

APPENDIX C



Applied Physics & Chemistry Laboratory

13760 Magnolia Ave. Chino CA 91710

Tel. (909) 590-1828 Fax (909) 590-1498

March 26, 2003

GEOFON, Inc.
Attention: Leo Williamson
22632 Golden Spring Dr Ste 270
Diamond Bar CA 91765

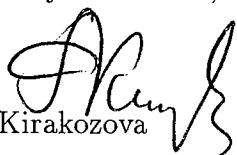
Dear Leo Williamson,

This package contains samples in our Service ID 03-1842 and your project : 04-4428.10 JPL.
Enclosed please find:

- (1) Original analytical report.
- (2) Original Chain of Custody.
- (3) One diskette containing EDD deliverable.
- (4) One original Level C Data Package Deliverable.

If anything is missing or you have any questions, please feel free to contact me.

Respectfully submitted,


Regina Kirakozova
Associate QA/QC Director
Applied P & Ch Laboratory



• FAX (909) 396-1455

LABORATORY COPY

SHALLOW WELLS

JEOPON'S LAB COORDINATOR		LAB COORDINATOR'S PHONE		LAB COORDINATOR'S FAX		LABORATORY SERVICE ID		LABORATORY CONTACT		MAIL REPORT (COMPANY NAME)	
PROJECT NAME:		PROJECT LOCATION		PROJECT NUMBER		LABORATORY PHONE		LABORATORY FAX		RECIPIENT NAME	
PROJECT CONTACT		PROJECT PHONE NUMBER		PROJECT FAX		LABORATORY ADDRESS		LABORATORY CITY, STATE AND ZIP CODE		ADDRESS	
Brad Shojaee		(909) 396-7662		(909) 396-1455		-		Kenny Chan		GEOFFON, INC.	
JPL GW Mon-1003		MN-8 / MW-16 / MW-7		04-4428.10		(909) 590-1828		(909) 590-1498		Leo W. Williamson	
Leo W. Williamson		(714) 920-8729		(909) 396-1455		13760 Magnolia Ave		Chino, CA		22632 bolden Springs Pi. #270	
1800 Oak Grove Dr.		Pasadena, CA		US NAVY, SWDIV		CITY, STATE AND ZIP CODE		91710		Diamond Bar, CA. 91765	
Asrar Faheem		(909) 396-7662		(909) 396-1455		Analyses					
Item	Sample Identifier	Matrix	Date	Time	Preserved	# of Cont.	QC Level	T.A.T	Comments		
1	MW-8	H ₂ O	2/24/03	930	3-141	III	Normal		X	X	X
2	MW-16			1150					X	X	X
3	MW-7			1350					X	X	X
4											
5	DUPE-6-1903	H ₂ O	2/24/03	N/A	3-141	IV	Normal		X	X	X
6	TB-13-2/24/03			N/A	2	III			X		
7											
8											
9											
10											
SAMPLES COLLECTED BY: Leo W. Williamson		COURIER AND AIR BILL NUMBER:		DATE		TIME		COOLER TEMPERATURE UPON RECEIPT		SAMPLE'S CONDITION UPON RECEIPT	
RELINQUISHED BY: Leo W. Williamson		RECEIVED BY: [Signature]		2/24/03		1410					
RELINQUISHED BY: [Signature]		RECEIVED BY: [Signature]		2/24/03		1947					

Distribution: White - Laboratory (To be returned with Analytical Report); Goldenrod - Project File; Yellow - Project Data Manager

Applied P & Ch Laboratory

13760 Magnolia Ave. Chino CA 91710

Tel: (909) 590-1828 Fax: (909) 590-1498

Submitted to:

GEOFON, Inc.

Attention: Leo Williamson

22632 Golden Spring Dr Ste 270

Diamond Bar CA 91765

Tel: (909) 396-7662 Fax: (909) 396-1455

APCL Analytical Report

Service ID #: 801-031842

Received: 02/24/03

Collected by: Leo Williamson

Extracted: N/A

Collected on: 02/24/03

Tested: 02/25-03/07/03

Reported: 03/12/03

Sample Description: Water

Project Description: 04-4428.10 JPL

Analysis of Water Samples

Component Analyzed	Method	Unit	PQL	Analysis Result	
				DUPE-6-1Q03 03-01842-1	MW-7 03-01842-2
CHROMIUM (VI)	7196	mg/L	0.01	<0.01	<0.01
Dilution Factor				100	100
PERCHLORATE	314.0	µg/L	4	6,190	5,200
VOLATILE ORGANIC COMPOUNDS					
Dilution Factor				1	1
BENZENE	524.2	µg/L	0.5	<0.5	<0.5
BROMOBENZENE	524.2	µg/L	0.5	<0.5	<0.5
BROMOCHLOROMETHANE	524.2	µg/L	0.5	<0.5	<0.5
BROMODICHLOROMETHANE	524.2	µg/L	0.5	<0.5	<0.5
BROMOFORM	524.2	µg/L	0.5	<0.5	<0.5
BROMOMETHANE	524.2	µg/L	0.5	<0.5	<0.5
2-BUTANONE	524.2	µg/L	10	<10	<10
N-BUTYLBENZENE	524.2	µg/L	0.5	<0.5	<0.5
SEC-BUTYLBENZENE	524.2	µg/L	0.5	<0.5	<0.5
TERT-BUTYLBENZENE	524.2	µg/L	0.5	<0.5	<0.5
CARBON TETRACHLORIDE	524.2	µg/L	0.5	122 ^(a)	102 ^(a)
CHLOROBENZENE	524.2	µg/L	0.5	<0.5	<0.5
CHLORODIBROMOMETHANE	524.2	µg/L	0.5	<0.5	<0.5
CHLOROETHANE	524.2	µg/L	0.5	<0.5	<0.5
CHLOROFORM	524.2	µg/L	0.5	12.3	12.9
CHLOROMETHANE	524.2	µg/L	0.5	<0.5	<0.5
2-CHLOROTOLUENE	524.2	µg/L	0.5	<0.5	<0.5
4-CHLOROTOLUENE	524.2	µg/L	0.5	<0.5	<0.5
1,2-DIBROMO-3-CHLOROPROPANE	524.2	µg/L	1.1 ^(b)	<1.1	<1.1
1,2-DIBROMOETHANE (EDB)	524.2	µg/L	0.5	<0.5	<0.5
DIBROMOMETHANE	524.2	µg/L	0.5	<0.5	<0.5
1,2-DICHLOROBENZENE	524.2	µg/L	0.5	<0.5	<0.5
1,3-DICHLOROBENZENE	524.2	µg/L	0.5	<0.5	<0.5
1,4-DICHLOROBENZENE	524.2	µg/L	0.5	<0.5	<0.5
DICHLORODIFLUOROMETHANE	524.2	µg/L	0.5	<0.5	<0.5
1,1-DICHLOROETHANE	524.2	µg/L	0.5	<0.5	<0.5
1,2-DICHLOROETHANE	524.2	µg/L	0.5	<0.5	<0.5
1,1-DICHLOROETHENE	524.2	µg/L	0.5	6.4	6.1
CIS-1,2-DICHLOROETHENE	524.2	µg/L	0.5	<0.5	<0.5
TRANS-1,2-DICHLOROETHENE	524.2	µg/L	0.5	<0.5	<0.5

APCL Analytical Report

Component Analyzed	Method	Unit	PQL	Analysis Result	
				DUPE-6-1Q03	MW-7
				03-01842-1	03-01842-2
1,2-DICHLOROETHENE (TOTAL)	524.2	µg/L	0.5	< 0.5	< 0.5
1,2-DICHLOROPROPANE	524.2	µg/L	0.5	< 0.5	< 0.5
1,3-DICHLOROPROPANE	524.2	µg/L	0.5	< 0.5	< 0.5
2,2-DICHLOROPROPANE	524.2	µg/L	0.5	< 0.5	< 0.5
1,1-DICHLOROPROPENE	524.2	µg/L	0.5	< 0.5	< 0.5
CIS-1,3-DICHLOROPROPENE	524.2	µg/L	0.5	< 0.5	< 0.5
TRANS-1,3-DICHLOROPROPENE	524.2	µg/L	0.5	< 0.5	< 0.5
ETHYLBENZENE	524.2	µg/L	0.5	< 0.5	< 0.5
HEXACHLOROBUTADIENE	524.2	µg/L	0.5	< 0.5	< 0.5
ISOPROPYLBENZENE (CUMENE)	524.2	µg/L	0.5	< 0.5	< 0.5
P-ISOPROPYLTOLUENE	524.2	µg/L	0.5	< 0.5	< 0.5
METHYLENE CHLORIDE	524.2	µg/L	1.8 ^(b)	< 1.8	< 1.8
METHYL-T-BUTYL ETHER (MTBE)	524.2	µg/L	1	< 1	< 1
4-METHYL-2-PENTANONE (MIBK)	524.2	µg/L	10	< 10	< 10
NAPHTHALENE	524.2	µg/L	0.5	< 0.5	< 0.5
N-PROPYLBENZENE	524.2	µg/L	0.5	< 0.5	< 0.5
STYRENE	524.2	µg/L	0.5	< 0.5	< 0.5
1,1,1,2-TETRACHLOROETHANE	524.2	µg/L	0.5	< 0.5	< 0.5
1,1,2,2-TETRACHLOROETHANE	524.2	µg/L	0.5	< 0.5	< 0.5
TETRACHLOROETHENE	524.2	µg/L	0.5	13.5	11.8
TOLUENE	524.2	µg/L	0.5	< 0.5	< 0.5
1,2,3-TRICHLOROBENZENE	524.2	µg/L	0.5	< 0.5	< 0.5
1,2,4-TRICHLOROBENZENE	524.2	µg/L	0.5	< 0.5	< 0.5
1,1,1-TRICHLOROETHANE	524.2	µg/L	0.5	< 0.5	< 0.5
1,1,2-TRICHLOROETHANE	524.2	µg/L	0.5	< 0.5	< 0.5
TRICHLOROETHENE	524.2	µg/L	0.5	4.8	4.4
TRICHLOROFLUOROMETHANE	524.2	µg/L	0.5	< 0.5	< 0.5
1,2,3-TRICHLOROPROPANE	524.2	µg/L	0.5	< 0.5	< 0.5
1,1,2,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	524.2	µg/L	0.5	4.2	4.2
1,2,4-TRIMETHYLBENZENE	524.2	µg/L	0.5	< 0.5	< 0.5
1,3,5-TRIMETHYLBENZENE	524.2	µg/L	0.5	< 0.5	< 0.5
VINYL CHLORIDE	524.2	µg/L	0.5	< 0.5	< 0.5
O-XYLENE	524.2	µg/L	0.5	< 0.5	< 0.5
M/P-XYLENE	524.2	µg/L	0.5	< 0.5	< 0.5

