.0036

NOTE(S):

J Estimated result. Result is less than RL.

HALEY & ALDRICH INC

2_VEW_11B_AV021903_0001

GC/MS Volatiles

Lot-Sample #: E3B190275-003 Work Order #: FHWLQ1AA Matrix: AIR

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT	RETENTION TIME	UNITS
None				ppm(v/v)

HALEY & ALDRICH INC

Client Sample ID: 2_VEW_9_AV021903_0001

GC/MS Volatiles

Lot-Sample #...:	E3B190275-004	Work Order #...:	FHWLR1AA	Matrix.....:	AIR
Date Sampled...:	02/19/03 12:45	Date Received..:	02/19/03 16:50	MS Run #.....:	
Prep Date.....:	02/19/03	Analysis Date..:	02/19/03		
Prep Batch #...:	3051247	Analysis Time..:	23:24		
Dilution Factor:	16.67				
Analyst ID.....:	117751	Instrument ID..:	MSB		
		Method.....:	EPA-21 TO-14A		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Total Non-Methane Hydrocarbons as Hexane	**10**	**8.3**	**ppm(v/v)**	**1.7**
Dichlorodifluoromethane	ND	0.033	ppm(v/v)	0.0083
Chloromethane	ND	0.067	ppm(v/v)	0.017
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	0.033	ppm(v/v)	0.013
Vinyl chloride	ND	0.033	ppm(v/v)	0.013
Bromomethane	ND	0.033	ppm(v/v)	0.017
Chloroethane	ND	0.067	ppm(v/v)	0.013
Trichlorofluoromethane	ND	0.033	ppm(v/v)	0.0083
1,1-Dichloroethene	**0.29**	**0.033**	**ppm(v/v)**	**0.0083**
Carbon disulfide	ND	0.17	ppm(v/v)	0.033
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	0.033	ppm(v/v)	0.0083
Acetone	ND	0.17	ppm(v/v)	0.033
Methylene chloride	ND	0.033	ppm(v/v)	0.013
trans-1,2-Dichloroethene	ND	0.033	ppm(v/v)	0.0083
1,1-Dichloroethane	ND	0.033	ppm(v/v)	0.0083
Vinyl acetate	ND	0.17	ppm(v/v)	0.033
cis-1,2-Dichloroethene	ND	0.033	ppm(v/v)	0.013
2-Butanone (MEK)	ND	0.17	ppm(v/v)	0.033
Chloroform	**0.020 J**	**0.033**	**ppm(v/v)**	**0.013**
1,1,1-Trichloroethane	ND	0.033	ppm(v/v)	0.0083
Carbon tetrachloride	ND	0.033	ppm(v/v)	0.0083
Benzene	ND	0.033	ppm(v/v)	0.013
1,2-Dichloroethane	ND	0.033	ppm(v/v)	0.013
Trichloroethene	**5.2**	**0.033**	**ppm(v/v)**	**0.0083**
1,2-Dichloropropane	ND	0.033	ppm(v/v)	0.013
Bromodichloromethane	ND	0.033	ppm(v/v)	0.013
cis-1,3-Dichloropropene	ND	0.033	ppm(v/v)	0.0083
4-Methyl-2-pentanone (MIBK)	ND	0.17	ppm(v/v)	0.033
Toluene	**0.016 J**	**0.083**	**ppm(v/v)**	**0.0083**
trans-1,3-Dichloropropene	ND	0.033	ppm(v/v)	0.013
1,1,2-Trichloroethane	ND	0.033	ppm(v/v)	0.010
Tetrachloroethene	**0.045**	**0.033**	**ppm(v/v)**	**0.010**
2-Hexanone	ND	0.50	ppm(v/v)	0.017

(Continued on next page)

HALEY & ALDRICH INC

Client Sample ID: 2_VEW_9_AV021903_0001

GC/MS Volatiles

Lot-Sample #...: E3B190275-004 Work Order #...: FHWLR1AA Matrix.....: AIR

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Dibromochloromethane	ND	0.033	ppm(v/v)	0.0083
1,2-Dibromoethane (EDB)	ND	0.033	ppm(v/v)	0.0083
Chlorobenzene	ND	0.033	ppm(v/v)	0.0083
Ethylbenzene	ND	0.033	ppm(v/v)	0.0083
Xylenes (total)	ND	0.033	ppm(v/v)	0.013
Styrene	ND	0.033	ppm(v/v)	0.010
Bromoform	ND	0.033	ppm(v/v)	0.0083
1,1,2,2-Tetrachloroethane	ND	0.033	ppm(v/v)	0.0083
Benzyl chloride	ND	0.17	ppm(v/v)	0.013
4-Ethyltoluene	ND	0.033	ppm(v/v)	0.012
1,3,5-Trimethylbenzene	ND	0.033	ppm(v/v)	0.013
1,2,4-Trimethylbenzene	ND	0.033	ppm(v/v)	0.013
1,3-Dichlorobenzene	ND	0.033	ppm(v/v)	0.012
1,4-Dichlorobenzene	ND	0.033	ppm(v/v)	0.013
1,2-Dichlorobenzene	ND	0.033	ppm(v/v)	0.013
1,2,4-Trichloro-benzene	ND	0.33	ppm(v/v)	0.017
Hexachlorobutadiene	ND	0.067	ppm(v/v)	0.017
Methyl tert-butyl ether (MTBE)	ND	0.17	ppm(v/v)	0.0083

NOTE(S):

J Estimated result. Result is less than RL.

HALEY & ALDRICH INC

2_VEW_9_AV021903_0001

GC/MS Volatiles

Lot-Sample #: E3B190275-004 **Work Order #:** FHWLR1AA **Matrix:** AIR

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT	RETENTION TIME	UNITS
None				ppm(v/v)

HALEY & ALDRICH INC

Client Sample ID: 2_VEW_10B_AV021903_0001

GC/MS Volatiles

Lot-Sample #...:	E3B190275-005	**Work Order #...:**	FHWLT1AA	**Matrix.....:**	AIR
Date Sampled...:	02/19/03 13:05	**Date Received..:**	02/19/03 16:50	**MS Run #.....:**	
Prep Date.....:	02/20/03	**Analysis Date..:**	02/20/03		
Prep Batch #...:	3051479	**Analysis Time..:**	11:09		
Dilution Factor:	25				
Analyst ID.....:	117751	**Instrument ID..:**	MSB		
		Method.....:	EPA-21 TO-14A		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Total Non-Methane Hydrocarbons as Hexane	**18**	**12**	**ppm(v/v)**	**2.5**
Dichlorodifluoromethane	ND	0.050	ppm(v/v)	0.012
Chloromethane	ND	0.10	ppm(v/v)	0.025
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	0.050	ppm(v/v)	0.020
Vinyl chloride	ND	0.050	ppm(v/v)	0.020
Bromomethane	ND	0.050	ppm(v/v)	0.025
Chloroethane	ND	0.10	ppm(v/v)	0.020
Trichlorofluoromethane	ND	0.050	ppm(v/v)	0.012
1,1-Dichloroethene	**0.31**	**0.050**	**ppm(v/v)**	**0.012**
Carbon disulfide	ND	0.25	ppm(v/v)	0.050
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	0.050	ppm(v/v)	0.012
Acetone	ND	0.25	ppm(v/v)	0.050
Methylene chloride	ND	0.050	ppm(v/v)	0.020
trans-1,2-Dichloroethene	ND	0.050	ppm(v/v)	0.012
1,1-Dichloroethane	**0.014 J**	**0.050**	**ppm(v/v)**	**0.012**
Vinyl acetate	ND	0.25	ppm(v/v)	0.050
cis-1,2-Dichloroethene	ND	0.050	ppm(v/v)	0.020
2-Butanone (MEK)	**1.0**	**0.25**	**ppm(v/v)**	**0.050**
Chloroform	**0.32**	**0.050**	**ppm(v/v)**	**0.020**
1,1,1-Trichloroethane	ND	0.050	ppm(v/v)	0.012
Carbon tetrachloride	ND	0.050	ppm(v/v)	0.012
Benzene	ND	0.050	ppm(v/v)	0.020
1,2-Dichloroethane	ND	0.050	ppm(v/v)	0.020
Trichloroethene	**8.5**	**0.050**	**ppm(v/v)**	**0.012**
1,2-Dichloropropane	ND	0.050	ppm(v/v)	0.020
Bromodichloromethane	ND	0.050	ppm(v/v)	0.020
cis-1,3-Dichloropropene	ND	0.050	ppm(v/v)	0.012
4-Methyl-2-pentanone (MIBK)	ND	0.25	ppm(v/v)	0.050
Toluene	ND	0.12	ppm(v/v)	0.012
trans-1,3-Dichloropropene	ND	0.050	ppm(v/v)	0.020
1,1,2-Trichloroethane	ND	0.050	ppm(v/v)	0.015
Tetrachloroethene	**0.069**	**0.050**	**ppm(v/v)**	**0.015**
2-Hexanone	ND	0.75	ppm(v/v)	0.025

(Continued on next page)

HALEY & ALDRICH INC

Client Sample ID: 2_VEW_10B_AV021903_0001

GC/MS Volatiles

Lot-Sample #...: E3B190275-005 **Work Order #...:** FHWLT1AA **Matrix.....:** AIR

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Dibromochloromethane	ND	0.050	ppm(v/v)	0.012
1,2-Dibromoethane (EDB)	ND	0.050	ppm(v/v)	0.012
Chlorobenzene	ND	0.050	ppm(v/v)	0.012
Ethylbenzene	ND	0.050	ppm(v/v)	0.012
Xylenes (total)	ND	0.050	ppm(v/v)	0.020
Styrene	ND	0.050	ppm(v/v)	0.015
Bromoform	ND	0.050	ppm(v/v)	0.012
1,1,2,2-Tetrachloroethane	ND	0.050	ppm(v/v)	0.012
Benzyl chloride	ND	0.25	ppm(v/v)	0.020
4-Ethyltoluene	ND	0.050	ppm(v/v)	0.018
1,3,5-Trimethylbenzene	ND	0.050	ppm(v/v)	0.020
1,2,4-Trimethylbenzene	ND	0.050	ppm(v/v)	0.020
1,3-Dichlorobenzene	ND	0.050	ppm(v/v)	0.018
1,4-Dichlorobenzene	ND	0.050	ppm(v/v)	0.020
1,2-Dichlorobenzene	ND	0.050	ppm(v/v)	0.020
1,2,4-Trichloro-benzene	ND	0.50	ppm(v/v)	0.025
Hexachlorobutadiene	ND	0.10	ppm(v/v)	0.025
Methyl tert-butyl ether (MTBE)	ND	0.25	ppm(v/v)	0.012

NOTE(S):

J Estimated result. Result is less than RL.

HALEY & ALDRICH INC

2_VEW_10B_AV021903_0001

GC/MS Volatiles

Lot-Sample #: E3B190275-005 **Work Order #:** FHWLT1AA **Matrix:** AIR

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT		RETENTION TIME	UNITS
cyclohexanone	108-94-1	0.23	M	17.53	ppm(v/v)

NOTE(S):

M: Result was measured against nearest internal standard assuming a response factor of 1.

HALEY & ALDRICH INC

Client Sample ID: 2_VEW_8B_AV021903_0001

GC/MS Volatiles

Lot-Sample #...:	E3B190275-006	Work Order #...:	FHWLV1AA	Matrix.....:	AIR
Date Sampled...:	02/19/03 13:20	Date Received..:	02/19/03 16:50	MS Run #.....:	
Prep Date.....:	02/20/03	Analysis Date..:	02/20/03		
Prep Batch #...:	3051479	Analysis Time..:	11:42		
Dilution Factor:	25				
Analyst ID.....:	117751	Instrument ID..:	MSB		
		Method.....:	EPA-21 TO-14A		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Total Non-Methane Hydrocarbons as Hexane	**20**	**12**	**ppm(v/v)**	**2.5**
Dichlorodifluoromethane	ND	0.050	ppm(v/v)	0.012
Chloromethane	ND	0.10	ppm(v/v)	0.025
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	0.050	ppm(v/v)	0.020
Vinyl chloride	ND	0.050	ppm(v/v)	0.020
Bromomethane	ND	0.050	ppm(v/v)	0.025
Chloroethane	ND	0.10	ppm(v/v)	0.020
Trichlorofluoromethane	ND	0.050	ppm(v/v)	0.012
1,1-Dichloroethene	**0.94**	**0.050**	**ppm(v/v)**	**0.012**
Carbon disulfide	ND	0.25	ppm(v/v)	0.050
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	0.050	ppm(v/v)	0.012
Acetone	ND	0.25	ppm(v/v)	0.050
Methylene chloride	ND	0.050	ppm(v/v)	0.020
trans-1,2-Dichloroethene	ND	0.050	ppm(v/v)	0.012
1,1-Dichloroethane	**0.034 J**	**0.050**	**ppm(v/v)**	**0.012**
Vinyl acetate	ND	0.25	ppm(v/v)	0.050
cis-1,2-Dichloroethene	**0.058**	**0.050**	**ppm(v/v)**	**0.020**
2-Butanone (MEK)	ND	0.25	ppm(v/v)	0.050
Chloroform	**0.33**	**0.050**	**ppm(v/v)**	**0.020**
1,1,1-Trichloroethane	**0.051**	**0.050**	**ppm(v/v)**	**0.012**
Carbon tetrachloride	**0.013 J**	**0.050**	**ppm(v/v)**	**0.012**
Benzene	ND	0.050	ppm(v/v)	0.020
1,2-Dichloroethane	ND	0.050	ppm(v/v)	0.020
Trichloroethene	**9.7**	**0.050**	**ppm(v/v)**	**0.012**
1,2-Dichloropropane	ND	0.050	ppm(v/v)	0.020
Bromodichloromethane	ND	0.050	ppm(v/v)	0.020
cis-1,3-Dichloropropene	ND	0.050	ppm(v/v)	0.012
4-Methyl-2-pentanone (MIBK)	ND	0.25	ppm(v/v)	0.050
Toluene	ND	0.12	ppm(v/v)	0.012
trans-1,3-Dichloropropene	ND	0.050	ppm(v/v)	0.020
1,1,2-Trichloroethane	ND	0.050	ppm(v/v)	0.015
Tetrachloroethene	**0.13**	**0.050**	**ppm(v/v)**	**0.015**
2-Hexanone	ND	0.75	ppm(v/v)	0.025

(Continued on next page)

HALEY & ALDRICH INC

Client Sample ID: 2_VEW_8B_AV021903_0001

GC/MS Volatiles

Lot-Sample #...: E3B190275-006 **Work Order #...:** FHWLV1AA **Matrix.....:** AIR

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Dibromochloromethane	ND	0.050	ppm(v/v)	0.012
1,2-Dibromoethane (EDB)	ND	0.050	ppm(v/v)	0.012
Chlorobenzene	ND	0.050	ppm(v/v)	0.012
Ethylbenzene	ND	0.050	ppm(v/v)	0.012
Xylenes (total)	ND	0.050	ppm(v/v)	0.020
Styrene	ND	0.050	ppm(v/v)	0.015
Bromoform	ND	0.050	ppm(v/v)	0.012
1,1,2,2-Tetrachloroethane	ND	0.050	ppm(v/v)	0.012
Benzyl chloride	ND	0.25	ppm(v/v)	0.020
4-Ethyltoluene	ND	0.050	ppm(v/v)	0.018
1,3,5-Trimethylbenzene	ND	0.050	ppm(v/v)	0.020
1,2,4-Trimethylbenzene	ND	0.050	ppm(v/v)	0.020
1,3-Dichlorobenzene	ND	0.050	ppm(v/v)	0.018
1,4-Dichlorobenzene	ND	0.050	ppm(v/v)	0.020
1,2-Dichlorobenzene	ND	0.050	ppm(v/v)	0.020
1,2,4-Trichloro-benzene	ND	0.50	ppm(v/v)	0.025
Hexachlorobutadiene	ND	0.10	ppm(v/v)	0.025
Methyl tert-butyl ether (MTBE)	ND	0.25	ppm(v/v)	0.012

NOTE(S):

J Estimated result. Result is less than RL.

HALEY & ALDRICH INC

2_VEW_8B_AV021903_0001

GC/MS Volatiles

Lot-Sample #: E3B190275-006 Work Order #: FHWLV1AA Matrix: AIR

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT	RETENTION TIME	UNITS
None				ppm(v/v)

HALEY & ALDRICH INC

Client Sample ID: 2_VEW_4_AV021903_0001

GC/MS Volatiles

Lot-Sample #...:	E3B190275-007	Work Order #...:	FHWLW1AA	Matrix.....:	AIR
Date Sampled...:	02/19/03 13:35	Date Received..:	02/19/03 16:50	MS Run #.....:	
Prep Date.....:	02/20/03	Analysis Date..:	02/20/03		
Prep Batch #...:	3051479	Analysis Time..:	12:16		
Dilution Factor:	12.5				
Analyst ID.....:	117751	Instrument ID..:	MSB		
		Method.....:	EPA-21 TO-14A		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Total Non-Methane Hydrocarbons as Hexane	**9.9**	**6.2**	**ppm(v/v)**	**1.2**
Dichlorodifluoromethane	ND	0.025	ppm(v/v)	0.0062
Chloromethane	ND	0.050	ppm(v/v)	0.012
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	0.025	ppm(v/v)	0.010
Vinyl chloride	ND	0.025	ppm(v/v)	0.010
Bromomethane	ND	0.025	ppm(v/v)	0.012
Chloroethane	ND	0.050	ppm(v/v)	0.010
Trichlorofluoromethane	ND	0.025	ppm(v/v)	0.0062
1,1-Dichloroethene	**0.072**	**0.025**	**ppm(v/v)**	**0.0062**
Carbon disulfide	ND	0.12	ppm(v/v)	0.025
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	0.025	ppm(v/v)	0.0062
Acetone	ND	0.12	ppm(v/v)	0.025
Methylene chloride	ND	0.025	ppm(v/v)	0.010
trans-1,2-Dichloroethene	ND	0.025	ppm(v/v)	0.0062
1,1-Dichloroethane	**0.024 J**	**0.025**	**ppm(v/v)**	**0.0062**
Vinyl acetate	ND	0.12	ppm(v/v)	0.025
cis-1,2-Dichloroethene	**0.017 J**	**0.025**	**ppm(v/v)**	**0.010**
2-Butanone (MEK)	ND	0.12	ppm(v/v)	0.025
Chloroform	**0.034**	**0.025**	**ppm(v/v)**	**0.010**
1,1,1-Trichloroethane	**0.22**	**0.025**	**ppm(v/v)**	**0.0062**
Carbon tetrachloride	ND	0.025	ppm(v/v)	0.0062
Benzene	ND	0.025	ppm(v/v)	0.010
1,2-Dichloroethane	ND	0.025	ppm(v/v)	0.010
Trichloroethene	**4.9**	**0.025**	**ppm(v/v)**	**0.0062**
1,2-Dichloropropane	ND	0.025	ppm(v/v)	0.010
Bromodichloromethane	ND	0.025	ppm(v/v)	0.010
cis-1,3-Dichloropropene	ND	0.025	ppm(v/v)	0.0062
4-Methyl-2-pentanone (MIBK)	ND	0.12	ppm(v/v)	0.025
Toluene	**0.0063 J**	**0.062**	**ppm(v/v)**	**0.0062**
trans-1,3-Dichloropropene	ND	0.025	ppm(v/v)	0.010
1,1,2-Trichloroethane	ND	0.025	ppm(v/v)	0.0075
Tetrachloroethene	**0.023 J**	**0.025**	**ppm(v/v)**	**0.0075**
2-Hexanone	ND	0.38	ppm(v/v)	0.012

(Continued on next page)

HALEY & ALDRICH INC

Client Sample ID: 2_VEW_4_AV021903_0001

GC/MS Volatiles

Lot-Sample #...: E3B190275-007 **Work Order #...:** FHWLW1AA **Matrix.....:** AIR

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Dibromochloromethane	ND	0.025	ppm(v/v)	0.0062
1,2-Dibromoethane (EDB)	ND	0.025	ppm(v/v)	0.0062
Chlorobenzene	ND	0.025	ppm(v/v)	0.0062
Ethylbenzene	ND	0.025	ppm(v/v)	0.0062
Xylenes (total)	ND	0.025	ppm(v/v)	0.010
Styrene	ND	0.025	ppm(v/v)	0.0075
Bromoform	ND	0.025	ppm(v/v)	0.0062
1,1,2,2-Tetrachloroethane	ND	0.025	ppm(v/v)	0.0062
Benzyl chloride	ND	0.12	ppm(v/v)	0.010
4-Ethyltoluene	ND	0.025	ppm(v/v)	0.0088
1,3,5-Trimethylbenzene	ND	0.025	ppm(v/v)	0.010
1,2,4-Trimethylbenzene	ND	0.025	ppm(v/v)	0.010
1,3-Dichlorobenzene	ND	0.025	ppm(v/v)	0.0088
1,4-Dichlorobenzene	ND	0.025	ppm(v/v)	0.010
1,2-Dichlorobenzene	ND	0.025	ppm(v/v)	0.010
1,2,4-Trichloro-benzene	ND	0.25	ppm(v/v)	0.012
Hexachlorobutadiene	ND	0.050	ppm(v/v)	0.012
Methyl tert-butyl ether (MTBE)	ND	0.12	ppm(v/v)	0.0062

NOTE(S):

J Estimated result. Result is less than RL.

HALEY & ALDRICH INC

2_VEW_4_AV021903_0001

GC/MS Volatiles

Lot-Sample #: E3B190275-007 Work Order #: FHWLW1AA Matrix: AIR

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT	RETENTION TIME	UNITS
None				ppm(v/v)

HALEY & ALDRICH INC

Client Sample ID: 2_VEW_1B_AV021903_0001

GC/MS Volatiles

Lot-Sample #...: E3B190275-008 Work Order #...: FHWLX1AA Matrix.....: AIR
Date Sampled...: 02/19/03 13:55 Date Received..: 02/19/03 16:50 MS Run #.....:
Prep Date.....: 02/20/03 Analysis Date..: 02/20/03
Prep Batch #...: 3051479 Analysis Time..: 12:48
Dilution Factor: 5
Analyst ID.....: 117751 Instrument ID..: MSB
Method.....: EPA-21 TO-14A

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Total Non-Methane Hydrocarbons as Hexane	**4.6**	**2.5**	**ppm(v/v)**	**0.50**
Dichlorodifluoromethane	ND	0.010	ppm(v/v)	0.0025
Chloromethane	ND	0.020	ppm(v/v)	0.0050
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	0.010	ppm(v/v)	0.0040
Vinyl chloride	ND	0.010	ppm(v/v)	0.0040
Bromomethane	ND	0.010	ppm(v/v)	0.0050
Chloroethane	ND	0.020	ppm(v/v)	0.0040
Trichlorofluoromethane	ND	0.010	ppm(v/v)	0.0025
1,1-Dichloroethene	**0.11**	**0.010**	**ppm(v/v)**	**0.0025**
Carbon disulfide	ND	0.050	ppm(v/v)	0.010
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	0.010	ppm(v/v)	0.0025
Acetone	ND	0.050	ppm(v/v)	0.010
Methylene chloride	ND	0.010	ppm(v/v)	0.0040
trans-1,2-Dichloroethene	ND	0.010	ppm(v/v)	0.0025
1,1-Dichloroethane	**0.0043 J**	**0.010**	**ppm(v/v)**	**0.0025**
Vinyl acetate	ND	0.050	ppm(v/v)	0.010
cis-1,2-Dichloroethene	**0.0055 J**	**0.010**	**ppm(v/v)**	**0.0040**
2-Butanone (MEK)	ND	0.050	ppm(v/v)	0.010
Chloroform	**0.0081 J**	**0.010**	**ppm(v/v)**	**0.0040**
1,1,1-Trichloroethane	**0.0076 J**	**0.010**	**ppm(v/v)**	**0.0025**
Carbon tetrachloride	ND	0.010	ppm(v/v)	0.0025
Benzene	ND	0.010	ppm(v/v)	0.0040
1,2-Dichloroethane	ND	0.010	ppm(v/v)	0.0040
Trichloroethene	**2.3**	**0.010**	**ppm(v/v)**	**0.0025**
1,2-Dichloropropane	ND	0.010	ppm(v/v)	0.0040
Bromodichloromethane	ND	0.010	ppm(v/v)	0.0040
cis-1,3-Dichloropropene	ND	0.010	ppm(v/v)	0.0025
4-Methyl-2-pentanone (MIBK)	ND	0.050	ppm(v/v)	0.010
Toluene	**0.0077 J**	**0.025**	**ppm(v/v)**	**0.0025**
trans-1,3-Dichloropropene	ND	0.010	ppm(v/v)	0.0040
1,1,2-Trichloroethane	ND	0.010	ppm(v/v)	0.0030
Tetrachloroethene	**0.010**	**0.010**	**ppm(v/v)**	**0.0030**
2-Hexanone	ND	0.15	ppm(v/v)	0.0050

(Continued on next page)

HALEY & ALDRICH INC

Client Sample ID: 2_VEW_1B_AV021903_0001

GC/MS Volatiles

Lot-Sample #...: E3B190275-008 Work Order #...: FHWLX1AA Matrix.....: AIR

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Dibromochloromethane	ND	0.010	ppm(v/v)	0.0025
1,2-Dibromoethane (EDB)	ND	0.010	ppm(v/v)	0.0025
Chlorobenzene	ND	0.010	ppm(v/v)	0.0025
Ethylbenzene	ND	0.010	ppm(v/v)	0.0025
Xylenes (total)	**0.0086 J**	**0.010**	**ppm(v/v)**	**0.0040**
Styrene	ND	0.010	ppm(v/v)	0.0030
Bromoform	ND	0.010	ppm(v/v)	0.0025
1,1,2,2-Tetrachloroethane	ND	0.010	ppm(v/v)	0.0025
Benzyl chloride	ND	0.050	ppm(v/v)	0.0040
4-Ethyltoluene	**0.0052 J**	**0.010**	**ppm(v/v)**	**0.0035**
1,3,5-Trimethylbenzene	ND	0.010	ppm(v/v)	0.0040
1,2,4-Trimethylbenzene	**0.0045 J**	**0.010**	**ppm(v/v)**	**0.0040**
1,3-Dichlorobenzene	ND	0.010	ppm(v/v)	0.0035
1,4-Dichlorobenzene	ND	0.010	ppm(v/v)	0.0040
1,2-Dichlorobenzene	ND	0.010	ppm(v/v)	0.0040
1,2,4-Trichloro-benzene	ND	0.10	ppm(v/v)	0.0050
Hexachlorobutadiene	ND	0.020	ppm(v/v)	0.0050
Methyl tert-butyl ether (MTBE)	ND	0.050	ppm(v/v)	0.0025

NOTE(S):

J Estimated result. Result is less than RL.

HALEY & ALDRICH INC

2_VEW_1B_AV021903_0001

GC/MS Volatiles

Lot-Sample #: E3B190275-008 Work Order #: FHWLX1AA Matrix: AIR

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT		RETENTION TIME	UNITS
cyclohexanone	108-94-1	0.035	M	17.527	ppm(v/v)

NOTE(S):

M: Result was measured against nearest internal standard assuming a response factor of 1.

QC DATA ASSOCIATION SUMMARY

E3B190275

Sample Preparation and Analysis Control Numbers

SAMPLE#	MATRIX	ANALYTICAL METHOD	LEACH BATCH #	PREP BATCH #	MS RUN#
001	AIR	EPA-21 TO-14A		3051247	
002	AIR	EPA-21 TO-14A		3051247	
003	AIR	EPA-21 TO-14A		3051247	
004	AIR	EPA-21 TO-14A		3051247	
005	AIR	EPA-21 TO-14A		3051479	
006	AIR	EPA-21 TO-14A		3051479	
007	AIR	EPA-21 TO-14A		3051479	
008	AIR	EPA-21 TO-14A		3051479	

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: E3B190275
MB Lot-Sample #: M3B200000-247

Work Order #...: FHXHF1AA

Matrix.....: AIR

Prep Date.....: 02/19/03

Analysis Time..: 11:59

Analysis Date..: 02/19/03

Prep Batch #...: 3051247

Instrument ID..: MSB

Dilution Factor: 1

Analyst ID.....: 117751

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Total Non-Methane Hydroca	ND	0.50	ppm(v/v)	EPA-21 TO-14A
Dichlorodifluoromethane	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
Chloromethane	ND	0.0040	ppm(v/v)	EPA-21 TO-14A
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
Vinyl chloride	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
Bromomethane	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
Chloroethane	ND	0.0040	ppm(v/v)	EPA-21 TO-14A
Trichlorofluoromethane	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
1,1-Dichloroethene	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
Carbon disulfide	ND	0.010	ppm(v/v)	EPA-21 TO-14A
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
Acetone	ND	0.010	ppm(v/v)	EPA-21 TO-14A
Methylene chloride	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
trans-1,2-Dichloroethene	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
1,1-Dichloroethane	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
Vinyl acetate	ND	0.010	ppm(v/v)	EPA-21 TO-14A
cis-1,2-Dichloroethene	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
2-Butanone (MEK)	ND	0.010	ppm(v/v)	EPA-21 TO-14A
Chloroform	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
1,1,1-Trichloroethane	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
Carbon tetrachloride	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
Benzene	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
1,2-Dichloroethane	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
Trichloroethene	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
1,2-Dichloropropane	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
Bromodichloromethane	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
cis-1,3-Dichloropropene	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
4-Methyl-2-pentanone (MIBK)	ND	0.010	ppm(v/v)	EPA-21 TO-14A
Toluene	ND	0.0050	ppm(v/v)	EPA-21 TO-14A
trans-1,3-Dichloropropene	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
1,1,2-Trichloroethane	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
Tetrachloroethene	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
2-Hexanone	ND	0.030	ppm(v/v)	EPA-21 TO-14A
Dibromochloromethane	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
1,2-Dibromoethane (EDB)	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
Chlorobenzene	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
Ethylbenzene	ND	0.0020	ppm(v/v)	EPA-21 TO-14A

(Continued on next page)

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: E3B190275 Work Order #...: FHXHF1AA Matrix.....: AIR

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Xylenes (total)	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
Styrene	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
Bromoform	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
1,1,2,2-Tetrachloroethane	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
Benzyl chloride	ND	0.010	ppm(v/v)	EPA-21 TO-14A
4-Ethyltoluene	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
1,3,5-Trimethylbenzene	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
1,2,4-Trimethylbenzene	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
1,3-Dichlorobenzene	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
1,4-Dichlorobenzene	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
1,2-Dichlorobenzene	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
1,2,4-Trichloro-benzene	ND	0.020	ppm(v/v)	EPA-21 TO-14A
Hexachlorobutadiene	ND	0.0040	ppm(v/v)	EPA-21 TO-14A
Methyl tert-butyl ether (MTBE)	ND	0.010	ppm(v/v)	EPA-21 TO-14A

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: E3B190275
MB Lot-Sample #: M3B200000-479

Work Order #...: FH0W11AA

Matrix.....: AIR

Prep Date.....: 02/20/03

Analysis Time..: 10:37

Analysis Date..: 02/20/03

Prep Batch #...: 3051479

Instrument ID..: MSB

Dilution Factor: 1

Analyst ID.....: 117751

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Total Non-Methane Hydroca	ND	0.50	ppm(v/v)	EPA-21 TO-14A
Dichlorodifluoromethane	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
Chloromethane	ND	0.0040	ppm(v/v)	EPA-21 TO-14A
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
Vinyl chloride	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
Bromomethane	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
Chloroethane	ND	0.0040	ppm(v/v)	EPA-21 TO-14A
Trichlorofluoromethane	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
1,1-Dichloroethene	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
Carbon disulfide	ND	0.010	ppm(v/v)	EPA-21 TO-14A
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
Acetone	ND	0.010	ppm(v/v)	EPA-21 TO-14A
Methylene chloride	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
trans-1,2-Dichloroethene	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
1,1-Dichloroethane	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
Vinyl acetate	ND	0.010	ppm(v/v)	EPA-21 TO-14A
cis-1,2-Dichloroethene	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
2-Butanone (MEK)	ND	0.010	ppm(v/v)	EPA-21 TO-14A
Chloroform	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
1,1,1-Trichloroethane	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
Carbon tetrachloride	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
Benzene	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
1,2-Dichloroethane	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
Trichloroethene	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
1,2-Dichloropropane	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
Bromodichloromethane	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
cis-1,3-Dichloropropene	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
4-Methyl-2-pentanone (MIBK)	ND	0.010	ppm(v/v)	EPA-21 TO-14A
Toluene	ND	0.0050	ppm(v/v)	EPA-21 TO-14A
trans-1,3-Dichloropropene	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
1,1,2-Trichloroethane	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
Tetrachloroethene	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
2-Hexanone	ND	0.030	ppm(v/v)	EPA-21 TO-14A
Dibromochloromethane	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
1,2-Dibromoethane (EDB)	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
Chlorobenzene	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
Ethylbenzene	ND	0.0020	ppm(v/v)	EPA-21 TO-14A

(Continued on next page)

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: E3B190275 Work Order #...: FH0W11AA Matrix.....: AIR

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Xylenes (total)	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
Styrene	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
Bromoform	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
1,1,2,2-Tetrachloroethane	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
Benzyl chloride	ND	0.010	ppm(v/v)	EPA-21 TO-14A
4-Ethyltoluene	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
1,3,5-Trimethylbenzene	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
1,2,4-Trimethylbenzene	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
1,3-Dichlorobenzene	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
1,4-Dichlorobenzene	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
1,2-Dichlorobenzene	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
1,2,4-Trichloro-benzene	ND	0.020	ppm(v/v)	EPA-21 TO-14A
Hexachlorobutadiene	ND	0.0040	ppm(v/v)	EPA-21 TO-14A
Methyl tert-butyl ether (MTBE)	ND	0.010	ppm(v/v)	EPA-21 TO-14A

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: E3B190275 Work Order #...: FHXHF1AC-LCS Matrix.....: AIR
LCS Lot-Sample#: M3B200000-247 FHXHF1AD-LCSD
Prep Date.....: 02/19/03 Analysis Date..: 02/19/03
Prep Batch #...: 3051247 Analysis Time..: 10:53
Dilution Factor: 1 Instrument ID..: MSB
Analyst ID.....: 117751

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,1-Dichloroethene	97	(70 - 125)			EPA-21 TO-14A
	97	(70 - 125)	0.27	(0-20)	EPA-21 TO-14A
Methylene chloride	94	(75 - 120)			EPA-21 TO-14A
	94	(75 - 120)	0.47	(0-20)	EPA-21 TO-14A
Trichloroethene	86	(70 - 125)			EPA-21 TO-14A
	85	(70 - 125)	1.0	(0-20)	EPA-21 TO-14A
Toluene	92	(75 - 125)			EPA-21 TO-14A
	92	(75 - 125)	0.050	(0-20)	EPA-21 TO-14A
1,1,2,2-Tetrachloroethane	88	(65 - 130)			EPA-21 TO-14A
	89	(65 - 130)	0.77	(0-20)	EPA-21 TO-14A

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...: E3B190275
LCS Lot-Sample#: M3B200000-247
Prep Date.....: 02/19/03
Prep Batch #...: 3051247
Dilution Factor: 1
Analyst ID.....: 117751

Work Order #...: FHXHF1AC-LCS
FHXHF1AD-LCSD
Analysis Date..: 02/19/03
Analysis Time..: 10:53
Instrument ID..: MSB

Matrix.....: AIR

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	RPD	METHOD
1,1-Dichloroethene	0.0591	0.0572	ppm(v/v)	97		EPA-21 TO-14A
	0.0591	0.0573	ppm(v/v)	97	0.27	EPA-21 TO-14A
Methylene chloride	0.0587	0.0550	ppm(v/v)	94		EPA-21 TO-14A
	0.0587	0.0553	ppm(v/v)	94	0.47	EPA-21 TO-14A
Trichloroethene	0.0595	0.0514	ppm(v/v)	86		EPA-21 TO-14A
	0.0595	0.0509	ppm(v/v)	85	1.0	EPA-21 TO-14A
Toluene	0.0557	0.0515	ppm(v/v)	92		EPA-21 TO-14A
	0.0557	0.0515	ppm(v/v)	92	0.050	EPA-21 TO-14A
1,1,2,2-Tetrachloroethane	0.0554	0.0490	ppm(v/v)	88		EPA-21 TO-14A
	0.0554	0.0494	ppm(v/v)	89	0.77	EPA-21 TO-14A

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: E3B190275 **Work Order #...:** FH0W11AC-LCS **Matrix.....:** AIR
LCS Lot-Sample#: M3B200000-479 FH0W11AD-LCSD
Prep Date.....: 02/20/03 **Analysis Date..:** 02/20/03
Prep Batch #...: 3051479 **Analysis Time..:** 09:33
Dilution Factor: 1 **Instrument ID..:** MSB
Analyst ID.....: 117751

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,1-Dichloroethene	92	(70 - 125)			EPA-21 TO-14A
	94	(70 - 125)	2.1	(0-20)	EPA-21 TO-14A
Methylene chloride	91	(75 - 120)			EPA-21 TO-14A
	95	(75 - 120)	4.3	(0-20)	EPA-21 TO-14A
Trichloroethene	86	(70 - 125)			EPA-21 TO-14A
	86	(70 - 125)	0.39	(0-20)	EPA-21 TO-14A
Toluene	93	(75 - 125)			EPA-21 TO-14A
	91	(75 - 125)	1.3	(0-20)	EPA-21 TO-14A
1,1,2,2-Tetrachloroethane	86	(65 - 130)			EPA-21 TO-14A
	87	(65 - 130)	1.7	(0-20)	EPA-21 TO-14A

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...: E3B190275 Work Order #...: FH0W11AC-LCS Matrix.....: AIR
LCS Lot-Sample#: M3B200000-479 FH0W11AD-LCSD
Prep Date.....: 02/20/03 Analysis Date..: 02/20/03
Prep Batch #...: 3051479 Analysis Time..: 09:33
Dilution Factor: 1 Instrument ID..: MSB
Analyst ID.....: 117751

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	RPD	METHOD
1,1-Dichloroethene	0.0591	0.0546	ppm(v/v)	92		EPA-21 TO-14A
	0.0591	0.0558	ppm(v/v)	94	2.1	EPA-21 TO-14A
Methylene chloride	0.0587	0.0533	ppm(v/v)	91		EPA-21 TO-14A
	0.0587	0.0556	ppm(v/v)	95	4.3	EPA-21 TO-14A
Trichloroethene	0.0595	0.0514	ppm(v/v)	86		EPA-21 TO-14A
	0.0595	0.0512	ppm(v/v)	86	0.39	EPA-21 TO-14A
Toluene	0.0557	0.0516	ppm(v/v)	93		EPA-21 TO-14A
	0.0557	0.0509	ppm(v/v)	91	1.3	EPA-21 TO-14A
1,1,2,2-Tetrachloroethane	0.0554	0.0474	ppm(v/v)	86		EPA-21 TO-14A
	0.0554	0.0482	ppm(v/v)	87	1.7	EPA-21 TO-14A

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

EXECUTIVE SUMMARY - Detection Highlights

E3B200333

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
GAC002U_AV022003_0001 02/20/03 12:00	001			
Total Non-Methane Hydrocarbons	8.8	6.2	ppm(v/v)	EPA-21 TO-14A
1,1-Dichloroethene	0.33	0.025	ppm(v/v)	EPA-21 TO-14A
1,1-Dichloroethane	0.012 J	0.025	ppm(v/v)	EPA-21 TO-14A
cis-1,2-Dichloroethene	0.012 J	0.025	ppm(v/v)	EPA-21 TO-14A
Chloroform	0.13	0.025	ppm(v/v)	EPA-21 TO-14A
1,1,1-Trichloroethane	0.033	0.025	ppm(v/v)	EPA-21 TO-14A
Trichloroethene	4.1	0.025	ppm(v/v)	EPA-21 TO-14A
Toluene	0.010 J	0.062	ppm(v/v)	EPA-21 TO-14A
Tetrachloroethene	0.057	0.025	ppm(v/v)	EPA-21 TO-14A
GAC002U_AV022003_0002 02/20/03 15:30	002			
Total Non-Methane Hydrocarbons	7.4	6.2	ppm(v/v)	EPA-21 TO-14A
1,1-Dichloroethene	0.35	0.025	ppm(v/v)	EPA-21 TO-14A
1,1-Dichloroethane	0.010 J	0.025	ppm(v/v)	EPA-21 TO-14A
cis-1,2-Dichloroethene	0.011 J	0.025	ppm(v/v)	EPA-21 TO-14A
Chloroform	0.12	0.025	ppm(v/v)	EPA-21 TO-14A
1,1,1-Trichloroethane	0.022 J	0.025	ppm(v/v)	EPA-21 TO-14A
Trichloroethene	3.4	0.025	ppm(v/v)	EPA-21 TO-14A
Tetrachloroethene	0.053	0.025	ppm(v/v)	EPA-21 TO-14A
2_VEW_19_AV022003_0001 02/20/03 16:00	003			
Total Non-Methane Hydrocarbons	8.8	6.2	ppm(v/v)	EPA-21 TO-14A
Trichlorofluoromethane	0.027	0.025	ppm(v/v)	EPA-21 TO-14A
1,1-Dichloroethene	0.96	0.025	ppm(v/v)	EPA-21 TO-14A
1,1-Dichloroethane	0.013 J	0.025	ppm(v/v)	EPA-21 TO-14A
Chloroform	0.019 J	0.025	ppm(v/v)	EPA-21 TO-14A
Trichloroethene	3.8	0.025	ppm(v/v)	EPA-21 TO-14A
Tetrachloroethene	0.17	0.025	ppm(v/v)	EPA-21 TO-14A
2_VEW_9_AV022003_0001 02/20/03 16:10	004			
Total Non-Methane Hydrocarbons	12	8.3	ppm(v/v)	EPA-21 TO-14A
Trichlorofluoromethane	0.026 J	0.033	ppm(v/v)	EPA-21 TO-14A
1,1-Dichloroethene	0.44	0.033	ppm(v/v)	EPA-21 TO-14A
1,1-Dichloroethane	0.021 J	0.033	ppm(v/v)	EPA-21 TO-14A
Chloroform	0.022 J	0.033	ppm(v/v)	EPA-21 TO-14A
Trichloroethene	6.0	0.033	ppm(v/v)	EPA-21 TO-14A
Tetrachloroethene	0.10	0.033	ppm(v/v)	EPA-21 TO-14A

(Continued on next page)

EXECUTIVE SUMMARY - Detection Highlights

E3B200333

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
2_VEW_11B_AV022003_0001 02/20/03 16:20 005				
Total Non-Methane Hydrocarbons	19	12	ppm(v/v)	EPA-21 TO-14A
Trichlorofluoromethane	0.022 J	0.050	ppm(v/v)	EPA-21 TO-14A
1,1-Dichloroethene	3.0	0.050	ppm(v/v)	EPA-21 TO-14A
trans-1,2-Dichloroethene	0.013 J	0.050	ppm(v/v)	EPA-21 TO-14A
Chloroform	0.030 J	0.050	ppm(v/v)	EPA-21 TO-14A
Trichloroethene	8.2	0.050	ppm(v/v)	EPA-21 TO-14A
Tetrachloroethene	0.23	0.050	ppm(v/v)	EPA-21 TO-14A
2_VEW_10B_AV022003_0001 02/20/03 16:30 006				
Total Non-Methane Hydrocarbons	13	10	ppm(v/v)	EPA-21 TO-14A
1,1-Dichloroethene	0.45	0.040	ppm(v/v)	EPA-21 TO-14A
1,1-Dichloroethane	0.012 J	0.040	ppm(v/v)	EPA-21 TO-14A
Chloroform	0.47	0.040	ppm(v/v)	EPA-21 TO-14A
1,1,1-Trichloroethane	0.022 J	0.040	ppm(v/v)	EPA-21 TO-14A
Trichloroethene	6.0	0.040	ppm(v/v)	EPA-21 TO-14A
Tetrachloroethene	0.092	0.040	ppm(v/v)	EPA-21 TO-14A
2_VEW_15B_AV022003_0001 02/20/03 16:40 007				
Total Non-Methane Hydrocarbons	17	12	ppm(v/v)	EPA-21 TO-14A
Dichlorodifluoromethane	0.034 J	0.050	ppm(v/v)	EPA-21 TO-14A
Trichlorofluoromethane	0.018 J	0.050	ppm(v/v)	EPA-21 TO-14A
1,1-Dichloroethene	0.70	0.050	ppm(v/v)	EPA-21 TO-14A
Chloroform	0.082	0.050	ppm(v/v)	EPA-21 TO-14A
Trichloroethene	5.5	0.050	ppm(v/v)	EPA-21 TO-14A
Tetrachloroethene	0.10	0.050	ppm(v/v)	EPA-21 TO-14A
2_VEW_8B_AV022003_0001 02/20/03 16:55 008				
Total Non-Methane Hydrocarbons	13	10	ppm(v/v)	EPA-21 TO-14A
Trichlorofluoromethane	0.013 J	0.040	ppm(v/v)	EPA-21 TO-14A
1,1-Dichloroethene	0.85	0.040	ppm(v/v)	EPA-21 TO-14A
1,1-Dichloroethane	0.028 J	0.040	ppm(v/v)	EPA-21 TO-14A
cis-1,2-Dichloroethene	0.026 J	0.040	ppm(v/v)	EPA-21 TO-14A
Chloroform	0.32	0.040	ppm(v/v)	EPA-21 TO-14A
1,1,1-Trichloroethane	0.049	0.040	ppm(v/v)	EPA-21 TO-14A
Carbon tetrachloride	0.020 J	0.040	ppm(v/v)	EPA-21 TO-14A
Trichloroethene	5.8	0.040	ppm(v/v)	EPA-21 TO-14A
Tetrachloroethene	0.15	0.040	ppm(v/v)	EPA-21 TO-14A

(Continued on next page)

