L.A.B. Validation Corp. 14 West Point Drive, East Northport, N.Y. 11731

DATA VALIDATION REPORT

ORGANIC ANALYSES

EPA Compendium Method TO-14/TO-15
VOLATILES BY GC/MS

For Soil Gas Samples Collected
October 19, 2005
Charlton Cleaners
New York
LBG , Inc.

SAMPLE DELIVERY GROUP NUMBER: CHA02
Lancaster Laboratories

SUBMITTED TO:

Mr. Sean Groszkowski
Leggette, Brashears, & Graham
110 Corporate Park Drive, Suite 112
White Plains, NY 10604

December 2, 2005

PREPARED BY: Lori A. Beyer

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Charlton Cleaners – New York.
Data Validation Report: Volatile Organics

Table of Contents:

Introduction:

A validation was performed on four (4) soil gas [air] samples for Volatile Organic analysis collected by LBG, Inc. and submitted to Lancaster Laboratories for subsequent analysis under chain of custody documentation. This report contains the laboratory and validation results for the four (4) field samples itemized below. The samples were collected on October 19, 2005.

The samples were analyzed by Lancaster Laboratories utilizing EPA Method TO-14 and TO-15 and in accordance with NYSDEC Analytical Services Protocol (10/95) and submitted under NYSDEC ASP Category B equivalent deliverable requirements for the associated analytical methodology employed. The analytical testing consisted of the selected TO-14 and TO-15 Target Compound List (TCL) of analytes for Volatile Organics listed in Appendix A.

The data was evaluated in accordance with the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (Publication 9240.1-05) and in conjunction with the analytical methodology for which the samples were analyzed, where applicable and relevant.

The data validation report pertains to the following field soil gas/air samples:

Sample Identification	Laboratory Identification(s)	Sample Matrix	Collection Date
Basement Equipment Room	4628491	Air	10/19/05
Basement Main Area	4628492	Air	10/19/05
1st Floor Loading Dock	4628493	Air	10/19/05
1st Floor Store Area	4628494	Air	10/19/05

Data Qualifier Definitions:

The following definitions provide brief explanations of the qualifiers assigned to results in the data review process.

U - **The analyte was analyzed for, but was not detected above the reported sample quantitation limit.**

J - **The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.**

UJ - **The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.**

R - **The sample results are rejected due to deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.**

N - **The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification."**

NJ - **The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate quantity.**

Sample Receipt:

The Chain of Custody document indicates that summa canister air samples were received at Lancaster Laboratories in good condition. Sample login notes and the chain of custody indicate that at the Validated Time of Sample Receipt (VTSR) at the laboratory no discrepancies were notated and therefore the integrity of the samples is assumed to be good.

The data summary tables included in Appendix A includes all usable (qualified) and unusable (rejected) results for the samples identified above. These tables summarize the detailed narrative section of the report. All data validation qualifications have been reported in the excel spreadsheet in bold for ease of review and verification.

NOTE:
L.A.B. Validation Corp. believes it is appropriate to note that the data validation criteria utilized for data evaluation is different than the method requirements utilized by the laboratory. Qualified data does not necessarily mean that the laboratory was non-compliant in the analysis that was performed.

Volatile Organics by EPA Compendium Method TO-14/TO-15

The following method criteria were reviewed: holding times, LCS, Blanks, Tunes, Calibrations, Internal Standards, Target Component Identification and Quantitation, Reported Quantitation Limits and Overall System Performance. The volatile results were considered to be valid and useable as noted on the data summary tables in Appendix A and within the following text:

1.1 Holding Time

The amount of an analyte in a sample can change with time due to chemical instability, degradation, volatilization, etc. If the technical holding time is exceeded, the data may not be considered valid. Those analytes detected in the samples whose holding time has been exceeded will be qualified as estimates, "J". The non-detects (sample quantitation limits) are required to be flagged as estimated, "J", or unusable, "R", if the holding times are grossly exceeded.

Air samples pertaining to this SDG was performed within the method required thirty (30) days from sample collection for analysis. No qualifications were required based upon holding time criteria.

1.2 Matrix Spikes (MS)/ Matrix Spike Duplicates (MSD

The MS/MSD data are generated to determine the long-term precision and accuracy of the analytical method in various matrices.

Matrix Spike/Matrix Spike Duplicate analysis was not performed on samples pertaining to this SDG, however, LCS was analyzed and acceptable recoveries for all spiked components. No qualifications to the data were made for samples pertaining to this SDG.

