

# MEMO



**To:** Sandra Perron  
**From:** Tom Jones  
**Date:** October 16, 2006  
**Subject:** Analysis Results – October 2, 2006 Sampling  
**File No.:** 06-6776-1000

---

Please find attached a copy of the laboratory Certificates of Analysis for the most recent samples of indoor air and soil vapour collected from below the basement floor of the Vitez residence located at 530 Grand Valley Drive, Cambridge. The results for TCE during the October 2, 2006 sampling event were as follows:

Sample ID	Location	TCE Result $\mu\text{g}/\text{m}^3$
GV-007	Basement vestibule area	1.09
GV-008	Main bedroom – 1 <sup>st</sup> Floor	0.88
GV-009	Below basement floor slab in furnace room	4830

Also please find attached:

- Table 1, a summary of the results of the known testing for TCE that has been conducted at the Vitez residence by Dillon and others;
- Figure 1, a graphical summary of the TCE analysis results in indoor air samples vs. time; and
- Figure 2, a graphical summary of the TCE results in samples collected below the floor slab vs. time.

Please contact Tom Jones at (519) 650-9833 should you have any questions.

---

**TABLE 1**

---

**Table 1**  
**530 Grand Valley Drive**  
**Air Sampling Results**  
**Trichloroethylene**

<i>Sample Location:</i>	<b>Basement</b>	<b>Basement</b>	<b>1st Floor</b>	<b>Basement</b>	<b>Basement</b>	<b>Basement</b>
<i>Room:</i>	n/a	n/a	Main Floor Bedroom	Basement Bathroom	Basement Rec Room	Furnace Room
<i>Sample Collected By:</i>	AMEC	AMEC	AMEC	AMEC	AMEC	AMEC
<i>Sample I.D.:</i>	3036	AZ03037	AZ03079	AZ03080	AZ03081	AZ03449
<i>Sample Type:</i>	Summa Can	Passive Sampling Device	Passive Sampling Device	Passive Sampling Device	Passive Sampling Device	Passive Sampling Device
<i>Sample Date:</i>	28-Sep-05	28-Sep-05	19-Oct-05	19-Oct-05	19-Oct-05	10-Apr-06
<i>Units:</i>	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3
Trichloroethylene	259.424	198	224	203	192	48.4

\* Estimated concentration

**Table 1**  
**530 Grand Valley Drive**  
**Air Sampling Results**  
**Trichloroethylene**

<i>Sample Location:</i>	<b>Basement</b>	<b>Basement</b>	<b>1st Floor</b>	<b>Basement</b>	<b>Basement</b>	<b>Sub-Slab</b>
<i>Room:</i>	Furnace Room (Duplicate)	Basement Family Room (Rec Room)	Main Floor Bedroom	Furnace Room	Furnace Room	Below Floor Slab in Furnace Room
<i>Sample Collected By:</i>	<b>AMEC</b>	<b>AMEC</b>	<b>AMEC</b>	<b>MOE</b>	<b>MOE</b>	<b>Dillon</b>
<i>Sample I.D.:</i>	<b>AZ03450</b>	<b>AZ03451</b>	<b>AZ03452</b>	<b>C144826-0001</b>	<b>C1458206-0002</b>	<b>GV-001</b>
<i>Sample Type:</i>	Passive Sampling Device	Passive Sampling Device	Passive Sampling Device	Absorbent Tube Cartridge	Absorbent Tube Cartridge	<b>Summa Can</b>
<i>Sample Date:</i>	<b>10-Apr-06</b>	<b>10-Apr-06</b>	<b>10-Apr-06</b>	<b>25-Aug-06</b>	<b>25-Aug-06</b>	<b>1-Sep-06</b>
<i>Units:</i>	<b>ug/m3</b>	<b>ug/m3</b>	<b>ug/m3</b>	<b>ug/m3</b>	<b>ug/m3</b>	<b>ug/m3</b>
Trichloroethylene	47.3	51.9	43.9	23.13	22.88	107,000

\* Estimated concentration

**Table 1**  
**530 Grand Valley Drive**  
**Air Sampling Results**  
**Trichloroethylene**

<i>Sample Location:</i>	<b>Basement</b>	<b>Basement</b>	<b>Basement</b>	<b>Sub-Slab</b>	<b>Basement</b>	<b>Basement</b>
<i>Room:</i>	Furnace Room	Basement Office (Rec Room)	Basement Office (Rec Room)	Below Floor Slab in Furnace Room	Vestibule (Base of Stairs)	Basement Office (Rec Room)
<i>Sample Collected By:</i>	Dillon	Dillon	Dillon	Dillon	Dillon	Dillon
<i>Sample I.D.:</i>	GV-002	GV-003	GV-003 (Repeat Analysis)	GV-004	GV-005	GV-006
<i>Sample Type:</i>	Summa Can	Summa Can	Summa Can	Summa Can	Summa Can	Summa Can
<i>Sample Date:</i>	1-Sep-06	1-Sep-06	1-Sep-06	18-Sep-06	18-Sep-06	18-Sep-06
<i>Units:</i>	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3
Trichloroethylene	23.5	151*	63.3	10,600	7.32	5.83

\* Estimated concentration

**Table 1**  
**530 Grand Valley Drive**  
**Air Sampling Results**  
**Trichloroethylene**

<i>Sample Location:</i>	<b>Basement</b>	<b>Basement</b>	<b>Basement</b>	<b>1st Floor</b>	<b>Sub Slab</b>	<b>Basement</b>
<i>Room:</i>	Vestibule (Base of Stairs)	Vestibule (Base of Stairs)	Vestibule (Base of Stairs)	Main Bedroom on Main Floor	Below Floor Slab in Furnace Room	Vestibule (Base of Stairs)
<i>Sample Collected By:</i>	<b>AMEC</b>	<b>AMEC</b>	<b>Dillon</b>	<b>Dillon</b>	<b>Dillon</b>	<b>AMEC</b>
<i>Sample I.D.:</i>	<b>AZ03681</b>	<b>AZ03682</b>	<b>GV-007</b>	<b>GV-008</b>	<b>GV-009</b>	<b>n/a</b>
<i>Sample Type:</i>	Passive Sampling Device	Passive Sampling Device	<b>Summa Can</b>	<b>Summa Can</b>	<b>Summa Can</b>	Passive Sampling Device
<i>Sample Date:</i>	<b>18-Sep-06</b>	<b>18-Sep-06</b>	<b>2-Oct-06</b>	<b>2-Oct-06</b>	<b>2-Oct-06</b>	<b>2-Oct-06</b>
<i>Units:</i>	<b>ug/m3</b>	<b>ug/m3</b>	<b>ug/m3</b>	<b>ug/m3</b>	<b>ug/m3</b>	<b>ug/m3</b>
Trichloroethylene	7.43	7.32	1.09	0.88	4,830	2.38

