TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

ANALYTICAL REPORT

Honeywell - South Bend

Lot #: H1B100401

Steven Murray

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TESTAMERICA LABORATORIES, INC.

Jamie A. McKinney
Project Manager

February 15, 2011

EXECUTIVE SUMMARY - Detection Highlights

H1B100401

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
P-3026R-0211 02/03/11 14:25 001				
Benzene	0.35	0.080	ppb(v/v)	EPA-2 TO-15
sec-Butylbenzene	0.71	0.16	ppb(v/v)	EPA-2 TO-15
Isopropylbenzene	0.60	0.16	ppb(v/v)	EPA-2 TO-15
n-Propylbenzene	1.9	0.16	ppb(v/v)	EPA-2 TO-15
1,1,1-Trichloroethane	0.089	0.080	ppb(v/v)	EPA-2 TO-15
SS-3002L-0211 02/04/11 10:52 002				
Benzene	0.35	0.080	ppb(v/v)	EPA-2 TO-15
Tetrachloroethene	1.0	0.080	ppb(v/v)	EPA-2 TO-15
Trichloroethene	0.060	0.040	ppb(v/v)	EPA-2 TO-15
B-3002L-0211 02/04/11 10:51 003				
Benzene	0.33	0.080	ppb(v/v)	EPA-2 TO-15
1,2-Dichloroethane	0.11	0.080	ppb(v/v)	EPA-2 TO-15
P-3002L-0211 02/04/11 10:50 004				
Benzene	0.31	0.080	ppb(v/v)	EPA-2 TO-15
1,2-Dichloroethane	0.20	0.080	ppb(v/v)	EPA-2 TO-15
BG-5-0211 02/04/11 11:00 005				
Benzene	0.21	0.080	ppb(v/v)	EPA-2 TO-15
BG-6-0211 02/04/11 11:01 006				
Benzene	0.23	0.080	ppb(v/v)	EPA-2 TO-15
B-719G-0211 02/02/11 16:00 007				
Benzene	0.20	0.080	ppb(v/v)	EPA-2 TO-15
B-3010R-0211 02/02/11 17:16 008				
Benzene	0.31	0.080	ppb(v/v)	EPA-2 TO-15
P-3010R-0211 02/02/11 17:26 009				
Benzene	0.30	0.080	ppb(v/v)	EPA-2 TO-15

(Continued on next page)

EXECUTIVE SUMMARY - Detection Highlights

H1B100401

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
SS-3010R-0211 02/02/11 17:13 010				
Benzene	0.30	0.080	ppb(v/v)	EPA-2 TO-15
cis-1,2-Dichloroethene	0.15	0.080	ppb(v/v)	EPA-2 TO-15
n-Propylbenzene	0.21	0.16	ppb(v/v)	EPA-2 TO-15
Tetrachloroethene	0.39	0.080	ppb(v/v)	EPA-2 TO-15
1,1,1-Trichloroethane	0.10	0.080	ppb(v/v)	EPA-2 TO-15
Trichloroethene	0.14	0.040	ppb(v/v)	EPA-2 TO-15
P-719G-0211 02/02/11 16:00 011				
Benzene	0.20	0.080	ppb(v/v)	EPA-2 TO-15
1,2-Dichloroethane	0.20	0.080	ppb(v/v)	EPA-2 TO-15
SS-719G-0211 02/02/11 16:01 012				
Benzene	0.30	0.080	ppb(v/v)	EPA-2 TO-15
Tetrachloroethene	0.39	0.080	ppb(v/v)	EPA-2 TO-15
1,1,1-Trichloroethane	0.25	0.080	ppb(v/v)	EPA-2 TO-15
Trichloroethene	0.36	0.040	ppb(v/v)	EPA-2 TO-15

ANALYTICAL METHODS SUMMARY

H1B100401

PARAMETER	ANALYTICAL METHOD
Volatile Organics by TO15	EPA-2 TO-15

References:

EPA-2 "Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air", EPA-625/R-96/010b, January 1999.

SAMPLE SUMMARY

H1B100401

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
MD8T5	001	P-3026R-0211	02/03/11	14:25
MD8T7	002	SS-3002L-0211	02/04/11	10:52
MD8T8	003	B-3002L-0211	02/04/11	10:51
MD8T9	004	P-3002L-0211	02/04/11	10:50
MD8VA	005	BG-5-0211	02/04/11	11:00
MD8VD	006	BG-6-0211	02/04/11	11:01
MD8VE	007	B-719G-0211	02/02/11	16:00
MD8VF	008	B-3010R-0211	02/02/11	17:16
MD8VG	009	P-3010R-0211	02/02/11	17:26
MD8VJ	010	SS-3010R-0211	02/02/11	17:13
MD8VK	011	P-719G-0211	02/02/11	16:00
MD8VM	012	SS-719G-0211	02/02/11	16:01

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.

PROJECT NARRATIVE
H1B100401

The results reported herein are applicable to the samples submitted for analysis only. If you have any questions about this report, please call (865) 291-3000 to speak with the TestAmerica project manager listed on the cover page.

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

The original chain of custody documentation is included with this report.

Sample Receipt

Custody seals were not present.

Quality Control and Data Interpretation

Unless otherwise noted, all holding times and QC criteria were met and the test results shown in this report meet all applicable NELAC requirements.

EPA methods TO-14A and TO-15 specify the use of humidified "zero air" as the blank reagent for canister cleaning, instrument calibration and sample analysis. Ultra-high purity humidified nitrogen from a cryogenic reservoir is used in place of "zero air" by TestAmerica Knoxville.

MACTEC Engineering and Consulting Inc

Client Sample ID: P-3026R-0211

GC/MS Volatiles

Lot-Sample #...: H1B100401-001 **Work Order #...:** MD8T51AA **Matrix.....:** AIR
Date Sampled...: 02/03/11 14:25 **Date Received..:** 02/08/11
Prep Date.....: 02/11/11 **Analysis Date..:** 02/11/11
Prep Batch #...: 1045116
Dilution Factor: 1 **Method.....:** EPA-2 TO-15

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	**0.35**	**0.080**	**ppb(v/v)**
sec-Butylbenzene	**0.71**	**0.16**	**ppb(v/v)**
Chloroethane	ND	0.080	ppb(v/v)
1,1-Dichloroethane	ND	0.080	ppb(v/v)
cis-1,2-Dichloroethene	ND	0.080	ppb(v/v)
trans-1,2-Dichloroethene	ND	0.080	ppb(v/v)
1,1-Dichloroethene	ND	0.080	ppb(v/v)
1,2-Dichloropropane	ND	0.080	ppb(v/v)
Isopropylbenzene	**0.60**	**0.16**	**ppb(v/v)**
n-Propylbenzene	**1.9**	**0.16**	**ppb(v/v)**
Tetrachloroethene	ND	0.080	ppb(v/v)
1,1,1-Trichloroethane	**0.089**	**0.080**	**ppb(v/v)**
Trichloroethene	ND	0.040	ppb(v/v)
Vinyl chloride	ND	0.080	ppb(v/v)
tert-Butylbenzene	ND	0.20	ppb(v/v)
1,2-Dichloroethane	ND	0.080	ppb(v/v)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	120	(60 - 140)

MACTEC Engineering and Consulting Inc

Client Sample ID: SS-3002L-0211

GC/MS Volatiles

Lot-Sample #...: H1B100401-002 **Work Order #...:** MD8T71AA **Matrix.....:** AIR
Date Sampled...: 02/04/11 10:52 **Date Received..:** 02/08/11
Prep Date.....: 02/11/11 **Analysis Date..:** 02/11/11
Prep Batch #...: 1045116
Dilution Factor: 1 **Method.....:** EPA-2 TO-15

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	**0.35**	**0.080**	**ppb(v/v)**
sec-Butylbenzene	ND	0.16	ppb(v/v)
Chloroethane	ND	0.080	ppb(v/v)
1,1-Dichloroethane	ND	0.080	ppb(v/v)
cis-1,2-Dichloroethene	ND	0.080	ppb(v/v)
trans-1,2-Dichloroethene	ND	0.080	ppb(v/v)
1,1-Dichloroethene	ND	0.080	ppb(v/v)
1,2-Dichloropropane	ND	0.080	ppb(v/v)
Isopropylbenzene	ND	0.16	ppb(v/v)
n-Propylbenzene	ND	0.16	ppb(v/v)
Tetrachloroethene	**1.0**	**0.080**	**ppb(v/v)**
1,1,1-Trichloroethane	ND	0.080	ppb(v/v)
Trichloroethene	**0.060**	**0.040**	**ppb(v/v)**
Vinyl chloride	ND	0.080	ppb(v/v)
tert-Butylbenzene	ND	0.20	ppb(v/v)
1,2-Dichloroethane	ND	0.080	ppb(v/v)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	114	(60 - 140)

MACTEC Engineering and Consulting Inc

Client Sample ID: B-3002L-0211

GC/MS Volatiles

Lot-Sample #...: H1B100401-003 **Work Order #...:** MD8T81AA **Matrix.....:** AIR
Date Sampled...: 02/04/11 10:51 **Date Received..:** 02/08/11
Prep Date.....: 02/11/11 **Analysis Date..:** 02/11/11
Prep Batch #...: 1045116
Dilution Factor: 1 **Method.....:** EPA-2 TO-15

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	**0.33**	**0.080**	**ppb(v/v)**
sec-Butylbenzene	ND	0.16	ppb(v/v)
Chloroethane	ND	0.080	ppb(v/v)
1,1-Dichloroethane	ND	0.080	ppb(v/v)
cis-1,2-Dichloroethene	ND	0.080	ppb(v/v)
trans-1,2-Dichloroethene	ND	0.080	ppb(v/v)
1,1-Dichloroethene	ND	0.080	ppb(v/v)
1,2-Dichloropropane	ND	0.080	ppb(v/v)
Isopropylbenzene	ND	0.16	ppb(v/v)
n-Propylbenzene	ND	0.16	ppb(v/v)
Tetrachloroethene	ND	0.080	ppb(v/v)
1,1,1-Trichloroethane	ND	0.080	ppb(v/v)
Trichloroethene	ND	0.040	ppb(v/v)
Vinyl chloride	ND	0.080	ppb(v/v)
tert-Butylbenzene	ND	0.20	ppb(v/v)
1,2-Dichloroethane	**0.11**	**0.080**	**ppb(v/v)**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	111	(60 - 140)

MACTEC Engineering and Consulting Inc

Client Sample ID: P-3002L-0211

GC/MS Volatiles

Lot-Sample #...: H1B100401-004 **Work Order #...:** MD8T91AA **Matrix.....:** AIR
Date Sampled...: 02/04/11 10:50 **Date Received..:** 02/08/11
Prep Date.....: 02/11/11 **Analysis Date..:** 02/11/11
Prep Batch #...: 1045116
Dilution Factor: 1 **Method.....:** EPA-2 TO-15

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1-Dichloroethane	ND	0.080	ppb(v/v)
cis-1,2-Dichloroethene	ND	0.080	ppb(v/v)
trans-1,2-Dichloroethene	ND	0.080	ppb(v/v)
1,1-Dichloroethene	ND	0.080	ppb(v/v)
1,2-Dichloropropane	ND	0.080	ppb(v/v)
Benzene	**0.31**	**0.080**	**ppb(v/v)**
sec-Butylbenzene	ND	0.16	ppb(v/v)
Chloroethane	ND	0.080	ppb(v/v)
Isopropylbenzene	ND	0.16	ppb(v/v)
n-Propylbenzene	ND	0.16	ppb(v/v)
Tetrachloroethene	ND	0.080	ppb(v/v)
1,1,1-Trichloroethane	ND	0.080	ppb(v/v)
Trichloroethene	ND	0.040	ppb(v/v)
Vinyl chloride	ND	0.080	ppb(v/v)
tert-Butylbenzene	ND	0.20	ppb(v/v)
1,2-Dichloroethane	**0.20**	**0.080**	**ppb(v/v)**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	112	(60 - 140)

MACTEC Engineering and Consulting Inc

Client Sample ID: BG-5-0211

GC/MS Volatiles

Lot-Sample #...: H1B100401-005 **Work Order #...:** MD8VA1AA **Matrix.....:** AIR
Date Sampled...: 02/04/11 11:00 **Date Received..:** 02/08/11
Prep Date.....: 02/11/11 **Analysis Date..:** 02/11/11
Prep Batch #...: 1045116
Dilution Factor: 1 **Method.....:** EPA-2 TO-15

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	**0.21**	**0.080**	**ppb(v/v)**
sec-Butylbenzene	ND	0.16	ppb(v/v)
Chloroethane	ND	0.080	ppb(v/v)
1,1-Dichloroethane	ND	0.080	ppb(v/v)
cis-1,2-Dichloroethene	ND	0.080	ppb(v/v)
trans-1,2-Dichloroethene	ND	0.080	ppb(v/v)
1,1-Dichloroethene	ND	0.080	ppb(v/v)
1,2-Dichloropropane	ND	0.080	ppb(v/v)
Isopropylbenzene	ND	0.16	ppb(v/v)
n-Propylbenzene	ND	0.16	ppb(v/v)
Tetrachloroethene	ND	0.080	ppb(v/v)
1,1,1-Trichloroethane	ND	0.080	ppb(v/v)
Trichloroethene	ND	0.040	ppb(v/v)
Vinyl chloride	ND	0.080	ppb(v/v)
tert-Butylbenzene	ND	0.20	ppb(v/v)
1,2-Dichloroethane	ND	0.080	ppb(v/v)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	109	(60 - 140)

MACTEC Engineering and Consulting Inc

Client Sample ID: BG-6-0211

GC/MS Volatiles

Lot-Sample #...: H1B100401-006 **Work Order #...:** MD8VD1AA **Matrix.....:** AIR
Date Sampled...: 02/04/11 11:01 **Date Received..:** 02/08/11
Prep Date.....: 02/11/11 **Analysis Date..:** 02/11/11
Prep Batch #...: 1045116
Dilution Factor: 1 **Method.....:** EPA-2 TO-15

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	**0.23**	**0.080**	**ppb(v/v)**
sec-Butylbenzene	ND	0.16	ppb(v/v)
Chloroethane	ND	0.080	ppb(v/v)
1,1-Dichloroethane	ND	0.080	ppb(v/v)
cis-1,2-Dichloroethene	ND	0.080	ppb(v/v)
trans-1,2-Dichloroethene	ND	0.080	ppb(v/v)
1,1-Dichloroethene	ND	0.080	ppb(v/v)
1,2-Dichloropropane	ND	0.080	ppb(v/v)
Isopropylbenzene	ND	0.16	ppb(v/v)
n-Propylbenzene	ND	0.16	ppb(v/v)
Tetrachloroethene	ND	0.080	ppb(v/v)
1,1,1-Trichloroethane	ND	0.080	ppb(v/v)
Trichloroethene	ND	0.040	ppb(v/v)
Vinyl chloride	ND	0.080	ppb(v/v)
tert-Butylbenzene	ND	0.20	ppb(v/v)
1,2-Dichloroethane	ND	0.080	ppb(v/v)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	110	(60 - 140)

MACTEC Engineering and Consulting Inc

Client Sample ID: B-719G-0211

GC/MS Volatiles

Lot-Sample #...: H1B100401-007 **Work Order #...:** MD8VE1AA **Matrix.....:** AIR
Date Sampled...: 02/02/11 16:00 **Date Received..:** 02/08/11
Prep Date.....: 02/11/11 **Analysis Date..:** 02/11/11
Prep Batch #...: 1045116
Dilution Factor: 1 **Method.....:** EPA-2 TO-15

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	**0.20**	**0.080**	**ppb(v/v)**
sec-Butylbenzene	ND	0.16	ppb(v/v)
Chloroethane	ND	0.080	ppb(v/v)
1,1-Dichloroethane	ND	0.080	ppb(v/v)
cis-1,2-Dichloroethene	ND	0.080	ppb(v/v)
trans-1,2-Dichloroethene	ND	0.080	ppb(v/v)
1,1-Dichloroethene	ND	0.080	ppb(v/v)
1,2-Dichloropropane	ND	0.080	ppb(v/v)
Isopropylbenzene	ND	0.16	ppb(v/v)
n-Propylbenzene	ND	0.16	ppb(v/v)
Tetrachloroethene	ND	0.080	ppb(v/v)
1,1,1-Trichloroethane	ND	0.080	ppb(v/v)
Trichloroethene	ND	0.040	ppb(v/v)
Vinyl chloride	ND	0.080	ppb(v/v)
tert-Butylbenzene	ND	0.20	ppb(v/v)
1,2-Dichloroethane	ND	0.080	ppb(v/v)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	112	(60 - 140)

MACTEC Engineering and Consulting Inc

Client Sample ID: B-3010R-0211

GC/MS Volatiles

Lot-Sample #...: H1B100401-008 **Work Order #...:** MD8VF1AA **Matrix.....:** AIR
Date Sampled...: 02/02/11 17:16 **Date Received..:** 02/08/11
Prep Date.....: 02/11/11 **Analysis Date..:** 02/11/11
Prep Batch #...: 1045116
Dilution Factor: 1 **Method.....:** EPA-2 TO-15

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	**0.31**	**0.080**	**ppb(v/v)**
sec-Butylbenzene	ND	0.16	ppb(v/v)
Chloroethane	ND	0.080	ppb(v/v)
1,1-Dichloroethane	ND	0.080	ppb(v/v)
cis-1,2-Dichloroethene	ND	0.080	ppb(v/v)
trans-1,2-Dichloroethene	ND	0.080	ppb(v/v)
1,1-Dichloroethene	ND	0.080	ppb(v/v)
1,2-Dichloropropane	ND	0.080	ppb(v/v)
Isopropylbenzene	ND	0.16	ppb(v/v)
n-Propylbenzene	ND	0.16	ppb(v/v)
Tetrachloroethene	ND	0.080	ppb(v/v)
1,1,1-Trichloroethane	ND	0.080	ppb(v/v)
Trichloroethene	ND	0.040	ppb(v/v)
Vinyl chloride	ND	0.080	ppb(v/v)
tert-Butylbenzene	ND	0.20	ppb(v/v)
1,2-Dichloroethane	ND	0.080	ppb(v/v)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	111	(60 - 140)

MACTEC Engineering and Consulting Inc

Client Sample ID: P-3010R-0211

GC/MS Volatiles

Lot-Sample #...: H1B100401-009 **Work Order #...:** MD8VG1AA **Matrix.....:** AIR
Date Sampled...: 02/02/11 17:26 **Date Received..:** 02/08/11
Prep Date.....: 02/11/11 **Analysis Date..:** 02/11/11
Prep Batch #...: 1045116
Dilution Factor: 1 **Method.....:** EPA-2 TO-15

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Chloroethane	ND	0.080	ppb(v/v)
1,1-Dichloroethane	ND	0.080	ppb(v/v)
cis-1,2-Dichloroethene	ND	0.080	ppb(v/v)
trans-1,2-Dichloroethene	ND	0.080	ppb(v/v)
1,1-Dichloroethene	ND	0.080	ppb(v/v)
1,2-Dichloropropane	ND	0.080	ppb(v/v)
Isopropylbenzene	ND	0.16	ppb(v/v)
n-Propylbenzene	ND	0.16	ppb(v/v)
Tetrachloroethene	ND	0.080	ppb(v/v)
1,1,1-Trichloroethane	ND	0.080	ppb(v/v)
Trichloroethene	ND	0.040	ppb(v/v)
Vinyl chloride	ND	0.080	ppb(v/v)
tert-Butylbenzene	ND	0.20	ppb(v/v)
1,2-Dichloroethane	ND	0.080	ppb(v/v)
Benzene	**0.30**	**0.080**	**ppb(v/v)**
sec-Butylbenzene	ND	0.16	ppb(v/v)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	111	(60 - 140)

MACTEC Engineering and Consulting Inc

Client Sample ID: SS-3010R-0211

GC/MS Volatiles

Lot-Sample #...: H1B100401-010 **Work Order #...:** MD8VJ1AA **Matrix.....:** AIR
Date Sampled...: 02/02/11 17:13 **Date Received..:** 02/08/11
Prep Date.....: 02/11/11 **Analysis Date..:** 02/11/11
Prep Batch #...: 1045116
Dilution Factor: 1 **Method.....:** EPA-2 TO-15

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	**0.30**	**0.080**	**ppb(v/v)**
sec-Butylbenzene	ND	0.16	ppb(v/v)
Chloroethane	ND	0.080	ppb(v/v)
1,1-Dichloroethane	ND	0.080	ppb(v/v)
cis-1,2-Dichloroethene	**0.15**	**0.080**	**ppb(v/v)**
trans-1,2-Dichloroethene	ND	0.080	ppb(v/v)
1,1-Dichloroethene	ND	0.080	ppb(v/v)
1,2-Dichloropropane	ND	0.080	ppb(v/v)
Isopropylbenzene	ND	0.16	ppb(v/v)
n-Propylbenzene	**0.21**	**0.16**	**ppb(v/v)**
Tetrachloroethene	**0.39**	**0.080**	**ppb(v/v)**
1,1,1-Trichloroethane	**0.10**	**0.080**	**ppb(v/v)**
Trichloroethene	**0.14**	**0.040**	**ppb(v/v)**
Vinyl chloride	ND	0.080	ppb(v/v)
tert-Butylbenzene	ND	0.20	ppb(v/v)
1,2-Dichloroethane	ND	0.080	ppb(v/v)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	117	(60 - 140)