APCL Analytical Report

Component Analyzed	Method	Unit	PQL	Analysis Result		
				MW-8 03-01842-3	MW-16 03-01842-4	TB-13-2/24/03 03-01842-5
CHROMIUM (VI)	7196	mg/L	0.01	< 0.01	0.020	-
Dilution Factor				1	1	1
PERCHLORATE	314.0	µg/L	4	45.0	97.2	-
VOLATILE ORGANIC COMPOUNDS						
Dilution Factor				1	1	1
BENZENE	524.2	µg/L	0.5	< 0.5	< 0.5	< 0.5
BROMOBENZENE	524.2	µg/L	0.5	< 0.5	< 0.5	< 0.5
BROMOCHLOROMETHANE	524.2	µg/L	0.5	< 0.5	< 0.5	< 0.5
BROMODICHLOROMETHANE	524.2	µg/L	0.5	< 0.5	< 0.5	< 0.5
BROMOFORM	524.2	µg/L	0.5	< 0.5	< 0.5	< 0.5
BROMOMETHANE	524.2	µg/L	0.5	< 0.5	< 0.5	< 0.5
2-BUTANONE	524.2	µg/L	10	< 10	< 10	< 10
N-BUTYLBENZENE	524.2	µg/L	0.5	< 0.5	< 0.5	< 0.5
SEC-BUTYLBENZENE	524.2	µg/L	0.5	< 0.5	< 0.5	< 0.5
TERT-BUTYLBENZENE	524.2	µg/L	0.5	< 0.5	< 0.5	< 0.5
CARBON TETRACHLORIDE	524.2	µg/L	0.5	4.3	1.4	< 0.5
CHLOROBENZENE	524.2	µg/L	0.5	< 0.5	< 0.5	< 0.5
CHLORODIBROMOMETHANE	524.2	µg/L	0.5	< 0.5	< 0.5	< 0.5
CHLOROETHANE	524.2	µg/L	0.5	< 0.5	< 0.5	< 0.5
CHLOROFORM	524.2	µg/L	0.5	1.1	2.3	< 0.5
CHLOROMETHANE	524.2	µg/L	0.5	< 0.5	< 0.5	< 0.5
2-CHLOROTOLUENE	524.2	µg/L	0.5	< 0.5	< 0.5	< 0.5
4-CHLOROTOLUENE	524.2	µg/L	0.5	< 0.5	< 0.5	< 0.5
1,2-DIBROMO-3-CHLOROPROPANE	524.2	µg/L	1.1 ^(b)	< 1.1	< 1.1	< 1.1
1,2-DIBROMOETHANE (EDB)	524.2	µg/L	0.5	< 0.5	< 0.5	< 0.5
DIBROMOMETHANE	524.2	µg/L	0.5	< 0.5	< 0.5	< 0.5
1,2-DICHLOROBENZENE	524.2	µg/L	0.5	< 0.5	< 0.5	< 0.5
1,3-DICHLOROBENZENE	524.2	µg/L	0.5	< 0.5	< 0.5	< 0.5
1,4-DICHLOROBENZENE	524.2	µg/L	0.5	< 0.5	< 0.5	< 0.5
DICHLORODIFLUOROMETHANE	524.2	µg/L	0.5	< 0.5	< 0.5	< 0.5
1,1-DICHLOROETHANE	524.2	µg/L	0.5	< 0.5	< 0.5	< 0.5
1,2-DICHLOROETHANE	524.2	µg/L	0.5	< 0.5	< 0.5	< 0.5
1,1-DICHLOROETHENE	524.2	µg/L	0.5	< 0.5	< 0.5	< 0.5
CIS-1,2-DICHLOROETHENE	524.2	µg/L	0.5	< 0.5	< 0.5	< 0.5
TRANS-1,2-DICHLOROETHENE	524.2	µg/L	0.5	< 0.5	< 0.5	< 0.5
1,2-DICHLOROPROPANE	524.2	µg/L	0.5	< 0.5	< 0.5	< 0.5
1,3-DICHLOROPROPANE	524.2	µg/L	0.5	< 0.5	< 0.5	< 0.5
2,2-DICHLOROPROPANE	524.2	µg/L	0.5	< 0.5	< 0.5	< 0.5
1,1-DICHLOROPROPENE	524.2	µg/L	0.5	< 0.5	< 0.5	< 0.5
CIS-1,3-DICHLOROPROPENE	524.2	µg/L	0.5	< 0.5	< 0.5	< 0.5
TRANS-1,3-DICHLOROPROPENE	524.2	µg/L	0.5	< 0.5	< 0.5	< 0.5

APCL Analytical Report

Component Analyzed	Method	Unit	PQL	Analysis Result		
				MW-8 03-01842-3	MW-16 03-01842-4	TB-13-2/24/03 03-01842-5
ETHYLBENZENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
HEXACHLOROBUTADIENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
ISOPROPYLBENZENE (CUMENE)	524.2	µg/L	0.5	<0.5	<0.5	<0.5
P-ISOPROPYLTOLUENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
METHYLENE CHLORIDE	524.2	µg/L	1.8 ^(b)	<1.8	<1.8	<1.8
METHYL-T-BUTYL ETHER (MTBE)	524.2	µg/L	1	<1	<1	<1
4-METHYL-2-PENTANONE (MIBK)	524.2	µg/L	10	<10	<10	<10
NAPHTHALENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
N-PROPYLBENZENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
STYRENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,1,1,2-TETRACHLOROETHANE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,1,2,2-TETRACHLOROETHANE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
TETRACHLOROETHENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
TOLUENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,2,3-TRICHLOROBENZENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,2,4-TRICHLOROBENZENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,1,1-TRICHLOROETHANE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,1,2-TRICHLOROETHANE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
TRICHLOROETHENE	524.2	µg/L	0.5	2.6	0.4J	<0.5
TRICHLOROFLUOROMETHANE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,2,3-TRICHLOROPROPANE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,1,2,2,3,3,4,4,5,5,6,6,6-TRICHLORO-1,2,2,2,3,3,3,4,4,4,5,5,5-TRIFLUOROETHANE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,2,4-TRIMETHYLBENZENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,3,5-TRIMETHYLBENZENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
VINYL CHLORIDE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
O-XYLENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
M/P-XYLENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5

PQL: Practical Quantitation Limit. MDL: Method Detection Limit. CRDL: Contract Required Detection Limit

N.D.: Not Detected or less than the practical quantitation limit.

"-": Analysis is not required.

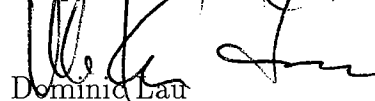
J: Reported between PQL and MDL.

† All results are reported on dry basis for soil samples.

Listed Dilution Factors (DF) are relative to the method default DF. All unlisted DFs are 1.0

^(a) Analyzed with a dilution factor of 2.^(b) MDL reported.

Respectfully submitted,



Dominic Lau

Laboratory Director

Applied P & Ch Laboratory

Level C Data Package Deliverables

General Information

Project: 04-4428.10 JPL

APCL Service ID: 03-1842



Applied P & Ch Laboratory

13760 Magnolia Ave. Chino, CA 91710

Telephone (909)590-1828

Fax (909)590-1498

Case Narrative

Project: JPL/04-4428.10

For GEOFON, Inc.

APCL Service No: 03-1842

1. Sample Identification

The sample identifications are listed in the following table:

GEOFON, Inc. Sample ID	APCL Sample ID
MW-8	03-01842-3
MW-16	03-01842-4
MW-7	03-01842-2
DUPE-6-1Q03	03-01842-1
TB-13-2/24/03	03-01842-5
DUPE-6-1Q03	03-01842-6

2. Analytical Methodology

Samples are analyzed by EPA methods

524.2 (Volatile Organic Compounds),

7196A (Chromium (VI)),

314.0 (Perchlorate, low level),

3. Holding Time

All samples were extracted, digested and analyzed within the holding times defined by the appropriate EPA methods of the analyses.

4. Preservation

All samples were preserved and stored according to the appropriate EPA methods.

5. Tele-log

None

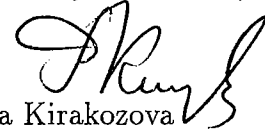
6. Anomaly

(1) 524.2:

Surrogate BFB recovery in the 2 times dilution of the sample DUPE-6-1Q03 was 139%, higher than 70-129% control limits. Same recovery in the analysis with a dilution factor of 2 was within control limits.

"I certify that these data are technically accurate, complete, and in compliance with the terms and conditions of the contract, for other than the conditions detailed above. Release of the data contained in the hardcopy data package and its electronic data deliverable submitted on diskette had been authorized by the Laboratory Manager or her/his designee, as verified by the following signature."

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'R. Kirakozova', written in a cursive style.

Regina Kirakozova
Associate QA/QC Director
Applied P & Ch Laboratory

Applied P & Ch Laboratory

13760 Magnolia Ave., Chino CA 91710

Tel: (909) 590-1828 Fax: (909) 590-1498

Sample Receiving Checklist

APCL ServiceID: **1842**

Client Name/Project: Geolon/JPL

1. Sample Arrival

Date/Time Received 2/24/03 1942 Date/Time Opened 2/24/03 1942 By (name): Kenny Chan
Custody Transfer: ☐ Client ☐ Golden State ☐ UPS ☐ US Mail ☐ FedEx ☒ APCL Empl: Richarda Stinson

2. Chain-of-Custody (CoC)

☒ With Samples? ☐ Faxed? ☐ Client has Copy? ☐ Signed, dated? By: _____
☒ Project ID? ☒ Analyses Clear? ☐ Hold Samples? # on Hold _____ # Received 5
☒ CoC/Docs Zip-Locked under lid? ☐ Compos.#: _____ ☒ #Samples OK? _____
☐ Discrepancies? ☐ Client notified? ☐ Response (attach docs): _____

3. Shipping Container/Cooler

☒ Cooler Used? # of 1 Cooled by: ☒ Ice ☐ Blue Ice ☐ Dry Ice ☐ None
Temp °C 4.3

(Cooler temperature measured from temp blank if present, otherwise measured from the cooler).

Cooler Custody Seal? ☐ Absent ☐ Intact ☐ Tampered?

4. Sample Preservation

☐ pH <2 ☐ pH >12
If Not, pH = _____ Preserved by: ☐ Client ☐ APCL ☐ Third Party _____

5. Holding-time Requirements

☐ pH 24hr ☐ BACT 6/24hr ☒ Cr^{VI} 24hr ☐ NO₃ 48hr ☐ BOD 48hr
☐ Cl₂ ASAP ☐ Turbidity 48hr ☐ DO ASAP ☐ Fe(II) ASAP
☐ HT Expired? ☐ Client notified?