EXECUTIVE SUMMARY - Detection Highlights

E3B200333

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
2_VEW_4_AV022003_0001 02/20/03 17:05	**009**			
Total Non-Methane Hydrocarbons	5.1	3.3	ppm(v/v)	EPA-21 TO-14A
1,1-Dichloroethene	0.056	0.013	ppm(v/v)	EPA-21 TO-14A
1,1-Dichloroethane	0.015	0.013	ppm(v/v)	EPA-21 TO-14A
cis-1,2-Dichloroethene	0.0054 J	0.013	ppm(v/v)	EPA-21 TO-14A
Chloroform	0.0090 J	0.013	ppm(v/v)	EPA-21 TO-14A
1,1,1-Trichloroethane	0.081	0.013	ppm(v/v)	EPA-21 TO-14A
Trichloroethene	2.5	0.013	ppm(v/v)	EPA-21 TO-14A
Tetrachloroethene	0.0081 J	0.013	ppm(v/v)	EPA-21 TO-14A
2_VEW_1B_AV022003_0001 02/20/03 17:15	**010**			
Total Non-Methane Hydrocarbons	89	83	ppm(v/v)	EPA-21 TO-14A
1,1-Dichloroethene	2.3	0.33	ppm(v/v)	EPA-21 TO-14A
1,1-Dichloroethane	0.092 J	0.33	ppm(v/v)	EPA-21 TO-14A
1,1,1-Trichloroethane	0.10 J	0.33	ppm(v/v)	EPA-21 TO-14A
Trichloroethene	44	0.33	ppm(v/v)	EPA-21 TO-14A
GAC002U_AV022003_0003 02/20/03 17:30	**011**			
Total Non-Methane Hydrocarbons	8.7	5.0	ppm(v/v)	EPA-21 TO-14A
Trichlorofluoromethane	0.0080 J	0.020	ppm(v/v)	EPA-21 TO-14A
1,1-Dichloroethene	0.45	0.020	ppm(v/v)	EPA-21 TO-14A
1,1-Dichloroethane	0.013 J	0.020	ppm(v/v)	EPA-21 TO-14A
cis-1,2-Dichloroethene	0.012 J	0.020	ppm(v/v)	EPA-21 TO-14A
Chloroform	0.15	0.020	ppm(v/v)	EPA-21 TO-14A
1,1,1-Trichloroethane	0.027	0.020	ppm(v/v)	EPA-21 TO-14A
Trichloroethene	4.0	0.020	ppm(v/v)	EPA-21 TO-14A
Tetrachloroethene	0.065	0.020	ppm(v/v)	EPA-21 TO-14A

METHODS SUMMARY

E3B200333

PARAMETER	ANALYTICAL METHOD	PREPARATION METHOD
Volatile Organics by TO-14A	EPA-21 TO-14A	

References:

EPA-21 "Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air", Second Edition, EPA/625/R-96/010b, January 1999

SAMPLE SUMMARY

E3B200333

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
FH03K	001	GAC002U_AV022003_0001	02/20/03	12:00
FH03M	002	GAC002U_AV022003_0002	02/20/03	15:30
FH03P	003	2_VEW_19_AV022003_0001	02/20/03	16:00
FH03Q	004	2_VEW_9_AV022003_0001	02/20/03	16:10
FH03R	005	2_VEW_11B_AV022003_0001	02/20/03	16:20
FH03T	006	2_VEW_10B_AV022003_0001	02/20/03	16:30
FH03V	007	2_VEW_15B_AV022003_0001	02/20/03	16:40
FH03W	008	2_VEW_8B_AV022003_0001	02/20/03	16:55
FH030	009	2_VEW_4_AV022003_0001	02/20/03	17:05
FH031	010	2_VEW_1B_AV022003_0001	02/20/03	17:15
FH032	011	GAC002U_AV022003_0003	02/20/03	17:30

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

HALEY & ALDRICH INC

Client Sample ID: GAC002U_AV022003_0001

GC/MS Volatiles

Lot-Sample #...:	E3B200333-001	Work Order #...:	FH03K1AA	Matrix.....:	AE
Date Sampled...:	02/20/03 12:00	Date Received..:	02/20/03 19:00	MS Run #.....:	
Prep Date.....:	02/21/03	Analysis Date..:	02/21/03		
Prep Batch #...:	3052534	Analysis Time..:	09:54		
Dilution Factor:	12.5				
Analyst ID.....:	117751	Instrument ID..:	MSB		
		Method.....:	EPA-21 TO-14A		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Total Non-Methane Hydrocarbons as Hexane	**8.8**	**6.2**	**ppm(v/v)**	**1.2**
Dichlorodifluoromethane	ND	0.025	ppm(v/v)	0.0062
Chloromethane	ND	0.050	ppm(v/v)	0.012
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	0.025	ppm(v/v)	0.010
Vinyl chloride	ND	0.025	ppm(v/v)	0.010
Bromomethane	ND	0.025	ppm(v/v)	0.012
Chloroethane	ND	0.050	ppm(v/v)	0.010
Trichlorofluoromethane	ND	0.025	ppm(v/v)	0.0062
1,1-Dichloroethene	**0.33**	**0.025**	**ppm(v/v)**	**0.0062**
Carbon disulfide	ND	0.12	ppm(v/v)	0.025
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	0.025	ppm(v/v)	0.0062
Acetone	ND	0.12	ppm(v/v)	0.025
Methylene chloride	ND	0.025	ppm(v/v)	0.010
trans-1,2-Dichloroethene	ND	0.025	ppm(v/v)	0.0062
1,1-Dichloroethane	**0.012 J**	**0.025**	**ppm(v/v)**	**0.0062**
Vinyl acetate	ND	0.12	ppm(v/v)	0.025
cis-1,2-Dichloroethene	**0.012 J**	**0.025**	**ppm(v/v)**	**0.010**
2-Butanone (MEK)	ND	0.12	ppm(v/v)	0.025
Chloroform	**0.13**	**0.025**	**ppm(v/v)**	**0.010**
1,1,1-Trichloroethane	**0.033**	**0.025**	**ppm(v/v)**	**0.0062**
Carbon tetrachloride	ND	0.025	ppm(v/v)	0.0062
Benzene	ND	0.025	ppm(v/v)	0.010
1,2-Dichloroethane	ND	0.025	ppm(v/v)	0.010
Trichloroethene	**4.1**	**0.025**	**ppm(v/v)**	**0.0062**
1,2-Dichloropropane	ND	0.025	ppm(v/v)	0.010
Bromodichloromethane	ND	0.025	ppm(v/v)	0.010
cis-1,3-Dichloropropene	ND	0.025	ppm(v/v)	0.0062
4-Methyl-2-pentanone (MIBK)	ND	0.12	ppm(v/v)	0.025
Toluene	**0.010 J**	**0.062**	**ppm(v/v)**	**0.0062**
trans-1,3-Dichloropropene	ND	0.025	ppm(v/v)	0.010
1,1,2-Trichloroethane	ND	0.025	ppm(v/v)	0.0075
Tetrachloroethene	**0.057**	**0.025**	**ppm(v/v)**	**0.0075**
2-Hexanone	ND	0.38	ppm(v/v)	0.012

(Continued on next page)

HALEY & ALDRICH INC

Client Sample ID: GAC002U_AV022003_0001

GC/MS Volatiles

Lot-Sample #...: E3B200333-001 **Work Order #...:** FH03K1AA **Matrix.....:** AE

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Dibromochloromethane	ND	0.025	ppm(v/v)	0.0062
1,2-Dibromoethane (EDB)	ND	0.025	ppm(v/v)	0.0062
Chlorobenzene	ND	0.025	ppm(v/v)	0.0062
Ethylbenzene	ND	0.025	ppm(v/v)	0.0062
Xylenes (total)	ND	0.025	ppm(v/v)	0.010
Styrene	ND	0.025	ppm(v/v)	0.0075
Bromoform	ND	0.025	ppm(v/v)	0.0062
1,1,2,2-Tetrachloroethane	ND	0.025	ppm(v/v)	0.0062
Benzyl chloride	ND	0.12	ppm(v/v)	0.010
4-Ethyltoluene	ND	0.025	ppm(v/v)	0.0088
1,3,5-Trimethylbenzene	ND	0.025	ppm(v/v)	0.010
1,2,4-Trimethylbenzene	ND	0.025	ppm(v/v)	0.010
1,3-Dichlorobenzene	ND	0.025	ppm(v/v)	0.0088
1,4-Dichlorobenzene	ND	0.025	ppm(v/v)	0.010
1,2-Dichlorobenzene	ND	0.025	ppm(v/v)	0.010
1,2,4-Trichloro-benzene	ND	0.25	ppm(v/v)	0.012
Hexachlorobutadiene	ND	0.050	ppm(v/v)	0.012
Methyl tert-butyl ether (MTBE)	ND	0.12	ppm(v/v)	0.0062

NOTE(S):

J Estimated result. Result is less than RL.

HALEY & ALDRICH INC

GAC002U_AV022003_0001

GC/MS Volatiles

Lot-Sample #: E3B200333-001 Work Order #: FH03K1AA Matrix: AE

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT	RETENTION TIME	UNITS
None				ppm(v/v)

HALEY & ALDRICH INC

Client Sample ID: GAC002U_AV022003_0002

GC/MS Volatiles

Lot-Sample #...:	E3B200333-002	Work Order #...:	FH03M1AA	Matrix.....:	AE
Date Sampled...:	02/20/03 15:30	Date Received..:	02/20/03 19:00	MS Run #.....:	
Prep Date.....:	02/21/03	Analysis Date..:	02/21/03		
Prep Batch #...:	3052534	Analysis Time..:	10:27		
Dilution Factor:	12.5				
Analyst ID.....:	117751	Instrument ID..:	MSB		
		Method.....:	EPA-21 TO-14A		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Total Non-Methane Hydrocarbons as Hexane	**7.4**	**6.2**	**ppm(v/v)**	**1.2**
Dichlorodifluoromethane	ND	0.025	ppm(v/v)	0.0062
Chloromethane	ND	0.050	ppm(v/v)	0.012
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	0.025	ppm(v/v)	0.010
Vinyl chloride	ND	0.025	ppm(v/v)	0.010
Bromomethane	ND	0.025	ppm(v/v)	0.012
Chloroethane	ND	0.050	ppm(v/v)	0.010
Trichlorofluoromethane	ND	0.025	ppm(v/v)	0.0062
1,1-Dichloroethene	**0.35**	**0.025**	**ppm(v/v)**	**0.0062**
Carbon disulfide	ND	0.12	ppm(v/v)	0.025
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	0.025	ppm(v/v)	0.0062
Acetone	ND	0.12	ppm(v/v)	0.025
Methylene chloride	ND	0.025	ppm(v/v)	0.010
trans-1,2-Dichloroethene	ND	0.025	ppm(v/v)	0.0062
1,1-Dichloroethane	**0.010 J**	**0.025**	**ppm(v/v)**	**0.0062**
Vinyl acetate	ND	0.12	ppm(v/v)	0.025
cis-1,2-Dichloroethene	**0.011 J**	**0.025**	**ppm(v/v)**	**0.010**
2-Butanone (MEK)	ND	0.12	ppm(v/v)	0.025
Chloroform	**0.12**	**0.025**	**ppm(v/v)**	**0.010**
1,1,1-Trichloroethane	**0.022 J**	**0.025**	**ppm(v/v)**	**0.0062**
Carbon tetrachloride	ND	0.025	ppm(v/v)	0.0062
Benzene	ND	0.025	ppm(v/v)	0.010
1,2-Dichloroethane	ND	0.025	ppm(v/v)	0.010
Trichloroethene	**3.4**	**0.025**	**ppm(v/v)**	**0.0062**
1,2-Dichloropropane	ND	0.025	ppm(v/v)	0.010
Bromodichloromethane	ND	0.025	ppm(v/v)	0.010
cis-1,3-Dichloropropene	ND	0.025	ppm(v/v)	0.0062
4-Methyl-2-pentanone (MIBK)	ND	0.12	ppm(v/v)	0.025
Toluene	ND	0.062	ppm(v/v)	0.0062
trans-1,3-Dichloropropene	ND	0.025	ppm(v/v)	0.010
1,1,2-Trichloroethane	ND	0.025	ppm(v/v)	0.0075
Tetrachloroethene	**0.053**	**0.025**	**ppm(v/v)**	**0.0075**
2-Hexanone	ND	0.38	ppm(v/v)	0.012

(Continued on next page)

HALEY & ALDRICH INC

Client Sample ID: GAC002U_AV022003_0002

GC/MS Volatiles

Lot-Sample #...: E3B200333-002 Work Order #...: FH03M1AA Matrix.....: AE

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Dibromochloromethane	ND	0.025	ppm(v/v)	0.0062
1,2-Dibromoethane (EDB)	ND	0.025	ppm(v/v)	0.0062
Chlorobenzene	ND	0.025	ppm(v/v)	0.0062
Ethylbenzene	ND	0.025	ppm(v/v)	0.0062
Xylenes (total)	ND	0.025	ppm(v/v)	0.010
Styrene	ND	0.025	ppm(v/v)	0.0075
Bromoform	ND	0.025	ppm(v/v)	0.0062
1,1,2,2-Tetrachloroethane	ND	0.025	ppm(v/v)	0.0062
Benzyl chloride	ND	0.12	ppm(v/v)	0.010
4-Ethyltoluene	ND	0.025	ppm(v/v)	0.0088
1,3,5-Trimethylbenzene	ND	0.025	ppm(v/v)	0.010
1,2,4-Trimethylbenzene	ND	0.025	ppm(v/v)	0.010
1,3-Dichlorobenzene	ND	0.025	ppm(v/v)	0.0088
1,4-Dichlorobenzene	ND	0.025	ppm(v/v)	0.010
1,2-Dichlorobenzene	ND	0.025	ppm(v/v)	0.010
1,2,4-Trichloro-benzene	ND	0.25	ppm(v/v)	0.012
Hexachlorobutadiene	ND	0.050	ppm(v/v)	0.012
Methyl tert-butyl ether (MTBE)	ND	0.12	ppm(v/v)	0.0062

NOTE(S):

J Estimated result. Result is less than RL.

HALEY & ALDRICH INC

GAC002U_AV022003_0002

GC/MS Volatiles

Lot-Sample #: E3B200333-002 Work Order #: FH03M1AA Matrix: AE

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT	RETENTION TIME	UNITS
None				ppm(v/v)

HALEY & ALDRICH INC

Client Sample ID: 2_VEW_19_AV022003_0001

GC/MS Volatiles

Lot-Sample #...:	E3B200333-003	**Work Order #...:**	FH03P1AA	**Matrix.....:**	AE
Date Sampled...:	02/20/03 16:00	**Date Received..:**	02/20/03 19:00	**MS Run #.....:**	
Prep Date.....:	02/21/03	**Analysis Date..:**	02/21/03		
Prep Batch #...:	3052534	**Analysis Time..:**	11:00		
Dilution Factor:	12.5				
Analyst ID.....:	117751	**Instrument ID..:**	MSB		
		Method.....:	EPA-21 TO-14A		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Total Non-Methane Hydrocarbons as Hexane	**8.8**	**6.2**	**ppm(v/v)**	**1.2**
Dichlorodifluoromethane	ND	0.025	ppm(v/v)	0.0062
Chloromethane	ND	0.050	ppm(v/v)	0.012
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	0.025	ppm(v/v)	0.010
Vinyl chloride	ND	0.025	ppm(v/v)	0.010
Bromomethane	ND	0.025	ppm(v/v)	0.012
Chloroethane	ND	0.050	ppm(v/v)	0.010
Trichlorofluoromethane	**0.027**	**0.025**	**ppm(v/v)**	**0.0062**
1,1-Dichloroethene	**0.96**	**0.025**	**ppm(v/v)**	**0.0062**
Carbon disulfide	ND	0.12	ppm(v/v)	0.025
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	0.025	ppm(v/v)	0.0062
Acetone	ND	0.12	ppm(v/v)	0.025
Methylene chloride	ND	0.025	ppm(v/v)	0.010
trans-1,2-Dichloroethene	ND	0.025	ppm(v/v)	0.0062
1,1-Dichloroethane	**0.013 J**	**0.025**	**ppm(v/v)**	**0.0062**
Vinyl acetate	ND	0.12	ppm(v/v)	0.025
cis-1,2-Dichloroethene	ND	0.025	ppm(v/v)	0.010
2-Butanone (MEK)	ND	0.12	ppm(v/v)	0.025
Chloroform	**0.019 J**	**0.025**	**ppm(v/v)**	**0.010**
1,1,1-Trichloroethane	ND	0.025	ppm(v/v)	0.0062
Carbon tetrachloride	ND	0.025	ppm(v/v)	0.0062
Benzene	ND	0.025	ppm(v/v)	0.010
1,2-Dichloroethane	ND	0.025	ppm(v/v)	0.010
Trichloroethene	**3.8**	**0.025**	**ppm(v/v)**	**0.0062**
1,2-Dichloropropane	ND	0.025	ppm(v/v)	0.010
Bromodichloromethane	ND	0.025	ppm(v/v)	0.010
cis-1,3-Dichloropropene	ND	0.025	ppm(v/v)	0.0062
4-Methyl-2-pentanone (MIBK)	ND	0.12	ppm(v/v)	0.025
Toluene	ND	0.062	ppm(v/v)	0.0062
trans-1,3-Dichloropropene	ND	0.025	ppm(v/v)	0.010
1,1,2-Trichloroethane	ND	0.025	ppm(v/v)	0.0075
Tetrachloroethene	**0.17**	**0.025**	**ppm(v/v)**	**0.0075**
2-Hexanone	ND	0.38	ppm(v/v)	0.012

(Continued on next page)

HALEY & ALDRICH INC

Client Sample ID: 2_VEW_19_AV022003_0001

GC/MS Volatiles

Lot-Sample #...: E3B200333-003 **Work Order #...:** FH03P1AA **Matrix.....:** AE

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Dibromochloromethane	ND	0.025	ppm(v/v)	0.0062
1,2-Dibromoethane (EDB)	ND	0.025	ppm(v/v)	0.0062
Chlorobenzene	ND	0.025	ppm(v/v)	0.0062
Ethylbenzene	ND	0.025	ppm(v/v)	0.0062
Xylenes (total)	ND	0.025	ppm(v/v)	0.010
Styrene	ND	0.025	ppm(v/v)	0.0075
Bromoform	ND	0.025	ppm(v/v)	0.0062
1,1,2,2-Tetrachloroethane	ND	0.025	ppm(v/v)	0.0062
Benzyl chloride	ND	0.12	ppm(v/v)	0.010
4-Ethyltoluene	ND	0.025	ppm(v/v)	0.0088
1,3,5-Trimethylbenzene	ND	0.025	ppm(v/v)	0.010
1,2,4-Trimethylbenzene	ND	0.025	ppm(v/v)	0.010
1,3-Dichlorobenzene	ND	0.025	ppm(v/v)	0.0088
1,4-Dichlorobenzene	ND	0.025	ppm(v/v)	0.010
1,2-Dichlorobenzene	ND	0.025	ppm(v/v)	0.010
1,2,4-Trichloro-benzene	ND	0.25	ppm(v/v)	0.012
Hexachlorobutadiene	ND	0.050	ppm(v/v)	0.012
Methyl tert-butyl ether (MTBE)	ND	0.12	ppm(v/v)	0.0062

NOTE(S):

J Estimated result. Result is less than RL.

HALEY & ALDRICH INC

2_VEW_19_AV022003_0001

GC/MS Volatiles

Lot-Sample #: E3B200333-003 Work Order #: FH03P1AA Matrix: AE

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT	RETENTION TIME	UNITS
None				ppm(v/v)

HALEY & ALDRICH INC

Client Sample ID: 2_VEW_9_AV022003_0001

GC/MS Volatiles

Lot-Sample #...:	E3B200333-004	Work Order #...:	FH03Q1AA	Matrix.....:	AE
Date Sampled...:	02/20/03 16:10	Date Received..:	02/20/03 19:00	MS Run #.....:	
Prep Date.....:	02/21/03	Analysis Date..:	02/21/03		
Prep Batch #...:	3052534	Analysis Time..:	11:34		
Dilution Factor:	16.67				
Analyst ID.....:	117751	Instrument ID..:	MSB		
		Method.....:	EPA-21 TO-14A		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Total Non-Methane Hydrocarbons as Hexane	**12**	**8.3**	**ppm(v/v)**	**1.7**
Dichlorodifluoromethane	ND	0.033	ppm(v/v)	0.0083
Chloromethane	ND	0.067	ppm(v/v)	0.017
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	0.033	ppm(v/v)	0.013
Vinyl chloride	ND	0.033	ppm(v/v)	0.013
Bromomethane	ND	0.033	ppm(v/v)	0.017
Chloroethane	ND	0.067	ppm(v/v)	0.013
Trichlorofluoromethane	**0.026 J**	**0.033**	**ppm(v/v)**	**0.0083**
1,1-Dichloroethene	**0.44**	**0.033**	**ppm(v/v)**	**0.0083**
Carbon disulfide	ND	0.17	ppm(v/v)	0.033
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	0.033	ppm(v/v)	0.0083
Acetone	ND	0.17	ppm(v/v)	0.033
Methylene chloride	ND	0.033	ppm(v/v)	0.013
trans-1,2-Dichloroethene	ND	0.033	ppm(v/v)	0.0083
1,1-Dichloroethane	**0.021 J**	**0.033**	**ppm(v/v)**	**0.0083**
Vinyl acetate	ND	0.17	ppm(v/v)	0.033
cis-1,2-Dichloroethene	ND	0.033	ppm(v/v)	0.013
2-Butanone (MEK)	ND	0.17	ppm(v/v)	0.033
Chloroform	**0.022 J**	**0.033**	**ppm(v/v)**	**0.013**
1,1,1-Trichloroethane	ND	0.033	ppm(v/v)	0.0083
Carbon tetrachloride	ND	0.033	ppm(v/v)	0.0083
Benzene	ND	0.033	ppm(v/v)	0.013
1,2-Dichloroethane	ND	0.033	ppm(v/v)	0.013
Trichloroethene	**6.0**	**0.033**	**ppm(v/v)**	**0.0083**
1,2-Dichloropropane	ND	0.033	ppm(v/v)	0.013
Bromodichloromethane	ND	0.033	ppm(v/v)	0.013
cis-1,3-Dichloropropene	ND	0.033	ppm(v/v)	0.0083
4-Methyl-2-pentanone (MIBK)	ND	0.17	ppm(v/v)	0.033
Toluene	ND	0.083	ppm(v/v)	0.0083
trans-1,3-Dichloropropene	ND	0.033	ppm(v/v)	0.013
1,1,2-Trichloroethane	ND	0.033	ppm(v/v)	0.010
Tetrachloroethene	**0.10**	**0.033**	**ppm(v/v)**	**0.010**
2-Hexanone	ND	0.50	ppm(v/v)	0.017

(Continued on next page)

HALEY & ALDRICH INC

Client Sample ID: 2_VEW_9_AV022003_0001

GC/MS Volatiles

Lot-Sample #...: E3B200333-004 **Work Order #...:** FH03Q1AA **Matrix.....:** AE

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Dibromochloromethane	ND	0.033	ppm(v/v)	0.0083
1,2-Dibromoethane (EDB)	ND	0.033	ppm(v/v)	0.0083
Chlorobenzene	ND	0.033	ppm(v/v)	0.0083
Ethylbenzene	ND	0.033	ppm(v/v)	0.0083
Xylenes (total)	ND	0.033	ppm(v/v)	0.013
Styrene	ND	0.033	ppm(v/v)	0.010
Bromoform	ND	0.033	ppm(v/v)	0.0083
1,1,2,2-Tetrachloroethane	ND	0.033	ppm(v/v)	0.0083
Benzyl chloride	ND	0.17	ppm(v/v)	0.013
4-Ethyltoluene	ND	0.033	ppm(v/v)	0.012
1,3,5-Trimethylbenzene	ND	0.033	ppm(v/v)	0.013
1,2,4-Trimethylbenzene	ND	0.033	ppm(v/v)	0.013
1,3-Dichlorobenzene	ND	0.033	ppm(v/v)	0.012
1,4-Dichlorobenzene	ND	0.033	ppm(v/v)	0.013
1,2-Dichlorobenzene	ND	0.033	ppm(v/v)	0.013
1,2,4-Trichloro-benzene	ND	0.33	ppm(v/v)	0.017
Hexachlorobutadiene	ND	0.067	ppm(v/v)	0.017
Methyl tert-butyl ether (MTBE)	ND	0.17	ppm(v/v)	0.0083

NOTE(S):

J Estimated result. Result is less than RL.

HALEY & ALDRICH INC

2_VEW_9_AV022003_0001

GC/MS Volatiles

Lot-Sample #: E3B200333-004 **Work Order #:** FH03Q1AA **Matrix:** AE

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT	RETENTION TIME	UNITS
None				ppm(v/v)

HALEY & ALDRICH INC

Client Sample ID: 2_VEW_11B_AV022003_0001

GC/MS Volatiles

Lot-Sample #...: E3B200333-005 Work Order #...: FH03R1AA Matrix.....: AE
Date Sampled...: 02/20/03 16:20 Date Received..: 02/20/03 19:00 MS Run #.....:
Prep Date.....: 02/21/03 Analysis Date..: 02/21/03
Prep Batch #...: 3052534 Analysis Time..: 12:07
Dilution Factor: 25
Analyst ID.....: 117751 Instrument ID..: MSB
Method.....: EPA-21 TO-14A

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Total Non-Methane Hydrocarbons as Hexane	**19**	**12**	**ppm(v/v)**	**2.5**
Dichlorodifluoromethane	ND	0.050	ppm(v/v)	0.012
Chloromethane	ND	0.10	ppm(v/v)	0.025
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	0.050	ppm(v/v)	0.020
Vinyl chloride	ND	0.050	ppm(v/v)	0.020
Bromomethane	ND	0.050	ppm(v/v)	0.025
Chloroethane	ND	0.10	ppm(v/v)	0.020
Trichlorofluoromethane	**0.022 J**	**0.050**	**ppm(v/v)**	**0.012**
1,1-Dichloroethene	**3.0**	**0.050**	**ppm(v/v)**	**0.012**
Carbon disulfide	ND	0.25	ppm(v/v)	0.050
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	0.050	ppm(v/v)	0.012
Acetone	ND	0.25	ppm(v/v)	0.050
Methylene chloride	ND	0.050	ppm(v/v)	0.020
trans-1,2-Dichloroethene	**0.013 J**	**0.050**	**ppm(v/v)**	**0.012**
1,1-Dichloroethane	ND	0.050	ppm(v/v)	0.012
Vinyl acetate	ND	0.25	ppm(v/v)	0.050
cis-1,2-Dichloroethene	ND	0.050	ppm(v/v)	0.020
2-Butanone (MEK)	ND	0.25	ppm(v/v)	0.050
Chloroform	**0.030 J**	**0.050**	**ppm(v/v)**	**0.020**
1,1,1-Trichloroethane	ND	0.050	ppm(v/v)	0.012
Carbon tetrachloride	ND	0.050	ppm(v/v)	0.012
Benzene	ND	0.050	ppm(v/v)	0.020
1,2-Dichloroethane	ND	0.050	ppm(v/v)	0.020
Trichloroethene	**8.2**	**0.050**	**ppm(v/v)**	**0.012**
1,2-Dichloropropane	ND	0.050	ppm(v/v)	0.020
Bromodichloromethane	ND	0.050	ppm(v/v)	0.020
cis-1,3-Dichloropropene	ND	0.050	ppm(v/v)	0.012
4-Methyl-2-pentanone (MIBK)	ND	0.25	ppm(v/v)	0.050
Toluene	ND	0.12	ppm(v/v)	0.012
trans-1,3-Dichloropropene	ND	0.050	ppm(v/v)	0.020
1,1,2-Trichloroethane	ND	0.050	ppm(v/v)	0.015
Tetrachloroethene	**0.23**	**0.050**	**ppm(v/v)**	**0.015**
2-Hexanone	ND	0.75	ppm(v/v)	0.025

(Continued on next page)

HALEY & ALDRICH INC

Client Sample ID: 2_VEW_11B_AV022003_0001

GC/MS Volatiles

Lot-Sample #...: E3B200333-005 **Work Order #...:** FH03R1AA **Matrix.....:** AE

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Dibromochloromethane	ND	0.050	ppm(v/v)	0.012
1,2-Dibromoethane (EDB)	ND	0.050	ppm(v/v)	0.012
Chlorobenzene	ND	0.050	ppm(v/v)	0.012
Ethylbenzene	ND	0.050	ppm(v/v)	0.012
Xylenes (total)	ND	0.050	ppm(v/v)	0.020
Styrene	ND	0.050	ppm(v/v)	0.015
Bromoform	ND	0.050	ppm(v/v)	0.012
1,1,2,2-Tetrachloroethane	ND	0.050	ppm(v/v)	0.012
Benzyl chloride	ND	0.25	ppm(v/v)	0.020
4-Ethyltoluene	ND	0.050	ppm(v/v)	0.018
1,3,5-Trimethylbenzene	ND	0.050	ppm(v/v)	0.020
1,2,4-Trimethylbenzene	ND	0.050	ppm(v/v)	0.020
1,3-Dichlorobenzene	ND	0.050	ppm(v/v)	0.018
1,4-Dichlorobenzene	ND	0.050	ppm(v/v)	0.020
1,2-Dichlorobenzene	ND	0.050	ppm(v/v)	0.020
1,2,4-Trichloro-benzene	ND	0.50	ppm(v/v)	0.025
Hexachlorobutadiene	ND	0.10	ppm(v/v)	0.025
Methyl tert-butyl ether (MTBE)	ND	0.25	ppm(v/v)	0.012

NOTE(S):

J Estimated result. Result is less than RL.

HALEY & ALDRICH INC

2_VEW_11B_AV022003_0001

GC/MS Volatiles

Lot-Sample #: E3B200333-005 Work Order #: FH03R1AA Matrix: AE

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT	RETENTION TIME	UNITS
None				ppm(v/v)

HALEY & ALDRICH INC

Client Sample ID: 2_VEW_10B_AV022003_0001

GC/MS Volatiles

Lot-Sample #...: E3B200333-006 Work Order #...: FH03T1AA Matrix.....: AE
Date Sampled...: 02/20/03 16:30 Date Received..: 02/20/03 19:00 MS Run #.....:
Prep Date.....: 02/21/03 Analysis Date..: 02/21/03
Prep Batch #...: 3052534 Analysis Time..: 17:36
Dilution Factor: 20
Analyst ID.....: 117751 Instrument ID..: MSB
Method.....: EPA-21 TO-14A

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Total Non-Methane Hydrocarbons as Hexane	**13**	**10**	**ppm(v/v)**	**2.0**
Dichlorodifluoromethane	ND	0.040	ppm(v/v)	0.010
Chloromethane	ND	0.080	ppm(v/v)	0.020
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	0.040	ppm(v/v)	0.016
Vinyl chloride	ND	0.040	ppm(v/v)	0.016
Bromomethane	ND	0.040	ppm(v/v)	0.020
Chloroethane	ND	0.080	ppm(v/v)	0.016
Trichlorofluoromethane	ND	0.040	ppm(v/v)	0.010
1,1-Dichloroethene	**0.45**	**0.040**	**ppm(v/v)**	**0.010**
Carbon disulfide	ND	0.20	ppm(v/v)	0.040
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	0.040	ppm(v/v)	0.010
Acetone	ND	0.20	ppm(v/v)	0.040
Methylene chloride	ND	0.040	ppm(v/v)	0.016
trans-1,2-Dichloroethene	ND	0.040	ppm(v/v)	0.010
1,1-Dichloroethane	**0.012 J**	**0.040**	**ppm(v/v)**	**0.010**
Vinyl acetate	ND	0.20	ppm(v/v)	0.040
cis-1,2-Dichloroethene	ND	0.040	ppm(v/v)	0.016
2-Butanone (MEK)	ND	0.20	ppm(v/v)	0.040
Chloroform	**0.47**	**0.040**	**ppm(v/v)**	**0.016**
1,1,1-Trichloroethane	**0.022 J**	**0.040**	**ppm(v/v)**	**0.010**
Carbon tetrachloride	ND	0.040	ppm(v/v)	0.010
Benzene	ND	0.040	ppm(v/v)	0.016
1,2-Dichloroethane	ND	0.040	ppm(v/v)	0.016
Trichloroethene	**6.0**	**0.040**	**ppm(v/v)**	**0.010**
1,2-Dichloropropane	ND	0.040	ppm(v/v)	0.016
Bromodichloromethane	ND	0.040	ppm(v/v)	0.016
cis-1,3-Dichloropropene	ND	0.040	ppm(v/v)	0.010
4-Methyl-2-pentanone (MIBK)	ND	0.20	ppm(v/v)	0.040
Toluene	ND	0.10	ppm(v/v)	0.010
trans-1,3-Dichloropropene	ND	0.040	ppm(v/v)	0.016
1,1,2-Trichloroethane	ND	0.040	ppm(v/v)	0.012
Tetrachloroethene	**0.092**	**0.040**	**ppm(v/v)**	**0.012**
2-Hexanone	ND	0.60	ppm(v/v)	0.020

(Continued on next page)

HALEY & ALDRICH INC

Client Sample ID: 2_VEW_10B_AV022003_0001

GC/MS Volatiles

Lot-Sample #...: E3B200333-006 **Work Order #...:** FH03T1AA **Matrix.....:** AE

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Dibromochloromethane	ND	0.040	ppm(v/v)	0.010
1,2-Dibromoethane (EDB)	ND	0.040	ppm(v/v)	0.010
Chlorobenzene	ND	0.040	ppm(v/v)	0.010
Ethylbenzene	ND	0.040	ppm(v/v)	0.010
Xylenes (total)	ND	0.040	ppm(v/v)	0.016
Styrene	ND	0.040	ppm(v/v)	0.012
Bromoform	ND	0.040	ppm(v/v)	0.010
1,1,2,2-Tetrachloroethane	ND	0.040	ppm(v/v)	0.010
Benzyl chloride	ND	0.20	ppm(v/v)	0.016
4-Ethyltoluene	ND	0.040	ppm(v/v)	0.014
1,3,5-Trimethylbenzene	ND	0.040	ppm(v/v)	0.016
1,2,4-Trimethylbenzene	ND	0.040	ppm(v/v)	0.016
1,3-Dichlorobenzene	ND	0.040	ppm(v/v)	0.014
1,4-Dichlorobenzene	ND	0.040	ppm(v/v)	0.016
1,2-Dichlorobenzene	ND	0.040	ppm(v/v)	0.016
1,2,4-Trichloro-benzene	ND	0.40	ppm(v/v)	0.020
Hexachlorobutadiene	ND	0.080	ppm(v/v)	0.020
Methyl tert-butyl ether (MTBE)	ND	0.20	ppm(v/v)	0.010

NOTE(S):

J Estimated result. Result is less than RL.

HALEY & ALDRICH INC

2_VEW_10B_AV022003_0001

GC/MS Volatiles

Lot-Sample #: E3B200333-006 Work Order #: FH03T1AA Matrix: AE

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT	RETENTION TIME	UNITS
None				ppm(v/v)

HALEY & ALDRICH INC

Client Sample ID: 2_VEW_15B_AV022003_0001

GC/MS Volatiles

Lot-Sample #...:	E3B200333-007	Work Order #...:	FH03V1AA	Matrix.....:	AE
Date Sampled...:	02/20/03 16:40	Date Received..:	02/20/03 19:00	MS Run #.....:	
Prep Date.....:	02/21/03	Analysis Date..:	02/21/03		
Prep Batch #...:	3052534	Analysis Time..:	13:10		
Dilution Factor:	25				
Analyst ID.....:	117751	Instrument ID..:	MSB		
		Method.....:	EPA-21 TO-14A		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Total Non-Methane Hydrocarbons as Hexane	**17**	**12**	**ppm(v/v)**	**2.5**
Dichlorodifluoromethane	**0.034 J**	**0.050**	**ppm(v/v)**	**0.012**
Chloromethane	ND	0.10	ppm(v/v)	0.025
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	0.050	ppm(v/v)	0.020
Vinyl chloride	ND	0.050	ppm(v/v)	0.020
Bromomethane	ND	0.050	ppm(v/v)	0.025
Chloroethane	ND	0.10	ppm(v/v)	0.020
Trichlorofluoromethane	**0.018 J**	**0.050**	**ppm(v/v)**	**0.012**
1,1-Dichloroethene	**0.70**	**0.050**	**ppm(v/v)**	**0.012**
Carbon disulfide	ND	0.25	ppm(v/v)	0.050
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	0.050	ppm(v/v)	0.012
Acetone	ND	0.25	ppm(v/v)	0.050
Methylene chloride	ND	0.050	ppm(v/v)	0.020
trans-1,2-Dichloroethene	ND	0.050	ppm(v/v)	0.012
1,1-Dichloroethane	ND	0.050	ppm(v/v)	0.012
Vinyl acetate	ND	0.25	ppm(v/v)	0.050
cis-1,2-Dichloroethene	ND	0.050	ppm(v/v)	0.020
2-Butanone (MEK)	ND	0.25	ppm(v/v)	0.050
Chloroform	**0.082**	**0.050**	**ppm(v/v)**	**0.020**
1,1,1-Trichloroethane	ND	0.050	ppm(v/v)	0.012
Carbon tetrachloride	ND	0.050	ppm(v/v)	0.012
Benzene	ND	0.050	ppm(v/v)	0.020
1,2-Dichloroethane	ND	0.050	ppm(v/v)	0.020
Trichloroethene	**5.5**	**0.050**	**ppm(v/v)**	**0.012**
1,2-Dichloropropane	ND	0.050	ppm(v/v)	0.020
Bromodichloromethane	ND	0.050	ppm(v/v)	0.020
cis-1,3-Dichloropropene	ND	0.050	ppm(v/v)	0.012
4-Methyl-2-pentanone (MIBK)	ND	0.25	ppm(v/v)	0.050
Toluene	ND	0.12	ppm(v/v)	0.012
trans-1,3-Dichloropropene	ND	0.050	ppm(v/v)	0.020
1,1,2-Trichloroethane	ND	0.050	ppm(v/v)	0.015
Tetrachloroethene	**0.10**	**0.050**	**ppm(v/v)**	**0.015**
2-Hexanone	ND	0.75	ppm(v/v)	0.025

(Continued on next page)

HALEY & ALDRICH INC

Client Sample ID: 2_VEW_15B_AV022003_0001

GC/MS Volatiles

Lot-Sample #...: E3B200333-007 **Work Order #...:** FH03V1AA **Matrix.....:** AE

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Dibromochloromethane	ND	0.050	ppm(v/v)	0.012
1,2-Dibromoethane (EDB)	ND	0.050	ppm(v/v)	0.012
Chlorobenzene	ND	0.050	ppm(v/v)	0.012
Ethylbenzene	ND	0.050	ppm(v/v)	0.012
Xylenes (total)	ND	0.050	ppm(v/v)	0.020
Styrene	ND	0.050	ppm(v/v)	0.015
Bromoform	ND	0.050	ppm(v/v)	0.012
1,1,2,2-Tetrachloroethane	ND	0.050	ppm(v/v)	0.012
Benzyl chloride	ND	0.25	ppm(v/v)	0.020
4-Ethyltoluene	ND	0.050	ppm(v/v)	0.018
1,3,5-Trimethylbenzene	ND	0.050	ppm(v/v)	0.020
1,2,4-Trimethylbenzene	ND	0.050	ppm(v/v)	0.020
1,3-Dichlorobenzene	ND	0.050	ppm(v/v)	0.018
1,4-Dichlorobenzene	ND	0.050	ppm(v/v)	0.020
1,2-Dichlorobenzene	ND	0.050	ppm(v/v)	0.020
1,2,4-Trichloro-benzene	ND	0.50	ppm(v/v)	0.025
Hexachlorobutadiene	ND	0.10	ppm(v/v)	0.025
Methyl tert-butyl ether (MTBE)	ND	0.25	ppm(v/v)	0.012

NOTE(S):

J Estimated result. Result is less than RL.

HALEY & ALDRICH INC

2_VEW_15B_AV022003_0001

GC/MS Volatiles

Lot-Sample #: E3B200333-007 Work Order #: FH03V1AA Matrix: AE

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT		RETENTION TIME	UNITS
butane, 2-methyl-	78-78-4	1.2	M	3.4517	ppm(v/v)
unknown branched alkane		1.0	M	5.6451	ppm(v/v)
unknown branched alkane		0.46	M	6.1054	ppm(v/v)
Hexane	110-54-3	0.27	M	6.6199	ppm(v/v)
Cyclopentane, methyl-	96-37-7	0.36	M	7.6759	ppm(v/v)
unknown branched alkane		0.17	M	8.8494	ppm(v/v)
unknown branched alkane		0.14	M	8.9577	ppm(v/v)
unknown branched alkane		0.17	M	9.1563	ppm(v/v)
unknown branched alkane		0.35	M	9.5805	ppm(v/v)

NOTE(S):

M: Result was measured against nearest internal standard assuming a response factor of 1.

HALEY & ALDRICH INC

Client Sample ID: 2_VEW_8B_AV022003_0001

GC/MS Volatiles

Lot-Sample #...:	E3B200333-008	**Work Order #...:**	FH03W1AA	**Matrix.....:**	AE
Date Sampled...:	02/20/03 16:55	**Date Received..:**	02/20/03 19:00	**MS Run #.....:**	
Prep Date.....:	02/21/03	**Analysis Date..:**	02/21/03		
Prep Batch #...:	3052534	**Analysis Time..:**	13:42		
Dilution Factor:	20				
Analyst ID.....:	117751	**Instrument ID..:**	MSB		
		Method.....:	EPA-21 TO-14A		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Total Non-Methane Hydrocarbons as Hexane	**13**	**10**	**ppm(v/v)**	**2.0**
Dichlorodifluoromethane	ND	0.040	ppm(v/v)	0.010
Chloromethane	ND	0.080	ppm(v/v)	0.020
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	0.040	ppm(v/v)	0.016
Vinyl chloride	ND	0.040	ppm(v/v)	0.016
Bromomethane	ND	0.040	ppm(v/v)	0.020
Chloroethane	ND	0.080	ppm(v/v)	0.016
Trichlorofluoromethane	**0.013 J**	**0.040**	**ppm(v/v)**	**0.010**
1,1-Dichloroethene	**0.85**	**0.040**	**ppm(v/v)**	**0.010**
Carbon disulfide	ND	0.20	ppm(v/v)	0.040
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	0.040	ppm(v/v)	0.010
Acetone	ND	0.20	ppm(v/v)	0.040
Methylene chloride	ND	0.040	ppm(v/v)	0.016
trans-1,2-Dichloroethene	ND	0.040	ppm(v/v)	0.010
1,1-Dichloroethane	**0.028 J**	**0.040**	**ppm(v/v)**	**0.010**
Vinyl acetate	ND	0.20	ppm(v/v)	0.040
cis-1,2-Dichloroethene	**0.026 J**	**0.040**	**ppm(v/v)**	**0.016**
2-Butanone (MEK)	ND	0.20	ppm(v/v)	0.040
Chloroform	**0.32**	**0.040**	**ppm(v/v)**	**0.016**
1,1,1-Trichloroethane	**0.049**	**0.040**	**ppm(v/v)**	**0.010**
Carbon tetrachloride	**0.020 J**	**0.040**	**ppm(v/v)**	**0.010**
Benzene	ND	0.040	ppm(v/v)	0.016
1,2-Dichloroethane	ND	0.040	ppm(v/v)	0.016
Trichloroethene	**5.8**	**0.040**	**ppm(v/v)**	**0.010**
1,2-Dichloropropane	ND	0.040	ppm(v/v)	0.016
Bromodichloromethane	ND	0.040	ppm(v/v)	0.016
cis-1,3-Dichloropropene	ND	0.040	ppm(v/v)	0.010
4-Methyl-2-pentanone (MIBK)	ND	0.20	ppm(v/v)	0.040
Toluene	ND	0.10	ppm(v/v)	0.010
trans-1,3-Dichloropropene	ND	0.040	ppm(v/v)	0.016
1,1,2-Trichloroethane	ND	0.040	ppm(v/v)	0.012
Tetrachloroethene	**0.15**	**0.040**	**ppm(v/v)**	**0.012**
2-Hexanone	ND	0.60	ppm(v/v)	0.020

(Continued on next page)

HALEY & ALDRICH INC

Client Sample ID: 2_VEW_8B_AV022003_0001

GC/MS Volatiles

Lot-Sample #...: E3B200333-008 **Work Order #...:** FH03W1AA **Matrix.....:** AE

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Dibromochloromethane	ND	0.040	ppm(v/v)	0.010
1,2-Dibromoethane (EDB)	ND	0.040	ppm(v/v)	0.010
Chlorobenzene	ND	0.040	ppm(v/v)	0.010
Ethylbenzene	ND	0.040	ppm(v/v)	0.010
Xylenes (total)	ND	0.040	ppm(v/v)	0.016
Styrene	ND	0.040	ppm(v/v)	0.012
Bromoform	ND	0.040	ppm(v/v)	0.010
1,1,2,2-Tetrachloroethane	ND	0.040	ppm(v/v)	0.010
Benzyl chloride	ND	0.20	ppm(v/v)	0.016
4-Ethyltoluene	ND	0.040	ppm(v/v)	0.014
1,3,5-Trimethylbenzene	ND	0.040	ppm(v/v)	0.016
1,2,4-Trimethylbenzene	ND	0.040	ppm(v/v)	0.016
1,3-Dichlorobenzene	ND	0.040	ppm(v/v)	0.014
1,4-Dichlorobenzene	ND	0.040	ppm(v/v)	0.016
1,2-Dichlorobenzene	ND	0.040	ppm(v/v)	0.016
1,2,4-Trichloro-benzene	ND	0.40	ppm(v/v)	0.020
Hexachlorobutadiene	ND	0.080	ppm(v/v)	0.020
Methyl tert-butyl ether (MTBE)	ND	0.20	ppm(v/v)	0.010

NOTE(S):

J Estimated result. Result is less than RL.