\* Estimated concentration

**Table 1**  
**530 Grand Valley Drive**  
**Air Sampling Results**  
**Trichloroethylene**

<b>Sample Location:</b>	<b>Basement</b>	<b>Basement</b>
<b>Room:</b>	Vestibule (Base of Stairs)	Main Bedroom on Main Floor
<b>Sample Collected By:</b>	<b>AMEC</b>	<b>AMEC</b>
<b>Sample I.D.:</b>	n/a	n/a
<b>Sample Type:</b>	Passive Sampling Device	Passive Sampling Device
<b>Sample Date:</b>	<b>2-Oct-06</b>	<b>2-Oct-06</b>
<b>Units:</b>	<b>ug/m3</b>	<b>ug/m3</b>
Trichloroethylene	2.40	2.15

\* Estimated concentration

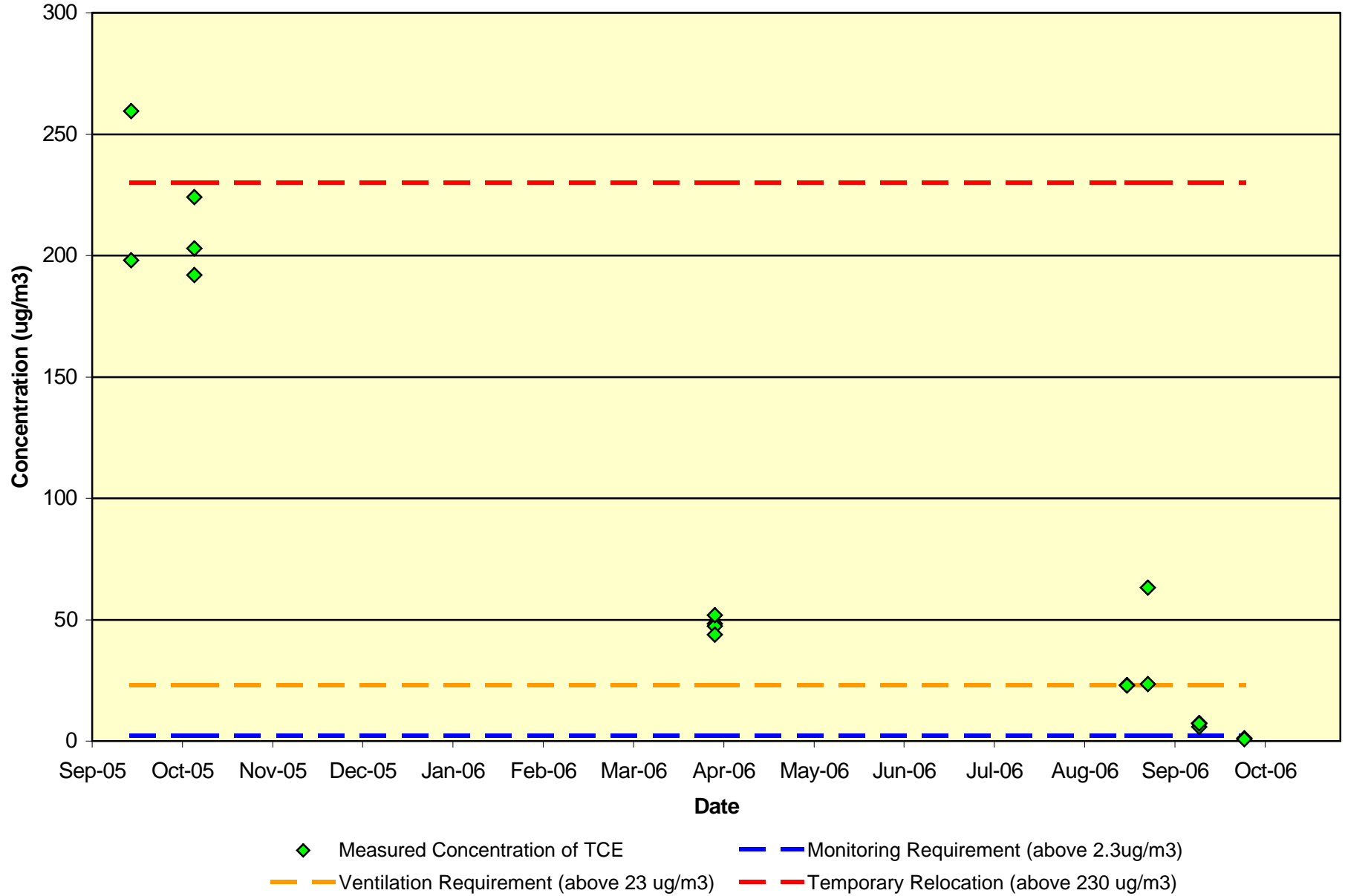
---

## **FIGURES**

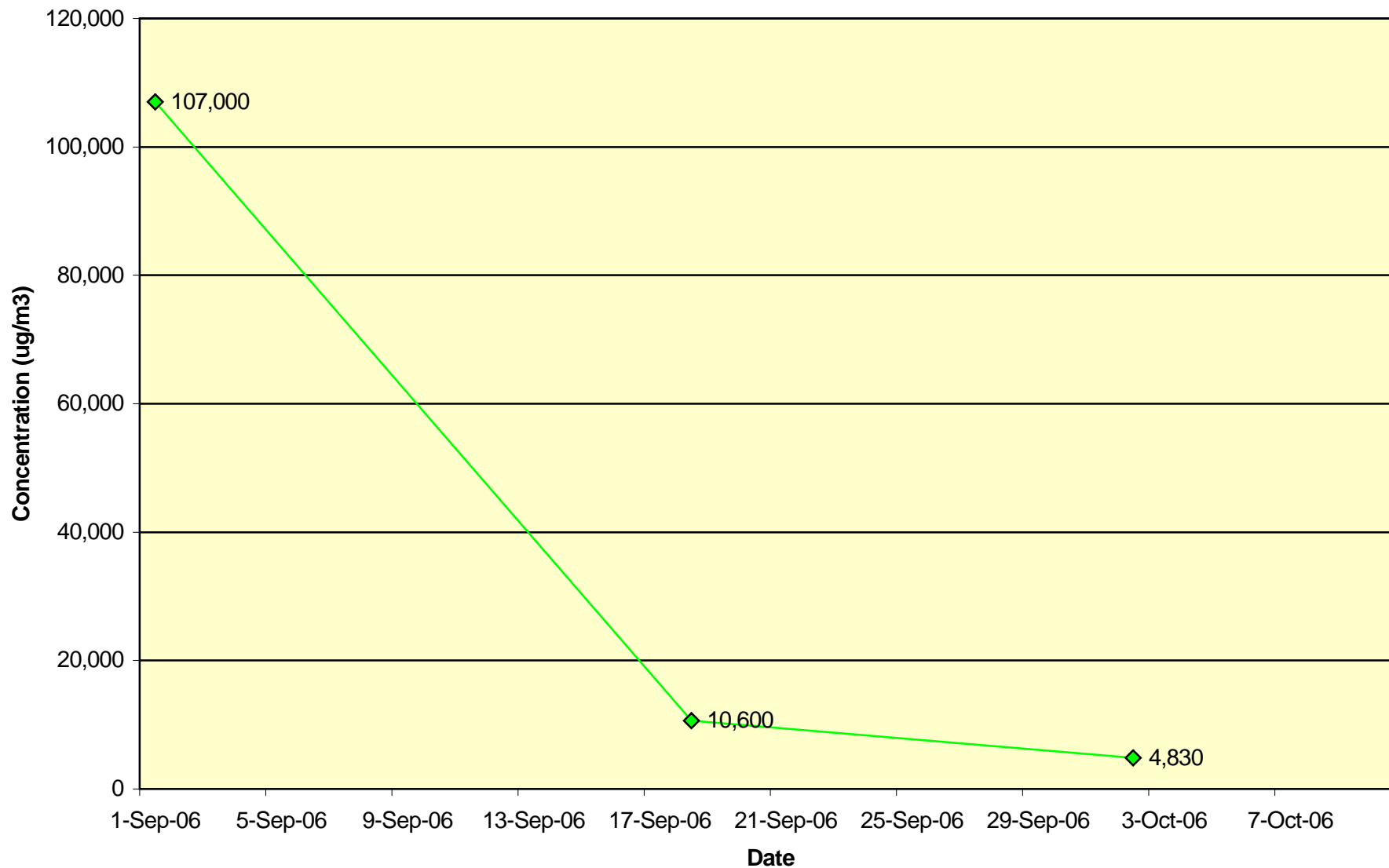
---



**Figure 1**  
**Concentration of Trichloroethylene in Indoor Air**  
**530 Grand Valley Drive, Cambridge**



**Figure 2**  
**Concentration of Trichloroethylene Below the Basement Floor**  
**530 Grand Valley Drive, Cambridge**



◆ Measured Concentration of TCE

---

**CERTIFICATES OF ANALYSIS**

---

Your Project #: 06-6776  
Site: GRAND VALLEY  
Your C.O.C. #: 433453

**Attention: Tom Jones**  
Dillon Consulting Ltd  
5 Cherry Blossom Rd  
Cambridge, ON  
N3H 4R7

**Report Date: 2006/10/13**

**CERTIFICATE OF ANALYSIS**

**MAXXAM JOB #: A6A6137**

**Received: 2006/10/04, 10:00**

Sample Matrix: Air  
# Samples Received: 3

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Method Reference
Canister Pressure @	3	N/A	2006/10/12	BRL SOP-00304	EPA TO-14/15
Room Temperature @	3	N/A	2006/10/12	BRL SOP-00304	EPA TO-14/15
Volatile Organics - Ambient Air by GC/MS (2)	2	N/A	2006/10/12	BRL SOP-00304	EPA TO-14