6. Sample Container Condition

☒ Intact? ☐ Broken? ☐ Documented? Number: _____
Type: ☒ plastic ☐ glass ☐ Tube: brass/SS ☐ Tedlar Bag
☒ Quantity OK? ☐ Leaking? ☐ Anomaly?
☒ Caps tight? ☐ Air Bubbles? ☐ Anomaly?
Labels: ☒ Unique ID? ☒ Date/Time ☐ Preserved?

7. Turn Around Time

☐ RUSH TAT: _____ ☒ Std (7-10 days) ☐ Not Marked

8. Sample Matrix

☐ Drinking H₂O ☒ Other Liq ☐ Soil ☐ Wipe ☐ Polymer ☐ Air ☐ Other: _____
☐ Ground H₂O ☐ Sludge ☐ Filter ☐ Oil/Petro ☐ Paint ☐ W. Water ☐ Extract ☐ Unknown

9. Pre-Login Check List Completed & OK?

☒ ALL OK? (if not, attach docs) ☐ Client Contact? (Name: _____) Date/Time: _____

Received/Checked by: Kenny Chan Date: 24 Feb 2003 Time: 7:38 a.m.

*HT: Samples must be analyzed for results to reflect total concentrations. Results generated outside required of holding times are considered minimal values and may be used to define waste as hazardous but not as non-hazardous.

DocumentFile: [usal.textfiles]smprcl.tex.

Applied P & Ch Laboratory

13760 Magnolia Ave. Chino CA 91710

Tel: (909) 590-1828 Fax: (909) 590-1498

Sample Login: Check List

03-01842 (0470_ 117) (2202777_ 117)

02/25/03

Part 1: General Information

☐ Company Information	Name:	<i>GEOFON, Inc.</i>
	Address:	<i>22632 Golden Spring Dr Ste 270 ,Diamond Bar ,CA 91765</i>
☐ Project Information	Project Description:	<i>JPL</i>
	Project #:	<i>04-4428.10</i>
☐ Billing Information	P.O. #:	
	Bill Address:	<i>22632 Golden Spring Dr Ste 270 ,Diamond Bar ,CA 91765</i>
	Lab Project ID:	
	Client Database #:	<i>3</i>
☐ Receiving Information	Who Received Sample?	<i>Kenny Chan</i>
	Receiving Date/Time:	<i>02/24/03 1942</i>
	COC No.	
☐ Shipping Information	Shipping Company	<i>APCL pick up</i>
	Packing Information:	<i>Cooler/Ice Chester</i>
	Cooler Temperature:	<i>4.3 °C</i>
☐ Container Information	Container Provider:	<i>Client</i>
☐ Sampling Information	Sampling Person:	
	Sampling Company:	<i>Client</i>
☐ Turn-Around-Time Option:		<i>Rush 5 working day(s)</i>
☐ QC Option:		<i>NEESA D</i>
☐ Disposal Option:		<i>Not specify</i>

Part 2: Sample Information

Seq. #	Sample ID (on COC)	Sample Sub-ID	APCL Sample ID	Matrix	Cont- tainer	Preser- vative	Vol, ml Am. g	# of Replica	Condition G, L, B	Collected mmddyy	Hold ?	Composite Group	TAT Days	
1	MW-8	VOC	03-01842-3- α	W	V	C	40	3	G	022403	N	0	6	☐
	MW-8	CRVI/Perch	03-01842-3- β	W	P		500	1	G	022403	N	0	6	☐
2	MW-16	VOC	03-01842-4- α	W	V	C	40	6	G	022403	N	0	6	☐
	MW-16	CRVI/Perch	03-01842-4- β	W	P		500	2	G	022403	N	0	6	☐
3	MW-7	VOC	03-01842-2- α	W	V	C	40	3	G	022403	N	0	6	☐
	MW-7	CRVI/Perch	03-01842-2- β	W	P		500	1	G	022403	N	0	6	☐
4	DUPE-6-1Q03	VOC	03-01842-1- α	W	V	C	40	3	G	022403	N	0	6	☐
	DUPE-6-1Q03	CRVI/Perch	03-01842-1- β	W	P		500	1	G	022403	N	0	6	☐
5	TB-13-2/24/03	VOC	03-01842-5	W	V	C	40	2	G	022403	N	0	6	☐

Part 3: Analysis Information

Test Items: ☒ 524.2 Volatile Organic Compounds
☒ 7196A Chromium (VI)
☒ 314.0/300.0 Perchlorate, low level

Seq. #	Client's Sample ID (as given on COC)	Sample Sub-ID	APCL Sample ID	Matrix	524.2	CHROMIUM	PERCH
1	MW-8	VOC	03-01842-3- α	W	X		☐
	MW-8	CRVI/Perch	03-01842-3- β	W		X	☐
2	MW-16	VOC	03-01842-4- α	W	X		☐
	MW-16	CRVI/Perch	03-01842-4- β	W		X	☐
3	MW-7	VOC	03-01842-2- α	W	X		☐
	MW-7	CRVI/Perch	03-01842-2- β	W		X	☐
4	DUPE-6-1Q03	VOC	03-01842-1- α	W	X		☐
	DUPE-6-1Q03	CRVI/Perch	03-01842-1- β	W		X	☐
5	TB-13-2/24/03	VOC	03-01842-5	W	X		☐

☐ Client's Requirement: RUN MS/MSD ON SAMPLE #4 ^{PK} 2/25/03

Login By En-Yu Paul Kou

Check By ^{PK} 2/25/03

Data Filename: C:\HPCHEM\1\DATA\03G1286\G1286M01.D Sample : f=1 \$1402-05
 Method : C:\HPCHEM\1\METHODS\E524G003.M Inst. : GCMS-G
 Acq. Time : Feb 3 11:27 2003 RF via : Multiple Level Calibration
 Method Update: Mon Feb 03 14:08 2003 Operator: Eddie
 Quant. Time : Feb 04 11:10 2003 Multiplr: 1.000000
 Print Time : Tue Feb 04 11:10 2003
 Miscellaneous :

ID	Component Name	R.T.	RT0	DRRT	Q Ion	Q1	RF/1000	C0,ppb	C,ppb	Quality	Note
80	13-di-Cl-Bz	146	15.12	15.11	0.000	146	148	251.275	20.65	20.7	90
82	14-di-Cl-Bz	146	15.18	15.19	0.000	146	148	352.496	19.94	19.9	90
81	sec-butylbenzene		15.04	15.04	0.000	105	134	944.592	22.40	22.4	98
77	4-iso-Pr-toluene		15.21	15.22	0.000	119	134	659.911	21.69	21.7	99
84	12-di-Cl-benzene		15.52	15.52	0.000	146	148	235.279	20.04	20.0	98
85	n-butylbenzene		15.59	15.60	0.000	91	134	653.615	20.50	20.5	99
86	12-diBr-3-Cl-Pra		15.97	15.97	0.000	157	155	16.184	18.81	18.8	91
87	124-tri-Cl-Bz		17.25	17.24	0.000	180	182	169.266	18.36	18.4	97
88	naphthalene		17.49	17.49	0.000	128	129	133.795	19.00	19.0	98
90	123-tri-Cl-Bz		17.68	17.68	0.000	180	182	127.696	19.96	20.0	100
89	hx-Cl-butadiene		17.53	17.52	0.000	225	260	156.257	22.41	22.4	98

#

?

= qualifier out of range, m = manual integration, ? = RT coelution, * = DRRT > 0.06

Quantitation Report

Data File : C:\HPCHEM\1\DATA\03G1286\G1286M01.D

Vial: 17
Operator: Eddie

Acq On : 3 Feb 03 11:27 am

Inst : GCMS-G

Sample : f=1 \$1402-05

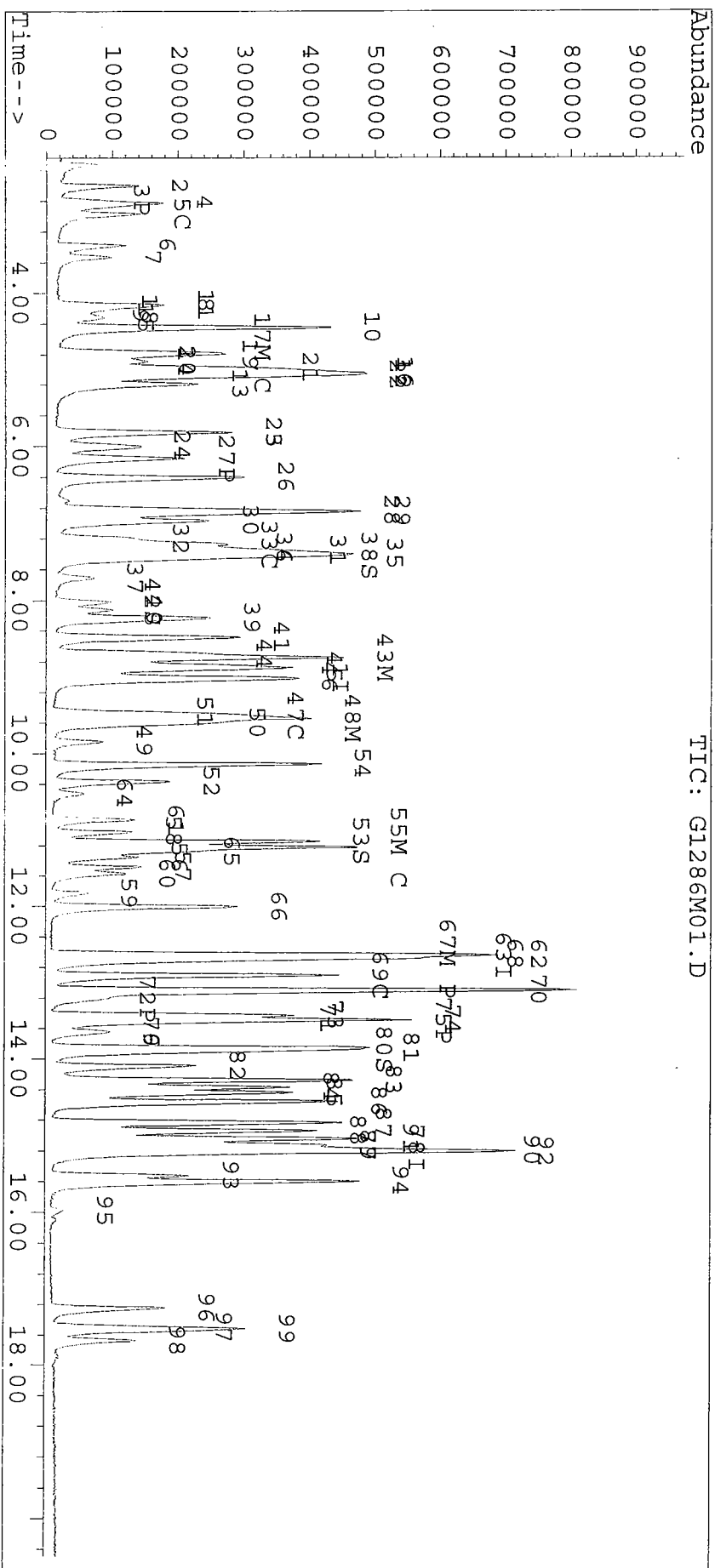
Multiplic: 1.00

Misc :