1.3 Laboratory Control Sample

The LCS data for laboratory control samples (LCS) are generated to provide information on the accuracy of the analytical method and on the laboratory performance.

All compounds recovered well in the Laboratory Control Sample.

1.4 Blank Contamination

Quality assurance (QA) blanks; i.e. method, trip and field blanks are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Trip blanks measure cross-contamination of samples during shipment. Field blanks measure cross-contamination of samples during field operations. Storage blanks measure cross-contamination during sample storage of the field samples.

The following table was utilized to qualify target analyte results due to contamination. The largest value from all the associated blanks is required to be utilized:

For:	Flag Sample Result with a "U" when:	Report CRQL & Qualify "U" when:	No Qualification is Needed when:
Methylene Chloride, Acetone, Toluene & 2-Butanone	Sample Conc. Is >CRQL, but </=10x blank value	Sample Conc. is <CRQL and </=10x blank value	Sample Conc. is >CRQL and >10x blank value
Other Contaminants	Sample Conc. Is >CRQL, but </=5x blank value	Sample Conc. Is <CRQL and </=5x blank value	Sample Conc. is >CRQL and >5x blank value

Below is a summary of the compounds in the sample and the associated qualifications that have been applied:

A) **Method Blank Contamination:**

Target analytes were not detected in any of the associated method blanks pertaining to this SDG.

B) **Field Blank Contamination:**

Field Blank analysis was not conducted for this SDG.

C) **Trip Blank Contamination:**

Trip Blank analysis was not submitted with this SDG.

D) **Storage Blank Contamination:**

Storage blanks were not submitted for this SDG. It should be noted that storage blanks are not mandated by EPA Method TO-14/TO-15.

1.5 GC/MS Instrument Performance Check

Tuning and performance criteria are established to ensure adequate mass resolution, proper identification of compounds and to some degree, sufficient instrument sensitivity. These criteria are not sample specific. Instrument performance is determined using standard materials. Therefore, these criteria should be met in all circumstances. The Tuning standard for volatile organics is Bromofluorobenzene (BFB).

Instrument performance was generated within acceptable limits and frequency for Bromofluorobenzene (BFB) for all analyses conducted for this SDG.

1.6 Initial and Continuing Calibrations

Satisfactory instrument calibration is established to ensure that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of giving acceptable performance at the beginning of an experimental sequence. The continuing calibration checks document that the instrument is giving satisfactory daily performance.

A) Response Factor GC/MS:
The response factor measures the instrument's response to specific chemical compounds. The response factor for all compounds must be >/= 0.05 in both initial and continuing calibrations. A value <0.05 indicates a serious detection and quantitation problem (poor sensitivity). Analytes detected in the sample will be qualified as estimated, "J". All non-detects for that compound in the corresponding samples will be rejected, "R".

All the response factors for the target analytes reported were found to be within acceptable limits (>/=0.05), for the initial and continuing calibrations.

B) Percent Relative Standard Deviation (%RSD) and Percent Difference (%D):
Percent RSD is calculated from the initial calibration and is used to indicate the stability of the specific compound response factor over increasing concentrations. Percent D compares the response factor of the continuing calibration check to the mean response factor (RRF) from the initial calibration. Percent D is a measure of the instrument's daily performance. Percent RSD must be <30% and %D must be <25%. A value outside of these limits indicates potential detection and quantitation errors. For these reasons, all positive results are flagged as estimated, "J" and non-detects are flagged "UJ". If %RSD and %D grossly exceed QC criteria, non-detect data may be qualified, "R", unusable. Additionally, in cases where the %RSD is >30% and eliminating either the high or the low point of the curve does not restore the %RSD to less than or equal to 30% then positive results are qualified, "J". In cases where removal of either the low or high point restores the linearity, then only low or high level results will be qualified, "J" in the portion of the curve where non linearity exists.

Initial Calibrations: The initial calibrations provided and the %RSD were within acceptable limits (30%) for all target compounds.

Continuing Calibrations: The continuing calibrations provided and the %D were within acceptable limits (25%) with the following exceptions:

CCAL – 10/29/05:
1,2,4-Trichlorobenzene – 31.0%

Sample results have been qualified "J" and "UJ" as required for this analyte for all samples pertaining to this SDG.

1.7 Internal Standards

Internal Standards (IS) performance criteria ensure that the GC/MS sensitivity and response are stable during every experimental run. The internal standard area count must not vary by more than a factor of 2 (-50% to +100%) from the associated continuing calibration standard. The retention time of the internal standard must not vary more than +/- 30 seconds from the associated continuing calibration standard. If the area count is outside the (-50% to +100%) range of the associated standard, all of the positive results for compounds quantitated using that IS are qualified as estimated, "J", and all non-detects as "UJ", or "R" if there is a severe loss of sensitivity.