MACTEC Engineering and Consulting Inc

Client Sample ID: P-719G-0211

GC/MS Volatiles

Lot-Sample #...: H1B100401-011 **Work Order #...:** MD8VK1AA **Matrix.....:** AIR
Date Sampled...: 02/02/11 16:00 **Date Received..:** 02/08/11
Prep Date.....: 02/11/11 **Analysis Date..:** 02/11/11
Prep Batch #...: 1045116
Dilution Factor: 1 **Method.....:** EPA-2 TO-15

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	**0.20**	**0.080**	**ppb(v/v)**
sec-Butylbenzene	ND	0.16	ppb(v/v)
Chloroethane	ND	0.080	ppb(v/v)
1,1-Dichloroethane	ND	0.080	ppb(v/v)
cis-1,2-Dichloroethene	ND	0.080	ppb(v/v)
trans-1,2-Dichloroethene	ND	0.080	ppb(v/v)
1,1-Dichloroethene	ND	0.080	ppb(v/v)
1,2-Dichloropropane	ND	0.080	ppb(v/v)
Isopropylbenzene	ND	0.16	ppb(v/v)
n-Propylbenzene	ND	0.16	ppb(v/v)
Tetrachloroethene	ND	0.080	ppb(v/v)
1,1,1-Trichloroethane	ND	0.080	ppb(v/v)
Trichloroethene	ND	0.040	ppb(v/v)
Vinyl chloride	ND	0.080	ppb(v/v)
tert-Butylbenzene	ND	0.20	ppb(v/v)
1,2-Dichloroethane	**0.20**	**0.080**	**ppb(v/v)**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	111	(60 - 140)

MACTEC Engineering and Consulting Inc

Client Sample ID: SS-719G-0211

GC/MS Volatiles

Lot-Sample #...: H1B100401-012 **Work Order #...:** MD8VM1AA **Matrix.....:** AIR
Date Sampled...: 02/02/11 16:01 **Date Received..:** 02/08/11
Prep Date.....: 02/11/11 **Analysis Date..:** 02/11/11
Prep Batch #...: 1045116
Dilution Factor: 1 **Method.....:** EPA-2 TO-15

PARAMETER	RESULT	REPORTING LIMIT	UNITS
tert-Butylbenzene	ND	0.20	ppb(v/v)
1,2-Dichloroethane	ND	0.080	ppb(v/v)
Benzene	**0.30**	**0.080**	**ppb(v/v)**
sec-Butylbenzene	ND	0.16	ppb(v/v)
Chloroethane	ND	0.080	ppb(v/v)
1,1-Dichloroethane	ND	0.080	ppb(v/v)
cis-1,2-Dichloroethene	ND	0.080	ppb(v/v)
trans-1,2-Dichloroethene	ND	0.080	ppb(v/v)
1,1-Dichloroethene	ND	0.080	ppb(v/v)
1,2-Dichloropropane	ND	0.080	ppb(v/v)
Isopropylbenzene	ND	0.16	ppb(v/v)
n-Propylbenzene	ND	0.16	ppb(v/v)
Tetrachloroethene	**0.39**	**0.080**	**ppb(v/v)**
1,1,1-Trichloroethane	**0.25**	**0.080**	**ppb(v/v)**
Trichloroethene	**0.36**	**0.040**	**ppb(v/v)**
Vinyl chloride	ND	0.080	ppb(v/v)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	113	(60 - 140)

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: H1B100401 **Work Order #...:** MEDV91AA **Matrix.....:** AIR
MB Lot-Sample #: H1B140000-116

Prep Date.....: 02/11/11
Analysis Date..: 02/11/11 **Prep Batch #...:** 1045116
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Benzene	ND	0.080	ppb(v/v)	EPA-2 TO-15
sec-Butylbenzene	ND	0.16	ppb(v/v)	EPA-2 TO-15
tert-Butylbenzene	ND	0.20	ppb(v/v)	EPA-2 TO-15
Chloroethane	ND	0.080	ppb(v/v)	EPA-2 TO-15
1,1-Dichloroethane	ND	0.080	ppb(v/v)	EPA-2 TO-15
1,2-Dichloroethane	ND	0.080	ppb(v/v)	EPA-2 TO-15
1,1-Dichloroethene	ND	0.080	ppb(v/v)	EPA-2 TO-15
cis-1,2-Dichloroethene	ND	0.080	ppb(v/v)	EPA-2 TO-15
trans-1,2-Dichloroethene	ND	0.080	ppb(v/v)	EPA-2 TO-15
1,2-Dichloropropane	ND	0.080	ppb(v/v)	EPA-2 TO-15
Isopropylbenzene	ND	0.16	ppb(v/v)	EPA-2 TO-15
n-Propylbenzene	ND	0.16	ppb(v/v)	EPA-2 TO-15
Tetrachloroethene	ND	0.080	ppb(v/v)	EPA-2 TO-15
1,1,1-Trichloroethane	ND	0.080	ppb(v/v)	EPA-2 TO-15
Trichloroethene	ND	0.040	ppb(v/v)	EPA-2 TO-15
Vinyl chloride	ND	0.080	ppb(v/v)	EPA-2 TO-15

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	111	(60 - 140)

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 #...: H1B100401 **Work Order #...:** MEDV91AC **Matrix.....:** AIR
LCS Lot-Sample#: H1B140000-116
Prep Date.....: 02/11/11 **Analysis Date..:** 02/11/11
Prep Batch #...: 1045116
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD
Vinyl chloride	**102**	**(70 - 130)**	**EPA-2 TO-15**
Chloroethane	**94**	**(70 - 130)**	**EPA-2 TO-15**
1,1-Dichloroethene	**108**	**(70 - 130)**	**EPA-2 TO-15**
trans-1,2-Dichloroethene	**109**	**(70 - 130)**	**EPA-2 TO-15**
1,1-Dichloroethane	**101**	**(70 - 130)**	**EPA-2 TO-15**
cis-1,2-Dichloroethene	**104**	**(70 - 130)**	**EPA-2 TO-15**
1,1,1-Trichloroethane	**108**	**(70 - 130)**	**EPA-2 TO-15**
1,2-Dichloroethane	**93**	**(70 - 130)**	**EPA-2 TO-15**
Benzene	**102**	**(70 - 130)**	**EPA-2 TO-15**
1,2-Dichloropropane	**98**	**(70 - 130)**	**EPA-2 TO-15**
Trichloroethene	**98**	**(70 - 130)**	**EPA-2 TO-15**
Tetrachloroethene	**93**	**(70 - 130)**	**EPA-2 TO-15**
Isopropylbenzene	**106**	**(70 - 130)**	**EPA-2 TO-15**
n-Propylbenzene	**108**	**(70 - 130)**	**EPA-2 TO-15**
tert-Butylbenzene	**103**	**(70 - 130)**	**EPA-2 TO-15**
sec-Butylbenzene	**106**	**(70 - 130)**	**EPA-2 TO-15**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	116	(60 - 140)

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 #...: H1B100401 **Work Order #...:** MEDV91AC **Matrix.....:** AIR
LCS Lot-Sample#: H1B140000-116
Prep Date.....: 02/11/11 **Analysis Date..:** 02/11/11
Prep Batch #...: 1045116
Dilution Factor: 1

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	METHOD
Vinyl chloride	**5.0**	**5.1**	**ppb(v/v)**	**102**	**EPA-2 TO-15**
Chloroethane	**5.0**	**4.7**	**ppb(v/v)**	**94**	**EPA-2 TO-15**
1,1-Dichloroethene	**5.0**	**5.4**	**ppb(v/v)**	**108**	**EPA-2 TO-15**
trans-1,2-Dichloroethene	**5.0**	**5.5**	**ppb(v/v)**	**109**	**EPA-2 TO-15**
1,1-Dichloroethane	**5.0**	**5.0**	**ppb(v/v)**	**101**	**EPA-2 TO-15**
cis-1,2-Dichloroethene	**5.0**	**5.2**	**ppb(v/v)**	**104**	**EPA-2 TO-15**
1,1,1-Trichloroethane	**5.0**	**5.4**	**ppb(v/v)**	**108**	**EPA-2 TO-15**
1,2-Dichloroethane	**5.0**	**4.7**	**ppb(v/v)**	**93**	**EPA-2 TO-15**
Benzene	**5.0**	**5.1**	**ppb(v/v)**	**102**	**EPA-2 TO-15**
1,2-Dichloropropane	**5.0**	**4.9**	**ppb(v/v)**	**98**	**EPA-2 TO-15**
Trichloroethene	**5.0**	**4.9**	**ppb(v/v)**	**98**	**EPA-2 TO-15**
Tetrachloroethene	**5.0**	**4.7**	**ppb(v/v)**	**93**	**EPA-2 TO-15**
Isopropylbenzene	**5.0**	**5.3**	**ppb(v/v)**	**106**	**EPA-2 TO-15**
n-Propylbenzene	**5.0**	**5.4**	**ppb(v/v)**	**108**	**EPA-2 TO-15**
tert-Butylbenzene	**5.0**	**5.2**	**ppb(v/v)**	**103**	**EPA-2 TO-15**
sec-Butylbenzene	**5.0**	**5.3**	**ppb(v/v)**	**106**	**EPA-2 TO-15**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	116	(60 - 140)

NOTE(S):

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

Bold print denotes control parameters

TAL Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921
phone 865-291-3000 fax 865-584-4315

Canister Samples Chain of Custody Record

H1B100401

TestAmerica assumes no liability with respect to the collection and shipment of these samples.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Contact Information	Project Manager: Steve Murray	Sampled By: SGB	1 of 1 COCs
Company: MACTEC	Phone: 231-922-9050		
Address: 41 Hughes Drive	Site Contact: Steve Buyze		
City/State/Zip: Traverse City, MI 49696	TAL Contact: Mark Loeb		
Phone: 231-922-9050			
FAX: 231-922-9055			
Project Name: Honeywell SB Vapor Intrusion	Analysis Turnaround Time		
Site/location: South Bend, IN	Standard (Specify)		
PO # 5133286	Rush (Specify)		

Sample Identification	Sample Date(s)	Time Start	Time Stop	Canister Vacuum in Field, "Hg (Start)	Canister Vacuum in Field, "Hg (Stop)	Flow Controller ID	Canister ID	TO-15	TO-14A	EPA 3C	EPA 25C	ASTM D-1946	Other (Please specify in notes section)	Sample Type: Indoor Air	Ambient Air	Soil Gas	Landfill Gas	Other (Please specify in notes section)
P-3026R-0211	2/2/11 → 2/3/11	14:21	14:25	-30	-6.5	K371	0120	X										
SS-3002L-0211	2/3/11 → 2/4/11	10:28	10:52	-29	-3.5	K219	6587	X										
B-3002L-0211	↓	10:30	10:51	-29.5	-4.5	K122	6605	X										
P-3002L-0211		10:33	10:50	-29	0	K325	04399	X										
BG-5-0211		10:41	11:00	-30	-4	K309	1007N	X										
BG-6-0211	↓	10:45	11:01	-29	-4.5	K295	04329	X										

Sampled by :

Temperature (Fahrenheit)	Interior	Ambient
Start		
Stop		

Pressure (inches of Hg)	Interior	Ambient
Start		
Stop		

2 Boxes Received @ Ambient + CBA 2/8/11
12 Cans, 12 Flows, 2 T-Bars
FedEx 878 873804403016
CBA 2/8/11 Custody Seals not present.

Special Instructions/QC Requirements & Comments:

RUN TO-15 LIST B CONSTITUENTS (ATTACHED)

Canisters Shipped by:	Date/Time: 2/4/2011 12:00 pm	Canisters Received by: Edwarmel Adkins 2/8/11 0940
Samples Relinquished by:	Date/Time:	Received by:
Relinquished by:	Date/Time:	Received by:

TAL Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921
phone 865-291-3000 fax 865-584-4315

H18100401

Canister Samples Chain of Custody Record

TestAmerica assumes no liability with respect to the collection and shipment of these samples.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Contact Information	Project Manager: Steve Murray	Sampled By: SGB	1 of 1 COCs
Company: MACTEC	Phone: 231-922-9050		
Address: 41 Hughes Dr.	Site Contact: Steve Buyze		
City/State/Zip: Traverse City, MI 49696	TAL Contact: Mark Loeb		
Phone: 231-922-9050			
FAX: 231-922-9055			
Project Name: Honeywell SB Vapor Intrusion	Analysis Turnaround Time		
Site/location: South Bend, IN	Standard (Specify) X		
PO # 5133286	Rush (Specify)		

Sample Identification	Sample Date(s)	Time Start	Time Stop	Canister Vacuum in Field, "Hg (Start)	Canister Vacuum in Field, "Hg (Stop)	Flow Controller ID	Canister ID	TO-15	TO-14A	EPA 3C	EPA 25C	ASTM D-1946	Other (Please specify in notes section)	Sample Type: Indoor Air	Ambient Air	Soil Gas	Landfill Gas	Other (Please specify in notes section)
B-719G-0211	2-1-11 → 2-2-11	1515	1600	-29	-5	K115	1349	X										
B-3010R-0211	2-1-11 → 2-2-11	1658	1716	-29.5	-5.5	K128	1362	X										
P-3010R-0211	2-1-11 → 2-2-11	1702	1726	-27	-6.5	K142	1132	X										
SS-3010R-0211	2-1-11 → 2-2-11	1656	1713	-27	-5	K397	2995	X										
P-719G-0211	2-1-11 → 2-2-11	1522	1600	-30	-8.5	K158	1516	X										
SS-719G-0211	2-1-11 → 2-2-11	1511	1601	-29	-5.5	K473	6580	X										

Sampled by :

Temperature (Fahrenheit)	Interior	Ambient
Start		
Stop		

Pressure (inches of Hg)	Interior	Ambient
Start		
Stop		

Special Instructions/QC Requirements & Comments:

RUN TO-15 LIST B CONSTITUENTS (ATTACHED)

Canisters Shipped by: Steve Buyze	Date/Time: 2/3/11 1617	Canisters Received by: Rosanne Adkins 2/8/11 940
Samples Relinquished by:	Date/Time:	Received by:
Relinquished by:	Date/Time:	Received by:

A 23

TESTAMERICA KNOXVILLE SAMPLE RECEIPT/CONDITION UPON RECEIPT ANOMALY CHECKLIST

Lot Number: H1810401

Review Items	Yes	No	NA	If No, what was the problem?	Comments/Actions Taken
1. Do sample container labels match COC? (IDs, Dates, Times)		✓		☑ 1a Do not match COC ☐ 1b Incomplete information ☐ 1c Marking smeared ☐ 1d Label torn ☐ 1e No label ☐ 1f COC not received ☐ 1g Other:	1aP-3026B-0211 Chain says 1425 Stop Time. Tag says 1424 Stop Time. 49
2. Is the cooler temperature within limits? (> freezing temp. of water to 6 °C, VOST: 10°C)			✓	☐ 2a Temp Blank = _____ ☐ 2b Cooler Temp = _____ ☐ 2c Cooling initiated for recently collected samples, ice present.	
3. Were samples received with correct chemical preservative (excluding Encore)?			✓	☐ 3a Sample preservative =	
4. Were custody seals present/intact on cooler and/or containers?		✓		☑ 4a Not present ☐ 4b Not intact ☐ 4c Other:	
5. Were all of the samples listed on the COC received?	✓			☐ 5a Samples received-not on COC ☐ 5b Samples not received-on COC	
6. Were all of the sample containers received intact?	✓			☐ 6a Leaking ☐ 6b Broken	
7. Were VOA samples received without headspace?			✓	☐ 7a Headspace (VOA only)	
8. Were samples received in appropriate containers?	✓			☐ 8a Improper container	
9. Did you check for residual chlorine, if necessary?			✓	☐ 9a Could not be determined due to matrix interference	
10. Were samples received within holding time?	✓			☐ 10a Holding time expired	
11. For rad samples, was sample activity info. provided?			✓	☐ Incomplete information	
12. For 1613B water samples is pH<9?			✓	If no, was pH adjusted to pH 7 - 9 with sulfuric acid? _____	
13. Are the shipping containers intact?	✓			☐ 13a Leaking ☐ 13b Other:	
14. Was COC relinquished? (Signed/Dated/Timed)	✓			☐ 14a Not relinquished	
15. Are tests/parameters listed for each sample?	✓			☐ 15a Incomplete information	
16. Is the matrix of the samples noted?	✓			☐ 15a Incomplete information	
17. Is the date/time of sample collection noted?	✓			☐ 15a Incomplete information	
18. Is the client and project name/# identified?	✓			☐ 15a Incomplete information	
19. Was the sampler identified on the COC?	✓				

Quote #: 75525 PM Instructions: NA

Sample Receiving Associate: Courtney Adkins Date: 2/8/11

QA026R22.doc, 012811

Test America - Knoxville ---- Air Canister Dilution Log

Lot Number: H1B100401

Initial Can Pressure							Subsequent Dilutions												
Analyst/Date	Tedlar Bag Time	Pbarr (in)	Sample ID	Can #	Pres. upon receipt (-in or + psig)	Adj. Initial Pres. (- in or + psig)	Analyst/Date	I / S	Pbarr (in)	Initial Pres. Pi (in)	Final Pres. Pf (psig)	First InCan Final Pres. Pf (psig)	Second In-can Final Pres. Pf (psig)	Third InCan Final Pres. Pf (psig)	Serial Dilution Can #	Vol (mL)	Final Pres. Pf (psig)	Comments
DDF 2-10-11	NA	29.02	MD8T5	~~0120~~ 6668 (DS 8/14/11)	-2.8													9019
↓	↓	↓	MD8T7	6587	-2.5													↓
			MD8T8	6605	-3.2													8984
			MD8T9	04399	+0.3													9019
			MD8VA	1007N	-0.8													8984
			MD8VD	04329	-3.1													9019
			MD8VE	1349	-2.9													9037
			MD8VF	1362	-3.9													9022
			MD8VG	1132	-6.5													9028
			MD8VJ	2995	-7.5													9039
			MD8VK	1516	-4.9													↓
↓	↓	↓	MD8VM	6580	-4.5													9047

Original Chain of Custody Documentation

TAL Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921
phone 865-291-3000 fax 865-584-4315

H1B1004D1

Canister Samples Chain of Custody Record

TestAmerica assumes no liability with respect to the collection and shipment of these samples.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Contact Information	Project Manager: Steve Murray	Sampled By: SGB	1 of 1 COCs
Company: MACTEC	Phone: 231-922-9050		
Address: 41 Hughes Drive	Site Contact: Steve Buyze		
City/State/Zip: Traverse City, MI 49696	TAL Contact: Mark Loeb		
Phone: 231-922-9050			
FAX: 231-922-9055			
Project Name: Honeywell SB Vapor Intrusion	Analysis Turnaround Time		
Site/location: South Bend, IN	Standard (Specify)		
PO # 5133286	Rush (Specify)		

Sample Identification	Sample Date(s)	Time Start	Time Stop	Canister Vacuum in Field, "Hg (Start)	Canister Vacuum in Field, 'Hg (Stop)	Flow Controller ID	Canister ID	TO-15	TO-14A	EPA 3C	EPA 25C	ASTM D-1946	Other (Please specify in notes section)	Sample Type	Indoor Air	Ambient Air	Soil Gas	Landfill Gas	Other (Please specify in notes section)
P-3026R-0211	2/2/11 → 2/3/11	14:21	14:25	-30	-6.5	K371	0120	X											
SS-3002L-0211	2/3/11 → 2/4/11	10:28	10:52	-29	-3.5	K219	6587	X											
B-3002L-0211		10:30	10:51	-29.5	-4.5	K122	6605	X											
P-3002L-0211		10:33	10:50	-29	0	K325	04399	X											
BG-5-0211		10:41	11:00	-30	-4	K309	1007N	X											
BG-6-0211	↓	10:45	11:01	-29	-4.5	K295	04329	X											

Sampled by :

Temperature (Fahrenheit)	Interior	Ambient
Start		
Stop		

Pressure (inches of Hg)	Interior	Ambient
Start		
Stop		

2 ~~Boxes~~ Received @ Ambient + CBA 2/8/11
12 Cans, 12 Flows, 2 T-Bars
FedEx ~~878~~ 873804403016
CBA 2/8/11 Custody Seals not present.