Quant Results File: quant.res

Quant Time: Feb 4 11:10 2003

Method : C:\HPCHEM\1\METHODS\E524G003.M
Title : **Applied P & Ch Lab** EPA 524.2
Last Update : Mon Feb 03 14:08:00 2003
Response via : Multiple Level Calibration



Data Filename: C:\HPCHEM\1\DATA\03G1286\G1286N01.D
 Method : C:\HPCHEM\1\METHODS\E524G003.M

Sample : f=1 \$1402-05
 Inst. : GCMS-G

Acq. Time : Feb 3 11:55 2003

RF via : Multiple Level Calibration

Method Update: Mon Feb 03 14:08 2003

Operator: Eddie

Quant. Time : Feb 04 11:13 2003

Multiplr: 1.000000

Print Time : Tue Feb 04 11:13 2003

Miscellaneous :

ID	Component Name	R.T.	RT0	DRRT	Qion	Q1	RF/1000	C0,ppb	C,ppb	Quality	Note
Internal Standards											
1	Fluorobenzene I1	9.03	9.03	0.000	96	70	464.737	10.00		0.00	
47	Cl-benzene-d5, I2	12.66	12.66	0.000	82	119	136.301	10.00		0.00	
62	1,4-DCB-d4 150 15	15.16	15.15	0.000	152	150	115.983	10.00		0.00	
System Monitoring Compounds (Surrogate)											
27	Di-Br-F-Methane (	7.44	7.44	0.000	111	113	304.091	18.46		18.5	%Recovery
29	1,2-di-Cl-ethane-	8.03	8.02	0.000	65	102	133.217	17.35		17.3	92.29%
55	toluene-d8(S2)	11.15	11.15	0.000	100	99	438.695	18.90		18.9	86.75%
70	4-Br-1-F-Bz (S3)	13.89	13.90	0.000	174	95	185.630	17.91		17.9	94.49%
											89.56%

Target Compounds	<<< I1 : ISTD ID = 1 >>>									Qvalue	
3	di-Cl-di-F-methan	2.61	2.60	0.002	85	87	246.795	18.62	18.6	100	
4	Chloromethane	2.79	2.78	0.002	50	52	198.148	17.52	17.5	98	
9	F114 85 135	2.84	2.83	0.002	85	135	289.134	19.48	19.5	96	
5	vinyl chloride	2.98	2.96	0.002	62	64	201.117	18.75	18.8	98	
6	bromomethane	3.39	3.37	0.002	94	96	201.477	21.47	21.5	97	
7	Chloroethane	3.54	3.52	0.002	64	66	153.276	19.30	19.3	98	
8	tri-Cl-F-methane	4.16	4.14	0.002	101	103	388.473	21.42	21.4	99	?
111	isopropyl alcoho	4.31	4.27	0.004	45	43	32.038	152.78	152.8	85	#?
100	ethyl ether x5	4.46	4.44	0.002	59	74	563.701	85.10	85.1	99	
102	Acrolein x10	4.18	4.15	0.003	56	55	58.361	110.43	110.4	92	?
119	methyl acetate	5.08	5.06	0.002	43	74	128.490	22.53	22.5	93	?
104	Carbon disulfide	5.20	5.18	0.001	76	78	675.839	17.44	17.4	100	
103	Acrylonitrilex10	4.91	4.89	0.002	53	52	193.065	173.86	173.9	98	
95	Acetone x10	4.33	4.31	0.002	43	58	144.777	181.65	181.6	99	?
108	F-113	5.05	5.02	0.003	151	101	301.326	21.63	21.6	100	?
13	11-dichloroethene	4.78	4.76	0.002	61	96	348.166	19.11	19.1	98	
101	Acetonitrilex10	4.23	4.20	0.004	41	40	60.220	202.54	202.5	69	#
109	Iodomethane	4.81	4.80	0.001	142	127	334.636	22.71	22.7	100	
113	Tert butyl alcoh	4.88	4.86	0.001	59	57	71.858	178.77	178.8	98	

= qualifier out of range, m = manual integration, ? = RT coelution, * = DRRT > 0.06

Data Filename: C:\HPCHEM\1\DATA\03G1286\G1286N01.D Sample : f=1 \$1402-05
 Method : C:\HPCHEM\1\METHODS\E524G003.M Inst. : GCMS-G
 Acq. Time : Feb 3 11:55 2003 RF via : Multiple Level Calibration
 Method Update: Mon Feb 03 14:08 2003 Operator: Eddie
 Quant. Time : Feb 04 11:13 2003 Multiplr: 1.000000
 Print Time : Tue Feb 04 11:13 2003
 Miscellaneous :

ID	Component Name	R.T.	RT0	DRRT	Qion	Q1	RF/1000	C0,ppb	C,ppb	Quality	Note
18	18 methylene chlorid	4.98	4.97	0.001	84	49	253.727	13.19	13.2	100	
112	Allyl chloride	5.09	5.07	0.002	41	76	386.885	19.20	19.2	97	?
200	200 Nitro methane x1	5.83	5.82	0.001	61	46	387.276	191.00	191.0	98	?
10	10 t-Bu-Me-ether	6.01	6.00	0.001	73	57	344.904	17.54	17.5	97	
19	19 t-12-di-Cl-ethene	5.82	5.82	0.000	96	61	258.764	18.53	18.5	96	?
98	98 Vinyl acetate x5	6.41	6.41	0.000	43	86	750.851	59.74	59.7	99	
21	21 11-dichloroethane	6.17	6.15	0.002	63	83	471.507	19.33	19.3	98	
91	91 2-butanone MEKx10	6.84	6.83	0.001	43	72	685.537	157.29	157.3	100	?
115	115 Di isoprop ether	6.86	6.85	0.001	45	87	1098.487	17.84	17.8	100	?
22	22 c-12-di-Cl-ethene	6.98	6.97	0.001	96	61	247.662	18.12	18.1	99	
23	23 22-Dichloropropan	7.36	7.35	0.001	77	97	374.393	17.79	17.8	100	
24	24 Br-Cl-methane	7.19	7.18	0.001	128	130	86.422	17.62	17.6	98	
25	25 chloroform	7.27	7.27	0.000	83	85	421.269	17.26	17.3	99	
201	201 Ethyl acetate x2	7.31	7.31	0.000	43	61	192.162	30.93	30.9	98	?
116	116 ETBE	7.41	7.40	0.001	59	87	630.578	16.82	16.8	99	
117	117 Iso-butyl alcoho	7.31	7.31	0.000	43	42	192.162	154.55	154.5	86	#?
26	26 tetrahydrofuranx5	7.72	7.71	0.002	72	42	38.553	80.95	80.9	90	
34	34 111-tri-Cl-ethane	8.23	8.23	0.000	97	99	363.494	17.88	17.9	100	
30	30 12-dichloroethane	8.13	8.13	0.000	62	64	167.673	17.63	17.6	98	
35	35 11-Di-Cl-propene	8.49	8.48	0.000	75	110	322.411	18.15	18.2	99	
36	36 benzene	8.75	8.75	0.000	78	52	766.085	18.97	19.0	99	
37	37 CCl4	8.69	8.68	0.000	117	119	305.017	19.61	19.6	100	
97	97 thiophene	8.89	8.89	0.000	84	58	364.632	18.16	18.2	96	
118	118 TAME	9.00	9.00	0.000	73	43	426.425	16.52	16.5	99	
39	39 12-di-Cl-propane	9.49	9.49	0.000	63	76	214.986	18.19	18.2	99	
40	40 trichloroethene	9.55	9.54	0.000	130	132	233.987	18.70	18.7	99	
96	96 Me-methacrylate	9.84	9.85	-0.001	69	100	72.263	17.63	17.6	98	
42	42 Br-di-Cl-methane	9.61	9.61	0.000	83	85	276.035	16.75	16.7	97	
41	41 dibromomethane	9.45	9.45	0.000	174	172	103.877	18.22	18.2	99	
45	45 c-13-di-Cl-propen	10.37	10.37	0.000	75	110	250.832	17.26	17.3	99	
92	92 2-ClEt-Vi-ether10	10.14	10.15	0.000	63	43	396.673	159.15	159.1	98	
56	56 toluene	11.23	11.23	0.000	91	92	676.839	17.83	17.8	99	

= qualifier out of range, m = manual integration, ? = RT coelution, * = DRRT > 0.06

Data Filename: C:\HPCHEM\1\DATA\03G1286\G1286N01.D
 Method : C:\HPCHEM\1\METHODS\E524G003.M

Sample : f=1 \$1402-05
 Inst. : GCMS-G

Acq. Time : Feb 3 11:55 2003
 Method Update: Mon Feb 03 14:08 2003
 Quant. Time : Feb 04 11:13 2003
 Print Time : Tue Feb 04 11:13 2003
 Miscellaneous :