If an internal standard retention time varies by more than 30 seconds, professional judgment will be used to determine either partial or total rejection of the data for that sample fraction.

Internal Standard area responses met QC requirements for all analysis pertaining to this data set.

1.8 Target Compound List Identification

TCL compounds are identified on the GC/MS by using the analyte's relative retention time (RRT) and by comparison to the ion spectra obtained from known standards. For the results to be a positive hit, the sample peak must be within =/- 0.06RRT units of the standard compound and have an ion spectra which has a ratio of the primary and secondary m/e intensities within 20% of that in the standard compound.

GC/MS spectra met the qualitative criteria for identification. All retention times were within required specifications.

1.9 Compound Quantification and Reported Detection Limits

GC/MS quantitative analysis is considered to be acceptable. Correct internal standards and response factors and air volumes were used to calculate final concentrations.

Samples were analyzed using reduced sample volumes as determined from the autodilutor. Review of the raw data and subsequent target concentration justify the dilution that was performed. Sample quantitation limits have been adjusted for the purge volume of air conducted.

In cases where the concentrations of target analytes were over the instruments' linear calibration range a secondary diluted reanalysis was performed as required.

Usable results have been hybridized on the corresponding summary tables and on the "Form I's" throughout the laboratory report.

1.10 Overall System Performance

GC/MS analytical methodology was acceptable for this analysis.

Reviewer's Signature Lori A. Beyer Date 12/2/05

L.A.B. Validation Corp. 14 West Point Drive, East Northport, N.Y. 11731

Appendix A
Data Summary Tables
With Qualifications

Phone (516) 523-7891 email LABValidation@aol.com

VOLATILE ORGANICS EPA Compendium METHOD TO-14/TO-15

	Charlton Cleaners, NY					
	SDG CHA02					
	LBG Sample ID		Basement Equipment Room	Basement Main Area	1st Floor Loading Dock	1st Floor Store Area
	Laboratory ID:		4628491	4628492	4628493	4628494
	Sampling Date:		10/19/2005	10/19/2005	10/19/2005	10/19/2005
	Dilution Factor:		1	1	1	1
Cas #	**Analyte**	**Units:**				
75-71-8	**Dichlorodifluoromethane**	ug/m3	4.0 J	11	4.0 J	6.0
76-14-2	**Freon 114**	ug/m3	1.4 U	2.8 U	1.4 U	1.4 U
74-87-3	**Chloromethane**	ug/m3	2.0 J	4.0 J	0.41 U	2.0 J
75-01-4	**Vinyl Chloride**	ug/m3	17	21	0.51 U	0.80 J
74-83-9	**Bromomethane**	ug/m3	0.78 U	3.0 J	0.78 U	0.78 U
75-00-3	**Chloroethane**	ug/m3	0.70 J	1.1 U	0.53 U	0.53 U
75-69-4	**Trichlorofluoromethane**	ug/m3	1.1 U	3.0 J	2.0 J	2.0 J
75-35-4	**1,1-Dichloroethene**	ug/m3	0.79 U	1.6 U	0.79 U	0.79 U
76-13-1	**Freon 113**	ug/m3	3.8 U	7.7 U	3.8 U	3.8 U
107-05-1	**3-Chloropropene**	ug/m3	0.63 U	1.3 U	0.63 U	0.63 U
75-09-2	**Methylene Chloride**	ug/m3	2.0 J	5.0 J	5.0	3.0 J
75-34-3	**1,1-Dichloroethane**	ug/m3	0.81 U	1.6 U	0.81 U	0.81 U
156-59-2	**cis-1,2-Dichloroethene**	ug/m3	190	170	3.0 J	6.0
67-66-3	**Chloroform**	ug/m3	0.98 U	2.0 U	0.98 U	0.98 U
71-55-6	**1,1,1-Trichloroethane**	ug/m3	1.1 U	2.2 U	1.1 U	1.1 U
56-23-5	**Carbon Tetrachloroide**	ug/m3	1.3 U	2.5 U	1.3 U	1.3 U
107-06-2	**1,2-Dichloroethane**	ug/m3	5.0	15	1.0 J	4.0 J
71-43-2	**Benzene**	ug/m3	4.0	8.0	2.0 J	4.0
79-01-6	**Trichloroethene**	ug/m3	19	23	1.1 U	1.1 U
78-87-5	**1,2-Dichloropropane**	ug/m3	0.92 U	1.8 U	0.92 U	0.92 U
10061-01-5	**cis-1,3-Dichloropropene**	ug/m3	0.91 U	1.8 U	0.91 U	0.91 U
108-88-3	**Toluene**	ug/m3	44	160	24	45
10061-02-6	**trans-1,3-Dichloropropene**	ug/m3	0.91 U	1.8 U	0.91 U	0.91 U
79-00-5	**1,1,2-Trichloroethane**	ug/m3	1.1 U	2.2 U	1.1 U	1.1 U
127-18-4	**Tetrachloroethene**	ug/m3	1700	1600	32	74
106-93-4	**1,2-Dibromoethane**	ug/m3	1.5 U	3.1 U	1.5 U	1.5 U
108-90-7	**Chlorobenzene**	ug/m3	0.92 U	1.8 U	0.92 U	0.92 U
100-41-4	**Ethylbenzene**	ug/m3	8.0	27	5.0	10
1330-20-7	**Xylene (m,p)**	ug/m3	38	69	13	23
95-47-6	**Xylene (o)**	ug/m3	12	24	4.0 J	8.0
100-42-5	**Styrene**	ug/m3	6.0	24	3.0 J	6.0
79-34-5	**1,1,2,2-Tetrachloroethane**	ug/m3	1.4 U	2.7 U	1.4 U	1.4 U
622-96-8	**4-Ethyltoluene**	ug/m3	3.0 J	14	3.0 J	4.0 J
108-67-8	**1,3,5-Trimethylbenzene**	ug/m3	3.0 J	9.0 J	2.0 J	4.0 J
95-63-6	**1,2,4-Trimethylbenzene**	ug/m3	6.0	20	3.0 J	7.0
541-73-1	**1,3-Dichlorobenzene**	ug/m3	3.0 U	6.0 U	3.0 U	3.0 U
106-46-7	**1,4-Dichlorobenzene**	ug/m3	3.0 U	6.0 U	3.0 U	3.0 U
95-50-1	**1,2-Dichlorobenzene**	ug/m3	3.0 U	6.0 U	3.0 U	3.0 U
120-82-1	**1,2,4-Trichlorobenzene**	ug/m3	**15.0 UJ**	**30.0 UJ**	**15.0 UJ**	**15.0 UJ**