Volatile Organics - Ambient Air by GC/MS (2)	1	N/A	2006/10/13	BRL SOP-00304	EPA TO-14

(1) This test was performed by Maxxam Analytics Burlington

(2) Please Note: SUMMA canister samples will be retained by Maxxam for a period of 14 calendar days from the date of this report, after which time they will be cleaned for reuse. If you require a longer sample storage period, please contact your service representative.

**MAXXAM ANALYTICS INC.**

MIKE CHALLIS, CET, B.Sc, C.Chem  
Customer Service Manager, US Air Toxics

MDC/poh  
encl.

Total cover pages: 1

Maxxam Job #: A6A6137  
Report Date: 2006/10/13

Dillon Consulting Ltd  
Client Project #: 06-6776  
Project name: GRAND VALLEY  
Sampler Initials: TJ

**RESULTS OF ANALYSES OF AIR**

Maxxam ID		O67871	O67872	O67873		
Sampling Date		2006/10/03 10:40	2006/10/03 10:37	2006/10/03 10:39		
COC Number		433453	433453	433453		
	<b>Units</b>	<b>GV-007</b>	<b>GV-008</b>	<b>GV-009</b>	<b>DL</b>	<b>QC Batch</b>

Pressure (P2)	psi	(-1.5)	(-2.5)	12	N/A	1075809
Pressure (P1)	psi	(-1.5)	(-2.5)	(-1.5)	N/A	1075809
Temperature (P1)	Celcius	20			1	1075812
Temperature (P1)	Celcius		20		1	1075812
Temperature (P1)	Celcius			20	1	1075812
Temperature (P2)	Celcius	20			1	1075812
Temperature (P2)	Celcius		20		1	1075812
Temperature (P2)	Celcius			21	1	1075812

RDL = Reportable Detection Limit  
QC Batch = Quality Control Batch

Maxxam Job #: A6A6137  
Report Date: 2006/10/13

Dillon Consulting Ltd  
Client Project #: 06-6776  
Project name: GRAND VALLEY  
Sampler Initials: TJ

**VOLATILE ORGANICS BY GC/MS (AIR)**

Maxxam ID		O67871				
Sampling Date		2006/10/03 10:40				
COC Number		433453				
	<b>Units</b>	<b>GV-007</b>	<b>DL</b>	<b>ug/m3</b>	<b>DL (ug/m3)</b>	<b>QC Batch</b>
1,2,4-Trichlorobenzene	ppbv	<0.2	0.2	<1.48	1.48	1075824
1,2-Dichlorobenzene	ppbv	<0.07	0.07	<0.421	0.421	1075824
1,2-Dichlorotetrafluoroethane	ppbv	<0.2	0.2	<1.40	1.40	1075824
1,3-Dichlorobenzene	ppbv	<0.1	0.1	<0.601	0.601	1075824
1,4-Dichlorobenzene	ppbv	<0.1	0.1	<0.601	0.601	1075824
Chlorobenzene	ppbv	<0.2	0.2	<0.921	0.921	1075824
1,1,1-Trichloroethane	ppbv	<0.1	0.1	<0.546	0.546	1075824
1,1,1,2-Tetrachloroethane	ppbv	<0.2	0.2	<1.37	1.37	1075824
1,1,2-Trichloroethane	ppbv	<0.2	0.2	<1.09	1.09	1075824
1,1-Dichloroethane	ppbv	<0.2	0.2	<0.809	0.809	1075824
1,1-Dichloroethylene	ppbv	<0.2	0.2	<0.793	0.793	1075824
1,2,4-Trimethylbenzene	ppbv	<0.1	0.1	<0.492	0.492	1075824
1,2-Dichloroethane	ppbv	<0.1	0.1	<0.405	0.405	1075824
1,2-Dichloropropane	ppbv	<0.1	0.1	<0.462	0.462	1075824
1,3,5-Trimethylbenzene	ppbv	<0.2	0.2	<0.983	0.983	1075824
Benzene	ppbv	0.3	0.1	0.867	0.319	1075824
Benzyl chloride	ppbv	<1	1	<5.18	5.18	1075824
Bromomethane	ppbv	<0.1	0.1	<0.388	0.388	1075824
Carbon Tetrachloride	ppbv	<0.1	0.1	<0.629	0.629	1075824
Chloroethane	ppbv	<0.2	0.2	<0.528	0.528	1075824
Chloroform	ppbv	<0.1	0.1	<0.488	0.488	1075824
Chloromethane	ppbv	<0.2	0.2	<0.413	0.413	1075824
cis-1,2-Dichloroethylene	ppbv	<0.1	0.1	<0.396	0.396	1075824
cis-1,3-Dichloropropene	ppbv	<0.2	0.2	<0.908	0.908	1075824
Dichlorodifluoromethane (FREON 12)	ppbv	0.47	0.08	2.32	0.396	1075824
Ethylbenzene	ppbv	<0.1	0.1	<0.434	0.434	1075824
Ethylene Dibromide	ppbv	<0.1	0.1	<0.768	0.768	1075824
Hexachlorobutadiene	ppbv	<0.3	0.3	<3.20	3.20	1075824
Methylene Chloride(Dichloromethane)	ppbv	1.7	0.2	5.88	0.695	1075824
o-Xylene	ppbv	<0.1	0.1	<0.434	0.434	1075824
p+m-Xylene	ppbv	0.3	0.3	1.44	1.30	1075824
Styrene	ppbv	<0.09	0.09	<0.383	0.383	1075824
Tetrachloroethylene	ppbv	<0.1	0.1	<0.678	0.678	1075824
RD L = Reportable Detection Limit QC Batch = Quality Control Batch						

Maxxam Job #: A6A6137  
Report Date: 2006/10/13

Dillon Consulting Ltd  
Client Project #: 06-6776  
Project name: GRAND VALLEY  
Sampler Initials: TJ

**VOLATILE ORGANICS BY GC/MS (AIR)**

Maxxam ID		O67871				
Sampling Date		2006/10/03 10:40				
COC Number		433453				
	<b>Units</b>	<b>GV-007</b>	<b>DL</b>	<b>ug/m3</b>	<b>DL (ug/m3)</b>	<b>QC Batch</b>
Toluene	ppbv	1.6	0.1	6.13	0.376	1075824
trans-1,2-Dichloroethylene	ppbv	<0.2	0.2	<0.793	0.793	1075824
trans-1,3-Dichloropropene	ppbv	<0.1	0.1	<0.454	0.454	1075824
Trichloroethylene	ppbv	0.2	0.1	1.09	0.537	1075824
Trichlorofluoromethane (FREON 11)	ppbv	0.2	0.1	1.21	0.562	1075824
Trichlorotrifluoroethane	ppbv	<0.2	0.2	<1.53	1.53	1075824
Vinyl Chloride	ppbv	<0.1	0.1	<0.256	0.256	1075824
<b>Surrogate Recovery (%)</b>						
Difluorobenzene	%	113		N/A	N/A	1075824
Bromochloromethane	%	108		N/A	N/A	1075824
D5-Chlorobenzene	%	102		N/A	N/A	1075824
N/A = Not Applicable QC Batch = Quality Control Batch						

Maxxam Job #: A6A6137  
Report Date: 2006/10/13

Dillon Consulting Ltd  
Client Project #: 06-6776  
Project name: GRAND VALLEY  
Sampler Initials: TJ

**VOLATILE ORGANICS BY GC/MS (AIR)**

Maxxam ID		O67872				
Sampling Date		2006/10/03 10:37				
COC Number		433453				
	<b>Units</b>	<b>GV-008</b>	<b>DL</b>	<b>ug/m3</b>	<b>DL (ug/m3)</b>	<b>QC Batch</b>
1,2,4-Trichlorobenzene	ppbv	<0.2	0.2	<1.48	1.48	1075824
1,2-Dichlorobenzene	ppbv	<0.07	0.07	<0.421	0.421	1075824
1,2-Dichlorotetrafluoroethane	ppbv	<0.2	0.2	<1.40	1.40	1075824
1,3-Dichlorobenzene	ppbv	<0.1	0.1	<0.601	0.601	1075824
1,4-Dichlorobenzene	ppbv	<0.1	0.1	<0.601	0.601	1075824
Chlorobenzene	ppbv	<0.2	0.2	<0.921	0.921	1075824
1,1,1-Trichloroethane	ppbv	<0.1	0.1	<0.546	0.546	1075824
1,1,1,2-Tetrachloroethane	ppbv	<0.2	0.2	<1.37	1.37	1075824
1,1,2-Trichloroethane	ppbv	<0.2	0.2	<1.09	1.09	1075824
1,1-Dichloroethane	ppbv	<0.2	0.2	<0.809	0.809	1075824
1,1-Dichloroethylene	ppbv	<0.2	0.2	<0.793	0.793	1075824
1,2,4-Trimethylbenzene	ppbv	<0.1	0.1	<0.492	0.492	1075824
1,2-Dichloroethane	ppbv	<0.1	0.1	<0.405	0.405	1075824
1,2-Dichloropropane	ppbv	<0.1	0.1	<0.462	0.462	1075824
1,3,5-Trimethylbenzene	ppbv	<0.2	0.2	<0.983	0.983	1075824
Benzene	ppbv	0.2	0.1	0.751	0.319	1075824
Benzyl chloride	ppbv	<1	1	<5.18	5.18	1075824
Bromomethane	ppbv	<0.1	0.1	<0.388	0.388	1075824
Carbon Tetrachloride	ppbv	<0.1	0.1	<0.629	0.629	1075824
Chloroethane	ppbv	<0.2	0.2	<0.528	0.528	1075824
Chloroform	ppbv	<0.1	0.1	<0.488	0.488	1075824
Chloromethane	ppbv	0.5	0.2	0.978	0.413	1075824
cis-1,2-Dichloroethylene	ppbv	<0.1	0.1	<0.396	0.396	1075824
cis-1,3-Dichloropropene	ppbv	<0.2	0.2	<0.908	0.908	1075824
Dichlorodifluoromethane (FREON 12)	ppbv	0.48	0.08	2.37	0.396	1075824
Ethylbenzene	ppbv	<0.1	0.1	<0.434	0.434	1075824
Ethylene Dibromide	ppbv	<0.1	0.1	<0.768	0.768	1075824
Hexachlorobutadiene	ppbv	<0.3	0.3	<3.20	3.20	1075824
Methylene Chloride(Dichloromethane)	ppbv	1.2	0.2	4.20	0.695	1075824
o-Xylene	ppbv	<0.1	0.1	<0.434	0.434	1075824
p+m-Xylene	ppbv	<0.3	0.3	<1.30	1.30	1075824
Styrene	ppbv	<0.09	0.09	<0.383	0.383	1075824
Tetrachloroethylene	ppbv	<0.1	0.1	<0.678	0.678	1075824
RD L = Reportable Detection Limit QC Batch = Quality Control Batch						



Maxxam Job #: A6A6137  
Report Date: 2006/10/13

Dillon Consulting Ltd  
Client Project #: 06-6776  
Project name: GRAND VALLEY  
Sampler Initials: TJ

**VOLATILE ORGANICS BY GC/MS (AIR)**

Maxxam ID		O67872				
Sampling Date		2006/10/03 10:37				
COC Number		433453				
	<b>Units</b>	<b>GV-008</b>	<b>DL</b>	<b>ug/m3</b>	<b>DL (ug/m3)</b>	<b>QC Batch</b>
Toluene	ppbv	1.4	0.1	5.14	0.376	1075824
trans-1,2-Dichloroethylene	ppbv	<0.2	0.2	<0.793	0.793	1075824
trans-1,3-Dichloropropene	ppbv	<0.1	0.1	<0.454	0.454	1075824
Trichloroethylene	ppbv	0.2	0.1	0.880	0.537	1075824
Trichlorofluoromethane (FREON 11)	ppbv	0.2	0.1	1.21	0.562	1075824
Trichlorotrifluoroethane	ppbv	<0.2	0.2	<1.53	1.53	1075824
Vinyl Chloride	ppbv	<0.1	0.1	<0.256	0.256	1075824
<b>Surrogate Recovery (%)</b>						
Difluorobenzene	%	108		N/A	N/A	1075824
Bromochloromethane	%	103		N/A	N/A	1075824
D5-Chlorobenzene	%	98		N/A	N/A	1075824
N/A = Not Applicable QC Batch = Quality Control Batch						

Maxxam Job #: A6A6137  
Report Date: 2006/10/13

Dillon Consulting Ltd  
Client Project #: 06-6776  
Project name: GRAND VALLEY  
Sampler Initials: TJ

**VOLATILE ORGANICS BY GC/MS (AIR)**

Maxxam ID		O67873				
Sampling Date		2006/10/03				
		10:39				
COC Number		433453				
	<b>Units</b>	<b>GV-009</b>	<b>DL</b>	<b>ug/m3</b>	<b>DL (ug/m3)</b>	<b>QC Batch</b>
1,2,4-Trichlorobenzene	ppbv	<2	2	<14.8	14.8	1076483
1,2-Dichlorobenzene	ppbv	<0.7	0.7	<4.21	4.21	1076483
1,2-Dichlorotetrafluoroethane	ppbv	<2	2	<14.0	14.0	1076483
1,3-Dichlorobenzene	ppbv	<1	1	<6.01	6.01	1076483
1,4-Dichlorobenzene	ppbv	<1	1	<6.01	6.01	1076483
Chlorobenzene	ppbv	<2	2	<9.21	9.21	1076483
1,1,1-Trichloroethane	ppbv	2	1	9.26	5.46	1076483
1,1,1,2-Tetrachloroethane	ppbv	<2	2	<13.7	13.7	1076483
1,1,2-Trichloroethane	ppbv	<2	2	<10.9	10.9	1076483
1,1-Dichloroethane	ppbv	<2	2	<8.09	8.09	1076483
1,1-Dichloroethylene	ppbv	<2	2	<7.93	7.93	1076483
1,2,4-Trimethylbenzene	ppbv	<1	1	<4.92	4.92	1076483
1,2-Dichloroethane	ppbv	<1	1	<4.05	4.05	1076483
1,2-Dichloropropane	ppbv	<1	1	<4.62	4.62	1076483
1,3,5-Trimethylbenzene	ppbv	<2	2	<9.83	9.83	1076483
Benzene	ppbv	<1	1	<3.19	3.19	1076483
Benzyl chloride	ppbv	<10	10	<51.8	51.8	1076483
Bromomethane	ppbv	<1	1	<3.88	3.88	1076483
Carbon Tetrachloride	ppbv	<1	1	<6.29	6.29	1076483
Chloroethane	ppbv	<2	2	<5.28	5.28	1076483
Chloroform	ppbv	<1	1	<4.88	4.88	1076483
Chloromethane	ppbv	<2	2	<4.13	4.13	1076483
cis-1,2-Dichloroethylene	ppbv	1	1	5.54	3.96	1076483
cis-1,3-Dichloropropene	ppbv	<2	2	<9.08	9.08	1076483
Dichlorodifluoromethane (FREON 12)	ppbv	0.8	0.8	4.06	3.96	1076483
Ethylbenzene	ppbv	<1	1	<4.34	4.34	1076483
Ethylene Dibromide	ppbv	<1	1	<7.68	7.68	1076483
Hexachlorobutadiene	ppbv	<3	3	<32.0	32.0	1076483
Methylene Chloride(Dichloromethane)	ppbv	3	2	11.0	6.95	1076483
o-Xylene	ppbv	<1	1	<4.34	4.34	1076483
p+m-Xylene	ppbv	<3	3	<13.0	13.0	1076483
Styrene	ppbv	<0.9	0.9	<3.83	3.83	1076483
Tetrachloroethylene	ppbv	1	1	9.18	6.78	1076483
RDL = Reportable Detection Limit QC Batch = Quality Control Batch						