RF via : Multiple Level Calibration
 Operator: Eddie
 Multiplier: 1.000000

ID	Component Name	R.T.	RT0	DRRT	Qion	Q1	RF/1000	C0,ppb	C,ppb	Quality	Note
107	Et methacrylate	11.37	11.36	0.000	69	99	106.149	13.51	13.5	100	
93	2-Hexanone x5	11.49	11.48	0.001	43	58	220.306	83.45	83.5	97	
48	112-tri-Cl-Et	11.03	11.03	0.000	97	83	95.112	17.09	17.1	97	
58	1,2-di-br-ethane	11.83	11.82	0.001	107	109	101.752	17.12	17.1	95	
51	di-Br-Cl-methane	11.57	11.57	0.000	129	127	137.230	18.34	18.3	100	
46	t-13-di-Cl-propen	10.87	10.87	0.000	75	110	170.424	18.19	18.2	98	
105	1-Chlorohexane	12.63	12.64	0.000	55	93	226.484	19.57	19.6	97	?
<<< 12 : ISTD ID = 47 >>>											
54	MIBK	10.53	10.52	0.001	43	58	81.869	19.07	19.1	99	
49	1,3-di-Cl-propane	11.29	11.29	0.000	76	78	167.290	18.77	18.8	98	
59	tetra-Cl-ethene	12.00	12.00	0.000	166	168	234.009	19.51	19.5	100	
60	chlorobenzene	12.70	12.70	0.000	112	77	395.013	19.83	19.8	99	
61	1112-tetra-Cl-Et	12.63	12.62	0.000	131	133	160.912	20.17	20.2	99	?
64	ethylbenzene	12.90	12.90	0.000	91	106	732.214	19.08	19.1	99	
65	m/p-Xylenes x2	13.10	13.10	0.000	91	106	1130.616	38.75	38.8	97	
99	1-4-di-Cl-butane	13.45	13.46	0.000	55	41	158.779	18.06	18.1	98	
52	bromoform	13.22	13.22	0.000	173	175	78.043	19.21	19.2	98	
66	styrene	13.42	13.43	0.000	104	78	412.907	20.04	20.0	100	
67	o-xylene	13.49	13.50	0.000	91	106	553.408	19.28	19.3	99	?
68	1122-Tetra-Cl-Et	13.51	13.51	0.000	83	85	93.028	17.65	17.6	98	?
110	t-1,4-dichloro-2	13.67	13.67	0.000	89	53	16.587	19.38	19.4	80	#
106	Cl-benzyl	15.12	15.12	0.000	91	126	139.699	21.18	21.2	97	?
<<< 13 : ISTD ID = 62 >>>											
69	123-tri-Cl-Pr	13.63	13.64	-0.001	110	97	23.811	16.86	16.9	93	
71	isopropylbenzene	13.85	13.86	0.000	105	120	741.988	19.47	19.5	100	
72	bromobenzene	14.09	14.10	0.000	156	158	159.331	19.04	19.0	98	
73	n-propylbenzene	14.28	14.29	0.000	120	78	196.867	19.16	19.2	100	
74	2-Cl-Tl	14.38	14.37	0.000	126	128	121.256	17.76	17.8	93	
75	4-Cl-Tl	14.44	14.45	0.000	126	128	167.368	17.94	17.9	100	
76	135-tri-Me-Bz	14.56	14.57	0.000	105	120	589.108	19.14	19.1	98	
79	tert-butylbenzene	14.83	14.84	0.000	119	91	623.644	19.74	19.7	96	
78	124-tri-Me-Bz	14.94	14.94	0.000	105	120	520.459	19.89	19.9	98	

= qualifier out of range, m = manual integration, ? = RT coelution, * = DRRT > 0.06

Data Filename: C:\HPCHEM\1\DATA\03G1286\G1286N01.D Sample : f=1 \$1402-05
 Method : C:\HPCHEM\1\METHODS\E524G003.M Inst. : GCMS-G
 Acq. Time : Feb 3 11:55 2003 RF via : Multiple Level Calibration
 Method Update: Mon Feb 03 14:08 2003 Operator: Eddie
 Quant. Time : Feb 04 11:13 2003 Multiplr: 1.000000
 Print Time : Tue Feb 04 11:13 2003
 Miscellaneous :

ID	Component Name	R.T.	RT0	DRRT	QIon	QI	RF/1000	C0,ppb	C,ppb	Quality	Note
80	13-di-Cl-Bz	146	15.12	15.11	0.000	146	148	233.623	17.53	17.5	91
82	14-di-Cl-Bz	146	15.18	15.19	0.000	146	148	354.379	18.30	18.3	92
81	sec-butylbenzene		15.04	15.04	0.000	105	134	892.672	19.32	19.3	99
77	4-iso-Pr-toluene		15.21	15.22	0.000	119	134	659.067	19.77	19.8	99
84	12-di-Cl-benzene		15.52	15.52	0.000	146	148	244.661	19.02	19.0	98
85	n-butylbenzene		15.60	15.60	0.000	91	134	641.459	18.36	18.4	100
86	12-diBr-3-Cl-Pra		15.97	15.97	0.000	157	155	16.190	17.18	17.2	88
87	124-tri-Cl-Bz		17.24	17.24	0.000	180	182	170.142	16.90	16.9	99
88	naphthalene		17.48	17.49	0.000	128	129	125.715	16.30	16.3	100
90	123-tri-Cl-Bz		17.67	17.68	-0.001	180	182	124.518	17.77	17.8	100
89	hx-Cl-butadiene		17.51	17.52	0.000	225	260	150.650	19.70	19.7	98

= qualifier out of range, m = manual integration, ? = RT coelution, * = DRRT > 0.06

Quantitation Report

Data File : C:\HPCHEM\1\DATA\03G1286\G1286N01.D

Vial: 18

Acq On : 3 Feb 03 11:55 am

Operator: Eddie

Sample : F=1 \$1402-05

Inst : GCMS-G

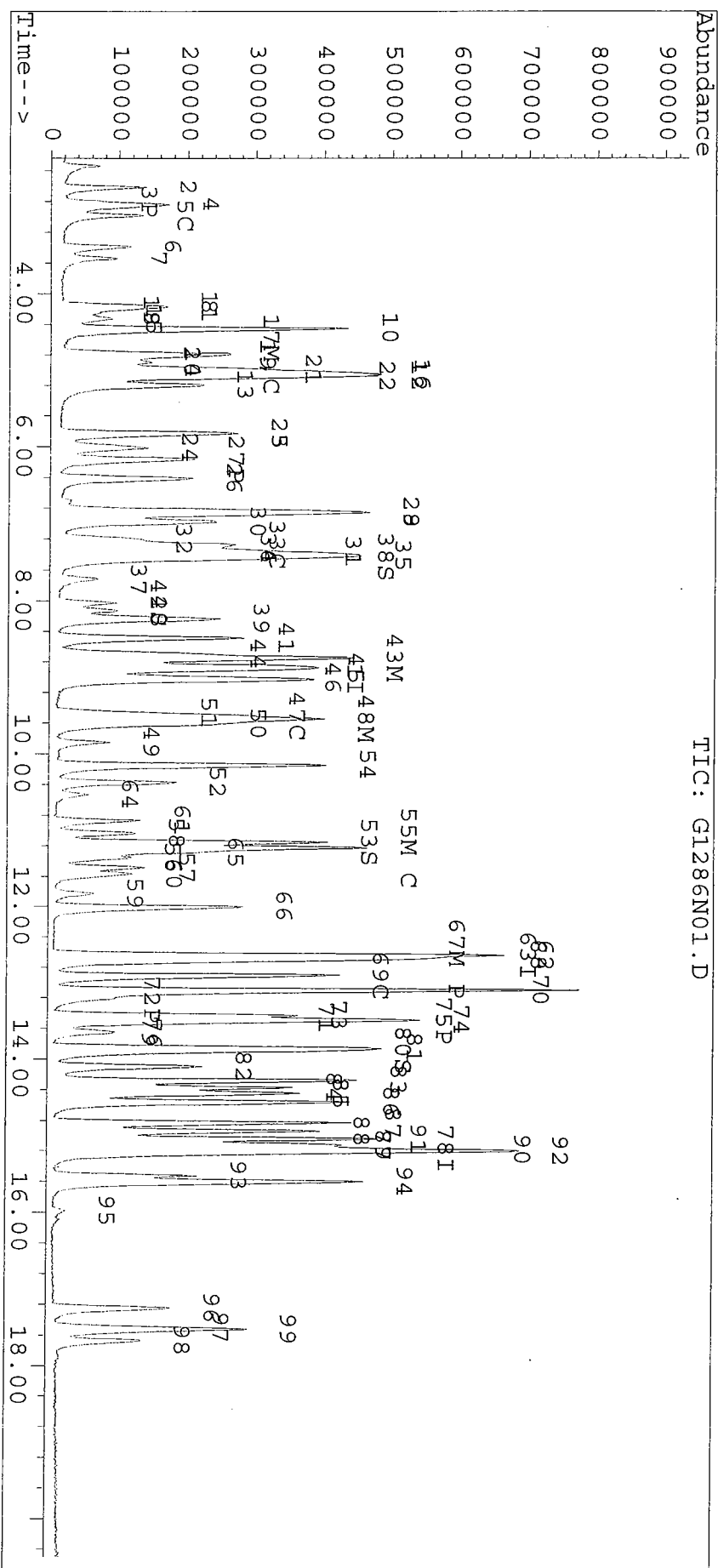
Misc :

Multiplr: 1.00

Quant Time: Feb 4 11:13 2003

Quant Results File: quant.res

Method : C:\HPCHEM\1\METHODS\E524G003.M
 Title : **Applied P & Ch Lab** EPA 524.2
 Last Update : Mon Feb 03 14:08:00 2003
 Response via : Multiple Level Calibration



FORM-4A

Applied P & Ch Laboratory

Method Blank Summary for Method 524.2

Client Name: GEOFON, Inc.

Contract No:

Lab Code: APCL

Case No:

SAS No:

Service ID: 31402

Project ID: JPL

Project No: 04-4428.10

Analysis Date: 02/03/03

Sample Matrix: Water

Analysis Time: 13:21

Sample ID: 03G1286-MB-01

Batch No: 03G1286

Instrument ID: GC/MS: G

Lab Sample ID: 03G1286-MB-01

Data File Name: G1286K02

GC Column: DB-VEX

Heated Purge: (Y/N) N

Column ID: 0.45 mm

This Method Blank applies to the following samples and QC samples:

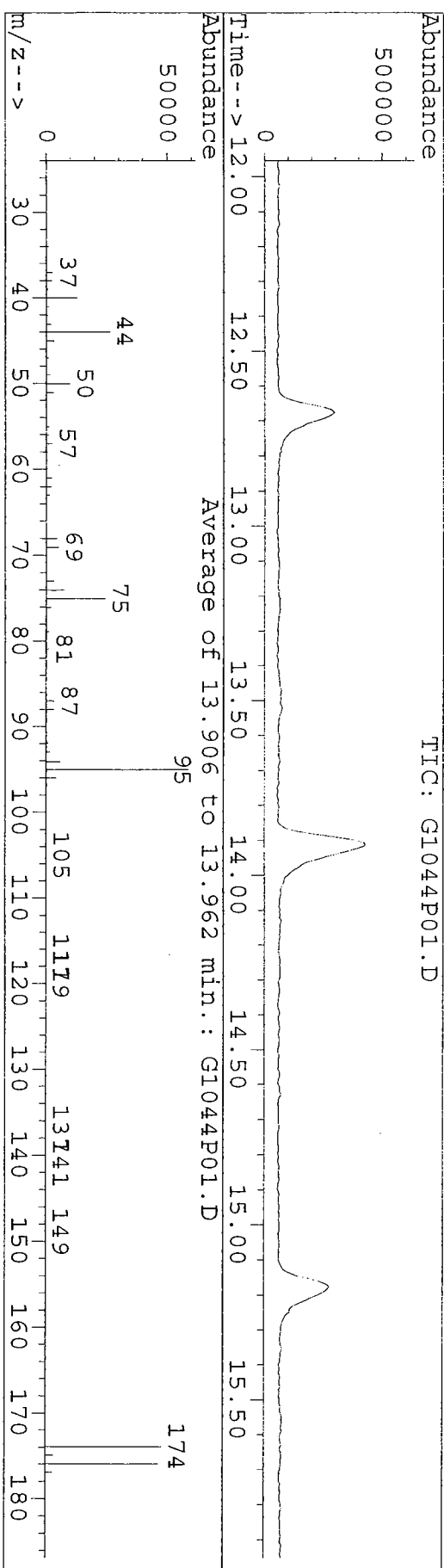
#	Client Sample No	Lab Sample ID	Sample Type	Data Filename	Analysis Date	Analysis Time
1	03G1286-LCS-01	03G1286-LCS-01	Lab Control Spike	G1286L01	02/03/03	10:58
2	MW-20-3MS	03-1402-5MS	Matrix Spike	G1286M01	02/03/03	11:27
3	MW-20-3MSD	03-1402-5MSD	Matrix Spike Duplicate	G1286N01	02/03/03	11:55
4	DUPE-1-1Q03	03-1402-1	Field Sample	1402-01	02/03/03	17:50
5	EB-2-1/30/03	03-1402-2	Field Sample	1402-02	02/03/03	18:19
6	MW-20-1	03-1402-3	Field Sample	1402-03	02/03/03	18:48
7	MW-20-2	03-1402-4	Field Sample	1402-04	02/03/03	19:16
8	MW-20-3	03-1402-5	Field Sample	1402-05	02/03/03	19:45
9	MW-20-4	03-1402-6	Field Sample	1402-06	02/03/03	20:15
10	MW-20-5	03-1402-7	Field Sample	1402-07	02/03/03	20:43
11	TB-2-1/30/03	03-1402-8	Field Sample	1402-08	02/03/03	21:11
12						
13						
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15						
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20						
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22						
23						
24						
25						