HALEY & ALDRICH INC

2_VEW_8B_AV022003_0001

GC/MS Volatiles

Lot-Sample #: E3B200333-008 Work Order #: FH03W1AA Matrix: AE

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT	RETENTION TIME	UNITS
None				ppm(v/v)

HALEY & ALDRICH INC

Client Sample ID: 2_VEW_4_AV022003_0001

GC/MS Volatiles

Lot-Sample #...: E3B200333-009 Work Order #...: FH0301AA Matrix.....: AE
Date Sampled...: 02/20/03 17:05 Date Received..: 02/20/03 19:00 MS Run #.....:
Prep Date.....: 02/21/03 Analysis Date..: 02/21/03
Prep Batch #...: 3052534 Analysis Time..: 14:14
Dilution Factor: 6.66
Analyst ID.....: 117751 Instrument ID..: MSB
Method.....: EPA-21 TO-14A

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Total Non-Methane Hydrocarbons as Hexane	**5.1**	**3.3**	**ppm(v/v)**	**0.67**
Dichlorodifluoromethane	ND	0.013	ppm(v/v)	0.0033
Chloromethane	ND	0.027	ppm(v/v)	0.0067
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	0.013	ppm(v/v)	0.0053
Vinyl chloride	ND	0.013	ppm(v/v)	0.0053
Bromomethane	ND	0.013	ppm(v/v)	0.0067
Chloroethane	ND	0.027	ppm(v/v)	0.0053
Trichlorofluoromethane	ND	0.013	ppm(v/v)	0.0033
1,1-Dichloroethene	**0.056**	**0.013**	**ppm(v/v)**	**0.0033**
Carbon disulfide	ND	0.067	ppm(v/v)	0.013
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	0.013	ppm(v/v)	0.0033
Acetone	ND	0.067	ppm(v/v)	0.013
Methylene chloride	ND	0.013	ppm(v/v)	0.0053
trans-1,2-Dichloroethene	ND	0.013	ppm(v/v)	0.0033
1,1-Dichloroethane	**0.015**	**0.013**	**ppm(v/v)**	**0.0033**
Vinyl acetate	ND	0.067	ppm(v/v)	0.013
cis-1,2-Dichloroethene	**0.0054 J**	**0.013**	**ppm(v/v)**	**0.0053**
2-Butanone (MEK)	ND	0.067	ppm(v/v)	0.013
Chloroform	**0.0090 J**	**0.013**	**ppm(v/v)**	**0.0053**
1,1,1-Trichloroethane	**0.081**	**0.013**	**ppm(v/v)**	**0.0033**
Carbon tetrachloride	ND	0.013	ppm(v/v)	0.0033
Benzene	ND	0.013	ppm(v/v)	0.0053
1,2-Dichloroethane	ND	0.013	ppm(v/v)	0.0053
Trichloroethene	**2.5**	**0.013**	**ppm(v/v)**	**0.0033**
1,2-Dichloropropane	ND	0.013	ppm(v/v)	0.0053
Bromodichloromethane	ND	0.013	ppm(v/v)	0.0053
cis-1,3-Dichloropropene	ND	0.013	ppm(v/v)	0.0033
4-Methyl-2-pentanone (MIBK)	ND	0.067	ppm(v/v)	0.013
Toluene	ND	0.033	ppm(v/v)	0.0033
trans-1,3-Dichloropropene	ND	0.013	ppm(v/v)	0.0053
1,1,2-Trichloroethane	ND	0.013	ppm(v/v)	0.0040
Tetrachloroethene	**0.0081 J**	**0.013**	**ppm(v/v)**	**0.0040**
2-Hexanone	ND	0.20	ppm(v/v)	0.0067

(Continued on next page)

HALEY & ALDRICH INC

Client Sample ID: 2_VEW_4_AV022003_0001

GC/MS Volatiles

Lot-Sample #...: E3B200333-009 Work Order #...: FH0301AA Matrix.....: AE

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Dibromochloromethane	ND	0.013	ppm(v/v)	0.0033
1,2-Dibromoethane (EDB)	ND	0.013	ppm(v/v)	0.0033
Chlorobenzene	ND	0.013	ppm(v/v)	0.0033
Ethylbenzene	ND	0.013	ppm(v/v)	0.0033
Xylenes (total)	ND	0.013	ppm(v/v)	0.0053
Styrene	ND	0.013	ppm(v/v)	0.0040
Bromoform	ND	0.013	ppm(v/v)	0.0033
1,1,2,2-Tetrachloroethane	ND	0.013	ppm(v/v)	0.0033
Benzyl chloride	ND	0.067	ppm(v/v)	0.0053
4-Ethyltoluene	ND	0.013	ppm(v/v)	0.0047
1,3,5-Trimethylbenzene	ND	0.013	ppm(v/v)	0.0053
1,2,4-Trimethylbenzene	ND	0.013	ppm(v/v)	0.0053
1,3-Dichlorobenzene	ND	0.013	ppm(v/v)	0.0047
1,4-Dichlorobenzene	ND	0.013	ppm(v/v)	0.0053
1,2-Dichlorobenzene	ND	0.013	ppm(v/v)	0.0053
1,2,4-Trichloro-benzene	ND	0.13	ppm(v/v)	0.0067
Hexachlorobutadiene	ND	0.027	ppm(v/v)	0.0067
Methyl tert-butyl ether (MTBE)	ND	0.067	ppm(v/v)	0.0033

NOTE(S):

J Estimated result. Result is less than RL.

HALEY & ALDRICH INC

2_VEW_4_AV022003_0001

GC/MS Volatiles

Lot-Sample #: E3B200333-009 **Work Order #:** FH0301AA **Matrix:** AE

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT	RETENTION TIME	UNITS
None				ppm(v/v)

HALEY & ALDRICH INC

Client Sample ID: 2_VEW_1B_AV022003_0001

GC/MS Volatiles

Lot-Sample #...: E3B200333-010 Work Order #...: FH0311AA Matrix.....: AE
Date Sampled...: 02/20/03 17:15 Date Received..: 02/20/03 19:00 MS Run #.....:
Prep Date.....: 02/21/03 Analysis Date..: 02/21/03
Prep Batch #...: 3052534 Analysis Time..: 14:47
Dilution Factor: 166.7
Analyst ID.....: 117751 Instrument ID..: MSB
Method.....: EPA-21 TO-14A

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Total Non-Methane Hydrocarbons as Hexane	**89**	**83**	**ppm(v/v)**	**17**
Dichlorodifluoromethane	ND	0.33	ppm(v/v)	0.083
Chloromethane	ND	0.67	ppm(v/v)	0.17
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	0.33	ppm(v/v)	0.13
Vinyl chloride	ND	0.33	ppm(v/v)	0.13
Bromomethane	ND	0.33	ppm(v/v)	0.17
Chloroethane	ND	0.67	ppm(v/v)	0.13
Trichlorofluoromethane	ND	0.33	ppm(v/v)	0.083
1,1-Dichloroethene	**2.3**	**0.33**	**ppm(v/v)**	**0.083**
Carbon disulfide	ND	1.7	ppm(v/v)	0.33
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	0.33	ppm(v/v)	0.083
Acetone	ND	1.7	ppm(v/v)	0.33
Methylene chloride	ND	0.33	ppm(v/v)	0.13
trans-1,2-Dichloroethene	ND	0.33	ppm(v/v)	0.083
1,1-Dichloroethane	**0.092 J**	**0.33**	**ppm(v/v)**	**0.083**
Vinyl acetate	ND	1.7	ppm(v/v)	0.33
cis-1,2-Dichloroethene	ND	0.33	ppm(v/v)	0.13
2-Butanone (MEK)	ND	1.7	ppm(v/v)	0.33
Chloroform	ND	0.33	ppm(v/v)	0.13
1,1,1-Trichloroethane	**0.10 J**	**0.33**	**ppm(v/v)**	**0.083**
Carbon tetrachloride	ND	0.33	ppm(v/v)	0.083
Benzene	ND	0.33	ppm(v/v)	0.13
1,2-Dichloroethane	ND	0.33	ppm(v/v)	0.13
Trichloroethene	**44**	**0.33**	**ppm(v/v)**	**0.083**
1,2-Dichloropropane	ND	0.33	ppm(v/v)	0.13
Bromodichloromethane	ND	0.33	ppm(v/v)	0.13
cis-1,3-Dichloropropene	ND	0.33	ppm(v/v)	0.083
4-Methyl-2-pentanone (MIBK)	ND	1.7	ppm(v/v)	0.33
Toluene	ND	0.83	ppm(v/v)	0.083
trans-1,3-Dichloropropene	ND	0.33	ppm(v/v)	0.13
1,1,2-Trichloroethane	ND	0.33	ppm(v/v)	0.10
Tetrachloroethene	ND	0.33	ppm(v/v)	0.10
2-Hexanone	ND	5.0	ppm(v/v)	0.17

(Continued on next page)

HALEY & ALDRICH INC

Client Sample ID: 2_VEW_1B_AV022003_0001

GC/MS Volatiles

Lot-Sample #...: E3B200333-010 **Work Order #...:** FH0311AA **Matrix.....:** AE

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Dibromochloromethane	ND	0.33	ppm(v/v)	0.083
1,2-Dibromoethane (EDB)	ND	0.33	ppm(v/v)	0.083
Chlorobenzene	ND	0.33	ppm(v/v)	0.083
Ethylbenzene	ND	0.33	ppm(v/v)	0.083
Xylenes (total)	ND	0.33	ppm(v/v)	0.13
Styrene	ND	0.33	ppm(v/v)	0.10
Bromoform	ND	0.33	ppm(v/v)	0.083
1,1,2,2-Tetrachloroethane	ND	0.33	ppm(v/v)	0.083
Benzyl chloride	ND	1.7	ppm(v/v)	0.13
4-Ethyltoluene	ND	0.33	ppm(v/v)	0.12
1,3,5-Trimethylbenzene	ND	0.33	ppm(v/v)	0.13
1,2,4-Trimethylbenzene	ND	0.33	ppm(v/v)	0.13
1,3-Dichlorobenzene	ND	0.33	ppm(v/v)	0.12
1,4-Dichlorobenzene	ND	0.33	ppm(v/v)	0.13
1,2-Dichlorobenzene	ND	0.33	ppm(v/v)	0.13
1,2,4-Trichloro-benzene	ND	3.3	ppm(v/v)	0.17
Hexachlorobutadiene	ND	0.67	ppm(v/v)	0.17
Methyl tert-butyl ether (MTBE)	ND	1.7	ppm(v/v)	0.083

NOTE(S):

J Estimated result. Result is less than RL.

HALEY & ALDRICH INC

2_VEW_1B_AV022003_0001

GC/MS Volatiles

Lot-Sample #: E3B200333-010 Work Order #: FH0311AA Matrix: AE

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT	RETENTION TIME	UNITS
None				ppm(v/v)

HALEY & ALDRICH INC

Client Sample ID: GAC002U_AV022003_0003

GC/MS Volatiles

Lot-Sample #...:	E3B200333-011	Work Order #...:	FH0321AA	Matrix.....:	AE
Date Sampled...:	02/20/03 17:30	Date Received..:	02/20/03 19:00	MS Run #.....:	
Prep Date.....:	02/21/03	Analysis Date..:	02/21/03		
Prep Batch #...:	3052534	Analysis Time..:	15:20		
Dilution Factor:	10				
Analyst ID.....:	117751	Instrument ID..:	MSB		
		Method.....:	EPA-21 TO-14A		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Total Non-Methane Hydrocarbons as Hexane	**8.7**	**5.0**	**ppm(v/v)**	**1.0**
Dichlorodifluoromethane	ND	0.020	ppm(v/v)	0.0050
Chloromethane	ND	0.040	ppm(v/v)	0.010
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	0.020	ppm(v/v)	0.0080
Vinyl chloride	ND	0.020	ppm(v/v)	0.0080
Bromomethane	ND	0.020	ppm(v/v)	0.010
Chloroethane	ND	0.040	ppm(v/v)	0.0080
Trichlorofluoromethane	**0.0080 J**	**0.020**	**ppm(v/v)**	**0.0050**
1,1-Dichloroethene	**0.45**	**0.020**	**ppm(v/v)**	**0.0050**
Carbon disulfide	ND	0.10	ppm(v/v)	0.020
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	0.020	ppm(v/v)	0.0050
Acetone	ND	0.10	ppm(v/v)	0.020
Methylene chloride	ND	0.020	ppm(v/v)	0.0080
trans-1,2-Dichloroethene	ND	0.020	ppm(v/v)	0.0050
1,1-Dichloroethane	**0.013 J**	**0.020**	**ppm(v/v)**	**0.0050**
Vinyl acetate	ND	0.10	ppm(v/v)	0.020
cis-1,2-Dichloroethene	**0.012 J**	**0.020**	**ppm(v/v)**	**0.0080**
2-Butanone (MEK)	ND	0.10	ppm(v/v)	0.020
Chloroform	**0.15**	**0.020**	**ppm(v/v)**	**0.0080**
1,1,1-Trichloroethane	**0.027**	**0.020**	**ppm(v/v)**	**0.0050**
Carbon tetrachloride	ND	0.020	ppm(v/v)	0.0050
Benzene	ND	0.020	ppm(v/v)	0.0080
1,2-Dichloroethane	ND	0.020	ppm(v/v)	0.0080
Trichloroethene	**4.0**	**0.020**	**ppm(v/v)**	**0.0050**
1,2-Dichloropropane	ND	0.020	ppm(v/v)	0.0080
Bromodichloromethane	ND	0.020	ppm(v/v)	0.0080
cis-1,3-Dichloropropene	ND	0.020	ppm(v/v)	0.0050
4-Methyl-2-pentanone (MIBK)	ND	0.10	ppm(v/v)	0.020
Toluene	ND	0.050	ppm(v/v)	0.0050
trans-1,3-Dichloropropene	ND	0.020	ppm(v/v)	0.0080
1,1,2-Trichloroethane	ND	0.020	ppm(v/v)	0.0060
Tetrachloroethene	**0.065**	**0.020**	**ppm(v/v)**	**0.0060**
2-Hexanone	ND	0.30	ppm(v/v)	0.010

(Continued on next page)

HALEY & ALDRICH INC

Client Sample ID: GAC002U_AV022003_0003

GC/MS Volatiles

Lot-Sample #...: E3B200333-011 Work Order #...: FH0321AA Matrix.....: AE

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Dibromochloromethane	ND	0.020	ppm(v/v)	0.0050
1,2-Dibromoethane (EDB)	ND	0.020	ppm(v/v)	0.0050
Chlorobenzene	ND	0.020	ppm(v/v)	0.0050
Ethylbenzene	ND	0.020	ppm(v/v)	0.0050
Xylenes (total)	ND	0.020	ppm(v/v)	0.0080
Styrene	ND	0.020	ppm(v/v)	0.0060
Bromoform	ND	0.020	ppm(v/v)	0.0050
1,1,2,2-Tetrachloroethane	ND	0.020	ppm(v/v)	0.0050
Benzyl chloride	ND	0.10	ppm(v/v)	0.0080
4-Ethyltoluene	ND	0.020	ppm(v/v)	0.0070
1,3,5-Trimethylbenzene	ND	0.020	ppm(v/v)	0.0080
1,2,4-Trimethylbenzene	ND	0.020	ppm(v/v)	0.0080
1,3-Dichlorobenzene	ND	0.020	ppm(v/v)	0.0070
1,4-Dichlorobenzene	ND	0.020	ppm(v/v)	0.0080
1,2-Dichlorobenzene	ND	0.020	ppm(v/v)	0.0080
1,2,4-Trichloro-benzene	ND	0.20	ppm(v/v)	0.010
Hexachlorobutadiene	ND	0.040	ppm(v/v)	0.010
Methyl tert-butyl ether (MTBE)	ND	0.10	ppm(v/v)	0.0050

NOTE(S):

J Estimated result. Result is less than RL.

HALEY & ALDRICH INC

GAC002U_AV022003_0003

GC/MS Volatiles

Lot-Sample #: E3B200333-011 Work Order #: FH0321AA Matrix: AE

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT	RETENTION TIME	UNITS
None				ppm(v/v)

QC DATA ASSOCIATION SUMMARY

E3B200333

Sample Preparation and Analysis Control Numbers

SAMPLE#	MATRIX	ANALYTICAL METHOD	LEACH BATCH #	PREP BATCH #	MS RUN#
001	AE	EPA-21 TO-14A		3052534	
002	AE	EPA-21 TO-14A		3052534	
003	AE	EPA-21 TO-14A		3052534	
004	AE	EPA-21 TO-14A		3052534	
005	AE	EPA-21 TO-14A		3052534	
006	AE	EPA-21 TO-14A		3052534	
007	AE	EPA-21 TO-14A		3052534	
008	AE	EPA-21 TO-14A		3052534	
009	AE	EPA-21 TO-14A		3052534	
010	AE	EPA-21 TO-14A		3052534	
011	AE	EPA-21 TO-14A		3052534	

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: E3B200333
MB Lot-Sample #: M3B210000-534

Work Order #...: FH28L1AA

Matrix.....: AIR

Prep Date.....: 02/21/03

Analysis Time..: 09:20

Analysis Date..: 02/21/03

Prep Batch #...: 3052534

Instrument ID..: MSB

Dilution Factor: 1

Analyst ID.....: 117751

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Total Non-Methane Hydroca	ND	0.50	ppm(v/v)	EPA-21 TO-14A
Dichlorodifluoromethane	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
Chloromethane	ND	0.0040	ppm(v/v)	EPA-21 TO-14A
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
Vinyl chloride	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
Bromomethane	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
Chloroethane	ND	0.0040	ppm(v/v)	EPA-21 TO-14A
Trichlorofluoromethane	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
1,1-Dichloroethene	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
Carbon disulfide	ND	0.010	ppm(v/v)	EPA-21 TO-14A
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
Acetone	ND	0.010	ppm(v/v)	EPA-21 TO-14A
Methylene chloride	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
trans-1,2-Dichloroethene	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
1,1-Dichloroethane	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
Vinyl acetate	ND	0.010	ppm(v/v)	EPA-21 TO-14A
cis-1,2-Dichloroethene	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
2-Butanone (MEK)	ND	0.010	ppm(v/v)	EPA-21 TO-14A
Chloroform	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
1,1,1-Trichloroethane	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
Carbon tetrachloride	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
Benzene	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
1,2-Dichloroethane	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
Trichloroethene	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
1,2-Dichloropropane	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
Bromodichloromethane	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
cis-1,3-Dichloropropene	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
4-Methyl-2-pentanone (MIBK)	ND	0.010	ppm(v/v)	EPA-21 TO-14A
Toluene	ND	0.0050	ppm(v/v)	EPA-21 TO-14A
trans-1,3-Dichloropropene	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
1,1,2-Trichloroethane	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
Tetrachloroethene	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
2-Hexanone	ND	0.030	ppm(v/v)	EPA-21 TO-14A
Dibromochloromethane	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
1,2-Dibromoethane (EDB)	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
Chlorobenzene	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
Ethylbenzene	ND	0.0020	ppm(v/v)	EPA-21 TO-14A

(Continued on next page)

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: E3B200333 **Work Order #...:** FH28L1AA **Matrix.....:** AIR

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Xylenes (total)	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
Styrene	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
Bromoform	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
1,1,2,2-Tetrachloroethane	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
Benzyl chloride	ND	0.010	ppm(v/v)	EPA-21 TO-14A
4-Ethyltoluene	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
1,3,5-Trimethylbenzene	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
1,2,4-Trimethylbenzene	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
1,3-Dichlorobenzene	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
1,4-Dichlorobenzene	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
1,2-Dichlorobenzene	ND	0.0020	ppm(v/v)	EPA-21 TO-14A
1,2,4-Trichloro-benzene	ND	0.020	ppm(v/v)	EPA-21 TO-14A
Hexachlorobutadiene	ND	0.0040	ppm(v/v)	EPA-21 TO-14A
Methyl tert-butyl ether (MTBE)	ND	0.010	ppm(v/v)	EPA-21 TO-14A

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

HALEY & ALDRICH INC

Method Blank Report

GC/MS Volatiles

Lot-Sample #: M3B210000-534 B Work Order #: FH28L1AA Matrix: AIR

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT	RETENTION TIME	UNITS
None				ppm(v/v)

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: E3B200333
LCS Lot-Sample#: M3B210000-534
Prep Date.....: 02/21/03
Prep Batch #...: 3052534
Dilution Factor: 1
Analyst ID.....: 117751

Work Order #...: FH28L1AC-LCS
FH28L1AD-LCSD
Analysis Date..: 02/21/03
Analysis Time..: 08:15
Instrument ID..: MSB

Matrix.....: AIR

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,1-Dichloroethene	93	(70 - 125)			EPA-21 TO-14A
	93	(70 - 125)	0.56	(0-20)	EPA-21 TO-14A
Methylene chloride	91	(75 - 120)			EPA-21 TO-14A
	93	(75 - 120)	2.4	(0-20)	EPA-21 TO-14A
Trichloroethene	85	(70 - 125)			EPA-21 TO-14A
	87	(70 - 125)	2.0	(0-20)	EPA-21 TO-14A
Toluene	91	(75 - 125)			EPA-21 TO-14A
	92	(75 - 125)	1.0	(0-20)	EPA-21 TO-14A
1,1,2,2-Tetrachloroethane	85	(65 - 130)			EPA-21 TO-14A
	87	(65 - 130)	1.5	(0-20)	EPA-21 TO-14A

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...: E3B200333 Work Order #...: FH28L1AC-LCS Matrix.....: AIR
LCS Lot-Sample#: M3B210000-534 FH28L1AD-LCSD
Prep Date.....: 02/21/03 Analysis Date..: 02/21/03
Prep Batch #...: 3052534 Analysis Time..: 08:15
Dilution Factor: 1 Instrument ID..: MSB
Analyst ID.....: 117751

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	RPD	METHOD
1,1-Dichloroethene	0.0591	0.0548	ppm(v/v)	93		EPA-21 TO-14A
	0.0591	0.0551	ppm(v/v)	93	0.56	EPA-21 TO-14A
Methylene chloride	0.0587	0.0531	ppm(v/v)	91		EPA-21 TO-14A
	0.0587	0.0544	ppm(v/v)	93	2.4	EPA-21 TO-14A
Trichloroethene	0.0595	0.0506	ppm(v/v)	85		EPA-21 TO-14A
	0.0595	0.0517	ppm(v/v)	87	2.0	EPA-21 TO-14A
Toluene	0.0557	0.0506	ppm(v/v)	91		EPA-21 TO-14A
	0.0557	0.0512	ppm(v/v)	92	1.0	EPA-21 TO-14A
1,1,2,2-Tetrachloroethane	0.0554	0.0473	ppm(v/v)	85		EPA-21 TO-14A
	0.0554	0.0481	ppm(v/v)	87	1.5	EPA-21 TO-14A

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

TEST BORING REPORT

Boring No. SB1003

Project Boeing Former C-6 Facility, Parcel C, Building 2 SVE Los Angeles, CA
Client Boeing Realty Corporation
Contractor West Hazmat Drilling

File No. 28997-003
Sheet No. 1 of 3
Start September 23, 2002
Finish September 23, 2002
Driller R. Leininger
H&A Rep. T. Hammond
Elevation
Datum NGVD 1929
Location 10-feet east of 2_VEW_12

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	HSA	MC	-	Rig Make & Model: Truck-mounted CME-75
Inside Diameter (in.)	4.25	1.875	-	Bit Type: Cutting Head Drill Mud: None
Hammer Weight (lb.)	NA	140	-	Casing: Hollow-stem Auger
Hammer Fall (in.)	NA	30	-	Hoist/Hammer: Winch / Down-hole Hammer

Depth (ft.)	SPT[1]	Sample No. & Rec. (in.)	Sample Depth (ft.)	Well Diagram	Elev./Depth (ft.)	USCS Symbol	Visual-Manual Identification and Description (Density/consistency, color, GROUP NAME, max. particle size[2], structure, odor, moisture, optional descriptions, geologic interpretation)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines	Field Test Dilatancy	Field Test Toughness	Field Test Plasticity	Field Test Strength
0				NO WELL INSTALLED			Soil samples were not collected until 25' bgs. Cuttings: brown silty CLAY (CL), no odor, moist PID = 1.0 ppm										
5																	
10																	
15																	
20																	

Water Level Data					
Date	Time	Elapsed Time (hr.)	Depth (ft.) to: Bottom of Casing	Bottom of Hole	Water
		Not Encountered			

Sample Identification	
S	SPT (1-3/8" I.D.)
CA	Cal. (2-3/8" I.D.)
MC	Cal. Mod. (1-7/8" I.D.)
U	Undisturbed Sample
G	Geoprobe

Well Diagram: Riser Pipe, Screen, Filter Sand, Cuttings, Grout, Concrete, Bentonite Seal

Summary	
Overburden (lin. ft.)	50
Rock Cored (lin. ft.)	0
Samples	4

Boring No. SB1003

Field Tests: Dilatancy: R-Rapid, S-Slow, N-None
Toughness: L-Low, M-Medium, H-High
Plasticity: N-Nonplastic, L-Low, M-Medium, H-High
Dry Strength: N-None, L-Low, M-Medium, H-High, V-Very High

[1]SPT = Sampler blows per 6 in. [2]Maximum particle size (mm) is determined by direct observation within the limitations of sampler size (in millimeters).

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

*** Indicates the use of a 3" sampler and 300 lb hammer**

USCS_TB3CA1 USCSLIB4.GLB USCSTC3A.GDT G:\PROJECTS\ENVIRO-1\28997_-1\-003BL-1\GINT\28997002B.GPJ Feb 25, 03

TEST BORING REPORT

HALEY & ALDRICH

Boring No. SB1003
File No. 28997-003
Sheet No. 2 of 3

Depth (ft.)	SPT[1]	Sample No. & Rec. (in.)	Sample Depth (ft.)	Well Diagram	Elev./Depth (ft.)	USCS Symbol	Visual-Manual Identification and Description (Density/consistency, color, GROUP NAME, max. particle size[2], structure, odor, moisture, optional descriptions, geologic interpretation)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines	Field Test Dilatancy	Field Test Toughness	Field Test Plasticity	Field Test Strength
20							Cuttings became sandy at a drilling depth of 23 feet bgs. PID = up to 1.0 ppm										
25	11 14 20	SS25 18	25.0 26.5			CL	Stiff to very stiff, brown silty CLAY (CL), layered structure, no odor, dry to moist, fossil worm burrows and occasional sand PID = 0.1 ppm	0	0	0	5	10	85	N	M	M	M
					28.0												
30	8 24 27	SS30 16	30.0 31.5			SP	Medium dense, brown to light brown silty fine SAND (SP), layered structure, no odor, dry to moist, has continuous cylindrical burrows filled with grayish sand PID = 0.1 ppm	0	0	0	10	80	10	N	L	L	L
35																	
40	20 50/4	SS40 12	40.0 41.5			SP	Very dense, light brown to gray-brown SAND with gravel (SP), layered structure, no odor, dry to moist, partially cemented zones PID = 0.1 ppm	0	5	5	10	80	0		L	N	L
45																	
					49.0												

[1]SPT = Sampler blows per 6 in. [2]Maximum particle size (mm) is determined by direct observation within the limitations of sampler size.
NOTE: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

Boring No. SB1003

* Indicates the use of a 3" sampler and 300 lb hammer

USCS_T83CA1 USCSLIB4.GLB USCSTC3A.GDT G:\PROJECTS\ENVIRO-1\28997_-1\-003BL-1\GINT\28997002B.GPJ Feb 25, 03

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB1003
File No. 28997-003
Sheet No. 3 of 3

Depth (ft.)	SPT[1]	Sample No. & Rec. (in.)	Sample Depth (ft.)	Well Diagram	Elev./Depth (ft.)	USCS Symbol	Visual-Manual Identification and Description (Density/consistency, color, GROUP NAME, max. particle size[2], structure, odor, moisture, optional descriptions, geologic interpretation)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines	Field Test Dilatancy	Field Test Toughness	Field Test Plasticity	Field Test Strength
50	6 9 25	SS50 18	50.0 51.5			CL	Medium stiff to stiff, gray-brown to olive-brown silty CLAY with sand (CL), layered structure, no odor, moist, 2 to 3 mm iron cemented nodules of sand and rust staining PID = 0.4 ppm	0	0	0	5	5	90		M	M	L
					51.5		Bottom of Exploration at 51.5 ft. Note: Borehole backfilled with bentonite grout										

[1]SPT = Sampler blows per 6 in. [2]Maximum particle size (mm) is determined by direct observation within the limitations of sampler size.
NOTE: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

Boring No. SB1003

* Indicates the use of a 3" sampler and 300 lb hammer

USCS_TB3CA1 USCSLIB4.GLB USCSTC3A.GDT G:\PROJECTS\ENV\IRO-1\28997_-11-003BL-11\GINT\28997002B.GPJ Feb 25, 03

TEST BORING REPORT

Boring No. SB1004

Project Boeing Former C-6 Facility, Parcel C, Building 2 SVE Los Angeles, CA
Client Boeing Realty Corporation
Contractor West Hazmat Drilling

File No. 28997-003
Sheet No. 1 of 3
Start September 23, 2002
Finish September 23, 2002
Driller R. Leininger
H&A Rep. T. Hammond
Elevation
Datum NGVD 1929
Location 10-feet southeast of 2_VEW_4

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	HSA	MC	-	Rig Make & Model: Truck-mounted CME-75
Inside Diameter (in.)	4.25	1.875	-	Bit Type: Cutting Head Drill Mud: None
Hammer Weight (lb.)	NA	140	-	Casing: Hollow-stem Auger
Hammer Fall (in.)	NA	30	-	Hoist/Hammer: Winch / Down-hole Hammer

Depth (ft.)	SPT[1]	Sample No. & Rec. (in.)	Sample Depth (ft.)	Well Diagram	Elev./Depth (ft.)	USCS Symbol	Visual-Manual Identification and Description (Density/consistency, color, GROUP NAME, max. particle size[2], structure, odor, moisture, optional descriptions, geologic interpretation)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines	Field Test Dilatancy	Field Test Toughness	Field Test Plasticity	Field Test Strength
0				NO WELL INSTALLED			Soil samples were not collected until 30' bgs. Cuttings: brown CLAY, -FILL-										
5																	
10																	
15																	
20																	

Water Level Data					
Date	Time	Elapsed Time (hr.)	Depth (ft.) to: Bottom of Casing	Bottom of Hole	Water
		Not Encountered			

Sample Identification

- S SPT (1-3/8" I.D.)
- CA Cal. (2-3/8" I.D.)
- MC Cal. Mod. (1-7/8" I.D.)
- U Undisturbed Sample
- G Geoprobe

Well Diagram

- Riser Pipe
- Screen
- Filter Sand
- Cuttings
- Grout
- Concrete
- Bentonite Seal

Summary

Overburden (lin. ft.)	50
Rock Cored (lin. ft.)	0
Samples	3

Boring No. SB1004

Field Tests: Dilatancy: R-Rapid, S-Slow, N-None Plasticity: N-Nonplastic, L-Low, M-Medium, H-High
Toughness: L-Low, M-Medium, H-High Dry Strength: N-None, L-Low, M-Medium, H-High, V-Very High

[1]SPT = Sampler blows per 6 in. [2]Maximum particle size (mm) is determined by direct observation within the limitations of sampler size (in millimeters).

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

*** Indicates the use of a 3" sampler and 300 lb hammer**

USCS_TB3CA1 USCSLIB4.GLB USCSTC3A.GDT G:\PROJECTS\ENVIRO-1\28997_-11-003BL-11\GINT\28997002B.GPJ Feb 25, 03

TEST BORING REPORT

HALEY & ALDRICH

Boring No. SB1004
File No. 28997-003
Sheet No. 2 of 3

Depth (ft.)	SPT[1]	Sample No. & Rec. (in.)	Sample Depth (ft.)	Well Diagram	Elev./Depth (ft.)	USCS Symbol	Visual-Manual Identification and Description (Density/consistency, color, GROUP NAME, max. particle size[2], structure, odor, moisture, optional descriptions, geologic interpretation)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines	Field Test Dilatancy	Field Test Toughness	Field Test Plasticity	Field Test Strength
20							Cuttings: olive-brown, silty CLAY, moist, no odor PID = 3.3 ppm										
25					25.0												
							Cuttings became sandy at drilling depth of 25' bgs										
30	10 15 30	SS30 16	30.0 31.5			SP-SM	Medium dense, light brown to brown silty SAND (SP-SM), layered structure, no odor, moist PID = 2.5 ppm	0	0	0	20	60	20			N	L
35																	
40	10 19 20	SS40 18	40.0 41.5			SP	Medium dense, light brown fine SAND with silt (SP), no structure, no odor, moist PID = 0.7 ppm	0	0	0	20	70	10			N	L
45																	

[1]SPT = Sampler blows per 6 in. [2]Maximum particle size (mm) is determined by direct observation within the limitations of sampler size.

NOTE: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

Boring No. SB1004

* Indicates the use of a 3" sampler and 300 lb hammer

USCS_TB3CA1 USCSLIB4.GLB USCSTC3A.GDT G:\PROJECTS\ENVIRO-1\28997_-1\-0038L-1\GINT\28997002B.GPJ Feb 25, 03

TEST BORING REPORT

HALEY & ALDRICH

Boring No. SB1004
File No. 28997-003
Sheet No. 3 of 3

Depth (ft.)	SPT[1]	Sample No. & Rec. (in.)	Sample Depth (ft.)	Well Diagram	Elev./Depth (ft.)	USCS Symbol	Visual-Manual Identification and Description (Density/consistency, color, GROUP NAME, max. particle size[2], structure, odor, moisture, optional descriptions, geologic interpretation)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines	Field Test Dilatancy	Field Test Toughness	Field Test Plasticity	Field Test Strength
50	11 20 24	SS50 16	50.0 51.5			SP	Medium dense, light brown with white and gray shell fragments, SAND with silt and gravel sized shell fragments (SP), mps = 9.5 mm, layered structure, no odor, dry to moist, partially cemented PID = 0.5 ppm	0	10	20	30	20	10			N	L
					51.5		Bottom of Exploration at 51.5 ft.										
							Note: Borehole backfilled with bentonite grout										

[1]SPT = Sampler blows per 6 in. [2]Maximum particle size (mm) is determined by direct observation within the limitations of sampler size.
NOTE: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

Boring No. SB1004

* Indicates the use of a 3" sampler and 300 lb hammer

USCS_TB3CA1 USCSUB4.GLB USCSTC3A.GDT G:\PROJECTS\ENVIRO-128997_-11-003BL-1\GINT\28997002B.GPJ Feb 25, 03

TEST BORING REPORT

Boring No. SB1005

Project Boeing Former C-6 Facility, Parcel C, Building 2 SVE Los Angeles, CA
Client Boeing Realty Corporation
Contractor West Hazmat Drilling

File No. 28997-003
Sheet No. 1 of 3
Start January 10, 2003
Finish January 10, 2003
Driller R. Hastings
H&A Rep. T. Hammond
Elevation
Datum NGVD 1929
Location x:6469956 y:1769210

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	HSA	MC	-	Rig Make & Model: Truck-mounted CME-75
Inside Diameter (in.)	4.25	1.875	-	Bit Type: Cutting Head Drill Mud: None
Hammer Weight (lb.)	NA	140	-	Casing: Hollow-stem Auger
Hammer Fall (in.)	NA	30	-	Hoist/Hammer: Winch / Down-hole Hammer

Depth (ft.)	SPT[1]	Sample No. & Rec. (in.)	Sample Depth (ft.)	Well Diagram	Elev./Depth (ft.)	USCS Symbol	Visual-Manual Identification and Description (Density/consistency, color, GROUP NAME, max. particle size[2], structure, odor, moisture, optional descriptions, geologic interpretation)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines	Field Test Dilatancy	Field Test Toughness	Field Test Plasticity	Field Test Strength
0				NO WELL INSTALLED			Soil samples were not collected until 45 feet bgs.										
5																	
10																	
15																	
20																	

Water Level Data					
Date	Time	Elapsed Time (hr.)	Depth (ft.) to: Bottom of Casing	Bottom of Hole	Water
		Not Encountered			

Sample Identification

- S SPT (1-3/8" I.D.)
- CA Cal. (2-3/8" I.D.)
- MC Cal. Mod. (1-7/8" I.D.)
- U Undisturbed Sample
- G Geoprobe

Well Diagram

- Riser Pipe
- Screen
- Filter Sand
- Cuttings
- Grout
- Concrete
- Bentonite Seal

Summary

Overburden (lin. ft.)	65.5
Rock Cored (lin. ft.)	0
Samples	3

Boring No. SB1005

Field Tests: Dilatancy: R-Rapid, S-Slow, N-None; Toughness: L-Low, M-Medium, H-High; Plasticity: N-Nonplastic, L-Low, M-Medium, H-High; Dry Strength: N-None, L-Low, M-Medium, H-High, V-Very High

[1]SPT = Sampler blows per 6 in. [2]Maximum particle size (mm) is determined by direct observation within the limitations of sampler size (in millimeters).

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

*** Indicates the use of a 3" sampler and 300 lb hammer**

USCS_T83CA1 USCSLIB4.GLB USCSTC3A.GDT G:\PROJECTS\ENV\RO-1\28997_-11-003BL-1\GINT\28997002B.GPJ Feb 25, 03

TEST BORING REPORT

Boring No. SB1002

Project Boeing Former C-6 Facility, Parcel C, Building 2 SVE Los Angeles, CA
Client Boeing Realty Corporation
Contractor West Hazmat Drilling

File No. 28997-003
Sheet No. 1 of 3
Start September 23, 2002
Finish September 23, 2002
Driller R. Leininger
H&A Rep. T. Hammond
Elevation
Datum NGVD 1929
Location 10-feet north of 2_VEW_11

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	HSA	MC	-	Rig Make & Model: Truck-mounted CME-75
Inside Diameter (in.)	4.25	1.875	-	Bit Type: Cutting Head Drill Mud: None
Hammer Weight (lb.)	NA	140	-	Casing: Hollow-stem Auger
Hammer Fall (in.)	NA	30	-	Hoist/Hammer: Winch / Down-hole Hammer

Depth (ft.)	SPT[1]	Sample No. & Rec. (in.)	Sample Depth (ft.)	Well Diagram	Elev./Depth (ft.)	USCS Symbol	Visual-Manual Identification and Description (Density/consistency, color, GROUP NAME, max. particle size[2], structure, odor, moisture, optional descriptions, geologic interpretation)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines	Field Test Dilatancy	Field Test Toughness	Field Test Plasticity	Field Test Strength
0							Soil samples were not collected until 25' bgs.										
					1.0		Cuttings: brown silty CLAY (CL), no odor, moist PID = 0.1 ppm										
5																	
				NO WELL INSTALLED													
10																	
15																	
					19.0		Cuttings became sandy at a drilling depth of 21 feet bgs.										
20																	

Water Level Data					
Date	Time	Elapsed Time (hr.)	Depth (ft.) to: Bottom of Casing	Bottom of Hole	Water
		Not Encountered			

Sample Identification	
S	SPT (1-3/8" I.D.)
CA	Cal. (2-3/8" I.D.)
MC	Cal. Mod. (1-7/8" I.D.)
U	Undisturbed Sample
G	Geoprobe

Well Diagram: Riser Pipe, Screen, Filter Sand, Cuttings, Grout, Concrete, Bentonite Seal

Summary	
Overburden (lin. ft.)	50
Rock Cored (lin. ft.)	0
Samples	3

Boring No. SB1002

Field Tests: Dilatancy: R-Rapid, S-Slow, N-None Plasticity: N-Nonplastic, L-Low, M-Medium, H-High
Toughness: L-Low, M-Medium, H-High Dry Strength: N-None, L-Low, M-Medium, H-High, V-Very High

[1]SPT = Sampler blows per 6 in. [2]Maximum particle size (mm) is determined by direct observation within the limitations of sampler size (in millimeters).

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

*** Indicates the use of a 3" sampler and 300 lb hammer**

USCS_TB3CA1 USCSLIB4.GLB USCSTC3A.GDT G:\PROJECTS\ENVIRO-1\28997_-1\-0038L-1\GINT\289970028.GPJ Feb 25, 03

TEST BORING REPORT

HALEY & ALDRICH

Boring No. SB1002
File No. 28997-003
Sheet No. 2 of 3

Depth (ft.)	SPT[1]	Sample No. & Rec. (in.)	Sample Depth (ft.)	Well Diagram	Elev./Depth (ft.)	USCS Symbol	Visual-Manual Identification and Description (Density/consistency, color, GROUP NAME, max. particle size[2], structure, odor, moisture, optional descriptions, geologic interpretation)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines	Field Test Dilatancy	Field Test Toughness	Field Test Plasticity	Field Test Strength
20																	
					23.0												
25	9 14 18	SS25 18	25.0 26.5			CL	Stiff, brown silty CLAY (CL), no odor, dry to moist PID = 0.1 ppm	0	0	0	0	10	90			M	M
30					30.0		Cuttings became very sandy at a drilling depth of 30 feet bgs.										
35																	
40	33 50/6	SS40 12	40.0 41.0		40.0	SP	Very dense, light brown to tan poorly-graded silty SAND with gravel (SP), mps = 13 mm, no odor, dry to moist, gravel-size grains are thin shell fragments alligned on bedding planes PID = 0.1 ppm	0	10	20	45	20	5			N	L
45																	
					48.0												

[1]SPT = Sampler blows per 6 in. [2]Maximum particle size (mm) is determined by direct observation within the limitations of sampler size.

NOTE: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

Boring No. SB1002

* Indicates the use of a 3" sampler and 300 lb hammer

USCS_TB3CA1 USCSLIB4.GLB USCSTC3A.GDT G:\PROJECTS\ENVIRO-1\28997_-1\-003BL-1\GINT\28997002B.GPJ Feb 25, 03

TEST BORING REPORT

HALEY & ALDRICH

Boring No. SB1002
File No. 28997-003
Sheet No. 3 of 3

Depth (ft.)	SPT[1]	Sample No. & Rec. (in.)	Sample Depth (ft.)	Well Diagram	Elev./Depth (ft.)	USCS Symbol	Visual-Manual Identification and Description (Density/consistency, color, GROUP NAME, max. particle size[2], structure, odor, moisture, optional descriptions, geologic interpretation)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines	Field Test Dilatancy	Field Test Toughness	Field Test Plasticity	Field Test Strength
50																	
	10 18 29	SS50 18	50.0 51.5			CL	Very stiff, olive-brown silty CLAY (CL), no odor, dry to moist, Rust staining along fractures PID = 10.5 ppm	0	0	0	0	10	90	N		M	M
					51.5		Bottom of Exploration at 51.5 ft. Note: Borehole backfilled with bentonite grout										

[1]SPT = Sampler blows per 6 in. [2]Maximum particle size (mm) is determined by direct observation within the limitations of sampler size.

NOTE: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

Boring No. SB1002

* Indicates the use of a 3" sampler and 300 lb hammer

USCS_TB3CA1 USCSLIB4.GLB USCSTC3A.GDT G:\PROJECTS\ENV\RO-1\28997_-1\-003BL-1\GINT\28997002B.GPJ Feb 25, 03

TEST BORING REPORT

HALEY & ALDRICH

Boring No. SB1005
File No. 28997-003
Sheet No. 2 of 3

Depth (ft.)	SPT[1]	Sample No. & Rec. (in.)	Sample Depth (ft.)	Well Diagram	Elev./Depth (ft.)	USCS Symbol	Visual-Manual Identification and Description (Density/consistency, color, GROUP NAME, max. particle size[2], structure, odor, moisture, optional descriptions, geologic interpretation)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines	Field Test Dilatancy	Field Test Toughness	Field Test Plasticity	Field Test Strength
20																	
25																	
30																	
35																	
40																	
45	12 24 27	MC-1 12"	45.0 46.0			SC	Medium dense, tan to light brown sandy CLAY (SC), layered structure, no odor, moist, shell fragments PID = 0.0 ppm	0	5	15	25	25	30				

[1]SPT = Sampler blows per 6 in. [2]Maximum particle size (mm) is determined by direct observation within the limitations of sampler size.

NOTE: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

Boring No. SB1005

* Indicates the use of a 3" sampler and 300 lb hammer

USCS_TB3CA1 USCSLIB4.GLB USCSTC3A.GDT G:\PROJECTS\ENVIRO-1\28997_-1\-003BL-1\GINT\28997002B.GPJ Feb 25, 03

TEST BORING REPORT

HALEY & ALDRICH

Boring No. SB1005
File No. 28997-003
Sheet No. 3 of 3

Depth (ft.)	SPT[1]	Sample No. & Rec. (in.)	Sample Depth (ft.)	Well Diagram	Elev./Depth (ft.)	USCS Symbol	Visual-Manual Identification and Description (Density/consistency, color, GROUP NAME, max. particle size[2], structure, odor, moisture, optional descriptions, geologic interpretation)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines	Field Test Dilatancy	Field Test Toughness	Field Test Plasticity	Field Test Strength
50					50.0												
55	40 50/6	MC-2 18"	55.0 56.5			MH	Hard, olive-brown elastic SILT (MH), layered structure, no odor, moist, rust staining along fractures PID = up to 39 ppm	0	0	0	0	5	95	N	M	M	M
60					60.0												
65	50/6	MC-3 6"	65.0 65.5		65.5	SC	Very dense, olive-brown clayey SAND (SC), no structure, no odor, wet Bottom of Exploration at 65.5 ft. Note: Borehole backfilled with bentonite grout to 5 feet bgs and topped off with medium bentonite chips to the surface.	0	0	0	30	40	30				

[1]SPT = Sampler blows per 6 in. [2]Maximum particle size (mm) is determined by direct observation within the limitations of sampler size.
NOTE: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

Boring No. SB1005

* Indicates the use of a 3" sampler and 300 lb hammer

USCS_TB3CA1 USCSLIB4.GLB USCSTC3A.GDT G:\PROJECTS\ENVIRO-1\28997_-1\-003BL-1\GINT\28997002B.GPJ Feb 25, 03

TEST BORING REPORT

Boring No. SB1006

Project Boeing Former C-6 Facility, Parcel C, Building 2 SVE Los Angeles, CA
Client Boeing Realty Corporation
Contractor West Hazmat Drilling

File No. 28997-003
Sheet No. 1 of 3
Start January 10, 2003
Finish January 10, 2003
Driller R. Hastings
H&A Rep. T. Hammond
Elevation
Datum NGVD 1929
Location x:6469721 y:1769125

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	HSA	MC	-	Rig Make & Model: Truck-mounted CME-75
Inside Diameter (in.)	4.25	1.875	-	Bit Type: Cutting Head Drill Mud: None
Hammer Weight (lb.)	NA	140	-	Casing: Hollow-stem Auger
Hammer Fall (in.)	NA	30	-	Hoist/Hammer: Winch / Down-hole Hammer

Depth (ft.)	SPT[1]	Sample No. & Rec. (in.)	Sample Depth (ft.)	Well Diagram	Elev./Depth (ft.)	USCS Symbol	Visual-Manual Identification and Description (Density/consistency, color, GROUP NAME, max. particle size[2], structure, odor, moisture, optional descriptions, geologic interpretation)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines	Field Test Dilatancy	Field Test Toughness	Field Test Plasticity	Field Test Strength
0				NO WELL INSTALLED			Soil samples were not collected until 45 feet bgs.										
5																	
10							Cuttings 0 to 25 feet bgs: silty CLAY										
15																	
20																	

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth (ft.) to: Bottom of Casing	Bottom of Hole	Water
		Not Encountered			

Sample Identification

S SPT (1-3/8" I.D.)
CA Cal. (2-3/8" I.D.)
MC Cal. Mod. (1-7/8" I.D.)
U Undisturbed Sample
G Geoprobe

Well Diagram

Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary

Overburden (lin. ft.) 66
Rock Cored (lin. ft.) 0
Samples 3

Boring No. SB1006

Field Tests: Dilatancy: R-Rapid, S-Slow, N-None
Toughness: L-Low, M-Medium, H-High
Plasticity: N-Nonplastic, L-Low, M-Medium, H-High
Dry Strength: N-None, L-Low, M-Medium, H-High, V-Very High

[1]SPT = Sampler blows per 6 in. [2]Maximum particle size (mm) is determined by direct observation within the limitations of sampler size (in millimeters).