Maxxam Job #: A6A6137  
Report Date: 2006/10/13

Dillon Consulting Ltd  
Client Project #: 06-6776  
Project name: GRAND VALLEY  
Sampler Initials: TJ

**VOLATILE ORGANICS BY GC/MS (AIR)**

Maxxam ID		O67873				
Sampling Date		2006/10/03 10:39				
COC Number		433453				
	<b>Units</b>	<b>GV-009</b>	<b>DL</b>	<b>ug/m3</b>	<b>DL (ug/m3)</b>	<b>QC Batch</b>
Toluene	ppbv	<1	1	<3.76	3.76	1076483
trans-1,2-Dichloroethylene	ppbv	<2	2	<7.93	7.93	1076483
trans-1,3-Dichloropropene	ppbv	<1	1	<4.54	4.54	1076483
Trichloroethylene	ppbv	899	1	4830	5.37	1076483
Trichlorofluoromethane (FREON 11)	ppbv	<1	1	<5.62	5.62	1076483
Trichlorotrifluoroethane	ppbv	<2	2	<15.3	15.3	1076483
Vinyl Chloride	ppbv	<1	1	<2.56	2.56	1076483
<b>Surrogate Recovery (%)</b>						
Difluorobenzene	%	96		N/A	N/A	1076483
Bromochloromethane	%	97		N/A	N/A	1076483
D5-Chlorobenzene	%	84		N/A	N/A	1076483
N/A = Not Applicable QC Batch = Quality Control Batch						

Maxxam Job #: A6A6137  
Report Date: 2006/10/13

Dillon Consulting Ltd  
Client Project #: 06-6776  
Project name: GRAND VALLEY  
Sampler Initials: TJ

**GENERAL COMMENTS**

Sample O67873-01: VOCTO14M-A: Canister received at - 3 inHg and pressurized to 12 psig, for a 2X pressure dilution. 20mL of sample was analyzed, resulting in a 10X final dilution. The DL's were adjusted accordingly.

**Results relate only to the items tested.**

Dillon Consulting Ltd  
Attention: Tom Jones  
Client Project #: 06-6776  
P.O. #:  
Project name: GRAND VALLEY

Quality Assurance Report  
Maxxam Job Number: GA6A6137

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1075824	TDP	Spiked Blank					
		1,2,4-Trichlorobenzene	2006/10/12		107	%	70 - 130
		1,2-Dichlorobenzene	2006/10/12		98	%	70 - 130
		1,2-Dichlorotetrafluoroethane	2006/10/12		92	%	70 - 130
		1,3-Dichlorobenzene	2006/10/12		97	%	70 - 130
		1,4-Dichlorobenzene	2006/10/12		103	%	70 - 130
		Chlorobenzene	2006/10/12		101	%	70 - 130
		Difluorobenzene	2006/10/12		131	%	60 - 140
		1,1,1-Trichloroethane	2006/10/12		84	%	70 - 130
		1,1,2,2-Tetrachloroethane	2006/10/12		99	%	70 - 130
		1,1,2-Trichloroethane	2006/10/12		101	%	70 - 130
		1,1-Dichloroethane	2006/10/12		82	%	70 - 130
		1,1-Dichloroethylene	2006/10/12		87	%	70 - 130
		1,2,4-Trimethylbenzene	2006/10/12		104	%	70 - 130
		1,2-Dichloroethane	2006/10/12		90	%	70 - 130
		1,2-Dichloropropane	2006/10/12		98	%	70 - 130
		1,3,5-Trimethylbenzene	2006/10/12		105	%	70 - 130
		Benzene	2006/10/12		94	%	70 - 130
		Benzyl chloride	2006/10/12		108	%	70 - 130
		Bromochloromethane	2006/10/12		132	%	60 - 140
		Bromomethane	2006/10/12		90	%	70 - 130
		Carbon Tetrachloride	2006/10/12		82	%	70 - 130
		Chloroethane	2006/10/12		89	%	70 - 130
		Chloroform	2006/10/12		83	%	70 - 130
		Chloromethane	2006/10/12		92	%	70 - 130
		cis-1,2-Dichloroethylene	2006/10/12		85	%	70 - 130
		cis-1,3-Dichloropropene	2006/10/12		102	%	70 - 130
		D5-Chlorobenzene	2006/10/12		137	%	60 - 140
		Dichlorodifluoromethane (FREON 12)	2006/10/12		96	%	70 - 130
		Ethylbenzene	2006/10/12		104	%	70 - 130
		Ethylene Dibromide	2006/10/12		106	%	70 - 130
		Hexachlorobutadiene	2006/10/12		111	%	70 - 130
		Methylene Chloride(Dichloromethane)	2006/10/12		84	%	70 - 130
		o-Xylene	2006/10/12		102	%	70 - 130
		p+m-Xylene	2006/10/12		102	%	70 - 130
		Styrene	2006/10/12		104	%	70 - 130
		Tetrachloroethylene	2006/10/12		98	%	70 - 130
		Toluene	2006/10/12		103	%	70 - 130
		trans-1,2-Dichloroethylene	2006/10/12		94	%	70 - 130
		trans-1,3-Dichloropropene	2006/10/12		108	%	70 - 130
		Trichloroethylene	2006/10/12		88	%	70 - 130
		Trichlorofluoromethane (FREON 11)	2006/10/12		86	%	70 - 130
		Trichlorotrifluoroethane	2006/10/12		87	%	70 - 130
		Vinyl Chloride	2006/10/12		98	%	70 - 130
	Method Blank	1,2,4-Trichlorobenzene	2006/10/12	ND, RDL=0.2		ppbv	
		1,2-Dichlorobenzene	2006/10/12	ND, RDL=0.07		ppbv	
		1,2-Dichlorotetrafluoroethane	2006/10/12	ND, RDL=0.2		ppbv	
		1,3-Dichlorobenzene	2006/10/12	ND, RDL=0.1		ppbv	
		1,4-Dichlorobenzene	2006/10/12	ND, RDL=0.1		ppbv	
		Chlorobenzene	2006/10/12	ND, RDL=0.2		ppbv	
		Difluorobenzene	2006/10/12		124	%	60 - 140
		1,1,1-Trichloroethane	2006/10/12	ND, RDL=0.1		ppbv	
		1,1,2,2-Tetrachloroethane	2006/10/12	ND, RDL=0.2		ppbv	
		1,1,2-Trichloroethane	2006/10/12	ND, RDL=0.2		ppbv	
		1,1-Dichloroethane	2006/10/12	ND, RDL=0.2		ppbv	
		1,1-Dichloroethylene	2006/10/12	ND, RDL=0.2		ppbv	