Data File : C:\HPCHEM\1\DATA\03G1044\G1044P01.D

Acq On : 10 Jan 03 1:51 pm

Sample : ##03G1044, w

Misc :

Vial: 16
Operator: Eddie
Inst : GCMS-G
Multiplr: 1.00Method : C:\HPCHEM\1\METHODS\E524G003.M
Title : **Applied P &h Lab** EPA 524.2

Peak Apex is scan: 1479

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result
50	95	15	40	16.9	9968	PASS
75	95	30	60	41.9	24658	PASS
95	95	100	100	100.0	58860	PASS
96	95	5	9	7.2	4263	PASS
173	174	0	2	0.0	0	PASS
174	95	50	100	82.4	48487	PASS
175	174	5	9	7.2	3468	PASS
176	174	95	101	96.8	46953	PASS
177	176	5	9	6.3	2949	PASS

5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name : APPLIED P & CH LAB Contract: _____
 Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 03-1402
 Lab File ID: G1044 P01 BFB Injection Date: 01/10/2003
 Instrument ID: GCMS-G BFB Injection Time: 1351
 GC Column: VOCOL ID: 0.32 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	16.9
75	30.0 - 60.0% of mass 95	41.9
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.2
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	50.0 - 100.0% of mass 95	82.4
175	5.0 - 9.0% of mass 174	5.9 (7.2)1
176	95.0 - 101.0% of mass 174	79.8 (96.8)1
177	5.0 - 9.0% of mass 176	5.0 (6.3)2

1-Value is % mass 174

2-Value is % mass 176

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD0003	003-A0003	003-A0003.D	01/10/03	1427
02	VSTD002	003-002	003-0002.D	01/10/03	1526
03	VSTD010	003-0010	003-0010.D	01/10/03	1555
04	VSTD020	003-0020	003-0020.D	01/10/03	1624
05	VSTD040	003-0040	003-0040.D	01/10/03	1654
06	VSTD080	003-0080	003-0080.D	01/10/03	1723
07					
08					
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21					
22					

Method : C:\HPCHEM\1\METHODS\E524G003.M
 Title : **Applied P &Ch Lab** EPA 524.2
 Last Update : Mon Jan 13 09:57:17 2003
 Response via : Initial Calibration

Calibration Files
 0.3 =3-0003.D 2 =3-002.D 10 =3-010.D
 20 =3-020.D 40 =3-040.D 80 =3-080.D

Compound	0.3	2	10	20	40	80	Avg	%RSD
1) I								
2) 3 di-Cl-di-F-metha	0.401	0.288	0.312	0.289	0.285	0.276	0.308	15.17
3) P 4 Chloromethane		0.201	0.216	0.253	0.278	0.269	0.243	13.88
4) 9 F114 85 135	0.350	0.300	0.334	0.313	0.315	0.304	0.319	5.93
5) C 5 vinyl chloride	0.217	0.232	0.243	0.233	0.237	0.223	0.231	3.96
6) 6 bromomethane	0.255	0.283	0.240	0.190	0.198	0.198	0.227	16.60
7) 7 Chloroethane	0.158	0.177	0.177	0.169	0.175	0.169	0.171	4.25
8) 8 tri-Cl-F-methane	0.318	0.367	0.432	0.414	0.413	0.398	0.390	10.70
9) 111 isopropyl alcoh		0.005	0.005	0.004	0.005	0.004	0.005	12.57
10) 100 ethyl ether x5	0.177	0.141	0.135	0.133	0.137	0.133	0.143	12.11
11) 102 Acrolein x10		0.010	0.010	0.015	0.012	0.011	0.011	17.19
12) 119 methyl acetate	0.177	0.103	0.110	0.126		0.124	0.128	22.73
13) 104 Carbon disulfid	0.919	0.866	0.830	0.793	0.817	0.777	0.834	6.25
14) 103 Acrylonitrilex1		0.024	0.024	0.024	0.024	0.024	0.024	1.28
15) 95 Acetone x10		0.027	0.017	0.018	0.016	0.016	0.019	25.00
16) 108 F-113	0.232	0.267	0.343	0.325	0.321	0.311	0.300	13.95
17) M,C 13 11-dichloroethen	0.376	0.399	0.409	0.389	0.398	0.381	0.392	3.13
18) 101 Acetonitrilex1	0.009	0.001	0.007	0.007	0.007	0.006	0.006	44.01
19) 109 Iodomethane	0.170	0.363	0.385	0.320	0.331	0.296	0.311	24.45
20) 113 Tert butyl alco		0.012	0.008	0.009	0.008	0.009	0.009	17.38
21) 18 methylene chlori	1.220	0.724	0.498	0.407	0.365		0.643	54.62
22) 112 Allyl chloride	0.514	0.479	0.422	0.416	0.405	0.365	0.434	12.39
23) 200 Nitro methane x	0.044	0.044	0.044	0.043	0.044	0.042	0.044	1.92
24) 10 t-Bu-Me-ether	0.842	0.479	0.398	0.418	0.420	0.429	0.498	34.33
25) 19 t-12-di-Cl-ethen	0.324	0.294	0.299	0.296	0.301	0.289	0.301	4.05
26) 98 Vinyl acetate x5	0.312	0.304	0.286	0.157	0.315	0.248	0.270	22.48
27) P 21 11-dichloroethan	0.500	0.546	0.535	0.527	0.534	0.507	0.525	3.36
28) 91 2-butanone MEKx1	0.104	0.095	0.090	0.088	0.094	0.092	0.094	6.20

(#) = Out of Range
 F524G003.M

Mon Jan 13 09:57:29 2003

Method : C:\HPCHEM\1\METHODS\E524G003.M
 Title : **Applied P &Ch Lab** EPA 524.2
 Last Update : Mon Jan 13 09:57:17 2003
 Response via : Initial Calibration

Calibration Files
 0.3 =3-0003.D 2 =3-002.D 10 =3-010.D
 20 =3-020.D 40 =3-040.D 80 =3-080.D

Compound	0.3	2	10	20	40	80	Avg	%RSD
29) 115 Di isoprop ethe	0.108	1.340	1.315	1.320	1.351	1.317	1.125	44.32
30) 22 c-12-di-Cl-ethen	0.299	0.300	0.291	0.291	0.297	0.287	0.294	1.83
31) 23 22-Dichloropropa	0.573	0.467	0.437	0.419	0.418	0.403	0.453	13.83
32) 24 Br-Cl-methane	0.042	0.099	0.104	0.104	0.108	0.105	0.094	27.43
33) C 25 chloroform	0.648	0.531	0.493	0.488	0.504	0.487	0.525	11.86
34) 201 Ethyl acetate x	0.144	0.137	0.100	0.151	0.136	0.134	0.134	14.75
35) 116 ETBE	0.910	0.810	0.787	0.780	0.785	0.769	0.807	6.50
36) 117 Iso-butyl alcoh	0.024	0.029	0.029	0.020	0.031	0.027	0.027#	14.60
37) 26 tetrahydrofuranx	0.011	0.010	0.010	0.010	0.010	0.010	0.010#	4.18
38) S 27 Di-Br-F-Methane	0.604	0.385	0.352	0.350	0.360	0.349	0.400	25.18
39) 34 111-tri-Cl-ethan	0.542	0.428	0.418	0.409	0.414	0.413	0.437	11.85
40) 30 12-dichloroethan	0.024	0.205	0.204	0.201	0.208	0.205	0.175	42.30
41) 35 11-Di-Cl-propene	0.413	0.378	0.379	0.371	0.378	0.373	0.382	4.04
42) S 29 1,2-di-Cl-ethane	0.173	0.165	0.164	0.164	0.165	0.159	0.165	3.14
43) M 36 benzene	0.854	0.901	0.876	0.863	0.883	0.837	0.869	2.63
44) 37 CC14	0.341	0.311	0.354	0.334	0.340	0.329	0.335	4.32
45) 97 thiophene	0.441	0.456	0.429	0.421	0.430	0.415	0.432	3.39
46) 118 TAME	0.635	0.539	0.536	0.527	0.527	0.541	0.556	8.06
47) C 39 12-di-Cl-propane	0.255	0.253	0.252	0.254	0.257	0.253	0.254	0.66
48) M 40 trichloroethene	0.253	0.267	0.275	0.273	0.279	0.269	0.269	3.39
49) 96 Me-methacrylate	0.128	0.086	0.083	0.087	0.092	0.092	0.095	19.43
50) 42 Br-di-Cl-methane	0.441	0.364	0.340	0.327	0.331	0.324	0.355	12.65
51) 41 dibromomethane	0.100	0.117	0.128	0.132	0.133	0.127	0.123	10.29
52) 45 c-13-di-Cl-prope	0.341	0.316	0.303	0.301	0.309	0.307	0.313	4.71
53) S 55 toluene-d8 (S2)	0.509	0.500	0.491	0.504	0.504	0.493	0.500	1.57
54) 92 2-ClEt-Vi-ether1	0.045	0.052	0.054	0.055	0.057	0.057	0.054	8.68
55) M C 56 toluene	0.926	0.820	0.796	0.777	0.794	0.786	0.817	6.80
56) 107 Et methacrylate	0.232	0.176	0.112	0.112	0.178	0.147	0.169	26.25
57) 93 2-Hexanone x5	0.062	0.058	0.050	0.050	0.058	0.057	0.057	7.78