Appendix B
Chain of Custody

Analysis Request / Environmental Services Chain of Custody

Lancaster Laboratories
Where quality is a science.

For Lancaster Laboratories use only
Acct. # 11827 Group# 963960 Sample # 462849I-94

COC # 0090386

Please print. Instructions on reverse side correspond with circled numbers.

(1) Client: LBG, Inc Acct. #:
Project Name/#: CHARLTON CLEANERS PWSID #:
Project Manager: SEAN GROSZKOWSKI P.O.#:
Sampler: SEAN GROSZKOWSKI Quote #:
Name of state where samples were collected: NEW YORK

(2) Sample Identification	Canister #	Date Collected	Time Collected	(3) Grab	Composite	Matrix: Soil	Water (☐ Potable ☐ NPDES)	Other	(4) Total # of Containers	(5) Analyses Requested: TO-15	Remarks	(6) Temperature of samples upon receipt (if requested)
BASEMENT EQUIPMENT ROOM	0136	10/19/05	908-1710	X				X	1	X	CATEGORY B	
BASEMENT MAIN AREA	0323	↓	912-1715	X				X	1	X	DELIVERABLES	
1ST FLOOR LOADING DOCK	0016		920-1720	X				X	1	X		
1ST FLOOR STORE AREA	0232		924-1725	X				X	1	X		

For Lab Use Only
FSC:
SCR #:

(7) **Turnaround Time Requested** (TAT) (please circle): (Normal) Rush
(Rush TAT is subject to Lancaster Laboratories approval and surcharge.)
Date results are needed:
Rush results requested by (please circle): Phone Fax (E-mail)
Phone #: Fax #:
E-mail address:

(8) **Data Package Options** (please circle if required)
QC Summary Type VI (Raw Data)
Type I (Tier I) GLP
Type II (Tier II) Other
Type III (NJ Red. Del.)
Type IV (CLP)

SDG Complete? Yes No

Site-specific QC required? Yes No
(If yes, indicate QC sample and submit triplicate volume.)
Internal Chain of Custody required? Yes No

(9)

Relinquished by:	Date	Time	Received by:	Date	Time
	10/19/05	1900			
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by: Anneliese Hutchison	10/20/05	0915

GROUP # 903960

Lancaster Laboratories
2425 New Holland Pike • Lancaster, PA 17601

Environmental Sample Administration
Receipt Documentation Log

Client/Project: LBG - NY

Date of Receipt: 10/20/05

Time of Receipt: 0915

Source Code: 50-1

Shipping Container Sealed: (Y) / N

Custody Seal Present: Y / (N)

Custody Seal Intact: Y / N / (NA)

Package: Chilled / (Not Chilled)

Unpacker Emp. No.: 210

Temperature of Shipping Containers	
#1	#2
Thermometer ID:	Thermometer ID:
Temp.:	Temp.:
Temp. Bottle / Surface Temp.	Temp. Bottle / Surface Temp.
Wet Ice / Dry Ice / Ice Packs	Wet Ice / Dry Ice / Ice Packs
Ice Present? Y / N Loose / Bagged	Ice Present? Y / N Loose / Bagged
#3	#4
Thermometer ID:	Thermometer ID:
Temp.:	Temp.:
Temp. Bottle / Surface Temp.	Temp. Bottle / Surface Temp.
Wet Ice / Dry Ice / Ice Packs	Wet Ice / Dry Ice / Ice Packs
Ice Present? Y / N Loose / Bagged	Ice Present? Y / N Loose / Bagged

Paperwork Discrepancy/Unpacking Problems:

+ 4 flow controllers

Sample Administration Internal Chain of Custody			
Name	Date	Time	Reason for Transfer
Anneliese Hutchison	10/20/05	1340	Unpacking
Lori Lyon	10/20/05	1355	Place in Storage or (Entry)
			Remove from Storage
			Place in Storage or Entry
			Entry

Appendix C
SDG Narrative

CASE NARRATIVE

Client: Leggette Brashears & Graham
SDG #: CHA02

LANCASTER LABORATORIES
GC/MS VOLATILE ORGANICS IN AIR

SAMPLE NUMBER(S) :

LL #'s	Sample Code	Comments
4628491	BAE36	
4628491	BAE36	15X Dilution
4628492	BMA23	2X Dilution
4628492	BMA23	20X Dilution
4628493	1FLDS	
4628494	1FACC	

LABORATORY SUBMITTED QC:

VBLKC23	VBLKC23	Method Blank
VBLKC25	VBLKC25	Method Blank
LCSC23	LCSC23	Lab Control Sample

All canisters were cleaned by repeated evacuation and pressurization with clean nitrogen, as per SOP-MS-009. Each canister was filled with clean nitrogen and analyzed before the final evacuation prior to shipping to the client. All target compounds were below the limit of quantitation in the cleaning certification analyses.

SAMPLE PREPARATION:

Samples were diluted to two or three times their original absolute pressure upon receipt in the air analysis laboratory using clean nitrogen. This dilution is done to ensure positive pressure in the sample canisters throughout the analysis, minimizing the risk of sample contamination, and bringing the samples to the approximate pressure at which blanks and calibration standards are delivered to the analytical instrumentation. This twofold or threefold dilution is offset by analyzing 500cc or 750cc of each sample, two or

Case Narrative (continued)
SDG: CHA02

three times the nominal volume of 250cc upon which the GC/MS calibration is based. This strategy yields an overall dilution factor of 1.0 and allows sample pressurization without raising the limits of quantitation. The nitrogen used to pressurize sample canisters is monitored as the daily method blank to ensure that no contamination of samples occurs during dilution.

Dilutions of 10X or less were performed by analyzing a reduced sample volume. Dilutions greater than 10X were performed by transferring a measured volume from the sample container to a clean, evacuated SUMMA canister with a gas-tight syringe and diluting with zero grade humidified air.

No problems were encountered during the preparation of these samples.

ANALYSIS:

The method used for analysis was EPA Method TO-15.

No problems were encountered during the analysis of these samples.

QUALITY CONTROL AND NONCONFORMANCE SUMMARY:

A Laboratory Control Sample (LCS) was analyzed with these samples. The LCS serves as a check of analysis and calibration standards validity. All LCS compounds were within the control limits specified on the Laboratory Control Sample Data Sheet.

All QC was within specifications.

DATA INTERPRETATION:

Only non-conformances for client requested compounds are addressed in this case narrative.

All raw data is quantified in units of ppbv, parts per billion by volume.

Case Narrative (continued)
SDG: CHA02

No further interpretation is necessary for the data submitted.

Case Narrative Reviewed and Approved by:

Date: 11/16/05

Charles J. Neslund
Manager, GC/MS Volatiles in Air