Special Instructions/QC Requirements & Comments:

RUN TO-15 LIST B CONSTITUENTS (ATTACHED)

Canisters Shipped by:	Date/Time: 2/4/2011 12:00 pm	Canisters Received by: Courtney Adkins 2/8/11 0940
Samples Relinquished by:	Date/Time:	Received by:
Relinquished by:	Date/Time:	Received by:

TAL Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921
phone 865-291-3000 fax 865-584-4315

HIBI10401

Canister Samples Chain of Custody Record

TestAmerica assumes no liability with respect to the collection and shipment of these samples.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Contact Information	**Project Manager:** Steve Murray	**Sampled By:** SGB
Company: MACTEC	Phone: 231-922-9050	1 of 1 COCs
Address: 41 Hughes Dr.	Site Contact: Steve Buyze	
City/State/Zip: Traverse City, MI 49696	TAL Contact: Mark Loeb	
Phone: 231-922-9050		
FAX: 231-922-9055		
Project Name: Honeywell SB Vapor Intrusion	**Analysis Turnaround Time**	
Site/location: South Bend, IN	Standard (Specify) X	
PO # 5133286	Rush (Specify)	

Sample Identification	Sample Date(s)	Time Start	Time Stop	Canister Vacuum in Field, "Hg (Start)	Canister Vacuum in Field, "Hg (Stop)	Flow Controller ID	Canister ID	TO-15	TO-14A	EPA 3C	EPA 25C	ASTM D-1946	Other (Please specify in notes section)	Sample Type	Indoor Air	Ambient Air	Soil Gas	Landfill Gas	Other (Please specify in notes section)
B-719G-0211	2-1-11 → 2-2-11	1515	1600	-29	-5	K115	1349	X											
B-3010R-0211	2-1-11 → 2-2-11	1658	1716	-29.5	-5.5	K128	1362	X											
P-3010R-0211	2-1-11 → 2-2-11	1702	1726	-27	-6.5	K142	1132	X											
SS-3010R-0211	2-1-11 → 2-2-11	1656	1713	-27	-5	K397	2995	X											
P-719G-0211	2-1-11 → 2-2-11	1522	1600	-30	-8.5	K158	1516	X											
SS-719G-0211	2-1-11 → 2-2-11	1511	1601	-29	-5.5	K473	6580	X											

Sampled by :

Temperature (Fahrenheit)	Interior	Ambient	
Start			
Stop			

Pressure (inches of Hg)	Interior	Ambient	
Start			
Stop			

Special Instructions/QC Requirements & Comments:

RUN TO-15 LIST B CONSTITUENTS (ATTACHED)

Canisters Shipped by: Steve Buyze	Date/Time: 2/3/11 1617	Canisters Received by: Clarence J. Adkins 2/8/11 940
Samples Relinquished by:	Date/Time:	Received by:
Relinquished by:	Date/Time:	Received by:

A

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

ANALYTICAL REPORT

Honeywell - South Bend

Lot #: H1B100402

Steven Murray

Mactec Engineering & Consultan
41 Hughes Drive
Traverse City, MI 49686

TESTAMERICA LABORATORIES, INC.

Jamie A. McKinney
Project Manager

February 15, 2011

EXECUTIVE SUMMARY - Detection Highlights

H1B100402

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
P-3018L-0211 02/03/11 10:59 001				
Benzene	0.36	0.080	ppb(v/v)	EPA-2 TO-15
1,1,1-Trichloroethane	0.11	0.080	ppb(v/v)	EPA-2 TO-15
Trichloroethene	0.081	0.040	ppb(v/v)	EPA-2 TO-15
BG-3-0211 02/03/11 11:06 002				
Benzene	0.25	0.080	ppb(v/v)	EPA-2 TO-15
Trichloroethene	0.058	0.040	ppb(v/v)	EPA-2 TO-15
BG-4-0211 02/03/11 14:36 003				
Benzene	0.28	0.080	ppb(v/v)	EPA-2 TO-15
Tetrachloroethene	0.17	0.080	ppb(v/v)	EPA-2 TO-15
B-3018L-0211 02/03/11 10:53 004				
Benzene	0.41	0.080	ppb(v/v)	EPA-2 TO-15
SS-3018L-0211 02/03/11 10:53 005				
Benzene	0.57	0.080	ppb(v/v)	EPA-2 TO-15
n-Propylbenzene	0.17	0.16	ppb(v/v)	EPA-2 TO-15
Tetrachloroethene	0.36	0.080	ppb(v/v)	EPA-2 TO-15
Trichloroethene	0.065	0.040	ppb(v/v)	EPA-2 TO-15
SS-3026R-0211 02/03/11 14:26 006				
Benzene	0.22	0.080	ppb(v/v)	EPA-2 TO-15
n-Propylbenzene	0.23	0.16	ppb(v/v)	EPA-2 TO-15
Tetrachloroethene	0.87	0.080	ppb(v/v)	EPA-2 TO-15
1,1,1-Trichloroethane	1.2	0.080	ppb(v/v)	EPA-2 TO-15
Trichloroethene	0.044	0.040	ppb(v/v)	EPA-2 TO-15
SS-3006L-0211 02/02/11 11:58 007				
Benzene	0.60	0.080	ppb(v/v)	EPA-2 TO-15
Isopropylbenzene	0.16	0.16	ppb(v/v)	EPA-2 TO-15
n-Propylbenzene	0.26	0.16	ppb(v/v)	EPA-2 TO-15
Tetrachloroethene	0.46	0.080	ppb(v/v)	EPA-2 TO-15
1,1,1-Trichloroethane	0.13	0.080	ppb(v/v)	EPA-2 TO-15
Trichloroethene	0.13	0.040	ppb(v/v)	EPA-2 TO-15

(Continued on next page)

EXECUTIVE SUMMARY - Detection Highlights

H1B100402

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
B-3006L-0211 02/02/11 11:56 008				
Benzene	1.9	0.080	ppb(v/v)	EPA-2 TO-15
cis-1,2-Dichloroethene	0.093	0.080	ppb(v/v)	EPA-2 TO-15
Trichloroethene	0.067	0.040	ppb(v/v)	EPA-2 TO-15
1,2-Dichloroethane	0.084	0.080	ppb(v/v)	EPA-2 TO-15
P-3006L-0211 02/02/11 12:00 009				
Benzene	2.1	0.080	ppb(v/v)	EPA-2 TO-15
cis-1,2-Dichloroethene	0.10	0.080	ppb(v/v)	EPA-2 TO-15
Trichloroethene	0.078	0.040	ppb(v/v)	EPA-2 TO-15
1,2-Dichloroethane	0.11	0.080	ppb(v/v)	EPA-2 TO-15
BG-1-0211 02/02/11 13:20 010				
Benzene	0.19	0.080	ppb(v/v)	EPA-2 TO-15
BG-2-0211 02/02/11 17:36 011				
Benzene	0.17	0.080	ppb(v/v)	EPA-2 TO-15
B-3026R-0211 02/03/11 14:25 012				
Benzene	0.28	0.080	ppb(v/v)	EPA-2 TO-15

ANALYTICAL METHODS SUMMARY

H1B100402

PARAMETER	ANALYTICAL METHOD
Volatile Organics by TO15	EPA-2 TO-15

References:

EPA-2 "Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air", EPA-625/R-96/010b, January 1999.

SAMPLE SUMMARY

H1B100402

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
MD8V0	001	P-3018L-0211	02/03/11	10:59
MD8V3	002	BG-3-0211	02/03/11	11:06
MD8V4	003	BG-4-0211	02/03/11	14:36
MD8V5	004	B-3018L-0211	02/03/11	10:53
MD8V6	005	SS-3018L-0211	02/03/11	10:53
MD8V7	006	SS-3026R-0211	02/03/11	14:26
MD8V8	007	SS-3006L-0211	02/02/11	11:58
MD8V9	008	B-3006L-0211	02/02/11	11:56
MD8WA	009	P-3006L-0211	02/02/11	12:00
MD8WC	010	BG-1-0211	02/02/11	13:20
MD8WD	011	BG-2-0211	02/02/11	17:36
MD8WE	012	B-3026R-0211	02/03/11	14:25

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.

PROJECT NARRATIVE
H1B100402

The results reported herein are applicable to the samples submitted for analysis only. If you have any questions about this report, please call (865) 291-3000 to speak with the TestAmerica project manager listed on the cover page.

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The original chain of custody documentation is included with this report.

Sample Receipt

There were no problems with the condition of the samples received.

Quality Control and Data Interpretation

Unless otherwise noted, all holding times and QC criteria were met and the test results shown in this report meet all applicable NELAC requirements.

EPA methods TO-14A and TO-15 specify the use of humidified "zero air" as the blank reagent for canister cleaning, instrument calibration and sample analysis. Ultra-high purity humidified nitrogen from a cryogenic reservoir is used in place of "zero air" by TestAmerica Knoxville.

MACTEC Engineering and Consulting Inc

Client Sample ID: P-3018L-0211

GC/MS Volatiles

Lot-Sample #...: H1B100402-001 **Work Order #...:** MD8V01AA **Matrix.....:** AIR
Date Sampled...: 02/03/11 10:59 **Date Received..:** 02/09/11
Prep Date.....: 02/11/11 **Analysis Date..:** 02/11/11
Prep Batch #...: 1045116
Dilution Factor: 1 **Method.....:** EPA-2 TO-15

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	**0.36**	**0.080**	**ppb(v/v)**
sec-Butylbenzene	ND	0.16	ppb(v/v)
Chloroethane	ND	0.080	ppb(v/v)
1,1-Dichloroethane	ND	0.080	ppb(v/v)
cis-1,2-Dichloroethene	ND	0.080	ppb(v/v)
trans-1,2-Dichloroethene	ND	0.080	ppb(v/v)
1,1-Dichloroethene	ND	0.080	ppb(v/v)
1,2-Dichloropropane	ND	0.080	ppb(v/v)
Isopropylbenzene	ND	0.16	ppb(v/v)
n-Propylbenzene	ND	0.16	ppb(v/v)
Tetrachloroethene	ND	0.080	ppb(v/v)
1,1,1-Trichloroethane	**0.11**	**0.080**	**ppb(v/v)**
Trichloroethene	**0.081**	**0.040**	**ppb(v/v)**
Vinyl chloride	ND	0.080	ppb(v/v)
tert-Butylbenzene	ND	0.20	ppb(v/v)
1,2-Dichloroethane	ND	0.080	ppb(v/v)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	111	(60 - 140)

MACTEC Engineering and Consulting Inc

Client Sample ID: BG-3-0211

GC/MS Volatiles

Lot-Sample #...: H1B100402-002 **Work Order #...:** MD8V31AA **Matrix.....:** AIR
Date Sampled...: 02/03/11 11:06 **Date Received..:** 02/09/11
Prep Date.....: 02/11/11 **Analysis Date..:** 02/11/11
Prep Batch #...: 1045116
Dilution Factor: 1 **Method.....:** EPA-2 TO-15

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	**0.25**	**0.080**	**ppb(v/v)**
sec-Butylbenzene	ND	0.16	ppb(v/v)
Chloroethane	ND	0.080	ppb(v/v)
1,1-Dichloroethane	ND	0.080	ppb(v/v)
cis-1,2-Dichloroethene	ND	0.080	ppb(v/v)
trans-1,2-Dichloroethene	ND	0.080	ppb(v/v)
1,1-Dichloroethene	ND	0.080	ppb(v/v)
1,2-Dichloropropane	ND	0.080	ppb(v/v)
Isopropylbenzene	ND	0.16	ppb(v/v)
n-Propylbenzene	ND	0.16	ppb(v/v)
Tetrachloroethene	ND	0.080	ppb(v/v)
1,1,1-Trichloroethane	ND	0.080	ppb(v/v)
Trichloroethene	**0.058**	**0.040**	**ppb(v/v)**
Vinyl chloride	ND	0.080	ppb(v/v)
tert-Butylbenzene	ND	0.20	ppb(v/v)
1,2-Dichloroethane	ND	0.080	ppb(v/v)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	109	(60 - 140)

MACTEC Engineering and Consulting Inc

Client Sample ID: BG-4-0211

GC/MS Volatiles

Lot-Sample #...: H1B100402-003 **Work Order #...:** MD8V41AA **Matrix.....:** AIR
Date Sampled...: 02/03/11 14:36 **Date Received..:** 02/09/11
Prep Date.....: 02/11/11 **Analysis Date..:** 02/11/11
Prep Batch #...: 1045116
Dilution Factor: 1 **Method.....:** EPA-2 TO-15

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	**0.28**	**0.080**	**ppb(v/v)**
sec-Butylbenzene	ND	0.16	ppb(v/v)
Chloroethane	ND	0.080	ppb(v/v)
1,1-Dichloroethane	ND	0.080	ppb(v/v)
cis-1,2-Dichloroethene	ND	0.080	ppb(v/v)
trans-1,2-Dichloroethene	ND	0.080	ppb(v/v)
1,1-Dichloroethene	ND	0.080	ppb(v/v)
1,2-Dichloropropane	ND	0.080	ppb(v/v)
Isopropylbenzene	ND	0.16	ppb(v/v)
n-Propylbenzene	ND	0.16	ppb(v/v)
Tetrachloroethene	**0.17**	**0.080**	**ppb(v/v)**
1,1,1-Trichloroethane	ND	0.080	ppb(v/v)
Trichloroethene	ND	0.040	ppb(v/v)
Vinyl chloride	ND	0.080	ppb(v/v)
tert-Butylbenzene	ND	0.20	ppb(v/v)
1,2-Dichloroethane	ND	0.080	ppb(v/v)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	109	(60 - 140)

MACTEC Engineering and Consulting Inc

Client Sample ID: B-3018L-0211

GC/MS Volatiles

Lot-Sample #...: H1B100402-004 **Work Order #...:** MD8V51AA **Matrix.....:** AIR
Date Sampled...: 02/03/11 10:53 **Date Received..:** 02/09/11
Prep Date.....: 02/11/11 **Analysis Date..:** 02/11/11
Prep Batch #...: 1045118
Dilution Factor: 1 **Method.....:** EPA-2 TO-15

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	**0.41**	**0.080**	**ppb(v/v)**
sec-Butylbenzene	ND	0.16	ppb(v/v)
Chloroethane	ND	0.080	ppb(v/v)
1,1-Dichloroethane	ND	0.080	ppb(v/v)
cis-1,2-Dichloroethene	ND	0.080	ppb(v/v)
trans-1,2-Dichloroethene	ND	0.080	ppb(v/v)
1,1-Dichloroethene	ND	0.080	ppb(v/v)
1,2-Dichloropropane	ND	0.080	ppb(v/v)
Isopropylbenzene	ND	0.16	ppb(v/v)
n-Propylbenzene	ND	0.16	ppb(v/v)
Tetrachloroethene	ND	0.080	ppb(v/v)
1,1,1-Trichloroethane	ND	0.080	ppb(v/v)
Trichloroethene	ND	0.040	ppb(v/v)
Vinyl chloride	ND	0.080	ppb(v/v)
tert-Butylbenzene	ND	0.20	ppb(v/v)
1,2-Dichloroethane	ND	0.080	ppb(v/v)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	97	(60 - 140)

MACTEC Engineering and Consulting Inc

Client Sample ID: SS-3018L-0211

GC/MS Volatiles

Lot-Sample #...: H1B100402-005 **Work Order #...:** MD8V61AA **Matrix.....:** AIR
Date Sampled...: 02/03/11 10:53 **Date Received..:** 02/09/11
Prep Date.....: 02/11/11 **Analysis Date..:** 02/11/11
Prep Batch #...: 1045118
Dilution Factor: 1 **Method.....:** EPA-2 TO-15

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	**0.57**	**0.080**	**ppb(v/v)**
sec-Butylbenzene	ND	0.16	ppb(v/v)
Chloroethane	ND	0.080	ppb(v/v)
1,1-Dichloroethane	ND	0.080	ppb(v/v)
cis-1,2-Dichloroethene	ND	0.080	ppb(v/v)
trans-1,2-Dichloroethene	ND	0.080	ppb(v/v)
1,1-Dichloroethene	ND	0.080	ppb(v/v)
1,2-Dichloropropane	ND	0.080	ppb(v/v)
Isopropylbenzene	ND	0.16	ppb(v/v)
n-Propylbenzene	**0.17**	**0.16**	**ppb(v/v)**
Tetrachloroethene	**0.36**	**0.080**	**ppb(v/v)**
1,1,1-Trichloroethane	ND	0.080	ppb(v/v)
Trichloroethene	**0.065**	**0.040**	**ppb(v/v)**
Vinyl chloride	ND	0.080	ppb(v/v)
tert-Butylbenzene	ND	0.20	ppb(v/v)
1,2-Dichloroethane	ND	0.080	ppb(v/v)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	100	(60 - 140)

MACTEC Engineering and Consulting Inc

Client Sample ID: SS-3026R-0211

GC/MS Volatiles

Lot-Sample #...: H1B100402-006 **Work Order #...:** MD8V71AA **Matrix.....:** AIR
Date Sampled...: 02/03/11 14:26 **Date Received..:** 02/09/11
Prep Date.....: 02/11/11 **Analysis Date..:** 02/11/11
Prep Batch #...: 1045118
Dilution Factor: 1 **Method.....:** EPA-2 TO-15

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	**0.22**	**0.080**	**ppb(v/v)**
sec-Butylbenzene	ND	0.16	ppb(v/v)
Chloroethane	ND	0.080	ppb(v/v)
1,1-Dichloroethane	ND	0.080	ppb(v/v)
cis-1,2-Dichloroethene	ND	0.080	ppb(v/v)
trans-1,2-Dichloroethene	ND	0.080	ppb(v/v)
1,1-Dichloroethene	ND	0.080	ppb(v/v)
1,2-Dichloropropane	ND	0.080	ppb(v/v)
Isopropylbenzene	ND	0.16	ppb(v/v)
n-Propylbenzene	**0.23**	**0.16**	**ppb(v/v)**
Tetrachloroethene	**0.87**	**0.080**	**ppb(v/v)**
1,1,1-Trichloroethane	**1.2**	**0.080**	**ppb(v/v)**
Trichloroethene	**0.044**	**0.040**	**ppb(v/v)**
Vinyl chloride	ND	0.080	ppb(v/v)
tert-Butylbenzene	ND	0.20	ppb(v/v)
1,2-Dichloroethane	ND	0.080	ppb(v/v)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	98	(60 - 140)

MACTEC Engineering and Consulting Inc

Client Sample ID: SS-3006L-0211

GC/MS Volatiles

Lot-Sample #...: H1B100402-007 **Work Order #...:** MD8V81AA **Matrix.....:** AIR
Date Sampled...: 02/02/11 11:58 **Date Received..:** 02/09/11
Prep Date.....: 02/11/11 **Analysis Date..:** 02/11/11
Prep Batch #...: 1045118
Dilution Factor: 1 **Method.....:** EPA-2 TO-15

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	**0.60**	**0.080**	**ppb(v/v)**
sec-Butylbenzene	ND	0.16	ppb(v/v)
Chloroethane	ND	0.080	ppb(v/v)
1,1-Dichloroethane	ND	0.080	ppb(v/v)
cis-1,2-Dichloroethene	ND	0.080	ppb(v/v)
trans-1,2-Dichloroethene	ND	0.080	ppb(v/v)
1,1-Dichloroethene	ND	0.080	ppb(v/v)
1,2-Dichloropropane	ND	0.080	ppb(v/v)
Isopropylbenzene	**0.16**	**0.16**	**ppb(v/v)**
n-Propylbenzene	**0.26**	**0.16**	**ppb(v/v)**
Tetrachloroethene	**0.46**	**0.080**	**ppb(v/v)**
1,1,1-Trichloroethane	**0.13**	**0.080**	**ppb(v/v)**
Trichloroethene	**0.13**	**0.040**	**ppb(v/v)**
Vinyl chloride	ND	0.080	ppb(v/v)
tert-Butylbenzene	ND	0.20	ppb(v/v)
1,2-Dichloroethane	ND	0.080	ppb(v/v)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	99	(60 - 140)

MACTEC Engineering and Consulting Inc

Client Sample ID: B-3006L-0211

GC/MS Volatiles

Lot-Sample #...: H1B100402-008 **Work Order #...:** MD8V91AA **Matrix.....:** AIR
Date Sampled...: 02/02/11 11:56 **Date Received..:** 02/09/11
Prep Date.....: 02/11/11 **Analysis Date..:** 02/11/11
Prep Batch #...: 1045118
Dilution Factor: 1 **Method.....:** EPA-2 TO-15

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	**1.9**	**0.080**	**ppb(v/v)**
sec-Butylbenzene	ND	0.16	ppb(v/v)
Chloroethane	ND	0.080	ppb(v/v)
1,1-Dichloroethane	ND	0.080	ppb(v/v)
cis-1,2-Dichloroethene	**0.093**	**0.080**	**ppb(v/v)**
trans-1,2-Dichloroethene	ND	0.080	ppb(v/v)
1,1-Dichloroethene	ND	0.080	ppb(v/v)
1,2-Dichloropropane	ND	0.080	ppb(v/v)
Isopropylbenzene	ND	0.16	ppb(v/v)
n-Propylbenzene	ND	0.16	ppb(v/v)
Tetrachloroethene	ND	0.080	ppb(v/v)
1,1,1-Trichloroethane	ND	0.080	ppb(v/v)
Trichloroethene	**0.067**	**0.040**	**ppb(v/v)**
Vinyl chloride	ND	0.080	ppb(v/v)
tert-Butylbenzene	ND	0.20	ppb(v/v)
1,2-Dichloroethane	**0.084**	**0.080**	**ppb(v/v)**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	98	(60 - 140)

MACTEC Engineering and Consulting Inc

Client Sample ID: P-3006L-0211

GC/MS Volatiles

Lot-Sample #...: H1B100402-009 Work Order #...: MD8WA1AA Matrix.....: AIR
Date Sampled...: 02/02/11 12:00 Date Received..: 02/09/11
Prep Date.....: 02/11/11 Analysis Date..: 02/11/11
Prep Batch #...: 1045118
Dilution Factor: 1 Method.....: EPA-2 TO-15

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	**2.1**	**0.080**	**ppb(v/v)**
sec-Butylbenzene	ND	0.16	ppb(v/v)
Chloroethane	ND	0.080	ppb(v/v)
1,1-Dichloroethane	ND	0.080	ppb(v/v)
cis-1,2-Dichloroethene	**0.10**	**0.080**	**ppb(v/v)**
trans-1,2-Dichloroethene	ND	0.080	ppb(v/v)
1,1-Dichloroethene	ND	0.080	ppb(v/v)
1,2-Dichloropropane	ND	0.080	ppb(v/v)
Isopropylbenzene	ND	0.16	ppb(v/v)
n-Propylbenzene	ND	0.16	ppb(v/v)
Tetrachloroethene	ND	0.080	ppb(v/v)
1,1,1-Trichloroethane	ND	0.080	ppb(v/v)
Trichloroethene	**0.078**	**0.040**	**ppb(v/v)**
Vinyl chloride	ND	0.080	ppb(v/v)
tert-Butylbenzene	ND	0.20	ppb(v/v)
1,2-Dichloroethane	**0.11**	**0.080**	**ppb(v/v)**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	97	(60 - 140)