Dillon Consulting Ltd  
Attention: Tom Jones  
Client Project #: 06-6776  
P.O. #:  
Project name: GRAND VALLEY

Quality Assurance Report (Continued)  
Maxxam Job Number: GA6A6137

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits		
1075824 TDP	Method Blank	1,2,4-Trimethylbenzene	2006/10/12	ND, RDL=0.1		ppbv			
		1,2-Dichloroethane	2006/10/12	ND, RDL=0.1		ppbv			
		1,2-Dichloropropane	2006/10/12	ND, RDL=0.1		ppbv			
		1,3,5-Trimethylbenzene	2006/10/12	ND, RDL=0.2		ppbv			
		Benzene	2006/10/12	ND, RDL=0.1		ppbv			
		Benzyl chloride	2006/10/12	ND, RDL=1		ppbv			
		Bromochloromethane	2006/10/12		122	%	60 - 140		
		Bromomethane	2006/10/12	ND, RDL=0.1		ppbv			
		Carbon Tetrachloride	2006/10/12	ND, RDL=0.1		ppbv			
		Chloroethane	2006/10/12	ND, RDL=0.2		ppbv			
		Chloroform	2006/10/12	ND, RDL=0.1		ppbv			
		Chloromethane	2006/10/12	ND, RDL=0.2		ppbv			
		cis-1,2-Dichloroethylene	2006/10/12	ND, RDL=0.1		ppbv			
		cis-1,3-Dichloropropene	2006/10/12	ND, RDL=0.2		ppbv			
		D5-Chlorobenzene	2006/10/12		111	%	60 - 140		
		Dichlorodifluoromethane (FREON 12)	2006/10/12	ND, RDL=0.08		ppbv			
		Ethylbenzene	2006/10/12	ND, RDL=0.1		ppbv			
		Ethylene Dibromide	2006/10/12	ND, RDL=0.1		ppbv			
		Hexachlorobutadiene	2006/10/12	ND, RDL=0.3		ppbv			
		Methylene Chloride(Dichloromethane)	2006/10/12	0.2, RDL=0.2		ppbv			
		o-Xylene	2006/10/12	ND, RDL=0.1		ppbv			
		p+m-Xylene	2006/10/12	ND, RDL=0.3		ppbv			
		Styrene	2006/10/12	ND, RDL=0.09		ppbv			
		Tetrachloroethylene	2006/10/12	ND, RDL=0.1		ppbv			
		Toluene	2006/10/12	ND, RDL=0.1		ppbv			
		trans-1,2-Dichloroethylene	2006/10/12	ND, RDL=0.2		ppbv			
		trans-1,3-Dichloropropene	2006/10/12	ND, RDL=0.1		ppbv			
		Trichloroethylene	2006/10/12	ND, RDL=0.1		ppbv			
		Trichlorofluoromethane (FREON 11)	2006/10/12	ND, RDL=0.1		ppbv			
		Trichlorotrifluoroethane	2006/10/12	ND, RDL=0.2		ppbv			
		Vinyl Chloride	2006/10/12	ND, RDL=0.1		ppbv			
		1076483 TDP	Spiked Blank	1,2,4-Trichlorobenzene	2006/10/13		82	%	70 - 130
				1,2-Dichlorobenzene	2006/10/13		82	%	70 - 130
1,2-Dichlorotetrafluoroethane	2006/10/13				85	%	70 - 130		
1,3-Dichlorobenzene	2006/10/13				81	%	70 - 130		
1,4-Dichlorobenzene	2006/10/13				84	%	70 - 130		
Chlorobenzene	2006/10/13				77	%	70 - 130		
Difluorobenzene	2006/10/13				102	%	60 - 140		
1,1,1-Trichloroethane	2006/10/13				70	%	70 - 130		
1,1,2,2-Tetrachloroethane	2006/10/13				83	%	70 - 130		
1,1,2-Trichloroethane	2006/10/13				77	%	70 - 130		
1,1-Dichloroethane	2006/10/13				74	%	70 - 130		
1,1-Dichloroethylene	2006/10/13				84	%	70 - 130		
1,2,4-Trimethylbenzene	2006/10/13				85	%	70 - 130		
1,2-Dichloroethane	2006/10/13				77	%	70 - 130		
1,2-Dichloropropane	2006/10/13				77	%	70 - 130		
1,3,5-Trimethylbenzene	2006/10/13				85	%	70 - 130		
Benzene	2006/10/13				76	%	70 - 130		
Benzyl chloride	2006/10/13				89	%	70 - 130		
Bromochloromethane	2006/10/13				103	%	60 - 140		
Bromomethane	2006/10/13				85	%	70 - 130		
Carbon Tetrachloride	2006/10/13				68 (1)	%	70 - 130		
Chloroethane	2006/10/13				85	%	70 - 130		
Chloroform	2006/10/13				73	%	70 - 130		
Chloromethane	2006/10/13		87	%	70 - 130				