(#) = Out of Range
 R524G003.M Mon Jan 13 09:57:32 2003

Method : C:\HPCHEM\1\METHODS\E524G003.M
 Title : **Applied P &Ch Lab** EPA 524.2
 Last Update : Mon Jan 13 09:57:17 2003
 Response via : Initial Calibration

Calibration Files
 0.3 =3-0003.D 2 =3-002.D 10 =3-010.D
 20 =3-020.D 40 =3-040.D 80 =3-080.D

Compound	0.3	2	10	20	40	80	Avg	%RSD
58) 48 112-tri-Cl-Et	0.226	0.143	0.120	0.116	0.121	0.118	0.141	30.67
59) 58 1,2-di-br-ethane	0.050	0.125	0.124	0.129	0.129	0.128	0.114	27.70
60) 51 di-Br-Cl-methane	0.117	0.177	0.166	0.165	0.170	0.172	0.161	13.59
61) 46 t-13-di-Cl-prope	0.200	0.197	0.206	0.204	0.206	0.197	0.202	2.11
62) 105 1-Chlorohexane	0.564	0.285	0.272	0.253	0.249	0.237	0.310	40.49
63) I 47 Cl-benzene-d5, I2	-----ISTD-----							
64) 54 MIBK	0.207	0.298	0.328	0.319	0.325	0.304	0.297	15.38
65) 49 1,3-di-Cl-propan	0.624	0.665	0.699	0.690	0.647	0.598	0.654	5.95
66) 59 tetra-Cl-ethene	0.767	0.892	0.960	0.927	0.884	0.850	0.880	7.60
67) M P 60 chlorobenzene	1.465	1.556	1.560	1.485	1.424	1.278	1.461	7.13
68) 61 1112-tetra-Cl-Et	0.473	0.619	0.613	0.631	0.602	0.573	0.585	9.96
69) C 64 ethylbenzene	3.150	3.064	2.822	2.754	2.619	2.485	2.816	9.06
70) 65 m/p-Xylenes x2	2.309	2.321	2.213	2.124	2.010	1.868	2.141	8.30
71) 99 1-4-di-Cl-butane	0.809	0.710	0.649	0.615	0.570	0.518	0.645	16.06
72) P 52 bromoform	0.118	0.305	0.317	0.319	0.302	0.282	0.274	28.23
73) 66 styrene	1.595	1.641	1.561	1.507	1.441	1.326	1.512	7.58
74) 67 o-xylene	2.457	2.410	2.147	2.035	1.889	1.700	2.106	13.98
75) P 68 1122-Tetra-Cl-Et	0.391	0.469	0.403	0.385	0.349	0.323	0.387	12.94
76) 110 t-1,4-dichloro-	0.153	0.078	0.060	0.060	0.058	0.053	0.081	51.75
77) 106 Cl-benzyl	0.890	0.534	0.539	0.531	0.489	0.448	0.572	27.91
78) I 62 1,4-DCB-d4 150 152	-----ISTD-----							
79) 69 123-tri-Cl-Pr	0.112	0.116	0.123	0.127	0.131	0.122	6.42	
80) S 70 4-Br-1-F-Bz (S3)	0.935	0.877	0.886	0.890	0.880	0.893	2.69	
81) 71 isopropylbenzene	2.780	3.439	3.399	3.298	3.366	3.435	3.286	7.71
82) 72 bromobenzene	0.527	0.700	0.760	0.772	0.787	0.782	0.721	13.87
83) 73 n-propylbenzene	0.727	0.924	0.921	0.910	0.914	0.920	0.886	8.83
84) 74 2-Cl-Tl	126	0.646	0.602	0.566	0.545	0.606	0.589	6.23

1.000

0.449

0.449

0.449

0.449

(#) = Out of Range

7524G003.M

Mon Jan 13 09:57:34 2003

Method : C:\HPCHEM\1\METHODS\E524G003.M
 Title : **Applied P & Ch Lab** EPA 524.2
 Last Update : Mon Jan 13 09:57:17 2003
 Response via : Initial Calibration

Calibration Files
 0.3 =3-0003.D 2 =3-002.D 10 =3-010.D
 20 =3-020.D 40 =3-040.D 80 =3-080.D

Compound	0.3	2	10	20	40	80	Avg	%RSD
85) 75 4-Cl-Tl 126	0.683	0.834	0.866	0.784	0.843	0.816	0.804	8.13
86) 76 135-tri-Me-Bz	2.482	2.722	2.700	2.625	2.675	2.716	2.653	3.43
87) 79 tert-butylbenzen	2.218	2.871	2.824	2.765	2.829	2.837	2.724	9.19
88) 78 124-tri-Me-Bz	1.891	2.455	2.250	2.296	2.326	2.317	2.256	8.48
89) 80 13-di-Cl-Bz 146	0.934	1.158	1.264	1.084	1.198	1.258	1.149	10.87
90) 82 14-di-Cl-Bz 146	1.527	1.764	1.616	1.744	1.694	1.675	1.670	5.24
91) 81 sec-butylbenzene	3.330	4.148	4.224	3.968	4.057	4.172	3.983	8.35
92) 77 4-iso-Pr-toluene	2.419	3.039	3.032	2.939	2.928	2.886	2.874	8.04
93) 84 12-di-Cl-benzene	0.920	1.150	1.163	1.111	1.152	1.156	1.109	8.49
94) 85 n-butylbenzene	3.034	2.990	3.069	2.970	2.978	3.028	3.012	1.28
95) 86 12-diBr-3-Cl-Pra	0.063	0.077	0.085	0.089	0.091	0.091	0.081	13.95
96) 87 124-tri-Cl-Bz	0.534	0.749	0.838	0.873	0.858	0.901	0.792	17.24
97) 88 naphthalene	0.804	0.553	0.616	0.666	0.652	0.700	0.665	12.68
98) 90 123-tri-Cl-Bz	0.497	0.559	0.642	0.649	0.636	0.642	0.604	10.29
99) 89 hx-Cl-butadiene	0.432	0.625	0.690	0.663	0.662	0.652	0.621	15.29

0.449

1.577

(#) = Out of Range
 7524G003.M

Mon Jan 13 09:57:36 2003

INITIAL CALIBRATION SUMMARY

Method File E524G003
Last Calibration Update Mon Jan 13 09:57:17 2003

<u>Level 1 File Name</u>	3-0003.D	<u>Level 1 ID</u>	0.3
<u>Level 2 File Name</u>	3-002.D	<u>Level 2 ID</u>	2
<u>Level 3 File Name</u>	3-010.D	<u>Level 3 ID</u>	10
<u>Level 4 File Name</u>	3-020.D	<u>Level 4 ID</u>	20
<u>Level 5 File Name</u>	3-040.D	<u>Level 5 ID</u>	40
<u>Level 6 File Name</u>	3-080.D	<u>Level 6 ID</u>	80
<u>Level 7 File Name</u>	3-020.D	<u>Level 7 ID</u>	cc

<u>Compound</u>	<u>Level 1</u>	<u>Level 2</u>	<u>Level 3</u>	<u>Level 4</u>	<u>Level 5</u>	<u>Level 6</u>	<u>Level 7</u>	<u>Coeff</u>	<u>Coeff</u>	<u>Coeff</u>	<u>R²/</u>
<u>Name</u>	<u>Response</u>	<u>Response</u>	<u>Response</u>	<u>Response</u>	<u>Response</u>	<u>Response</u>	<u>Response</u>	<u>X⁰</u>	<u>X¹ / ave RF</u>	<u>X²</u>	<u>RSD</u>
1 Fluorobenzene 11 1	765834	768596	755237	739905	721219	703721	-1	-----	-----	-----	-----
3 di-Cl-di-F-methane 85 87	9202	44272	235359	427426	820884	1551879	-1	0.0191	0.2750	0.0000	0.9996
4 Chloromethane 50 52	4751	30836	163038	374044	803175	1514667	-1	0.0000	0.2433	0.0000	0.1388
9-F114 85 135	8035	46094	252154	462947	909235	1714061	-1	0.0000	0.3193	0.0000	0.0593
5 vinyl chloride 62 64	4990	35625	183259	344227	682967	1258237	-1	0.0000	0.2307	0.0000	0.0396
6 bromomethane 94 96	5861	43488	181174	281305	570773	1116110	-1	0.0126	0.1961	0.0000	0.9990
7 Chloroethane 64 66	3629	27223	133510	250119	505034	952606	-1	0.0000	0.1709	0.0000	0.0425
8-tri-Cl-F-methane 101 103	7295	56379	326202	612174	1192828	2238212	-1	0.0000	0.3902	0.0000	0.1070
111 isopropyl alcohol x10	1236	8181	34708	55395	131600	244204	-1	0.0000	0.0045	0.0000	0.1257
100 ethyl ether x5	20361	108089	509174	980952	1975186	3742221	-1	0.0000	0.1425	0.0000	0.1211
102 Acrolein x10	3234	15074	75489	215710	340415	601157	-1	0.0000	0.0114	0.0000	0.1719
119 methyl acetate	4062	15788	82815	187169	-1	696519	-1	-0.0033	0.1242	0.0000	0.9997
104 Carbon disulfide	21121	133095	626926	1173322	2357195	4372134	-1	0.0000	0.8336	0.0000	0.0625
103 Acrylonitrile x10	4569	37044	178667	348877	701313	1341637	-1	0.0000	0.0239	0.0000	0.0128
95 Acetone x10	989	41993	128289	268909	465240	912905	-1	0.0227	0.0159	0.0000	0.9991
108 F-113	5327	41068	259145	480691	925581	1749444	-1	0.0000	0.2998	0.0000	0.1395
13 11-dichloroethene 61 96	8641	61263	309126	575822	1147783	2146767	-1	0.0000	0.3920	0.0000	0.0313
101 Acetonitrile x10	2063	1527	53569	97490	189257	353648	-1	0.0013	0.0063	0.0000	0.9985
109 Iodomethane	3901	55824	290992	473953	954242	1666625	-1	0.0467	0.2964	0.0000	0.9961
113 Tert butyl alcohol x10	2556	18436	60720	133851	240444	485913	-1	0.0016	0.0086	0.0000	0.9991
18 methylene chloride 49 84	28023	111315	375753	602942	1052979	-1	-1	0.0818	0.3520	0.0000	0.9932