MACTEC Engineering and Consulting Inc

Client Sample ID: BG-1-0211

GC/MS Volatiles

Lot-Sample #...: H1B100402-010 **Work Order #...:** MD8WC1AA **Matrix.....:** AIR
Date Sampled...: 02/02/11 13:20 **Date Received..:** 02/09/11
Prep Date.....: 02/11/11 **Analysis Date..:** 02/11/11
Prep Batch #...: 1045118
Dilution Factor: 1 **Method.....:** EPA-2 TO-15

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	**0.19**	**0.080**	**ppb(v/v)**
sec-Butylbenzene	ND	0.16	ppb(v/v)
Chloroethane	ND	0.080	ppb(v/v)
1,1-Dichloroethane	ND	0.080	ppb(v/v)
cis-1,2-Dichloroethene	ND	0.080	ppb(v/v)
trans-1,2-Dichloroethene	ND	0.080	ppb(v/v)
1,1-Dichloroethene	ND	0.080	ppb(v/v)
1,2-Dichloropropane	ND	0.080	ppb(v/v)
Isopropylbenzene	ND	0.16	ppb(v/v)
n-Propylbenzene	ND	0.16	ppb(v/v)
Tetrachloroethene	ND	0.080	ppb(v/v)
1,1,1-Trichloroethane	ND	0.080	ppb(v/v)
Trichloroethene	ND	0.040	ppb(v/v)
Vinyl chloride	ND	0.080	ppb(v/v)
tert-Butylbenzene	ND	0.20	ppb(v/v)
1,2-Dichloroethane	ND	0.080	ppb(v/v)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	95	(60 - 140)

MACTEC Engineering and Consulting Inc

Client Sample ID: BG-2-0211

GC/MS Volatiles

Lot-Sample #...: H1B100402-011 **Work Order #...:** MD8WD1AA **Matrix.....:** AIR
Date Sampled...: 02/02/11 17:36 **Date Received..:** 02/09/11
Prep Date.....: 02/11/11 **Analysis Date..:** 02/11/11
Prep Batch #...: 1045118
Dilution Factor: 1 **Method.....:** EPA-2 TO-15

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	**0.17**	**0.080**	**ppb(v/v)**
sec-Butylbenzene	ND	0.16	ppb(v/v)
Chloroethane	ND	0.080	ppb(v/v)
1,1-Dichloroethane	ND	0.080	ppb(v/v)
cis-1,2-Dichloroethene	ND	0.080	ppb(v/v)
trans-1,2-Dichloroethene	ND	0.080	ppb(v/v)
1,1-Dichloroethene	ND	0.080	ppb(v/v)
1,2-Dichloropropane	ND	0.080	ppb(v/v)
Isopropylbenzene	ND	0.16	ppb(v/v)
n-Propylbenzene	ND	0.16	ppb(v/v)
Tetrachloroethene	ND	0.080	ppb(v/v)
1,1,1-Trichloroethane	ND	0.080	ppb(v/v)
Trichloroethene	ND	0.040	ppb(v/v)
Vinyl chloride	ND	0.080	ppb(v/v)
tert-Butylbenzene	ND	0.20	ppb(v/v)
1,2-Dichloroethane	ND	0.080	ppb(v/v)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	97	(60 - 140)

MACTEC Engineering and Consulting Inc

Client Sample ID: B-3026R-0211

GC/MS Volatiles

Lot-Sample #...: H1B100402-012 **Work Order #...:** MD8WE1AA **Matrix.....:** AIR
Date Sampled...: 02/03/11 14:25 **Date Received..:** 02/09/11
Prep Date.....: 02/11/11 **Analysis Date..:** 02/11/11
Prep Batch #...: 1045118
Dilution Factor: 1 **Method.....:** EPA-2 TO-15

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	**0.28**	**0.080**	**ppb(v/v)**
sec-Butylbenzene	ND	0.16	ppb(v/v)
Chloroethane	ND	0.080	ppb(v/v)
1,1-Dichloroethane	ND	0.080	ppb(v/v)
cis-1,2-Dichloroethene	ND	0.080	ppb(v/v)
trans-1,2-Dichloroethene	ND	0.080	ppb(v/v)
1,1-Dichloroethene	ND	0.080	ppb(v/v)
1,2-Dichloropropane	ND	0.080	ppb(v/v)
Isopropylbenzene	ND	0.16	ppb(v/v)
n-Propylbenzene	ND	0.16	ppb(v/v)
Tetrachloroethene	ND	0.080	ppb(v/v)
1,1,1-Trichloroethane	ND	0.080	ppb(v/v)
Trichloroethene	ND	0.040	ppb(v/v)
Vinyl chloride	ND	0.080	ppb(v/v)
tert-Butylbenzene	ND	0.20	ppb(v/v)
1,2-Dichloroethane	ND	0.080	ppb(v/v)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	98	(60 - 140)

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: H1B100402 **Work Order #...:** MEDV91AA **Matrix.....:** AIR
MB Lot-Sample #: H1B140000-116

Prep Date.....: 02/11/11
Analysis Date..: 02/11/11 **Prep Batch #...:** 1045116
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Benzene	ND	0.080	ppb(v/v)	EPA-2 TO-15
sec-Butylbenzene	ND	0.16	ppb(v/v)	EPA-2 TO-15
tert-Butylbenzene	ND	0.20	ppb(v/v)	EPA-2 TO-15
Chloroethane	ND	0.080	ppb(v/v)	EPA-2 TO-15
1,1-Dichloroethane	ND	0.080	ppb(v/v)	EPA-2 TO-15
1,2-Dichloroethane	ND	0.080	ppb(v/v)	EPA-2 TO-15
1,1-Dichloroethene	ND	0.080	ppb(v/v)	EPA-2 TO-15
cis-1,2-Dichloroethene	ND	0.080	ppb(v/v)	EPA-2 TO-15
trans-1,2-Dichloroethene	ND	0.080	ppb(v/v)	EPA-2 TO-15
1,2-Dichloropropane	ND	0.080	ppb(v/v)	EPA-2 TO-15
Isopropylbenzene	ND	0.16	ppb(v/v)	EPA-2 TO-15
n-Propylbenzene	ND	0.16	ppb(v/v)	EPA-2 TO-15
Tetrachloroethene	ND	0.080	ppb(v/v)	EPA-2 TO-15
1,1,1-Trichloroethane	ND	0.080	ppb(v/v)	EPA-2 TO-15
Trichloroethene	ND	0.040	ppb(v/v)	EPA-2 TO-15
Vinyl chloride	ND	0.080	ppb(v/v)	EPA-2 TO-15

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	111	(60 - 140)

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 #...: H1B100402 **Work Order #...:** MEDV91AC **Matrix.....:** AIR
LCS Lot-Sample#: H1B140000-116
Prep Date.....: 02/11/11 **Analysis Date..:** 02/11/11
Prep Batch #...: 1045116
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD
Vinyl chloride	**102**	**(70 - 130)**	**EPA-2 TO-15**
Chloroethane	**94**	**(70 - 130)**	**EPA-2 TO-15**
1,1-Dichloroethene	**108**	**(70 - 130)**	**EPA-2 TO-15**
trans-1,2-Dichloroethene	**109**	**(70 - 130)**	**EPA-2 TO-15**
1,1-Dichloroethane	**101**	**(70 - 130)**	**EPA-2 TO-15**
cis-1,2-Dichloroethene	**104**	**(70 - 130)**	**EPA-2 TO-15**
1,1,1-Trichloroethane	**108**	**(70 - 130)**	**EPA-2 TO-15**
1,2-Dichloroethane	**93**	**(70 - 130)**	**EPA-2 TO-15**
Benzene	**102**	**(70 - 130)**	**EPA-2 TO-15**
1,2-Dichloropropane	**98**	**(70 - 130)**	**EPA-2 TO-15**
Trichloroethene	**98**	**(70 - 130)**	**EPA-2 TO-15**
Tetrachloroethene	**93**	**(70 - 130)**	**EPA-2 TO-15**
Isopropylbenzene	**106**	**(70 - 130)**	**EPA-2 TO-15**
n-Propylbenzene	**108**	**(70 - 130)**	**EPA-2 TO-15**
tert-Butylbenzene	**103**	**(70 - 130)**	**EPA-2 TO-15**
sec-Butylbenzene	**106**	**(70 - 130)**	**EPA-2 TO-15**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	116	(60 - 140)

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 #...: H1B100402 **Work Order #...:** MEDV91AC **Matrix.....:** AIR
LCS Lot-Sample#: H1B140000-116
Prep Date.....: 02/11/11 **Analysis Date..:** 02/11/11
Prep Batch #...: 1045116
Dilution Factor: 1

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	METHOD
Vinyl chloride	**5.0**	**5.1**	**ppb(v/v)**	**102**	**EPA-2 TO-15**
Chloroethane	**5.0**	**4.7**	**ppb(v/v)**	**94**	**EPA-2 TO-15**
1,1-Dichloroethene	**5.0**	**5.4**	**ppb(v/v)**	**108**	**EPA-2 TO-15**
trans-1,2-Dichloroethene	**5.0**	**5.5**	**ppb(v/v)**	**109**	**EPA-2 TO-15**
1,1-Dichloroethane	**5.0**	**5.0**	**ppb(v/v)**	**101**	**EPA-2 TO-15**
cis-1,2-Dichloroethene	**5.0**	**5.2**	**ppb(v/v)**	**104**	**EPA-2 TO-15**
1,1,1-Trichloroethane	**5.0**	**5.4**	**ppb(v/v)**	**108**	**EPA-2 TO-15**
1,2-Dichloroethane	**5.0**	**4.7**	**ppb(v/v)**	**93**	**EPA-2 TO-15**
Benzene	**5.0**	**5.1**	**ppb(v/v)**	**102**	**EPA-2 TO-15**
1,2-Dichloropropane	**5.0**	**4.9**	**ppb(v/v)**	**98**	**EPA-2 TO-15**
Trichloroethene	**5.0**	**4.9**	**ppb(v/v)**	**98**	**EPA-2 TO-15**
Tetrachloroethene	**5.0**	**4.7**	**ppb(v/v)**	**93**	**EPA-2 TO-15**
Isopropylbenzene	**5.0**	**5.3**	**ppb(v/v)**	**106**	**EPA-2 TO-15**
n-Propylbenzene	**5.0**	**5.4**	**ppb(v/v)**	**108**	**EPA-2 TO-15**
tert-Butylbenzene	**5.0**	**5.2**	**ppb(v/v)**	**103**	**EPA-2 TO-15**
sec-Butylbenzene	**5.0**	**5.3**	**ppb(v/v)**	**106**	**EPA-2 TO-15**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	116	(60 - 140)

NOTE(S):

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

Bold print denotes control parameters

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: H1B100402 **Work Order #...:** MEDW21AA **Matrix.....:** AIR
MB Lot-Sample #: H1B140000-118

Prep Date.....: 02/11/11
Analysis Date..: 02/11/11 **Prep Batch #...:** 1045118
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Benzene	ND	0.080	ppb(v/v)	EPA-2 TO-15
sec-Butylbenzene	ND	0.16	ppb(v/v)	EPA-2 TO-15
tert-Butylbenzene	ND	0.20	ppb(v/v)	EPA-2 TO-15
Chloroethane	ND	0.080	ppb(v/v)	EPA-2 TO-15
1,1-Dichloroethane	ND	0.080	ppb(v/v)	EPA-2 TO-15
1,2-Dichloroethane	ND	0.080	ppb(v/v)	EPA-2 TO-15
1,1-Dichloroethene	ND	0.080	ppb(v/v)	EPA-2 TO-15
cis-1,2-Dichloroethene	ND	0.080	ppb(v/v)	EPA-2 TO-15
trans-1,2-Dichloroethene	ND	0.080	ppb(v/v)	EPA-2 TO-15
1,2-Dichloropropane	ND	0.080	ppb(v/v)	EPA-2 TO-15
Isopropylbenzene	ND	0.16	ppb(v/v)	EPA-2 TO-15
n-Propylbenzene	ND	0.16	ppb(v/v)	EPA-2 TO-15
Tetrachloroethene	ND	0.080	ppb(v/v)	EPA-2 TO-15
1,1,1-Trichloroethane	ND	0.080	ppb(v/v)	EPA-2 TO-15
Trichloroethene	ND	0.040	ppb(v/v)	EPA-2 TO-15
Vinyl chloride	ND	0.080	ppb(v/v)	EPA-2 TO-15

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	99	(60 - 140)

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 #...: H1B100402 **Work Order #...:** MEDW21AC **Matrix.....:** AIR
LCS Lot-Sample#: H1B140000-118
Prep Date.....: 02/11/11 **Analysis Date..:** 02/11/11
Prep Batch #...: 1045118
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD
Vinyl chloride	**82**	**(70 - 130)**	**EPA-2 TO-15**
Chloroethane	**92**	**(70 - 130)**	**EPA-2 TO-15**
1,1-Dichloroethene	**100**	**(70 - 130)**	**EPA-2 TO-15**
trans-1,2-Dichloroethene	**100**	**(70 - 130)**	**EPA-2 TO-15**
1,1-Dichloroethane	**99**	**(70 - 130)**	**EPA-2 TO-15**
cis-1,2-Dichloroethene	**101**	**(70 - 130)**	**EPA-2 TO-15**
1,1,1-Trichloroethane	**109**	**(70 - 130)**	**EPA-2 TO-15**
1,2-Dichloroethane	**94**	**(70 - 130)**	**EPA-2 TO-15**
Benzene	**92**	**(70 - 130)**	**EPA-2 TO-15**
1,2-Dichloropropane	**88**	**(70 - 130)**	**EPA-2 TO-15**
Trichloroethene	**92**	**(70 - 130)**	**EPA-2 TO-15**
Tetrachloroethene	**92**	**(70 - 130)**	**EPA-2 TO-15**
Isopropylbenzene	**103**	**(70 - 130)**	**EPA-2 TO-15**
n-Propylbenzene	**105**	**(70 - 130)**	**EPA-2 TO-15**
tert-Butylbenzene	**102**	**(70 - 130)**	**EPA-2 TO-15**
sec-Butylbenzene	**104**	**(70 - 130)**	**EPA-2 TO-15**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	96	(60 - 140)

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 #...: H1B100402 **Work Order #...:** MEDW21AC **Matrix.....:** AIR
LCS Lot-Sample#: H1B140000-118
Prep Date.....: 02/11/11 **Analysis Date..:** 02/11/11
Prep Batch #...: 1045118
Dilution Factor: 1

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	METHOD
Vinyl chloride	**5.0**	**4.1**	**ppb(v/v)**	**82**	**EPA-2 TO-15**
Chloroethane	**5.0**	**4.6**	**ppb(v/v)**	**92**	**EPA-2 TO-15**
1,1-Dichloroethene	**5.0**	**5.0**	**ppb(v/v)**	**100**	**EPA-2 TO-15**
trans-1,2-Dichloroethene	**5.0**	**5.0**	**ppb(v/v)**	**100**	**EPA-2 TO-15**
1,1-Dichloroethane	**5.0**	**5.0**	**ppb(v/v)**	**99**	**EPA-2 TO-15**
cis-1,2-Dichloroethene	**5.0**	**5.1**	**ppb(v/v)**	**101**	**EPA-2 TO-15**
1,1,1-Trichloroethane	**5.0**	**5.4**	**ppb(v/v)**	**109**	**EPA-2 TO-15**
1,2-Dichloroethane	**5.0**	**4.7**	**ppb(v/v)**	**94**	**EPA-2 TO-15**
Benzene	**5.0**	**4.6**	**ppb(v/v)**	**92**	**EPA-2 TO-15**
1,2-Dichloropropane	**5.0**	**4.4**	**ppb(v/v)**	**88**	**EPA-2 TO-15**
Trichloroethene	**5.0**	**4.6**	**ppb(v/v)**	**92**	**EPA-2 TO-15**
Tetrachloroethene	**5.0**	**4.6**	**ppb(v/v)**	**92**	**EPA-2 TO-15**
Isopropylbenzene	**5.0**	**5.1**	**ppb(v/v)**	**103**	**EPA-2 TO-15**
n-Propylbenzene	**5.0**	**5.2**	**ppb(v/v)**	**105**	**EPA-2 TO-15**
tert-Butylbenzene	**5.0**	**5.1**	**ppb(v/v)**	**102**	**EPA-2 TO-15**
sec-Butylbenzene	**5.0**	**5.2**	**ppb(v/v)**	**104**	**EPA-2 TO-15**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	96	(60 - 140)

NOTE(S):

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

Bold print denotes control parameters

1-1101100402

TAL-Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921
phone 865-291-3000 fax 865-584-4315

Canister Samples Chain of Custody Record

TestAmerica assumes no liability with respect to the collection and shipment of these samples.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Contact Information	**Project Manager:** ~~Mark Lord~~ Steve Murray	**Sampled By:** SGB
Company: MACTEC	Phone: 231-922-9050	1 of 1 COCs
Address: 41 Hughes Drive	Site Contact: Steve Buyze	
City/State/Zip: Traverse City, MI 49696	TAL Contact: Mark Lord	
Phone: 231-922-9058		
FAX: 231-922-9055		
Project Name: Honeywell SB Vapor Intrusion	**Analysis Turnaround Time**	
Site/location: South Bend, IN	Standard (Specify) X	
PO # 51332B6	Rush (Specify)	

Sample Identification	Sample Date(s)	Time Start	Time Stop	Canister Vacuum in Field, "Hg (Start)	Canister Vacuum in Field, "Hg (Stop)	Flow Controller ID	Canister ID	TO-15	TO-14A	EPA 3C	EPA 25C	ASTM D-1946	Other (Please specify in notes section)	Sample Type	Indoor Air	Ambient Air	Soil Gas	Landfill Gas	Other (Please specify in notes section)
P-3018L-0211	2-2-11 → 2-3-11	1030	1059	-28.5	-6	K334	0063	X											
BG-3-0211	2-2-11 → 2-3-11	1040	1106	-28.5	-5.5	K378	12327	X											
BG-4-0211	2-2-11 → 2-3-11	1430	1436	-30	-6	K390	1536	X											
B-3018L-0211	2-2-11 → 2-3-11	1027	1053	-28	-5	K379	6385	X											
SS-3018L-0211	2-2-11 → 2-3-11	1024	1053	-28	-7	K395	6611	X											
SS-3026R-0211	2-3-11 → 2-3-11	1419	1426	-30	-5.5	K133	6349	X											

Sampled by :

Temperature (Fahrenheit)	Interior	Ambient
Start		
Stop		

Pressure (inches of Hg)	Interior	Ambient
Start		
Stop		

2 BOXES RECEIVED AMBIENT
FEDEX #8717 3476 9975
CUSTODY SEALS INTACT
12 CANS, 12 FLOWS
TO 2/9/11

Special Instructions/QC Requirements & Comments:
RUN TO-15 LIST B CONSTITUENTS (ATTACHED)

Canisters Shipped by: Steve Buyze	Date/Time: 2/3/11 1617	Canisters Received by:	
Samples Relinquished by:	Date/Time:	Received by: [signature]	2/9/11 9:30
Relinquished by:	Date/Time:	Received by:	

B

TAL Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921
phone 865-291-3000 fax 865-584-4315

HIB100402

Canister Samples Chain of Custody Record

TestAmerica assumes no liability with respect to the collection and shipment of these samples.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Contact Information	Project Manager: Steve Murray	Sampled By: SGB	1 of 1 COCs
Company: MACTEC	Phone: 231-922-9050		
Address: 41 Hughes Drive	Site Contact: Steve Burge		
City/State/Zip: Traverse City, MI 49696	TAL Contact: Mark Loeb		
Phone: 231-922-9050			
FAX: 231-922-9055			
Project Name: Honeywell SB Vapor Intrusion	Analysis Turnaround Time		
Site/location: South Bend, IN	Standard (Specify)		
PO # 5133786	Rush (Specify)		

Sample Identification	Sample Date(s)	Time Start	Time Stop	Canister Vacuum in Field, "Hg (Start)	Canister Vacuum in Field, "Hg (Stop)	Flow Controller ID	Canister ID	TO-15	TO-14A	EPA 3C	EPA 25C	ASTM D-1946	Other (Please specify in notes section)	Sample Type	Indoor Air	Ambient Air	Soil Gas	Landfill Gas	Other (Please specify in notes section)
SS-3006L-0211	2-1-11 → 2-2-11	1130	1158	-30	-7	K478	6957	X											
B-3006L-0211	2-1-11 → 2-2-11	1138	1156	-31	-5	K148	6654	X											
P-3006L-0211	2-1-11 → 2-2-11	1141	1200	-29	-5.5	K331	1529	X											
BG-1-0211	2-1-11 → 2-2-11	1153	1320	-29.5	0	K340	92098	X											
BG-2-0211	2-1-11 → 2-2-11	1730	1736	-28	-5	K177	1133	X											
B-3026R-0211	2-2-11 → 2-3-11	1421	1425	-30	-6.5	K371	0120	X											