Dillon Consulting Ltd  
Attention: Tom Jones  
Client Project #: 06-6776  
P.O. #:  
Project name: GRAND VALLEY

Quality Assurance Report (Continued)  
Maxxam Job Number: GA6A6137

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1076483	TDP	Spiked Blank					
		cis-1,2-Dichloroethylene	2006/10/13		75	%	70 - 130
		cis-1,3-Dichloropropene	2006/10/13		78	%	70 - 130
		D5-Chlorobenzene	2006/10/13		98	%	60 - 140
		Dichlorodifluoromethane (FREON 12)	2006/10/13		85	%	70 - 130
		Ethylbenzene	2006/10/13		81	%	70 - 130
		Ethylene Dibromide	2006/10/13		77	%	70 - 130
		Hexachlorobutadiene	2006/10/13		82	%	70 - 130
		Methylene Chloride(Dichloromethane)	2006/10/13		79	%	70 - 130
		o-Xylene	2006/10/13		81	%	70 - 130
		p+m-Xylene	2006/10/13		79	%	70 - 130
		Styrene	2006/10/13		83	%	70 - 130
		Tetrachloroethylene	2006/10/13		72	%	70 - 130
		Toluene	2006/10/13		77	%	70 - 130
		trans-1,2-Dichloroethylene	2006/10/13		87	%	70 - 130
		trans-1,3-Dichloropropene	2006/10/13		81	%	70 - 130
		Trichloroethylene	2006/10/13		70	%	70 - 130
		Trichlorofluoromethane (FREON 11)	2006/10/13		80	%	70 - 130
		Trichlorotrifluoroethane	2006/10/13		79	%	70 - 130
		Vinyl Chloride	2006/10/13		93	%	70 - 130
	Method Blank	1,2,4-Trichlorobenzene	2006/10/13	ND, RDL=0.2		ppbv	
		1,2-Dichlorobenzene	2006/10/13	ND, RDL=0.07		ppbv	
		1,2-Dichlorotetrafluoroethane	2006/10/13	ND, RDL=0.2		ppbv	
		1,3-Dichlorobenzene	2006/10/13	ND, RDL=0.1		ppbv	
		1,4-Dichlorobenzene	2006/10/13	ND, RDL=0.1		ppbv	
		Chlorobenzene	2006/10/13	ND, RDL=0.2		ppbv	
		Difluorobenzene	2006/10/13		103	%	60 - 140
		1,1,1-Trichloroethane	2006/10/13	ND, RDL=0.1		ppbv	
		1,1,2,2-Tetrachloroethane	2006/10/13	ND, RDL=0.2		ppbv	
		1,1,2-Trichloroethane	2006/10/13	ND, RDL=0.2		ppbv	
		1,1-Dichloroethane	2006/10/13	ND, RDL=0.2		ppbv	
		1,1-Dichloroethylene	2006/10/13	ND, RDL=0.2		ppbv	
		1,2,4-Trimethylbenzene	2006/10/13	ND, RDL=0.1		ppbv	
		1,2-Dichloroethane	2006/10/13	ND, RDL=0.1		ppbv	
		1,2-Dichloropropane	2006/10/13	ND, RDL=0.1		ppbv	
		1,3,5-Trimethylbenzene	2006/10/13	ND, RDL=0.2		ppbv	
		Benzene	2006/10/13	ND, RDL=0.1		ppbv	
		Benzyl chloride	2006/10/13	ND, RDL=1		ppbv	
		Bromochloromethane	2006/10/13		103	%	60 - 140
		Bromomethane	2006/10/13	ND, RDL=0.1		ppbv	
		Carbon Tetrachloride	2006/10/13	ND, RDL=0.1		ppbv	
		Chloroethane	2006/10/13	ND, RDL=0.2		ppbv	
		Chloroform	2006/10/13	ND, RDL=0.1		ppbv	
		Chloromethane	2006/10/13	ND, RDL=0.2		ppbv	
		cis-1,2-Dichloroethylene	2006/10/13	ND, RDL=0.1		ppbv	
		cis-1,3-Dichloropropene	2006/10/13	ND, RDL=0.2		ppbv	
		D5-Chlorobenzene	2006/10/13		89	%	60 - 140
		Dichlorodifluoromethane (FREON 12)	2006/10/13	ND, RDL=0.08		ppbv	
		Ethylbenzene	2006/10/13	ND, RDL=0.1		ppbv	
		Ethylene Dibromide	2006/10/13	ND, RDL=0.1		ppbv	
		Hexachlorobutadiene	2006/10/13	ND, RDL=0.3		ppbv	
		Methylene Chloride(Dichloromethane)	2006/10/13	0.2, RDL=0.2		ppbv	
		o-Xylene	2006/10/13	ND, RDL=0.1		ppbv	
		p+m-Xylene	2006/10/13	ND, RDL=0.3		ppbv	
		Styrene	2006/10/13	ND, RDL=0.09		ppbv	
		Tetrachloroethylene	2006/10/13	ND, RDL=0.1		ppbv	

Dillon Consulting Ltd  
Attention: Tom Jones  
Client Project #: 06-6776  
P.O. #:  
Project name: GRAND VALLEY

Quality Assurance Report (Continued)  
Maxxam Job Number: GA6A6137

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1076483	TDP Method Blank	Toluene	2006/10/13	ND, RDL=0.1		ppbv	
		trans-1,2-Dichloroethylene	2006/10/13	ND, RDL=0.2		ppbv	
		trans-1,3-Dichloropropene	2006/10/13	ND, RDL=0.1		ppbv	
		Trichloroethylene	2006/10/13	ND, RDL=0.1		ppbv	
		Trichlorofluoromethane (FREON 11)	2006/10/13	ND, RDL=0.1		ppbv	
		Trichlorotrifluoroethane	2006/10/13	ND, RDL=0.2		ppbv	
		Vinyl Chloride	2006/10/13	ND, RDL=0.1		ppbv	

ND = Not detected  
SPIKE = Fortified sample  
(1) Please refer to General Comments page for specific clarification.