112 Allyl chloride	11807	73643	318868	616004	1168854	2056270	-1	0.0000	0.4336	0.0000	0.1239
200 Nitro methane x10	10089	68361	334791	633827	1264975	2385881	-1	0.0000	0.0436	0.0000	0.0192
10 t-Bu-Me-ether	73 57	19344	73627	300489	618307	1211982	-1	-0.0086	0.4281	0.0000	0.9997
19 t-12-di-Cl-ethene	96 61	7446	45222	225516	438020	867973	-1	0.0000	0.3005	0.0000	0.0405
98 Vinyl acetate x5	35861	233914	1080092	1161950	4543111	6984572	-1	0.0000	0.2704	0.0000	0.2248
21 11-dichloroethane	63 83	11490	83925	403704	780313	1539657	-1	0.0000	0.5248	0.0000	0.0336
91 2-butanone MEKx10	23960	146366	680153	1296553	2708302	5159574	-1	0.0000	0.0938	0.0000	0.0620
115 Di isoprop ether	2475	206054	993426	1953682	3898884	7414434	-1	0.0032	1.3231	0.0000	0.9998
22 c-12-di-Cl-ethene	96 61	6875	46067	219592	430734	857123	-1	0.0000	0.2941	0.0000	0.0183
23 22-Dichloropropane	77 97	13155	71811	330092	619878	1207116	-1	0.0000	0.4529	0.0000	0.1383
24 Br-Cl-methane	128 130	956	15248	78733	153832	312235	-1	-0.0008	0.1060	0.0000	0.9998
25 chloroform	83 85	14881	81604	372529	722194	1453363	-1	0.0000	0.5251	0.0000	0.1186
201 Ethyl acetate x2	-1	44403	206670	296783	873148	1526995	-1	0.0000	0.1337	0.0000	0.1475
116 ETBE	20917	124488	594002	1154600	2264664	4329036	-1	0.0000	0.8068	0.0000	0.0650
117 Iso-butyl alcohol X10	5582	44403	221032	297076	880890	1546333	-1	0.0000	0.0268	0.0000	0.1460
26 tetrahydrofuranx5	1945	8407	36840	75144	146600	287877	-1	0.0000	0.0102	0.0000	0.0418
27 Di-Br-F-Methane (S1)	111 1	13867	59189	265788	517816	1038870	-1	0.0096	0.3493	0.0000	0.9997
34 111-tri-Cl-ethane	97 99	12459	65859	315664	604949	1193974	-1	0.0000	0.4374	0.0000	0.1185
30 12-dichloroethane	64 62	549	31555	154021	298086	600265	-1	-0.0025	0.2060	0.0000	0.9999
35 11-Di-Cl-propene	75 110	9488	58117	286388	549558	1091787	-1	0.0000	0.3822	0.0000	0.0404
29 1,2-di-Cl-ethane-d4 [Surf]	10	-1	26643	124715	242470	475685	-1	0.0000	0.1652	0.0000	0.0314
36 benzene	78 52	19613	138554	661631	1277049	2547937	-1	0.0000	0.8690	0.0000	0.0263
37 CCl4	117 119	7832	47773	267339	493900	981263	-1	0.0000	0.3348	0.0000	0.0432
97 thiophene	10129	70133	323713	623624	1239916	2337761	-1	0.0000	0.4320	0.0000	0.0339
118 TAME	4367	97622	406861	792558	1521011	3045504	-1	0.0000	0.5555	0.0000	0.0806
39 12-di-Cl-propane	63 76	5869	38931	190695	376101	741594	-1	0.0000	0.2543	0.0000	0.0066
40 trichloroethene	130 132	5805	41064	207771	403682	804090	-1	0.0000	0.2693	0.0000	0.0339
96 Me-methacrylate	1472	19691	65318	123371	250724	519513	-1	-0.0068	0.0920	0.0000	0.9983
42 Br-di-Cl-methane	83 85	10138	55994	484084	955698	1823535	-1	0.0000	0.3546	0.0000	0.1265
41 dibromomethane	174 172	2292	17911	96884	194764	383350	-1	0.0000	0.1227	0.0000	0.1029

Compound	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7	Coeff	Coeff	Coeff	R ² /
Name	Response	Response	Response	Response	Response	Response	Response	X ² 0	X ² 1 / ave RF	X ² 2	RSD
45 c-13-di-Cl-propene	75 110	7832	48533	229072	445153	890451	1727952	-1	0.4995	0.0000	0.0157
55 toluene-d8(S2)	100 99	-1	78299	377922	725871	1455135	2774904	-1	0.0536	0.0000	0.0868
92 2-ClEt-Vi-ether10	10352	80060	410701	820365	1655105	3234891	4425814	-1	0.8167	0.0000	0.0680
56 toluene	91 92	21278	126101	601438	1149709	2291459	4425814	-1	0.0000	0.0000	0.0680

107 Et methacrylate	-1	35707	132945	165590	512644	828103	-1	0.0000	0.1690	0.0000	0.2625
93 2-Hexanone x5	10744	47646	218029	368204	831419	1601350	-1	0.0000	0.0568	0.0000	0.0778
48 112-tri-Cl-Et	97 83	5203	21908	90597	172036	347876	-1	0.0031	0.1179	0.0000	0.9998
58 1,2-di-br-ethane	107 109	1144	19207	94012	191133	371448	-1	-0.0016	0.1288	0.0000	1.0000
51 di-Br-Cl-methane	129 127	2693	27173	125300	243477	723238	-1	0.0000	0.1610	0.0000	0.1359
46 t-13-di-cl-propene	75 110	4584	30276	155530	594704	1109294	-1	0.0000	0.2015	0.0000	0.0211
105 1-Chlorohexane		12961	43864	205359	374248	1336615	-1	0.0247	0.2364	0.0000	0.9994
47 Cl-benzene-d5, 12		226795	229493	225971	224981	241678	-1	0.0000	1.0000	0.0000	0.0000
54 MIBK		1407	13676	74160	143757	587112	-1	0.0184	0.3053	0.0000	0.9988
49 1,3-di-cl-propane	76 78	4247	30516	157929	310529	1155285	-1	0.0000	0.6537	0.0000	0.0595
59 tetra-Cl-ethene	166 168	5221	40927	216892	417298	1643233	-1	0.0000	0.8800	0.0000	0.0760

Compound	Level 1 Response	Level 2 Response	Level 3 Response	Level 4 Response	Level 5 Response	Level 6 Response	Level 7 Response	Coeff X^0	Coeff X^1 / ave RF	Coeff X^2	R^2 / RSD
60 chlorobenzene	112 77	9971	71440	352480	668143	2470738	-1	0.0000	0.5853	0.0000	0.0996
61 1112-tetra-Cl-Et	131 133	3219	28400	138607	283855	1108773	-1	0.0000	2.8157	0.0000	0.0906
64 ethylbenzene	91 106	21430	140640	637777	1239073	4804958	-1	0.0000	2.1406	0.0000	0.0830
65 m/p-Xylenes x2		31419	213036	1000145	1911139	7222435	-1	0.0000	0.6450	0.0000	0.1606
99 1-4-di-Cl-butane		5503	32572	146606	276558	1001628	-1	0.0303	0.2823	0.0000	0.9980
52 bromoform	173 175	806	13982	71698	143599	544898	-1	0.0000	1.5116	0.0000	0.0758
66 styrene	104 78	10850	75317	352645	677932	2563056	-1	0.0000	2.1063	0.0000	0.1398
67 o-xylene	91 106	16715	110603	485194	915641	3287299	-1	0.0000	0.3868	0.0000	0.1294
68 1122-Tetra-Cl-Et	83 85	2658	21540	91096	173152	625224	-1	0.0235	0.0507	0.0000	0.9991
110 t-1,4-dichloro-2-butene		1095	7032	17679	27009	103110	-1	0.0784	0.4469	0.0000	0.9969
106 Cl-benzyl		6053	24517	121704	238713	866531	-1	0.0000	1.0000	0.0000	0.0000
62 1,4-DCB-d4	150 152 13	197143	197148	188831	184633	176207	-1	0.0000	0.1218	0.0000	0.0642
69 123-tri-Cl-Pr	110 97	253	4401	21971	45443	172722	-1	0.0000	0.8935	0.0000	0.0269
70 4-Br-1-F-Bz (S3)	174 95	-1	36886	165570	327081	1159540	-1	0.0000	3.2861	0.0000	0.0771
71 Isopropylbenzene	105 120	16442	135584	641793	1217921	4528346	-1	0.0000	0.7214	0.0000	0.1387
72 bromobenzene	156 158	3119	27613	143515	285095	1030644	-1	0.0000	0.8858	0.0000	0.0883
73 n-propylbenzene	120 78	4297	36443	173970	335858	1212584	-1	0.0000	0.5885	0.0000	0.0623
74 2-Cl-Tl	126 128	3821	23738	106793	201349	745993	-1	0.0000	0.8045	0.0000	0.0813
75 4-Cl-Tl	126 128	4042	32882	163598	289530	1075809	-1	0.0000	2.6533	0.0000	0.0343
76 135-tri-Me-Bz	105 120	14680	107323	509842	969387	3580223	-1	0.0000	2.7239	0.0000	0.0919
79 tert-butylbenzene	119 91	13115	113211	533176	1020985	3739615	-1	0.0000	2.2558	0.0000	0.0848
78 124-tri-Me-Bz	105 120	11184	96787	424953	847796	3054447	-1	0.0000	1.1491	0.0000	0.1087
80 13-di-Cl-Bz	146 148	5522	45648	238597	400250	1658291	-1	0.0000			

82 14-di-Cl-Bz	146 148	9029	69544	305231	644124	1193857	2207723	-1	0.0000	1.6699	0.0000	0.0524
81 sec-butylbenzene	105 134	19695	163551	797663	1465228	2859247	5499576	-1	0.0000	3.9831	0.0000	0.0835
77 4-iso-Pr-toluene	119 134	14306	119820	572630	1085210	2064029	3804782	-1	0.0000	2.8739	0.0000	0.0804
84 12-di-Cl-benzene	146 148	5444	45355	219614	410082	812246	1524040	-1	0.0000	1.1088	0.0000	0.0849
85 n-butylbenzene	91 134	17944	117913	579573	1096665	2099124	3991637	-1	0.0000	3.0116	0.0000	0.0128
86 12-diBr-3-Cl-Pra	157 155	-1	2498	14611	31395	62914	120318	-1	0.0000	0.0813	0.0000	0.1395
87 124-tri-Cl-Bz	180 182	3158	29532	158333	322231	604462	1187497	-1	-0.0539	0.9002	0.0000	0.9995
88 naphthalene	128 129	4753	21798	116373	245906	459400	922945	-1	0.0000	0.6651	0.0000	0.1268
90 123-tri-Cl-Bz	180 182	2940	22060	121207	239739	448256	845940	-1	0.0000	0.6042	0.0000	0.1029
89 hx-Cl-butadiene	225 260	2553	24644	130257	244690	466707	859594	-1	0.0135	0.6525	0.0000	0.9999