Sampled by :	Temperature (Fahrenheit)		
	Interior	Ambient	
Start			
Stop			

	Pressure (inches of Hg)		
	Interior	Ambient	
Start			
Stop			

Special Instructions/QC Requirements & Comments:

RUN TO-15 LIST B CONSTITUENTS (ATTACHED)

Canisters Shipped by: Steve Burge	Date/Time: 2/3/11 1617	Canisters Received by:
Samples Relinquished by:	Date/Time:	Received by: 2/9/11 9:30
Relinquished by:	Date/Time:	Received by:

C

TESTAMERICA KNOXVILLE SAMPLE RECEIPT/CONDITION UPON RECEIPT ANOMALY CHECKLIST

Lot Number: HNB1DD402

Review Items	Yes	No	NA	If No, what was the problem?	Comments/Actions Taken
1. Do sample container labels match COC? (IDs, Dates, Times)	✓			☐ 1a Do not match COC ☐ 1b Incomplete information ☐ 1c Marking smeared ☐ 1d Label torn ☐ 1e No label ☐ 1f COC not received ☐ 1g Other:	
2. Is the cooler temperature within limits? (> freezing temp. of water to 6 °C, VOST: 10°C)			✓	☐ 2a Temp Blank = _____ ☐ 2b Cooler Temp = _____ ☐ 2c Cooling initiated for recently collected samples, ice present.	
3. Were samples received with correct chemical preservative (excluding Encore)?			✓	☐ 3a Sample preservative =	
4. Were custody seals present/intact on cooler and/or containers?	✓			☐ 4a Not present ☐ 4b Not intact ☐ 4c Other:	
5. Were all of the samples listed on the COC received?	✓			☐ 5a Samples received-not on COC ☐ 5b Samples not received-on COC	
6. Were all of the sample containers received intact?	✓			☐ 6a Leaking ☐ 6b Broken	
7. Were VOA samples received without headspace?			✓	☐ 7a Headspace (VOA only)	
8. Were samples received in appropriate containers?	✓			☐ 8a Improper container	
9. Did you check for residual chlorine, if necessary?			✓	☐ 9a Could not be determined due to matrix interference	
10. Were samples received within holding time?	✓			☐ 10a Holding time expired	
11. For rad samples, was sample activity info. provided?			✓	☐ Incomplete information	
12. For 1613B water samples is pH<9?			✓	If no, was pH adjusted to pH 7 - 9 with sulfuric acid? _____	
13. Are the shipping containers intact?	✓			☐ 13a Leaking ☐ 13b Other:	
14. Was COC relinquished? (Signed/Dated/Timed)	✓			☐ 14a Not relinquished	
15. Are tests/parameters listed for each sample?	✓			☐ 15a Incomplete information	
16. Is the matrix of the samples noted?	✓			☐ 15a Incomplete information	
17. Is the date/time of sample collection noted?	✓			☐ 15a Incomplete information	
18. Is the client and project name/# identified?	✓			☐ 15a Incomplete information	
19. Was the sampler identified on the COC?	✓				

Quote #: 75525 PM Instructions: MA

Sample Receiving Associate: [signature] Date: 2/9/11

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Test America - Knoxville ---- Air Canister Dilution Log

Lot Number: *H1B100402*

Initial Can Pressure							Subsequent Dilutions											
Analyst/Date	Tedlar Bag Time	Pbarr (in)	Sample ID	Can #	Pres. upon receipt (-in or + psig)	Adj. Initial Pres. (-in or + psig)	Analyst/Date	I / S	Pbarr (in)	Initial Pres. Pi (in)	Final Pres. Pf (psig)	First InCan Final Pres. Pf (psig)	Second In-can Final Pres. Pf (psig)	Third InCan Final Pres. Pf (psig)	Serial Dilution Can #	Vol (mL)	Final Pres. Pf (psig)	Comments
DDF 2-10-11	NA	29.02	MD8V0	0063	-4.1													9019
			MD8V3	12327	-1.7													9017
			MD8V4	1536	-3.5													8989
			MD8V5	6385	-3.5													9014
			MD8V6	6611	-5.7													9040
			MD8V7	6349	-3.6													9013
			MD8V8	6957	-5.7													9047
			MD8V9	6654	-4.3													9033
			MD8WA	1529	-5.8													9044
			MD8WC	92098	+1.2													9047
			MD8WD	1133	-1.8													9038
			MD8WE	0120	-3.9													9003

Original Chain of Custody Documentation

1110100402

TAL-Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921
phone 865-291-3000 fax 865-584-4315

Canister Samples Chain of Custody Record

TestAmerica assumes no liability with respect to the collection and shipment of these samples.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Contact Information	Project Manager: ~~Mark Lord~~ Steve Murray	Sampled By: SGB	1 of 1 COCs
Company: MACTEC	Phone: 231-922-9050		
Address: 41 Hughes Drive	Site Contact: Steve Buyze		
City/State/Zip: Traverse City, MI 49696	TAL Contact: Mark Lord		
Phone: 231-922-9058			
FAX: 231-922-9055			
Project Name: Honeywell SB Vapor Intrusion	Analysis Turnaround Time		
Site/location: South Bend, IN	Standard (Specify) X		
PO # 5133286	Rush (Specify)		

Sample Identification	Sample Date(s)	Time Start	Time Stop	Canister Vacuum in Field, "Hg (Start)	Canister Vacuum in Field, "Hg (Stop)	Flow Controller ID	Canister ID	TO-15	TO-14A	EPA 3C	EPA 25C	ASTM D-1946	Other (Please specify in notes section)	Sample Type: Indoor Air	Ambient Air	Soil Gas	Landfill Gas	Other (Please specify in notes section)
P-3018L-0211	2-2-11 → 2-3-11	1030	1059	-28.5	-6	K334	0063	X										
BG-3-0211	2-2-11 → 2-3-11	1040	1106	-28.5	-5.5	K378	12327	X										
BG-4-0211	2-2-11 → 2-3-11	1430	1436	-30	-6	K390	1536	X										
B-3018L-0211	2-2-11 → 2-3-11	1027	1053	-28	-5	K379	6385	X										
SS-3018L-0211	2-2-11 → 2-3-11	1024	1053	-28	-7	K395	6611	X										
SS-3026R-0211	2-3-11 → 2-3-11	1419	1426	-30	-5.5	K133	6349	X										

Sampled by :

Temperature (Fahrenheit)	Interior	Ambient
Start		
Stop		

Pressure (inches of Hg)	Interior	Ambient
Start		
Stop		

2 BOXES RECEIVED AMBIENT
FEDEX #8717 3476 9975
CUSTODY SEALS INTACT
12 CANS, 12 FLOWS
TS 2/9/11

Special Instructions/QC Requirements & Comments:
RUN TO-15 LIST B CONSTITUENTS (ATTACHED)

Canisters Shipped by: Steve Buyze	Date/Time: 2/3/11 1617	Canisters Received by:
Samples Relinquished by:	Date/Time:	Received by: 2/9/11 9:30
Relinquished by:	Date/Time:	Received by:

B

TAL Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921
phone 865-291-3000 fax 865-584-4315

L41B100402

Canister Samples Chain of Custody Record

TestAmerica assumes no liability with respect to the collection and shipment of these samples.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Contact Information	Project Manager: Steve Murray	Sampled By: SGB	1 of 1 COCs
Company: MACTEC	Phone: 231-922-9050		
Address: 41 Hughes Drive	Site Contact: Steve Burge		
City/State/Zip: Traverse City, MI 49696	TAL Contact: Mark Loeb		
Phone: 231-922-9058			
FAX: 231-922-9055			
Project Name: Honeywell SB Vapor Intrusion	Analysis Turnaround Time		
Site/location: South Bend, IN	Standard (Specify)		
PO # 5133286	Rush (Specify)		

Sample Identification	Sample Date(s)	Time Start	Time Stop	Canister Vacuum in Field, "Hg (Start)	Canister Vacuum in Field, "Hg (Stop)	Flow Controller ID	Canister ID	TO-15	TO-14A	EPA 3C	EPA 25C	ASTM D-1946	Other (Please specify in notes section)	Sample Type	Indoor Air	Ambient Air	Soil Gas	Landfill Gas	Other (Please specify in notes section)
SS-3006L-0211	2-1-11 → 2-2-11	1130	1158	-30	-7	K478	6957	X											
B-3006L-0211	2-1-11 → 2-2-11	1138	1156	-31	-5	K148	6654	X											
P-3006L-0211	2-1-11 → 2-2-11	1141	1200	-29	-5.5	K331	1529	X											
BG-1-0211	2-1-11 → 2-2-11	1153	1320	-29.5	0	K340	92098	X											
BG-2-0211	2-1-11 → 2-2-11	1730	1736	-28	-5	K177	1133	X											
B-3026R-0211	2-2-11 → 2-3-11	1421	1425	-30	-6.5	K371	0120	X											

Sampled by :

Temperature (Fahrenheit)			
	Interior	Ambient	
Start			
Stop			

Pressure (inches of Hg)			
	Interior	Ambient	
Start			
Stop			

Special Instructions/QC Requirements & Comments:

RUN TO-15 LIST B CONSTITUENTS (ATTACHED)

Canisters Shipped by: Steve Burge	Date/Time: 2/3/11 1617	Canisters Received by:
Samples Relinquished by:	Date/Time:	Received by: 2/9/11 9:30
Relinquished by:	Date/Time:	Received by:

C

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

RECEIVED
FEB 25 2011
By

TestAmerica Laboratories, Inc.

ANALYTICAL REPORT

Honeywell - South Bend

Lot #: H1B150508

Steven Murray

Mactec Engineering & Consultan
41 Hughes Drive
Traverse City, MI 49686

TESTAMERICA LABORATORIES, INC.

Jamie A. McKinney
Project Manager

11022 TestAmerica Norton

February 22, 2011

EXECUTIVE SUMMARY - Detection Highlights

H1B150508

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
SS-3017R-0211 02/10/11 09:39 001				
Benzene	2.8	0.080	ppb(v/v)	EPA-2 TO-15
n-Propylbenzene	0.21	0.16	ppb(v/v)	EPA-2 TO-15
Tetrachloroethene	0.39	0.080	ppb(v/v)	EPA-2 TO-15
1,1,1-Trichloroethane	0.26	0.080	ppb(v/v)	EPA-2 TO-15
Trichloroethene	0.10	0.040	ppb(v/v)	EPA-2 TO-15
B-3017R-0211 02/10/11 09:37 002				
Benzene	0.34	0.080	ppb(v/v)	EPA-2 TO-15
Tetrachloroethene	0.14	0.080	ppb(v/v)	EPA-2 TO-15
P-3017R-0211 02/10/11 09:43 003				
Benzene	0.34	0.080	ppb(v/v)	EPA-2 TO-15
Tetrachloroethene	0.26	0.080	ppb(v/v)	EPA-2 TO-15
SS-3013R-0211 02/10/11 13:21 004				
Benzene	0.19	0.080	ppb(v/v)	EPA-2 TO-15
Tetrachloroethene	0.22	0.080	ppb(v/v)	EPA-2 TO-15
1,1,1-Trichloroethane	0.25	0.080	ppb(v/v)	EPA-2 TO-15
B-3013R-0211 02/10/11 13:20 005				
Benzene	0.26	0.080	ppb(v/v)	EPA-2 TO-15
P-3013R-0211 02/10/11 13:29 006				
Benzene	0.26	0.080	ppb(v/v)	EPA-2 TO-15
BG-7-0211 02/10/11 13:32 007				
Benzene	0.27	0.080	ppb(v/v)	EPA-2 TO-15
SS-3034R-0211 02/10/11 15:04 008				
Benzene	0.54	0.080	ppb(v/v)	EPA-2 TO-15
Tetrachloroethene	0.79	0.080	ppb(v/v)	EPA-2 TO-15
1,1,1-Trichloroethane	0.69	0.080	ppb(v/v)	EPA-2 TO-15
Trichloroethene	0.12	0.040	ppb(v/v)	EPA-2 TO-15

(Continued on next page)

EXECUTIVE SUMMARY - Detection Highlights

H1B150508

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
B-3034R-0211 02/10/11 15:04 009				
Benzene	1.7	0.080	ppb(v/v)	EPA-2 TO-15
n-Propylbenzene	0.25	0.16	ppb(v/v)	EPA-2 TO-15
P-3034R-0211 02/10/11 15:10 010				
Benzene	1.7	0.080	ppb(v/v)	EPA-2 TO-15
n-Propylbenzene	0.31	0.16	ppb(v/v)	EPA-2 TO-15
BG-8-0211 02/10/11 15:15 011				
Benzene	0.27	0.080	ppb(v/v)	EPA-2 TO-15

ANALYTICAL METHODS SUMMARY

H1B150508

PARAMETER	ANALYTICAL METHOD
Volatile Organics by TO15	EPA-2 TO-15

References:

EPA-2 "Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air", EPA-625/R-96/010b, January 1999.

SAMPLE SUMMARY

H1B150508

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
MEF04	001	SS-3017R-0211	02/10/11	09:39
MEF05	002	B-3017R-0211	02/10/11	09:37
MEF06	003	P-3017R-0211	02/10/11	09:43
MEF07	004	SS-3013R-0211	02/10/11	13:21
MEF08	005	B-3013R-0211	02/10/11	13:20
MEF09	006	P-3013R-0211	02/10/11	13:29
MEF1A	007	BG-7-0211	02/10/11	13:32
MEF1C	008	SS-3034R-0211	02/10/11	15:04
MEF1D	009	B-3034R-0211	02/10/11	15:04
MEF1E	010	P-3034R-0211	02/10/11	15:10
MEF1G	011	BG-8-0211	02/10/11	15:15

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.

PROJECT NARRATIVE
H1B150508

The results reported herein are applicable to the samples submitted for analysis only. If you have any questions about this report, please call (865) 291-3000 to speak with the TestAmerica project manager listed on the cover page.

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The original chain of custody documentation is included with this report.

Sample Receipt

The container label for sample P-3013R-0211 was received without a sample ID listed.

Quality Control and Data Interpretation

Unless otherwise noted, all holding times and QC criteria were met and the test results shown in this report meet all applicable NELAC requirements.

EPA methods TO-14A and TO-15 specify the use of humidified "zero air" as the blank reagent for canister cleaning, instrument calibration and sample analysis. Ultra-high purity humidified nitrogen from a cryogenic reservoir is used in place of "zero air" by TestAmerica Knoxville.

MACTEC Engineering and Consulting Inc

Client Sample ID: SS-3017R-0211

GC/MS Volatiles

Lot-Sample #...: H1B150508-001 **Work Order #...:** MEF041AA **Matrix.....:** AIR
Date Sampled...: 02/10/11 09:39 **Date Received..:** 02/15/11
Prep Date.....: 02/17/11 **Analysis Date..:** 02/17/11
Prep Batch #...: 1048373
Dilution Factor: 1 **Method.....:** EPA-2 TO-15

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	**2.8**	**0.080**	**ppb(v/v)**
sec-Butylbenzene	ND	0.16	ppb(v/v)
Chloroethane	ND	0.080	ppb(v/v)
1,1-Dichloroethane	ND	0.080	ppb(v/v)
cis-1,2-Dichloroethene	ND	0.080	ppb(v/v)
trans-1,2-Dichloroethene	ND	0.080	ppb(v/v)
1,1-Dichloroethene	ND	0.080	ppb(v/v)
1,2-Dichloropropane	ND	0.080	ppb(v/v)
Isopropylbenzene	ND	0.16	ppb(v/v)
n-Propylbenzene	**0.21**	**0.16**	**ppb(v/v)**
Tetrachloroethene	**0.39**	**0.080**	**ppb(v/v)**
1,1,1-Trichloroethane	**0.26**	**0.080**	**ppb(v/v)**
Trichloroethene	**0.10**	**0.040**	**ppb(v/v)**
Vinyl chloride	ND	0.080	ppb(v/v)
tert-Butylbenzene	ND	0.20	ppb(v/v)
1,2-Dichloroethane	ND	0.080	ppb(v/v)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	106	(60 - 140)

MACTEC Engineering and Consulting Inc

Client Sample ID: B-3017R-0211

GC/MS Volatiles

Lot-Sample #...: H1B150508-002 **Work Order #...:** MEF051AA **Matrix.....:** AIR
Date Sampled...: 02/10/11 09:37 **Date Received..:** 02/15/11
Prep Date.....: 02/17/11 **Analysis Date..:** 02/17/11
Prep Batch #...: 1048373
Dilution Factor: 1 **Method.....:** EPA-2 TO-15

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	**0.34**	**0.080**	**ppb(v/v)**
sec-Butylbenzene	ND	0.16	ppb(v/v)
Chloroethane	ND	0.080	ppb(v/v)
1,1-Dichloroethane	ND	0.080	ppb(v/v)
cis-1,2-Dichloroethene	ND	0.080	ppb(v/v)
trans-1,2-Dichloroethene	ND	0.080	ppb(v/v)
1,1-Dichloroethene	ND	0.080	ppb(v/v)
1,2-Dichloropropane	ND	0.080	ppb(v/v)
Isopropylbenzene	ND	0.16	ppb(v/v)
n-Propylbenzene	ND	0.16	ppb(v/v)
Tetrachloroethene	**0.14**	**0.080**	**ppb(v/v)**
1,1,1-Trichloroethane	ND	0.080	ppb(v/v)
Trichloroethene	ND	0.040	ppb(v/v)
Vinyl chloride	ND	0.080	ppb(v/v)
tert-Butylbenzene	ND	0.20	ppb(v/v)
1,2-Dichloroethane	ND	0.080	ppb(v/v)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	99	(60 - 140)

MACTEC Engineering and Consulting Inc

Client Sample ID: P-3017R-0211

GC/MS Volatiles

Lot-Sample #...: H1B150508-003 **Work Order #...:** MEF061AA **Matrix.....:** AIR
Date Sampled...: 02/10/11 09:43 **Date Received..:** 02/15/11
Prep Date.....: 02/17/11 **Analysis Date..:** 02/17/11
Prep Batch #...: 1048373
Dilution Factor: 1 **Method.....:** EPA-2 TO-15

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Vinyl chloride	ND	0.080	ppb(v/v)
tert-Butylbenzene	ND	0.20	ppb(v/v)
1,2-Dichloroethane	ND	0.080	ppb(v/v)
Benzene	**0.34**	**0.080**	**ppb(v/v)**
sec-Butylbenzene	ND	0.16	ppb(v/v)
Chloroethane	ND	0.080	ppb(v/v)
1,1-Dichloroethane	ND	0.080	ppb(v/v)
cis-1,2-Dichloroethene	ND	0.080	ppb(v/v)
trans-1,2-Dichloroethene	ND	0.080	ppb(v/v)
1,1-Dichloroethene	ND	0.080	ppb(v/v)
1,2-Dichloropropane	ND	0.080	ppb(v/v)
Isopropylbenzene	ND	0.16	ppb(v/v)
n-Propylbenzene	ND	0.16	ppb(v/v)
Tetrachloroethene	**0.26**	**0.080**	**ppb(v/v)**
1,1,1-Trichloroethane	ND	0.080	ppb(v/v)
Trichloroethene	ND	0.040	ppb(v/v)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	99	(60 - 140)

MACTEC Engineering and Consulting Inc

Client Sample ID: SS-3013R-0211

GC/MS Volatiles

Lot-Sample #...: H1B150508-004 **Work Order #...:** MEF071AA **Matrix.....:** AIR
Date Sampled...: 02/10/11 13:21 **Date Received..:** 02/15/11
Prep Date.....: 02/17/11 **Analysis Date..:** 02/17/11
Prep Batch #...: 1048373
Dilution Factor: 1 **Method.....:** EPA-2 TO-15

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	**0.19**	**0.080**	**ppb(v/v)**
sec-Butylbenzene	ND	0.16	ppb(v/v)
Chloroethane	ND	0.080	ppb(v/v)
1,1-Dichloroethane	ND	0.080	ppb(v/v)
cis-1,2-Dichloroethene	ND	0.080	ppb(v/v)
trans-1,2-Dichloroethene	ND	0.080	ppb(v/v)
1,1-Dichloroethene	ND	0.080	ppb(v/v)
1,2-Dichloropropane	ND	0.080	ppb(v/v)
Isopropylbenzene	ND	0.16	ppb(v/v)
n-Propylbenzene	ND	0.16	ppb(v/v)
Tetrachloroethene	**0.22**	**0.080**	**ppb(v/v)**
1,1,1-Trichloroethane	**0.25**	**0.080**	**ppb(v/v)**
Trichloroethene	ND	0.040	ppb(v/v)
Vinyl chloride	ND	0.080	ppb(v/v)
tert-Butylbenzene	ND	0.20	ppb(v/v)
1,2-Dichloroethane	ND	0.080	ppb(v/v)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	102	(60 - 140)

MACTEC Engineering and Consulting Inc

Client Sample ID: B-3013R-0211

GC/MS Volatiles

Lot-Sample #...: H1B150508-005 **Work Order #...:** MEF081AA **Matrix.....:** AIR
Date Sampled...: 02/10/11 13:20 **Date Received..:** 02/15/11
Prep Date.....: 02/17/11 **Analysis Date..:** 02/17/11
Prep Batch #...: 1048373
Dilution Factor: 1 **Method.....:** EPA-2 TO-15