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

*** Indicates the use of a 3" sampler and 300 lb hammer**

USCS_TB3CA1 USCSLIB4.GLB USCSTC3A.GDT G:\PROJECTS\ENVIRONMENTAL\28997_BOEING C-6 2002 SVE\-003 BLDG 2 DATA\GINT\289970028.GPJ Feb 25, 03

TEST BORING REPORT

HALEY & ALDRICH

Boring No. SB1006
File No. 28997-003
Sheet No. 2 of 3

Depth (ft.)	SPT[1]	Sample No. & Rec. (in.)	Sample Depth (ft.)	Well Diagram	Elev./Depth (ft.)	USCS Symbol	Visual-Manual Identification and Description (Density/consistency, color, GROUP NAME, max. particle size[2], structure, odor, moisture, optional descriptions, geologic interpretation)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines	Field Test Dilatancy	Field Test Toughness	Field Test Plasticity	Field Test Strength
20																	
25					25.0		Cuttings 25 to 45 feet bgs: silty SAND										
30																	
35																	
40																	
45	32 50/5	MC-1 6"	45.0 45.5			SP	Dense, light brown poorly-graded SAND (SP), no structure, no odor, moist	0	0	0	50	45	5				

[1]SPT = Sampler blows per 6 in. [2]Maximum particle size (mm) is determined by direct observation within the limitations of sampler size.

NOTE: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

Boring No. SB1006

* Indicates the use of a 3" sampler and 300 lb hammer

USCS_TB3CA1 USCSLIB4.GLB USCSTC3A.GDT G:\PROJECTS\ENVIRONMENTAL\28997_BOEING C-6 2002 SVE\-003 BLDG 2 DATA\GINT\28997002B.GPJ Feb 25, 03

TEST BORING REPORT

HALEY & ALDRICH

Boring No. SB1006
File No. 28997-003
Sheet No. 3 of 3

Depth (ft.)	SPT[1]	Sample No. & Rec. (in.)	Sample Depth (ft.)	Well Diagram	Elev./Depth (ft.)	USCS Symbol	Visual-Manual Identification and Description (Density/consistency, color, GROUP NAME, max. particle size[2], structure, odor, moisture, optional descriptions, geologic interpretation)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines	Field Test Dilatancy	Field Test Toughness	Field Test Plasticity	Field Test Strength
50					50.0												
55	27 50/6	MC-2 18"	55.0 56.5			CH	Very stiff, olive-brown to light brown fat CLAY (CH), layered structure, no odor, moist, occasional medium sand lenses and pockets - rust stained PID = up to 47 ppm	0	0	0	0	0	100				
60					60.0		Cuttings PID = up to 34 ppm										
65	40 50	MC-3 12"	65.0 66.0		65.5	SC	Dense, mottled gray-brown and yellow-brown clayey SAND (SC), blocky structure, no odor, moist PID = up to 34 ppm	0	0	0	30	45	25				

Bottom of Exploration at 66 ft.

Note: Borehole backfilled with bentonite grout to 7 feet bgs and topped off with medium bentonite chips to the surface.

[1]SPT = Sampler blows per 6 in. [2]Maximum particle size (mm) is determined by direct observation within the limitations of sampler size.

NOTE: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

Boring No. SB1006

* Indicates the use of a 3" sampler and 300 lb hammer

USCS_TB3CA1 USCSLIB4.GLB USCSTC3A.GDT G:\PROJECTS\ENVIRONMENTAL\28997_BOEING C-6 2002 SVE\-003 BLDG 2 DATA\GINT\28997002B.GPJ Feb 25, 03

TEST BORING REPORT

Boring No. 2_VEW_21

Project Boeing Former C-6 Facility, Parcel C, Building 2 SVE Los Angeles, CA
Client Boeing Realty Corporation
Contractor West Hazmat Drilling

File No. 28997-003
Sheet No. 1 of 3
Start September 23, 2002
Finish September 23, 2002
Driller R. Leininger
H&A Rep. T. Hammond
Elevation
Datum NGVD 1929
Location 10-feet northeast of 2_VEW_1

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	HSA	MC	-	Rig Make & Model: Truck-mounted CME-75
Inside Diameter (in.)	4.25	1.875	-	Bit Type: Cutting Head Drill Mud: None
Hammer Weight (lb.)	NA	140	-	Casing: Hollow-stem Auger
Hammer Fall (in.)	NA	30	-	Hoist/Hammer: Winch / Down-hole Hammer

Depth (ft.)	SPT[1]	Sample No. & Rec. (in.)	Sample Depth (ft.)	Well Diagram	Elev./Depth (ft.)	USCS Symbol	Visual-Manual Identification and Description (Density/consistency, color, GROUP NAME, max. particle size[2], structure, odor, moisture, optional descriptions, geologic interpretation)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines	Field Test Dilatancy	Field Test Toughness	Field Test Plasticity	Field Test Strength
0																	
5																	
10																	
15																	
20																	

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth (ft.) to: Bottom of Casing	Bottom of Hole	Water
		Not Encountered			

Sample Identification

- S SPT (1-3/8" I.D.)
- CA Cal. (2-3/8" I.D.)
- MC Cal. Mod. (1-7/8" I.D.)
- U Undisturbed Sample
- G Geoprobe

Well Diagram

- Riser Pipe
- Screen
- Filter Sand
- Cuttings
- Grout
- Concrete
- Bentonite Seal

Summary

Overburden (lin. ft.)	65
Rock Cored (lin. ft.)	0
Samples	1

Boring No. 2_VEW_21

Field Tests: Dilatancy: R-Rapid, S-Slow, N-None
Toughness: L-Low, M-Medium, H-High
Plasticity: N-Nonplastic, L-Low, M-Medium, H-High
Dry Strength: N-None, L-Low, M-Medium, H-High, V-Very High

[1]SPT = Sampler blows per 6 in. [2]Maximum particle size (mm) is determined by direct observation within the limitations of sampler size (in millimeters).

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

*** Indicates the use of a 3" sampler and 300 lb hammer**

USCS_TB3CA1 USCSLIB4.GLB USCSTC3A.GDT G:\PROJECTS\ENV\RO-1128997_-1\-003BL-1\GINT\28997002B.GPJ Feb 25, 03

[redacted]

TEST BORING REPORT

Boring No. 2_VEW_21
File No. 28997-003
Sheet No. 2 of 3

Depth (ft.)	SPT[1]	Sample No. & Rec. (in.)	Sample Depth (ft.)	Well Diagram	Elev./Depth (ft.)	USCS Symbol	Visual-Manual Identification and Description (Density/consistency, color, GROUP NAME, max. particle size[2], structure, odor, moisture, optional descriptions, geologic interpretation)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines	Field Test Dilatancy	Field Test Toughness	Field Test Plasticity	Field Test Strength
20							Cuttings: brown silty CLAY, moist, no odor PID = 0.1 ppm										
25																	
30							Cuttings: olive-brown, sandy clayey SILT, moist, no odor PID = 0.1 ppm										
35							Cuttings: olive-brown to light brown silty fine SAND, no odor, moist PID = 0.0 ppm										
40							Cuttings: light brown SAND with silt, no odor, moist PID = 0.1 ppm										
45							PID = 10 ppm										

[1]SPT = Sampler blows per 6 in. [2]Maximum particle size (mm) is determined by direct observation within the limitations of sampler size.

NOTE: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

Boring No. 2_VEW_21

* Indicates the use of a 3" sampler and 300 lb hammer

USCS_TB3CA1 USCSLIB4.GLB USCSTC3A.GDT G:\PROJECTS\ENVIRO-1\28997_-1\-003BL-1\GINT\28997002B.GPJ Feb 25, 03

TEST BORING REPORT

HALEY & ALDRICH

Boring No. 2_VEW_21
File No. 28997-003
Sheet No. 3 of 3

Depth (ft.)	SPT[1]	Sample No. & Rec. (in.)	Sample Depth (ft.)	Well Diagram	Elev./Depth (ft.)	USCS Symbol	Visual-Manual Identification and Description (Density/consistency, color, GROUP NAME, max. particle size[2], structure, odor, moisture, optional descriptions, geologic interpretation)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines	Field Test Dilatancy	Field Test Toughness	Field Test Plasticity	Field Test Strength
50	13 18 50/3	SS50 12	50.0 51.5			CL/SC	Hard, light brown to olive-brown interbedded silty CLAY and clayey SAND (CL/SC), layered structure, no odor, moist, rust staining PID = 0.2 ppm										
55							Cuttings: light brown silty SAND with clay, no odor, moist, shell fragments PID = 0.1 ppm Cuttings becoming clayey at drilling depth of 57 feet bgs. Clay probably at 54 feet bgs or shallower. PID = 0.3 ppm										
60																	
65					65.0		Bottom of Exploration at 65 ft. Set soil-vapor extraction well 2_VEW_21 (40' to 55')										

[1]SPT = Sampler blows per 6 in. [2]Maximum particle size (mm) is determined by direct observation within the limitations of sampler size.

NOTE: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

Boring No. 2_VEW_21

* Indicates the use of a 3" sampler and 300 lb hammer

USCS_TB3CA1 USCSLIB4.GLB USCSTC3A.GDT G:\PROJECTS\ENVIRO-1\28997_-11-003BL-11\GINT\28997002B.GPJ Feb 25, 03

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: BRC Former C-6 Torrance Harbor Gateway

Collection Date: August 1, 2002

LDC Report Date: March 4, 2003

Matrix: Soil

Parameters: Volatiles

Validation Level: Tier 2 & Tier 3

Laboratory: Severn Trent Laboratories

Sample Delivery Group (SDG): E2H010352

Sample Identification

2_VEW_18_SSA080102_0001**
2_VEW_18_SSB080102_0001
2_VEW_18_SSC080102_0001
2_VEW_19_SSA080102_0001**
2_VEW_19_SSB080102_0001
2_VEW_19_SSC080102_0001**
2_VEW_20_SSA080102_0001
2_VEW_20_SSB080102_0001
2_VEW_20_SSC080102_0001
SB1000_SSA080102_0001
SB1000_SSB080102_0001
SB1000_SSC080102_0001
SB1001_SSA080102_0001
SB1001_SSB080102_0001
SB1001_SSC080102_0001
2_VEW_18_SSA080102_0001MS
2_VEW_18_SSA080102_0001MSD
2_VEW_20_SSA080102_0001MS
2_VEW_20_SSA080102_0001MSD

**Indicates sample underwent a Tier 3 review

Introduction

This data review covers 19 soil 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 table summarizing all data qualification is provided at the end of this report. 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 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 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.

BOE-C6-0103348

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
7/30/02	Bromomethane Iodomethane Tetrahydrofuran	50.400 31.363 39.775	2_VEW_18_SSA080102_0001** 2_VEW_18_SSB080102_0001 2_VEW_18_SSC080102_0001 2_VEW_19_SSA080102_0001** 2_VEW_19_SSB080102_0001 2_VEW_19_SSC080102_0001** 2_VEW_20_SSA080102_0001 2_VEW_20_SSB080102_0001 2_VEW_20_SSC080102_0001 SB1000_SSA080102_0001 SB1000_SSB080102_0001 SB1000_SSC080102_0001 SB1001_SSA080102_0001 SB1001_SSC080102_0001 2_VEW_18_SSA080102_0001MS 2_VEW_18_SSA080102_0001MSD 2_VEW_20_SSA080102_0001MS 2_VEW_20_SSA080102_0001MSD 2220270MB 2218248MB 2220252MB	J (all detects) UJ (all non-detects)	A
7/28/02	Acrolein Iodomethane	32.559 40.194	SB1001_SSB080102_0001 2225371MB	J (all detects) UJ (all non-detects) 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
7/30/02	Acrolein Acrylonitrile	0.00398 (≥0.05) 0.04290 (≥0.05)	2_VEW_18_SSA080102_0001** 2_VEW_18_SSB080102_0001 2_VEW_18_SSC080102_0001 2_VEW_19_SSA080102_0001** 2_VEW_19_SSB080102_0001 2_VEW_19_SSC080102_0001** 2_VEW_20_SSA080102_0001 2_VEW_20_SSB080102_0001 2_VEW_20_SSC080102_0001 SB1000_SSA080102_0001 SB1000_SSB080102_0001 SB1000_SSC080102_0001 SB1001_SSA080102_0001 SB1001_SSC080102_0001 2_VEW_18_SSA080102_0001MS 2_VEW_18_SSA080102_0001MSD 2_VEW_20_SSA080102_0001MS 2_VEW_20_SSA080102_0001MSD 2220270MB 2218248MB 2220252MB	J (all detects) UJ (all non-detects) J (all detects) UJ (all non-detects)	A
7/28/02	Acrolein Acrylonitrile	0.00340 (≥0.05) 0.03823 (≥0.05)	SB1001_SSB080102_0001 2225371MB	J (all detects) R (all non-detects) J (all detects) R (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
8/2/02	Iodomethane	35.6	2_VEW_18_SSA080102_0001** 2_VEW_18_SSC080102_0001 2_VEW_19_SSA080102_0001** 2_VEW_19_SSB080102_0001 2_VEW_19_SSC080102_0001** 2_VEW_20_SSB080102_0001 2_VEW_20_SSC080102_0001 SB1000_SSA080102_0001 SB1000_SSB080102_0001 SB1000_SSC080102_0001 SB1001_SSA080102_0001 SB1001_SSC080102_0001 2220270MB	J (all detects) UJ (all non-detects)	A
8/5/02	Dichlorodifluoromethane Bromomethane	30.7 26.2	2_VEW_18_SSB080102_0001 2_VEW_18_SSA080102_0001MS 2_VEW_18_SSA080102_0001MSD 2218248MB	J (all detects) UJ (all non-detects) J (all detects) UJ (all non-detects)	A
8/7/02 (DS3784)	Bromomethane	26.2	2_VEW_20_SSA080102_0001 2_VEW_20_SSA080102_0001MS 2_VEW_20_SSA080102_0001MSD 220252MB	J (all detects) UJ (all non-detects)	A
8/7/02 (DS3786)	Dichlorodifluoromethane Chloromethane	77.2 25.2	SB1001_SSB080102_0001 2225371MB	J (all detects) UJ (all non-detects) 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
8/2/02	Acrolein Acrylonitrile	0.00441 (≥0.05) 0.04556 (≥0.05)	2_VEW_18_SSA080102_0001** 2_VEW_18_SSC080102_0001 2_VEW_19_SSA080102_0001** 2_VEW_19_SSB080102_0001 2_VEW_19_SSC080102_0001** 2_VEW_20_SSB080102_0001 2_VEW_20_SSC080102_0001 SB1000_SSA080102_0001 SB1000_SSB080102_0001 SB1000_SSC080102_0001 SB1001_SSA080102_0001 SB1001_SSC080102_0001 2220270MB	J (all detects) UJ (all non-detects) J (all detects) UJ (all non-detects)	A
8/5/02	Acrolein Acrylonitrile 2-Chloroethylvinyl ether	0.00439 (≥0.05) 0.04482 (≥0.05) 0.04877 (≥0.05)	2_VEW_18_SSB080102_0001 2_VEW_18_SSA080102_0001MS 2_VEW_18_SSA080102_0001MSD 2218248MB	J (all detects) R (all non-detects)	A

Date	Compound	RRF (Limits)	Associated Samples	Flag	A or P
8/7/02 (DS3784)	Acrolein Acrylonitrile 2-Chloroethylvinyl ether	0.00333 (≥0.05) 0.03849 (≥0.05) 0.04851 (≥0.05)	2_VEW_20_SSA080102_0001 2_VEW_20_SSA080102_0001MS 2_VEW_20_SSA080102_0001MSD 220252MB	J (all detects) R (all non-detects)	A
8/7/02 (DS3786)	Acrolein Acrylonitrile 2-Chloroethylvinyl ether	0.00340 (≥0.05) 0.03799 (≥0.05) 0.04875 (≥0.05)	SB1001_SSB080102_0001 2225371MB	J (all detects) R (all non-detects)	A

V. Blanks

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

Method Blank ID	Analysis Date	Compound TIC (RT in minutes)	Concentration	Associated Samples
2225371MB	8/7/02	Acetone Unknown (9.704) Unknown (11.929)	920 ug/Kg 260 ug/Kg 280 ug/Kg	SB1001_SSB080102_0001

Sample concentrations were compared to concentrations detected in the method blanks. The sample concentrations were either not detected or were significantly greater (>10X for common contaminants, >5X for other contaminants) than the concentrations found in the associated method blanks with the following exceptions:

Sample	Compound TIC (RT in minutes)	Reported Concentration	Modified Final Concentration
SB1001_SSB080102_0001	Acetone	890 ug/Kg	1200U ug/Kg

VI. Surrogate Spikes

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

Sample	Surrogate	%R (Limits)	Compound	Flag	A or P
2_VEW_18_SSB080102_0001	Bromofluorobenzene 1,2-Dichloroethane-d4 Toluene-d8	5.7 (65-135) 18 (60-140) 4.0 (70-130)	All TCL compounds	J (all detects) R (all non-detects)	P

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 there were no associated samples, 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.

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Internal Standards

All internal standard areas and retention times were within QC limits with the following exceptions:

Sample	Internal Standards	Area (Limits)	Compound	Flag	A or P
SB1001_SSC080102_0001	1,4-Dichlorobenzene-d4	307401 (493560-1974320)	1,2-Dibromo-3-chloropropane Bromobenzene 1,2,3-Trichloropropane n-Propylbenzene 2-Chlorotoluene 1,3,5-Trimethylbenzene 4-Chlorotoluene tert-Butylbenzene 1,2,4-Trimethylbenzene sec-Butylbenzene 1,3-Dichlorobenzene p-Isopropyltoluene 1,4-Dichlorobenzene n-Butylbenzene 1,2-Dichlorobenzene 1,2,4-Trichlorobenzene Hexachlorobutadiene 1,2,3-Trichlorobenzene	J (all detects) UJ (all non-detects)	P

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)

All tentatively identified compounds 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.

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 have been summarized at the end of the report.

XVI. Field Duplicates

No field duplicates were identified in this SDG.

XVII. Field Blanks

No field blanks were identified in this SDG.

BOE-C6-0103354

BRC Former C-6 Torrance Harbor Gateway
Volatiles - Data Qualification Summary - SDG E2H010352

SDG	Sample	Compound	Flag	A or P	Reason
E2H010352	2_VEW_18_SSA080102_0001** 2_VEW_18_SSB080102_0001 2_VEW_18_SSC080102_0001 2_VEW_19_SSA080102_0001** 2_VEW_19_SSB080102_0001 2_VEW_19_SSC080102_0001** 2_VEW_20_SSA080102_0001 2_VEW_20_SSB080102_0001 2_VEW_20_SSC080102_0001 SB1000_SSA080102_0001 SB1000_SSB080102_0001 SB1000_SSC080102_0001 SB1001_SSA080102_0001 SB1001_SSC080102_0001	Bromomethane Iodomethane Tetrahydrofuran	J (all detects) UJ (all non-detects)	A	Initial calibration (%RSD)
E2H010352	SB1001_SSB080102_0001	Acrolein Iodomethane	J (all detects) UJ (all non-detects) J (all detects) UJ (all non-detects)	A	Initial calibration (%RSD)
E2H010352	2_VEW_18_SSA080102_0001** 2_VEW_18_SSB080102_0001 2_VEW_18_SSC080102_0001 2_VEW_19_SSA080102_0001** 2_VEW_19_SSB080102_0001 2_VEW_19_SSC080102_0001** 2_VEW_20_SSA080102_0001 2_VEW_20_SSB080102_0001 2_VEW_20_SSC080102_0001 SB1000_SSA080102_0001 SB1000_SSB080102_0001 SB1000_SSC080102_0001 SB1001_SSA080102_0001 SB1001_SSC080102_0001	Acrolein Acrylonitrile	J (all detects) UJ (all non-detects) J (all detects) UJ (all non-detects)	A	Initial calibration (RRF)
E2H010352	SB1001_SSB080102_0001	Acrolein Acrylonitrile	J (all detects) R (all non-detects) J (all detects) R (all non-detects)	A	Initial calibration (RRF)
E2H010352	2_VEW_18_SSA080102_0001** 2_VEW_18_SSC080102_0001 2_VEW_19_SSA080102_0001** 2_VEW_19_SSB080102_0001 2_VEW_19_SSC080102_0001** 2_VEW_20_SSB080102_0001 2_VEW_20_SSC080102_0001 SB1000_SSA080102_0001 SB1000_SSB080102_0001 SB1000_SSC080102_0001 SB1001_SSA080102_0001 SB1001_SSC080102_0001	Iodomethane	J (all detects) UJ (all non-detects)	A	Continuing calibration (%D)

SDG	Sample	Compound	Flag	A or P	Reason
E2H010352	2_VEW_18_SSB080102_0001	Dichlorodifluoromethane Bromomethane	J (all detects) UJ (all non-detects) J (all detects) UJ (all non-detects)	A	Continuing calibration (%D)
E2H010352	2_VEW_20_SSA080102_0001	Bromomethane	J (all detects) UJ (all non-detects)	A	Continuing calibration (%D)
E2H010352	SB1001_SSB080102_0001	Dichlorodifluoromethane Chloromethane	J (all detects) UJ (all non-detects) J (all detects) UJ (all non-detects)	A	Continuing calibration (%D)
E2H010352	2_VEW_18_SSA080102_0001** 2_VEW_18_SSC080102_0001 2_VEW_19_SSA080102_0001** 2_VEW_19_SSB080102_0001 2_VEW_19_SSC080102_0001** 2_VEW_20_SSB080102_0001 2_VEW_20_SSC080102_0001 SB1000_SSA080102_0001 SB1000_SSB080102_0001 SB1000_SSC080102_0001 SB1001_SSA080102_0001 SB1001_SSC080102_0001	Acrolein Acrylonitrile	J (all detects) UJ (all non-detects) J (all detects) UJ (all non-detects)	A	Continuing calibration (RRF)
E2H010352	2_VEW_18_SSB080102_0001 2_VEW_20_SSA080102_0001 SB1001_SSB080102_0001	Acrolein Acrylonitrile 2-Chloroethylvinyl ether	J (all detects) R (all non-detects)	A	Continuing calibration (RRF)
E2H010352	2_VEW_18_SSB080102_0001	All TCL compounds	J (all detects) R (all non-detects)	P	Surrogate spikes (%R)
E2H010352	SB1001_SSC080102_0001	1,2-Dibromo-3-chloropropane Bromobenzene 1,2,3-Trichloropropane n-Propylbenzene 2-Chlorotoluene 1,3,5-Trimethylbenzene 4-Chlorotoluene tert-Butylbenzene 1,2,4-Trimethylbenzene sec-Butylbenzene 1,3-Dichlorobenzene p-Isopropyltoluene 1,4-Dichlorobenzene n-Butylbenzene 1,2-Dichlorobenzene 1,2,4-Trichlorobenzene Hexachlorobutadiene 1,2,3-Trichlorobenzene	J (all detects) UJ (all non-detects)	P	Internal standards (area)

BRC Former C-6 Torrance Harbor Gateway
Volatiles - Laboratory Blank Data Qualification Summary - SDG E2H010352

SDG	Sample	Compound TIC (RT in minutes)	Modified Final Concentration	A or P
E2H010352	SB1001_SSB080102_0001	Acetone	1200U ug/Kg	A

9883A

HALEY & ALDRICH INC

Client Sample ID: 2_VEW_18_SSA080102_0001

GC/MS Volatiles

Lot-Sample #...: E2H010352-001 Work Order #...: E5RFP1AA Matrix.....: SOLID
Date Sampled...: 08/01/02 09:00 Date Received..: 08/01/02 16:20 MS Run #.....: 2220107
Prep Date.....: 08/02/02 Analysis Date..: 08/02/02
Prep Batch #...: 2220270 Analysis Time..: 22:03
Dilution Factor: 1
Analyst ID.....: 999998 Instrument ID..: MSD
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Dichlorodifluoromethane	ND	10	ug/kg	1.0
Chloromethane	ND	10	ug/kg	3.0
Vinyl chloride	ND	10	ug/kg	2.0
Bromomethane	ND UJ	10	ug/kg	8.0
1,2-Dibromoethane	ND	5.0	ug/kg	3.0
Chloroethane	ND	10	ug/kg	2.0
Trichlorofluoromethane	ND	10	ug/kg	2.0
Acrolein	ND UJ	100	ug/kg	30
1,1-Dichloroethene	ND	5.0	ug/kg	2.0
Iodomethane	ND UJ	10	ug/kg	10
Acetone	ND	25	ug/kg	15
Carbon disulfide	ND	5.0	ug/kg	3.0
Methylene chloride	ND	5.0	ug/kg	3.0
trans-1,2-Dichloroethene	ND	5.0	ug/kg	2.0
Acrylonitrile	ND UJ	100	ug/kg	30
Methyl tert-butyl ether	ND	5.0	ug/kg	1.0
1,1-Dichloroethane	ND	5.0	ug/kg	1.0
Vinyl acetate	ND	10	ug/kg	5.0
2,2-Dichloropropane	ND	5.0	ug/kg	2.0
cis-1,2-Dichloroethene	ND	5.0	ug/kg	2.0
2-Butanone	ND	25	ug/kg	15
Bromochloromethane	ND	5.0	ug/kg	1.0
Chloroform	ND	5.0	ug/kg	1.0
Tetrahydrofuran	ND UJ	20	ug/kg	2.0
1,1,1-Trichloroethane	ND	5.0	ug/kg	1.0
1,1-Dichloropropene	ND	5.0	ug/kg	1.0
Carbon tetrachloride	ND	5.0	ug/kg	1.0
Benzene	ND	5.0	ug/kg	2.0
1,2-Dichloroethane	ND	5.0	ug/kg	1.0
Trichloroethene	ND	5.0	ug/kg	2.0
1,2-Dichloropropane	ND	5.0	ug/kg	1.0
Bromodichloromethane	ND	5.0	ug/kg	1.0
2-Chloroethyl vinyl ether	ND	10	ug/kg	5.0
cis-1,3-Dichloropropene	ND	5.0	ug/kg	1.0
4-Methyl-2-pentanone	ND	25	ug/kg	10
Toluene	ND	5.0	ug/kg	2.0
trans-1,3-Dichloropropene	ND	5.0	ug/kg	3.0

(Continued on next page)

A
3405

HALEY & ALDRICH INC

Client Sample ID: 2_VEW_18_SCA080102_0001

GC/MS Volatiles

Lot-Sample #...: E2H010352-001 Work Order #...: E5RFP1AA Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
1,1,2-Trichloroethane	ND	5.0	ug/kg	3.0
Tetrachloroethene	ND	5.0	ug/kg	2.0
2-Hexanone	ND	25	ug/kg	10
Dibromochloromethane	ND	5.0	ug/kg	1.0
Chlorobenzene	ND	5.0	ug/kg	2.0
Ethylbenzene	ND	5.0	ug/kg	2.0
Xylenes (total)	ND	5.0	ug/kg	3.0
Styrene	ND	10	ug/kg	2.0
Bromoform	ND	5.0	ug/kg	3.0
Isopropylbenzene	ND	5.0	ug/kg	2.0
p-Isopropyltoluene	ND	5.0	ug/kg	2.0
Bromobenzene	ND	5.0	ug/kg	2.0
1,1,1,2-Tetrachloroethane	ND	5.0	ug/kg	3.0
1,1,2,2-Tetrachloroethane	ND	5.0	ug/kg	3.0
1,2,3-Trichloropropane	ND	5.0	ug/kg	3.0
n-Propylbenzene	ND	5.0	ug/kg	2.0
2-Chlorotoluene	ND	5.0	ug/kg	2.0
4-Chlorotoluene	ND	5.0	ug/kg	2.0
1,3,5-Trimethylbenzene	ND	5.0	ug/kg	2.0
tert-Butylbenzene	ND	5.0	ug/kg	2.0
1,2,4-Trimethylbenzene	ND	5.0	ug/kg	2.0
sec-Butylbenzene	ND	5.0	ug/kg	2.0
1,3-Dichlorobenzene	ND	5.0	ug/kg	2.0
1,4-Dichlorobenzene	ND	5.0	ug/kg	2.0
1,2-Dichlorobenzene	ND	5.0	ug/kg	2.0
n-Butylbenzene	ND	5.0	ug/kg	2.0
1,2-Dibromo-3-chloro-propane	ND	10	ug/kg	3.0
1,2,4-Trichloro-benzene	ND	5.0	ug/kg	2.0
Hexachlorobutadiene	ND	5.0	ug/kg	2.0
1,2,3-Trichlorobenzene	ND	5.0	ug/kg	2.0
t-Butanol	ND	100	ug/kg	50
Isopropyl ether	ND	10	ug/kg	1.0
Tert-amyl methyl ether	ND	10	ug/kg	2.0
Tert-butyl ethyl ether	ND	10	ug/kg	1.0

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Bromofluorobenzene	97	(65 - 135)
1,2-Dichloroethane-d4	85	(60 - 140)
Toluene-d8	00	(70 - 130)

A
9403

HALEY & ALDRICH INC

2_VEW_18_SGA080102_0001

GC/MS Volatiles

Lot-Sample #: E2H010352-001 Work Order #: E5RFP1AA Matrix: SOLID

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT	RETENTION TIME	UNITS
None				ug/kg

A
9403

HALEY & ALDRICH INC

Client Sample ID: 2_VRW_18_SSR080102_0001

GC/MS Volatiles

Lot-Sample #...: E2H010352-002 Work Order #...: E5RF41AA Matrix.....: SOLID
Date Sampled...: 08/01/02 09:00 Date Received..: 08/01/02 16:20 MS Run #.....: 2218096
Prep Date.....: 08/05/02 Analysis Date..: 08/05/02
Prep Batch #...: 2218248 Analysis Time..: 16:49
Dilution Factor: 1
Analyst ID.....: 999998 Instrument ID..: MSD
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Dichlorodifluoromethane	ND R	10	ug/kg	1.0
Chloromethane	ND	10	ug/kg	3.0
Vinyl chloride	ND	10	ug/kg	2.0
Bromomethane	ND	10	ug/kg	8.0
1,2-Dibromoethane	ND	5.0	ug/kg	3.0
Chloroethane	ND	10	ug/kg	2.0
Trichlorofluoromethane	ND	10	ug/kg	2.0
Acrolein	ND R	100	ug/kg	30
1,1-Dichloroethene	ND	5.0	ug/kg	2.0
Iodomethane	ND	10	ug/kg	10
Acetone	ND	25	ug/kg	15
Carbon disulfide	ND	5.0	ug/kg	3.0
Methylene chloride	ND	5.0	ug/kg	3.0
trans-1,2-Dichloroethene	ND	5.0	ug/kg	2.0
Acrylonitrile	ND R	100	ug/kg	30
Methyl tert-butyl ether	ND	5.0	ug/kg	1.0
1,1-Dichloroethane	ND	5.0	ug/kg	1.0
Vinyl acetate	ND	10	ug/kg	5.0
2,2-Dichloropropane	ND	5.0	ug/kg	2.0
cis-1,2-Dichloroethene	ND	5.0	ug/kg	2.0
2-Butanone	ND	25	ug/kg	15
Bromochloromethane	ND	5.0	ug/kg	1.0
Chloroform	ND	5.0	ug/kg	1.0
Tetrahydrofuran	ND	20	ug/kg	2.0
1,1,1-Trichloroethane	ND	5.0	ug/kg	1.0
1,1-Dichloropropene	ND	5.0	ug/kg	1.0
Carbon tetrachloride	ND	5.0	ug/kg	1.0
Benzene	ND	5.0	ug/kg	2.0
1,2-Dichloroethane	ND	5.0	ug/kg	1.0
Trichloroethene	ND	5.0	ug/kg	2.0
1,2-Dichloropropane	ND	5.0	ug/kg	1.0
Bromodichloromethane	ND	5.0	ug/kg	1.0
2-Chloroethyl vinyl ether	ND R	10	ug/kg	5.0
cis-1,3-Dichloropropene	ND	5.0	ug/kg	1.0
4-Methyl-2-pentanone	ND	25	ug/kg	10
Toluene	ND	5.0	ug/kg	2.0
trans-1,3-Dichloropropene	ND	5.0	ug/kg	3.0

(Continued on next page)

A
9407

HALEY & ALDRICH INC

Client Sample ID: 2_VEW 18 SSB080102_0001

GC/MS Volatiles

Lot-Sample #...: E2H010352-002 Work Order #...: E5RF41AA Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
1,1,2-Trichloroethane	ND R	5.0	ug/kg	3.0
Tetrachloroethene	ND	5.0	ug/kg	2.0
2-Hexanone	ND	25	ug/kg	10
Dibromochloromethane	ND	5.0	ug/kg	1.0
Chlorobenzene	ND	5.0	ug/kg	2.0
Ethylbenzene	ND	5.0	ug/kg	2.0
Xylenes (total)	ND	5.0	ug/kg	3.0
Styrene	ND	10	ug/kg	2.0
Bromoform	ND	5.0	ug/kg	3.0
Isopropylbenzene	ND	5.0	ug/kg	2.0
p-Isopropyltoluene	ND	5.0	ug/kg	2.0
Bromobenzene	ND	5.0	ug/kg	2.0
1,1,1,2-Tetrachloroethane	ND	5.0	ug/kg	3.0
1,1,2,2-Tetrachloroethane	ND	5.0	ug/kg	3.0
1,2,3-Trichloropropane	ND	5.0	ug/kg	3.0
n-Propylbenzene	ND	5.0	ug/kg	2.0
2-Chlorotoluene	ND	5.0	ug/kg	2.0
4-Chlorotoluene	ND	5.0	ug/kg	2.0
1,3,5-Trimethylbenzene	ND	5.0	ug/kg	2.0
tert-Butylbenzene	ND	5.0	ug/kg	2.0
1,2,4-Trimethylbenzene	ND	5.0	ug/kg	2.0
sec-Butylbenzene	ND	5.0	ug/kg	2.0
1,3-Dichlorobenzene	ND	5.0	ug/kg	2.0
1,4-Dichlorobenzene	ND	5.0	ug/kg	2.0
1,2-Dichlorobenzene	ND	5.0	ug/kg	2.0
n-Butylbenzene	ND	5.0	ug/kg	2.0
1,2-Dibromo-3-chloro-propane	ND	10	ug/kg	3.0
1,2,4-Trichloro-benzene	ND	5.0	ug/kg	2.0
Hexachlorobutadiene	ND	5.0	ug/kg	2.0
1,2,3-Trichlorobenzene	ND	5.0	ug/kg	2.0
t-Butanol	ND	100	ug/kg	50
Isopropyl ether	ND	10	ug/kg	1.0
Tert-amyl methyl ether	ND	10	ug/kg	2.0
Tert-butyl ethyl ether	ND	10	ug/kg	1.0

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Bromofluorobenzene	5.7 *	(65 - 135)
1,2-Dichloroethane-d4	18 *	(60 - 140)
Toluene-d8	4.0 *	(70 - 130)

NOTE(S):

The surrogate recovery in the sample is outside control limits due to confirmed matrix effect.

* Surrogate recovery is outside stated control limits.

A 3405

HALEY & ALDRICH INC

2_VEW_18_SSB080102_0001

GC/MS Volatiles

Lot-Sample #: E2H010352-002 Work Order #: E5RF41AA Matrix: SOLID

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT	RETENTION TIME	UNITS
None				ug/kg

A
3403

HALEY & ALDRICH INC

Client Sample ID: 2_VEW_18_SSC000102_0001

GC/MS Volatiles

Lot-Sample #...: E2H010352-003 Work Order #...: E5RGE1AA Matrix.....: SOLID
Date Sampled...: 08/01/02 09:00 Date Received..: 08/01/02 16:20 MS Run #.....: 2220107
Prep Date.....: 08/02/02 Analysis Date..: 08/02/02
Prep Batch #...: 2220270 Analysis Time..: 20:01
Dilution Factor: 1
Analyst ID.....: 999998 Instrument ID..: MSD
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Dichlorodifluoromethane	ND	10	ug/kg	1.0
Chloromethane	ND	10	ug/kg	3.0
Vinyl chloride	ND	10	ug/kg	2.0
Bromomethane	ND UJ	10	ug/kg	8.0
1,2-Dibromoethane	ND	5.0	ug/kg	3.0
Chloroethane	ND	10	ug/kg	2.0
Trichlorofluoromethane	ND	10	ug/kg	2.0
Acrolein	ND UJ	100	ug/kg	30
1,1-Dichloroethene	ND	5.0	ug/kg	2.0
Iodomethane	ND UJ	10	ug/kg	10
Acetone	ND	25	ug/kg	15
Carbon disulfide	ND	5.0	ug/kg	3.0
Methylene chloride	ND	5.0	ug/kg	3.0
trans-1,2-Dichloroethene	ND	5.0	ug/kg	2.0
Acrylonitrile	ND UJ	100	ug/kg	30
Methyl tert-butyl ether	ND	5.0	ug/kg	1.0
1,1-Dichloroethane	ND	5.0	ug/kg	1.0
Vinyl acetate	ND	10	ug/kg	5.0
2,2-Dichloropropane	ND	5.0	ug/kg	2.0
cis-1,2-Dichloroethene	ND	5.0	ug/kg	2.0
2-Butanone	ND	25	ug/kg	15
Bromochloromethane	ND	5.0	ug/kg	1.0
Chloroform	ND	5.0	ug/kg	1.0
Tetrahydrofuran	ND UJ	20	ug/kg	2.0
1,1,1-Trichloroethane	ND	5.0	ug/kg	1.0
1,1-Dichloropropene	ND	5.0	ug/kg	1.0
Carbon tetrachloride	ND	5.0	ug/kg	1.0
Benzene	ND	5.0	ug/kg	2.0
1,2-Dichloroethane	ND	5.0	ug/kg	1.0
Trichloroethene	ND	5.0	ug/kg	2.0
1,2-Dichloropropane	ND	5.0	ug/kg	1.0
Bromodichloromethane	ND	5.0	ug/kg	1.0
2-Chloroethyl vinyl ether	ND	10	ug/kg	5.0
cis-1,3-Dichloropropene	ND	5.0	ug/kg	1.0
4-Methyl-2-pentanone	ND	25	ug/kg	10
Toluene	ND	5.0	ug/kg	2.0
trans-1,3-Dichloropropene	ND	5.0	ug/kg	3.0

(Continued on next page)

A
3453

HALEY & ALDRICH INC

Client Sample ID: 2_VEW_18_SSC080102_0001

GC/MS Volatiles

Lot-Sample #...: E2H010352-003 Work Order #...: E5RGE1AA Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
1,1,2-Trichloroethane	ND	5.0	ug/kg	3.0
Tetrachloroethene	ND	5.0	ug/kg	2.0
2-Hexanone	ND	25	ug/kg	10
Dibromochloromethane	ND	5.0	ug/kg	1.0
Chlorobenzene	ND	5.0	ug/kg	2.0
Ethylbenzene	ND	5.0	ug/kg	2.0
Xylenes (total)	ND	5.0	ug/kg	3.0
Styrene	ND	10	ug/kg	2.0
Bromoform	ND	5.0	ug/kg	3.0
Isopropylbenzene	ND	5.0	ug/kg	2.0
p-Isopropyltoluene	ND	5.0	ug/kg	2.0
Bromobenzene	ND	5.0	ug/kg	2.0
1,1,1,2-Tetrachloroethane	ND	5.0	ug/kg	3.0
1,1,2,2-Tetrachloroethane	ND	5.0	ug/kg	3.0
1,2,3-Trichloropropane	ND	5.0	ug/kg	3.0
n-Propylbenzene	ND	5.0	ug/kg	2.0
2-Chlorotoluene	ND	5.0	ug/kg	2.0
4-Chlorotoluene	ND	5.0	ug/kg	2.0
1,3,5-Trimethylbenzene	ND	5.0	ug/kg	2.0
tert-Butylbenzene	ND	5.0	ug/kg	2.0
1,2,4-Trimethylbenzene	ND	5.0	ug/kg	2.0
sec-Butylbenzene	ND	5.0	ug/kg	2.0
1,3-Dichlorobenzene	ND	5.0	ug/kg	2.0
1,4-Dichlorobenzene	ND	5.0	ug/kg	2.0
1,2-Dichlorobenzene	ND	5.0	ug/kg	2.0
n-Butylbenzene	ND	5.0	ug/kg	2.0
1,2-Dibromo-3-chloro-propane	ND	10	ug/kg	3.0
1,2,4-Trichloro-benzene	ND	5.0	ug/kg	2.0
Hexachlorobutadiene	ND	5.0	ug/kg	2.0
1,2,3-Trichlorobenzene	ND	5.0	ug/kg	2.0
t-Butanol	ND	100	ug/kg	50
Isopropyl ether	ND	10	ug/kg	1.0
Tert-amyl methyl ether	ND	10	ug/kg	2.0
Tert-butyl ethyl ether	ND	10	ug/kg	1.0

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Bromofluorobenzene	98	(65 - 135)
1,2-Dichloroethane-d4	92	(60 - 140)
Toluene-d8	98	(70 - 130)

A
34 D

HALEY & ALDRICH INC

2_VEW_18_SSC080102_0001

GC/MS Volatiles

Lot-Sample #: E2H010352-003 Work Order #: E5RGE1AA Matrix: SOLID

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT	RETENTION TIME	UNITS
None				ug/kg

A
3403

HALEY & ALDRICH INC

Client Sample ID: 2_VEW_19_SSA080102_0001

GC/MS Volatiles

Lot-Sample #...: E2H010352-004 Work Order #...: E5RGF1AA Matrix.....: SOLID
Date Sampled...: 08/01/02 10:00 Date Received..: 08/01/02 16:20 MS Run #.....: 2220107
Prep Date.....: 08/02/02 Analysis Date..: 08/02/02
Prep Batch #...: 2220270 Analysis Time..: 21:32
Dilution Factor: 1
Analyst ID.....: 999998 Instrument ID..: MSD
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Dichlorodifluoromethane	ND	10	ug/kg	1.0
Chloromethane	ND	10	ug/kg	3.0
Vinyl chloride	ND	10	ug/kg	2.0
Bromomethane	ND UJ	10	ug/kg	8.0
1,2-Dibromoethane	ND	5.0	ug/kg	3.0
Chloroethane	ND	10	ug/kg	2.0
Trichlorofluoromethane	ND	10	ug/kg	2.0
Acrolein	ND UJ	100	ug/kg	30
1,1-Dichloroethene	ND	5.0	ug/kg	2.0
Iodomethane	ND UJ	10	ug/kg	10
Acetone	ND	25	ug/kg	15
Carbon disulfide	ND	5.0	ug/kg	3.0
Methylene chloride	ND	5.0	ug/kg	3.0
trans-1,2-Dichloroethene	ND	5.0	ug/kg	2.0
Acrylonitrile	ND UJ	100	ug/kg	30
Methyl tert-butyl ether	ND	5.0	ug/kg	1.0
1,1-Dichloroethane	ND	5.0	ug/kg	1.0
Vinyl acetate	ND	10	ug/kg	5.0
2,2-Dichloropropane	ND	5.0	ug/kg	2.0
cis-1,2-Dichloroethene	ND	5.0	ug/kg	2.0
2-Butanone	ND	25	ug/kg	15
Bromochloromethane	ND	5.0	ug/kg	1.0
Chloroform	ND	5.0	ug/kg	1.0
Tetrahydrofuran	ND UJ	20	ug/kg	2.0
1,1,1-Trichloroethane	ND	5.0	ug/kg	1.0
1,1-Dichloropropene	ND	5.0	ug/kg	1.0
Carbon tetrachloride	ND	5.0	ug/kg	1.0
Benzene	ND	5.0	ug/kg	2.0
1,2-Dichloroethane	ND	5.0	ug/kg	1.0
Trichloroethene	ND	5.0	ug/kg	2.0
1,2-Dichloropropane	ND	5.0	ug/kg	1.0
Bromodichloromethane	ND	5.0	ug/kg	1.0
2-Chloroethyl vinyl ether	ND	10	ug/kg	5.0
cis-1,3-Dichloropropene	ND	5.0	ug/kg	1.0
4-Methyl-2-pentanone	ND	25	ug/kg	10
Toluene	ND	5.0	ug/kg	2.0
trans-1,3-Dichloropropene	ND	5.0	ug/kg	3.0

(Continued on next page)

A
3405

HALEY & ALDRICH INC

Client Sample ID: 2_VEW_19_SSA080102_0001

GC/MS Volatiles

Lot-Sample #...: E2H010352-004 Work Order #...: E5RGF1AA Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
1,1,2-Trichloroethane	ND	5.0	ug/kg	3.0
Tetrachloroethene	ND	5.0	ug/kg	2.0
2-Hexanone	ND	25	ug/kg	10
Dibromochloromethane	ND	5.0	ug/kg	1.0
Chlorobenzene	ND	5.0	ug/kg	2.0
Ethylbenzene	ND	5.0	ug/kg	2.0
Xylenes (total)	ND	5.0	ug/kg	3.0
Styrene	ND	10	ug/kg	2.0
Bromoform	ND	5.0	ug/kg	3.0
Isopropylbenzene	ND	5.0	ug/kg	2.0
p-Isopropyltoluene	ND	5.0	ug/kg	2.0
Bromobenzene	ND	5.0	ug/kg	2.0
1,1,1,2-Tetrachloroethane	ND	5.0	ug/kg	3.0
1,1,2,2-Tetrachloroethane	ND	5.0	ug/kg	3.0
1,2,3-Trichloropropane	ND	5.0	ug/kg	3.0
n-Propylbenzene	ND	5.0	ug/kg	2.0
2-Chlorotoluene	ND	5.0	ug/kg	2.0
4-Chlorotoluene	ND	5.0	ug/kg	2.0
1,3,5-Trimethylbenzene	ND	5.0	ug/kg	2.0
tert-Butylbenzene	ND	5.0	ug/kg	2.0
1,2,4-Trimethylbenzene	ND	5.0	ug/kg	2.0
sec-Butylbenzene	ND	5.0	ug/kg	2.0
1,3-Dichlorobenzene	ND	5.0	ug/kg	2.0
1,4-Dichlorobenzene	ND	5.0	ug/kg	2.0
1,2-Dichlorobenzene	ND	5.0	ug/kg	2.0
n-Butylbenzene	ND	5.0	ug/kg	2.0
1,2-Dibromo-3-chloro-propane	ND	10	ug/kg	3.0
1,2,4-Trichloro-benzene	ND	5.0	ug/kg	2.0
Hexachlorobutadiene	ND	5.0	ug/kg	2.0
1,2,3-Trichlorobenzene	ND	5.0	ug/kg	2.0
t-Butanol	ND	100	ug/kg	50
Isopropyl ether	ND	10	ug/kg	1.0
Tert-amyl methyl ether	ND	10	ug/kg	2.0
Tert-butyl ethyl ether	ND	10	ug/kg	1.0

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Bromofluorobenzene	92	(65 - 135)
1,2-Dichloroethane-d4	91	(60 - 140)
Toluene-d8	92	(70 - 130)

A
3-4-07

HALEY & ALDRICH INC

2_VEW_19_SSA000102_0001

GC/MS Volatiles

Lot-Sample #: E2H010352-004 Work Order #: E5RGF1AA Matrix: SOLID

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT	RETENTION TIME	UNITS
None				ug/kg

A
3453

HALEY & ALDRICH INC

Client Sample ID: 2_VEW_19_SSB080102_0001

GC/MS Volatiles

Lot-Sample #...: E2H010352-005 Work Order #...: E5RGK1AA Matrix.....: SOLID
Date Sampled...: 08/01/02 10:00 Date Received..: 08/01/02 16:20 MS Run #.....: 2220107
Prep Date.....: 08/02/02 Analysis Date..: 08/02/02
Prep Batch #...: 2220270 Analysis Time..: 22:33
Dilution Factor: 1
Analyst ID.....: 999998 Instrument ID..: MSD
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Dichlorodifluoromethane	ND	10	ug/kg	1.0
Chloromethane	ND	10	ug/kg	3.0
Vinyl chloride	ND	10	ug/kg	2.0
Bromomethane	ND UJ	10	ug/kg	8.0
1,2-Dibromoethane	ND	5.0	ug/kg	3.0
Chloroethane	ND	10	ug/kg	2.0
Trichlorofluoromethane	ND	10	ug/kg	2.0
Acrolein	ND UJ	100	ug/kg	30
1,1-Dichloroethene	ND	5.0	ug/kg	2.0
Iodomethane	ND UJ	10	ug/kg	10
Acetone	ND	25	ug/kg	15
Carbon disulfide	ND	5.0	ug/kg	3.0
Methylene chloride	ND	5.0	ug/kg	3.0
trans-1,2-Dichloroethene	ND	5.0	ug/kg	2.0
Acrylonitrile	ND UJ	100	ug/kg	30
Methyl tert-butyl ether	ND	5.0	ug/kg	1.0
1,1-Dichloroethane	ND	5.0	ug/kg	1.0
Vinyl acetate	ND	10	ug/kg	5.0
2,2-Dichloropropane	ND	5.0	ug/kg	2.0
cis-1,2-Dichloroethene	ND	5.0	ug/kg	2.0
2-Butanone	ND	25	ug/kg	15
Bromochloromethane	ND	5.0	ug/kg	1.0
Chloroform	ND	5.0	ug/kg	1.0
Tetrahydrofuran	ND UJ	20	ug/kg	2.0
1,1,1-Trichloroethane	ND	5.0	ug/kg	1.0
1,1-Dichloropropene	ND	5.0	ug/kg	1.0
Carbon tetrachloride	ND	5.0	ug/kg	1.0
Benzene	ND	5.0	ug/kg	2.0
1,2-Dichloroethane	ND	5.0	ug/kg	1.0
Trichloroethene	ND	5.0	ug/kg	2.0
1,2-Dichloropropane	ND	5.0	ug/kg	1.0
Bromodichloromethane	ND	5.0	ug/kg	1.0
2-Chloroethyl vinyl ether	ND	10	ug/kg	5.0
cis-1,3-Dichloropropene	ND	5.0	ug/kg	1.0
4-Methyl-2-pentanone	ND	25	ug/kg	10
Toluene	ND	5.0	ug/kg	2.0
trans-1,3-Dichloropropene	ND	5.0	ug/kg	3.0

(Continued on next page)

A
3405

HALEY & ALDRICH INC

Client Sample ID: 2_VEW_19_SSB080102_0001

GC/MS Volatiles

Lot-Sample #...: E2H010352-005 Work Order #...: E5RGK1AA Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
1,1,2-Trichloroethane	ND	5.0	ug/kg	3.0
Tetrachloroethene	ND	5.0	ug/kg	2.0
2-Hexanone	ND	25	ug/kg	10
Dibromochloromethane	ND	5.0	ug/kg	1.0
Chlorobenzene	ND	5.0	ug/kg	2.0
Ethylbenzene	ND	5.0	ug/kg	2.0
Xylenes (total)	ND	5.0	ug/kg	3.0
Styrene	ND	10	ug/kg	2.0
Bromoform	ND	5.0	ug/kg	3.0
Isopropylbenzene	ND	5.0	ug/kg	2.0
p-Isopropyltoluene	ND	5.0	ug/kg	2.0
Bromobenzene	ND	5.0	ug/kg	2.0
1,1,1,2-Tetrachloroethane	ND	5.0	ug/kg	3.0
1,1,2,2-Tetrachloroethane	ND	5.0	ug/kg	3.0
1,2,3-Trichloropropane	ND	5.0	ug/kg	3.0
n-Propylbenzene	ND	5.0	ug/kg	2.0
2-Chlorotoluene	ND	5.0	ug/kg	2.0
4-Chlorotoluene	ND	5.0	ug/kg	2.0
1,3,5-Trimethylbenzene	ND	5.0	ug/kg	2.0
tert-Butylbenzene	ND	5.0	ug/kg	2.0
1,2,4-Trimethylbenzene	ND	5.0	ug/kg	2.0
sec-Butylbenzene	ND	5.0	ug/kg	2.0
1,3-Dichlorobenzene	ND	5.0	ug/kg	2.0
1,4-Dichlorobenzene	ND	5.0	ug/kg	2.0
1,2-Dichlorobenzene	ND	5.0	ug/kg	2.0
n-Butylbenzene	ND	5.0	ug/kg	2.0
1,2-Dibromo-3-chloro-propane	ND	10	ug/kg	3.0
1,2,4-Trichloro-benzene	ND	5.0	ug/kg	2.0
Hexachlorobutadiene	ND	5.0	ug/kg	2.0
1,2,3-Trichlorobenzene	ND	5.0	ug/kg	2.0
t-Butanol	ND	100	ug/kg	50
Isopropyl ether	ND	10	ug/kg	1.0
Tert-amyl methyl ether	ND	10	ug/kg	2.0
Tert-butyl ethyl ether	ND	10	ug/kg	1.0

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Bromofluorobenzene	87	(65 - 135)
1,2-Dichloroethane-d4	93	(60 - 140)
Toluene-d8	92	(70 - 130)

A
3403

HALEY & ALDRICH INC

2_VEW_19_SSB080102_0001

GC/MS Volatiles

Lot-Sample #: E2H010352-005 Work Order #: E5RGK1AA Matrix: SOLID

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT	RETENTION TIME	UNITS
None				ug/kg

A
9/4/07

HALEY & ALDRICH INC

Client Sample ID: 2_VRW_19_SSC080102_0001

GC/MS Volatiles

Lot-Sample #...: E2H010352-006 Work Order #...: E5RGM1AA Matrix.....: SOLID
Date Sampled...: 08/01/02 10:00 Date Received..: 08/01/02 16:20 MS Run #.....: 2220107
Prep Date.....: 08/02/02 Analysis Date..: 08/02/02
Prep Batch #...: 2220270 Analysis Time..: 23:04
Dilution Factor: 1
Analyst ID.....: 999998 Instrument ID..: MSD
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Dichlorodifluoromethane	ND	10	ug/kg	1.0
Chloromethane	ND	10	ug/kg	3.0
Vinyl chloride	ND	10	ug/kg	2.0
Bromomethane	ND UJ	10	ug/kg	8.0
1,2-Dibromoethane	ND	5.0	ug/kg	3.0
Chloroethane	ND	10	ug/kg	2.0
Trichlorofluoromethane	ND	10	ug/kg	2.0
Acrolein	ND UJ	100	ug/kg	30
1,1-Dichloroethene	ND	5.0	ug/kg	2.0
Iodomethane	ND UJ	10	ug/kg	10
Acetone	ND	25	ug/kg	15
Carbon disulfide	ND	5.0	ug/kg	3.0
Methylene chloride	ND	5.0	ug/kg	3.0
trans-1,2-Dichloroethene	ND	5.0	ug/kg	2.0
Acrylonitrile	ND UJ	100	ug/kg	30
Methyl tert-butyl ether	ND	5.0	ug/kg	1.0
1,1-Dichloroethane	ND	5.0	ug/kg	1.0
Vinyl acetate	ND	10	ug/kg	5.0
2,2-Dichloropropane	ND	5.0	ug/kg	2.0
cis-1,2-Dichloroethene	ND	5.0	ug/kg	2.0
2-Butanone	ND	25	ug/kg	15
Bromochloromethane	ND	5.0	ug/kg	1.0
Chloroform	ND	5.0	ug/kg	1.0
Tetrahydrofuran	ND UJ	20	ug/kg	2.0
1,1,1-Trichloroethane	ND	5.0	ug/kg	1.0
1,1-Dichloropropene	ND	5.0	ug/kg	1.0
Carbon tetrachloride	ND	5.0	ug/kg	1.0
Benzene	ND	5.0	ug/kg	2.0
1,2-Dichloroethane	ND	5.0	ug/kg	1.0
Trichloroethene	ND	5.0	ug/kg	2.0
1,2-Dichloropropane	ND	5.0	ug/kg	1.0
Bromodichloromethane	ND	5.0	ug/kg	1.0
2-Chloroethyl vinyl ether	ND	10	ug/kg	5.0
cis-1,3-Dichloropropene	ND	5.0	ug/kg	1.0
4-Methyl-2-pentanone	ND	25	ug/kg	10
Toluene	ND	5.0	ug/kg	2.0
trans-1,3-Dichloropropene	ND	5.0	ug/kg	3.0

(Continued on next page)

A
3403

HALEY & ALDRICH INC

Client Sample ID: 2_VEW_19_SSC080102_0001

GC/MS Volatiles

Lot-Sample #...: E2H010352-006 Work Order #...: E5RGM1AA Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
1,1,2-Trichloroethane	ND	5.0	ug/kg	3.0
Tetrachloroethene	ND	5.0	ug/kg	2.0
2-Hexanone	ND	25	ug/kg	10
Dibromochloromethane	ND	5.0	ug/kg	1.0
Chlorobenzene	ND	5.0	ug/kg	2.0
Ethylbenzene	ND	5.0	ug/kg	2.0
Xylenes (total)	ND	5.0	ug/kg	3.0
Styrene	ND	10	ug/kg	2.0
Bromoform	ND	5.0	ug/kg	3.0
Isopropylbenzene	ND	5.0	ug/kg	2.0
p-Isopropyltoluene	ND	5.0	ug/kg	2.0
Bromobenzene	ND	5.0	ug/kg	2.0
1,1,1,2-Tetrachloroethane	ND	5.0	ug/kg	3.0
1,1,2,2-Tetrachloroethane	ND	5.0	ug/kg	3.0
1,2,3-Trichloropropane	ND	5.0	ug/kg	3.0
n-Propylbenzene	ND	5.0	ug/kg	2.0
2-Chlorotoluene	ND	5.0	ug/kg	2.0
4-Chlorotoluene	ND	5.0	ug/kg	2.0
1,3,5-Trimethylbenzene	ND	5.0	ug/kg	2.0
tert-Butylbenzene	ND	5.0	ug/kg	2.0
1,2,4-Trimethylbenzene	ND	5.0	ug/kg	2.0
sec-Butylbenzene	ND	5.0	ug/kg	2.0
1,3-Dichlorobenzene	ND	5.0	ug/kg	2.0
1,4-Dichlorobenzene	ND	5.0	ug/kg	2.0
1,2-Dichlorobenzene	ND	5.0	ug/kg	2.0
n-Butylbenzene	ND	5.0	ug/kg	2.0
1,2-Dibromo-3-chloro-propane	ND	10	ug/kg	3.0
1,2,4-Trichloro-benzene	ND	5.0	ug/kg	2.0
Hexachlorobutadiene	ND	5.0	ug/kg	2.0
1,2,3-Trichlorobenzene	ND	5.0	ug/kg	2.0
t-Butanol	ND	100	ug/kg	50
Isopropyl ether	ND	10	ug/kg	1.0
Tert-amyl methyl ether	ND	10	ug/kg	2.0
Tert-butyl ethyl ether	ND	10	ug/kg	1.0

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Bromofluorobenzene	90	(65 - 135)
1,2-Dichloroethane-d4	99	(60 - 140)
Toluene-d8	91	(70 - 130)

A
3-4-07

HALEY & ALDRICH INC

2_VEW_19_SSC080102_0001

GC/MS Volatiles

Lot-Sample #: E2H010352-006 Work Order #: E5RGM1AA Matrix: SOLID

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT	RETENTION TIME	UNITS
None				ug/kg

A
3407

HALEY & ALDRICH INC

Client Sample ID: 2_VEW_20_SSA080102_0001

GC/MS Volatiles

Lot-Sample #...: E2H010352-007 Work Order #...: E5RGN1AA Matrix.....: SOLID
Date Sampled...: 08/01/02 10:00 Date Received..: 08/01/02 16:20 MS Run #.....: 2220089
Prep Date.....: 08/07/02 Analysis Date..: 08/07/02
Prep Batch #...: 2220252 Analysis Time..: 12:59
Dilution Factor: 1
Analyst ID.....: 999998 Instrument ID..: MSD
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Dichlorodifluoromethane	ND	10	ug/kg	1.0
Chloromethane	ND	10	ug/kg	3.0
Vinyl chloride	ND	10	ug/kg	2.0
Bromomethane	ND UJ	10	ug/kg	8.0
1,2-Dibromoethane	ND	5.0	ug/kg	3.0
Chloroethane	ND	10	ug/kg	2.0
Trichlorofluoromethane	ND	10	ug/kg	2.0
Acrolein	ND ~~UJ~~ R	100	ug/kg	30
1,1-Dichloroethene	ND	5.0	ug/kg	2.0
Iodomethane	ND UJ	10	ug/kg	10
Acetone	ND	25	ug/kg	15
Carbon disulfide	ND	5.0	ug/kg	3.0
Methylene chloride	ND	5.0	ug/kg	3.0
trans-1,2-Dichloroethene	ND	5.0	ug/kg	2.0
Acrylonitrile	ND ~~UJ~~ R	100	ug/kg	30
Methyl tert-butyl ether	ND	5.0	ug/kg	1.0
1,1-Dichloroethane	ND	5.0	ug/kg	1.0
Vinyl acetate	ND	10	ug/kg	5.0
2,2-Dichloropropane	ND	5.0	ug/kg	2.0
cis-1,2-Dichloroethene	ND	5.0	ug/kg	2.0
2-Butanone	ND	25	ug/kg	15
Bromochloromethane	ND	5.0	ug/kg	1.0
Chloroform	ND	5.0	ug/kg	1.0
Tetrahydrofuran	ND UJ	20	ug/kg	2.0
1,1,1-Trichloroethane	ND	5.0	ug/kg	1.0
1,1-Dichloropropene	ND	5.0	ug/kg	1.0
Carbon tetrachloride	ND	5.0	ug/kg	1.0
Benzene	ND	5.0	ug/kg	2.0
1,2-Dichloroethane	ND	5.0	ug/kg	1.0
Trichloroethene	ND	5.0	ug/kg	2.0
1,2-Dichloropropane	ND	5.0	ug/kg	1.0
Bromodichloromethane	ND	5.0	ug/kg	1.0
2-Chloroethyl vinyl ether	ND R	10	ug/kg	5.0
cis-1,3-Dichloropropene	ND	5.0	ug/kg	1.0
4-Methyl-2-pentanone	ND	25	ug/kg	10
Toluene	ND	5.0	ug/kg	2.0
trans-1,3-Dichloropropene	ND	5.0	ug/kg	3.0

(Continued on next page)

A
3407

HALEY & ALDRICH INC

Client Sample ID: 2_VEW_20_SSA080102_0001

GC/MS Volatiles

Lot-Sample #...: E2H010352-007 Work Order #...: E5RGN1AA Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
1,1,2-Trichloroethane	ND	5.0	ug/kg	3.0
Tetrachloroethene	ND	5.0	ug/kg	2.0
2-Hexanone	ND	25	ug/kg	10
Dibromochloromethane	ND	5.0	ug/kg	1.0
Chlorobenzene	ND	5.0	ug/kg	2.0
Ethylbenzene	ND	5.0	ug/kg	2.0
Xylenes (total)	ND	5.0	ug/kg	3.0
Styrene	ND	10	ug/kg	2.0
Bromoform	ND	5.0	ug/kg	3.0
Isopropylbenzene	ND	5.0	ug/kg	2.0
p-Isopropyltoluene	ND	5.0	ug/kg	2.0
Bromobenzene	ND	5.0	ug/kg	2.0
1,1,1,2-Tetrachloroethane	ND	5.0	ug/kg	3.0
1,1,2,2-Tetrachloroethane	ND	5.0	ug/kg	3.0
1,2,3-Trichloropropane	ND	5.0	ug/kg	3.0
n-Propylbenzene	ND	5.0	ug/kg	2.0
2-Chlorotoluene	ND	5.0	ug/kg	2.0
4-Chlorotoluene	ND	5.0	ug/kg	2.0
1,3,5-Trimethylbenzene	ND	5.0	ug/kg	2.0
tert-Butylbenzene	ND	5.0	ug/kg	2.0
1,2,4-Trimethylbenzene	ND	5.0	ug/kg	2.0
sec-Butylbenzene	ND	5.0	ug/kg	2.0
1,3-Dichlorobenzene	ND	5.0	ug/kg	2.0
1,4-Dichlorobenzene	ND	5.0	ug/kg	2.0
1,2-Dichlorobenzene	ND	5.0	ug/kg	2.0
n-Butylbenzene	ND	5.0	ug/kg	2.0
1,2-Dibromo-3-chloro-propane	ND	10	ug/kg	3.0
1,2,4-Trichloro-benzene	ND	5.0	ug/kg	2.0
Hexachlorobutadiene	ND	5.0	ug/kg	2.0
1,2,3-Trichlorobenzene	ND	5.0	ug/kg	2.0
t-Butanol	ND	100	ug/kg	50
Isopropyl ether	ND	10	ug/kg	1.0
Tert-amyl methyl ether	ND	10	ug/kg	2.0
Tert-butyl ethyl ether	ND	10	ug/kg	1.0

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Bromofluorobenzene	96	(65 - 135)
1,2-Dichloroethane-d4	75	(60 - 140)
Toluene d8	72	(70 - 130)

A
3407

HALEY & ALDRICH INC

2 VEW 20 SSA080102 0001

GC/MS Volatiles

Lot-Sample #: E2H010352-007 Work Order #: E5RGN1AA Matrix: SOLID

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT	RETENTION TIME	UNITS
None				ug/kg

A
3/5/07

HALEY & ALDRICH INC

Client Sample ID: 2_VEW_20_SSB080102_0001

GC/MS Volatiles

Lot-Sample #...: E2H010352-008 Work Order #...: E5RGQ1AA Matrix.....: SOLID
Date Sampled...: 08/01/02 10:00 Date Received..: 08/01/02 16:20 MS Run #.....: 2220107
Prep Date.....: 08/02/02 Analysis Date..: 08/03/02
Prep Batch #...: 2220270 Analysis Time..: 00:04
Dilution Factor: 1
Analyst ID.....: 999998 Instrument ID..: MSD
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Dichlorodifluoromethane	ND	10	ug/kg	1.0
Chloromethane	ND	10	ug/kg	3.0
Vinyl chloride	ND	10	ug/kg	2.0
Bromomethane	ND UJ	10	ug/kg	8.0
1,2-Dibromoethane	ND	5.0	ug/kg	3.0
Chloroethane	ND	10	ug/kg	2.0
Trichlorofluoromethane	ND	10	ug/kg	2.0
Acrolein	ND UJ	100	ug/kg	30
1,1-Dichloroethene	ND	5.0	ug/kg	2.0
Iodomethane	ND UJ	10	ug/kg	10
Acetone	ND	25	ug/kg	15
Carbon disulfide	ND	5.0	ug/kg	3.0
Methylene chloride	ND	5.0	ug/kg	3.0
trans-1,2-Dichloroethene	ND	5.0	ug/kg	2.0
Acrylonitrile	ND UJ	100	ug/kg	30
Methyl tert-butyl ether	ND	5.0	ug/kg	1.0
1,1-Dichloroethane	ND	5.0	ug/kg	1.0
Vinyl acetate	ND	10	ug/kg	5.0
2,2-Dichloropropane	ND	5.0	ug/kg	2.0
cis-1,2-Dichloroethene	ND	5.0	ug/kg	2.0
2-Butanone	ND	25	ug/kg	15
Bromochloromethane	ND	5.0	ug/kg	1.0
Chloroform	ND	5.0	ug/kg	1.0
Tetrahydrofuran	ND UJ	20	ug/kg	2.0
1,1,1-Trichloroethane	ND	5.0	ug/kg	1.0
1,1-Dichloropropene	ND	5.0	ug/kg	1.0
Carbon tetrachloride	ND	5.0	ug/kg	1.0
Benzene	ND	5.0	ug/kg	2.0
1,2-Dichloroethane	ND	5.0	ug/kg	1.0
Trichloroethene	ND	5.0	ug/kg	2.0
1,2-Dichloropropane	ND	5.0	ug/kg	1.0
Bromodichloromethane	ND	5.0	ug/kg	1.0
2-Chloroethyl vinyl ether	ND	10	ug/kg	5.0
cis-1,3-Dichloropropene	ND	5.0	ug/kg	1.0
4-Methyl-2-pentanone	ND	25	ug/kg	10
Toluene	ND	5.0	ug/kg	2.0
trans-1,3-Dichloropropene	ND	5.0	ug/kg	3.0

(Continued on next page)

A 3/4/03

HALEY & ALDRICH INC

Client Sample ID: 2_VRW_20_SSB080102_0001

GC/MS Volatiles

Lot-Sample #....: E2H010352-008 Work Order #...: E5RGQ1AA Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
1,1,2-Trichloroethane	ND	5.0	ug/kg	3.0
Tetrachloroethene	ND	5.0	ug/kg	2.0
2-Hexanone	ND	25	ug/kg	10
Dibromochloromethane	ND	5.0	ug/kg	1.0
Chlorobenzene	ND	5.0	ug/kg	2.0
Ethylbenzene	ND	5.0	ug/kg	2.0
Xylenes (total)	ND	5.0	ug/kg	3.0
Styrene	ND	10	ug/kg	2.0
Bromoform	ND	5.0	ug/kg	3.0
Isopropylbenzene	ND	5.0	ug/kg	2.0
p-Isopropyltoluene	ND	5.0	ug/kg	2.0
Bromobenzene	ND	5.0	ug/kg	2.0
1,1,1,2-Tetrachloroethane	ND	5.0	ug/kg	3.0
1,1,2,2-Tetrachloroethane	ND	5.0	ug/kg	3.0
1,2,3-Trichloropropane	ND	5.0	ug/kg	3.0
n-Propylbenzene	ND	5.0	ug/kg	2.0
2-Chlorotoluene	ND	5.0	ug/kg	2.0
4-Chlorotoluene	ND	5.0	ug/kg	2.0
1,3,5-Trimethylbenzene	ND	5.0	ug/kg	2.0
tert-Butylbenzene	ND	5.0	ug/kg	2.0
1,2,4-Trimethylbenzene	ND	5.0	ug/kg	2.0
sec-Butylbenzene	ND	5.0	ug/kg	2.0
1,3-Dichlorobenzene	ND	5.0	ug/kg	2.0
1,4-Dichlorobenzene	ND	5.0	ug/kg	2.0
1,2-Dichlorobenzene	ND	5.0	ug/kg	2.0
n-Butylbenzene	ND	5.0	ug/kg	2.0
1,2-Dibromo-3-chloro-propane	ND	10	ug/kg	3.0
1,2,4-Trichloro-benzene	ND	5.0	ug/kg	2.0
Hexachlorobutadiene	ND	5.0	ug/kg	2.0
1,2,3-Trichlorobenzene	ND	5.0	ug/kg	2.0
t-Butanol	ND	100	ug/kg	50
Isopropyl ether	ND	10	ug/kg	1.0
Tert-amyl methyl ether	ND	10	ug/kg	2.0
Tert-butyl ethyl ether	ND	10	ug/kg	1.0

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Bromofluorobenzene	93	(65 - 135)
1,2-Dichloroethane-d4	103	(60 - 140)
Toluene-d8	93	(70 - 130)

A
3403

HALEY & ALDRICH INC

2_VEW_20_SSB080102_0001

GC/MS Volatiles

Lot-Sample #: E2H010352-008 Work Order #: E5RGQ1AA Matrix: SOLID

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT	RETENTION TIME	UNITS
None				ug/kg

A
3407

HALEY & ALDRICH INC

Client Sample ID: 2_VEW_20_SSC080102_0001

GC/MS Volatiles

Lot-Sample #...: E2H010352-009 Work Order #...: E5RGR1AA Matrix.....: SOLID
Date Sampled...: 08/01/02 10:00 Date Received..: 08/01/02 16:20 MS Run #.....: 2220107
Prep Date.....: 08/02/02 Analysis Date..: 08/03/02
Prep Batch #...: 2220270 Analysis Time..: 00:35
Dilution Factor: 1
Analyst ID.....: 999998 Instrument ID..: MSD
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Dichlorodifluoromethane	ND	10	ug/kg	1.0
Chloromethane	ND	10	ug/kg	3.0
Vinyl chloride	ND	10	ug/kg	2.0
Bromomethane	ND UJ	10	ug/kg	8.0
1,2-Dibromoethane	ND	5.0	ug/kg	3.0
Chloroethane	ND	10	ug/kg	2.0
Trichlorofluoromethane	ND	10	ug/kg	2.0
Acrolein	ND UJ	100	ug/kg	30
1,1-Dichloroethene	ND	5.0	ug/kg	2.0
Iodomethane	ND UJ	10	ug/kg	10
Acetone	ND	25	ug/kg	15
Carbon disulfide	ND	5.0	ug/kg	3.0
Methylene chloride	ND	5.0	ug/kg	3.0
trans-1,2-Dichloroethene	ND	5.0	ug/kg	2.0
Acrylonitrile	ND UJ	100	ug/kg	30
Methyl tert-butyl ether	ND	5.0	ug/kg	1.0
1,1-Dichloroethane	ND	5.0	ug/kg	1.0
Vinyl acetate	ND	10	ug/kg	5.0
2,2-Dichloropropane	ND	5.0	ug/kg	2.0
cis-1,2-Dichloroethene	ND	5.0	ug/kg	2.0
2-Butanone	ND	25	ug/kg	15
Bromochloromethane	ND	5.0	ug/kg	1.0
Chloroform	ND	5.0	ug/kg	1.0
Tetrahydrofuran	ND UJ	20	ug/kg	2.0
1,1,1-Trichloroethane	ND	5.0	ug/kg	1.0
1,1-Dichloropropene	ND	5.0	ug/kg	1.0
Carbon tetrachloride	ND	5.0	ug/kg	1.0
Benzene	ND	5.0	ug/kg	2.0
1,2-Dichloroethane	1.2 J	5.0	ug/kg	1.0
Trichloroethene	ND	5.0	ug/kg	2.0
1,2-Dichloropropane	ND	5.0	ug/kg	1.0
Bromodichloromethane	ND	5.0	ug/kg	1.0
2-Chloroethyl vinyl ether	ND	10	ug/kg	5.0
cis-1,3-Dichloropropene	ND	5.0	ug/kg	1.0
4-Methyl-2-pentanone	ND	25	ug/kg	10
Toluene	ND	5.0	ug/kg	2.0
trans-1,3-Dichloropropene	ND	5.0	ug/kg	3.0

(Continued on next page)

A
3403

HALEY & ALDRICH INC

Client Sample ID: 2_VEW_20_SSC080102_0001

GC/MS Volatiles

Lot-Sample #...: E2H010352-009 Work Order #...: E5RGR1AA Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
1,1,2-Trichloroethane	4.9 J	5.0	ug/kg	3.0
Tetrachloroethene	ND	5.0	ug/kg	2.0
2-Hexanone	ND	25	ug/kg	10
Dibromochloromethane	ND	5.0	ug/kg	1.0
Chlorobenzene	ND	5.0	ug/kg	2.0
Ethylbenzene	ND	5.0	ug/kg	2.0
Xylenes (total)	ND	5.0	ug/kg	3.0
Styrene	ND	10	ug/kg	2.0
Bromoform	ND	5.0	ug/kg	3.0
Isopropylbenzene	ND	5.0	ug/kg	2.0
p-Isopropyltoluene	ND	5.0	ug/kg	2.0
Bromobenzene	ND	5.0	ug/kg	3.0
1,1,1,2-Tetrachloroethane	ND	5.0	ug/kg	3.0
1,1,2,2-Tetrachloroethane	ND	5.0	ug/kg	3.0
1,2,3-Trichloropropane	ND	5.0	ug/kg	2.0
n-Propylbenzene	ND	5.0	ug/kg	2.0
2-Chlorotoluene	ND	5.0	ug/kg	2.0
4-Chlorotoluene	ND	5.0	ug/kg	2.0
1,3,5-Trimethylbenzene	ND	5.0	ug/kg	2.0
tert-Butylbenzene	ND	5.0	ug/kg	2.0
1,2,4-Trimethylbenzene	ND	5.0	ug/kg	2.0
sec-Butylbenzene	ND	5.0	ug/kg	2.0
1,3-Dichlorobenzene	ND	5.0	ug/kg	2.0
1,4-Dichlorobenzene	ND	5.0	ug/kg	2.0
1,2-Dichlorobenzene	ND	5.0	ug/kg	2.0
n-Butylbenzene	ND	5.0	ug/kg	2.0
1,2-Dibromo-3-chloro-propane	ND	10	ug/kg	3.0
1,2,4-Trichloro-benzene	ND	5.0	ug/kg	2.0
Hexachlorobutadiene	ND	5.0	ug/kg	2.0
1,2,3-Trichlorobenzene	ND	5.0	ug/kg	2.0
t-Butanol	ND	100	ug/kg	50
Isopropyl ether	ND	10	ug/kg	1.0
Tert-amyl methyl ether	ND	10	ug/kg	2.0
Tert-butyl ethyl ether	ND	10	ug/kg	1.0

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Bromofluorobenzene	94	(65 - 135)
1,2-Dichloroethane-d4	102	(60 - 140)
Toluene-d8	94	(70 - 130)

NOTE(S):

J Estimated result. Result is less than RL.

A
9407

HALEY & ALDRICH INC

2 VEW_20_SSC080102_0001

GC/MS Volatiles

Lot-Sample #: E2H010352-009 Work Order #: E5RGR1AA Matrix: SOLID

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT	RETENTION TIME	UNITS
None				ug/kg

A
3407

HALEY & ALDRICH INC

Client Sample ID: SB1000_SSA080102_0001

GC/MS Volatiles

Lot-Sample #...: E2H010352-010 Work Order #...: E5RGV1AA Matrix.....: SOLID
Date Sampled...: 08/01/02 09:00 Date Received..: 08/01/02 16:20 MS Run #.....: 2220107
Prep Date.....: 08/02/02 Analysis Date..: 08/03/02
Prep Batch #...: 2220270 Analysis Time..: 01:05
Dilution Factor: 1
Analyst ID.....: 999998 Instrument ID..: MSD
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Dichlorodifluoromethane	ND	10	ug/kg	1.0
Chloromethane	ND	10	ug/kg	3.0
Vinyl chloride	ND	10	ug/kg	2.0
Bromomethane	ND UJ	10	ug/kg	8.0
1,2 Dibromoethane	ND	5.0	ug/kg	3.0
Chloroethane	ND	10	ug/kg	2.0
Trichlorofluoromethane	ND	10	ug/kg	2.0
Acrolein	ND UJ	100	ug/kg	30
1,1-Dichloroethene	ND	5.0	ug/kg	2.0
Iodomethane	ND UJ	10	ug/kg	10
Acetone	ND	25	ug/kg	15
Carbon disulfide	ND	5.0	ug/kg	3.0
Methylene chloride	ND	5.0	ug/kg	3.0
trans-1,2-Dichloroethene	ND	5.0	ug/kg	2.0
Acrylonitrile	ND UJ	100	ug/kg	30
Methyl tert-butyl ether	ND	5.0	ug/kg	1.0
1,1-Dichloroethane	ND	5.0	ug/kg	1.0
Vinyl acetate	ND	10	ug/kg	5.0
2,2-Dichloropropane	ND	5.0	ug/kg	2.0
cis-1,2-Dichloroethene	ND	5.0	ug/kg	2.0
2-Butanone	ND	25	ug/kg	15
Bromochloromethane	ND	5.0	ug/kg	1.0
Chloroform	ND	5.0	ug/kg	1.0
Tetrahydrofuran	ND UJ	20	ug/kg	2.0
1,1,1-Trichloroethane	ND	5.0	ug/kg	1.0
1,1-Dichloropropene	ND	5.0	ug/kg	1.0
Carbon tetrachloride	ND	5.0	ug/kg	1.0
Benzene	ND	5.0	ug/kg	2.0
1,2-Dichloroethane	ND	5.0	ug/kg	1.0
Trichloroethene	ND	5.0	ug/kg	2.0
1,2-Dichloropropane	ND	5.0	ug/kg	1.0
Bromodichloromethane	ND	5.0	ug/kg	1.0
2-Chloroethyl vinyl ether	ND	10	ug/kg	5.0
cis-1,3-Dichloropropene	ND	5.0	ug/kg	1.0
4-Methyl-2-pentanone	ND	25	ug/kg	10
Toluene	ND	5.0	ug/kg	2.0
trans-1,3-Dichloropropene	ND	5.0	ug/kg	3.0

(Continued on next page)

A
7403

HALEY & ALDRICH INC

Client Sample ID: SB1000_SSA080102_0001

GC/MS Volatiles

Lot-Sample #...: E2H010352-010 Work Order #...: E5RGV1AA Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
1,1,2-Trichloroethane	ND	5.0	ug/kg	3.0
Tetrachloroethene	ND	5.0	ug/kg	2.0
2-Hexanone	ND	25	ug/kg	10
Dibromochloromethane	ND	5.0	ug/kg	1.0
Chlorobenzene	ND	5.0	ug/kg	2.0
Ethylbenzene	ND	5.0	ug/kg	2.0
Xylenes (total)	ND	5.0	ug/kg	3.0
Styrene	ND	10	ug/kg	2.0
Bromoform	ND	5.0	ug/kg	3.0
Isopropylbenzene	ND	5.0	ug/kg	2.0
p-Isopropyltoluene	ND	5.0	ug/kg	2.0
Bromobenzene	ND	5.0	ug/kg	2.0
1,1,1,2-Tetrachloroethane	ND	5.0	ug/kg	3.0
1,1,2,2-Tetrachloroethane	ND	5.0	ug/kg	3.0
1,2,3-Trichloropropane	ND	5.0	ug/kg	3.0
n-Propylbenzene	ND	5.0	ug/kg	2.0
2-Chlorotoluene	ND	5.0	ug/kg	2.0
4-Chlorotoluene	ND	5.0	ug/kg	2.0
1,3,5-Trimethylbenzene	ND	5.0	ug/kg	2.0
tert-Butylbenzene	ND	5.0	ug/kg	2.0
1,2,4-Trimethylbenzene	ND	5.0	ug/kg	2.0
sec-Butylbenzene	ND	5.0	ug/kg	2.0
1,3-Dichlorobenzene	ND	5.0	ug/kg	2.0
1,4-Dichlorobenzene	ND	5.0	ug/kg	2.0
1,2-Dichlorobenzene	ND	5.0	ug/kg	2.0
n-Butylbenzene	ND	5.0	ug/kg	2.0
1,2-Dibromo-3-chloro-propane	ND	10	ug/kg	3.0
1,2,4-Trichloro-benzene	ND	5.0	ug/kg	2.0
Hexachlorobutadiene	ND	5.0	ug/kg	2.0
1,2,3-Trichlorobenzene	ND	5.0	ug/kg	2.0
t-Butanol	ND	100	ug/kg	50
Isopropyl ether	ND	10	ug/kg	1.0
Tert-amyl methyl ether	ND	10	ug/kg	2.0
Tert-butyl ethyl ether	ND	10	ug/kg	1.0

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Bromofluorobenzene	88	(65 - 135)
1,2-Dichloroethane-d4	99	(60 - 140)
Toluene-d8	90	(70 - 130)

A
3403

HALEY & ALDRICH INC

SB1000_SSA080102_0001

GC/MS Volatiles

Lot-Sample #: E2H010352-010 Work Order #: E5RGV1AA Matrix: SOLID

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT	RETENTION TIME	UNITS
None				ug/kg

A
3403

HALEY & ALDRICH INC

Client Sample ID: SB1000_SSB080102_0001

GC/MS Volatiles

Lot-Sample #...: E2H010352-011 Work Order #...: E5RG11AA Matrix.....: SOLID
Date Sampled...: 08/01/02 09:00 Date Received..: 08/01/02 16:20 MS Run #.....: 2220107
Prep Date.....: 08/02/02 Analysis Date..: 08/03/02
Prep Batch #...: 2220270 Analysis Time..: 01:35
Dilution Factor: 1
Analyst ID.....: 999998 Instrument ID..: MSD
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Dichlorodifluoromethane	ND	10	ug/kg	1.0
Chloromethane	ND	10	ug/kg	3.0
Vinyl chloride	ND	10	ug/kg	2.0
Bromomethane	ND UJ	10	ug/kg	8.0
1,2-Dibromoethane	ND	5.0	ug/kg	3.0
Chloroethane	ND	10	ug/kg	2.0
Trichlorofluoromethane	ND	10	ug/kg	2.0
Acrolein	ND UJ	100	ug/kg	30
1,1-Dichloroethene	ND	5.0	ug/kg	2.0
Iodomethane	ND UJ	10	ug/kg	10
Acetone	ND	25	ug/kg	15
Carbon disulfide	ND	5.0	ug/kg	3.0
Methylene chloride	ND	5.0	ug/kg	3.0
trans-1,2-Dichloroethene	ND	5.0	ug/kg	2.0
Acrylonitrile	ND UJ	100	ug/kg	30
Methyl tert-butyl ether	ND	5.0	ug/kg	1.0
1,1-Dichloroethane	ND	5.0	ug/kg	1.0
Vinyl acetate	ND	10	ug/kg	5.0
2,2-Dichloropropane	ND	5.0	ug/kg	2.0
cis-1,2-Dichloroethene	ND	5.0	ug/kg	2.0
2-Butanone	ND	25	ug/kg	15
Bromochloromethane	ND	5.0	ug/kg	1.0
Chloroform	ND	5.0	ug/kg	1.0
Tetrahydrofuran	ND UJ	20	ug/kg	2.0
1,1,1-Trichloroethane	ND	5.0	ug/kg	1.0
1,1-Dichloropropene	ND	5.0	ug/kg	1.0
Carbon tetrachloride	ND	5.0	ug/kg	1.0
Benzene	ND	5.0	ug/kg	2.0
1,2-Dichloroethane	ND	5.0	ug/kg	1.0
Trichloroethene	ND	5.0	ug/kg	2.0
1,2-Dichloropropane	ND	5.0	ug/kg	1.0
Bromodichloromethane	ND	5.0	ug/kg	1.0
2-Chloroethyl vinyl ether	ND	10	ug/kg	5.0
cis-1,3-Dichloropropene	ND	5.0	ug/kg	1.0
4-Methyl-2-pentanone	ND	25	ug/kg	10
Toluene	ND	5.0	ug/kg	2.0
trans-1,3-Dichloropropene	ND	5.0	ug/kg	3.0

(Continued on next page)

A
3403

HALEY & ALDRICH INC

Client Sample ID: SD1000_SSB080102_0001

GC/MS Volatiles

Lot-Sample #...: E2H010352-011 Work Order #...: E5RG11AA Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
1,1,2-Trichloroethane	ND	5.0	ug/kg	3.0
Tetrachloroethene	ND	5.0	ug/kg	2.0
2-Hexanone	ND	25	ug/kg	10
Dibromochloromethane	ND	5.0	ug/kg	1.0
Chlorobenzene	ND	5.0	ug/kg	2.0
Ethylbenzene	ND	5.0	ug/kg	2.0
Xylenes (total)	ND	5.0	ug/kg	3.0
Styrene	ND	10	ug/kg	2.0
Bromoform	ND	5.0	ug/kg	3.0
Isopropylbenzene	ND	5.0	ug/kg	2.0
p-Isopropyltoluene	ND	5.0	ug/kg	2.0
Bromobenzene	ND	5.0	ug/kg	2.0
1,1,1,2-Tetrachloroethane	ND	5.0	ug/kg	3.0
1,1,2,2-Tetrachloroethane	ND	5.0	ug/kg	3.0
1,2,3-Trichloropropane	ND	5.0	ug/kg	3.0
n-Propylbenzene	ND	5.0	ug/kg	2.0
2-Chlorotoluene	ND	5.0	ug/kg	2.0
4-Chlorotoluene	ND	5.0	ug/kg	2.0
1,3,5-Trimethylbenzene	ND	5.0	ug/kg	2.0
tert-Butylbenzene	ND	5.0	ug/kg	2.0
1,2,4-Trimethylbenzene	ND	5.0	ug/kg	2.0
sec-Butylbenzene	ND	5.0	ug/kg	2.0
1,3-Dichlorobenzene	ND	5.0	ug/kg	2.0
1,4-Dichlorobenzene	ND	5.0	ug/kg	2.0
1,2-Dichlorobenzene	ND	5.0	ug/kg	2.0
n-Butylbenzene	ND	5.0	ug/kg	2.0
1,2-Dibromo-3-chloro-propane	ND	10	ug/kg	3.0
1,2,4-Trichloro-benzene	ND	5.0	ug/kg	2.0
Hexachlorobutadiene	ND	5.0	ug/kg	2.0
1,2,3-Trichlorobenzene	ND	5.0	ug/kg	2.0
t-Butanol	ND	100	ug/kg	50
Isopropyl ether	ND	10	ug/kg	1.0
Tert-amyl methyl ether	ND	10	ug/kg	2.0
Tert-butyl ethyl ether	ND	10	ug/kg	1.0

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Bromofluorobenzene	91	(65 - 135)
1,2-Dichloroethane-d4	112	(60 - 140)
Toluene-d8	94	(70 - 130)

A
3/4/07

HALEY & ALDRICH INC

SB1000_SSB080102_0001

GC/MS Volatiles

Lot-Sample #: E2H010352-011 Work Order #: E5RG11AA Matrix: SOLID

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT	RETENTION TIME	UNITS
None				ug/kg

A
7/4/03

HALEY & ALDRICH INC

Client Sample ID: SB1000_SSC080102_0001

GC/MS Volatiles

Lot-Sample #...: E2H010352-012 Work Order #...: E5RG41AA Matrix.....: SOLID
Date Sampled...: 08/01/02 09:00 Date Received..: 08/01/02 16:20 MS Run #.....: 2220107
Prep Date.....: 08/02/02 Analysis Date..: 08/03/02
Prep Batch #...: 2220270 Analysis Time..: 02:06
Dilution Factor: 1
Analyst ID.....: 999998 Instrument ID..: MSD
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Dichlorodifluoromethane	ND	10	ug/kg	1.0
Chloromethane	ND	10	ug/kg	3.0
Vinyl chloride	ND	10	ug/kg	2.0
Bromomethane	ND UJ	10	ug/kg	8.0
1,2-Dibromoethane	ND	5.0	ug/kg	3.0
Chloroethane	ND	10	ug/kg	2.0
Trichlorofluoromethane	ND	10	ug/kg	2.0
Acrolein	ND UJ	100	ug/kg	30
1,1-Dichloroethene	ND	5.0	ug/kg	2.0
Iodomethane	ND UJ	10	ug/kg	10
Acetone	ND	25	ug/kg	15
Carbon disulfide	ND	5.0	ug/kg	3.0
Methylene chloride	ND	5.0	ug/kg	3.0
trans-1,2-Dichloroethene	ND	5.0	ug/kg	2.0
Acrylonitrile	ND UJ	100	ug/kg	30
Methyl tert-butyl ether	ND	5.0	ug/kg	1.0
1,1-Dichloroethane	ND	5.0	ug/kg	1.0
Vinyl acetate	ND	10	ug/kg	5.0
2,2-Dichloropropane	ND	5.0	ug/kg	2.0
cis-1,2-Dichloroethene	ND	5.0	ug/kg	2.0
2-Butanone	ND	25	ug/kg	15
Bromochloromethane	ND	5.0	ug/kg	1.0
Chloroform	ND	5.0	ug/kg	1.0
Tetrahydrofuran	ND UJ	20	ug/kg	2.0
1,1,1-Trichloroethane	ND	5.0	ug/kg	1.0
1,1-Dichloropropene	ND	5.0	ug/kg	1.0
Carbon tetrachloride	ND	5.0	ug/kg	1.0
Benzene	ND	5.0	ug/kg	2.0
1,2-Dichloroethane	ND	5.0	ug/kg	1.0
Trichloroethene	**3.6 J**	**5.0**	**ug/kg**	**2.0**
1,2-Dichloropropane	ND	5.0	ug/kg	1.0
Bromodichloromethane	ND	5.0	ug/kg	1.0
2-Chloroethyl vinyl ether	ND	10	ug/kg	5.0
cis-1,3-Dichloropropene	ND	5.0	ug/kg	1.0
4-Methyl-2-pentanone	ND	25	ug/kg	10
Toluene	ND	5.0	ug/kg	2.0
trans-1,3-Dichloropropene	ND	5.0	ug/kg	3.0

(Continued on next page)

A
2403

HALEY & ALDRICH INC

Client Sample ID: SB1000_SSC080102_0001

GC/MS Volatiles

Lot-Sample #...: E2H010352-012 Work Order #...: E5RG41AA Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
1,1,2-Trichloroethane	ND	5.0	ug/kg	3.0
Tetrachloroethene	ND	5.0	ug/kg	2.0
2-Hexanone	ND	25	ug/kg	10
Dibromochloromethane	ND	5.0	ug/kg	1.0
Chlorobenzene	ND	5.0	ug/kg	2.0
Ethylbenzene	ND	5.0	ug/kg	2.0
Xylenes (total)	ND	5.0	ug/kg	3.0
Styrene	ND	10	ug/kg	2.0
Bromoform	ND	5.0	ug/kg	3.0
Isopropylbenzene	ND	5.0	ug/kg	2.0
p-Isopropyltoluene	ND	5.0	ug/kg	2.0
Bromobenzene	ND	5.0	ug/kg	2.0
1,1,1,2-Tetrachloroethane	ND	5.0	ug/kg	3.0
1,1,2,2-Tetrachloroethane	ND	5.0	ug/kg	3.0
1,2,3-Trichloropropane	ND	5.0	ug/kg	3.0
n-Propylbenzene	ND	5.0	ug/kg	2.0
2-Chlorotoluene	ND	5.0	ug/kg	2.0
4-Chlorotoluene	ND	5.0	ug/kg	2.0
1,3,5-Trimethylbenzene	ND	5.0	ug/kg	2.0
tert-Butylbenzene	ND	5.0	ug/kg	2.0
1,2,4-Trimethylbenzene	ND	5.0	ug/kg	2.0
sec-Butylbenzene	ND	5.0	ug/kg	2.0
1,3-Dichlorobenzene	ND	5.0	ug/kg	2.0
1,4-Dichlorobenzene	ND	5.0	ug/kg	2.0
1,2-Dichlorobenzene	ND	5.0	ug/kg	2.0
n-Butylbenzene	ND	5.0	ug/kg	2.0
1,2-Dibromo-3-chloro-propane	ND	10	ug/kg	3.0
1,2,4-Trichloro-benzene	ND	5.0	ug/kg	2.0
Hexachlorobutadiene	ND	5.0	ug/kg	2.0
1,2,3-Trichlorobenzene	ND	5.0	ug/kg	2.0
t-Butanol	ND	100	ug/kg	50
Isopropyl ether	ND	10	ug/kg	1.0
Tert-amyl methyl ether	ND	10	ug/kg	2.0
Tert-butyl ethyl ether	ND	10	ug/kg	1.0

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Bromofluorobenzene	91	(65 - 135)
1,2-Dichloroethane-d4	110	(60 - 140)
Toluene-d8	93	(70 - 130)

NOTE(S):

J Estimated result. Result is less than RL.

A 3403

HALEY & ALDRICH INC

Client Sample ID: SB1001_SSA080102_0001

GC/MS Volatiles

Lot-Sample #...: E2H010352-013 Work Order #...: E5RG91AA Matrix.....: SOLID
Date Sampled...: 08/01/02 13:00 Date Received..: 08/01/02 16:20 MS Run #.....: 2220107
Prep Date.....: 08/02/02 Analysis Date..: 08/03/02
Prep Batch #...: 2220270 Analysis Time..: 02:36
Dilution Factor: 1
Analyst ID.....: 999998 Instrument ID..: MSD
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Dichlorodifluoromethane	ND	10	ug/kg	1.0
Chloromethane	ND	10	ug/kg	3.0
Vinyl chloride	ND	10	ug/kg	2.0
Bromomethane	ND UJ	10	ug/kg	8.0
1,2-Dibromoethane	ND	5.0	ug/kg	3.0
Chloroethane	ND	10	ug/kg	2.0
Trichlorofluoromethane	ND	10	ug/kg	2.0
Acrolein	ND UJ	100	ug/kg	30
1,1-Dichloroethene	ND	5.0	ug/kg	2.0
Iodomethane	ND UJ	10	ug/kg	10
Acetone	ND	25	ug/kg	15
Carbon disulfide	ND	5.0	ug/kg	3.0
Methylene chloride	ND	5.0	ug/kg	3.0
trans-1,2-Dichloroethene	ND	5.0	ug/kg	2.0
Acrylonitrile	ND UJ	100	ug/kg	30
Methyl tert-butyl ether	ND	5.0	ug/kg	1.0
1,1-Dichloroethane	ND	5.0	ug/kg	1.0
Vinyl acetate	ND	10	ug/kg	5.0
2,2-Dichloropropane	ND	5.0	ug/kg	2.0
cis-1,2-Dichloroethene	ND	5.0	ug/kg	2.0
2-Butanone	ND	25	ug/kg	15
Bromochloromethane	ND	5.0	ug/kg	1.0
Chloroform	ND	5.0	ug/kg	1.0
Tetrahydrofuran	ND UJ	20	ug/kg	2.0
1,1,1-Trichloroethane	ND	5.0	ug/kg	1.0
1,1-Dichloropropene	ND	5.0	ug/kg	1.0
Carbon tetrachloride	ND	5.0	ug/kg	1.0
Benzene	ND	5.0	ug/kg	2.0
1,2-Dichloroethane	ND	5.0	ug/kg	1.0
Trichloroethene	ND	5.0	ug/kg	2.0
1,2-Dichloropropane	ND	5.0	ug/kg	1.0
Bromodichloromethane	ND	5.0	ug/kg	1.0
2-Chloroethyl vinyl ether	ND	10	ug/kg	5.0
cis-1,3-Dichloropropene	ND	5.0	ug/kg	1.0
4-Methyl-2-pentanone	ND	25	ug/kg	10
Toluene	ND	5.0	ug/kg	2.0
trans-1,3-Dichloropropene	ND	5.0	ug/kg	3.0

(Continued on next page)

A 3403

HALEY & ALDRICH INC

Client Sample ID: SB1001_SSA080102_0001

GC/MS Volatiles

Lot-Sample #...: E2H010352-013 Work Order #...: E5RG91AA Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
1,1,2-Trichloroethane	ND	5.0	ug/kg	3.0
Tetrachloroethene	ND	5.0	ug/kg	2.0
2-Hexanone	ND	25	ug/kg	10
Dibromochloromethane	ND	5.0	ug/kg	1.0
Chlorobenzene	ND	5.0	ug/kg	2.0
Ethylbenzene	ND	5.0	ug/kg	2.0
Xylenes (total)	ND	5.0	ug/kg	3.0
Styrene	ND	10	ug/kg	2.0
Bromoform	ND	5.0	ug/kg	3.0
Isopropylbenzene	ND	5.0	ug/kg	2.0
p-Isopropyltoluene	ND	5.0	ug/kg	2.0
Bromobenzene	ND	5.0	ug/kg	2.0
1,1,1,2-Tetrachloroethane	ND	5.0	ug/kg	3.0
1,1,2,2-Tetrachloroethane	ND	5.0	ug/kg	3.0
1,2,3-Trichloropropane	ND	5.0	ug/kg	3.0
n-Propylbenzene	ND	5.0	ug/kg	2.0
2-Chlorotoluene	ND	5.0	ug/kg	2.0
4-Chlorotoluene	ND	5.0	ug/kg	2.0
1,3,5-Trimethylbenzene	ND	5.0	ug/kg	2.0
tert-Butylbenzene	ND	5.0	ug/kg	2.0
1,2,4-Trimethylbenzene	ND	5.0	ug/kg	2.0
sec-Butylbenzene	ND	5.0	ug/kg	2.0
1,3-Dichlorobenzene	ND	5.0	ug/kg	2.0
1,4-Dichlorobenzene	ND	5.0	ug/kg	2.0
1,2-Dichlorobenzene	ND	5.0	ug/kg	2.0
n-Butylbenzene	ND	5.0	ug/kg	2.0
1,2-Dibromo-3-chloro-propane	ND	10	ug/kg	3.0
1,2,4-Trichloro-benzene	ND	5.0	ug/kg	2.0
Hexachlorobutadiene	ND	5.0	ug/kg	2.0
1,2,3-Trichlorobenzene	ND	5.0	ug/kg	2.0
t-Butanol	ND	100	ug/kg	50
Isopropyl ether	ND	10	ug/kg	1.0
Tert-amyl methyl ether	ND	10	ug/kg	2.0
Tert-butyl ethyl ether	ND	10	ug/kg	1.0

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Bromofluorobenzene	94	(65 - 135)
1,2-Dichloroethane-d4	115	(60 - 140)
Toluene-d8	95	(70 - 130)

A
3407

HALEY & ALDRICH INC

SB1001_SSA080102_0001

GC/MS Volatiles

Lot-Sample #: E2H010352-013 Work Order #: E5RG91AA Matrix: SOLID

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT	RETENTION TIME	UNITS
None				ug/kg

A
3403

HALEY & ALDRICH INC

Client Sample ID: SB1001_SSB080102_0001

GC/MS Volatiles

Lot-Sample #...: E2H010352-014 Work Order #...: E5RHC1AA Matrix.....: SOLID
Date Sampled...: 08/01/02 13:00 Date Received..: 08/01/02 16:20 MS Run #.....: 2225151
Prep Date.....: 08/06/02 Analysis Date..: 08/07/02
Prep Batch #...: 2225371 Analysis Time..: 19:08
Dilution Factor: 1
Analyst ID.....: 999998 Instrument ID..: MSD
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Dichlorodifluoromethane	ND UJ	500	ug/kg	170
Chloromethane	ND UJ	500	ug/kg	200
Vinyl chloride	ND	500	ug/kg	150
Bromomethane	ND	500	ug/kg	250
1,2-Dibromoethane	ND	250	ug/kg	70
Chloroethane	ND	500	ug/kg	250
Trichlorofluoromethane	ND	500	ug/kg	70
Acrolein	ND UJR	5000	ug/kg	2000
1,1-Dichloroethene	ND	250	ug/kg	120
Iodomethane	ND UJ	500	ug/kg	250
Acetone	**890 J,B 1200 U**	**1200**	**ug/kg**	**400**
Carbon disulfide	ND	250	ug/kg	120
Methylene chloride	ND	250	ug/kg	50
trans-1,2-Dichloroethene	ND	250	ug/kg	120
Acrylonitrile	ND R	5000	ug/kg	2000
Methyl tert-butyl ether	ND	250	ug/kg	100
1,1-Dichloroethane	ND	250	ug/kg	100
Vinyl acetate	ND	500	ug/kg	380
2,2-Dichloropropane	ND	250	ug/kg	100
cis-1,2-Dichloroethene	ND	250	ug/kg	120
2-Butanone	ND	1200	ug/kg	700
Bromochloromethane	ND	250	ug/kg	110
Chloroform	ND	250	ug/kg	70
Tetrahydrofuran	ND	1000	ug/kg	500
1,1,1-Trichloroethane	ND	250	ug/kg	180
1,1-Dichloropropene	ND	250	ug/kg	100
Carbon tetrachloride	ND	250	ug/kg	100
Benzene	ND	250	ug/kg	100
1,2-Dichloroethane	ND	250	ug/kg	70
Trichloroethene	**380**	**250**	**ug/kg**	**70**
1,2-Dichloropropane	ND	250	ug/kg	100
Bromodichloromethane	ND	250	ug/kg	100
2-Chloroethyl vinyl ether	ND R	500	ug/kg	350
cis-1,3-Dichloropropene	ND	250	ug/kg	100
4-Methyl-2-pentanone	ND	1200	ug/kg	400
Toluene	ND	250	ug/kg	60
trans-1,3-Dichloropropene	ND	250	ug/kg	70

(Continued on next page)

A
3/23

HALEY & ALDRICH INC

Client Sample ID: SB1001_SSB080102_0001

GC/MS Volatiles

Lot-Sample #...: E2H010352-014 Work Order #...: E5RHC1AA Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
1,1,2-Trichloroethane	ND	250	ug/kg	100
Tetrachloroethene	**330**	**250**	**ug/kg**	**80**
2-Hexanone	ND	1200	ug/kg	350
Dibromochloromethane	ND	250	ug/kg	110
Chlorobenzene	ND	250	ug/kg	100
Ethylbenzene	**390**	**250**	**ug/kg**	**70**
Xylenes (total)	**1000**	**250**	**ug/kg**	**180**
Styrene	ND	500	ug/kg	100
Bromoform	ND	250	ug/kg	100
Isopropylbenzene	**340**	**250**	**ug/kg**	**120**
p-Isopropyltoluene	**900**	**250**	**ug/kg**	**70**
Bromobenzene	ND	250	ug/kg	70
1,1,1,2-Tetrachloroethane	ND	250	ug/kg	60
1,1,2,2-Tetrachloroethane	ND	250	ug/kg	100
1,2,3-Trichloropropane	ND	250	ug/kg	110
n-Propylbenzene	**900**	**250**	**ug/kg**	**110**
2-Chlorotoluene	ND	250	ug/kg	70
4-Chlorotoluene	ND	250	ug/kg	70
1,3,5-Trimethylbenzene	**2600**	**250**	**ug/kg**	**120**
tert-Butylbenzene	ND	250	ug/kg	70
1,2,4-Trimethylbenzene	**7700**	**250**	**ug/kg**	**70**
sec-Butylbenzene	**590**	**250**	**ug/kg**	**70**
1,3-Dichlorobenzene	ND	250	ug/kg	70
1,4-Dichlorobenzene	ND	250	ug/kg	100
1,2-Dichlorobenzene	ND	250	ug/kg	100
n-Butylbenzene	**1900**	**250**	**ug/kg**	**70**
1,2-Dibromo-3-chloro-propane	ND	500	ug/kg	150
1,2,4-Trichloro-benzene	ND	250	ug/kg	70
Hexachlorobutadiene	ND	250	ug/kg	70
1,2,3-Trichlorobenzene	ND	250	ug/kg	70
t-Butanol	ND	5000	ug/kg	2500
Isopropyl ether	ND	500	ug/kg	100
Tert-amyl methyl ether	ND	500	ug/kg	100
Tert-butyl ethyl ether	ND	500	ug/kg	100

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Bromofluorobenzene	99	(60 - 140)
1,2-Dichloroethane-d4	97	(60 - 140)
Toluene-d8	93	(60 - 140)

NOTE(S):

J Estimated result. Result is less than RL.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

A
3/4/07

HALEY & ALDRICH INC

SB1001_SSB080102_0001

GC/MS Volatiles

Lot-Sample #: E2H010352-014 Work Order #: E5RHC1AA Matrix: SOLID

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT		RETENTION TIME	UNITS
unknown aromatic hydrocarbon		8900	M	16.178	ug/kg
unknown aromatic hydrocarbon		8100	M	17.94	ug/kg
unknown aromatic hydrocarbon		13000	M	18.403	ug/kg
unknown aromatic hydrocarbon		7600	M	19.17	ug/kg
unknown aromatic hydrocarbon		5300	M	20.263	ug/kg
unknown aromatic hydrocarbon		21000	M	21.1	ug/kg
unknown Naphthalene		6200	M	21.395	ug/kg
unknown Naphthalene		13000	M	23.443	ug/kg
unknown Naphthalene		31000	M	24.113	ug/kg
unknown Naphthalene		13000	M	24.29	ug/kg

NOTE(S):

M: Result was measured against nearest internal standard assuming a response factor of 1.

A
9409

HALEY & ALDRICH INC

Client Sample ID: SB1001_SSC080102_0001

GC/MS Volatiles

Lot-Sample #...: E2H010352-015 Work Order #...: E5RHD1AA Matrix.....: SOLID
Date Sampled...: 08/01/02 13:00 Date Received..: 08/01/02 16:20 MS Run #.....: 2220107
Prep Date.....: 08/02/02 Analysis Date..: 08/03/02
Prep Batch #...: 2220270 Analysis Time..: 03:36
Dilution Factor: 1
Analyst ID.....: 999998 Instrument ID..: MSD
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Dichlorodifluoromethane	ND	10	ug/kg	1.0
Chloromethane	ND	10	ug/kg	3.0
Vinyl chloride	ND	10	ug/kg	2.0
Bromomethane	ND UJ	10	ug/kg	8.0
1,2-Dibromoethane	ND	5.0	ug/kg	3.0
Chloroethane	ND	10	ug/kg	2.0
Trichlorofluoromethane	ND	10	ug/kg	2.0
Acrolein	ND UJ	100	ug/kg	30
1,1-Dichloroethene	ND	5.0	ug/kg	2.0
Iodomethane	ND UJ	10	ug/kg	10
Acetone	ND	25	ug/kg	15
Carbon disulfide	ND	5.0	ug/kg	3.0
Methylene chloride	ND	5.0	ug/kg	3.0
trans-1,2-Dichloroethene	ND	5.0	ug/kg	2.0
Acrylonitrile	ND UJ	100	ug/kg	30
Methyl tert-butyl ether	ND	5.0	ug/kg	1.0
1,1-Dichloroethane	ND	5.0	ug/kg	1.0
Vinyl acetate	ND	10	ug/kg	5.0
2,2-Dichloropropane	ND	5.0	ug/kg	2.0
cis-1,2-Dichloroethene	ND	5.0	ug/kg	2.0
2-Butanone	ND	25	ug/kg	15
Bromochloromethane	ND	5.0	ug/kg	1.0
Chloroform	ND	5.0	ug/kg	1.0
Tetrahydrofuran	ND UJ	20	ug/kg	2.0
1,1,1-Trichloroethane	ND	5.0	ug/kg	1.0
1,1-Dichloropropene	ND	5.0	ug/kg	1.0
Carbon tetrachloride	ND	5.0	ug/kg	1.0
Benzene	ND	5.0	ug/kg	2.0
1,2-Dichloroethane	ND	5.0	ug/kg	1.0
Trichloroethene	**7.0**	**5.0**	**ug/kg**	**2.0**
1,2-Dichloropropane	ND	5.0	ug/kg	1.0
Bromodichloromethane	ND	5.0	ug/kg	1.0
2-Chloroethyl vinyl ether	ND	10	ug/kg	5.0
cis-1,3-Dichloropropene	ND	5.0	ug/kg	1.0
4-Methyl-2-pentanone	ND	25	ug/kg	10
Toluene	ND	5.0	ug/kg	2.0
trans-1,3-Dichloropropene	ND	5.0	ug/kg	3.0

(Continued on next page)

A
JMW

HALEY & ALDRICH INC

Client Sample ID: SB1001_SSC080102_0001

GC/MS Volatiles

Lot-Sample #...: E2H010352-015 Work Order #...: E5RHD1AA Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
1,1,2-Trichloroethane	ND	5.0	ug/kg	3.0
Tetrachloroethene	**2.0 J**	**5.0**	**ug/kg**	**2.0**
2-Hexanone	ND	25	ug/kg	10
Dibromochloromethane	ND	5.0	ug/kg	1.0
Chlorobenzene	ND	5.0	ug/kg	2.0
Ethylbenzene	ND	5.0	ug/kg	2.0
Xylenes (total)	ND	5.0	ug/kg	3.0
Styrene	ND	10	ug/kg	2.0
Bromoform	ND	5.0	ug/kg	3.0
Isopropylbenzene	ND	5.0	ug/kg	2.0
p-Isopropyltoluene	ND UJ	5.0	ug/kg	2.0
Bromobenzene	ND UJ	5.0	ug/kg	2.0
1,1,1,2-Tetrachloroethane	ND	5.0	ug/kg	3.0
1,1,2,2-Tetrachloroethane	ND	5.0	ug/kg	3.0
1,2,3-Trichloropropane	ND UJ	5.0	ug/kg	3.0
n-Propylbenzene	ND	5.0	ug/kg	2.0
2-Chlorotoluene	ND	5.0	ug/kg	2.0
4-Chlorotoluene	ND	5.0	ug/kg	2.0
1,3,5-Trimethylbenzene	**3.1 J** J	**5.0**	**ug/kg**	**2.0**
tert-Butylbenzene	ND UJ	5.0	ug/kg	2.0
1,2,4-Trimethylbenzene	**7.6** J	**5.0**	**ug/kg**	**2.0**
sec-Butylbenzene	ND UJ	5.0	ug/kg	2.0
1,3-Dichlorobenzene	ND	5.0	ug/kg	2.0
1,4-Dichlorobenzene	ND	5.0	ug/kg	2.0
1,2-Dichlorobenzene	ND	5.0	ug/kg	2.0
n-Butylbenzene	ND UJ	5.0	ug/kg	2.0
1,2-Dibromo-3-chloro-propane	ND UJ	10	ug/kg	3.0
1,2,4-Trichloro-benzene	ND UJ	5.0	ug/kg	2.0
Hexachlorobutadiene	ND UJ	5.0	ug/kg	2.0
1,2,3-Trichlorobenzene	ND UJ	5.0	ug/kg	2.0
t-Butanol	ND	100	ug/kg	50
Isopropyl ether	ND	10	ug/kg	1.0
Tert-amyl methyl ether	ND	10	ug/kg	2.0
Tert-butyl ethyl ether	ND	10	ug/kg	1.0

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Bromofluorobenzene	128	(65 - 135)
1,2-Dichloroethane-d4	96	(60 - 140)
Toluene-d8	87	(70 - 130)

NOTE(S):

J Estimated result. Result is less than RL.

A
3407

HALEY & ALDRICH INC

SB1001_SSC080102_0001

GC/MS Volatiles

Lot-Sample #: E2H010352-015 Work Order #: E5RHD1AA Matrix: SOLID

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT		RETENTION TIME	UNITS
Unknown aromatic		140	M	17.382	ug/kg
Unknown alkane		420	M	18.82	ug/kg
Unknown cycloalkane		92	M	19.952	ug/kg
Unknown aromatic		67	M	20.11	ug/kg
Unknown alkane		380	M	21.399	ug/kg
Unknown cycloalkane		70	M	22.108	ug/kg
Unknown alkane		940	M	23.152	ug/kg
Unknown cycloalkane		140	M	23.9	ug/kg
Unknown alkane		410	M	24.087	ug/kg
Unknown alkane		330	M	24.284	ug/kg

NOTE(S):

M: Result was measured against nearest internal standard assuming a response factor of 1.

A
3403

LDC #: 9883A1

SDG #: E2H010352

Laboratory: Severn Trent Laboratories

VALIDATION COMPLETENESS WORKSHEET

Level III/IV

Date: 7/27

Page: 1 of 9

Reviewer:

2nd Reviewer:

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	A	Sampling dates: 8/1/02
II.	GC/MS Instrument performance check	A	
III.	Initial calibration	SW	
IV.	Continuing calibration	SW	
V.	Blanks	SW	
VI.	Surrogate spikes	SW	
VII.	Matrix spike/Matrix spike duplicates	SW	
VIII.	Laboratory control samples	A	LCS
IX.	Regional Quality Assurance and Quality Control	N	
X.	Internal standards	SW	
XI.	Target compound identification	A	Not reviewed for Level III validation.
XII.	Compound quantitation/CRQLs	A	Not reviewed for Level III validation.
XIII.	Tentitatively identified compounds (TICs)	~~N~~ A	Not reviewed for Level III validation.
XIV.	System performance	A	Not reviewed for Level III validation.
XV.	Overall assessment of data	A	
XVI.	Field duplicates	N	
XVII.	Field blanks	N	

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: ** Indicates sample underwent Level IV validation

MS SD's

1	2_VEW_18_SSA080102_0001**	11	SB1000_SSB080102_0001	21	2220270MB	31	
2 1	2_VEW_18_SSB080102_0001	12	SB1000_SSC080102_0001	22 1	2218248MB	32	
3	2_VEW_18_SSC080102_0001	13	SB1001_SSA080102_0001	23 2	2220252MB	33	
4	2_VEW_19_SSA080102_0001**	14 3	SB1001_SSB080102_0001	24 3	2225371MB	34	
5	2_VEW_19_SSB080102_0001	15	SB1001_SSC080102_0001	25		35	
6	2_VEW_19_SSC080102_0001**	16 1 2	2_VEW_18_SSA080102_0001MS	26		36	
7 2	2_VEW_20_SSA080102_0001	17 1 2	2_VEW_18_SSA080102_0001MSD	27		37	
8	2_VEW_20_SSB080102_0001	18 2	2_VEW_20_SSA080102_0001MS	28		38	
9	2_VEW_20_SSC080102_0001	19 2	2_VEW_20_SSA080102_0001MSD	29		39	
10	SB1000_SSA080102_0001	20		30		40	

9883A1W.H34.wpd

LDC #: 9883A1
SDG #: E2H010352

VALIDATION FINDINGS CHECKLIST

Reviewer: AP
2nd Reviewer: AL

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? If Yes, what was the acceptance criteria used?		✓		
Did the initial calibration meet the curve fit acceptance criteria?			✓	
Were all percent relative standard deviations (%RSD) $\leq$ 30% and relative response factors (RRF) $\geq$ 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) $\leq$ 25% and relative response factors (RRF) $\geq$ 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?		✓		

LDC #: 9883A1
SDG #: 22H010352

VALIDATION FINDINGS CHECKLIST

Reviewer: 4
2nd Reviewer: 2

Validation Area	Yes	No	NA	Findings/Comments
VIII. Laboratory control samples				
Was an LCS analyzed for this SDG?	✓			
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.			✓	

LDC #: 9883A1
SDG #: EZH010352

VALIDATION FINDINGS CHECKLIST

Reviewer: 9
2nd Reviewer: [illegible]

Validation Area	Yes	No	NA	Findings/Comments
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*	S. Trichloroethene	KK. Trichlorofluoromethane	CCC. tert-Butylbenzene	UUU. Benzyl chloride
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. Diethyl ether	FFF. 1,3-Dichlorobenzene	XXX. Ethyl 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.

4DCB

COMPNDL.1SB

BOE-C6-0103406

LDC #: 9883A1
SDG #: G2H010352

VALIDATION FINDINGS WORKSHEET
Initial Calibration

Page: 1 of 1
Reviewer: [signature]
2nd Reviewer: [signature]

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
	7/30/02	ICAL	B	50.400		1-B.15-19.	J/UJ/A
			Iodomethane	31.363		2220270MB.	↓
			Tetrahydrofuran	39.775		2218248MB	↓
			Acrolein		0.00398	2220252MB	J/UJ/A *
			~~GGGG~~		0.04290		↓
	7/28/02	ICAL	FFFF	32.559		14.222537 MB	J/UJ/A
			Iodomethane	40.194			↓
			FFFF		0.00340		J/R/A
			~~GGGG~~		0.03823		↓

* lowest std < RL (level IV only)
(Ave/conc x RL > 10,000)

INICAL.1SB

BOE-C6-0103407

LDC #: 9883A1
SDG #: 32H010352

VALIDATION FINDINGS WORKSHEET
Continuing Calibration

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

METHOD: GC/MS V0A (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 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
	8/2/02	DS3779	Iodomethane	35.6		1,3-6,8-13,15	J/UJ/A
			FFFF		0.00441	22202T0MB	J/UJ/A *
			~~GGGG~~		0.04556		↓
	8/5/02	DS3782	W	30.7		2,16-17,2218248MB	J/UJ/A
			B	26.2			↓
			FFFF		0.00439		J/R/A
			~~GGGG~~		0.04482		↓
			II		0.04877		
	8/7/02	DS3784	B	26.2		7,18-19,2220252MB	J/UJ/A
			FFFF		0.00333	~~7,18-19,2220252MB~~	J/R/A
			~~GGGG~~		0.03849		↓
			II		0.04851		
	8/7/02	DS3786	W	77.2		14,22253T1MB	J/UJ/A
			A	25.2			↓
			FFFF		0.00340		J/R/A
			~~GGGG~~		0.03799		↓
			II		0.04875		
		x $\frac{\text{ml}}{\text{conc}}$	x RC >	10,000	(only for level IV spl)		

CONCAL.1SB

BOE-C6-0103408

LDC #: 9883A1
SDG #: E2H010352

VALIDATION FINDINGS WORKSHEET
Blanks

Page: 1 of 1
Reviewer: [illegible]
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 method blank associated with every sample in this SDG?
Y N N/A Was a method blank analyzed at least once every 12 hours for each matrix and concentration?
Y N N/A Was there contamination in the method blanks? If yes, please see the qualifications below.

Blank analysis date: 8/7/02
Conc. units: µg/L
Associated Samples: 14

Compound	Blank ID	Sample Identification								
	220537MB	14								
Methylene chloride										
Acetone	920	890/2000								
TICs										
Unknown	(9.704) 260									
↓	(11.929) 280									
CRQL										

Blank analysis date:
Conc. units:
Associated Samples:

Compound	Blank ID	Sample Identification								
Methylene chloride										
Acetone										
CRQL										

All results were qualified using the criteria stated below except those circled.

Note: Common contaminants such as Methylene chloride, Acetone, 2-Butanone, Carbon disulfide and TICs that were detected in samples within ten times the associated method blank concentration were qualified as not detected, "U". Other contaminants within five times the method blank concentration were also qualified as not detected, "U".

BLANKS2.1SB

BOE-C6-0103409

LDC #: 9883A1
SDG #: E2H010352

VALIDATION FINDINGS WORKSHEET
Surrogate Spikes

Page: 1 of 1
Reviewer: [illegible]
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 all surrogate %R within QC limits?

Y N N/A If the percent recovery (%R) for one or more surrogates was out of QC limits, was a reanalysis performed to confirm samples with %R out of outside of criteria?

#	Date	Sample ID	Surrogate	%Recovery (Limits)	Qualifications
		2	BFB	5.7 (65-135)	J/R/P
			DCE	18 (60-140)	
			TOL	4.0 (70-130)	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	

	QC Limits (Soil)	QC Limits (Water)
SMC1 (TOL) = Toluene-d8	81-117	88-110
SMC2 (BFB) = Bromofluorobenzene	74-121	86-115
SMC3 (DCE) = 1,2-Dichloroethane-d4	80-120	80-120
SMC4 (DFM) = Dibromofluoromethane	80-120	86-118

SUR.1SB

BOE-C6-0103410

LDC #: 9883A1
SDG #: E2H010352

VALIDATION FINDINGS WORKSHEET
Matrix Spike/Matrix Spike Duplicates

Page: 1 of 1
Reviewer:
2nd Reviewer:

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
		~~No MS/MSD~~		( )	( )	( )		
				( )	( )	( )		
		E2H020314-001	S	142 (70-135)	146 (70-135)	( )	Done	No Qual
				( )	( )	( )		
		E2H020314-006	CC	0 (60-125)	0 (60-125)	( )	Done	No Qual
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		

	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.1S8

BOE-C6-0103411

LDC #: 9883A1
SDG #: E2H010352

VALIDATION FINDINGS WORKSHEET
Internal Standards

Reviewer: [illegible]
2nd Reviewer:

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 all internal standard area counts within -50 to +100% of the associated calibration standard?

Y N N/A Were the retention times of the internal standards within +/- 30 seconds of the retention times of the associated calibration standard?

#	Date	Sample ID	Internal Standard	Area (Limits)	RT (Limits)	Qualifications
		15	4DCB	307401 (493580 - 1974320)		J/UJ/P

(BCM) = Bromochloromethane
(DFB) = 1,4-Difluorobenzene
(CBZ) = Chlorobenzene-d5
(PFB) = Pentafluorobenzene
(4DCB) = 1,4-Dichlorobenzene-d4
(2DCB) = 1,2-Dichlorobenzene-d4
(FBZ) = Fluorobenzene

INTST.1SB

BOE-C6-0103412

LDC #: 9883A1
SDG #: E2H01035

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Page: 1 of 1
Reviewer:
2nd Reviewer:

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 (50 std)	Recalculated RRF (50 std)	Reported Average RRF (initial)	Recalculated Average RRF (initial)	Reported %RSD	Recalculated %RSD
1	ICAL	7/30/02	Methylene chloride (1st internal standard)	0.30364	0.30364	0.31227	0.31227	7.381	7.381
			~~Trichlorethene~~ AA (2nd internal standard)	0.70730	0.70730	0.69288	0.69288	12.307	12.307
			Toluene (3rd internal standard)	1.01613	1.01613	0.99642	0.99642	6.759	6.759
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

BOE-C6-0103413

LDC #: 9883A1
SDG #: E2H01035 2

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Results Verification

Page: 1 of 1
Reviewer:
2nd Reviewer:

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	DS3T9	8/3/02	Methylene chloride (1st internal standard)	0.31227	0.33258	0.33258	6.5	6.5
			~~Trichlorethene~~ AA (2nd internal standard)	0.69288	0.69335	0.69335	0.1	0.1
			~~Toluene~~ BB (3rd internal standard)	0.99642	0.99534	0.99534	0.1	0.1
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

BOE-C6-0103414

LDC #: 9883A1
SDG #: E2H010352

VALIDATION FINDINGS WORKSHEET
Surrogate Results Verification

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

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: 1

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Toluene-d8	50	44.1770	88	88	0
Bromofluorobenzene	↓	48.5002	97	97	↓
1,2-Dichloroethane-d4	↓	42.3817	85	85	↓
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					

SURRCALC.1SB

LDC #: 9883A1
SDG #: E2H010352

VALIDATION FINDINGS WORKSHEET
Matrix Spike/Matrix Spike Duplicates Results Verification

Page: 1 of 1
Reviewer: 9
2nd Reviewer: 2

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

The percent recoveries (%R) and Relative Percent Difference (RPD) of the matrix spike and matrix spike duplicate were recalculated for the compounds identified below using the following calculation:

% Recovery = 100 * (SSC - SC)/SA Where: SSC = Spiked sample concentration; SA = Spike added; SC = Sample concentration

RPD = I MSC - MSDC I * 2/(MSC + MSDC) MSC = Matrix spike percent recovery MSDC = Matrix spike duplicate percent recovery

MS/MSD sample: 16/17

Compound	Spike Added (µg/g)		Sample Concentration (µg/g)	Spiked Sample Concentration (µg/g)		Matrix Spike Percent Recovery		Matrix Spike Duplicate Percent Recovery		MS/MSD RPD	
	MS	MSD	—	MS	MSD	Reported	Recalc.	Reported	Recalc.	Reported	Recalculated
1,1-Dichloroethene	50	50	ND	~~97~~ 48.5	46.8	~~94~~ 97	97	94	94	3.6	3.6
Trichloroethene	↓	↓	↓	49.1	51.0	98	98	102	102	3.9	3.8
Benzene	↓	↓	↓	49.7	49.6	99	99	99	99	0.14	0.20
Toluene	↓	↓	↓	46.5	47.6	93	93	95	95	2.2	2.3
Chlorobenzene	↓	↓	↓	46.6	46.8	93	93	94	94	0.47	0.43

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

MSDCLC.1SB

BOE-C6-0103416

LDC #: 9883A1
SDG #: K2H010352

VALIDATION FINDINGS WORKSHEET
Laboratory Control Sample Results Verification

Page: 1 of 1
Reviewer: d
2nd Reviewer: ~

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 = Laboratory control sample percent recovery

LCSD = Laboratory control sample duplicate percent recovery

LCS ID: 22202TOLCS

Compound	Spike Added (µg/L)		Spiked Sample Concentration (µg/L)		LCS Percent Recovery		LCSD Percent Recovery		LCS/LCSD RPD	
	LCS	LCSD	LCS	LCSD	Reported	Recalc.	Reported	Recalc.	Reported	Recalculated
1,1-Dichloroethene	50	NA	49.6	NA	99	99				
Trichloroethene	↓	↓	48.5	↓	97	97				
Benzene	↓	↓	50.1	↓	101	101				
Toluene	↓	↓	48.8	↓	98	98				
Chlorobenzene	↓	↓	48.3	↓	97	97				

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 #: 98838A1
SDG #: E2H210352

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

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

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?

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. 1.4 6 . ND :

Conc. = ( ) ( ) ( )

( ) ( ) ( ) ( )

=

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

RECALC.1SB

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: BRC Former C-6 Torrance Harbor Gateway

Collection Date: September 23, 2002

LDC Report Date: March 4, 2003

Matrix: Soil

Parameters: Volatiles

Validation Level: Tier 2

Laboratory: Severn Trent Laboratories

Sample Delivery Group (SDG): E2I240147

Sample Identification

2_VEW_21_SS50_0001
SB1002_SS25_0001
SB1002_SS40_0001
SB1002_SS50_0001
SB1003_SS25_0001
SB1003_SS30_0001
SB1003_SS40_0001
SB1003_SS50_0001
SB1004_SS30_0001
SB1004_SS40_0001
SB1004_SS50_0001

Introduction

This data review covers 11 soil 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 table summarizing all data qualification is provided at the end of this report. 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 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.

BOE-C6-0103420

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
9/25/02	Dichlorodifluoromethane Tetrahydrofuran 2-Chloroethylvinyl ether	39.499 33.655 35.305	All samples in SDG E2I240147	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
9/25/02	Acrolein t-Butanol	0.02441 (≥0.05) 0.04988 (≥0.05)	All samples in SDG E2I240147	J (all detects) R (all non-detects) J (all detects) R (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
9/26/02	Dichlorodifluoromethane	42.7	2_VEW_21_SS50_0001 SB1002_SS25_0001 SB1002_SS40_0001 SB1003_SS25_0001 SB1003_SS30_0001 SB1003_SS40_0001 SB1003_SS50_0001 SB1004_SS30_0001 SB1004_SS40_0001 2270530MB	J (all detects) UJ (all non-detects)	A
9/27/02	Dichlorodifluoromethane Acrolein Acetone t-Butanol Acrylonitrile 2-Butanone Tetrahydrofuran 2-Chloroethylvinyl ether 4-Methyl-2-pentanone	55.6 27.6 34.7 35.7 29.1 33.6 29.5 39.7 29.8	SB1002_SS50_0001 SB1004_SS50_0001 2271149MB	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
9/26/02	Acrolein t-Butanol	0.02485 (≥0.05) 0.04606 (≥0.05)	2_VEW_21_SS50_0001 SB1002_SS25_0001 SB1002_SS40_0001 SB1003_SS25_0001 SB1003_SS30_0001 SB1003_SS40_0001 SB1003_SS50_0001 SB1004_SS30_0001 SB1004_SS40_0001 2270530MB	J (all detects) R (all non-detects) J (all detects) R (all non-detects)	A
9/27/02	Acrolein Acetone t-Butanol Acrylonitrile 2-Chloroethylvinyl ether	0.01768 (≥0.05) 0.04988 (≥0.05) 0.03205 (≥0.05) 0.04865 (≥0.05) 0.04219 (≥0.05)	SB1002_SS50_0001 SB1004_SS50_0001 2271149MB	J (all detects) R (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.

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

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 have been summarized at the end of the report.

XVI. Field Duplicates

No field duplicates were identified in this SDG.

XVII. Field Blanks

No field blanks were identified in this SDG.

BRC Former C-6 Torrance Harbor Gateway
Volatiles - Data Qualification Summary - SDG E2I240147

SDG	Sample	Compound	Flag	A or P	Reason
E2I240147	2_VEW_21_SS50_0001 SB1002_SS25_0001 SB1002_SS40_0001 SB1002_SS50_0001 SB1003_SS25_0001 SB1003_SS30_0001 SB1003_SS40_0001 SB1003_SS50_0001 SB1004_SS30_0001 SB1004_SS40_0001 SB1004_SS50_0001	Dichlorodifluoromethane Tetrahydrofuran 2-Chloroethylvinyl ether	J (all detects) UJ (all non-detects)	A	Initial calibration (%RSD)
E2I240147	2_VEW_21_SS50_0001 SB1002_SS25_0001 SB1002_SS40_0001 SB1002_SS50_0001 SB1003_SS25_0001 SB1003_SS30_0001 SB1003_SS40_0001 SB1003_SS50_0001 SB1004_SS30_0001 SB1004_SS40_0001 SB1004_SS50_0001	Acrolein t-Butanol	J (all detects) R (all non-detects) J (all detects) R (all non-detects)	A	Initial calibration (RRF)
E2I240147	2_VEW_21_SS50_0001 SB1002_SS25_0001 SB1002_SS40_0001 SB1003_SS25_0001 SB1003_SS30_0001 SB1003_SS40_0001 SB1003_SS50_0001 SB1004_SS30_0001 SB1004_SS40_0001	Dichlorodifluoromethane	J (all detects) UJ (all non-detects)	A	Continuing calibration (%D)
E2I240147	SB1002_SS50_0001 SB1004_SS50_0001	Dichlorodifluoromethane Acrolein Acetone t-Butanol Acrylonitrile 2-Butanone Tetrahydrofuran 2-Chloroethylvinyl ether 4-Methyl-2-pentanone	J (all detects) UJ (all non-detects)	A	Continuing calibration (%D)
E2I240147	2_VEW_21_SS50_0001 SB1002_SS25_0001 SB1002_SS40_0001 SB1003_SS25_0001 SB1003_SS30_0001 SB1003_SS40_0001 SB1003_SS50_0001 SB1004_SS30_0001 SB1004_SS40_0001	Acrolein t-Butanol	J (all detects) R (all non-detects) J (all detects) R (all non-detects)	A	Continuing calibration (RRF)

SDG	Sample	Compound	Flag	A or P	Reason
E2I240147	SB1002_SS50_0001 SB1004_SS50_0001	Acrolein Acetone t-Butanol Acrylonitrile 2-Chloroethylvinyl ether	J (all detects) R (all non-detects)	A	Continuing calibration (RRF)

BRC Former C-6 Torrance Harbor Gateway
Volatiles - Laboratory Blank Data Qualification Summary - SDG E2I240147

No Sample Data Qualified in this SDG

4883B

HALEY & ALDRICH INC

Client Sample ID: 2_VEW_21_SS50_0001

GC/MS Volatiles

Lot-Sample #...: E2I240147-001 Work Order #...: E8QAG1AA Matrix.....: SO
Date Sampled...: 09/23/02 10:30 Date Received..: 09/23/02 19:45 MS Run #.....: 2270268
Prep Date.....: 09/26/02 Analysis Date..: 09/26/02
Prep Batch #...: 2270530 Analysis Time..: 18:36
Dilution Factor: 1
Analyst ID.....: 064667 Instrument ID..: MSD
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Dichlorodifluoromethane	ND UJ	10	ug/kg	1.0
Chloromethane	ND	10	ug/kg	3.0
Vinyl chloride	ND	10	ug/kg	2.0
Bromomethane	ND	10	ug/kg	8.0
1,2-Dibromoethane	ND	5.0	ug/kg	3.0
Chloroethane	ND	10	ug/kg	2.0
Trichlorofluoromethane	ND	10	ug/kg	2.0
Acrolein	ND R	100	ug/kg	30
1,1-Dichloroethene	ND	5.0	ug/kg	2.0
Iodomethane	ND	10	ug/kg	10
Acetone	ND	25	ug/kg	15
Carbon disulfide	ND	5.0	ug/kg	3.0
Methylene chloride	ND	5.0	ug/kg	3.0
trans-1,2-Dichloroethene	ND	5.0	ug/kg	2.0
Acrylonitrile	ND	100	ug/kg	30
Methyl tert-butyl ether	ND	5.0	ug/kg	1.0
1,1-Dichloroethane	ND	5.0	ug/kg	1.0
Vinyl acetate	ND	10	ug/kg	5.0
2,2-Dichloropropane	ND	5.0	ug/kg	2.0
cis-1,2-Dichloroethene	ND	5.0	ug/kg	2.0
2-Butanone	ND	25	ug/kg	15
Bromochloromethane	ND	5.0	ug/kg	1.0
Chloroform	ND	5.0	ug/kg	1.0
Tetrahydrofuran	ND UJ	20	ug/kg	2.0
1,1,1-Trichloroethane	ND	5.0	ug/kg	1.0
1,1-Dichloropropene	ND	5.0	ug/kg	1.0
Carbon tetrachloride	ND	5.0	ug/kg	1.0
Benzene	ND	5.0	ug/kg	2.0
1,2-Dichloroethane	ND	5.0	ug/kg	1.0
Trichloroethene	ND	5.0	ug/kg	2.0
1,2-Dichloropropane	ND	5.0	ug/kg	1.0
Bromodichloromethane	ND	5.0	ug/kg	1.0
2-Chloroethyl vinyl ether	ND UJ	10	ug/kg	5.0
cis-1,3-Dichloropropene	ND	5.0	ug/kg	1.0
4-Methyl-2-pentanone	ND	25	ug/kg	10
Toluene	ND	5.0	ug/kg	2.0
trans-1,3-Dichloropropene	ND	5.0	ug/kg	3.0

(Continued on next page)

A
3403

HALEY & ALDRICH INC

Client Sample ID: 2_VEW_21_SS50_0001

GC/MS Volatiles

Lot-Sample #...: E2I240147-001 Work Order #...: E8QAG1AA Matrix.....: SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
1,1,2-Trichloroethane	ND	5.0	ug/kg	3.0
Tetrachloroethene	ND	5.0	ug/kg	2.0
2-Hexanone	ND	25	ug/kg	10
Dibromochloromethane	ND	5.0	ug/kg	1.0
Chlorobenzene	ND	5.0	ug/kg	2.0
Ethylbenzene	ND	5.0	ug/kg	2.0
Xylenes (total)	ND	5.0	ug/kg	3.0
Styrene	ND	10	ug/kg	2.0
Bromoform	ND	5.0	ug/kg	3.0
Isopropylbenzene	ND	5.0	ug/kg	2.0
p-Isopropyltoluene	ND	5.0	ug/kg	2.0
Bromobenzene	ND	5.0	ug/kg	2.0
1,1,1,2-Tetrachloroethane	ND	5.0	ug/kg	3.0
1,1,2,2-Tetrachloroethane	ND	5.0	ug/kg	3.0
1,2,3-Trichloropropane	ND	5.0	ug/kg	3.0
n-Propylbenzene	ND	5.0	ug/kg	2.0
2-Chlorotoluene	ND	5.0	ug/kg	2.0
4-Chlorotoluene	ND	5.0	ug/kg	2.0
1,3,5-Trimethylbenzene	ND	5.0	ug/kg	2.0
tert-Butylbenzene	ND	5.0	ug/kg	2.0
1,2,4-Trimethylbenzene	ND	5.0	ug/kg	2.0
sec-Butylbenzene	ND	5.0	ug/kg	2.0
1,3-Dichlorobenzene	ND	5.0	ug/kg	2.0
1,4-Dichlorobenzene	ND	5.0	ug/kg	2.0
1,2-Dichlorobenzene	ND	5.0	ug/kg	2.0
n-Butylbenzene	ND	5.0	ug/kg	2.0
1,2-Dibromo-3-chloro-propane	ND	10	ug/kg	3.0
1,2,4-Trichloro-benzene	ND	5.0	ug/kg	2.0
Hexachlorobutadiene	ND	5.0	ug/kg	2.0
1,2,3-Trichlorobenzene	ND	5.0	ug/kg	2.0
t-Butanol	ND R	100	ug/kg	50
Isopropyl ether	ND	10	ug/kg	1.0
Tert-amyl methyl ether	ND	10	ug/kg	2.0
Tert-butyl ethyl ether	ND	10	ug/kg	1.0

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Bromofluorobenzene	111	(65 - 135)
1,2-Dichloroethane-d4	92	(60 - 140)
Toluene-d8	106	(70 - 130)

A
3/4/07

HALEY & ALDRICH INC

2_VEW_21_SS50_0001

GC/MS Volatiles

Lot-Sample #: E2I240147-001 Work Order #: E8QAG1AA Matrix: SO

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT	RETENTION TIME	UNITS
None				ug/kg

A
3/4/07

HALEY & ALDRICH INC

Client Sample ID: SB1002_SS25_0001

GC/MS Volatiles

Lot-Sample #...: E2I240147-002 Work Order #...: E8QAT1AA Matrix.....: SO
Date Sampled...: 09/23/02 15:00 Date Received..: 09/23/02 19:45 MS Run #.....: 2270268
Prep Date.....: 09/26/02 Analysis Date..: 09/26/02
Prep Batch #...: 2270530 Analysis Time..: 19:06
Dilution Factor: 1
Analyst ID.....: 064667 Instrument ID..: MSD
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Dichlorodifluoromethane	ND UJ	10	ug/kg	1.0
Chloromethane	ND	10	ug/kg	3.0
Vinyl chloride	ND	10	ug/kg	2.0
Bromomethane	ND	10	ug/kg	8.0
1,2-Dibromoethane	ND	5.0	ug/kg	3.0
Chloroethane	ND	10	ug/kg	2.0
Trichlorofluoromethane	ND	10	ug/kg	2.0
Acrolein	ND R	100	ug/kg	30
1,1-Dichloroethene	ND	5.0	ug/kg	2.0
Iodomethane	ND	10	ug/kg	10
Acetone	ND	25	ug/kg	15
Carbon disulfide	ND	5.0	ug/kg	3.0
Methylene chloride	ND	5.0	ug/kg	3.0
trans-1,2-Dichloroethene	ND	5.0	ug/kg	2.0
Acrylonitrile	ND	100	ug/kg	30
Methyl tert-butyl ether	ND	5.0	ug/kg	1.0
1,1-Dichloroethane	ND	5.0	ug/kg	1.0
Vinyl acetate	ND	10	ug/kg	5.0
2,2-Dichloropropane	ND	5.0	ug/kg	2.0
cis-1,2-Dichloroethene	ND	5.0	ug/kg	2.0
2-Butanone	ND	25	ug/kg	15
Bromochloromethane	ND	5.0	ug/kg	1.0
Chloroform	ND	5.0	ug/kg	1.0
Tetrahydrofuran	ND UJ	20	ug/kg	2.0
1,1,1-Trichloroethane	ND	5.0	ug/kg	1.0
1,1-Dichloropropene	ND	5.0	ug/kg	1.0
Carbon tetrachloride	ND	5.0	ug/kg	1.0
Benzene	ND	5.0	ug/kg	2.0
1,2-Dichloroethane	ND	5.0	ug/kg	1.0
Trichloroethene	ND	5.0	ug/kg	2.0
1,2-Dichloropropane	ND	5.0	ug/kg	1.0
Bromodichloromethane	ND	5.0	ug/kg	1.0
2-Chloroethyl vinyl ether	ND UJ	10	ug/kg	5.0
cis-1,3-Dichloropropene	ND	5.0	ug/kg	1.0
4-Methyl-2-pentanone	ND	25	ug/kg	10
Toluene	ND	5.0	ug/kg	2.0
trans-1,3-Dichloropropene	ND	5.0	ug/kg	3.0

(Continued on next page)

A
3407

HALEY & ALDRICH INC

Client Sample ID: SB1002_SS25_0001

GC/MS Volatiles

Lot-Sample #...: E2I240147-002 Work Order #...: E8QAT1AA Matrix.....: SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
1,1,2-Trichloroethane	ND	5.0	ug/kg	3.0
Tetrachloroethene	ND	5.0	ug/kg	2.0
2-Hexanone	ND	25	ug/kg	10
Dibromochloromethane	ND	5.0	ug/kg	1.0
Chlorobenzene	ND	5.0	ug/kg	2.0
Ethylbenzene	ND	5.0	ug/kg	2.0
Xylenes (total)	ND	5.0	ug/kg	3.0
Styrene	ND	10	ug/kg	2.0
Bromoform	ND	5.0	ug/kg	3.0
Isopropylbenzene	ND	5.0	ug/kg	2.0
p-Isopropyltoluene	ND	5.0	ug/kg	2.0
Bromobenzene	ND	5.0	ug/kg	2.0
1,1,1,2-Tetrachloroethane	ND	5.0	ug/kg	3.0
1,1,2,2-Tetrachloroethane	ND	5.0	ug/kg	3.0
1,2,3-Trichloropropane	ND	5.0	ug/kg	3.0
n-Propylbenzene	ND	5.0	ug/kg	2.0
2-Chlorotoluene	ND	5.0	ug/kg	2.0
4-Chlorotoluene	ND	5.0	ug/kg	2.0
1,3,5-Trimethylbenzene	ND	5.0	ug/kg	2.0
tert-Butylbenzene	ND	5.0	ug/kg	2.0
1,2,4-Trimethylbenzene	ND	5.0	ug/kg	2.0
sec-Butylbenzene	ND	5.0	ug/kg	2.0
1,3-Dichlorobenzene	ND	5.0	ug/kg	2.0
1,4-Dichlorobenzene	ND	5.0	ug/kg	2.0
1,2-Dichlorobenzene	ND	5.0	ug/kg	2.0
n-Butylbenzene	ND	5.0	ug/kg	2.0
1,2-Dibromo-3-chloro-propane	ND	10	ug/kg	3.0
1,2,4-Trichloro-benzene	ND	5.0	ug/kg	2.0
Hexachlorobutadiene	ND	5.0	ug/kg	2.0
1,2,3-Trichlorobenzene	ND	5.0	ug/kg	2.0
t-Butanol	ND R	100	ug/kg	50
Isopropyl ether	ND	10	ug/kg	1.0
Tert-amyl methyl ether	ND	10	ug/kg	2.0
Tert-butyl ethyl ether	ND	10	ug/kg	1.0

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Bromofluorobenzene	111	(65 - 135)
1,2-Dichloroethane-d4	90	(60 - 140)
Toluene-d8	109	(70 - 130)

A
3403

HALEY & ALDRICH INC

SB1002_SS25_0001

GC/MS Volatiles

Lot-Sample #: E2I240147-002 Work Order #: E8QAT1AA Matrix: SO

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT	RETENTION TIME	UNITS
None				ug/kg

A
3403

HALEY & ALDRICH INC

Client Sample ID: SB1002_SS40_0001

GC/MS Volatiles

Lot-Sample #...: E2I240147-003 Work Order #...: E8QAW1AA Matrix.....: SO
Date Sampled...: 09/23/02 15:15 Date Received..: 09/23/02 19:45 MS Run #.....: 2270268
Prep Date.....: 09/26/02 Analysis Date..: 09/26/02
Prep Batch #...: 2270530 Analysis Time..: 19:37
Dilution Factor: 1
Analyst ID.....: 064667 Instrument ID..: MSD
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Dichlorodifluoromethane	ND UJ	10	ug/kg	1.0
Chloromethane	ND	10	ug/kg	3.0
Vinyl chloride	ND	10	ug/kg	2.0
Bromomethane	ND	10	ug/kg	8.0
1,2-Dibromoethane	ND	5.0	ug/kg	3.0
Chloroethane	ND	10	ug/kg	2.0
Trichlorofluoromethane	ND	10	ug/kg	2.0
Acrolein	ND UJ R	100	ug/kg	30
1,1-Dichloroethene	ND	5.0	ug/kg	2.0
Iodomethane	ND	10	ug/kg	10
Acetone	ND	25	ug/kg	15
Carbon disulfide	ND	5.0	ug/kg	3.0
Methylene chloride	ND	5.0	ug/kg	3.0
trans-1,2-Dichloroethene	ND	5.0	ug/kg	2.0
Acrylonitrile	ND	100	ug/kg	30
Methyl tert-butyl ether	ND	5.0	ug/kg	1.0
1,1-Dichloroethane	ND	5.0	ug/kg	1.0
Vinyl acetate	ND	10	ug/kg	5.0
2,2-Dichloropropane	ND	5.0	ug/kg	2.0
cis-1,2-Dichloroethene	ND	5.0	ug/kg	2.0
2-Butanone	ND	25	ug/kg	15
Bromochloromethane	ND	5.0	ug/kg	1.0
Chloroform	ND	5.0	ug/kg	1.0
Tetrahydrofuran	ND UJ	20	ug/kg	2.0
1,1,1-Trichloroethane	ND	5.0	ug/kg	1.0
1,1-Dichloropropene	ND	5.0	ug/kg	1.0
Carbon tetrachloride	ND	5.0	ug/kg	1.0
Benzene	ND	5.0	ug/kg	2.0
1,2-Dichloroethane	ND	5.0	ug/kg	1.0
Trichloroethene	ND	5.0	ug/kg	2.0
1,2-Dichloropropane	ND	5.0	ug/kg	1.0
Bromodichloromethane	ND	5.0	ug/kg	1.0
2-Chloroethyl vinyl ether	ND UJ	10	ug/kg	5.0
cis-1,3-Dichloropropene	ND	5.0	ug/kg	1.0
4-Methyl-2-pentanone	ND	25	ug/kg	10
Toluene	ND	5.0	ug/kg	2.0
trans-1,3-Dichloropropene	ND	5.0	ug/kg	3.0

(Continued on next page)

A
3407

HALEY & ALDRICH INC

Client Sample ID: SB1002_SS40_0001

GC/MS Volatiles

Lot-Sample #...: E2I240147-003 Work Order #...: E8QAW1AA Matrix.....: SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
1,1,2-Trichloroethane	ND	5.0	ug/kg	3.0
Tetrachloroethene	ND	5.0	ug/kg	2.0
2-Hexanone	ND	25	ug/kg	10
Dibromochloromethane	ND	5.0	ug/kg	1.0
Chlorobenzene	ND	5.0	ug/kg	2.0
Ethylbenzene	ND	5.0	ug/kg	2.0
Xylenes (total)	ND	5.0	ug/kg	3.0
Styrene	ND	10	ug/kg	2.0
Bromoform	ND	5.0	ug/kg	3.0
Isopropylbenzene	ND	5.0	ug/kg	2.0
p-Isopropyltoluene	ND	5.0	ug/kg	2.0
Bromobenzene	ND	5.0	ug/kg	2.0
1,1,1,2-Tetrachloroethane	ND	5.0	ug/kg	3.0
1,1,2,2-Tetrachloroethane	ND	5.0	ug/kg	3.0
1,2,3-Trichloropropane	ND	5.0	ug/kg	3.0
n-Propylbenzene	ND	5.0	ug/kg	2.0
2-Chlorotoluene	ND	5.0	ug/kg	2.0
4-Chlorotoluene	ND	5.0	ug/kg	2.0
1,3,5-Trimethylbenzene	ND	5.0	ug/kg	2.0
tert-Butylbenzene	ND	5.0	ug/kg	2.0
1,2,4-Trimethylbenzene	ND	5.0	ug/kg	2.0
sec-Butylbenzene	ND	5.0	ug/kg	2.0
1,3-Dichlorobenzene	ND	5.0	ug/kg	2.0
1,4-Dichlorobenzene	ND	5.0	ug/kg	2.0
1,2-Dichlorobenzene	ND	5.0	ug/kg	2.0
n-Butylbenzene	ND	5.0	ug/kg	2.0
1,2-Dibromo-3-chloro-propane	ND	10	ug/kg	3.0
1,2,4-Trichloro-benzene	ND	5.0	ug/kg	2.0
Hexachlorobutadiene	ND	5.0	ug/kg	2.0
1,2,3-Trichlorobenzene	ND	5.0	ug/kg	2.0
t-Butanol	ND UJ R	100	ug/kg	50
Isopropyl ether	ND	10	ug/kg	1.0
Tert-amyl methyl ether	ND	10	ug/kg	2.0
Tert-butyl ethyl ether	ND	10	ug/kg	1.0

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Bromofluorobenzene	105	(65 - 135)
1,2-Dichloroethane-d4	89	(60 - 140)
Toluene-d8	101	(70 - 130)

A
3/4/03

HALEY & ALDRICH INC

SB1002_SS40_0001

GC/MS Volatiles

Lot-Sample #: E2I240147-003 Work Order #: E8QAW1AA Matrix: SO

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT	RETENTION TIME	UNITS
None				ug/kg

A
3/4/07

HALEY & ALDRICH INC

Client Sample ID: SB1002_SS50_0001

GC/MS Volatiles

Lot-Sample #...: E2I240147-004 Work Order #...: E8QA01AA Matrix.....: SO
Date Sampled...: 09/23/02 15:30 Date Received..: 09/23/02 19:45 MS Run #.....: 2271035
Prep Date.....: 09/27/02 Analysis Date..: 09/27/02
Prep Batch #...: 2271149 Analysis Time..: 16:14
Dilution Factor: 1
Analyst ID.....: 064667 Instrument ID..: MSD
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Dichlorodifluoromethane	ND UJ	10	ug/kg	1.0
Chloromethane	ND	10	ug/kg	3.0
Vinyl chloride	ND	10	ug/kg	2.0
Bromomethane	ND	10	ug/kg	8.0
1,2-Dibromoethane	ND	5.0	ug/kg	3.0
Chloroethane	ND	10	ug/kg	2.0
Trichlorofluoromethane	ND	10	ug/kg	2.0
Acrolein	ND R	100	ug/kg	30
1,1-Dichloroethene	ND	5.0	ug/kg	2.0
Iodomethane	ND	10	ug/kg	10
Acetone	ND R	25	ug/kg	15
Carbon disulfide	ND	5.0	ug/kg	3.0
Methylene chloride	ND	5.0	ug/kg	3.0
trans-1,2-Dichloroethene	ND	5.0	ug/kg	2.0
Acrylonitrile	ND R	100	ug/kg	30
Methyl tert-butyl ether	ND	5.0	ug/kg	1.0
1,1-Dichloroethane	ND	5.0	ug/kg	1.0
Vinyl acetate	ND	10	ug/kg	5.0
2,2-Dichloropropane	ND	5.0	ug/kg	2.0
cis-1,2-Dichloroethene	ND	5.0	ug/kg	2.0
2-Butanone	ND UJ	25	ug/kg	15
Bromochloromethane	ND	5.0	ug/kg	1.0
Chloroform	**1.9 J**	**5.0**	**ug/kg**	**1.0**
Tetrahydrofuran	ND UJ	20	ug/kg	2.0
1,1,1-Trichloroethane	ND	5.0	ug/kg	1.0
1,1-Dichloropropene	ND	5.0	ug/kg	1.0
Carbon tetrachloride	ND	5.0	ug/kg	1.0
Benzene	ND	5.0	ug/kg	2.0
1,2-Dichloroethane	ND	5.0	ug/kg	1.0
Trichloroethene	**110**	**5.0**	**ug/kg**	**2.0**
1,2-Dichloropropane	ND	5.0	ug/kg	1.0
Bromodichloromethane	ND	5.0	ug/kg	1.0
2-Chloroethyl vinyl ether	ND R	10	ug/kg	5.0
cis-1,3-Dichloropropene	ND	5.0	ug/kg	1.0
4-Methyl-2-pentanone	ND UJ	25	ug/kg	10
Toluene	ND	5.0	ug/kg	2.0
trans-1,3-Dichloropropene	ND	5.0	ug/kg	3.0

(Continued on next page)

A
JMW

HALEY & ALDRICH INC

Client Sample ID: SB1002_SS50_0001

GC/MS Volatiles

Lot-Sample #...: E2I240147-004 Work Order #...: E8QA01AA Matrix.....: SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
1,1,2-Trichloroethane	ND	5.0	ug/kg	3.0
Tetrachloroethene	**2.4 J**	**5.0**	**ug/kg**	**2.0**
2-Hexanone	ND	25	ug/kg	10
Dibromochloromethane	ND	5.0	ug/kg	1.0
Chlorobenzene	ND	5.0	ug/kg	2.0
Ethylbenzene	ND	5.0	ug/kg	2.0
Xylenes (total)	ND	5.0	ug/kg	3.0
Styrene	ND	10	ug/kg	2.0
Bromoform	ND	5.0	ug/kg	3.0
Isopropylbenzene	ND	5.0	ug/kg	2.0
p-Isopropyltoluene	ND	5.0	ug/kg	2.0
Bromobenzene	ND	5.0	ug/kg	2.0
1,1,1,2-Tetrachloroethane	ND	5.0	ug/kg	3.0
1,1,2,2-Tetrachloroethane	ND	5.0	ug/kg	3.0
1,2,3-Trichloropropane	ND	5.0	ug/kg	3.0
n-Propylbenzene	ND	5.0	ug/kg	2.0
2-Chlorotoluene	ND	5.0	ug/kg	2.0
4-Chlorotoluene	ND	5.0	ug/kg	2.0
1,3,5-Trimethylbenzene	ND	5.0	ug/kg	2.0
tert-Butylbenzene	ND	5.0	ug/kg	2.0
1,2,4-Trimethylbenzene	ND	5.0	ug/kg	2.0
sec-Butylbenzene	ND	5.0	ug/kg	2.0
1,3-Dichlorobenzene	ND	5.0	ug/kg	2.0
1,4-Dichlorobenzene	ND	5.0	ug/kg	2.0
1,2-Dichlorobenzene	ND	5.0	ug/kg	2.0
n-Butylbenzene	ND	5.0	ug/kg	2.0
1,2-Dibromo-3-chloro-propane	ND	10	ug/kg	3.0
1,2,4-Trichloro-benzene	ND	5.0	ug/kg	2.0
Hexachlorobutadiene	ND	5.0	ug/kg	2.0
1,2,3-Trichlorobenzene	ND	5.0	ug/kg	2.0
t-Butanol	ND R	100	ug/kg	50
Isopropyl ether	ND	10	ug/kg	1.0
Tert-amyl methyl ether	ND	10	ug/kg	2.0
Tert-butyl ethyl ether	ND	10	ug/kg	1.0

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Bromofluorobenzene	114	(65 - 135)
1,2-Dichloroethane-d4	81	(60 - 140)
Toluene-d8	110	(70 - 130)

NOTE(S):

J Estimated result. Result is less than RL.

A
3403

HALEY & ALDRICH INC

SD1002_SS50_0001

GC/MS Volatiles

Lot-Sample #: E2I240147-004 Work Order #: E8QA01AA Matrix: SO

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT	RETENTION TIME	UNITS
None				ug/kg

A 3407

HALEY & ALDRICH INC

Client Sample ID: SB1003_SS25_0001

GC/MS Volatiles

Lot-Sample #...: E2I240147-005 Work Order #...: E8QA21AA Matrix.....: SO
Date Sampled...: 09/23/02 14:45 Date Received..: 09/23/02 19:45 MS Run #.....: 2270268
Prep Date.....: 09/26/02 Analysis Date..: 09/26/02
Prep Batch #...: 2270530 Analysis Time..: 20:38
Dilution Factor: 1
Analyst ID.....: 064667 Instrument ID..: MSD
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Dichlorodifluoromethane	ND UJ	10	ug/kg	1.0
Chloromethane	ND	10	ug/kg	3.0
Vinyl chloride	ND	10	ug/kg	2.0
Bromomethane	ND	10	ug/kg	8.0
1,2-Dibromoethane	ND	5.0	ug/kg	3.0
Chloroethane	ND	10	ug/kg	2.0
Trichlorofluoromethane	ND	10	ug/kg	2.0
Acrolein	ND R	100	ug/kg	30
1,1-Dichloroethene	ND	5.0	ug/kg	2.0
Iodomethane	ND	10	ug/kg	10
Acetone	ND	25	ug/kg	15
Carbon disulfide	ND	5.0	ug/kg	3.0
Methylene chloride	ND	5.0	ug/kg	3.0
trans-1,2-Dichloroethene	ND	5.0	ug/kg	2.0
Acrylonitrile	ND	100	ug/kg	30
Methyl tert-butyl ether	ND	5.0	ug/kg	1.0
1,1-Dichloroethane	ND	5.0	ug/kg	1.0
Vinyl acetate	ND	10	ug/kg	5.0
2,2-Dichloropropane	ND	5.0	ug/kg	2.0
cis-1,2-Dichloroethene	ND	5.0	ug/kg	2.0
2-Butanone	ND	25	ug/kg	15
Bromochloromethane	ND	5.0	ug/kg	1.0
Chloroform	ND	5.0	ug/kg	1.0
Tetrahydrofuran	ND UJ	20	ug/kg	2.0
1,1,1-Trichloroethane	ND	5.0	ug/kg	1.0
1,1-Dichloropropene	ND	5.0	ug/kg	1.0
Carbon tetrachloride	ND	5.0	ug/kg	1.0
Benzene	ND	5.0	ug/kg	2.0
1,2-Dichloroethane	ND	5.0	ug/kg	1.0
Trichloroethene	ND	5.0	ug/kg	2.0
1,2-Dichloropropane	ND	5.0	ug/kg	1.0
Bromodichloromethane	ND	5.0	ug/kg	1.0
2-Chloroethyl vinyl ether	ND UJ	10	ug/kg	5.0
cis-1,3-Dichloropropene	ND	5.0	ug/kg	1.0
4-Methyl-2-pentanone	ND	25	ug/kg	10
Toluene	ND	5.0	ug/kg	2.0
trans-1,3-Dichloropropene	ND	5.0	ug/kg	3.0

(Continued on next page)

A
3407

HALEY & ALDRICH INC

Client Sample ID: SB1003_SS25_0001

GC/MS Volatiles

Lot-Sample #...: E2I240147-005 Work Order #...: E8QA21AA Matrix.....: SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
1,1,2-Trichloroethane	ND	5.0	ug/kg	3.0
Tetrachloroethene	ND	5.0	ug/kg	2.0
2-Hexanone	ND	25	ug/kg	10
Dibromochloromethane	ND	5.0	ug/kg	1.0
Chlorobenzene	ND	5.0	ug/kg	2.0
Ethylbenzene	ND	5.0	ug/kg	2.0
Xylenes (total)	ND	5.0	ug/kg	3.0
Styrene	ND	10	ug/kg	2.0
Bromoform	ND	5.0	ug/kg	3.0
Isopropylbenzene	ND	5.0	ug/kg	2.0
p-Isopropyltoluene	ND	5.0	ug/kg	2.0
Bromobenzene	ND	5.0	ug/kg	2.0
1,1,1,2-Tetrachloroethane	ND	5.0	ug/kg	3.0
1,1,2,2-Tetrachloroethane	ND	5.0	ug/kg	3.0
1,2,3-Trichloropropane	ND	5.0	ug/kg	3.0
n-Propylbenzene	ND	5.0	ug/kg	2.0
2-Chlorotoluene	ND	5.0	ug/kg	2.0
4-Chlorotoluene	ND	5.0	ug/kg	2.0
1,3,5-Trimethylbenzene	ND	5.0	ug/kg	2.0
tert-Butylbenzene	ND	5.0	ug/kg	2.0
1,2,4-Trimethylbenzene	ND	5.0	ug/kg	2.0
sec-Butylbenzene	ND	5.0	ug/kg	2.0
1,3-Dichlorobenzene	ND	5.0	ug/kg	2.0
1,4-Dichlorobenzene	ND	5.0	ug/kg	2.0
1,2-Dichlorobenzene	ND	5.0	ug/kg	2.0
n-Butylbenzene	ND	5.0	ug/kg	2.0
1,2-Dibromo-3-chloro-propane	ND	10	ug/kg	3.0
1,2,4-Trichloro-benzene	ND	5.0	ug/kg	2.0
Hexachlorobutadiene	ND	5.0	ug/kg	2.0
1,2,3-Trichlorobenzene	ND	5.0	ug/kg	2.0
t-Butanol	ND R	100	ug/kg	50
Isopropyl ether	ND	10	ug/kg	1.0
Tert-amyl methyl ether	ND	10	ug/kg	2.0
Tert-butyl ethyl ether	ND	10	ug/kg	1.0

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Bromofluorobenzene	109	(65 - 135)
1,2-Dichloroethane-d4	88	(60 - 140)
Toluene-d8	106	(70 - 130)

A
3403

HALEY & ALDRICH INC

SB1003_SS25_0001

GC/MS Volatiles

Lot-Sample #: E2I240147-005 Work Order #: E8QA21AA Matrix: SO

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT	RETENTION TIME	UNITS
None				ug/kg

A
3403

HALEY & ALDRICH INC

Client Sample ID: SB1003_SS30_0001

GC/MS Volatiles

Lot-Sample #...: E2I240147-006 Work Order #...: E8QA31AA Matrix.....: SO
Date Sampled...: 09/23/02 14:50 Date Received..: 09/23/02 19:45 MS Run #.....: 2270268
Prep Date.....: 09/26/02 Analysis Date..: 09/26/02
Prep Batch #...: 2270530 Analysis Time..: 21:08
Dilution Factor: 1
Analyst ID.....: 064667 Instrument ID..: MSD
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Dichlorodifluoromethane	ND UJ	10	ug/kg	1.0
Chloromethane	ND	10	ug/kg	3.0
Vinyl chloride	ND	10	ug/kg	2.0
Bromomethane	ND	10	ug/kg	8.0
1,2-Dibromoethane	ND	5.0	ug/kg	3.0
Chloroethane	ND	10	ug/kg	2.0
Trichlorofluoromethane	ND	10	ug/kg	2.0
Acrolein	ND R	100	ug/kg	30
1,1-Dichloroethene	ND	5.0	ug/kg	2.0
Iodomethane	ND	10	ug/kg	10
Acetone	ND	25	ug/kg	15
Carbon disulfide	ND	5.0	ug/kg	3.0
Methylene chloride	ND	5.0	ug/kg	3.0
trans-1,2-Dichloroethene	ND	5.0	ug/kg	2.0
Acrylonitrile	ND	100	ug/kg	30
Methyl tert-butyl ether	ND	5.0	ug/kg	1.0
1,1-Dichloroethane	ND	5.0	ug/kg	1.0
Vinyl acetate	ND	10	ug/kg	5.0
2,2-Dichloropropane	ND	5.0	ug/kg	2.0
cis-1,2-Dichloroethene	ND	5.0	ug/kg	2.0
2-Butanone	ND	25	ug/kg	15
Bromochloromethane	ND	5.0	ug/kg	1.0
Chloroform	ND	5.0	ug/kg	1.0
Tetrahydrofuran	ND UJ	20	ug/kg	2.0
1,1,1-Trichloroethane	ND	5.0	ug/kg	1.0
1,1-Dichloropropene	ND	5.0	ug/kg	1.0
Carbon tetrachloride	ND	5.0	ug/kg	1.0
Benzene	ND	5.0	ug/kg	2.0
1,2 Dichloroethane	ND	5.0	ug/kg	1.0
Trichloroethene	ND	5.0	ug/kg	2.0
1,2-Dichloropropane	ND	5.0	ug/kg	1.0
Bromodichloromethane	ND	5.0	ug/kg	1.0
2-Chloroethyl vinyl ether	ND UJ	10	ug/kg	5.0
cis-1,3-Dichloropropene	ND	5.0	ug/kg	1.0
4-Methyl-2-pentanone	ND	25	ug/kg	10
Toluene	ND	5.0	ug/kg	2.0
trans-1,3-Dichloropropene	ND	5.0	ug/kg	3.0

(Continued on next page)

A
3409

HALEY & ALDRICH INC

Client Sample ID: SB1003_SS30_0001

GC/MS Volatiles

Lot-Sample #...: E2I240147-006 Work Order #...: E8QA31AA Matrix.....: SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
1,1,2-Trichloroethane	ND	5.0	ug/kg	3.0
Tetrachloroethene	ND	5.0	ug/kg	2.0
2-Hexanone	ND	25	ug/kg	10
Dibromochloromethane	ND	5.0	ug/kg	1.0
Chlorobenzene	ND	5.0	ug/kg	2.0
Ethylbenzene	ND	5.0	ug/kg	2.0
Xylenes (total)	ND	5.0	ug/kg	3.0
Styrene	ND	10	ug/kg	2.0
Bromoform	ND	5.0	ug/kg	3.0
Isopropylbenzene	ND	5.0	ug/kg	2.0
p-Isopropyltoluene	ND	5.0	ug/kg	2.0
Bromobenzene	ND	5.0	ug/kg	2.0
1,1,1,2-Tetrachloroethane	ND	5.0	ug/kg	3.0
1,1,2,2-Tetrachloroethane	ND	5.0	ug/kg	3.0
1,2,3-Trichloropropane	ND	5.0	ug/kg	3.0
n-Propylbenzene	ND	5.0	ug/kg	2.0
2-Chlorotoluene	ND	5.0	ug/kg	2.0
4-Chlorotoluene	ND	5.0	ug/kg	2.0
1,3,5-Trimethylbenzene	ND	5.0	ug/kg	2.0
tert-Butylbenzene	ND	5.0	ug/kg	2.0
1,2,4-Trimethylbenzene	ND	5.0	ug/kg	2.0
sec-Butylbenzene	ND	5.0	ug/kg	2.0
1,3-Dichlorobenzene	ND	5.0	ug/kg	2.0
1,4-Dichlorobenzene	ND	5.0	ug/kg	2.0
1,2-Dichlorobenzene	ND	5.0	ug/kg	2.0
n-Butylbenzene	ND	5.0	ug/kg	2.0
1,2-Dibromo-3-chloro-propane	ND	10	ug/kg	3.0
1,2,4-Trichloro-benzene	ND	5.0	ug/kg	2.0
Hexachlorobutadiene	ND	5.0	ug/kg	2.0
1,2,3-Trichlorobenzene	ND	5.0	ug/kg	2.0
t-Butanol	ND R	100	ug/kg	50
Isopropyl ether	ND	10	ug/kg	1.0
Tert-amyl methyl ether	ND	10	ug/kg	2.0
Tert-butyl ethyl ether	ND	10	ug/kg	1.0

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Bromofluorobenzene	105	(65 - 135)
1,2-Dichloroethane-d4	81	(60 - 140)
Toluene-d8	100	(70 - 130)

A
3405

HALEY & ALDRICH INC

SB1003_SS30_0001

GC/MS Volatiles

Lot-Sample #: E2I240147-006 Work Order #: E8QA31AA Matrix: SO

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT	RETENTION TIME	UNITS
None				ug/kg

A
7/2/03

HALEY & ALDRICH INC

Client Sample ID: SB1003_SG40_0001

GC/MS Volatiles

Lot-Sample #...: E2I240147-007 Work Order #...: E8QA41AA Matrix.....: SO
Date Sampled...: 09/23/02 14:55 Date Received..: 09/23/02 19:45 MS Run #.....: 2270268
Prep Date.....: 09/26/02 Analysis Date..: 09/26/02
Prep Batch #...: 2270530 Analysis Time..: 21:39
Dilution Factor: 1
Analyst ID.....: 064667 Instrument ID..: MSD
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Dichlorodifluoromethane	ND UJ	10	ug/kg	1.0
Chloromethane	ND	10	ug/kg	3.0
Vinyl chloride	ND	10	ug/kg	2.0
Bromomethane	ND	10	ug/kg	8.0
1,2-Dibromoethane	ND	5.0	ug/kg	3.0
Chloroethane	ND	10	ug/kg	2.0
Trichlorofluoromethane	ND	10	ug/kg	2.0
Acrolein	ND R	100	ug/kg	30
1,1-Dichloroethene	ND	5.0	ug/kg	2.0
Iodomethane	ND	10	ug/kg	10
Acetone	ND	25	ug/kg	15
Carbon disulfide	ND	5.0	ug/kg	3.0
Methylene chloride	ND	5.0	ug/kg	3.0
trans-1,2-Dichloroethene	ND	5.0	ug/kg	2.0
Acrylonitrile	ND	100	ug/kg	30
Methyl tert-butyl ether	ND	5.0	ug/kg	1.0
1,1-Dichloroethane	ND	5.0	ug/kg	1.0
Vinyl acetate	ND	10	ug/kg	5.0
2,2-Dichloropropane	ND	5.0	ug/kg	2.0
cis-1,2-Dichloroethene	ND	5.0	ug/kg	2.0
2-Butanone	ND	25	ug/kg	15
Bromochloromethane	ND	5.0	ug/kg	1.0
Chloroform	ND	5.0	ug/kg	1.0
Tetrahydrofuran	ND UJ	20	ug/kg	2.0
1,1,1-Trichloroethane	ND	5.0	ug/kg	1.0
1,1-Dichloropropene	ND	5.0	ug/kg	1.0
Carbon tetrachloride	ND	5.0	ug/kg	1.0
Benzene	ND	5.0	ug/kg	2.0
1,2-Dichloroethane	ND	5.0	ug/kg	1.0
Trichloroethene	ND	5.0	ug/kg	2.0
1,2-Dichloropropane	ND	5.0	ug/kg	1.0
Bromodichloromethane	ND	5.0	ug/kg	1.0
2-Chloroethyl vinyl ether	ND UJ	10	ug/kg	5.0
cis-1,3-Dichloropropene	ND	5.0	ug/kg	1.0
4-Methyl-2-pentanone	ND	25	ug/kg	10
Toluene	ND	5.0	ug/kg	2.0
trans-1,3-Dichloropropene	ND	5.0	ug/kg	3.0

(Continued on next page)

A
3407

HALEY & ALDRICH INC

Client Sample ID: SB1003_SS40 0001

GC/MS Volatiles

Lot-Sample #...: E2I240147-007 Work Order #...: E8QA41AA Matrix.....: SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
1,1,2-Trichloroethane	ND	5.0	ug/kg	3.0
Tetrachloroethene	ND	5.0	ug/kg	2.0
2-Hexanone	ND	25	ug/kg	10
Dibromochloromethane	ND	5.0	ug/kg	1.0
Chlorobenzene	ND	5.0	ug/kg	2.0
Ethylbenzene	ND	5.0	ug/kg	2.0
Xylenes (total)	ND	5.0	ug/kg	3.0
Styrene	ND	10	ug/kg	2.0
Bromoform	ND	5.0	ug/kg	3.0
Isopropylbenzene	ND	5.0	ug/kg	2.0
p-Isopropyltoluene	ND	5.0	ug/kg	2.0
Bromobenzene	ND	5.0	ug/kg	2.0
1,1,1,2-Tetrachloroethane	ND	5.0	ug/kg	3.0
1,1,2,2-Tetrachloroethane	ND	5.0	ug/kg	3.0
1,2,3-Trichloropropane	ND	5.0	ug/kg	3.0
n-Propylbenzene	ND	5.0	ug/kg	2.0
2-Chlorotoluene	ND	5.0	ug/kg	2.0
4-Chlorotoluene	ND	5.0	ug/kg	2.0
1,3,5-Trimethylbenzene	ND	5.0	ug/kg	2.0
tert-Butylbenzene	ND	5.0	ug/kg	2.0
1,2,4-Trimethylbenzene	ND	5.0	ug/kg	2.0
sec-Butylbenzene	ND	5.0	ug/kg	2.0
1,3-Dichlorobenzene	ND	5.0	ug/kg	2.0
1,4-Dichlorobenzene	ND	5.0	ug/kg	2.0
1,2-Dichlorobenzene	ND	5.0	ug/kg	2.0
n-Butylbenzene	ND	5.0	ug/kg	2.0
1,2-Dibromo-3-chloro-propane	ND	10	ug/kg	3.0
1,2,4-Trichloro-benzene	ND	5.0	ug/kg	2.0
Hexachlorobutadiene	ND	5.0	ug/kg	2.0
1,2,3-Trichlorobenzene	ND	5.0	ug/kg	2.0
t-Butanol	ND R	100	ug/kg	50
Isopropyl ether	ND	10	ug/kg	1.0
Tert-amyl methyl ether	ND	10	ug/kg	2.0
Tert-butyl ethyl ether	ND	10	ug/kg	1.0

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Bromofluorobenzene	106	(65 - 135)
1,2-Dichloroethane-d4	90	(60 - 140)
Toluene-d8	107	(70 - 130)

A
3/2/07

HALEY & ALDRICH INC

SB1003_SS40_0001

GC/MS Volatiles

Lot-Sample #: E2I240147-007 Work Order #: E8QA41AA Matrix: SO

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT	RETENTION TIME	UNITS
None				ug/kg

A
JWS

HALEY & ALDRICH INC

Client Sample ID: SB1003_SS50_0001

GC/MS Volatiles

Lot-Sample #...: E2I240147-008 Work Order #...: E8QA61AA Matrix.....: SO
Date Sampled...: 09/23/02 15:00 Date Received..: 09/23/02 19:45 MS Run #.....: 2270268
Prep Date.....: 09/26/02 Analysis Date..: 09/26/02
Prep Batch #...: 2270530 Analysis Time..: 22:09
Dilution Factor: 1
Analyst ID.....: 064667 Instrument ID..: MSD
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Dichlorodifluoromethane	ND UJ	10	ug/kg	1.0
Chloromethane	ND	10	ug/kg	3.0
Vinyl chloride	ND	10	ug/kg	2.0
Bromomethane	ND	10	ug/kg	8.0
1,2-Dibromoethane	ND	5.0	ug/kg	3.0
Chloroethane	ND	10	ug/kg	2.0
Trichlorofluoromethane	ND	10	ug/kg	2.0
Acrolein	ND R	100	ug/kg	30
1,1-Dichloroethene	ND	5.0	ug/kg	2.0
Iodomethane	ND	10	ug/kg	10
Acetone	ND	25	ug/kg	15
Carbon disulfide	ND	5.0	ug/kg	3.0
Methylene chloride	ND	5.0	ug/kg	3.0
trans-1,2-Dichloroethene	ND	5.0	ug/kg	2.0
Acrylonitrile	ND	100	ug/kg	30
Methyl tert-butyl ether	ND	5.0	ug/kg	1.0
1,1-Dichloroethane	ND	5.0	ug/kg	1.0
Vinyl acetate	ND	10	ug/kg	5.0
2,2-Dichloropropane	ND	5.0	ug/kg	2.0
cis-1,2-Dichloroethene	ND	5.0	ug/kg	2.0
2-Butanone	ND	25	ug/kg	15
Bromochloromethane	ND	5.0	ug/kg	1.0
Chloroform	ND	5.0	ug/kg	1.0
Tetrahydrofuran	ND UJ	20	ug/kg	2.0
1,1,1-Trichloroethane	ND	5.0	ug/kg	1.0
1,1-Dichloropropene	ND	5.0	ug/kg	1.0
Carbon tetrachloride	ND	5.0	ug/kg	1.0
Benzene	ND	5.0	ug/kg	2.0
1,2-Dichloroethane	ND	5.0	ug/kg	1.0
Trichloroethene	**27**	**5.0**	**ug/kg**	**2.0**
1,2-Dichloropropane	ND	5.0	ug/kg	1.0
Bromodichloromethane	ND	5.0	ug/kg	1.0
2-Chloroethyl vinyl ether	ND UJ	10	ug/kg	5.0
cis-1,3-Dichloropropene	ND	5.0	ug/kg	1.0
4-Methyl-2-pentanone	ND	25	ug/kg	10
Toluene	ND	5.0	ug/kg	2.0
trans-1,3-Dichloropropene	ND	5.0	ug/kg	3.0

(Continued on next page)

A
JMS

HALEY & ALDRICH INC

Client Sample ID: SB1003_SS50_0001

GC/MS Volatiles

Lot-Sample #...: E2I240147-008 Work Order #...: E8QA61AA Matrix.....: SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
1,1,2-Trichloroethane	ND	5.0	ug/kg	3.0
Tetrachloroethene	ND	5.0	ug/kg	2.0
2-Hexanone	ND	25	ug/kg	10
Dibromochloromethane	ND	5.0	ug/kg	1.0
Chlorobenzene	ND	5.0	ug/kg	2.0
Ethylbenzene	ND	5.0	ug/kg	2.0
Xylenes (total)	ND	5.0	ug/kg	3.0
Styrene	ND	10	ug/kg	2.0
Bromoform	ND	5.0	ug/kg	3.0
Isopropylbenzene	ND	5.0	ug/kg	2.0
p-Isopropyltoluene	ND	5.0	ug/kg	2.0
Bromobenzene	ND	5.0	ug/kg	2.0
1,1,1,2-Tetrachloroethane	ND	5.0	ug/kg	3.0
1,1,2,2-Tetrachloroethane	ND	5.0	ug/kg	3.0
1,2,3-Trichloropropane	ND	5.0	ug/kg	3.0
n-Propylbenzene	ND	5.0	ug/kg	2.0
2-Chlorotoluene	ND	5.0	ug/kg	2.0
4-Chlorotoluene	ND	5.0	ug/kg	2.0
1,3,5-Trimethylbenzene	ND	5.0	ug/kg	2.0
tert-Butylbenzene	ND	5.0	ug/kg	2.0
1,2,4-Trimethylbenzene	ND	5.0	ug/kg	2.0
sec-Butylbenzene	ND	5.0	ug/kg	2.0
1,3-Dichlorobenzene	ND	5.0	ug/kg	2.0
1,4-Dichlorobenzene	ND	5.0	ug/kg	2.0
1,2-Dichlorobenzene	ND	5.0	ug/kg	2.0
n-Butylbenzene	ND	5.0	ug/kg	2.0
1,2-Dibromo-3-chloro-propane	ND	10	ug/kg	3.0
1,2,4-Trichloro-benzene	ND	5.0	ug/kg	2.0
Hexachlorobutadiene	ND	5.0	ug/kg	2.0
1,2,3-Trichlorobenzene	ND	5.0	ug/kg	2.0
t-Butanol	ND R	100	ug/kg	50
Isopropyl ether	ND	10	ug/kg	1.0
Tert-amyl methyl ether	ND	10	ug/kg	2.0
Tert-butyl ethyl ether	ND	10	ug/kg	1.0

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Bromofluorobenzene	110	(65 - 135)
1,2-Dichloroethane-d4	90	(60 - 140)
Toluene-d8	110	(70 - 130)

4
3445

HALEY & ALDRICH INC

SB1003_SS50_0001

GC/MS Volatiles

Lot-Sample #: E2I240147-008 Work Order #: E8QA61AA Matrix: SO

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT	RETENTION TIME	UNITS
None				ug/kg

A
JMW

HALEY & ALDRICH INC

Client Sample ID: SB1004_SS30_0001

GC/MS Volatiles

Lot-Sample #...: E2I240147-009 Work Order #...: E8QA71AA Matrix.....: SO
Date Sampled...: 09/23/02 13:15 Date Received..: 09/23/02 19:45 MS Run #.....: 2270268
Prep Date.....: 09/26/02 Analysis Date..: 09/26/02
Prep Batch #...: 2270530 Analysis Time..: 22:39
Dilution Factor: 1
Analyst ID.....: 064667 Instrument ID..: MSD
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Dichlorodifluoromethane	ND UJ	10	ug/kg	1.0
Chloromethane	ND	10	ug/kg	3.0
Vinyl chloride	ND	10	ug/kg	2.0
Bromomethane	ND	10	ug/kg	8.0
1,2-Dibromoethane	ND	5.0	ug/kg	3.0
Chloroethane	ND	10	ug/kg	2.0
Trichlorofluoromethane	ND	10	ug/kg	2.0
Acrolein	ND R	100	ug/kg	30
1,1-Dichloroethene	ND	5.0	ug/kg	2.0
Iodomethane	ND	10	ug/kg	10
Acetone	ND	25	ug/kg	15
Carbon disulfide	ND	5.0	ug/kg	3.0
Methylene chloride	ND	5.0	ug/kg	3.0
trans-1,2-Dichloroethene	ND	5.0	ug/kg	2.0
Acrylonitrile	ND	100	ug/kg	30
Methyl tert-butyl ether	ND	5.0	ug/kg	1.0
1,1-Dichloroethane	ND	5.0	ug/kg	1.0
Vinyl acetate	ND	10	ug/kg	5.0
2,2-Dichloropropane	ND	5.0	ug/kg	2.0
cis-1,2-Dichloroethene	ND	5.0	ug/kg	2.0
2-Butanone	ND	25	ug/kg	15
Bromochloromethane	ND	5.0	ug/kg	1.0
Chloroform	ND	5.0	ug/kg	1.0
Tetrahydrofuran	ND UJ	20	ug/kg	2.0
1,1,1-Trichloroethane	ND	5.0	ug/kg	1.0
1,1-Dichloropropene	ND	5.0	ug/kg	1.0
Carbon tetrachloride	ND	5.0	ug/kg	1.0
Benzene	ND	5.0	ug/kg	2.0
1,2-Dichloroethane	ND	5.0	ug/kg	1.0
Trichloroethene	ND	5.0	ug/kg	2.0
1,2-Dichloropropane	ND	5.0	ug/kg	1.0
Bromodichloromethane	ND	5.0	ug/kg	1.0
2-Chloroethyl vinyl ether	ND UJ	10	ug/kg	5.0
cis-1,3-Dichloropropene	ND	5.0	ug/kg	1.0
4-Methyl-2-pentanone	ND	25	ug/kg	10
Toluene	ND	5.0	ug/kg	2.0
trans-1,3-Dichloropropene	ND	5.0	ug/kg	3.0

(Continued on next page)

HALEY & ALDRICH INC

Client Sample ID: SD1004_SS30_0001

GC/MS Volatiles

Lot-Sample #...: E2I240147-009 Work Order #...: E8QA71AA Matrix.....: SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
1,1,2-Trichloroethane	ND	5.0	ug/kg	3.0
Tetrachloroethene	ND	5.0	ug/kg	2.0
2-Hexanone	ND	25	ug/kg	10
Dibromochloromethane	ND	5.0	ug/kg	1.0
Chlorobenzene	ND	5.0	ug/kg	2.0
Ethylbenzene	ND	5.0	ug/kg	2.0
Xylenes (total)	ND	5.0	ug/kg	3.0
Styrene	ND	10	ug/kg	2.0
Bromoform	ND	5.0	ug/kg	3.0
Isopropylbenzene	ND	5.0	ug/kg	2.0
p-Isopropyltoluene	ND	5.0	ug/kg	2.0
Bromobenzene	ND	5.0	ug/kg	2.0
1,1,1,2-Tetrachloroethane	ND	5.0	ug/kg	3.0
1,1,2,2-Tetrachloroethane	ND	5.0	ug/kg	3.0
1,2,3-Trichloropropane	ND	5.0	ug/kg	3.0
n-Propylbenzene	ND	5.0	ug/kg	2.0
2-Chlorotoluene	ND	5.0	ug/kg	2.0
4-Chlorotoluene	ND	5.0	ug/kg	2.0
1,3,5-Trimethylbenzene	ND	5.0	ug/kg	2.0
tert-Butylbenzene	ND	5.0	ug/kg	2.0
1,2,4-Trimethylbenzene	ND	5.0	ug/kg	2.0
sec-Butylbenzene	ND	5.0	ug/kg	2.0
1,3-Dichlorobenzene	ND	5.0	ug/kg	2.0
1,4-Dichlorobenzene	ND	5.0	ug/kg	2.0
1,2-Dichlorobenzene	ND	5.0	ug/kg	2.0
n-Butylbenzene	ND	5.0	ug/kg	2.0
1,2-Dibromo-3-chloro-propane	ND	10	ug/kg	3.0
1,2,4-Trichloro-benzene	ND	5.0	ug/kg	2.0
Hexachlorobutadiene	ND	5.0	ug/kg	2.0
1,2,3-Trichlorobenzene	ND	5.0	ug/kg	2.0
t-Butanol	ND R	100	ug/kg	50
Isopropyl ether	ND	10	ug/kg	1.0
Tert-amyl methyl ether	ND	10	ug/kg	2.0
Tert-butyl ethyl ether	ND	10	ug/kg	1.0

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Bromofluorobenzene	100	(65 - 135)
1,2-Dichloroethane-d4	85	(60 - 140)
Toluene-d8	97	(70 - 130)

A 3/25

HALEY & ALDRICH INC

SB1004_SS30_0001

GC/MS Volatiles

Lot-Sample #: E2I240147-009 Work Order #: E8QA71AA Matrix: SO

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT	RETENTION TIME	UNITS
None				ug/kg

A
3/4/03

HALEY & ALDRICH INC

Client Sample ID: SB1004_SS40_0001

GC/MS Volatiles

Lot-Sample #...: E2I240147-010 Work Order #...: E8QA81AA Matrix.....: SO
Date Sampled...: 09/23/02 13:20 Date Received..: 09/23/02 19:45 MS Run #.....: 2270268
Prep Date.....: 09/26/02 Analysis Date..: 09/26/02
Prep Batch #...: 2270530 Analysis Time..: 23:10
Dilution Factor: 1
Analyst ID.....: 064667 Instrument ID..: MSD
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Dichlorodifluoromethane	ND UJ	10	ug/kg	1.0
Chloromethane	ND	10	ug/kg	3.0
Vinyl chloride	ND	10	ug/kg	2.0
Bromomethane	ND	10	ug/kg	8.0
1,2-Dibromoethane	ND	5.0	ug/kg	3.0
Chloroethane	ND	10	ug/kg	2.0
Trichlorofluoromethane	ND	10	ug/kg	2.0
Acrolein	ND R	100	ug/kg	30
1,1-Dichloroethene	ND	5.0	ug/kg	2.0
Iodomethane	ND	10	ug/kg	10
Acetone	ND	25	ug/kg	15
Carbon disulfide	ND	5.0	ug/kg	3.0
Methylene chloride	ND	5.0	ug/kg	3.0
trans-1,2-Dichloroethene	ND	5.0	ug/kg	2.0
Acrylonitrile	ND	100	ug/kg	30
Methyl tert-butyl ether	ND	5.0	ug/kg	1.0
1,1-Dichloroethane	ND	5.0	ug/kg	1.0
Vinyl acetate	ND	10	ug/kg	5.0
2,2-Dichloropropane	ND	5.0	ug/kg	2.0
cis-1,2-Dichloroethene	ND	5.0	ug/kg	2.0
2-Butanone	ND	25	ug/kg	15
Bromochloromethane	ND	5.0	ug/kg	1.0
Chloroform	ND	5.0	ug/kg	1.0
Tetrahydrofuran	ND UJ	20	ug/kg	2.0
1,1,1-Trichloroethane	ND	5.0	ug/kg	1.0
1,1-Dichloropropene	ND	5.0	ug/kg	1.0
Carbon tetrachloride	ND	5.0	ug/kg	1.0
Benzene	ND	5.0	ug/kg	2.0
1,2-Dichloroethane	ND	5.0	ug/kg	1.0
Trichloroethene	ND	5.0	ug/kg	2.0
1,2-Dichloropropane	ND	5.0	ug/kg	1.0
Bromodichloromethane	ND	5.0	ug/kg	1.0
2-Chloroethyl vinyl ether	ND UJ	10	ug/kg	5.0
cis-1,3-Dichloropropene	ND	5.0	ug/kg	1.0
4-Methyl-2-pentanone	ND	25	ug/kg	10
Toluene	ND	5.0	ug/kg	2.0
trans-1,3-Dichloropropene	ND	5.0	ug/kg	3.0

(Continued on next page)

A
3/4/03

HALEY & ALDRICH INC

Client Sample ID: SB1004_SS40_0001

GC/MS Volatiles

Lot-Sample #...: E2I240147-010 Work Order #...: E8QA81AA Matrix.....: SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
1,1,2-Trichloroethane	ND	5.0	ug/kg	3.0
Tetrachloroethene	ND	5.0	ug/kg	2.0
2-Hexanone	ND	25	ug/kg	10
Dibromochloromethane	ND	5.0	ug/kg	1.0
Chlorobenzene	ND	5.0	ug/kg	2.0
Ethylbenzene	ND	5.0	ug/kg	2.0
Xylenes (total)	ND	5.0	ug/kg	3.0
Styrene	ND	10	ug/kg	2.0
Bromoform	ND	5.0	ug/kg	3.0
Isopropylbenzene	ND	5.0	ug/kg	2.0
p-Isopropyltoluene	ND	5.0	ug/kg	2.0
Bromobenzene	ND	5.0	ug/kg	2.0
1,1,1,2-Tetrachloroethane	ND	5.0	ug/kg	3.0
1,1,2,2-Tetrachloroethane	ND	5.0	ug/kg	3.0
1,2,3-Trichloropropane	ND	5.0	ug/kg	3.0
n-Propylbenzene	ND	5.0	ug/kg	2.0
2-Chlorotoluene	ND	5.0	ug/kg	2.0
4-Chlorotoluene	ND	5.0	ug/kg	2.0
1,3,5-Trimethylbenzene	ND	5.0	ug/kg	2.0
tert-Butylbenzene	ND	5.0	ug/kg	2.0
1,2,4-Trimethylbenzene	ND	5.0	ug/kg	2.0
sec-Butylbenzene	ND	5.0	ug/kg	2.0
1,3-Dichlorobenzene	ND	5.0	ug/kg	2.0
1,4-Dichlorobenzene	ND	5.0	ug/kg	2.0
1,2-Dichlorobenzene	ND	5.0	ug/kg	2.0
n-Butylbenzene	ND	5.0	ug/kg	2.0
1,2-Dibromo-3-chloro-propane	ND	10	ug/kg	3.0
1,2,4-Trichloro-benzene	ND	5.0	ug/kg	2.0
Hexachlorobutadiene	ND	5.0	ug/kg	2.0
1,2,3-Trichlorobenzene	ND	5.0	ug/kg	2.0
t-Butanol	ND R	100	ug/kg	50
Isopropyl ether	ND	10	ug/kg	1.0
Tert-amyl methyl ether	ND	10	ug/kg	2.0
Tert-butyl ethyl ether	ND	10	ug/kg	1.0

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Bromofluorobenzene	108	(65 - 135)
1,2-Dichloroethane-d4	92	(60 - 140)
Toluene-d8	106	(70 - 130)

A
3/4/03

HALEY & ALDRICH INC

SB1004_SS40_0001

GC/MS Volatiles

Lot-Sample #: E2I240147-010 Work Order #: E8QA81AA Matrix: SO

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT	RETENTION TIME	UNITS
None				ug/kg

HALEY & ALDRICH INC

Client Sample ID: SB1004_SS50_0001

GC/MS Volatiles

Lot-Sample #...: E2I240147-011 Work Order #...: E8QA91AA Matrix.....: SO
Date Sampled...: 09/23/02 13:25 Date Received..: 09/23/02 19:45 MS Run #.....: 2271035
Prep Date.....: 09/27/02 Analysis Date..: 09/27/02
Prep Batch #...: 2271149 Analysis Time..: 16:49
Dilution Factor: 1
Analyst ID.....: 064667 Instrument ID..: MSD
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Dichlorodifluoromethane	ND UJ	10	ug/kg	1.0
Chloromethane	ND	10	ug/kg	3.0
Vinyl chloride	ND	10	ug/kg	2.0
Bromomethane	ND	10	ug/kg	8.0
1,2-Dibromoethane	ND	5.0	ug/kg	3.0
Chloroethane	ND	10	ug/kg	2.0
Trichlorofluoromethane	ND	10	ug/kg	2.0
Acrolein	ND R	100	ug/kg	30
1,1-Dichloroethene	ND	5.0	ug/kg	2.0
Iodomethane	ND	10	ug/kg	10
Acetone	ND R	25	ug/kg	15
Carbon disulfide	ND	5.0	ug/kg	3.0
Methylene chloride	ND	5.0	ug/kg	3.0
trans-1,2-Dichloroethene	ND	5.0	ug/kg	2.0
Acrylonitrile	ND R	100	ug/kg	30
Methyl tert-butyl ether	ND	5.0	ug/kg	1.0
1,1-Dichloroethane	ND	5.0	ug/kg	1.0
Vinyl acetate	ND	10	ug/kg	5.0
2,2-Dichloropropane	ND	5.0	ug/kg	2.0
cis-1,2-Dichloroethene	ND	5.0	ug/kg	2.0
2-Butanone	ND UJ	25	ug/kg	15
Bromochloromethane	ND	5.0	ug/kg	1.0
Chloroform	ND	5.0	ug/kg	1.0
Tetrahydrofuran	ND UJ	20	ug/kg	2.0
1,1,1-Trichloroethane	ND	5.0	ug/kg	1.0
1,1-Dichloropropene	ND	5.0	ug/kg	1.0
Carbon tetrachloride	ND	5.0	ug/kg	1.0
Benzene	ND	5.0	ug/kg	2.0
1,2-Dichloroethane	ND	5.0	ug/kg	1.0
Trichloroethene	ND	5.0	ug/kg	2.0
1,2-Dichloropropane	ND	5.0	ug/kg	1.0
Bromodichloromethane	ND	5.0	ug/kg	1.0
2-Chloroethyl vinyl ether	ND R	10	ug/kg	5.0
cis-1,3-Dichloropropene	ND	5.0	ug/kg	1.0
4-Methyl-2-pentanone	ND UJ	25	ug/kg	10
Toluene	ND	5.0	ug/kg	2.0
trans-1,3-Dichloropropene	ND	5.0	ug/kg	3.0

(Continued on next page)

A
3/4/03

HALEY & ALDRICH INC

Client Sample ID: SB1004_SS50_0001

GC/MS Volatiles

Lot-Sample #...: E2I240147-011 Work Order #...: E8QA91AA Matrix.....: SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
1,1,2-Trichloroethane	ND	5.0	ug/kg	3.0
Tetrachloroethene	ND	5.0	ug/kg	2.0
2-Hexanone	ND	25	ug/kg	10
Dibromochloromethane	ND	5.0	ug/kg	1.0
Chlorobenzene	ND	5.0	ug/kg	2.0
Ethylbenzene	ND	5.0	ug/kg	2.0
Xylenes (total)	ND	5.0	ug/kg	3.0
Styrene	ND	10	ug/kg	2.0
Bromoform	ND	5.0	ug/kg	3.0
Isopropylbenzene	ND	5.0	ug/kg	2.0
p-Isopropyltoluene	ND	5.0	ug/kg	2.0
Bromobenzene	ND	5.0	ug/kg	2.0
1,1,1,2-Tetrachloroethane	ND	5.0	ug/kg	3.0
1,1,2,2-Tetrachloroethane	ND	5.0	ug/kg	3.0
1,2,3-Trichloropropane	ND	5.0	ug/kg	3.0
n-Propylbenzene	ND	5.0	ug/kg	2.0
2-Chlorotoluene	ND	5.0	ug/kg	2.0
4-Chlorotoluene	ND	5.0	ug/kg	2.0
1,3,5-Trimethylbenzene	ND	5.0	ug/kg	2.0
tert-Butylbenzene	ND	5.0	ug/kg	2.0
1,2,4-Trimethylbenzene	ND	5.0	ug/kg	2.0
sec-Butylbenzene	ND	5.0	ug/kg	2.0
1,3-Dichlorobenzene	ND	5.0	ug/kg	2.0
1,4-Dichlorobenzene	ND	5.0	ug/kg	2.0
1,2-Dichlorobenzene	ND	5.0	ug/kg	2.0
n-Butylbenzene	ND	5.0	ug/kg	2.0
1,2-Dibromo-3-chloro-propane	ND	10	ug/kg	3.0
1,2,4-Trichloro-benzene	ND	5.0	ug/kg	2.0
Hexachlorobutadiene	ND	5.0	ug/kg	2.0
1,2,3-Trichlorobenzene	ND	5.0	ug/kg	2.0
t-Butanol	ND R	100	ug/kg	50
Isopropyl ether	ND	10	ug/kg	1.0
Tert-amyl methyl ether	ND	10	ug/kg	2.0
Tert-butyl ethyl ether	ND	10	ug/kg	1.0

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Bromofluorobenzene	109	(65 - 135)
1,2-Dichloroethane-d4	83	(60 - 140)
Toluene-d8	105	(70 - 130)

3403

HALEY & ALDRICH INC

SB1004_SS50_0001

GC/MS Volatiles

Lot-Sample #: E2I240147-011 Work Order #: E8QA91AA Matrix: SO

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT	RETENTION TIME	UNITS
None				ug/kg

LDC #: 9883B1

SDG #: E2I240147

Laboratory: Severn Trent Laboratories, Inc.

VALIDATION COMPLETENESS WORKSHEET

Level III

Date: 2/27/03

Page: 1 of 1

Reviewer: A

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	A	Sampling dates: 9/23/02
II.	GC/MS Instrument performance check	A	
III.	Initial calibration	SW	
IV.	Continuing calibration	SW	
V.	Blanks	A	
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates	A	E2I230242-001. E2I240296-001
VIII.	Laboratory control samples	A	LCS
IX.	Regional Quality Assurance and Quality Control	N	
X.	Internal standards	A	
XI.	Target compound identification	N	
XII.	Compound quantitation/CRQLs	N	
XIII.	Tentatively identified compounds (TICs)	N	
XIV.	System performance	N	
XV.	Overall assessment of data	A	
XVI.	Field duplicates	N	
XVII.	Field blanks	N	

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:

MS soils

1	2_VEW_21_SS50_0001	11	SB1004_SS50_0001	21		31	
2	SB1002_SS25_0001	12	22T0530 MB	22		32	
3	SB1002_SS40_0001	13	22T1149 MB	23		33	
4	SB1002_SS50_0001	14		24		34	
5	SB1003_SS25_0001	15		25		35	
6	SB1003_SS30_0001	16		26		36	
7	SB1003_SS40_0001	17		27		37	
8	SB1003_SS50_0001	18		28		38	
9	SB1004_SS30_0001	19		29		39	
10	SB1004_SS40_0001	20		30		40	

9883B1W.HA3.wpd

TARGET COMPOUND WORKSHEET

METHOD: VOA (EPA SW 846 Method 8260B)

A. Chloromethane*	S. Trichloroethene	KK. Trichlorofluoromethane	CCC. tert-Butylbenzene	UUU. Benzyl chloride
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. Diethyl ether	FFF. 1,3-Dichlorobenzene	XXX. Ethyl 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.

BOE-C6-0103461

LDC #: 9083B1
SDG #: E2124014T

VALIDATION FINDINGS WORKSHEET
Initial Calibration

Page: 1 of 1
Reviewer: [illegible]
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
	9/25/02	ICAL	W	39.499		MI + Blks	J/UJ/A
			Tetrahydrofuran	33.655			
			"	35.305			
			FFFF		0.02441		J/R/A
			t-Butanol		0.04988		

INICAL.1SB

BOE-C6-0103462

LDC #: 9883B1
SDG #: Z21240147

VALIDATION FINDINGS WORKSHEET
Continuing Calibration

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

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 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
	9/26/02	DS3862	VV	42.7		1-3.5-10.	J/UJ/A
			FFFF		0.02485	2270530 µB	J/R/A
			t-Butanol		0.04606		
	9/27/02	DS3864	VV	55.6		4.11.2271149 µB	J/UJ/A
			FFFF	27.6			
			F	34.7			
			t-Butanol	35.7			
			GGGG	29.1			
			M	33.6			
			Tetrahydrofuran	29.5			
			"	29.7			
			Y	29.8			
			FFFF		0.01768		J/R/A
			F		0.04988		
			t-Butanol		0.03205		
			GGGG		0.04865		
			"		0.04219		

CONCAL_1SB

BOE-C6-0103463

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: BRC Former C-6 Torrance Harbor Gateway

Collection Date: January 10, 2003

LDC Report Date: March 4, 2003

Matrix: Soil

Parameters: Volatiles

Validation Level: Tier 2

Laboratory: Severn Trent Laboratories

Sample Delivery Group (SDG): E3A100361

Sample Identification

SB1005_SS45_0001
SB1005_SS55_0001
SB1006_SS45_0001
SB1006_SS55_0001

Introduction

This data review covers 4 soil 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 table summarizing all data qualification is provided at the end of this report. 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 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.

BOE-C6-0103465

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
11/19/02	Chloroethane	31.443	All samples in SDG E3A100361	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
11/19/02	Acrolein t-Butanol	0.01856 (≥0.05) 0.03449 (≥0.05)	All samples in SDG E3A100361	J (all detects) R (all non-detects) J (all detects) R (all non-detects)	A

IV. Continuing Calibration

Continuing calibration was performed at the required frequencies.

BOE-C6-0103466

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
1/14/03	Acrolein Iodomethane	45.2 29.1	All samples in SDG E3A100361	J (all detects) UJ (all non-detects) 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
1/14/03	Acrolein Acetone t-Butanol	0.02694 (≥0.05) 0.04827 (≥0.05) 0.03300 (≥0.05)	All samples in SDG E3A100361	J (all detects) R (all non-detects)	A

V. Blanks

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

Method Blank ID	Analysis Date	Compound TIC (RT in minutes)	Concentration	Associated Samples
3015268MB	1/14/03	Tetrahydrofuran	6.1 ug/Kg	All samples in SDG E3A100361

Sample concentrations were compared to concentrations detected in the method blanks. The sample concentrations were either not detected or were significantly greater (>10X for common contaminants, >5X for other contaminants) than the concentrations found in the associated method blanks with the following exceptions:

Sample	Compound TIC (RT in minutes)	Reported Concentration	Modified Final Concentration
SB1006_SS45_0001	Tetrahydrofuran	7.4 ug/Kg	20U ug/Kg
SB1006_SS55_0001	Tetrahydrofuran (5X)	34 ug/Kg	100U ug/Kg

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.

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

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 have been summarized at the end of the report.

XVI. Field Duplicates

No field duplicates were identified in this SDG.

BOE-C6-0103468

XVII. Field Blanks

No field blanks were identified in this SDG.

BRC Former C-6 Torrance Harbor Gateway
Volatiles - Data Qualification Summary - SDG E3A100361

SDG	Sample	Compound	Flag	A or P	Reason
E3A100361	SB1005_SS45_0001 SB1005_SS55_0001 SB1006_SS45_0001 SB1006_SS55_0001	Chloroethane	J (all detects) UJ (all non-detects)	A	Initial calibration (%RSD)
E3A100361	SB1005_SS45_0001 SB1005_SS55_0001 SB1006_SS45_0001 SB1006_SS55_0001	Acrolein t-Butanol	J (all detects) R (all non-detects) J (all detects) R (all non-detects)	A	Initial calibration (RRF)
E3A100361	SB1005_SS45_0001 SB1005_SS55_0001 SB1006_SS45_0001 SB1006_SS55_0001	Acrolein Iodomethane	J (all detects) UJ (all non-detects) J (all detects) UJ (all non-detects)	A	Continuing calibration (%D)
E3A100361	SB1005_SS45_0001 SB1005_SS55_0001 SB1006_SS45_0001 SB1006_SS55_0001	Acrolein Acetone t-Butanol	J (all detects) R (all non-detects)	A	Continuing calibration (RRF)

BRC Former C-6 Torrance Harbor Gateway
Volatiles - Laboratory Blank Data Qualification Summary - SDG E3A100361

SDG	Sample	Compound TIC (RT in minutes)	Modified Final Concentration	A or P
E3A100361	SB1006_SS45_0001	Tetrahydrofuran	20U ug/Kg	A
E3A100361	SB1006_SS55_0001	Tetrahydrofuran (5X)	100U ug/Kg	A

9883C

HALEY & ALDRICH INC

Client Sample ID: SB1005_SS45_0001

GC/MS Volatiles

Lot-Sample #...: E3A100316-001 Work Order #...: FFXQ11AA Matrix.....: SOLID
Date Sampled...: 01/10/03 09:00 Date Received..: 01/10/03 13:35 MS Run #.....: 3015137
Prep Date.....: 01/14/03 Analysis Date..: 01/14/03
Prep Batch #...: 3015268 Analysis Time..: 21:31
Dilution Factor: 1
Analyst ID.....: 999998 Instrument ID..: MSD
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Dichlorodifluoromethane	ND	10	ug/kg	1.0
Chloromethane	ND	10	ug/kg	3.0
Vinyl chloride	ND	10	ug/kg	2.0
Bromomethane	ND	10	ug/kg	8.0
1,2-Dibromoethane	ND	5.0	ug/kg	3.0
Chloroethane	ND UJ	10	ug/kg	2.0
Trichlorofluoromethane	ND	10	ug/kg	2.0
Acrolein	ND R	100	ug/kg	30
1,1-Dichloroethene	ND	5.0	ug/kg	2.0
Iodomethane	ND UJ	10	ug/kg	10
Acetone	ND R	25	ug/kg	15
Carbon disulfide	ND	5.0	ug/kg	3.0
Methylene chloride	ND	5.0	ug/kg	3.0
trans-1,2-Dichloroethene	ND	5.0	ug/kg	2.0
Acrylonitrile	ND	100	ug/kg	40
Methyl tert-butyl ether	ND	5.0	ug/kg	1.0
1,1-Dichloroethane	ND	5.0	ug/kg	1.0
Vinyl acetate	ND	10	ug/kg	5.0
2,2-Dichloropropane	ND	5.0	ug/kg	2.0
cis-1,2-Dichloroethene	ND	5.0	ug/kg	2.0
2-Butanone	ND	25	ug/kg	15
Bromochloromethane	ND	5.0	ug/kg	1.0
Chloroform	ND	5.0	ug/kg	1.0
Tetrahydrofuran	ND	20	ug/kg	2.0
1,1,1-Trichloroethane	ND	5.0	ug/kg	1.0
1,1-Dichloropropene	ND	5.0	ug/kg	1.0
Carbon tetrachloride	ND	5.0	ug/kg	1.0
Benzene	ND	5.0	ug/kg	2.0
1,2-Dichloroethane	ND	5.0	ug/kg	1.0
Trichloroethene	ND	5.0	ug/kg	2.0
1,2-Dichloropropane	ND	5.0	ug/kg	1.0
Bromodichloromethane	ND	5.0	ug/kg	1.0
2-Chloroethyl vinyl ether	ND	10	ug/kg	5.0
cis-1,3-Dichloropropene	ND	5.0	ug/kg	1.0
4-Methyl-2-pentanone	ND	25	ug/kg	10
Toluene	ND	5.0	ug/kg	2.0
trans-1,3-Dichloropropene	ND	5.0	ug/kg	3.0

(Continued on next page)

A 3/4/03

HALEY & ALDRICH INC

Client Sample ID: SB1005_SS45_0001

GC/MS Volatiles

Lot-Sample #...: E3A100316-001 Work Order #...: FFXQ11AA Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
1,1,2-Trichloroethane	ND	5.0	ug/kg	3.0
Tetrachloroethene	ND	5.0	ug/kg	2.0
2-Hexanone	ND	25	ug/kg	10
Dibromochloromethane	ND	5.0	ug/kg	1.0
Chlorobenzene	ND	5.0	ug/kg	2.0
Ethylbenzene	ND	5.0	ug/kg	2.0
Xylenes (total)	ND	5.0	ug/kg	3.0
Styrene	ND	10	ug/kg	2.0
Bromoform	ND	5.0	ug/kg	3.0
Isopropylbenzene	ND	5.0	ug/kg	2.0
p-Isopropyltoluene	ND	5.0	ug/kg	2.0
Bromobenzene	ND	5.0	ug/kg	2.0
1,1,1,2-Tetrachloroethane	ND	5.0	ug/kg	3.0
1,1,2,2-Tetrachloroethane	ND	5.0	ug/kg	3.0
1,2,3-Trichloropropane	ND	5.0	ug/kg	3.0
n-Propylbenzene	ND	5.0	ug/kg	2.0
2-Chlorotoluene	ND	5.0	ug/kg	2.0
4-Chlorotoluene	ND	5.0	ug/kg	2.0
1,3,5-Trimethylbenzene	ND	5.0	ug/kg	2.0
tert-Butylbenzene	ND	5.0	ug/kg	2.0
1,2,4-Trimethylbenzene	ND	5.0	ug/kg	2.0
sec-Butylbenzene	ND	5.0	ug/kg	2.0
1,3-Dichlorobenzene	ND	5.0	ug/kg	2.0
1,4-Dichlorobenzene	ND	5.0	ug/kg	2.0
1,2-Dichlorobenzene	ND	5.0	ug/kg	2.0
n-Butylbenzene	ND	5.0	ug/kg	2.0
1,2-Dibromo-3-chloro-propane	ND	10	ug/kg	3.0
1,2,4-Trichloro-benzene	ND	5.0	ug/kg	2.0
Hexachlorobutadiene	ND	5.0	ug/kg	2.0
1,2,3-Trichlorobenzene	ND	5.0	ug/kg	2.0
t-Butanol	ND R	100	ug/kg	50
Isopropyl ether	ND	10	ug/kg	1.0
Tert-amyl methyl ether	ND	10	ug/kg	2.0
Tert-butyl ethyl ether	ND	10	ug/kg	1.0

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Bromofluorobenzene	92	(60 - 130)
1,2-Dichloroethane-d4	91	(60 - 140)
Toluene-d8	88	(60 - 130)

3403

HALEY & ALDRICH INC

Client Sample ID: SB1005_SS55_0001

GC/MS Volatiles

Lot-Sample #...: E3A100316-002 Work Order #...: FFXRV1AA Matrix.....: SOLID
Date Sampled...: 01/10/03 09:15 Date Received..: 01/10/03 13:35 MS Run #.....: 3015137
Prep Date.....: 01/14/03 Analysis Date..: 01/14/03
Prep Batch #...: 3015268 Analysis Time..: 22:01
Dilution Factor: 1
Analyst ID.....: 999998 Instrument ID..: MSD
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Dichlorodifluoromethane	ND	10	ug/kg	1.0
Chloromethane	ND	10	ug/kg	3.0
Vinyl chloride	ND	10	ug/kg	2.0
Bromomethane	ND	10	ug/kg	8.0
1,2-Dibromoethane	ND	5.0	ug/kg	3.0
Chloroethane	ND UJ	10	ug/kg	2.0
Trichlorofluoromethane	ND	10	ug/kg	2.0
Acrolein	ND R	100	ug/kg	30
1,1-Dichloroethene	ND	5.0	ug/kg	2.0
Iodomethane	ND UJ	10	ug/kg	10
Acetone	ND R	25	ug/kg	15
Carbon disulfide	ND	5.0	ug/kg	3.0
Methylene chloride	ND	5.0	ug/kg	3.0
trans-1,2-Dichloroethene	ND	5.0	ug/kg	2.0
Acrylonitrile	ND	100	ug/kg	40
Methyl tert-butyl ether	ND	5.0	ug/kg	1.0
1,1-Dichloroethane	ND	5.0	ug/kg	1.0
Vinyl acetate	ND	10	ug/kg	5.0
2,2-Dichloropropane	ND	5.0	ug/kg	2.0
cis-1,2-Dichloroethene	ND	5.0	ug/kg	2.0
2-Butanone	ND	25	ug/kg	15
Bromochloromethane	ND	5.0	ug/kg	1.0
Chloroform	ND	5.0	ug/kg	1.0
Tetrahydrofuran	ND	20	ug/kg	2.0
1,1,1-Trichloroethane	ND	5.0	ug/kg	1.0
1,1-Dichloropropene	ND	5.0	ug/kg	1.0
Carbon tetrachloride	ND	5.0	ug/kg	1.0
Benzene	ND	5.0	ug/kg	2.0
1,2-Dichloroethane	ND	5.0	ug/kg	1.0
Trichloroethene	**6.7**	**5.0**	**ug/kg**	**2.0**
1,2-Dichloropropane	ND	5.0	ug/kg	1.0
Bromodichloromethane	ND	5.0	ug/kg	1.0
2-Chloroethyl vinyl ether	ND	10	ug/kg	5.0
cis-1,3-Dichloropropene	ND	5.0	ug/kg	1.0
4-Methyl-2-pentanone	ND	25	ug/kg	10
Toluene	ND	5.0	ug/kg	2.0
trans-1,3-Dichloropropene	ND	5.0	ug/kg	3.0

(Continued on next page)

A
3403

HALEY & ALDRICH INC

Client Sample ID: SB1005_SS55_0001

GC/MS Volatiles

Lot-Sample #...: E3A100316-002 Work Order #...: FFXRV1AA Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
1,1,2-Trichloroethane	ND	5.0	ug/kg	3.0
Tetrachloroethene	ND	5.0	ug/kg	2.0
2-Hexanone	ND	25	ug/kg	10
Dibromochloromethane	ND	5.0	ug/kg	1.0
Chlorobenzene	ND	5.0	ug/kg	2.0
Ethylbenzene	ND	5.0	ug/kg	2.0
Xylenes (total)	ND	5.0	ug/kg	3.0
Styrene	ND	10	ug/kg	2.0
Bromoform	ND	5.0	ug/kg	3.0
Isopropylbenzene	ND	5.0	ug/kg	2.0
p-Isopropyltoluene	ND	5.0	ug/kg	2.0
Bromobenzene	ND	5.0	ug/kg	2.0
1,1,1,2-Tetrachloroethane	ND	5.0	ug/kg	3.0
1,1,2,2-Tetrachloroethane	ND	5.0	ug/kg	3.0
1,2,3-Trichloropropane	ND	5.0	ug/kg	3.0
n-Propylbenzene	ND	5.0	ug/kg	2.0
2-Chlorotoluene	ND	5.0	ug/kg	2.0
4-Chlorotoluene	ND	5.0	ug/kg	2.0
1,3,5-Trimethylbenzene	ND	5.0	ug/kg	2.0
tert-Butylbenzene	ND	5.0	ug/kg	2.0
1,2,4-Trimethylbenzene	ND	5.0	ug/kg	2.0
sec-Butylbenzene	ND	5.0	ug/kg	2.0
1,3-Dichlorobenzene	ND	5.0	ug/kg	2.0
1,4-Dichlorobenzene	ND	5.0	ug/kg	2.0
1,2-Dichlorobenzene	ND	5.0	ug/kg	2.0
n-Butylbenzene	ND	5.0	ug/kg	2.0
1,2-Dibromo-3-chloro-propane	ND	10	ug/kg	3.0
1,2,4-Trichloro-benzene	ND	5.0	ug/kg	2.0
Hexachlorobutadiene	ND	5.0	ug/kg	2.0
1,2,3-Trichlorobenzene	ND	5.0	ug/kg	2.0
t-Butanol	ND R	100	ug/kg	50
Isopropyl ether	ND	10	ug/kg	1.0
Tert-amyl methyl ether	ND	10	ug/kg	2.0
Tert-butyl ethyl ether	ND	10	ug/kg	1.0

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Bromofluorobenzene	84	(60 - 130)
1,2-Dichloroethane-d4	87	(60 - 140)
Toluene-d8	82	(60 - 130)

A
3403

HALEY & ALDRICH INC

Client Sample ID: SB1006_SS45_0001

GC/MS Volatiles

Lot-Sample #...: E3A100316-003
Date Sampled...: 01/10/03 10:50
Prep Date.....: 01/14/03
Prep Batch #...: 3015268
Dilution Factor: 1
Analyst ID.....: 999998

Work Order #...: FFXR21AA
Date Received..: 01/10/03 13:35
Analysis Date..: 01/14/03
Analysis Time..: 22:31

Instrument ID..: MSD
Method.....: SW846 8260B

Matrix.....: SOLID
MS Run #.....: 3015137

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Dichlorodifluoromethane	ND	10	ug/kg	1.0
Chloromethane	ND	10	ug/kg	3.0
Vinyl chloride	ND	10	ug/kg	2.0
Bromomethane	ND	10	ug/kg	8.0
1,2-Dibromoethane	ND	5.0	ug/kg	3.0
Chloroethane	ND UJ	10	ug/kg	2.0
Trichlorofluoromethane	ND	10	ug/kg	2.0
Acrolein	ND R	100	ug/kg	30
1,1-Dichloroethene	ND	5.0	ug/kg	2.0
Iodomethane	ND UJ	10	ug/kg	10
Acetone	ND R	25	ug/kg	15
Carbon disulfide	ND	5.0	ug/kg	3.0
Methylene chloride	ND	5.0	ug/kg	3.0
trans-1,2-Dichloroethene	ND	5.0	ug/kg	2.0
Acrylonitrile	ND	100	ug/kg	40
Methyl tert-butyl ether	ND	5.0	ug/kg	1.0
1,1-Dichloroethane	ND	5.0	ug/kg	1.0
Vinyl acetate	ND	10	ug/kg	5.0
2,2-Dichloropropane	ND	5.0	ug/kg	2.0
cis-1,2-Dichloroethene	ND	5.0	ug/kg	2.0
2-Butanone	ND	25	ug/kg	15
Bromochloromethane	ND	5.0	ug/kg	1.0
Chloroform	ND	5.0	ug/kg	1.0
Tetrahydrofuran	7.4 J,B 20 U	20	ug/kg	2.0
1,1,1-Trichloroethane	ND	5.0	ug/kg	1.0
1,1-Dichloropropene	ND	5.0	ug/kg	1.0
Carbon tetrachloride	ND	5.0	ug/kg	1.0
Benzene	ND	5.0	ug/kg	2.0
1,2-Dichloroethane	ND	5.0	ug/kg	1.0
Trichloroethene	ND	5.0	ug/kg	2.0
1,2-Dichloropropane	ND	5.0	ug/kg	1.0
Bromodichloromethane	ND	5.0	ug/kg	1.0
2-Chloroethyl vinyl ether	ND	10	ug/kg	5.0
cis-1,3-Dichloropropene	ND	5.0	ug/kg	1.0
4-Methyl-2-pentanone	ND	25	ug/kg	10
Toluene	ND	5.0	ug/kg	2.0
trans-1,3-Dichloropropene	ND	5.0	ug/kg	3.0

(Continued on next page)

A
3407

HALEY & ALDRICH INC

Client Sample ID: SB1006_SS45_0001

GC/MS Volatiles

Lot-Sample #...: E3A100316-003 Work Order #...: FFXR21AA Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
1,1,2-Trichloroethane	ND	5.0	ug/kg	3.0
Tetrachloroethene	ND	5.0	ug/kg	2.0
2-Hexanone	ND	25	ug/kg	10
Dibromochloromethane	ND	5.0	ug/kg	1.0
Chlorobenzene	ND	5.0	ug/kg	2.0
Ethylbenzene	ND	5.0	ug/kg	2.0
Xylenes (total)	ND	5.0	ug/kg	3.0
Styrene	ND	10	ug/kg	2.0
Bromoform	ND	5.0	ug/kg	3.0
Isopropylbenzene	ND	5.0	ug/kg	2.0
p-Isopropyltoluene	ND	5.0	ug/kg	2.0
Bromobenzene	ND	5.0	ug/kg	2.0
1,1,1,2-Tetrachloroethane	ND	5.0	ug/kg	3.0
1,1,2,2-Tetrachloroethane	ND	5.0	ug/kg	3.0
1,2,3-Trichloropropane	ND	5.0	ug/kg	3.0
n-Propylbenzene	ND	5.0	ug/kg	2.0
2-Chlorotoluene	ND	5.0	ug/kg	2.0
4-Chlorotoluene	ND	5.0	ug/kg	2.0
1,3,5-Trimethylbenzene	ND	5.0	ug/kg	2.0
tert-Butylbenzene	ND	5.0	ug/kg	2.0
1,2,4-Trimethylbenzene	ND	5.0	ug/kg	2.0
sec-Butylbenzene	ND	5.0	ug/kg	2.0
1,3-Dichlorobenzene	ND	5.0	ug/kg	2.0
1,4-Dichlorobenzene	ND	5.0	ug/kg	2.0
1,2-Dichlorobenzene	ND	5.0	ug/kg	2.0
n-Butylbenzene	ND	5.0	ug/kg	2.0
1,2-Dibromo-3-chloro-propane	ND	10	ug/kg	3.0
1,2,4-Trichloro-benzene	ND	5.0	ug/kg	2.0
Hexachlorobutadiene	ND	5.0	ug/kg	2.0
1,2,3-Trichlorobenzene	ND	5.0	ug/kg	2.0
t-Butanol	ND R	100	ug/kg	50
Isopropyl ether	ND	10	ug/kg	1.0
Tert-amyl methyl ether	ND	10	ug/kg	2.0
Tert-butyl ethyl ether	ND	10	ug/kg	1.0

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Bromofluorobenzene	95	(60 - 130)
1,2-Dichloroethane-d4	95	(60 - 140)
Toluene-d8	93	(60 - 130)

NOTE(S):

J Estimated result. Result is less than RL.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

A
3405

HALEY & ALDRICH INC

Client Sample ID: SB1006_SS55_0001

GC/MS Volatiles

Lot-Sample #...: E3A100316-004
Date Sampled...: 01/10/03 11:00
Prep Date.....: 01/14/03
Prep Batch #...: 3015268
Dilution Factor: 5
Analyst ID.....: 999998

Work Order #...: FFXR51AA
Date Received..: 01/10/03 13:35
Analysis Date..: 01/14/03
Analysis Time..: 23:01

Instrument ID..: MSD
Method.....: SW846 8260B

Matrix.....: SOLID
MS Run #.....: 3015137

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Dichlorodifluoromethane	ND	50	ug/kg	5.0
Chloromethane	ND	50	ug/kg	15
Vinyl chloride	ND	50	ug/kg	10
Bromomethane	ND	50	ug/kg	40
1,2-Dibromoethane	ND UJ	25	ug/kg	15
Chloroethane	ND	50	ug/kg	10
Trichlorofluoromethane	ND	50	ug/kg	10
Acrolein	ND R	500	ug/kg	150
1,1-Dichloroethene	ND	25	ug/kg	10
Iodomethane	ND UJ	50	ug/kg	50
Acetone	ND R	120	ug/kg	75
Carbon disulfide	ND	25	ug/kg	15
Methylene chloride	ND	25	ug/kg	15
trans-1,2-Dichloroethene	ND	25	ug/kg	10
Acrylonitrile	ND	500	ug/kg	200
Methyl tert-butyl ether	ND	25	ug/kg	5.0
1,1-Dichloroethane	ND	25	ug/kg	5.0
Vinyl acetate	ND	50	ug/kg	25
2,2-Dichloropropane	ND	25	ug/kg	10
cis-1,2-Dichloroethene	ND	25	ug/kg	10
2-Butanone	ND	120	ug/kg	75
Bromochloromethane	ND	25	ug/kg	5.0
Chloroform	ND	25	ug/kg	5.0
Tetrahydrofuran	**34 J,B** 100 U	**100**	**ug/kg**	**10**
1,1,1-Trichloroethane	ND	25	ug/kg	5.0
1,1-Dichloropropene	ND	25	ug/kg	5.0
Carbon tetrachloride	ND	25	ug/kg	5.0
Benzene	ND	25	ug/kg	10
1,2-Dichloroethane	ND	25	ug/kg	5.0
Trichloroethene	**370**	**25**	**ug/kg**	**10**
1,2-Dichloropropane	ND	25	ug/kg	5.0
Bromodichloromethane	ND	25	ug/kg	5.0
2-Chloroethyl vinyl ether	ND	50	ug/kg	25
cis-1,3-Dichloropropene	ND	25	ug/kg	5.0
4-Methyl-2-pentanone	ND	120	ug/kg	50
Toluene	ND	25	ug/kg	10
trans-1,3-Dichloropropene	ND	25	ug/kg	15

(Continued on next page)

A
3403

HALEY & ALDRICH INC

Client Sample ID: SB1006_SS55_0001

GC/MS Volatiles

Lot-Sample #...: E3A100316-004 Work Order #...: FFXR51AA Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
1,1,2-Trichloroethane	ND	25	ug/kg	15
Tetrachloroethene	ND	25	ug/kg	10
2-Hexanone	ND	120	ug/kg	50
Dibromochloromethane	ND	25	ug/kg	5.0
Chlorobenzene	ND	25	ug/kg	10
Ethylbenzene	ND	25	ug/kg	10
Xylenes (total)	ND	25	ug/kg	15
Styrene	ND	50	ug/kg	10
Bromoform	ND	25	ug/kg	15
Isopropylbenzene	ND	25	ug/kg	10
p-Isopropyltoluene	ND	25	ug/kg	10
Bromobenzene	ND	25	ug/kg	10
1,1,1,2-Tetrachloroethane	ND	25	ug/kg	15
1,1,2,2-Tetrachloroethane	ND	25	ug/kg	15
1,2,3-Trichloropropane	ND	25	ug/kg	15
n-Propylbenzene	ND	25	ug/kg	10
2-Chlorotoluene	ND	25	ug/kg	10
4-Chlorotoluene	ND	25	ug/kg	10
1,3,5-Trimethylbenzene	ND	25	ug/kg	10
tert-Butylbenzene	ND	25	ug/kg	10
1,2,4-Trimethylbenzene	ND	25	ug/kg	10
sec-Butylbenzene	ND	25	ug/kg	10
1,3-Dichlorobenzene	ND	25	ug/kg	10
1,4-Dichlorobenzene	ND	25	ug/kg	10
1,2-Dichlorobenzene	ND	25	ug/kg	10
n-Butylbenzene	ND	25	ug/kg	10
1,2-Dibromo-3-chloro-propane	ND	50	ug/kg	15
1,2,4-Trichloro-benzene	ND	25	ug/kg	10
Hexachlorobutadiene	ND	25	ug/kg	10
1,2,3-Trichlorobenzene	ND	25	ug/kg	10
t-Butanol	ND R	500	ug/kg	250
Isopropyl ether	ND	50	ug/kg	5.0
Tert-amyl methyl ether	ND	50	ug/kg	10
Tert-butyl ethyl ether	ND	50	ug/kg	5.0

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Bromofluorobenzene	96	(60 - 130)
1,2-Dichloroethane-d4	96	(60 - 140)
Toluene-d8	92	(60 - 130)

NOTE(S):

J Estimated result. Result is less than RL.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

A
3403

LDC #: 9883C1

SDG #: E3A100361

Laboratory: Severn Trent Laboratories, Inc.

VALIDATION COMPLETENESS WORKSHEET

Level III

Date: 2/27/03

Page: 1 of 1

Reviewer:

2nd Reviewer:

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	A	Sampling dates: 1/10/03
II.	GC/MS Instrument performance check	A	
III.	Initial calibration	SW	
IV.	Continuing calibration	SW	
V.	Blanks	SW	
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates	A	E3A100364-016
VIII.	Laboratory control samples	A	LCS
IX.	Regional Quality Assurance and Quality Control	N	
X.	Internal standards	A	
XI.	Target compound identification	N	
XII.	Compound quantitation/CRQLs	N	
XIII.	Tentatively identified compounds (TICs)	N	
XIV.	System performance	N	
XV.	Overall assessment of data	A	
XVI.	Field duplicates	N	
XVII.	Field blanks	N	

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:

1	SB1005_SS45_0001 S	11		21		31	
2	SB1005_SS55_0001	12		22		32	
3	SB1006_SS45_0001	13		23		33	
4	SB1006_SS55_0001	14		24		34	
5	3015268MS	15		25		35	
6		16		26		36	
7		17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

9883C1W.HA3.wpd

TARGET COMPOUND WORKSHEET

METHOD: VOA (EPA SW 846 Method 8260B)

A. Chloromethane*	S. Trichloroethene	KK. Trichlorofluoromethane	CCC. tert-Butylbenzene	UUU. Benzyl chloride
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. Diethyl ether	FFF. 1,3-Dichlorobenzene	XXX. Ethyl 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.

LDC #: 9883C1
SDG #: E3A100361

VALIDATION FINDINGS WORKSHEET
Initial Calibration

Page: 1 of 1
Reviewer: [illegible]
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
	11/19/02	ICAL	D	31.443		All + Blk	J UJ / A
			FFFF		0.01856		J R / A
			t-Butanol		0.03449		J

INICAL.1SB

BOE-C6-0103481

LDC #: 98830 1
SDG #: E3A10036 1

VALIDATION FINDINGS WORKSHEET
Continuing Calibration

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

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 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
	1/14/03	D33988	FFFF	45.2		MI+BK	J/UJ/A
			Iodomethane	29.1			↓
			FFFF		0.02694		J/R/A
			F		0.04827		↓
			t-Butanol		0.03300		↓

CONCAL1SB

LDC #: 9883C1
SDG #: E3A10036

VALIDATION FINDINGS WORKSHEET
Blanks

Page: 1 of 1
Reviewer:
2nd Reviewer:

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 method blank associated with every sample in this SDG?
Y N N/A Was a method blank analyzed at least once every 12 hours for each matrix and concentration?
Y N N/A Was there contamination in the method blanks? If yes, please see the qualifications below.

Blank analysis date: 1/14/03
Conc. units: ug/kg
Associated Samples: All

Compound	Blank ID	Sample Identification								
	301568HB	3	4 (5)							
Methylene chloride										
Acetone										
Tetrahydrofuran	61	74/2011	34/100U							
CRQL										

Blank analysis date:
Conc. units:
Associated Samples:

Compound	Blank ID	Sample Identification								
Methylene chloride										
Acetone										
CRQL										

All results were qualified using the criteria stated below except those circled.

Note: Common contaminants such as Methylene chloride, Acetone, 2-Butanone, Carbon disulfide and TICs that were detected in samples within ten times the associated method blank concentration were qualified as not detected, "U". Other contaminants within five times the method blank concentration were also qualified as not detected, "U".

BLANKS2.1SB

BOE-C6-0103483