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	**0.26**	**0.080**	**ppb(v/v)**
sec-Butylbenzene	ND	0.16	ppb(v/v)
Chloroethane	ND	0.080	ppb(v/v)
1,1-Dichloroethane	ND	0.080	ppb(v/v)
cis-1,2-Dichloroethene	ND	0.080	ppb(v/v)
trans-1,2-Dichloroethene	ND	0.080	ppb(v/v)
1,1-Dichloroethene	ND	0.080	ppb(v/v)
1,2-Dichloropropane	ND	0.080	ppb(v/v)
Isopropylbenzene	ND	0.16	ppb(v/v)
n-Propylbenzene	ND	0.16	ppb(v/v)
Tetrachloroethene	ND	0.080	ppb(v/v)
1,1,1-Trichloroethane	ND	0.080	ppb(v/v)
Trichloroethene	ND	0.040	ppb(v/v)
Vinyl chloride	ND	0.080	ppb(v/v)
tert-Butylbenzene	ND	0.20	ppb(v/v)
1,2-Dichloroethane	ND	0.080	ppb(v/v)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	98	(60 - 140)

MACTEC Engineering and Consulting Inc

Client Sample ID: P-3013R-0211

GC/MS Volatiles

Lot-Sample #...: H1B150508-006	**Work Order #...:** MEF091AA	**Matrix.....:** AIR	
Date Sampled...: 02/10/11 13:29	**Date Received..:** 02/15/11		
Prep Date.....: 02/17/11	**Analysis Date..:** 02/17/11		
Prep Batch #...: 1048373			
Dilution Factor: 1	**Method.....:** EPA-2 TO-15		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	**0.26**	**0.080**	**ppb(v/v)**
sec-Butylbenzene	ND	0.16	ppb(v/v)
Chloroethane	ND	0.080	ppb(v/v)
1,1-Dichloroethane	ND	0.080	ppb(v/v)
cis-1,2-Dichloroethene	ND	0.080	ppb(v/v)
trans-1,2-Dichloroethene	ND	0.080	ppb(v/v)
1,1-Dichloroethene	ND	0.080	ppb(v/v)
1,2-Dichloropropane	ND	0.080	ppb(v/v)
Isopropylbenzene	ND	0.16	ppb(v/v)
n-Propylbenzene	ND	0.16	ppb(v/v)
Tetrachloroethene	ND	0.080	ppb(v/v)
1,1,1-Trichloroethane	ND	0.080	ppb(v/v)
Trichloroethene	ND	0.040	ppb(v/v)
Vinyl chloride	ND	0.080	ppb(v/v)
tert-Butylbenzene	ND	0.20	ppb(v/v)
1,2-Dichloroethane	ND	0.080	ppb(v/v)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	99	(60 - 140)

MACTEC Engineering and Consulting Inc

Client Sample ID: BG-7-0211

GC/MS Volatiles

Lot-Sample #...: H1B150508-007 **Work Order #...:** MEF1A1AA **Matrix.....:** AIR
Date Sampled...: 02/10/11 13:32 **Date Received..:** 02/15/11
Prep Date.....: 02/17/11 **Analysis Date..:** 02/17/11
Prep Batch #...: 1048373
Dilution Factor: 1 **Method.....:** EPA-2 TO-15

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	**0.27**	**0.080**	**ppb(v/v)**
sec-Butylbenzene	ND	0.16	ppb(v/v)
Chloroethane	ND	0.080	ppb(v/v)
1,1-Dichloroethane	ND	0.080	ppb(v/v)
cis-1,2-Dichloroethene	ND	0.080	ppb(v/v)
trans-1,2-Dichloroethene	ND	0.080	ppb(v/v)
1,1-Dichloroethene	ND	0.080	ppb(v/v)
1,2-Dichloropropane	ND	0.080	ppb(v/v)
Isopropylbenzene	ND	0.16	ppb(v/v)
n-Propylbenzene	ND	0.16	ppb(v/v)
Tetrachloroethene	ND	0.080	ppb(v/v)
1,1,1-Trichloroethane	ND	0.080	ppb(v/v)
Trichloroethene	ND	0.040	ppb(v/v)
Vinyl chloride	ND	0.080	ppb(v/v)
tert-Butylbenzene	ND	0.20	ppb(v/v)
1,2-Dichloroethane	ND	0.080	ppb(v/v)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	98	(60 - 140)

MACTEC Engineering and Consulting Inc

Client Sample ID: SS-3034R-0211

GC/MS Volatiles

Lot-Sample #...: H1B150508-008 **Work Order #...:** MEF1C1AA **Matrix.....:** AIR
Date Sampled...: 02/10/11 15:04 **Date Received..:** 02/15/11
Prep Date.....: 02/17/11 **Analysis Date..:** 02/17/11
Prep Batch #...: 1048373
Dilution Factor: 1 **Method.....:** EPA-2 TO-15

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	**0.54**	**0.080**	**ppb(v/v)**
sec-Butylbenzene	ND	0.16	ppb(v/v)
Chloroethane	ND	0.080	ppb(v/v)
1,1-Dichloroethane	ND	0.080	ppb(v/v)
cis-1,2-Dichloroethene	ND	0.080	ppb(v/v)
trans-1,2-Dichloroethene	ND	0.080	ppb(v/v)
1,1-Dichloroethene	ND	0.080	ppb(v/v)
1,2-Dichloropropane	ND	0.080	ppb(v/v)
Isopropylbenzene	ND	0.16	ppb(v/v)
n-Propylbenzene	ND	0.16	ppb(v/v)
Tetrachloroethene	**0.79**	**0.080**	**ppb(v/v)**
1,1,1-Trichloroethane	**0.69**	**0.080**	**ppb(v/v)**
Trichloroethene	**0.12**	**0.040**	**ppb(v/v)**
Vinyl chloride	ND	0.080	ppb(v/v)
tert-Butylbenzene	ND	0.20	ppb(v/v)
1,2-Dichloroethane	ND	0.080	ppb(v/v)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	101	(60 - 140)

MACTEC Engineering and Consulting Inc

Client Sample ID: B-3034R-0211

GC/MS Volatiles

Lot-Sample #...: H1B150508-009 **Work Order #...:** MEF1D1AA **Matrix.....:** AIR
Date Sampled...: 02/10/11 15:04 **Date Received..:** 02/15/11
Prep Date.....: 02/17/11 **Analysis Date..:** 02/17/11
Prep Batch #...: 1048373
Dilution Factor: 1 **Method.....:** EPA-2 TO-15

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	**1.7**	**0.080**	**ppb(v/v)**
sec-Butylbenzene	ND	0.16	ppb(v/v)
Chloroethane	ND	0.080	ppb(v/v)
1,1-Dichloroethane	ND	0.080	ppb(v/v)
cis-1,2-Dichloroethene	ND	0.080	ppb(v/v)
trans-1,2-Dichloroethene	ND	0.080	ppb(v/v)
1,1-Dichloroethene	ND	0.080	ppb(v/v)
1,2-Dichloropropane	ND	0.080	ppb(v/v)
Isopropylbenzene	ND	0.16	ppb(v/v)
n-Propylbenzene	**0.25**	**0.16**	**ppb(v/v)**
Tetrachloroethene	ND	0.080	ppb(v/v)
1,1,1-Trichloroethane	ND	0.080	ppb(v/v)
Trichloroethene	ND	0.040	ppb(v/v)
Vinyl chloride	ND	0.080	ppb(v/v)
tert-Butylbenzene	ND	0.20	ppb(v/v)
1,2-Dichloroethane	ND	0.080	ppb(v/v)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	99	(60 - 140)

MACTEC Engineering and Consulting Inc

Client Sample ID: P-3034R-0211

GC/MS Volatiles

Lot-Sample #...: H1B150508-010 **Work Order #...:** MEF1E1AA **Matrix.....:** AIR
Date Sampled...: 02/10/11 15:10 **Date Received..:** 02/15/11
Prep Date.....: 02/17/11 **Analysis Date..:** 02/17/11
Prep Batch #...: 1048373
Dilution Factor: 1 **Method.....:** EPA-2 TO-15

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	**1.7**	**0.080**	**ppb(v/v)**
sec-Butylbenzene	ND	0.16	ppb(v/v)
Chloroethane	ND	0.080	ppb(v/v)
1,1-Dichloroethane	ND	0.080	ppb(v/v)
cis-1,2-Dichloroethene	ND	0.080	ppb(v/v)
trans-1,2-Dichloroethene	ND	0.080	ppb(v/v)
1,1-Dichloroethene	ND	0.080	ppb(v/v)
1,2-Dichloropropane	ND	0.080	ppb(v/v)
Isopropylbenzene	ND	0.16	ppb(v/v)
n-Propylbenzene	**0.31**	**0.16**	**ppb(v/v)**
Tetrachloroethene	ND	0.080	ppb(v/v)
1,1,1-Trichloroethane	ND	0.080	ppb(v/v)
Trichloroethene	ND	0.040	ppb(v/v)
Vinyl chloride	ND	0.080	ppb(v/v)
tert-Butylbenzene	ND	0.20	ppb(v/v)
1,2-Dichloroethane	ND	0.080	ppb(v/v)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	102	(60 - 140)

MACTEC Engineering and Consulting Inc

Client Sample ID: BG-8-0211

GC/MS Volatiles

Lot-Sample #...: H1B150508-011 **Work Order #...:** MEF1G1AA **Matrix.....:** AIR
Date Sampled...: 02/10/11 15:15 **Date Received..:** 02/15/11
Prep Date.....: 02/17/11 **Analysis Date..:** 02/18/11
Prep Batch #...: 1048373
Dilution Factor: 1 **Method.....:** EPA-2 TO-15

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	**0.27**	**0.080**	**ppb(v/v)**
sec-Butylbenzene	ND	0.16	ppb(v/v)
Chloroethane	ND	0.080	ppb(v/v)
1,1-Dichloroethane	ND	0.080	ppb(v/v)
cis-1,2-Dichloroethene	ND	0.080	ppb(v/v)
trans-1,2-Dichloroethene	ND	0.080	ppb(v/v)
1,1-Dichloroethene	ND	0.080	ppb(v/v)
1,2-Dichloropropane	ND	0.080	ppb(v/v)
Isopropylbenzene	ND	0.16	ppb(v/v)
n-Propylbenzene	ND	0.16	ppb(v/v)
Tetrachloroethene	ND	0.080	ppb(v/v)
1,1,1-Trichloroethane	ND	0.080	ppb(v/v)
Trichloroethene	ND	0.040	ppb(v/v)
Vinyl chloride	ND	0.080	ppb(v/v)
tert-Butylbenzene	ND	0.20	ppb(v/v)
1,2-Dichloroethane	ND	0.080	ppb(v/v)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	99	(60 - 140)

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: H1B150508 **Work Order #...:** MEJ8M1AA **Matrix.....:** AIR
MB Lot-Sample #: H1B170000-373

Prep Date.....: 02/17/11
Analysis Date..: 02/17/11 **Prep Batch #...:** 1048373
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Benzene	ND	0.080	ppb(v/v)	EPA-2 TO-15
sec-Butylbenzene	ND	0.16	ppb(v/v)	EPA-2 TO-15
tert-Butylbenzene	ND	0.20	ppb(v/v)	EPA-2 TO-15
Chloroethane	ND	0.080	ppb(v/v)	EPA-2 TO-15
1,1-Dichloroethane	ND	0.080	ppb(v/v)	EPA-2 TO-15
1,2-Dichloroethane	ND	0.080	ppb(v/v)	EPA-2 TO-15
1,1-Dichloroethene	ND	0.080	ppb(v/v)	EPA-2 TO-15
cis-1,2-Dichloroethene	ND	0.080	ppb(v/v)	EPA-2 TO-15
trans-1,2-Dichloroethene	ND	0.080	ppb(v/v)	EPA-2 TO-15
1,2-Dichloropropane	ND	0.080	ppb(v/v)	EPA-2 TO-15
Isopropylbenzene	ND	0.16	ppb(v/v)	EPA-2 TO-15
n-Propylbenzene	ND	0.16	ppb(v/v)	EPA-2 TO-15
Tetrachloroethene	ND	0.080	ppb(v/v)	EPA-2 TO-15
1,1,1-Trichloroethane	ND	0.080	ppb(v/v)	EPA-2 TO-15
Trichloroethene	ND	0.040	ppb(v/v)	EPA-2 TO-15
Vinyl chloride	ND	0.080	ppb(v/v)	EPA-2 TO-15

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	99	(60 - 140)

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 #...: H1B150508 Work Order #...: MEJ8M1AC Matrix.....: AIR
LCS Lot-Sample#: H1B170000-373
Prep Date.....: 02/17/11 Analysis Date..: 02/17/11
Prep Batch #...: 1048373
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD
cis-1,2-Dichloroethene	**105**	**(70 - 130)**	**EPA-2 TO-15**
1,1,1-Trichloroethane	**114**	**(70 - 130)**	**EPA-2 TO-15**
1,2-Dichloroethane	**96**	**(70 - 130)**	**EPA-2 TO-15**
Benzene	**90**	**(70 - 130)**	**EPA-2 TO-15**
1,2-Dichloropropane	**80**	**(70 - 130)**	**EPA-2 TO-15**
Trichloroethene	**104**	**(70 - 130)**	**EPA-2 TO-15**
Tetrachloroethene	**92**	**(70 - 130)**	**EPA-2 TO-15**
Isopropylbenzene	**81**	**(70 - 130)**	**EPA-2 TO-15**
n-Propylbenzene	**78**	**(70 - 130)**	**EPA-2 TO-15**
tert-Butylbenzene	**77**	**(70 - 130)**	**EPA-2 TO-15**
sec-Butylbenzene	**79**	**(70 - 130)**	**EPA-2 TO-15**
Vinyl chloride	**85**	**(70 - 130)**	**EPA-2 TO-15**
Chloroethane	**95**	**(70 - 130)**	**EPA-2 TO-15**
1,1-Dichloroethene	**105**	**(70 - 130)**	**EPA-2 TO-15**
trans-1,2-Dichloroethene	**103**	**(70 - 130)**	**EPA-2 TO-15**
1,1-Dichloroethane	**103**	**(70 - 130)**	**EPA-2 TO-15**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	104	(60 - 140)

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 #...: H1B150508 **Work Order #...:** MEJ8M1AC **Matrix.....:** AIR
LCS Lot-Sample#: H1B170000-373
Prep Date.....: 02/17/11 **Analysis Date..:** 02/17/11
Prep Batch #...: 1048373
Dilution Factor: 1

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	METHOD
cis-1,2-Dichloroethene	**5.0**	**5.2**	**ppb(v/v)**	**105**	**EPA-2 TO-15**
1,1,1-Trichloroethane	**5.0**	**5.7**	**ppb(v/v)**	**114**	**EPA-2 TO-15**
1,2-Dichloroethane	**5.0**	**4.8**	**ppb(v/v)**	**96**	**EPA-2 TO-15**
Benzene	**5.0**	**4.5**	**ppb(v/v)**	**90**	**EPA-2 TO-15**
1,2-Dichloropropane	**5.0**	**4.0**	**ppb(v/v)**	**80**	**EPA-2 TO-15**
Trichloroethene	**5.0**	**5.2**	**ppb(v/v)**	**104**	**EPA-2 TO-15**
Tetrachloroethene	**5.0**	**4.6**	**ppb(v/v)**	**92**	**EPA-2 TO-15**
Isopropylbenzene	**5.0**	**4.0**	**ppb(v/v)**	**81**	**EPA-2 TO-15**
n-Propylbenzene	**5.0**	**3.9**	**ppb(v/v)**	**78**	**EPA-2 TO-15**
tert-Butylbenzene	**5.0**	**3.9**	**ppb(v/v)**	**77**	**EPA-2 TO-15**
sec-Butylbenzene	**5.0**	**3.9**	**ppb(v/v)**	**79**	**EPA-2 TO-15**
Vinyl chloride	**5.0**	**4.2**	**ppb(v/v)**	**85**	**EPA-2 TO-15**
Chloroethane	**5.0**	**4.8**	**ppb(v/v)**	**95**	**EPA-2 TO-15**
1,1-Dichloroethene	**5.0**	**5.3**	**ppb(v/v)**	**105**	**EPA-2 TO-15**
trans-1,2-Dichloroethene	**5.0**	**5.2**	**ppb(v/v)**	**103**	**EPA-2 TO-15**
1,1-Dichloroethane	**5.0**	**5.1**	**ppb(v/v)**	**103**	**EPA-2 TO-15**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	104	(60 - 140)

NOTE(S):

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

Bold print denotes control parameters

H1B150508

TAL Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921
phone 865-291-3000 fax 865-584-4315

Canister Samples Chain of Custody Record

TestAmerica assumes no liability with respect to the collection and shipment of these samples.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Contact Information	Project Manager: Steve Murray	Sampled By: SGB	1 of 1 COCs
Company: MACTEC	Phone: 231-922-9050		
Address: 41 Hughes Drive	Site Contact: Steve Buyze		
City/State/Zip: Traverse City, MI 49696	TAL Contact: Mark Loeb		
Phone: 231-922-9050			
FAX: 231-922-9055			
Project Name: Honeywell SB Vapor Intrusion	Analysis Turnaround Time		
Site/location: South Bend, IN	Standard (Specify)		
PO # 51332286	Rush (Specify)		

Sample Identification	Sample Date(s)	Time Start	Time Stop	Canister Vacuum in Field, "Hg (Start)	Canister Vacuum in Field, "Hg (Stop)	Flow Controller ID	Canister ID	TO-15	TO-14A	EPA 3C	EPA 25C	ASTM D-1946	Other (Please specify in notes section)	Sample Type	Indoor Air	Ambient Air	Soil Gas	Landfill Gas	Other (Please specify in notes section)
SS-3017R-0211	2/9/11→ 2/10/11	9:21	9:39	-30	-4.0	K287	1115	X											
B-3017R-0211	↓	9:24	9:37	-28	-4.5	K477	12878	X											
P-3017R-0211		9:26	9:43	-30	-5.0	K437	12462	X											
SS-3013R-0211		13:02	13:21	-28.5	-4.5	K482	1362N	X											
B-3013R-0211		13:04	13:20	-29.5	-4.5	K316	S1491	X											
P-3013R-0211	↓	13:06	13:29	-30	-1.0	K339	7473	X											

Sampled by :

Temperature (Fahrenheit)	Interior	Ambient
Start		
Stop		

Pressure (inches of Hg)	Interior	Ambient
Start		
Stop		

2 boxes with custody seals
Received @ Ambient Temp
RH 2/15/11
2bx Fed Ex 873804404814 (MSTR)
12 CANS 8 Flows 12 Flows
RH 2/15/11 2 T-Bars

Special Instructions/QC Requirements & Comments:

RUN TO-15, LIST B CONSTITUENTS (ATTACHED) - LOW LEVEL

Canisters Shipped by:	Date/Time: 2/10/2011 15:45	Canisters Received by:
Samples Relinquished by:	Date/Time: 2/15/11 10AM	Received by: Rita Hancock
Relinquished by:	Date/Time:	Received by:

HIB1505O8

TAL Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921
phone 865-291-3000 fax 865-584-4315

Canister Samples Chain of Custody Record

TestAmerica assumes no liability with respect to the collection and shipment of these samples.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Contact Information	**Project Manager:** Steve Murray	**Sampled By:** SGB	1 of 1 COCs
Company: MACTEC	Phone: 231-922-9050		
Address: 41 Hughes Drive	Site Contact: Steve Buyze		
City/State/Zip: Traverse City, MI 49686	TAL Contact: Mark Loeb		
Phone: 231-922-9050			
FAX: 231-922-9055			
Project Name: Honeywell SB Vapor Intrusion	**Analysis Turnaround Time**		
Site/location: South Bend, IN	Standard (Specify)		
PO # 5133286	Rush (Specify)		

Sample Identification	Sample Date(s)	Time Start	Time Stop	Canister Vacuum in Field, "Hg (Start)	Canister Vacuum in Field, "Hg (Stop)	Flow Controller ID	Canister ID	TO-15	TO-14A	EPA 3C	EPA 25C	ASTM D-1946	Other (Please specify in notes section)	Sample Type	Indoor Air	Ambient Air	Soil Gas	Landfill Gas	Other (Please specify in notes section)
BG-7-0211	2/9/11 → 2/10/11	13:17	13:32	-29	-0	K110	7496	X											
SS-3034R-0211	↓	15:04	15:04	-28.5	-0.5	K391	6381	X											
B-3034R-0211		15:04	15:04	-30	-7.5	K174	1125	X											
P-3034R-0211		15:06	15:10	-29.5	-6.0	K310	1403	X											
BG-8-0211	↓	15:15	15:15	-28.5	-6.5	K388	6592	X											

Sampled by :

Temperature (Fahrenheit)	Interior	Ambient
Start		
Stop		

Pressure (inches of Hg)	Interior	Ambient
Start		
Stop		

Special Instructions/QC Requirements & Comments:

RUN TO-15 LIST B CONSTITUENTS (ATTACHED) - LOW LEVEL

Canisters Shipped by:	Date/Time: 2/10/2011 15:45	Canisters Received by:
Samples Relinquished by:	Date/Time: 2/15/11 10AM	Received by: Rita Hancock
Relinquished by:	Date/Time:	Received by:

TESTAMERICA KNOXVILLE SAMPLE RECEIPT/CONDITION UPON RECEIPT ANOMALY CHECKLIST

Lot Number: ~~H1B150~~ H1B150508 DKD 2-15-11

Review Items	Yes	No	NA	If No, what was the problem?	Comments/Actions Taken
1. Do sample container labels match COC? (IDs, Dates, Times)		✓		☐ 1a Do not match COC ☒ 1b Incomplete information ☐ 1c Marking smeared ☐ 1d Label torn ☐ 1e No label ☐ 1f COC not received ☐ 1g Other:	1B NO CLIENT ID LISTED ON CAN # 1473; MATCHED BY CAN ID ~~14A COC SAYS CANNISTERS SHIPPED BY: SAMPLES RELINQUISHED SPACE IS BLANK~~ DKD 2-15-11
2. Is the cooler temperature within limits? (> freezing temp. of water to 6 °C, VOST: 10°C)			✓	☐ 2a Temp Blank = ____ ☐ 2b Cooler Temp = ____ ☐ 2c Cooling initiated for recently collected samples, ice present.	
3. Were samples received with correct chemical preservative (excluding Encore)?			✓	☐ 3a Sample preservative =	
4. Were custody seals present/intact on cooler and/or containers?	✓			☐ 4a Not present ☐ 4b Not intact ☐ 4c Other:	
5. Were all of the samples listed on the COC received?	✓			☐ 5a Samples received-not on COC ☐ 5b Samples not received-on COC	
6. Were all of the sample containers received intact?	✓			☐ 6a Leaking ☐ 6b Broken	
7. Were VOA samples received without headspace?			✓	☐ 7a Headspace (VOA only)	
8. Were samples received in appropriate containers?	✓			☐ 8a Improper container	
9. Did you check for residual chlorine, if necessary?			✓	☐ 9a Could not be determined due to matrix interference	
10. Were samples received within holding time?	✓			☐ 10a Holding time expired	
11. For rad samples, was sample activity info. provided?			✓	☐ Incomplete information	
12. For 1613B water samples is pH<9?			✓	If no, was pH adjusted to pH 7 - 9 with sulfuric acid? ____	
13. Are the shipping containers intact?	✓			☐ 13a Leaking ☐ 13b Other:	
14. Was COC relinquished? (Signed/Dated/Timed)	✓	~~✓~~	DKD 2-15-11	~~☒ 14a Not relinquished~~	
15. Are tests/parameters listed for each sample?	✓			☐ 15a Incomplete information	
16. Is the matrix of the samples noted?	✓			☐ 15a Incomplete information	
17. Is the date/time of sample collection noted?	✓			☐ 15a Incomplete information	
18. Is the client and project name/# identified?	✓			☐ 15a Incomplete information	
19. Was the sampler identified on the COC?	✓				

Quote #: 75525 PM Instructions: NA

Sample Receiving Associate: [signature] Date: 2/15/11

QA026R22.doc, 012811

Test America - Knoxville ---- Air Canister Dilution Log

Lot Number: *H1B150508*

Initial Can Pressure							Subsequent Dilutions											
Analyst/Date	Tedlar Bag Time	Pbarr (in)	Sample ID	Can #	Pres. upon receipt (-in or + psig)	Adj. Initial Pres. (-in or + psig)	Analyst/Date	I / S	Pbarr (in)	Initial Pres. Pi (in)	Final Pres. Pf (psig)	First InCan Final Pres. Pf (psig)	Second In-can Final Pres. Pf (psig)	Third InCan Final Pres. Pf (psig)	Serial Dilution Can #	Vol (mL)	Final Pres. Pf (psig)	Comments
DDF 2-16-11	NA	29.11	MEF04	1115	-2.8													9019
↓	↓	↓	MEF05	12878	-3.8													8989
			MEF06	12462	-4.1													b
			MEF07	1362N	-3.2													9026
			MEF08	S1491	-2.2													9025
			MEF09	7473	-0.8													9018
			MEF1A	7496	0													9024
			MEF1C	6381	0													8983
			MEF1D	1125	-5.4													9017
			MEF1E	1403	-5.0													9019
↓	↓	↓	MEF1G	6592	-4.3													9027

Original Chain of Custody Documentation

TAL Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921
phone 865-291-3000 fax 865-584-4315

HIB150508

Canister Samples Chain of Custody Record

TestAmerica assumes no liability with respect to the collection and shipment of these samples.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Contact Information	Project Manager: Steve Murray	Sampled By: SGB	1 of 1 COCs
Company: MACTEC	Phone: 231-922-9050		
Address: 41 Hughes Drive	Site Contact: Steve Buyze		
City/State/Zip: Traverse City, MI 49696	TAL Contact: Mark Loeb		
Phone: 231-922-9050			
FAX: 231-922-9055			
Project Name: Honeywell SB Vapor Intrusion	Analysis Turnaround Time		
Site/location: South Bend, IN	Standard (Specify)		
PO # 51332286	Rush (Specify)		

Sample Identification	Sample Date(s)	Time Start	Time Stop	Canister Vacuum in Field, "Hg (Start)	Canister Vacuum in Field, "Hg (Stop)	Flow Controller ID	Canister ID	TO-15	TO-14A	EPA 3C	EPA 25C	ASTM D-1946	Other (Please specify in notes section)	Sample Type	Indoor Air	Ambient Air	Soil Gas	Landfill Gas	Other (Please specify in notes section)
SS-3017R-0211	2/9/11 → 2/10/11	9:21	9:39	-30	-4.0	K287	1115	X											
B-3017R-0211	↓	9:24	9:37	-28	-4.5	K477	12878	X											
P-3017R-0211		9:26	9:43	-30	-5.0	K437	12462	X											
SS-3013R-0211		13:02	13:21	-28.5	-4.5	K482	1362N	X											
B-3013R-0211		13:04	13:20	-29.5	-4.5	K316	S1491	X											
P-3013R-0211	↓	13:06	13:29	-30	-1.0	K339	7473	X											

Sampled by :

Temperature (Fahrenheit)	Interior	Ambient	
Start			
Stop			

Pressure (inches of Hg)	Interior	Ambient	
Start			
Stop			

2 boxes with CUSTODY SEALS
RECEIVED @ AMBIENT TEMP
R# 2/15/11
2bx Fed Ex 873804404814 (MSTR)
12 CANS ~~13~~ FLOWS 12 FLOWS
R# 2/15/11 2 T-BARS

Special Instructions/QC Requirements & Comments:

RUN TO-15, LIST B CONSTITUENTS (ATTACHED) - LOW LEVEL

Canisters Shipped by:	Date/Time: 2/10/2011 15:45	Canisters Received by:
Samples Relinquished by:	Date/Time: 2/15/11 10AM	Received by: Rita Hancock
Relinquished by:	Date/Time:	Received by:

HIB1505D8

TAL Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921
phone 865-291-3000 fax 865-584-4315

Canister Samples Chain of Custody Record

TestAmerica assumes no liability with respect to the collection and shipment of these samples.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Contact Information	Project Manager: Steve Murray	Sampled By: SGB	1 of 1 COCs
Company: MACTEC	Phone: 231-922-9050		
Address: 41 Hughes Drive	Site Contact: Steve Buyze		
City/State/Zip: Traverse City, MI 49686	TAL Contact: Mark Lorb		
Phone: 231-922-9050			
FAX: 231-922-9055			
Project Name: Honeywell SB Vapor Intrusion	Analysis Turnaround Time		
Site/location: South Bend, IN	Standard (Specify)		
PO # 5133286	Rush (Specify)		

Sample Identification	Sample Date(s)	Time Start	Time Stop	Canister Vacuum in Field, "Hg (Start)	Canister Vacuum in Field, 'Hg (Stop)	Flow Controller ID	Canister ID	TO-15	TO-14A	EPA 3C	EPA 25C	ASTM D-1946	Other (Please specify in notes section)	Sample Type	Indoor Air	Ambient Air	Soil Gas	Landfill Gas	Other (Please specify in notes section)
BG-7-0211	2/9/11 → 2/10/11	13:17	13:32	-29	-0	K110	7496	X											
SS-3034R-0211	↓	15:04	15:04	-28.5	-0.5	K391	6381	X											
B-3034R-0211		15:04	15:04	-30	-7.5	K174	1125	X											
P-3034R-0211		15:06	15:10	-29.5	-6.0	K310	1403	X											
BG-8-0211	↓	15:15	15:15	-28.5	-6.5	K388	6592	X											

Sampled by :

Temperature (Fahrenheit)	Interior	Ambient	
Start			
Stop			

Pressure (inches of Hg)	Interior	Ambient	
Start			
Stop			

Special Instructions/QC Requirements & Comments:

RUN TO-15 LIST B CONSTITUENTS (ATTACHED) - LOW LEVEL

Canisters Shipped by:	Date/Time: 2/10/2011 15:45	Canisters Received by:
Samples Relinquished by:	Date/Time: 2/15/11 10AM	Received by: Rita Hancock
Relinquished by:	Date/Time:	Received by:

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

ANALYTICAL REPORT

Honeywell - South Bend

Lot #: H1B240528

Steven Murray

Mactec Engineering & Consultan
41 Hughes Drive
Traverse City, MI 49686

TESTAMERICA LABORATORIES, INC.

Jamie A. McKinney
Project Manager

March 7, 2011

EXECUTIVE SUMMARY - Detection Highlights

H1B240528

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
SS-3029L-0211 02/19/11 11:37 001				
Isopropylbenzene	0.29	0.16	ppb(v/v)	EPA-2 TO-15
n-Propylbenzene	0.17	0.16	ppb(v/v)	EPA-2 TO-15
Tetrachloroethene	0.19	0.080	ppb(v/v)	EPA-2 TO-15
Trichloroethene	0.050	0.040	ppb(v/v)	EPA-2 TO-15
Benzene	0.21	0.080	ppb(v/v)	EPA-2 TO-15
BG-10-0211 02/18/11 13:07 002				
Benzene	0.14	0.080	ppb(v/v)	EPA-2 TO-15
B-3029L-0211 02/18/11 11:47 003				
Trichloroethene	0.26	0.040	ppb(v/v)	EPA-2 TO-15
Benzene	0.37	0.080	ppb(v/v)	EPA-2 TO-15
P-3029L-0211 02/18/11 12:07 004				
Benzene	0.90	0.080	ppb(v/v)	EPA-2 TO-15
B-3019L-0211 02/18/11 08:56 005				
Trichloroethene	0.040	0.040	ppb(v/v)	EPA-2 TO-15
1,2-Dichloroethane	0.085	0.080	ppb(v/v)	EPA-2 TO-15
Benzene	0.33	0.080	ppb(v/v)	EPA-2 TO-15
P-3019L-0211 02/18/11 08:58 006				
Chloroethane	0.089	0.080	ppb(v/v)	EPA-2 TO-15
cis-1,2-Dichloroethene	0.096	0.080	ppb(v/v)	EPA-2 TO-15
n-Propylbenzene	0.16	0.16	ppb(v/v)	EPA-2 TO-15
Tetrachloroethene	0.20	0.080	ppb(v/v)	EPA-2 TO-15
Benzene	0.69	0.080	ppb(v/v)	EPA-2 TO-15
BG-9-0211 02/18/11 09:04 007				
Benzene	0.15	0.080	ppb(v/v)	EPA-2 TO-15
SS-3019L-0211 02/18/11 08:56 008				
Isopropylbenzene	0.34	0.16	ppb(v/v)	EPA-2 TO-15
n-Propylbenzene	0.25	0.16	ppb(v/v)	EPA-2 TO-15
Tetrachloroethene	0.25	0.080	ppb(v/v)	EPA-2 TO-15
1,1,1-Trichloroethane	0.18	0.080	ppb(v/v)	EPA-2 TO-15

(Continued on next page)

EXECUTIVE SUMMARY - Detection Highlights

H1B240528

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
SS-3019L-0211 02/18/11 08:56 008				
Trichloroethene	0.050	0.040	ppb(v/v)	EPA-2 TO-15
Benzene	0.31	0.080	ppb(v/v)	EPA-2 TO-15

ANALYTICAL METHODS SUMMARY

H1B240528

PARAMETER	ANALYTICAL METHOD
Volatile Organics by TO15	EPA-2 TO-15

References:

EPA-2 "Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air", EPA-625/R-96/010b, January 1999.

SAMPLE SUMMARY

H1B240528

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
METW9	001	SS-3029L-0211	02/19/11	11:37
METXD	002	BG-10-0211	02/18/11	13:07
METXF	003	B-3029L-0211	02/18/11	11:47
METXH	004	P-3029L-0211	02/18/11	12:07
METXK	005	B-3019L-0211	02/18/11	08:56
METXL	006	P-3019L-0211	02/18/11	08:58
METXM	007	BG-9-0211	02/18/11	09:04
METXN	008	SS-3019L-0211	02/18/11	08:56

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.

PROJECT NARRATIVE
H1B240528

The results reported herein are applicable to the samples submitted for analysis only. If you have any questions about this report, please call (865) 291-3000 to speak with the TestAmerica project manager listed on the cover page.

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

The original chain of custody documentation is included with this report.

Sample Receipt

Custody seals were not present.

Quality Control and Data Interpretation

Unless otherwise noted, all holding times and QC criteria were met and the test results shown in this report meet all applicable NELAC requirements.

EPA methods TO-14A and TO-15 specify the use of humidified "zero air" as the blank reagent for canister cleaning, instrument calibration and sample analysis. Ultra-high purity humidified nitrogen from a cryogenic reservoir is used in place of "zero air" by TestAmerica Knoxville.

MACTEC Engineering and Consulting Inc

Client Sample ID: SS-3029L-0211

GC/MS Volatiles

Lot-Sample #...: H1B240528-001 **Work Order #...:** METW91AA **Matrix.....:** AIR
Date Sampled...: 02/19/11 11:37 **Date Received..:** 02/24/11
Prep Date.....: 02/28/11 **Analysis Date..:** 02/28/11
Prep Batch #...: 1060109
Dilution Factor: 1 **Method.....:** EPA-2 TO-15

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Chloroethane	ND	0.080	ppb(v/v)
1,1-Dichloroethane	ND	0.080	ppb(v/v)
cis-1,2-Dichloroethene	ND	0.080	ppb(v/v)
trans-1,2-Dichloroethene	ND	0.080	ppb(v/v)
1,1-Dichloroethene	ND	0.080	ppb(v/v)
1,2-Dichloropropane	ND	0.080	ppb(v/v)
Isopropylbenzene	**0.29**	**0.16**	**ppb(v/v)**
n-Propylbenzene	**0.17**	**0.16**	**ppb(v/v)**
Tetrachloroethene	**0.19**	**0.080**	**ppb(v/v)**
1,1,1-Trichloroethane	ND	0.080	ppb(v/v)
Trichloroethene	**0.050**	**0.040**	**ppb(v/v)**
Vinyl chloride	ND	0.080	ppb(v/v)
tert-Butylbenzene	ND	0.20	ppb(v/v)
1,2-Dichloroethane	ND	0.080	ppb(v/v)
Benzene	**0.21**	**0.080**	**ppb(v/v)**
sec-Butylbenzene	ND	0.16	ppb(v/v)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	103	(60 - 140)

MACTEC Engineering and Consulting Inc

Client Sample ID: BG-10-0211

GC/MS Volatiles

Lot-Sample #...: H1B240528-002 **Work Order #...:** METXD1AA **Matrix.....:** AIR
Date Sampled...: 02/18/11 13:07 **Date Received..:** 02/24/11
Prep Date.....: 02/28/11 **Analysis Date..:** 03/01/11
Prep Batch #...: 1060109
Dilution Factor: 1 **Method.....:** EPA-2 TO-15

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,1-Trichloroethane	ND	0.080	ppb(v/v)
Chloroethane	ND	0.080	ppb(v/v)
1,1-Dichloroethane	ND	0.080	ppb(v/v)
cis-1,2-Dichloroethene	ND	0.080	ppb(v/v)
trans-1,2-Dichloroethene	ND	0.080	ppb(v/v)
1,1-Dichloroethene	ND	0.080	ppb(v/v)
1,2-Dichloropropane	ND	0.080	ppb(v/v)
Isopropylbenzene	ND	0.16	ppb(v/v)
n-Propylbenzene	ND	0.16	ppb(v/v)
Tetrachloroethene	ND	0.080	ppb(v/v)
Trichloroethene	ND	0.040	ppb(v/v)
Vinyl chloride	ND	0.080	ppb(v/v)
tert-Butylbenzene	ND	0.20	ppb(v/v)
1,2-Dichloroethane	ND	0.080	ppb(v/v)
Benzene	**0.14**	**0.080**	**ppb(v/v)**
sec-Butylbenzene	ND	0.16	ppb(v/v)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	99	(60 - 140)

MACTEC Engineering and Consulting Inc

Client Sample ID: B-3029L-0211

GC/MS Volatiles

Lot-Sample #...: H1B240528-003 **Work Order #...:** METXF1AA **Matrix.....:** AIR
Date Sampled...: 02/18/11 11:47 **Date Received..:** 02/24/11
Prep Date.....: 02/28/11 **Analysis Date..:** 03/01/11
Prep Batch #...: 1060109
Dilution Factor: 1 **Method.....:** EPA-2 TO-15

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Chloroethane	ND	0.080	ppb(v/v)
1,1-Dichloroethane	ND	0.080	ppb(v/v)
cis-1,2-Dichloroethene	ND	0.080	ppb(v/v)
trans-1,2-Dichloroethene	ND	0.080	ppb(v/v)
1,1-Dichloroethene	ND	0.080	ppb(v/v)
1,2-Dichloropropane	ND	0.080	ppb(v/v)
Isopropylbenzene	ND	0.16	ppb(v/v)
n-Propylbenzene	ND	0.16	ppb(v/v)
Tetrachloroethene	ND	0.080	ppb(v/v)
1,1,1-Trichloroethane	ND	0.080	ppb(v/v)
Trichloroethene	**0.26**	**0.040**	**ppb(v/v)**
Vinyl chloride	ND	0.080	ppb(v/v)
tert-Butylbenzene	ND	0.20	ppb(v/v)
1,2-Dichloroethane	ND	0.080	ppb(v/v)
Benzene	**0.37**	**0.080**	**ppb(v/v)**
sec-Butylbenzene	ND	0.16	ppb(v/v)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	100	(60 - 140)

MACTEC Engineering and Consulting Inc

Client Sample ID: P-3029L-0211

GC/MS Volatiles

Lot-Sample #...: H1B240528-004 **Work Order #...:** METXH1AA **Matrix.....:** AIR
Date Sampled...: 02/18/11 12:07 **Date Received..:** 02/24/11
Prep Date.....: 02/28/11 **Analysis Date..:** 03/01/11
Prep Batch #...: 1060109
Dilution Factor: 1 **Method.....:** EPA-2 TO-15

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Chloroethane	ND	0.080	ppb(v/v)
1,1-Dichloroethane	ND	0.080	ppb(v/v)
cis-1,2-Dichloroethene	ND	0.080	ppb(v/v)
trans-1,2-Dichloroethene	ND	0.080	ppb(v/v)
1,1-Dichloroethene	ND	0.080	ppb(v/v)
1,2-Dichloropropane	ND	0.080	ppb(v/v)
Isopropylbenzene	ND	0.16	ppb(v/v)
n-Propylbenzene	ND	0.16	ppb(v/v)
Tetrachloroethene	ND	0.080	ppb(v/v)
1,1,1-Trichloroethane	ND	0.080	ppb(v/v)
Trichloroethene	ND	0.040	ppb(v/v)
Vinyl chloride	ND	0.080	ppb(v/v)
tert-Butylbenzene	ND	0.20	ppb(v/v)
1,2-Dichloroethane	ND	0.080	ppb(v/v)
Benzene	**0.90**	**0.080**	**ppb(v/v)**
sec-Butylbenzene	ND	0.16	ppb(v/v)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	100	(60 - 140)

MACTEC Engineering and Consulting Inc

Client Sample ID: B-3019L-0211

GC/MS Volatiles

Lot-Sample #...: H1B240528-005 **Work Order #...:** METXK1AA **Matrix.....:** AIR
Date Sampled...: 02/18/11 08:56 **Date Received..:** 02/24/11
Prep Date.....: 02/28/11 **Analysis Date..:** 03/01/11
Prep Batch #...: 1060109
Dilution Factor: 1 **Method.....:** EPA-2 TO-15

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Chloroethane	ND	0.080	ppb(v/v)
1,1-Dichloroethane	ND	0.080	ppb(v/v)
cis-1,2-Dichloroethene	ND	0.080	ppb(v/v)
trans-1,2-Dichloroethene	ND	0.080	ppb(v/v)
1,1-Dichloroethene	ND	0.080	ppb(v/v)
1,2-Dichloropropane	ND	0.080	ppb(v/v)
Isopropylbenzene	ND	0.16	ppb(v/v)
n-Propylbenzene	ND	0.16	ppb(v/v)
Tetrachloroethene	ND	0.080	ppb(v/v)
1,1,1-Trichloroethane	ND	0.080	ppb(v/v)
Trichloroethene	**0.040**	**0.040**	**ppb(v/v)**
Vinyl chloride	ND	0.080	ppb(v/v)
tert-Butylbenzene	ND	0.20	ppb(v/v)
1,2-Dichloroethane	**0.085**	**0.080**	**ppb(v/v)**
Benzene	**0.33**	**0.080**	**ppb(v/v)**
sec-Butylbenzene	ND	0.16	ppb(v/v)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	101	(60 - 140)

MACTEC Engineering and Consulting Inc

Client Sample ID: P-3019L-0211

GC/MS Volatiles

Lot-Sample #...:	H1B240528-006	**Work Order #...:**	METXL1AA	**Matrix.....:**	AIR
Date Sampled...:	02/18/11 08:58	**Date Received..:**	02/24/11		
Prep Date.....:	02/28/11	**Analysis Date..:**	03/01/11		
Prep Batch #...:	1060109				
Dilution Factor:	1	**Method.....:**	EPA-2 TO-15		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Chloroethane	**0.089**	**0.080**	**ppb(v/v)**
1,1-Dichloroethane	ND	0.080	ppb(v/v)
cis-1,2-Dichloroethene	**0.096**	**0.080**	**ppb(v/v)**
trans-1,2-Dichloroethene	ND	0.080	ppb(v/v)
1,1-Dichloroethene	ND	0.080	ppb(v/v)
1,2-Dichloropropane	ND	0.080	ppb(v/v)
Isopropylbenzene	ND	0.16	ppb(v/v)
n-Propylbenzene	**0.16**	**0.16**	**ppb(v/v)**
Tetrachloroethene	**0.20**	**0.080**	**ppb(v/v)**
1,1,1-Trichloroethane	ND	0.080	ppb(v/v)
Trichloroethene	ND	0.040	ppb(v/v)
Vinyl chloride	ND	0.080	ppb(v/v)
tert-Butylbenzene	ND	0.20	ppb(v/v)
1,2-Dichloroethane	ND	0.080	ppb(v/v)
Benzene	**0.69**	**0.080**	**ppb(v/v)**
sec-Butylbenzene	ND	0.16	ppb(v/v)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	105	(60 - 140)

MACTEC Engineering and Consulting Inc

Client Sample ID: BG-9-0211

GC/MS Volatiles

Lot-Sample #...: H1B240528-007 **Work Order #...:** METXM1AA **Matrix.....:** AIR
Date Sampled...: 02/18/11 09:04 **Date Received..:** 02/24/11
Prep Date.....: 02/28/11 **Analysis Date..:** 03/01/11
Prep Batch #...: 1060109
Dilution Factor: 1 **Method.....:** EPA-2 TO-15

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Chloroethane	ND	0.080	ppb(v/v)
1,1-Dichloroethane	ND	0.080	ppb(v/v)
cis-1,2-Dichloroethene	ND	0.080	ppb(v/v)
trans-1,2-Dichloroethene	ND	0.080	ppb(v/v)
1,1-Dichloroethene	ND	0.080	ppb(v/v)
1,2-Dichloropropane	ND	0.080	ppb(v/v)
Isopropylbenzene	ND	0.16	ppb(v/v)
n-Propylbenzene	ND	0.16	ppb(v/v)
Tetrachloroethene	ND	0.080	ppb(v/v)
1,1,1-Trichloroethane	ND	0.080	ppb(v/v)
Trichloroethene	ND	0.040	ppb(v/v)
Vinyl chloride	ND	0.080	ppb(v/v)
tert-Butylbenzene	ND	0.20	ppb(v/v)
1,2-Dichloroethane	ND	0.080	ppb(v/v)
Benzene	**0.15**	**0.080**	**ppb(v/v)**
sec-Butylbenzene	ND	0.16	ppb(v/v)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	101	(60 - 140)

MACTEC Engineering and Consulting Inc

Client Sample ID: SS-3019L-0211

GC/MS Volatiles

Lot-Sample #...: H1B240528-008 **Work Order #...:** METXN1AA **Matrix.....:** AIR
Date Sampled...: 02/18/11 08:56 **Date Received..:** 02/24/11
Prep Date.....: 02/28/11 **Analysis Date..:** 03/01/11
Prep Batch #...: 1060109
Dilution Factor: 1 **Method.....:** EPA-2 TO-15

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Chloroethane	ND	0.080	ppb(v/v)
1,1-Dichloroethane	ND	0.080	ppb(v/v)
cis-1,2-Dichloroethene	ND	0.080	ppb(v/v)
trans-1,2-Dichloroethene	ND	0.080	ppb(v/v)
1,1-Dichloroethene	ND	0.080	ppb(v/v)
1,2-Dichloropropane	ND	0.080	ppb(v/v)
Isopropylbenzene	**0.34**	**0.16**	**ppb(v/v)**
n-Propylbenzene	**0.25**	**0.16**	**ppb(v/v)**
Tetrachloroethene	**0.25**	**0.080**	**ppb(v/v)**
1,1,1-Trichloroethane	**0.18**	**0.080**	**ppb(v/v)**
Trichloroethene	**0.050**	**0.040**	**ppb(v/v)**
Vinyl chloride	ND	0.080	ppb(v/v)
tert-Butylbenzene	ND	0.20	ppb(v/v)
1,2-Dichloroethane	ND	0.080	ppb(v/v)
Benzene	**0.31**	**0.080**	**ppb(v/v)**
sec-Butylbenzene	ND	0.16	ppb(v/v)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	100	(60 - 140)

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: H1B240528 **Work Order #...:** ME1GL1AA **Matrix.....:** AIR
MB Lot-Sample #: H1C010000-109

Prep Date.....: 02/28/11
Analysis Date..: 02/28/11 **Prep Batch #...:** 1060109
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Vinyl chloride	ND	0.080	ppb(v/v)	EPA-2 TO-15
Benzene	ND	0.080	ppb(v/v)	EPA-2 TO-15
sec-Butylbenzene	ND	0.16	ppb(v/v)	EPA-2 TO-15
tert-Butylbenzene	ND	0.20	ppb(v/v)	EPA-2 TO-15
Chloroethane	ND	0.080	ppb(v/v)	EPA-2 TO-15
1,1-Dichloroethane	ND	0.080	ppb(v/v)	EPA-2 TO-15
1,2-Dichloroethane	ND	0.080	ppb(v/v)	EPA-2 TO-15
1,1-Dichloroethene	ND	0.080	ppb(v/v)	EPA-2 TO-15
cis-1,2-Dichloroethene	ND	0.080	ppb(v/v)	EPA-2 TO-15
trans-1,2-Dichloroethene	ND	0.080	ppb(v/v)	EPA-2 TO-15
1,2-Dichloropropane	ND	0.080	ppb(v/v)	EPA-2 TO-15
Isopropylbenzene	ND	0.16	ppb(v/v)	EPA-2 TO-15
n-Propylbenzene	ND	0.16	ppb(v/v)	EPA-2 TO-15
Tetrachloroethene	ND	0.080	ppb(v/v)	EPA-2 TO-15
1,1,1-Trichloroethane	ND	0.080	ppb(v/v)	EPA-2 TO-15
Trichloroethene	ND	0.040	ppb(v/v)	EPA-2 TO-15

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	98	(60 - 140)

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 #...: H1B240528 **Work Order #...:** ME1GL1AC **Matrix.....:** AIR
LCS Lot-Sample#: H1C010000-109
Prep Date.....: 02/28/11 **Analysis Date..:** 02/28/11
Prep Batch #...: 1060109
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD
Vinyl chloride	**93**	**(70 - 130)**	**EPA-2 TO-15**
Chloroethane	**102**	**(70 - 130)**	**EPA-2 TO-15**
1,1-Dichloroethene	**93**	**(70 - 130)**	**EPA-2 TO-15**
trans-1,2-Dichloroethene	**108**	**(70 - 130)**	**EPA-2 TO-15**
1,1-Dichloroethane	**100**	**(70 - 130)**	**EPA-2 TO-15**
cis-1,2-Dichloroethene	**96**	**(70 - 130)**	**EPA-2 TO-15**
1,1,1-Trichloroethane	**114**	**(70 - 130)**	**EPA-2 TO-15**
1,2-Dichloroethane	**101**	**(70 - 130)**	**EPA-2 TO-15**
Benzene	**86**	**(70 - 130)**	**EPA-2 TO-15**
1,2-Dichloropropane	**79**	**(70 - 130)**	**EPA-2 TO-15**
Trichloroethene	**99**	**(70 - 130)**	**EPA-2 TO-15**
Tetrachloroethene	**97**	**(70 - 130)**	**EPA-2 TO-15**
Isopropylbenzene	**86**	**(70 - 130)**	**EPA-2 TO-15**
n-Propylbenzene	**83**	**(70 - 130)**	**EPA-2 TO-15**
tert-Butylbenzene	**85**	**(70 - 130)**	**EPA-2 TO-15**
sec-Butylbenzene	**87**	**(70 - 130)**	**EPA-2 TO-15**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	105	(60 - 140)

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 #...: H1B240528 Work Order #...: ME1GL1AC Matrix.....: AIR
LCS Lot-Sample#: H1C010000-109
Prep Date.....: 02/28/11 Analysis Date..: 02/28/11
Prep Batch #...: 1060109
Dilution Factor: 1

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	METHOD
Vinyl chloride	**5.0**	**4.6**	**ppb(v/v)**	**93**	**EPA-2 TO-15**
Chloroethane	**5.0**	**5.1**	**ppb(v/v)**	**102**	**EPA-2 TO-15**
1,1-Dichloroethene	**5.0**	**4.6**	**ppb(v/v)**	**93**	**EPA-2 TO-15**
trans-1,2-Dichloroethene	**5.0**	**5.4**	**ppb(v/v)**	**108**	**EPA-2 TO-15**
1,1-Dichloroethane	**5.0**	**5.0**	**ppb(v/v)**	**100**	**EPA-2 TO-15**
cis-1,2-Dichloroethene	**5.0**	**4.8**	**ppb(v/v)**	**96**	**EPA-2 TO-15**
1,1,1-Trichloroethane	**5.0**	**5.7**	**ppb(v/v)**	**114**	**EPA-2 TO-15**
1,2-Dichloroethane	**5.0**	**5.0**	**ppb(v/v)**	**101**	**EPA-2 TO-15**
Benzene	**5.0**	**4.3**	**ppb(v/v)**	**86**	**EPA-2 TO-15**
1,2-Dichloropropane	**5.0**	**4.0**	**ppb(v/v)**	**79**	**EPA-2 TO-15**
Trichloroethene	**5.0**	**5.0**	**ppb(v/v)**	**99**	**EPA-2 TO-15**
Tetrachloroethene	**5.0**	**4.9**	**ppb(v/v)**	**97**	**EPA-2 TO-15**
Isopropylbenzene	**5.0**	**4.3**	**ppb(v/v)**	**86**	**EPA-2 TO-15**
n-Propylbenzene	**5.0**	**4.1**	**ppb(v/v)**	**83**	**EPA-2 TO-15**
tert-Butylbenzene	**5.0**	**4.3**	**ppb(v/v)**	**85**	**EPA-2 TO-15**
sec-Butylbenzene	**5.0**	**4.4**	**ppb(v/v)**	**87**	**EPA-2 TO-15**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	105	(60 - 140)

NOTE(S):

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

Bold print denotes control parameters

TAL Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921
phone 865-291-3000 fax 865-584-4315

H1B240528

Canister Samples Chain of Custody Record

TestAmerica assumes no liability with respect to the collection and shipment of these samples.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Contact Information	Project Manager: STEVE MURRAY	Sampled By: Steven Buyze	1 of 1 COCs
Company: MACTEC	Phone: 231-922-9050		
Address: 41 Hughes Drive	Site Contact: STEVE BUYZE		
City/State/Zip TRAVERSE CITY MI 49696	TAL Contact: MARK LOEB		
Phone: 231-922-9050			
FAX: 231-922-9055			
Project Name: HONEYWELL SB VAPOR INTRUSION	Analysis Turnaround Time		
Site/location: SOUTH BEND, IN	Standard (Specify)		
PO # 51332286	Rush (Specify)		

Sample Identification	Sample Date(s)	Time Start	Time Stop	Canister Vacuum in Field, "Hg (Start)	Canister Vacuum in Field, "Hg (Stop)	Flow Controller ID	Canister ID	TO-15	TO-14A	EPA 3C	EPA 25C	ASTM D-1946	Other (Please specify in notes section)	Sample Type	Indoor Air	Ambient Air	Soil Gas	Landfill Gas	Other (Please specify in notes section)
SS-3029L-0211	2-18-11 → 2-19-11	1133	11:37	-29	-6	K168	62273	X											
BG-10-0211	2-17-11 → 2-18-11	1137	1307	-29	-6	K200	6370	X											
B-3029L-0211	2-17-11 → 2-18-11	1133	1147	-28.5	-5.5	K124	2966	X											
P-3029L-0211	2-17-11 2-18-11	1132	1207	-29	-5.5	K284	93245	X											

Sampled by :	Temperature (Fahrenheit)	Interior	Ambient	
	Start			
	Stop			

5 boxes No Custody SEALS
RECEIVED @ Ambient Temp
R.H 2/24/11
5 boxes UPS 1Z5403W50345896729

	Pressure (inches of Hg)	Interior	Ambient	
	Start			
	Stop			

1Z5403W50347866507
1Z5403W50345033339
1Z5403W50346050943
1Z5403W50346541118

Special Instructions/QC Requirements & Comments:
RUN TO-15 LOW LEVEL LIST B CONSTITUENTS ATTACHED

24 CANS 24 FLOWS

Canisters Shipped by: Steve Buyze	Date/Time: 2-21-11 1130	Canisters Received by:
Samples Relinquished by:	Date/Time:	Received by: Rita Hancock 2/24/11 09:45
Relinquished by:	Date/Time:	Received by:

1-7162410528

TAL Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921
phone 865-291-3000 fax 865-584-4315

Canister Samples Chain of Custody Record

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TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Contact Information	**Project Manager:** STEVE MURRAY	**Sampled By:** Steven Buyze	1 of 1 COCs
Company: MACTEC	Phone: 231-922-9050		
Address: 41 HUGHES DRIVE	Site Contact: STEVE BUYZE		
City/State/Zip TRAVERSE CITY, MI 49696	TAL Contact: MARK LOEB		
Phone: 231-922-9050			
FAX: 231-922-9055			
Project Name: HONEYWELL SB VAPOR INTRUSION	**Analysis Turnaround Time**		
Site/location: SOUTH BEND IN	Standard (Specify)		
PO # 5133286	Rush (Specify)		

Sample Identification	Sample Date(s)	Time Start	Time Stop	Canister Vacuum in Field, "Hg (Start)	Canister Vacuum in Field, "Hg (Stop)	Flow Controller ID	Canister ID	TO-15	TO-14A	EPA 3C	EPA 25C	ASTM D-1946	Other (Please specify in notes section)	Sample Type:	Indoor Air	Ambient Air	Soil Gas	Landfill Gas	Other (Please specify in notes section)
B-3019L-0211	2-17-11 → 2-18-11	0846	0856	-29	-7	K462	6350	X											
P-3019L-0211	2-17-11 → 2-18-11	0849	0858	-29	-6	K216	6520	X											
BG-9-0211	2-17-11 → 2-18-11	0858	0904	-30	-5.5	K314	L4926	X											
SS-3019L-0211	2-17-11 → 2-18-11	0846	0856	-27.5	-4	K483	1147	X											

Sampled by :

Temperature (Fahrenheit)	Interior	Ambient
Start		
Stop		

Pressure (inches of Hg)	Interior	Ambient
Start		
Stop		

Special Instructions/QC Requirements & Comments:
RUN TO-15 LIST B CONSTITUENTS (ATTACHED)

Canisters Shipped by: Steven Buyze	Date/Time: 2/21/2011 1146	Canisters Received by:
Samples Relinquished by:	Date/Time:	Received by: Rita Hancock 2/24/11 09:45
Relinquished by:	Date/Time:	Received by:

TESTAMERICA KNOXVILLE SAMPLE RECEIPT/CONDITION UPON RECEIPT ANOMALY CHECKLIST

Lot Number: 410528

Review Items	Yes	No	NA	If No, what was the problem?	Comments/Actions Taken
1. Do sample container labels match COC? (IDs, Dates, Times)	✓			☐ 1a Do not match COC ☐ 1b Incomplete information ☐ 1c Marking smeared ☐ 1d Label torn ☐ 1e No label ☐ 1f COC not received ☐ 1g Other:	NA
2. Is the cooler temperature within limits? (> freezing temp. of water to 6 °C, VOST: 10°C)			✓	☐ 2a Temp Blank = _____ ☐ 2b Cooler Temp = _____ ☐ 2c Cooling initiated for recently collected samples, ice present.	
3. Were samples received with correct chemical preservative (excluding Encore)?			✓	☐ 3a Sample preservative =	
4. Were custody seals present/intact on cooler and/or containers?		✓		☑ 4a Not present ☐ 4b Not intact ☐ 4c Other:	
5. Were all of the samples listed on the COC received?	✓			☐ 5a Samples received-not on COC ☐ 5b Samples not received-on COC	
6. Were all of the sample containers received intact?	✓			☐ 6a Leaking ☐ 6b Broken	
7. Were VOA samples received without headspace?		✓		☐ 7a Headspace (VOA only)	
8. Were samples received in appropriate containers?	✓			☐ 8a Improper container	
9. Did you check for residual chlorine, if necessary?		✓		☐ 9a Could not be determined due to matrix interference	
10. Were samples received within holding time?	✓			☐ 10a Holding time expired	
11. For rad samples, was sample activity info. provided?			✓	☐ Incomplete information	
12. For 1613B water samples is pH<9?			✓	If no, was pH adjusted to pH 7 - 9 with sulfuric acid? _____	
13. Are the shipping containers intact?	✓			☐ 13a Leaking ☐ 13b Other:	
14. Was COC relinquished? (Signed/Dated/Timed)	✓			☐ 14a Not relinquished	
15. Are tests/parameters listed for each sample?	✓			☐ 15a Incomplete information	
16. Is the matrix of the samples noted?	✓			☐ 15a Incomplete information	
17. Is the date/time of sample collection noted?	✓			☐ 15a Incomplete information	
18. Is the client and project name/# identified?	✓			☐ 15a Incomplete information	
19. Was the sampler identified on the COC?	✓				

Quote #: 75525 PM Instructions: NA

Sample Receiving Associate: [signature] Date: 2-24-11

QA026R22.doc, 012811

Test America - Knoxville ---- Air Canister Dilution Log

Lot Number: *H1B240528*

Initial Can Pressure							Subsequent Dilutions											
Analyst/Date	Tedlar Bag Time	Pbarr (in)	Sample ID	Can #	Pres. upon receipt (-in or + psig)	Adj. Initial Pres. (-in or + psig)	Analyst/Date	I / S	Pbarr (in)	Initial Pres. Pi (in)	Final Pres. Pf (psig)	First InCan Final Pres. Pf (psig)	Second In-can Final Pres. Pf (psig)	Third InCan Final Pres. Pf (psig)	Serial Dilution Can #	Vol (mL)	Final Pres. Pf (psig)	Comments
JDF 225-11	NA	28.61	METW9	62273	-4.7													8989
"	"	"	METXD	6370	-4.3													9000
"	"	"	METXF	2966	-4.9													8976
"	"	"	METXH	93245	-4.4													9019
"	"	"	METXK	6350	-6.6													8984
"	"	"	METXL	6520	-5.8													8990
"	"	"	METXM	L4426	-3.6													8996
"	"	"	METXN	1147	-4.9													9020

Original Chain of Custody Documentation

H1B240528

TAL Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921
phone 865-291-3000 fax 865-584-4315

Canister Samples Chain of Custody Record

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TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

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Project Name: HONEYWELL SB VAPOR INTRUSION	**Analysis Turnaround Time**		
Site/location: SOUTH BEND, IN	Standard (Specify)		
PO # 51332286	Rush (Specify)		

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P-3029L-0211	2-17-11 2-18-11	1132	1207	-29	-5.5	K284	93245	X											

Sampled by :

	Temperature (Fahrenheit)	
	Interior	Ambient
Start		
Stop		

	Pressure (inches of Hg)	
	Interior	Ambient
Start		
Stop		

5 boxes NO CUSTODY SEALS
RECEIVED @ AMBIENT TEMP
R.H 2/24/11

5 boxes UPS 1Z5403W503458967 29
1Z5403W503478665 07
1Z5403W503450333 39
1Z5403W503460509 43
1Z5403W503465411 18

Special Instructions/QC Requirements & Comments:
RUN TO-15 LOW LEVEL LIST B CONSTITUENTS ATTACHED

24 CANS 24 FLOWS

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Samples Relinquished by:	Date/Time:	Received by: Rita Hancock 2/24/11 09:45
Relinquished by:	Date/Time:	Received by:

1-7162405528

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Phone: 231-922-9050			
FAX: 231-922-9055			
Project Name: HONEYWELL SB VAPOR INTRUSION	**Analysis Turnaround Time**		
Site/location: SOUTH BEND IN	Standard (Specify)		
PO # 5133286	Rush (Specify)		

Sample Identification	Sample Date(s)	Time Start	Time Stop	Canister Vacuum in Field, "Hg (Start)	Canister Vacuum in Field, "Hg (Stop)	Flow Controller ID	Canister ID	TO-15	TO-14A	EPA 3C	EPA 25C	ASTM D-1946	Other (Please specify in notes section)	Sample Type	Indoor Air	Ambient Air	Soil Gas	Landfill Gas	Other (Please specify in notes section)
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SS-3019L-0211	2-17-11 → 2-18-11	0846	0856	-27.5	-4	K483	1147	X											

Sampled by :

Temperature (Fahrenheit)			
	Interior	Ambient	
Start			
Stop			

Pressure (inches of Hg)			
	Interior	Ambient	
Start			
Stop			

Special Instructions/QC Requirements & Comments:
RUN TO-15 LIST B CONSTITUENTS (ATTACHED)

Canisters Shipped by: Steven Buyze	Date/Time: 2/21/2011 1146	Canisters Received by:
Samples Relinquished by:	Date/Time:	Received by: Rita Hancock 2/24/11 09:45
Relinquished by:	Date/Time:	Received by: