Level C Data Package Deliverables

Wet Chemistry

Applied P & Ch Laboratory

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Wet Analysis Results for Method SM2320B

Client Name:	GEOFON, Inc.	Project No:	04-4428.10	Anal. Method	SM2320B
Project ID:	JPL	Service ID:	32933	Collected by:	Leo Williamson

Component Name: Bicarbonate
CAS No:

Lab ID	Sample ID	Matrix	Coll. Date	Rcv Date	Anal. Date	Batch	Unit	RL	Result	Q
03-2933-1	EB-6-4/28/03	Water	04/28/03	04/28/03	05/01/03	03W2665	mg/L	2	<2	U
03-2933-2	MW-17-1	Water	04/28/03	04/28/03	05/01/03	03W2665	mg/L	2	176	
03-2933-3	MW-17-2	Water	04/28/03	04/28/03	05/01/03	03W2665	mg/L	2	164	
03-2933-4	MW-17-3	Water	04/28/03	04/28/03	05/01/03	03W2665	mg/L	2	167	
03-2933-5	MW-17-4	Water	04/28/03	04/28/03	05/01/03	03W2665	mg/L	2	137	
03-2933-6	MW-17-5	Water	04/28/03	04/28/03	05/01/03	03W2665	mg/L	2	156	
03W2665-MB-01	03W2665-MB-01	Water	05/01/03	05/01/03	05/01/03	03W2665	mg/L	2	<2	U

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Note: Q - Qualifier.
Qualifier: U - Not Detected or less than MDL
B - Less than RL (PQL, EQL or CRDL), but greater than MDL.

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Wet Analysis Results for Method SM2320B

Client Name:	GEOFON, Inc.	Project No:	04-4428.10	Anal. Method	SM2320B
Project ID:	JPL	Service ID:	32933	Collected by:	Leo Williamson

Component Name: Carbonate
CAS No:

Lab ID	Sample ID	Matrix	Coll. Date	Rcv Date	Anal. Date	Batch	Unit	RL	Result	Q
03-2933-1	EB-6-4/28/03	Water	04/28/03	04/28/03	05/01/03	03W2665	mg-$CaCO_3$/L	2	<2	U
03-2933-2	MW-17-1	Water	04/28/03	04/28/03	05/01/03	03W2665	mg-$CaCO_3$/L	2	<2	U
03-2933-3	MW-17-2	Water	04/28/03	04/28/03	05/01/03	03W2665	mg-$CaCO_3$/L	2	<2	U
03-2933-4	MW-17-3	Water	04/28/03	04/28/03	05/01/03	03W2665	mg-$CaCO_3$/L	2	<2	U
03-2933-5	MW-17-4	Water	04/28/03	04/28/03	05/01/03	03W2665	mg-$CaCO_3$/L	2	<2	U
03-2933-6	MW-17-5	Water	04/28/03	04/28/03	05/01/03	03W2665	mg-$CaCO_3$/L	2	<2	U
03W2665-MB-01	03W2665-MB-01	Water	05/01/03	05/01/03	05/01/03	03W2665	mg-$CaCO_3$/L	2	<2	U

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Note: Q - Qualifier.
Qualifier: U - Not Detected or less than MDL
B - Less than RL (PQL, EQL or CRDL), but greater than MDL.

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Wet Analysis Results for Method 9040B

Client Name:	GEOFON, Inc.	Project No:	04-4428.10	Anal. Method	9040B
Project ID:	JPL	Service ID:	32933	Collected by:	Leo Williamson

Component Name: pH
CAS No: 10-29-7

Lab ID	Sample ID	Matrix	Coll. Date	Rcv Date	Anal. Date	Batch	Unit	RL	Result	Q
03-2933-1	EB-6-4/28/03	Water	04/28/03	04/28/03	04/28/03	03W2592	pH unit	0.01	6.54	
03-2933-2	MW-17-1	Water	04/28/03	04/28/03	04/28/03	03W2592	pH unit	0.01	7.44	
03-2933-3	MW-17-2	Water	04/28/03	04/28/03	04/28/03	03W2592	pH unit	0.01	7.97	
03-2933-4	MW-17-3	Water	04/28/03	04/28/03	04/28/03	03W2592	pH unit	0.01	8.08	
03-2933-5	MW-17-4	Water	04/28/03	04/28/03	04/28/03	03W2592	pH unit	0.01	8.01	
03-2933-6	MW-17-5	Water	04/28/03	04/28/03	04/28/03	03W2592	pH unit	0.01	8.17	
03W2592-MB-01	03W2592-MB-01	Water	04/28/03	04/28/03	04/28/03	03W2592	pH unit	0.01	6.87	

Note: Q - Qualifier.
Qualifier: U - Not Detected or less than MDL
B - Less than RL (PQL, EQL or CRDL), but greater than MDL.

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Wet Analysis Results for Method 160.1

Client Name:	GEOFON, Inc.	Project No:	04-4428.10	Anal. Method	160.1
Project ID:	JPL	Service ID:	32933	Collected by:	Leo Williamson

Component Name: Solids, Total Dissolved (TDS)
CAS No: 10-33-3

Lab ID	Sample ID	Matrix	Coll. Date	Rcv Date	Anal. Date	Batch	Unit	RL	Result	Q
03-2933-1	EB-6-4/28/03	Water	04/28/03	04/28/03	04/28/03	03W2607	mg/L	10	<10	U
03-2933-2	MW-17-1	Water	04/28/03	04/28/03	04/28/03	03W2607	mg/L	10	253	
03-2933-3	MW-17-2	Water	04/28/03	04/28/03	04/28/03	03W2607	mg/L	10	250	
03-2933-4	MW-17-3	Water	04/28/03	04/28/03	04/28/03	03W2607	mg/L	10	247	
03-2933-5	MW-17-4	Water	04/28/03	04/28/03	04/28/03	03W2607	mg/L	10	198	
03-2933-6	MW-17-5	Water	04/28/03	04/28/03	04/28/03	03W2607	mg/L	10	219	
03W2607-MB-01	03W2607-MB-01	Water	04/28/03	04/28/03	04/28/03	03W2607	mg/L	10	<10	U

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Note: Q - Qualifier.
Qualifier: U - Not Detected or less than MDL
B - Less than RL (PQL, EQL or CRDL), but greater than MDL.

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Wet Analysis Results for Method 7196

Client Name:	GEOFON, Inc.	Project No:	04-4428.10	Anal. Method	7196
Project ID:	JPL	Service ID:	32933	Collected by:	Leo Williamson

Component Name: Chromium (VI)
CAS No: 1333-82-0

Lab ID	Sample ID	Matrix	Coll. Date	Rcv Date	Anal. Date	Batch	Unit	RL	Result	Q
03-2933-1	EB-6-4/28/03	Water	04/28/03	04/28/03	04/28/03	03W2603	mg/L	0.01	<0.01	U
03-2933-2	MW-17-1	Water	04/28/03	04/28/03	04/28/03	03W2603	mg/L	0.01	<0.01	U
03-2933-3	MW-17-2	Water	04/28/03	04/28/03	04/28/03	03W2603	mg/L	0.01	<0.01	U
03-2933-4	MW-17-3	Water	04/28/03	04/28/03	04/28/03	03W2603	mg/L	0.01	<0.01	U
03-2933-5	MW-17-4	Water	04/28/03	04/28/03	04/28/03	03W2603	mg/L	0.01	<0.01	U
03-2933-6	MW-17-5	Water	04/28/03	04/28/03	04/28/03	03W2603	mg/L	0.01	<0.01	U
03W2603-MB-01	03W2603-MB-01	Water	04/28/03	04/28/03	04/28/03	03W2603	mg/L	0.01	<0.01	U

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Note: Q - Qualifier.
Qualifier: U - Not Detected or less than MDL
B - Less than RL (PQL, EQL or CRDL), but greater than MDL.

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Wet Analysis Results for Method 314.0

Client Name:	GEOFON, Inc.	Project No:	04-4428.10	Anal. Method	314.0
Project ID:	JPL	Service ID:	32933	Collected by:	Leo Williamson

Component Name: Perchlorate
CAS No:

Lab ID	Sample ID	Matrix	Coll. Date	Rcv Date	Anal. Date	Batch	Unit	RL	Result	Q
03-2933-1	EB-6-4/28/03	Water	04/28/03	04/28/03	04/29/03	03W2612	μg/L	4	<4	U
03-2933-2	MW-17-1	Water	04/28/03	04/28/03	04/29/03	03W2612	μg/L	4	<4	U
03-2933-3	MW-17-2	Water	04/28/03	04/28/03	04/29/03	03W2612	μg/L	4	4.1	
03-2933-4	MW-17-3	Water	04/28/03	04/28/03	04/29/03	03W2612	μg/L	8	126	
03-2933-5	MW-17-4	Water	04/28/03	04/28/03	04/29/03	03W2612	μg/L	4	6.5	
03-2933-6	MW-17-5	Water	04/28/03	04/28/03	04/29/03	03W2612	μg/L	4	3.6	B
03W2612-MB-01	03W2612-MB-01	Water	04/29/03	04/29/03	04/29/03	03W2612	μg/L	4	<4	U

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Note: Q - Qualifier.
Qualifier: U - Not Detected or less than MDL
B - Less than RL (PQL, EQL or CRDL), but greater than MDL.

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Wet Analysis Results for Method 300.0

Client Name:	GEOFON, Inc.	Project No:	04-4428.10	Anal. Method	300.0
Project ID:	JPL	Service ID:	32933	Collected by:	Leo Williamson

Component Name: Chloride Cl^-
CAS No: 16887-00-6

Lab ID	Sample ID	Matrix	Coll. Date	Rcv Date	Anal. Date	Batch	Unit	RL	Result	Q
03-2933-1	EB-6-4/28/03	Water	04/28/03	04/28/03	04/29/03	03W2610	mg/L	0.25	0.20	B
03-2933-2	MW-17-1	Water	04/28/03	04/28/03	04/29/03	03W2610	mg/L	0.4	13.3	
03-2933-3	MW-17-2	Water	04/28/03	04/28/03	04/29/03	03W2610	mg/L	0.4	19.6	
03-2933-4	MW-17-3	Water	04/28/03	04/28/03	04/29/03	03W2610	mg/L	0.4	12.5	
03-2933-5	MW-17-4	Water	04/28/03	04/28/03	04/29/03	03W2610	mg/L	0.4	11.4	
03-2933-6	MW-17-5	Water	04/28/03	04/28/03	04/29/03	03W2610	mg/L	0.4	11.2	
03W2610-MB-01	03W2610-MB-01	Water	04/29/03	04/29/03	04/29/03	03W2610	mg/L	0.2	<0.2	U

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Note: Q - Qualifier.

Qualifier: U - Not Detected or less than MDL

B - Less than RL (PQL, EQL or CRDL), but greater than MDL.

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Wet Analysis Results for Method 300.0

Client Name:	GEOFON, Inc.	Project No:	04-4428.10	Anal. Method	300.0
Project ID:	JPL	Service ID:	32933	Collected by:	Leo Williamson

Component Name: Nitrate as N
CAS No: 14797-55-8

Lab ID	Sample ID	Matrix	Coll. Date	Rcv Date	Anal. Date	Batch	Unit	RL	Result	Q
03-2933-1	EB-6-4/28/03	Water	04/28/03	04/28/03	04/29/03	03W2610	mg/L	0.05	0.071	
03-2933-2	MW-17-1	Water	04/28/03	04/28/03	04/29/03	03W2610	mg/L	0.08	1.3	
03-2933-3	MW-17-2	Water	04/28/03	04/28/03	04/29/03	03W2610	mg/L	0.08	2.0	
03-2933-4	MW-17-3	Water	04/28/03	04/28/03	04/29/03	03W2610	mg/L	0.08	1.5	
03-2933-5	MW-17-4	Water	04/28/03	04/28/03	04/29/03	03W2610	mg/L	0.08	0.70	
03-2933-6	MW-17-5	Water	04/28/03	04/28/03	04/29/03	03W2610	mg/L	0.08	0.64	
03W2610-MB-01	03W2610-MB-01	Water	04/29/03	04/29/03	04/29/03	03W2610	mg/L	0.04	<0.04	U

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Note: Q - Qualifier.
Qualifier: U - Not Detected or less than MDL
B - Less than RL (PQL, EQL or CRDL), but greater than MDL.

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Wet Analysis Results for Method 300.0

Client Name:	GEOFON, Inc.	Project No:	04-4428.10	Anal. Method	300.0
Project ID:	JPL	Service ID:	32933	Collected by:	Leo Williamson

Component Name: Sulfate SO_4^{--}
CAS No: 14808-79-8

Lab ID	Sample ID	Matrix	Coll. Date	Rcv Date	Anal. Date	Batch	Unit	RL	Result	Q
03-2933-1	EB-6-4/28/03	Water	04/28/03	04/28/03	04/29/03	03W2610	mg/L	0.63	<0.63	U
03-2933-2	MW-17-1	Water	04/28/03	04/28/03	04/29/03	03W2610	mg/L	1	36.5	
03-2933-3	MW-17-2	Water	04/28/03	04/28/03	04/29/03	03W2610	mg/L	1	34.7	
03-2933-4	MW-17-3	Water	04/28/03	04/28/03	04/29/03	03W2610	mg/L	1	31.7	
03-2933-5	MW-17-4	Water	04/28/03	04/28/03	04/29/03	03W2610	mg/L	1	25.5	
03-2933-6	MW-17-5	Water	04/28/03	04/28/03	04/29/03	03W2610	mg/L	1	18.8	
03W2610-MB-01	03W2610-MB-01	Water	04/29/03	04/29/03	04/29/03	03W2610	mg/L	0.5	<0.5	U

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Note: Q - Qualifier.

Qualifier: U - Not Detected or less than MDL

B - Less than RL (PQL, EQL or CRDL), but greater than MDL.

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Applied P & Ch Laboratory

Lab Control Spike/Lab Control Spike Duplicate Recovery for Method 300.0

Client Name:	GEOFON, Inc.	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	32933
Project ID:	JPL	Project No:	04-4428.10	Sample Matrix:	Water
		Batch No:	03W2610		
LCS Filename:	-	Date Analyzed:	042903	Time Analyzed:	10:33
LCSD Filename:	-	Date Analyzed:	042903	Time Analyzed:	10:46

Spiked Components	Unit	Spike Added	Concentration Unspiked	Concentration LCS	LCS Rec% #	QC Limit, % REC
CHLORIDE CL^-	mg/L	4.0	0	3.88	97	80-120
NITRATE AS N	mg/L	1.5	0	1.49	99	80-120
SULFATE SO_4^{--}	mg/L	15	0	14.7	98	80-120
# of Out-of-control					0	

Spiked Components	Unit	Spike Added	LCSD Concentration	LCSD Rec% #	RPD% #	QC Limit, % RPD	QC Limit, % REC
CHLORIDE CL^-	mg/L	4.0	3.90	98	1	20	80-120
NITRATE AS N	mg/L	1.5	1.50	100	1	20	80-120
SULFATE SO_4^{--}	mg/L	15	14.8	99	1	25	80-120
# of Out-of-control				0	0		

Column to be used to flag recovery and RPD values:

* – Values outside of contract required QC Limits D – Spiked components diluted out

Comments: _____

FORM-3

Applied P & Ch Laboratory

Matrix Spike/Matrix Spike Duplicate Recovery for Method 300.0

Client Name:	GEOFON, Inc.	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	32933
Project ID:	JPL	Project No:	04-4428.10	Sample Matrix:	Water
		Batch No:	03W2610		
MS Filename:	-	Date Analyzed:	042903	Time Analyzed:	15:02
MSD Filename:	-	Date Analyzed:	042903	Time Analyzed:	15:14
MS Sample No:	**MW-17-2**	Sample Lab ID:	03-2933-3		

Spiked Components	Unit	Spike Added	Concentration Unspiked	Concentration MS	MS Rec% #	QC Limit, % REC
CHLORIDE CL^-	mg/L	16.0	19.6	35.2	98	75-125
NITRATE AS N	mg/L	6.00	2.0	8.18	103	75-125
SULFATE SO_4^{--}	mg/L	60.0	34.7	98.4	106	75-125
# of Out-of-control					0	

Spiked Components	Unit	Spike Added	MSD Concentration	MSD Rec% #	RPD% #	QC Limit, % RPD	QC Limit, % REC
CHLORIDE CL^-	mg/L	16.0	35.2	98	0	20	75-125
NITRATE AS N	mg/L	6.00	8.12	102	1	20	75-125
SULFATE SO_4^{--}	mg/L	60.0	97.4	105	1	25	75-125
# of Out-of-control				0	0		

Column to be used to flag recovery and RPD values:

* – Values outside of contract required QC Limits D – Spiked components diluted out

Comments: _____

FORM-3

Applied P & Ch Laboratory

Lab Control Spike/Lab Control Spike Duplicate Recovery for Method 314.0

Client Name:	GEOFON, Inc.	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	32933
Project ID:	JPL	Project No:	04-4428.10	Sample Matrix:	Water
		Batch No:	03W2612		
LCS Filename:	-	Date Analyzed:	042903	Time Analyzed:	10:20
LCSD Filename:	-	Date Analyzed:	–	Time Analyzed:	–

Spiked Components	Unit	Spike Added	Concentration Unspiked	LCS	LCS Rec% #	QC Limit, % REC
PERCHLORATE	μg/L	25	0	23.4	94	80-120
# of Out-of-control					0	

Column to be used to flag recovery and RPD values:

* – Values outside of contract required QC Limits D – Spiked components diluted out

Comments: _____

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Applied P & Ch Laboratory

Matrix Spike/Matrix Spike Duplicate Recovery for Method 314.0

Client Name:	GEOFON, Inc.	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	32933
Project ID:	JPL	Project No:	04-4428.10	Sample Matrix:	Water
		Batch No:	03W2612		
MS Filename:	-	Date Analyzed:	042903	Time Analyzed:	14:07
MSD Filename:	-	Date Analyzed:	042903	Time Analyzed:	14:26
MS Sample No:	**MW-17-2**	Sample Lab ID:	03-2933-3		

Spiked Components	Unit	Spike Added	Concentration Unspiked	Concentration MS	MS Rec% #	QC Limit, % REC
PERCHLORATE	μg/L	50	4.1	54.6	101	75-125
# of Out-of-control					0	

Spiked Components	Unit	Spike Added	MSD Concentration	MSD Rec% #	RPD% #	QC Limit, % RPD	QC Limit, % REC
PERCHLORATE	μg/L	50	54.2	100	1	20	75-125
# of Out-of-control				0	0		

Column to be used to flag recovery and RPD values:

* – Values outside of contract required QC Limits D – Spiked components diluted out

Comments: _____

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Applied P & Ch Laboratory

Lab Control Spike/Lab Control Spike Duplicate Recovery for Method 160.1

Client Name:	GEOFON, Inc.	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	32933
Project ID:	JPL	Project No:	04-4428.10	Sample Matrix:	Water
		Batch No:	03W2607		
LCS Filename:	-	Date Analyzed:	042803	Time Analyzed:	17:19
LCSD Filename:	-	Date Analyzed:	042803	Time Analyzed:	17:19

Spiked Components	Unit	Spike Added	Concentration Unspiked	Concentration LCS	LCS Rec% #	QC Limit, % REC
SOLIDS, TOTAL DISSOLVED (TDS)	mg/L	400	0	396	99	88-108
# of Out-of-control					0	

Spiked Components	Unit	Spike Added	LCSD Concentration	LCSD Rec% #	RPD% #	QC Limit, % RPD	QC Limit, % REC
SOLIDS, TOTAL DISSOLVED (TDS)	mg/L	400	412	103	4	20	88-108
# of Out-of-control				0	0		

Column to be used to flag recovery and RPD values:

* – Values outside of contract required QC Limits D – Spiked components diluted out

Comments: _____

FORM-3

Applied P & Ch Laboratory

Matrix Spike/Matrix Spike Duplicate Recovery for Method 160.1

Client Name:	GEOFON, Inc.	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	32933
Project ID:	JPL	Project No:	04-4428.10	Sample Matrix:	Water
		Batch No:	03W2607		
MS Filename:	-	Date Analyzed:	042803	Time Analyzed:	17:19
MSD Filename:	-	Date Analyzed:	042803	Time Analyzed:	17:19
MS Sample No:	**MW-17-2**	Sample Lab ID:	03-2933-3		

Spiked Components	Unit	Spike Added	Concentration Unspiked	Concentration MS	MS Rec% #	QC Limit, % REC
SOLIDS, TOTAL DISSOLVED (TDS)	mg/L	400	250	679	107	80-119
# of Out-of-control					0	

Spiked Components	Unit	Spike Added	MSD Concentration	MSD Rec% #	RPD% #	QC Limit, % RPD	QC Limit, % REC
SOLIDS, TOTAL DISSOLVED (TDS)	mg/L	400	652	101	6	20	80-119
# of Out-of-control				0	0		

Column to be used to flag recovery and RPD values:

* – Values outside of contract required QC Limits D – Spiked components diluted out

Comments: _____

FORM-3

Applied P & Ch Laboratory

Lab Control Spike/Lab Control Spike Duplicate Recovery for Method 7196

Client Name:	GEOFON, Inc.	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	32933
Project ID:	JPL	Project No:	04-4428.10	Sample Matrix:	Water
		Batch No:	03W2603		
LCS Filename:	-	Date Analyzed:	042803	Time Analyzed:	16:53
LCSD Filename:	-	Date Analyzed:	042803	Time Analyzed:	16:53

Spiked Components	Unit	Spike Added	Concentration Unspiked	Concentration LCS	LCS Rec% #	QC Limit, % REC
CHROMIUM (VI)	mg/L	0.25	0	0.239	96	80-115
# of Out-of-control					0	

Spiked Components	Unit	Spike Added	LCSD Concentration	LCSD Rec% #	RPD% #	QC Limit, % RPD	QC Limit, % REC
CHROMIUM (VI)	mg/L	0.25	0.251	100	4	19	80-115
# of Out-of-control				0	0		

Column to be used to flag recovery and RPD values:

* – Values outside of contract required QC Limits D – Spiked components diluted out

Comments: _____

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Applied P & Ch Laboratory

Matrix Spike/Matrix Spike Duplicate Recovery for Method 7196

Client Name:	GEOFON, Inc.	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	32933
Project ID:	JPL	Project No:	04-4428.10	Sample Matrix:	Water
		Batch No:	03W2603		
MS Filename:	-	Date Analyzed:	042803	Time Analyzed:	16:53
MSD Filename:	-	Date Analyzed:	042803	Time Analyzed:	16:53
MS Sample No:	**MW-17-2**	Sample Lab ID:	03-2933-3		

Spiked Components	Unit	Spike Added	Concentration Unspiked	MS	MS Rec% #	QC Limit, % REC
CHROMIUM (VI)	mg/L	0.25	0	0.238	95	78-115
# of Out-of-control					0	

Spiked Components	Unit	Spike Added	MSD Concentration	MSD Rec% #	RPD% #	QC Limit, % RPD	REC
CHROMIUM (VI)	mg/L	0.25	0.243	97	2	19	78-115
# of Out-of-control				0	0		

Column to be used to flag recovery and RPD values:

* – Values outside of contract required QC Limits D – Spiked components diluted out

Comments: _____

Wet Chemistry QC Report B
Duplicate Results

Matrix: Water

APCL Service ID: 03-2933

Analysis	Batch ID	Analysis Date	Sample Name	Unit	Result	Duplicate Result	RPD %	RPD Control limit
Bicarbonate	03W2665	05/01/2003	MW-17-1	mg/L	176	175	1	20
Carbonate	03W2665	05/01/2003	MW-17-1	mg-$CaCO_3$/L	ND	ND	NC	20
pH	03W2592	04/28/2003	03-2940-2	pH unit	7.58	7.58	0	20

Note: N/A = Not applicable; NR: Not requested; NC= Not Calculated; ND: Not detected.

6A

INITIAL CALIBRATION DATA

Lab Name: Applied P & Ch Lab Contract: _____

Analysis: Chromium (VI) Calibration Date: 01/29/2003

Concentration (mg/L)	0.000	0.0125	0.050	0.125	0.250	0.50
Absorbance	0.000	0.006	0.041	0.109	0.214	0.415

A= 0.000 + 0.836C

A=Absorbance

C=Concentration (mg/L)

r= 0.9997

DIONEX METHOD PARAMETERS - E300-063.MET

Method Comment: APCL EPA 300 ANALYSIS DX-100
Column ID: Dionex AS4A-SC
Analyst ID: David

System Parameters

System Name: DX-100

Number of Detectors	1
Run Time (minutes)	10.00
Sampling Rate (seconds)	0.20
Detector 1 Type	COND
Detector 1 real time plot scale maximum (uS)	30.000
minimum	-3.000
Detector 1 Output Equivalent to 1 Volt (in uS)	30.00
Detector 1 ACI Analog Input Connection	DET1
Save Data File	Yes

Data File Name: C:\DX\DATA\03W1991\W1991Q01.D10

-- DETECTOR 1 PARAMETERS --

Report Options

Create ASCII Report File	No
Print Report	Yes
Print All Components	Yes
Print Components Found	No
Print Missing Components	No
Print All Peaks	No
Print Unknown Peaks	No
Print Chromatogram	Yes
Autoscale Chromatogram Maximum	No
Autoscale Chromatogram Minimum	No
Fill Peaks with Color	No
Draw Grid Lines on Chromatogram	No
Show Component Fraction Numbers	No
Label with Peak Number	No
Label with Retention Times on Chromatogram	Yes
Label with Component Name	Yes

Format File Name: C:\DX\METHOD\DEFAULT.PRF

Integration Parameters

Starting Peak Width (seconds)	10.0
Peak Threshold	2.000
Peak Area Reject	1000
Area Reject for Reference Peaks	1000

Data Events

Time	Description
0.13	Start peak detection
10.00	Stop peak detection

Calibration Parameters

Number Of Levels for Calibration	6
Force Calibration Curve Through Origin	No
Calibration Fit Type	Linear
Replace Or Average Calibrations	Replace
External or Internal Calibration	External
Calculate Unknowns by Area or Height	Area
Default Sample Volume	1.0
Default Dilution Factor	1.0
Default Response Factor for Unknown Peaks	0.0
Calibration Standard Volume	1.0
Internal Standard Amount in Samples	1.0
Amount Units	ppm

Component # 4 Bromide Retention Time 3.45
Reference Comp. Nitrate-N Window Size 0.20 min.
Amount = K0 + K1*Area
K0 = 4.58974E-002
K1 = 4.83279E-006

Level	Amount	Area	Height
1	7.50000E-002	13830	1488
2	1.50000E+000	298206	30100
3	3.00000E+000	591234	61776
4	6.00000E+000	1219933	128845
5	7.50000E+000	1559887	166594
6	0.00000E+000	0	0

Component # 5 Nitrate-N Retention Time 3.87
Reference Comp. Nitrate-N Window Size 0.25 min.
Amount = K0 + K1*Area
K0 = 4.24689E-002
K1 = 8.05553E-007

Level	Amount	Area	Height
1	3.75000E-002	40157	3802
2	7.50000E-001	849179	77129
3	1.50000E+000	1713421	152776
4	3.00000E+000	3610927	313707
5	3.75000E+000	4688990	396441
6	0.00000E+000	0	0

Component # 6 Phosphate-P Retention Time 6.38
Reference Comp. Phosphate-P Window Size 0.60 min.
Amount = K0 + K1*Area
K0 = 8.68926E-002
K1 = 2.12227E-006

Level	Amount	Area	Height
1	7.50000E-002	24783	1450
2	1.50000E+000	642376	38579
3	3.00000E+000	1301126	79971
4	6.00000E+000	2756481	168994
5	7.50000E+000	3546397	217521
6	0.00000E+000	0	0

Component Table -- Last Modified: 17:42 on Fri, 21 Mar 2003

Component # 1 Fluoride Retention Time 1.32
Reference Comp. Fluoride Window Size 0.15 min.
Amount = K0 + K1*Area
K0 = -9.62851E-004
K1 = 1.37614E-006

Level	Amount	Area	Height
1	2.50000E-002	28534	2732
2	5.00000E-001	373164	44629
3	1.00000E+000	707646	82595
4	2.00000E+000	1435865	173007
5	2.50000E+000	1837162	220914
6	0.00000E+000	0	0

Component # 2 Chloride Retention Time 1.97
Reference Comp. Chloride Window Size 0.15 min.
Amount = K0 + K1*Area
K0 = 1.28188E-001
K1 = 1.95287E-006

Level	Amount	Area	Height
1	1.00000E-001	51206	7044
2	2.00000E+000	909455	126181
3	4.00000E+000	1856586	261681
4	8.00000E+000	3987563	585791
5	1.00000E+001	5142155	754321
6	0.00000E+000	0	0

Component # 3 Nitrite-N Retention Time 2.33
Reference Comp. Chloride Window Size 0.15 min.
Amount = K0 + K1*Area
K0 = 2.38085E-002
K1 = 9.76240E-007

Level	Amount	Area	Height
1	3.75000E-002	30884	3582
2	7.50000E-001	734006	79701
3	1.50000E+000	1468106	162005
4	3.00000E+000	3021523	336616
5	3.75000E+000	3856614	429219
6	0.00000E+000	0	0

Component # 7 Sulfate Retention Time 7.92
Reference Comp. Sulfate Window Size 0.90 min.
Amount = K0 + K1*Area
K0 = 5.32283E-001
K1 = 2.53252E-006

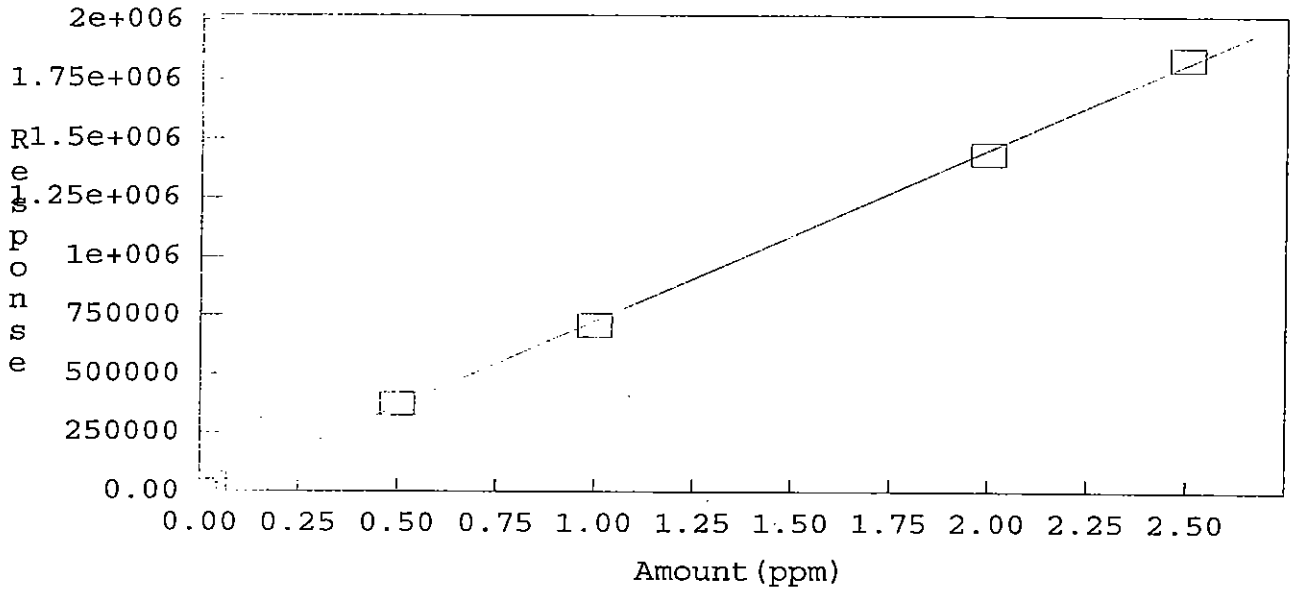
Level	Amount	Area	Height
1	3.76000E-001	129999	6524
2	7.50000E+000	2598757	138579
3	1.50000E+001	5330209	287851
4	3.00000E+001	11507107	615917
5	3.75000E+001	14859049	776426
6	0.00000E+000	0	0

Timed Events File: C:\DX\METHOD\W761CAL.TE

Step	Time	Description
Init		ACI Autosmp OFF
Init		ACI pump st ON
Init		ACI inject OFF
Init		ACI auto zer OFF
Init		ACI TTL 1 OFF
Init		ACI TTL 2 OFF
Init		ACI TTL 3 OFF
Init		ACI TTL 4 OFF
Init		ACI OFF
Init		ACI OFF
1	0.0	ACI Autosmp ON
1	0.0	ACI auto zer ON
2	2.5	ACI Autosmp OFF
2	2.5	ACI inject ON
2	2.5	ACI TTL 1 ON
2	2.5	Start Sampling

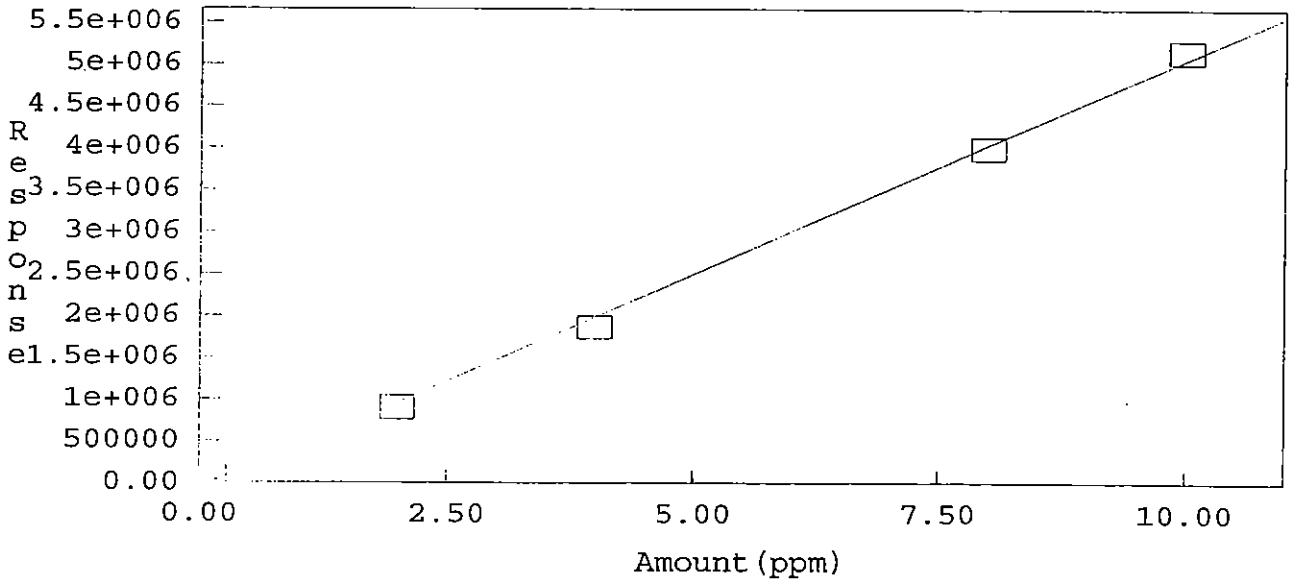
Method: E300-063.MET - Last Updated: 17:42 on Fri, 21 Mar 2003

Component: Fluoride
Fit Type: Linear
r^2 = 0.999552
Amt = Resp * 1.376e-006 + -0.000962
Resp = Amt * 7.267e+005 + 699.7
Standardization: External
Calibration: Area



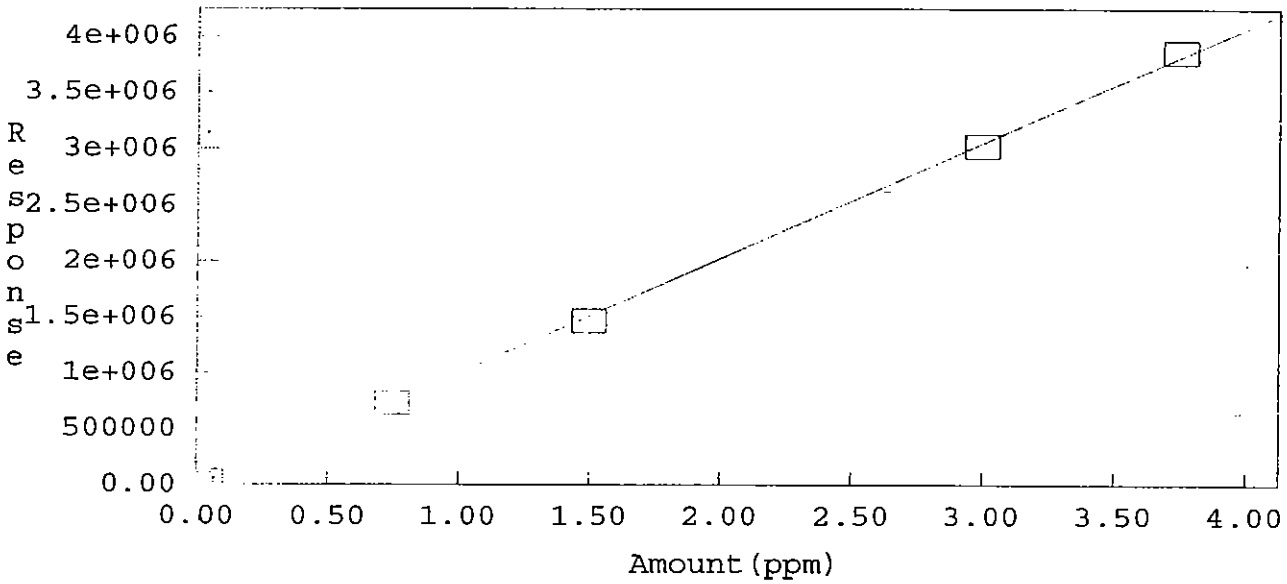
Method: C:\DX\METHOD\E300-063.MET

Component: Chloride
Fit Type: Linear
r^2 = 0.998409
Amt = Resp * 1.953e-006 + 0.1282
Resp = Amt * 5.121e+005 + -6.564e+00
Standardization: External
Calibration: Area



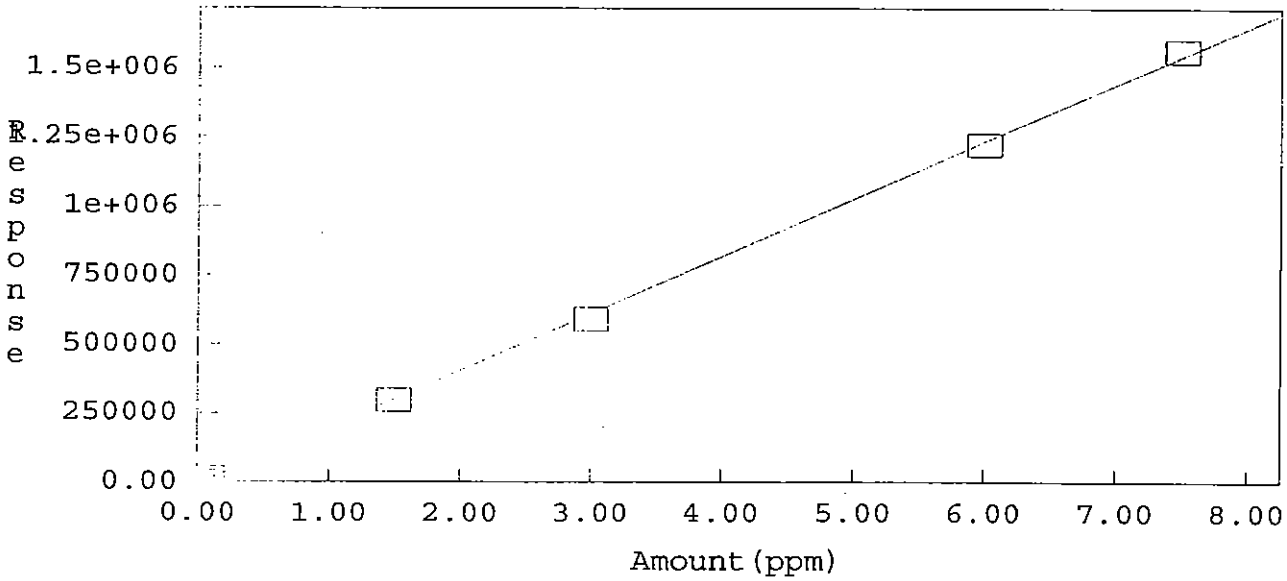
Method: C:\DX\METHOD\E300-063.MET

Component: Nitrite-N
Fit Type: Linear
r^2 = 0.999594
Amt = Resp * 9.762e-007 + 0.02381
Resp = Amt * 1.024e+006 + -2.439e+00
Standardization: External
Calibration: Area



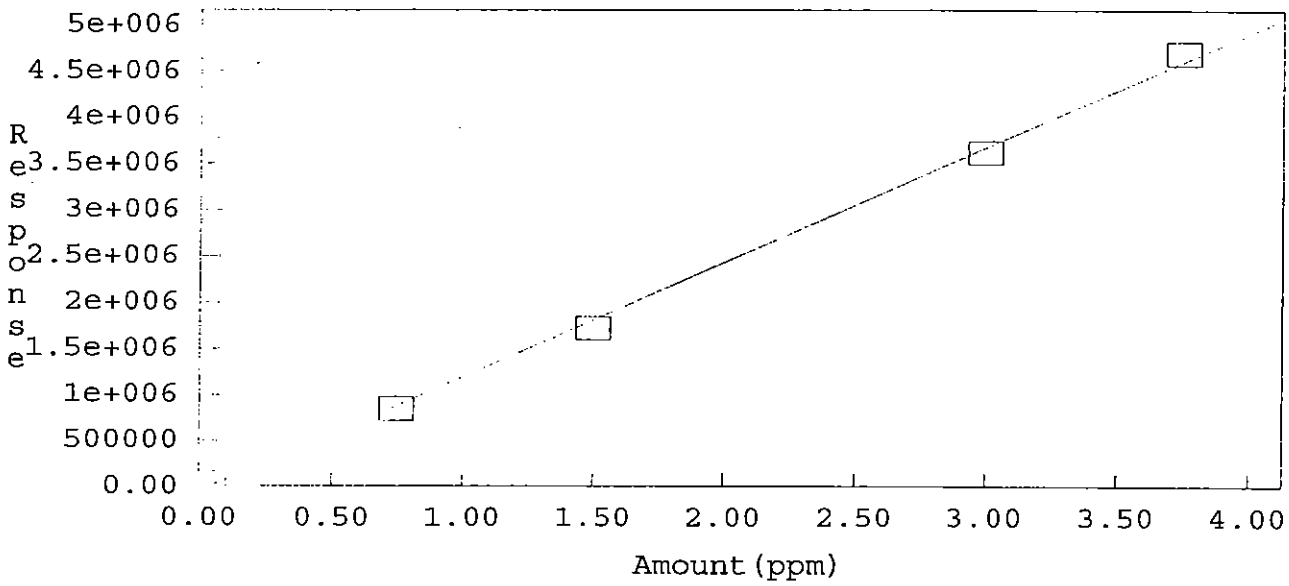
Method: C:\DX\METHOD\E300-063.MET

Component: Bromide
Fit Type: Linear
r^2 = 0.999518
Amt = Resp * 4.833e-006 + 0.0459
Resp = Amt * 2.069e+005 + -9497
Standardization: External
Calibration: Area



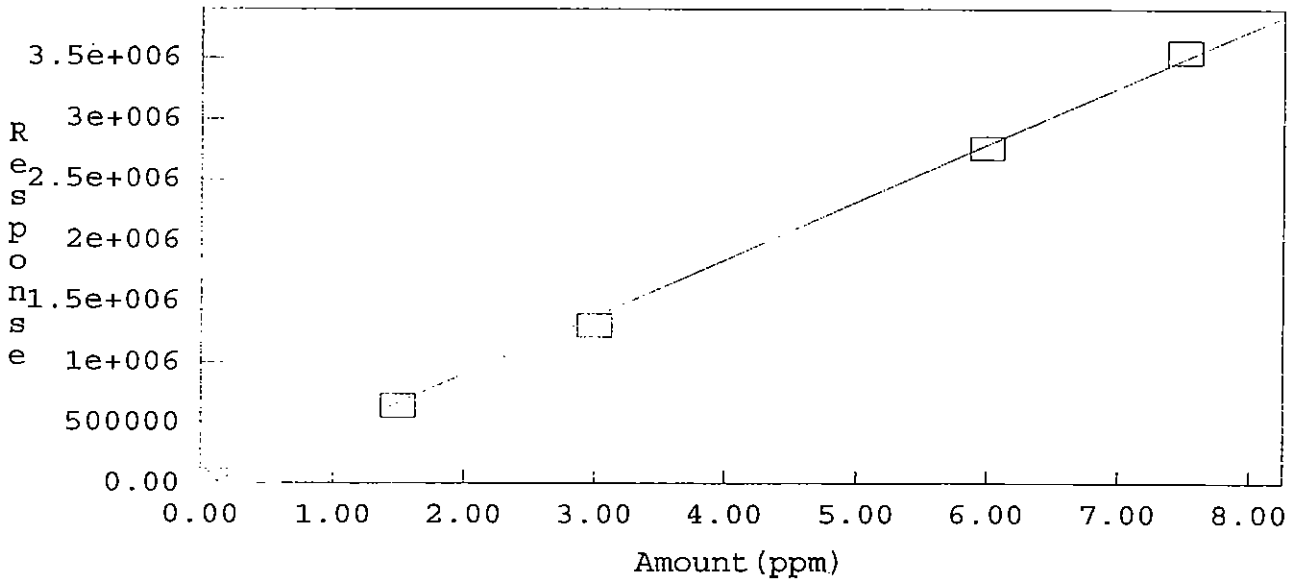
Method: C:\DX\METHOD\E300-063.MET

Component: Nitrate-N
Fit Type: Linear
r^2 = 0.998618
Amt = Resp * 8.056e-007 + 0.04247
Resp = Amt * 1.241e+006 + -5.272e+00
Standardization: External
Calibration: Area



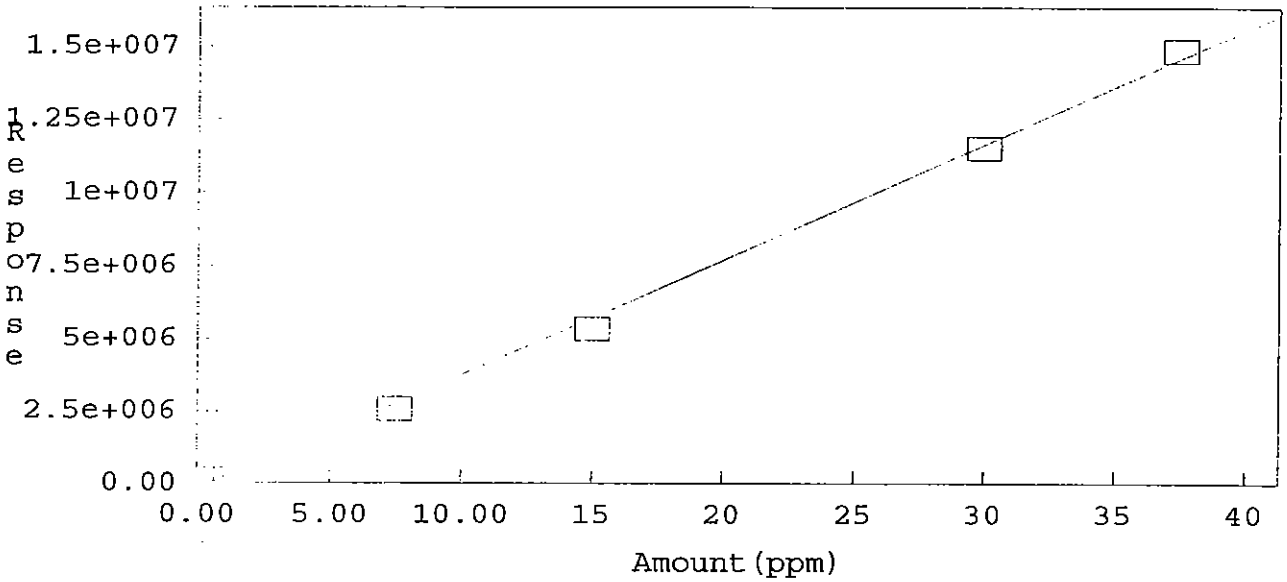
Method: C:\DX\METHOD\E300-063.MET

Component: Phosphate-P
Fit Type: Linear
r^2 = 0.998898
Amt = Resp * 2.122e-006 + 0.08689
Resp = Amt * 4.712e+005 + -4.094e+00
Standardization: External
Calibration: Area

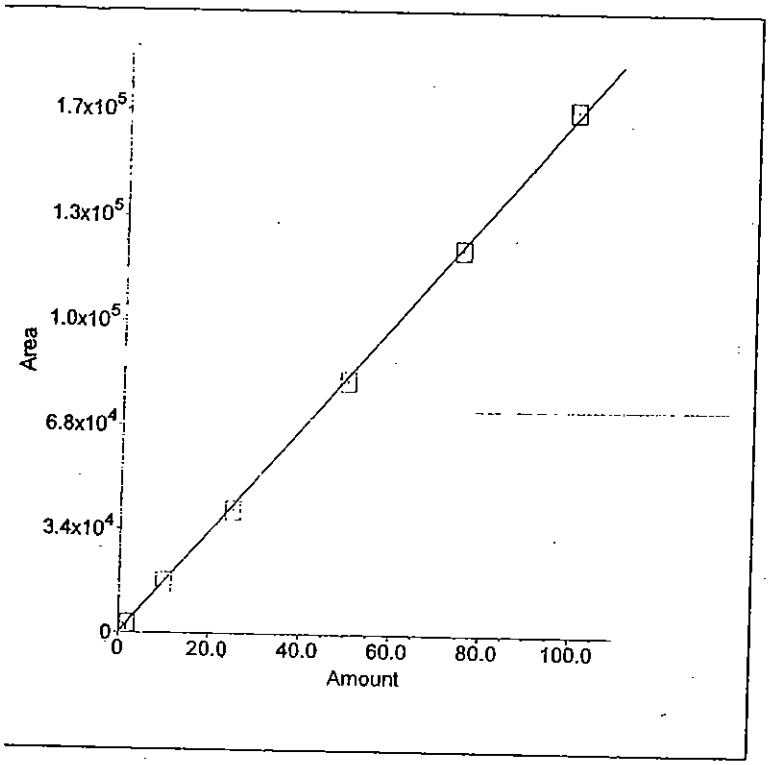


Method: C:\DX\METHOD\E300-063.MET

Component: Sulfate
Fit Type: Linear
r^2 = 0.998245
Amt = Resp * 2.533e-006 + 0.5323
Resp = Amt * 3.949e+005 + -2.102e+00
Standardization: External
Calibration: Area



1. Component:perchlorate
Standard:External Fit Type:Linear
Origin:Force Calibration:Area
r^2=0.999492
Amt=0.0005893*Resp+0



Calibration : 7 points , 0, 2, 10, 25, 50, 75, 100 ppb

Analyst C. W
Date 03/12/03
Instrument IC-1C

FORM-7

Applied P & Ch Laboratory

CCV Recovery for Wet Analysis

Client Name: GEOFON, Inc. Contract No.: Lab Code: APCL
Case No: SAS No.: Service ID: 32933
Project ID: JPL Project No.: 04-4428.10

#	Component Name	Method	Batch No.	Unit	Expe-cted	Test Result	Rec. %	Dev. %	Flag	Control Limit, %	Test Date
1	Chloride Cl^-	300.0	03W2610	mg/L	4.0	3.79	95	-5	√	90-110	04/29/2003
	NITRATE as N-NO_3^-, BY	300.0	03W2610	mg/L	1.5	1.45	96	-4	√	90-110	04/29/2003
	SULFATE SO_4^{--}, BY I	300.0	03W2610	mg/L	15	14.3	95	-5	√	90-110	04/29/2003
	Chloride Cl^-	300.0	03W2610	mg/L	4.0	3.91	98	-2	√	90-110	04/29/2003
	NITRATE as N-NO_3^-, BY	300.0	03W2610	mg/L	1.5	1.49	99	-1	√	90-110	04/29/2003
	SULFATE SO_4^{--}, BY I	300.0	03W2610	mg/L	15	15.0	100	0	√	90-110	04/29/2003
	Chloride Cl^-	300.0	03W2610	mg/L	4.0	3.93	98	-2	√	90-110	04/29/2003
	NITRATE as N-NO_3^-, BY	300.0	03W2610	mg/L	1.5	1.52	101	1	√	90-110	04/29/2003
	SULFATE SO_4^{--}, BY I	300.0	03W2610	mg/L	15	14.9	99	-1	√	90-110	04/29/2003
	Chloride Cl^-	300.0	03W2610	mg/L	4.0	3.88	97	-3	√	90-110	04/29/2003
	NITRATE as N-NO_3^-, BY	300.0	03W2610	mg/L	1.5	1.50	100	0	√	90-110	04/29/2003
	SULFATE SO_4^{--}, BY I	300.0	03W2610	mg/L	15	14.7	98	-2	√	90-110	04/29/2003
2	Perchlorate	314.0	03W2612	μg/L	50	53.1	106	6	√	90-110	04/29/2003
	Perchlorate	314.0	03W2612	μg/L	50	49.8	100	0	√	90-110	04/29/2003
	Perchlorate	314.0	03W2612	μg/L	50	50.8	102	2	√	90-110	04/29/2003
	Perchlorate	314.0	03W2612	μg/L	50	48.9	98	-2	√	90-110	04/29/2003
3	Chromium (VI)	7196	03W2603	mg/L	0.25	0.255	102	2	√	90-110	04/28/2003
	Chromium (VI)	7196	03W2603	mg/L	0.25	0.250	100	0	√	90-110	04/28/2003

plied P & Ch Laboratory
Magnolia Ave. Chino CA 91710
(909) 590-1828 Fax: (909) 590-1498

Conductance (120.1) Worksheet

06

for reference

Matrix: W

Test Date: 6/30/93 Analyst: mm

Constant _____ Calibration STD: 0.0100M KCl

SOP: G-

	Sample ID	Treatment $V/X=f_0$	Dilution $V_f/V_i=f_1$	Temperature T, °C	$C_{25}=C_T f_1/[1-0.0191(25-T)]$ C_T, μmhos/cm	C_{25}, μmhos/cm	$\rho=1/C_{25}$ MΩ cm	Note & Anomaly
Cal.	Lot #:	–	–	25°C				$C_{25}=1{,}413\pm20$
MB		/ =	/ =					for cl
1	2933-1	/ =	/ =			21.6		
2	-2	/ =	/ =			437		
3	-3	/ =	/ =			364		
4	-4	/ =	/ =			404		
5	-5	/ =	/ =			302		
6	-6	/ =	/ =			349		
7	2964-1	/ =	/ =			412		
8	-2	/ =	/ =			252		
9	-3	/ =	/ =			538		
10	-4	/ =	/ =			364		
11	-5	/ =	/ =			360		
12	-6	/ =	/ =			297		
13	-7	/ =	/ =			401		
14		/ =	/ =					
15		/ =	/ =					
16		/ =	/ =					
17		/ =	/ =					
18		/ =	/ =					
19		/ =	/ =					
20		/ =	/ =					
Dup.		/ =	/ =					

APCL form 5-108, Apr. 22, 1996; Ver 2.1 No pencil. Use blue pen for record. Use red pen for correction.
FILE: [CUST.DOC.WET]CONDUC .TEX Root-File: CONDUC_ROOT.TEX 1-Page-File:[CUST.DOC.WET]CONDUC1.TEX

Applied P & Ch Laboratory
13760 Magnolia Ave. Chino CA 91710
Tel: (909) 590-1828 Fax: (909) 590-1498

TDS

Solid Analysis (160.1, 160.2, 160.3) Worksheet

Batch # 03W2607 Matrix W Method: 160.1 Balance No. _____ Date: 4/28/03 Analyst: DC

EPA 160.1 TDS – Total Dissolved (filterable) Solids — Dry for 1hr. or more at 180 °C

EPA 160.2 TSS – Total Suspended (nonfilterable) Soilds — Dry for 1hr. or more at 103-105 °C

EPA 160.3 TS – Total Solids — Dry for 1hr. or more at 103-105 °C

Other method (specify):

Result= $10^6 \times \Delta W \times f_1 / V$ SOP: G-81

#	Analysis Type	Sample ID (STD Lot #)	Treatment Ratio $V_f/X=f_1$	Volume V, mL	W_1 g	W_2 1st, g	W_2 2nd, g	$\Delta W = W_2 - W_1$, g	Results (ppm)	Note
1	Blank	T1116	1 =	100	111.7909	111.7908	111.7909	0.0000	0	R
2	LCS	T1116	1 =		113.8589	113.8989	113.8987	0.0396	396	6
3	Sample-1	2866-1	1 =		103.9444	103.9741	103.9740	0.0298	298	14
4	MS on S-1	2933-3	1 =		111.2769	111.3496	111.3448	0.0679	679	J
5	MSD on S-1	3	1 =		114.3071	114.3720	114.3723	0.0652	652	H
6	Sample-2	2866-2	1 =		104.3077	104.3076	104.3078	0.0001	1	3
7	Sample-3	3	1 =		115.1364	115.1614	115.1615	0.0251	251	10
8	Sample-4	4	1 =		114.3694	114.3928	114.3929	0.0235	235	A
9	Sample-5	5	1 =		115.9117	115.9449	115.9450	0.0333	333	19
10	Sample-6	6	1 =		116.9493	116.9693	116.9694	0.0201	201	W
11	Sample-7	7	1 =		115.7069	115.7415	115.7416	0.0347	347	HK
12	Sample-8	2881-1	1 =		106.3145	106.3401	106.3400	0.0255	255	8
13	Sample-9	2	1 =		107.7107	107.7356	107.7357	0.0250	250	O
14	Sample-10	3	1 =		105.3125	105.3666	105.3669	0.0544	544	12
15	LCSD	T1116	1 =		112.9002	112.9412	112.9414	0.0412	412	*
16	Sample-11	4	1 =		121.3177	121.3567	121.3565	0.0388	388	I
17	Sample-12	5	1 =		105.3575	105.3998	105.3996	0.0421	421	W1
18	Sample-13	6	1 =		99.0757	99.0946	99.0945	0.0188	188	12
19	Sample-14	2933-1	1 =		103.5328	103.5328	103.5328	0.0000	0	26
20	Sample-15	2	1 =		115.1082	115.1334	115.1335	0.0253	253	G
21	Sample-16	3	1 =		115.3468	115.3716	115.3718	0.0250	250	J
22	Sample-17	4	1 =		116.6479	116.6725	116.6726	0.0247	247	Z
23	Sample-18	5	1 =		105.8998	105.9194	105.9196	0.0198	198	19
24	Sample-19	6	1 =		115.8730	115.8948	115.8949	0.0219	219	CK
25	Sample-20	~~2948-1~~	1 =							
26	Mtx Dup.		1 =							

Type	STD Lot #	$C_{STD}(\mu g/mL) \times V_{STD}(mL)/X(g \text{ or } mL) = T$	Spike Rec.	Ctl Limit (W/S)
MS	W-7618	× 1 = 400 ppm	%	85-115 %/80-120 %
MSD	W-	× 1 = ppm	%	.. ..
LCS	W-7619	× 1 = ppm	%	90-110 %/85-115 %
LCSD	W-	× 1 = ppm	%	.. ..

PQL/MDL (in ppm)	
PQL(w)	10
PQL(s)	50
MDL(w)	4
MDL(s)	20

APCL form 5-127, March 7, 1995. Ver. 3.0 No pencil. Use blue pen for record. Use red pen for correction.

FILE: [CUST.DOC.WET]TDS.TEX ROOT-FILE: TDS.ROOT.TEX CONTROL-FILE: TDS.000 1-Page file: TDS1.TEX

4849

Control limits are subjected to change. The updated values are given in the latest version of APCL Technical Handbook Vol. 2

Applied P. & Ch. Laboratory
13760 Magnolia Ave., Chino, CA 91710
Tel: (909) 590-1828 Fax: (909) 590-1498

Balance Daily Calibration Worksheet

Weight Set S/N: 12006

Calib. Date	Lab Balance Balance #	Lab Balance 1 g ±0.05g	Lab Balance 10 g ±0.1g	Lab Balance 200 g ±0.5g	Lab Balance Note (C)	Digital Balance Balance #	Digital Balance 1 g ±0.02g	Digital Balance 10 g ±0.05g	Digital Balance 200 g ±0.10g	Digital Balance Note (D) (C) (AR)	Analytical Balance Balance #	Analytical Balance 1 g ±0.0002g	Analytical Balance 10 g ±0.0005g	Analytical Balance 200 g ±0.0010g	Analytical Balance Note (D) (C) (AR)	Calib. by
4/25/03	A-01	not	in	use	✓	B-01	1.00	10.00	200.00	✓✓✓	C-01	1.0000	10.0001	200.0001	✓✓✓	✓
	~~A-02~~					B-05	9.99	9.99	199.99	✓✓✓	C-02	1.0000	10.0000	200.0001	✓✓✓	
	A-03	100	10.00	200.01	✓	B-06	1.00	10.00	200.01	✓✓✓	C-					
	A-04					B-07	1.00	9.99	199.99	✓✓✓	C-					
	A-		4/25/03			B-			4/25/03		C-		4/25/03			
	A-					B-					C-					
4/28/03	A-01	not	in	use	✓	B-01	1.00	10.00	200.00	✓✓✓	C-01	1.0000	10.0001	200.0001	✓✓✓	✓
	~~A-02~~					B-05	1.00	9.99	199.99	✓✓✓	C-02	1.0000	10.0000	200.0000	✓✓✓	
	A-03	1.00	9.99	200.00	✓	B-06	1.00	10.00	200.00	✓✓✓	C-					
	A-04					B-07	1.00	9.99	199.99	✓✓✓	C-					
	A-		4/28/03			B-			4/28/03		C-		4/28/03			
	A-					B-					C-					
4/29/03	A-01	not	in	use	✓	B-01	1.00	10.01	200.00	✓✓✓	C-01	1.0000	10.0001	200.0001	✓✓✓	✓
	~~A-02~~					B-05	1.00	9.99	199.99	✓✓✓	C-02	1.0000	10.0000	200.0000	✓✓✓	
	A-03	1.00	9.99	200.00	✓	B-06	1.00	10.00	200.00	✓✓✓	C-					
	A-04					B-07	1.00	9.99	199.99	✓✓✓	C-					
	A-		4/29/03			B-			4/28/03		C-		4/29/03			
	A-					B-					C-					
4/30/03	A-01	not	in	use	✓	B-01	1.00	10.01	200.00	✓✓✓	C-01	1.0000	10.0001	200.0001	✓✓✓	✓
	~~A-02~~					B-05	1.00	9.99	199.99	✓✓✓	C-02	1.0000	10.0000	200.0000	✓✓✓	
	A-03	1.00	9.99	200.00	✓	B-06	1.00	10.00	200.00	✓✓✓	C-					
	A-04					B-07	1.00	9.99	199.99	✓✓✓	C-					
	A-		4/30/03			B-			4/30/03		C-		4/30/03			
	A-					B-					C-					

Notation: (C) – Cleanliness; (D) – Display; (AR) – Auto Rezeroing.

Applied P & Ch Laboratory
13760 Magnolia Ave. Chino CA 91710
Tel: (909) 590-1828 Fax: (909) 590-1498

Alkalinity/OH/CO_3/HCO_3 (310.1/SM2320B) Worksheet

02h

Batch # D302665 Matrix: W Titrant H_2SO_4 Lot # W7900 Concentration (C) 0.0255 N; Test Date: 5/1/03 Analyst: DC SOP: G-51

#	Sample ID	Dilution $V_f/V_i=f_1$	Smpl Amnt V_i mL	H_2SO_4 (mL) by Phnln S_A	E_A	A	H_2SO_4 (mL) by MR-BCG S_B	E_B	B	Phnln-Alk., P	Tot. Alk., T (in unit of mg$CaCO_3$/L)	OH^-	CO_3^{2-}	HCO_3^-	Note & Anomaly
1	MB: 7115	1 =	100			0			0		0	0	0	0	
2	LCS	1 =	100						7.90		100.9				
3	LCSD	1 =	100						8.00		102.2				
4	2933-1	1 =	50.0			0			0		0	0	0	0	
5	-2	1 =	50.0			0			6.90		176.3	0	0	176.3	
6	-3	1 =	50.0			0			6.40		163.5	0	0	163.5	
7	-4	1 =	50.0			0			6.55		167.4	0	0	167.4	
8	-5	1 =	50.0			0			5.35		136.7	0	0	136.7	
9	-6	1 =	50.0			0			6.10		155.9	0	0	155.9	
10	3015-1	1 =	50.0			0			7.10		181.4	0	0	181.4	
11	-2	1 =	50.0			0			0		0	0	0	0	
12	-3	1 =	50.0			0			7.90		201.8	0	0	201.8	
13	-4	1 =	50.0			0			7.30		186.5	0	0	186.5	
14	-5	1 =	50.0			0			5.60		143.1	0	0	143.1	
15	-6	1 =	50.0			0.10			5.10	2.6	132.9	0	5.2	127.7	
16	-7	1 =	50.0			0.80			4.25	20.4	129.7 ~~139.4~~	0	40.8	88.3	
5/1/03 17	~~2999~~ 2964-1	1 =	50.0			0.20			4.60	5.1	122.6	0	10.2	112.4	
18	2964-2	1 =	50.0			0			0		0	0	0	0	
19	-3	1 =	50.0			0			6.40		163.5	0	0	163.5	
20	-4	1 =	50.0			0.2			4.65	5.1	123.9	0	10.2	113.7	
Dup.	2933-2	1 =	50.0			0			6.85		175.0	0	0	175.0	

Titration Results	OH^- ($CaCO_3$ mg/L)	CO_3^{2-} ($CaCO_3$ mg/L)	HCO_3^- ($CaCO_3$ mg/L)
P=0	0	0	T
P<T/2	0	2P	T-2P
P=T/2	0	2P	0
P>T/2	2P-T	2(T-P)	0
P = T	T	0	0

Calculation:

$A=S_A \cdot E_A$

$B=S_B \cdot E_B$

$P=50{,}000\ f_1\ A\ C\ /V$

$T=50{,}000\ f_1\ (A+B)\ C\ /V$

APCL Form 5-101, Nov. 29, 1999 Ver 3.2

Using blue pen. Correcting by red pen.

File: [CUST.DOC.WET]ALK.TEX

Root-File: [CUST.DOC.WET]ALK_ROOT.TEX

1-Page-File: [CUST.DOC.WET]ALK1.TEX

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

pH (150.1/9045B) Worksheet

Temperature compensation must be performed by the instrument automatically. Analyst DL SOP: G-44

Batch # 03W2519-2 Analysis Date: 4/28/03
Starting Time: 16:22 Ending Time: :
Matrix ☒ Aqueous ☐ Soil

Standard	4.00	7.00	10.00
Lot #		2120	030659-24
Temperature °C		24.2	24.2
pH Reading		7.01	10.02
T-corrected pH		7.00	10.01
Control Limit	±0.05 pH unit		

#	Sample ID	Pre-treat	pH	Note
MB	T1116		6.87	
1	2940-2		7.58	
2	2933-1		6.54	
3	-2		7.44	
4	-3		7.97	
5	-4		8.08	
6	-5		8.01	
7	-6		8.17	
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
Dup.	2940-2		7.58	

Batch # 03W2631 Analysis Date: 4/29/03
Starting Time: 16:10 Ending Time: :
Matrix ☒ Aqueous ☐ Soil

Standard	4.00	7.00	10.00
Lot #		2120	030659-24
Temperature °C		24.0	24.0
pH Reading		6.99	10.00
T-corrected pH		7.00	10.01
Control Limit	±0.05 pH unit		

#	Sample ID	Pre-treat	pH	Note
MB	T1116		6.85	
1	2959-2		8.61	
2	2961-2		8.10	
3	2964-1		8.22	
4	-2		7.77	
5	-3		7.90	
6	-4		8.40	
7	-5		8.89	
8	-6		9.01	
9	-7		8.04	
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
Dup.	2964-7		8.09	

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Chromium (VI) (7196) Worksheet

Batch #: 23W2603 Matrix: w [Holding Time: 24 hours!!] Test Date: 4/28/03 Analyst: R

Lot #: Reagent Water _____ Diphenylcazide solution _____ Test Time: 16:53 SOP: G-22

Calibration	STD Lot #	$C_{std} \times V_{std}/V_f = C_i$	A_i	$RF_i = A_i/C_i$	Calibration results	Note
STD-1	W-	× / = mg/L			Least Square [RF]=	Cal. Code:
STD-2	W-	× / = mg/L			Average $\bar{RF}$=	
STD-3	W-	× / = mg/L			C.C.= 0.9997 (≥ 0.995)	
STD-4	W-	× / = mg/L			RSD= % (≤ 15%)	
STD-5	W-	× / = mg/L			Ref. page	
STD-6	W-	× / = mg/L			A=0.000+0.836C	

Analysis Type	Sample ID or Lot #	Samp. Amnt X_0 (g or mL)	Dilu./Ext $X/X_0=f_1$	Treat. Ratio $V/X=f_2$	540 nm A	Concentration $C'=A/\bar{RF}$	C (Sample) $C=f_1\ f_2\ C'$	Anomaly Note
CCV	Lot: W- 7853	Expected Conc.:	× /	= 0.25 mg/L	0.213	0.255 mg/L	REC. %	90-110 %
Method Blank	Bl. Lot: T1116		/X_0 = 1	95.0/ =	0.000	mg/L	0.000 ppm	
LCS1	Bl. Lot: "		/X_0 =	95.0/ =	0.200	mg/L	0.239 ppm	
Sample-1	29335-1		/X_0 =	95.0/ =	0.003	mg/L	0.003 ppm	
MS on S-1	3		/X_0 =	95.0/ =	0.199	mg/L	0.238 ppm	
MSD on S-1	3		/X_0 =	95.0/ =	0.203	mg/L	0.243 ppm	
Sample 2	2		/X_0 =	95.0/ =	0.002	mg/L	0.002 ppm	
Sample 3	3		/X_0 =	95.0/ =	0.002	mg/L	0.002 ppm	
Sample 4	4		/X_0 =	95.0/ =	0.001	mg/L	0.001 ppm	
Sample 5	5		/X_0 =	95.0/ =	0.001	mg/L	0.001 ppm	
Sample 6	6		/X_0 =	95.0/ =	0.001	mg/L	0.001 ppm	
Sample 7			/X_0 =	95.0/ =		mg/L	ppm	
Sample 8			/X_0 =	95.0/ =		mg/L	ppm	
Sample 9			/X_0 =	95.0/ =		mg/L	ppm	
Sample 10			/X_0 =	95.0/ =		mg/L	ppm	
Blank	Lot:		/X_0 =	95.0/ =		mg/L	ppm	
LCS2	Bl. Lot: T1116		/X_0 = 1	95.0/ =	0.210	mg/L	0.251 ppm	
Sample 11			/X_0 =	95.0/ =		mg/L	ppm	
Sample 12			/X_0 =	95.0/ =		mg/L	ppm	
Sample 13			/X_0 =	95.0/ =		mg/L	ppm	
Sample 14			/X_0 =	95.0/ =		mg/L	ppm	
Sample 15			/X_0 =	95.0/ =		mg/L	ppm	
Sample 16			/X_0 =	95.0/ =		mg/L	ppm	
Sample 17			/X_0 =	95.0/ =		mg/L	ppm	
Sample 18			/X_0 =	95.0/ =		mg/L	ppm	
Sample 19			/X_0 =	95.0/ =		mg/L	ppm	
Sample 20			/X_0 =	95.0/ =		mg/L	ppm	
MEX Dup.	closing on Sheet		/X_0 =	95.0/ =	0.209	0.250 mg/L	ppm	

Spike	STD Lot #	$C_{STD}(\mu g/mL) \times V_{STD}(mL)/X(g \text{ or } mL) = T$	Spike Rec.	Ctl Limit (W/S)
	W- 7759	× / = 0.25 ppm	%	80-120 %/80-120 %
	W- "	× / = ppm	%	.. ..
	W- 7853	× / = ppm	%	80-120 %/80-120 %
	W- "	× / = ppm	%	.. ..

PQL/MDL (in ppm)	
PQL(w)	0.01
PQL(s)	0.05
MDL(w)	0.005
MDL(s)	0.025

Form 5-155 May 08, 1996. Ver. 3.1 No pencil. Use blue pen for record. Use red pen for correction.
[UST.DOC.WET]CR6.TEX Root-file: CR6_ROOT.TEX 1-Page-File: CR61.TEX
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Tel: (909) 590-1828 Fax: (909) 590-1498

Chromium (VI) (7196) Worksheet

Batch # 03W1295 Matrix: W [Holding Time: 24 hours!!] Test Date: 1/29/03 Analyst: BN

Lot #: Reagent Water _____ Diphenylcazide solution _____ Test Time: _____ SOP: G-22

Calibration	STD Lot #	$C_{std} \times V_{std}/V_f = C_i$	A_i	$RF_i = A_i/C_i$	Calibration results	Note
STD-1	W-7191	× / =0.000mg/L	0.000		Least Square [RF]=	Cal. Code:
STD-2	W-	× / =0.012mg/L	0.006		Average RF=	A=0.000+0.836C
STD-3	W-	× / =0.050mg/L	0.041		C.C.=0.9997 (≥ 0.995)	
STD-4	W-	× / =0.125mg/L	0.109		RSD= % (≤ 15%)	
STD-5	W-	× / =0.250mg/L	0.214		Ref. page	
STD-6	W- ✓	× / =0.500mg/L	0.415		~~A=0.003+Bn~~ 1/29/03	

Analysis Type	Sample ID or Lot #	Samp. Amnt X_0 (g or mL)	Dilu./Ext $X/X_0=f_1$	Treat. Ratio $V/X=f_2$	540 nm A	Concentration $C'=A/RF$	C (Sample) $C=f_1 f_2 C'$	Anomaly Note
CCV	Lot: W-7076.	Expected Conc.:	×	/ =0.25 mg/L	0.216	0.258 mg/L	REC. %	90-110 %
Method Blank	Bl. Lot: T1115		$/X_0$ = 1	95.0/ =	0.000	mg/L	0.00 ppm	
LCS1	Bl. Lot: "		$/X_0$ =	95.0/ =	0.204	mg/L	0.244 ppm	
Sample-1	1369-1		$/X_0$ =	95.0/ =	0.000	mg/L	0.00 ppm	
MS on S-1	6		$/X_0$ =	95.0/ =	0.223	mg/L	0.266 ppm	
MSD on S-1	6		$/X_0$ =	95.0/ =	0.230	mg/L	0.275 ppm	
Sample 2	2		$/X_0$ =	95.0/ =	0.004	mg/L	0.005 ppm	
Sample 3	3		$/X_0$ =	95.0/ =	0.002	mg/L	0.002 ppm	
Sample 4	4		$/X_0$ =	95.0/ =	0.001	mg/L	0.001 ppm	
Sample 5	5		$/X_0$ =	95.0/ =	0.002	mg/L	0.002 ppm	
Sample 6	6		$/X_0$ = ✓	95.0/ =	0.004	mg/L	0.005 ppm	
Sample 7	-		$/X_0$ =	95.0/ =		mg/L	ppm	
Sample 8			$/X_0$ =	95.0/ =		mg/L	ppm	
Sample 9			$/X_0$ =	95.0/ =		mg/L	ppm	
Sample 10			$/X_0$ =	95.0/ =		mg/L	ppm	
Blank	Lot:		$/X_0$ =	95.0/ =		mg/L	ppm	
LCS2	Bl. Lot: T1115		$/X_0$ = 1	95.0/ =	0.210	mg/L	0.251 ppm	
Sample 11			$/X_0$ =	95.0/ =		mg/L	ppm	
Sample 12			$/X_0$ =	95.0/ =		mg/L	ppm	
Sample 13			$/X_0$ =	95.0/ =		mg/L	ppm	
Sample 14			$/X_0$ =	95.0/ =		mg/L	ppm	
Sample 15			$/X_0$ =	95.0/ =		mg/L	ppm	
Sample 16			$/X_0$ =	95.0/ =		mg/L	ppm	
Sample 17			$/X_0$ =	95.0/ =		mg/L	ppm	
Sample 18			$/X_0$ =	95.0/ =		mg/L	ppm	
Sample 19			$/X_0$ =	95.0/ =		mg/L	ppm	
Sample 20			$/X_0$ =	95.0/ =		mg/L	ppm	
MTX Dup.	Closing 0.25mg/L		$/X_0$ =	95.0/ =	0.204	mg/L	0.240 ppm	

Type	STD Lot #	$C_{STD}(\mu g/mL) \times V_{STD}(mL)/X(g \text{ or } mL) = T$	Spike Rec.	Ctl Limit (W/S)
MS	W-7076	× / =0.25 ppm	%	80-120 %/80-120 %
MSD	W- ✓	× / = ppm	%	.. ..
LCS	W-7191	× / = ppm	%	80-120 %/80-120 %
LCSD	W- ✓	× / = ✓ ppm	%	.. ..

PQL/MDL (in ppm)	
PQL(w)	0.01
PQL(s)	0.05
MDL(w)	0.005
MDL(s)	0.025

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File:[CUST.DOC.WET]CR6.TEX Root-file: CR6_ROOT.TEX 1-Page-File: CR61.TEX
Control limits are subjected to change. The updated values are given in the latest version of APCL Technical Handbook Vol. 2

DIONEX SCHEDULE - C:\DX\SCHEDULE\E300-063.SCH

Inj#	Sample Name	Method	Data File	Vol.	Dil.	Int.Std.
1	autocal1r	..\E300-063	..\W7767Q01.D01	1	1	1
2	autocal2r	..\E300-063	..\W7767Q01.D02	1	1	1
3	autocal3r	..\E300-063	..\W7767Q01.D03	1	1	1
4	autocal4r	..\E300-063	..\W7767Q01.D04	1	1	1
5	autocal5r	..\E300-063	..\W7767Q01.D05	1	1	1
6	autocal6r	..\E300-063	..\W7767Q01.D06	1	1	1
7	icv-w7768-100X	..\E300-063	..\W7768Q01.D07	1	1	1
8	icb	..\E300-063	..\W7767Q01.D08	1	1	1

Comment:

Analyst DL

Date 3/21/03

Instrument J

DIONEX SCHEDULE - C:\DX\SCHEDULE\03W2610.SCH

Inj#	Sample Name	Method	Data File	Vol.	Dil.	Int.Std.
1	##03W2610, W CCVW77	..\E300-063	..\W2610Q01.D01	1	1	1
2	MB RW1409	..\E300-063	..\W2610K11.D02	1	1	1
3	LCS W7768-100X	..\E300-063	..\W2610L01.D03	1	1	1
4	LCSD W7768-100X	..\E300-063	..\W2610J01.D04	1	1	1
5	2933-2 F=2	..\E300-063	..\2933-201.D05	1	2	1
6	2933-3 F=2	..\E300-063	..\2933-301.D06	1	2	1
7	2933-4 F=2	..\E300-063	..\2933-401.D07	1	2	1
8	2933-5 F=2	..\E300-063	..\2933-501.D08	1	2	1
9	2933-6 F=2	..\E300-063	..\2933-601.D09	1	2	1
10	2936-1 F=200	..\E300-063	..\2936-101.D10	1	200	1
11	2933-1 F=1.25	..\E300-063	..\2933-101.D11	1	1.25	1
12	CCV2W7767-100X	..\E300-063	..\W2610Q01.D12	1	1	1
13	MB RW1409	..\E300-063	..\W2610K01.D13	1	1	1
14	$2933-3 MS F=4	..\E300-063	..\W2610M01.D14	1	4	1
15	$2933-3 MSD F=4	..\E300-063	..\W2610N01.D15	1	4	1
16	2933-3 F=2	..\E300-063	..\2933-301.D16	1	2	1
17	CCV3W7767-100X	..\E300-063	..\W2610Q01.D17	1	1	1
18	MB RW1409	..\E300-063	..\W2610K11.D18	1	1	1
19	2964-1 F=8	..\E300-063	..\2964-101.D19	1	8	1
20	2964-3 F=5	..\E300-063	..\2964-301.D20	1	5	1
21	2964-4 F=8	..\E300-063	..\2964-401.D21	1	8	1
22	2964-5 F=4	..\E300-063	..\2964-501.D22	1	4	1
23	2964-6 F=2	..\E300-063	..\2964-601.D23	1	2	1
24	2964-7 F=2	..\E300-063	..\2964-701.D24	1	2	1
25	2964-2 F=1.25	..\E300-063	..\2964-201.D25	1	1.25	1
26	CCV4W7767-100X	..\E300-063	..\W2610Q01.D26	1	1	1
27		..\STOP.MET		1	1	1

Comment:
LCS/LCSD LOT # W7768
MS/MSD LOT # W7767
ELUENT LOT # W7868
ANALYTICAL METHOD 9056/E300 MATRIX W

Analyst TR
Date 4/29/03
Instrument I

e	Sample	Sample Type	Level	Method	Data File	Volume	Dilution
	##03w2612kw ipc 25ppb w7759	Sample		e314-011.met	c:\data\03w2612k\w2612k ipc 25ppb	1	1
	ccv 50ppb w7827e	Sample		e314-011.met	c:\data\03w2612k\w2612k q01	1	1
	ccb	Sample		e314-011.met	c:\data\03w2612k\w2612k ccb01	1	1
	lcs 25ppb w7827d	Sample		e314-011.met	c:\data\03w2612k\w2612k l01	1	1
	LCS 18PPB W7685D	Sample		e314-011.met	c:\data\03w2612k\w2612k j01	1	1
	ICCS 4ppb w7827b	Sample		e314-011.met	c:\data\03w2612k\w2612k iccs 4ppb	1	1
	mb	Sample		e314-011.met	c:\data\03w2612k\w2612k k01	1	1
	2866-05 F=1	Sample		e314-011.met	c:\data\03w2612k\2866-05	1	1
	2866-06 f=1	Sample		e314-011.met	c:\data\03w2612k\2866-06	1	1
	2866-07 F=1	Sample		e314-011.met	c:\data\03w2612k\2866-07	1	1
	2933-03 F=1	Sample		e314-011.met	c:\data\03w2612k\2933-03	1	1
	2933-01 f=1	Sample		e314-011.met	c:\data\03w2612k\2933-01	1	1
	ccv 50ppb w7827e	Sample		e314-011.met	c:\data\03w2612k\w2612k q02	1	1
	ccb	Sample		e314-011.met	c:\data\03w2612k\w2612k k02	1	1
	2933-02 f=1	Sample		e314-011.met	c:\data\03w2612k\2933-02	1	1
	2933-03 ms 50ppb f=1	Sample		e314-011.met	c:\data\03w2612k\w2612k m01	1	1
	2933-03 msd 50ppb f=1	Sample		e314-011.met	c:\data\03w2612k\w2612k n01	1	1
	2933-04 F=1	Sample		e314-011.met	c:\data\03w2612k\2933-04	1	1
	2933-05 F=1	Sample		e314-011.met	c:\data\03w2612k\2933-05	1	1
	2933-06 F=1	Sample		e314-011.met	c:\data\03w2612k\2933-06	1	1
	2881-01 F=1	Sample		e314-011.met	c:\data\03w2612k\2881-01	1	1
	2881-02 F=1	Sample		e314-011.met	c:\data\03w2612k\2881-02	1	1
	2881-03 F=1	Sample		e314-011.met	c:\data\03w2612k\2881-03	1	1
	ccv 50ppb w7827e	Sample		e314-011.met	c:\data\03w2612k\w2612k q03	1	1
	CCB	Sample		e314-011.met	c:\data\03w2612k\w2612k k03	1	1
	2881-04 F=1	Sample		e314-011.met	c:\data\03w2612k\2881-04	1	1
	2881-05 F=1	Sample		e314-011.met	c:\data\03w2612k\2881-05	1	1
	2881-06 F=1	Sample		e314-011.met	c:\data\03w2612k\2881-06	1	1
	2866-06 md f=2	Sample		e314-011.met	c:\data\03w2612k\w2612k d01	1	2
	2933-04 f=2	Sample		e314-011.met	c:\data\03w2612k\2933-04a	1	2
	ccv 50ppb w7827e	Sample		e314-011.met	c:\data\03w2612k\w2612k q04	1	1
	ccb	Sample		e314-011.met	c:\data\03w2612k\w2612k k04	1	1
	2964-01 f=1	Sample		e314-011.met	c:\data\03w2612k\2964-01	1	1
	2964-02 f=1	Sample		e314-011.met	c:\data\03w2612k\2964-02	1	1
	2964-03 f=1	Sample		e314-011.met	c:\data\03w2612k\2964-03	1	1
	2964-04 f=1	Sample		e314-011.met	c:\data\03w2612k\2964-04	1	1
	2964-05 f=1	Sample		e314-011.met	c:\data\03w2612k\2964-05	1	1
	ccv 50ppb w7827e	Sample		e314-011.met	c:\data\03w2612k\w2612k q05	1	1
	ccv 50ppb w7827e	Sample		e314-011.met	c:\data\03w2612k\w2612k q06	1	1
	ccb	Sample		e314-011.met	c:\data\03w2612k\w2612k k05	1	1
	2964-01 f=4	Sample		e314-011.met	c:\data\03w2612k\2964-01	1	4
	2964-04 f=4	Sample		e314-011.met	c:\data\03w2612k\2964-04	1	4
	2964-03 f=20	Sample		e314-011.met	c:\data\03w2612k\2964-03	1	20
	ccv 50ppb w7827e	Sample		e314-011.met	c:\data\03w2612k\w2612k q07	1	1
		Sample		aastopcl.met		1	1

Analyst Wei Wang

Date 4/29-30/03

Instrument IC-K

4857

Line	Sample	Sample Type	Level	Method	Data File	Volume	Dilution
1	Cal blank	Sample		e314-011.met	c:\data\e314-011\mb_001.dxd	1	1
2	cal standard 2ppb W7827a	Sample		e314-011.met	c:\data\e314-011\std-2pb_002.dxd	1	1
3	cal standard 4ppb W7827b	Sample		e314-011.met	c:\data\e314-011\std-4pb_003.dxd	1	1
4	cal standard 10ppb W7827c	Sample		e314-011.met	c:\data\e314-011\std-10pb_004.dxd	1	1
5	cal standard 25ppb W7827d	Sample		e314-011.met	c:\data\e314-011\std-25pb_005.dxd	1	1
6	cal standard 50ppb W7827e	Sample		e314-011.met	c:\data\e314-011\std-50pb_006.dxd	1	1
7	cal standard 75ppb W7827f	Sample		e314-011.met	c:\data\e314-011\std-75pb_007.dxd	1	1
8	cal standard 100ppb W7827g	Sample		e314-011.met	c:\data\e314-011\std-100pb_008.dxd	1	1
9	ICV 50 ppb w7828a	Sample		e314-011.met	c:\data\e314-011\icv-50pb_009.dxd	1	1
0	icb	Sample		e314-011.met	c:\data\e314-011\icb_010.dxd	1	1
1	anion 100pm each ,25pb CLO4	Sample		e314-011.met	c:\data\e314-011\mct-100_011.dxd	1	1
2	anion 200pm each ,25pb CLO4	Sample		e314-011.met	c:\data\e314-011\mct-200_012.dxd	1	1
3	anion 300pm each ,25pb CLO4	Sample		e314-011.met	c:\data\e314-011\mct-300_013.dxd	1	1
4	anion 400pm each ,25pb CLO4	Sample		e314-011.met	c:\data\e314-011\mct-400_014.dxd	1	1
5	anion 500pm each ,25pb CLO4	Sample		e314-011.met	c:\data\e314-011\mct-500_015.dxd	1	1
6	anion 600pm each ,25pb CLO4	Sample		e314-011.met	c:\data\e314-011\mct-600_016.dxd	1	1
7	anion 800pm each ,25pb CLO4	Sample		e314-011.met	c:\data\e314-011\mct-800_017.dxd	1	1
8	anion 1000pm each ,25pb CLO4	Sample		e314-011.met	c:\data\e314-011\mct-1000_018.dxd	1	1
9	anion 400pm each 2pb	Sample		e314-011.met	c:\data\e314-011\ipc-2pb_019.dxd	1	1
0	anion 400pm each 4pb	Sample		e314-011.met	c:\data\e314-011\ipc-4pb_020.dxd	1	1
1	anion 400pm each 25pb	Sample		e314-011.met	c:\data\e314-011\ipc-25pb_021.dxd	1	1
2	ICV 50 ppb	Sample		e314-011.met	c:\data\e314-011\ccv-50pb	1	1
3	MDL 4pb	Sample		e314-011.met	c:\data\e314-011\mdl-02_023.dxd	1	1
4	MDL 4pb	Sample		e314-011.met	c:\data\e314-011\mdl-03_024.dxd	1	1
5	MDL 4pb	Sample		e314-011.met	c:\data\e314-011\mdl-04	1	1
6	MDL 4pb	Sample		e314-011.met	c:\data\e314-011\mdl-05	1	1
7	MDL 4pb	Sample		e314-011.met	c:\data\e314-011\mdl-06	1	1
8	MDL 4pb	Sample		e314-011.met	c:\data\e314-011\mdl-07	1	1
9	MDL 4pb	Sample		e314-011.met	c:\data\e314-011\mdl-08	1	1
0	IDP and IDA 25pb	Sample		e314-011.met	c:\data\e314-011\idap-25pb	1	1
1	IDP and IDA 25pb	Sample		e314-011.met	c:\data\e314-011\idap-25pb	1	1
2	IDP and IDA 25pb	Sample		e314-011.met	c:\data\e314-011\idap-25pb	1	1
3	IDP and IDA 25pb	Sample		e314-011.met	c:\data\e314-011\idap-25pb	1	1
4	IDP and IDA 25pb	Sample		e314-011.met	c:\data\e314-011\idap-25pb	1	1
5	IDP and IDA 25pb	Sample		e314-011.met	c:\data\e314-011\idap-25pb	1	1
6	IDP and IDA 25pb	Sample		e314-011.met	c:\data\e314-011\idap-25pb	1	1
7	MCT anion 800pm each, 25pbCLO4	Sample		e314-011.met	c:\data\e314-011\ipc-25pb	1	1
8	MCT anion 800pm each, 25pbCLO4	Sample		e314-011.met	c:\data\e314-011\ipc-25pb	1	1
9	MCT anion 800pm each, 4pbCLO4	Sample		e314-011.met	c:\data\e314-011\ipc-4pb	1	1
0	MCT anion 800pm each, 4pbCLO4	Sample		e314-011.met	c:\data\e314-011\ipc-4pb	1	1
1	MDL 20pb soil	Sample		e314-011.met	c:\data\e314-011\mdl-s01	1	5
2	MDL 20pb soil	Sample		e314-011.met	c:\data\e314-011\mdl-s02	1	5
3	MDL 20pb soil	Sample		e314-011.met	c:\data\e314-011\mdl-s03	1	5
4	MDL 20pb soil	Sample		e314-011.met	c:\data\e314-011\mdl-s04	1	5
5	MDL 20pb soil	Sample		e314-011.met	c:\data\e314-011\mdl-s05	1	5
6	MDL 20pb soil	Sample		e314-011.met	c:\data\e314-011\mdl-s06	1	5
7	MDL 20pb soil	Sample		e314-011.met	c:\data\e314-011\mdl-s07	1	5
8	standard 25ppb W7827d	Sample		e314-011.met	c:\data\e314-011\std-25pb	1	1
9	anion 100pm each,4pb CLO4	Sample		e314-011.met	c:\data\e314-011\am-100-4pb	1	1
0	anion 200pm each ,4pb CLO4	Sample		e314-011.met	c:\data\e314-011\am-200-4pb	1	1
1	anion 300pm each ,4pb CLO4	Sample		e314-011.met	c:\data\e314-011\am-300-4pb	1	1
2	anion 100pm each,2pb CLO4	Sample		e314-011.met	c:\data\e314-011\am-100-2pb	1	1
3	anion 200pm each,2pb CLO4	Sample		e314-011.met	c:\data\e314-011\am-200-2pb	1	1
4	anion 300pm each,2pb CLO4	Sample		e314-011.met	c:\data\e314-011\am-300-2pb	1	1
5	1982-01 B S.C 4450us/cm	Sample		e314-011.met	c:\data\e314-011\1982-01	1	1
6	1982-01 B S.C 4450us/cm	Sample		e314-011.met	c:\data\e314-011\1982-01	1	2
7	1982-02 f=10	Sample		e314-011.met	c:\data\e314-011\1982-02_057.dxd	1	10
8		Sample		aastopcl.met		1	1

APCL

Applied Physics & Chemistry Laboratory

13760 Magnolia Ave. Chino CA 91710
Tel. (909) 590-1828 Fax (909) 590-1498

June 17, 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 03-3205 and your project : 04-4304.10 JPL GW Mon-2Q0.3
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

GEOFON INCORPORATED

22632 GOLDEN SPRINGS DR., SUITE 270
DIAMOND BAR, CA 91765 • (909) 396-7662 • FAX (909) 396-1455

CHAIN-OF-CUSTODY RECORD

LABORATORY COPY

MW-18 0032

GEOFON's LAB COORDINATOR: Brad Shojaee	LAB COORDINATOR'S PHONE: (909) 396-7662	LAB COORDINATOR'S FAX: (909) 396-1455	LABORATORY SERVICE ID: —	LABORATORY CONTACT: Kenny Chan	MAIL REPORT (COMPANY NAME): GEOFON, INC.
PROJECT NAME: JPL GW MON-2Q03	PROJECT LOCATION: MW-18 (Altadena & Florizita)	PROJECT NUMBER: 04-4428.10	LABORATORY PHONE: (909) 590-1828	LABORATORY FAX: (909) 590-1498	RECIPIENT NAME: Leo W. Williamson
PROJECT CONTACT: Leo W. Williamson	PROJECT PHONE NUMBER: (714) 920-8729	PROJECT FAX: (909) 396-1455	LABORATORY ADDRESS: 13760 Magnolia Ave.		ADDRESS: 22632 Golden Springs Dr. #270
PROJECT ADDRESS: 4800 Oak Grove Dr.	CITY, STATE AND ZIPCODE: Pasadena, CA,	CLIENT: US NAVY, SWDIV	CITY, STATE AND ZIPCODE: Chino, CA 91710		CITY, STATE AND ZIPCODE: Diamond Bar, CA. 91765
PROJECT MANAGER: Asrar Faheem	PROJECT MANAGER'S PHONE: (909) 396-7662	PROJECT MANAGER'S FAX: (909) 396-1455			

Item	Sample Identifier	Matrix	Date	Time	Preserved	# of Cont.	QC Level	T.A.T	524.2 (VOCs)	200.7 & 200.9 (Minerals)	1196 (Hex Chrome)	SM 2320B (Carb. Hardness)	300.0 (Cl)	314.0 (Perchlorate)	160.1 (TDS) + 9040 (pH)	200.8 (Cr+6)	Comments
1	MW-18-5	H_2O	5/13/03	810	HCl NONE HNO_3	3+1+1+1	III	NORMAL	X	X	X	X	X	X	X	X	MINERALS: Na/K/Ca/As/Mg/Fe
2	MW-18-4	↓	↓	925	↓	↓	↓	↓	X	X	X	X	X	X	X	X	
3	MW-18-3	↓	↓	1010	↓	↓	↓	↓	X	X	X	X	X	X	X	X	
4	MW-18-2	↓	↓	1050	↓	↓	↓	↓	X	X	X	X	X	X	X	X	3205
5	MW-18-1	↓	↓	1130	↓	↓	↓	↓	X	X	X	X	X	X	X	X	
6																	
7	EB-13-5/13/03	H_2O	5/13/03	1020	HCl NONE HNO_3	3+1+1+1	III	NORMAL	X	X	X	X	X	X	X	X	
8	TB-13-5/13/03	↓	—	—	HCl	2	↓	↓	X								
9	DUPE-7-[redacted]2Q03	↓	5/13/03	—	HCl NONE HNO_3	3+1+1+1	IV	↓	X	X	X	X	X	X	X	X	
10																	

COOLER TEMPERATURE UPON RECEIPT

SAMPLES COLLECTED BY: Leo W. Williamson

COURIER AND AIR BILL NUMBER.

SAMPLE'S CONDITION UPON RECEIPT

RELINQUISHED BY	RECEIVED BY	DATE	TIME
Leo W. Williamson	[signature]	5/13/03	1528

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

APCL Analytical Report

Submitted to:
GEOFON, Inc.
Attention: Leo W. Williamson
22632 Golden Spring Dr Ste 270
Diamond Bar CA 91765
Tel: (909)396-7662 Fax: (909)396-1455

Service ID #: 801-033205 Received: 05/13/03
Collected by: Leo W. Williamson Extracted: N/A
Collected on: 05/13/03 Tested: 05/13-20/03
Reported: 05/22/03
Sample Description: Water from MW-18
Project Description: 04-4428.10 JPL GW Mon-2Q03

Analysis of Water Samples

Component Analyzed	Method	Unit	PQL	Analysis Result DUPE-7-2Q03 03-03205-1	EB-13-5/13/03 03-03205-2	MW-18-1 03-03205-3	MW-18-2 03-03205-4
BICARBONATE	SM2320B	mg/L	2	155	<2	133	120
CARBONATE	SM2320B	mg-$CaCO_3$/L	2	<2	<2	<2	<2
PH	9040B	pH unit	0.01	7.93	7.25	7.14	7.75
SOLIDS, TOTAL DISSOLVED (TDS)	160.1	mg/L	10	227	8.0J	263	277
CHROMIUM (VI)	7196	mg/L	0.01	<0.01	<0.01	<0.01	<0.01
Dilution Factor				1	1	1	1
PERCHLORATE	314.0	µg/L	4	23.8	<4	<4	<4
Dilution Factor				2	1.25	2	2
CHLORIDE CL^-	300.0	mg/L	0.2	10.8	0.37	11.3	11.2
NITRATE N-NO_3^- AS N	300.0	mg/L	0.04	1.3	0.16	1.3	0.86
SULFATE SO_4^{--}	300.0	mg/L	0.5	26.0	0.84	42.9	30.9
Dilution Factor				1	1	1	1
ARSENIC	200.9	µg/L	5	<5	<5	<5	<5
CALCIUM	200.7	µg/L	200	37,700	<200	48,100	53,200
IRON	200.7	µg/L	50	184	31.5J	138	176
MAGNESIUM	200.7	µg/L	100	13,400	85.8J	15,500	17,500
POTASSIUM	200.7	µg/L	400	1,540	172J	2,340	2,460
SODIUM	200.7	µg/L	2000	24,300	1,000J	15,600	19,400
VOLATILE ORGANIC COMPOUNDS							
Dilution Factor				1	1	1	1
BENZENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
BROMOBENZENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
BROMOCHLOROMETHANE	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
BROMODICHLOROMETHANE	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
BROMOFORM	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
BROMOMETHANE	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
2-BUTANONE	524.2	µg/L	10	<10	<10	<10	<10
N-BUTYLBENZENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
SEC-BUTYLBENZENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
TERT-BUTYLBENZENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
CARBON TETRACHLORIDE	524.2	µg/L	0.5	2.4	<0.5	<0.5	<0.5
CHLOROBENZENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
CHLORODIBROMOMETHANE	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
CHLOROETHANE	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
CHLOROFORM	524.2	µg/L	0.5	0.8	<0.5	<0.5	<0.5
CHLOROMETHANE	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
2-CHLOROTOLUENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5

Applied P & Ch Laboratory
13760 Magnolia Ave. Chino CA 91710
Tel: (909) 590-1828 Fax: (909) 590-1498

APCL Analytical Report

Component Analyzed	Method	Unit	PQL	Analysis Result DUPE-7-2Q03 03-03205-1	EB-13-5/13/03 03-03205-2	MW-18-1 03-03205-3	MW-18-2 03-03205-4
4-CHLOROTOLUENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,2-DIBROMO-3-CHLOROPROPANE	524.2	µg/L	1.1 [a]	<1.1	<1.1	<1.1	<1.1
1,2-DIBROMOETHANE (EDB)	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
DIBROMOMETHANE	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,2-DICHLOROBENZENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,3-DICHLOROBENZENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,4-DICHLOROBENZENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
DICHLORODIFLUOROMETHANE	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,1-DICHLOROETHANE	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,2-DICHLOROETHANE	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,1-DICHLOROETHENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
CIS-1,2-DICHLOROETHENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
TRANS-1,2-DICHLOROETHENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,2-DICHLOROPROPANE	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,3-DICHLOROPROPANE	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
2,2-DICHLOROPROPANE	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,1-DICHLOROPROPENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
CIS-1,3-DICHLOROPROPENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
TRANS-1,3-DICHLOROPROPENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
ETHYLBENZENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
HEXACHLOROBUTADIENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
ISOPROPYLBENZENE (CUMENE)	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
P-ISOPROPYLTOLUENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
4-METHYL-2-PENTANONE (MIBK)	524.2	µg/L	10	6J	4J	4J	4J
METHYLENE CHLORIDE	524.2	µg/L	1.8 [a]	<1.8	<1.8	<1.8	<1.8
METHYL-T-BUTYL ETHER (MTBE)	524.2	µg/L	1	<1	<1	<1	<1
NAPHTHALENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
N-PROPYLBENZENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
STYRENE	524.2	µg/L	0.5	<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	<0.5
1,1,2,2-TETRACHLOROETHANE	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
TETRACHLOROETHENE	524.2	µg/L	0.5	1.9	<0.5	<0.5	<0.5
TOLUENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,2,3-TRICHLOROBENZENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,2,4-TRICHLOROBENZENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,1,1-TRICHLOROETHANE	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,1,2-TRICHLOROETHANE	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
TRICHLOROETHENE	524.2	µg/L	0.5	0.9	<0.5	<0.5	<0.5
TRICHLOROFLUOROMETHANE	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,2,3-TRICHLOROPROPANE	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
112TRICHLORO-122TRIFLUOROETHANE	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,2,4-TRIMETHYLBENZENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,3,5-TRIMETHYLBENZENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
VINYL CHLORIDE	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
O-XYLENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
M/P-XYLENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5

Applied P & Ch Laboratory
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APCL Analytical Report

Component Analyzed	Method	Unit	PQL	Analysis Result MW-18-3 03-03205-5	MW-18-4 03-03205-6	MW-18-5 03-03205-7	TB-13-5/13/03 03-03205-8
BICARBONATE	SM2320B	mg/L	2	210	159	132	-
CARBONATE	SM2320B	mg-$CaCO_3$/L	2	<2	<2	<2	-
PH	9040B	pH unit	0.01	7.78	7.94	8.76	-
SOLIDS, TOTAL DISSOLVED (TDS)	160.1	mg/L	10	325	229	188	-
CHROMIUM (VI)	7196	mg/L	0.01	<0.01	<0.01	<0.01	-
Dilution Factor				1	1	1	1
PERCHLORATE	314.0	µg/L	4	1.3J	23.9	<4	-
Dilution Factor				2	2	2	1
CHLORIDE CL^-	300.0	mg/L	0.2	18.4	10.6	9.8	-
NITRATE AS N	300.0	mg/L	0.04	1.1	1.3	0.13	-
SULFATE SO_4^{--}	300.0	mg/L	0.5	40.8	25.3	4.8	-
Dilution Factor				1	1	1	1
ARSENIC	200.9	µg/L	5	<5	<5	<5	-
CALCIUM	200.7	µg/L	200	71,600	41,600	8,960	-
IRON	200.7	µg/L	50	58.0	169	206	-
MAGNESIUM	200.7	µg/L	100	20,400	13,800	4,660	-
POTASSIUM	200.7	µg/L	400	3,050	1,960	1,830	-
SODIUM	200.7	µg/L	2000	23,600	28,800	52,800	-
VOLATILE ORGANIC COMPOUNDS							
Dilution Factor				1	1	1	1
BENZENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
BROMOBENZENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
BROMOCHLOROMETHANE	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
BROMODICHLOROMETHANE	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
BROMOFORM	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
BROMOMETHANE	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
2-BUTANONE	524.2	µg/L	10	<10	<10	<10	<10
N-BUTYLBENZENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
SEC-BUTYLBENZENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
TERT-BUTYLBENZENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
CARBON TETRACHLORIDE	524.2	µg/L	0.5	<0.5	2.4	<0.5	<0.5
CHLOROBENZENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
CHLORODIBROMOMETHANE	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
CHLOROETHANE	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
CHLOROFORM	524.2	µg/L	0.5	1.2	0.9	<0.5	<0.5
CHLOROMETHANE	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
2-CHLOROTOLUENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
4-CHLOROTOLUENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,2-DIBROMO-3-CHLOROPROPANE	524.2	µg/L	1.1 [a]	<1.1	<1.1	<1.1	<1.1
1,2-DIBROMOETHANE (EDB)	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
DIBROMOMETHANE	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,2-DICHLOROBENZENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,3-DICHLOROBENZENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,4-DICHLOROBENZENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
DICHLORODIFLUOROMETHANE	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5

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APCL Analytical Report

Component Analyzed	Method	Unit	PQL	Analysis Result MW-18-3 03-03205-5	MW-18-4 03-03205-6	MW-18-5 03-03205-7	TB-13-5/13/03 03-03205-8
1,1-DICHLOROETHANE	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,2-DICHLOROETHANE	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,1-DICHLOROETHENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
CIS-1,2-DICHLOROETHENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
TRANS-1,2-DICHLOROETHENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,2-DICHLOROPROPANE	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,3-DICHLOROPROPANE	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
2,2-DICHLOROPROPANE	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,1-DICHLOROPROPENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
CIS-1,3-DICHLOROPROPENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
TRANS-1,3-DICHLOROPROPENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
ETHYLBENZENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
HEXACHLOROBUTADIENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
ISOPROPYLBENZENE (CUMENE)	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
P-ISOPROPYLTOLUENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
4-METHYL-2-PENTANONE (MIBK)	524.2	µg/L	10	4J	7J	5J	6J
METHYLENE CHLORIDE	524.2	µg/L	1.8 [a]	<1.8	<1.8	<1.8	3.9
METHYL-T-BUTYL ETHER (MTBE)	524.2	µg/L	1	<1	<1	<1	<1
NAPHTHALENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
N-PROPYLBENZENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
STYRENE	524.2	µg/L	0.5	<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	<0.5
1,1,2,2-TETRACHLOROETHANE	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
TETRACHLOROETHENE	524.2	µg/L	0.5	<0.5	2.1	<0.5	<0.5
TOLUENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,2,3-TRICHLOROBENZENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,2,4-TRICHLOROBENZENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,1,1-TRICHLOROETHANE	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,1,2-TRICHLOROETHANE	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
TRICHLOROETHENE	524.2	µg/L	0.5	0.4J	1.0	<0.5	<0.5
TRICHLOROFLUOROMETHANE	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,2,3-TRICHLOROPROPANE	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
112TRICHLORO-122TRIFLUOROETHANE	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,2,4-TRIMETHYLBENZENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,3,5-TRIMETHYLBENZENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
VINYL CHLORIDE	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
O-XYLENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
M/P-XYLENE	524.2	µg/L	0.5	<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.
Listed Dilution Factors (DF) are relative to the method default DF. All unlisted DFs are 1.0
[a] MDL reported.

Respectfully submitted,

Dominic Lau
Laboratory Director
Applied P & Ch Laboratory

Level C Data Package Deliverables

General Information

Project: 04-4428.10 JPL GW Mon-2Q03

APCL Service ID: 03-3205

Applied P&Ch Laboratory
13760 Magnolia Ave. Chino, CA 91710
Telephone (909)590-1828
Fax (909)590-1498

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Case Narrative

Project: JPL GW Mon-2Q03/MW-18/04-4428.10

For GEOFON, Inc.

APCL Service No: 03-3205

1. Sample Identification

The sample identifications are listed in the following table:

GEOFON, Inc. Sample ID	APCL Sample ID
MW-18-5	03-03205-7
MW-18-4	03-03205-6
MW-18-3	03-03205-5
MW-18-2	03-03205-4
MW-18-1	03-03205-3
EB-13-5/13/03	03-03205-2
TB-13-5/13/03	03-03205-8
DUPE-7-2Q03	03-03205-1

2. Analytical Methodology

Samples are analyzed by EPA methods

524.2 (Volatile Organic Compounds),
7196A (Chromium (VI)),
314.0 (Perchlorate, low level),
300.0 (Anions by IC),
SM2320B (Bicarbonate),
SM2320B (Carbonate),
9040B (pH),
160.1 (Solids, Total Dissolved (TDS)),
200.7 (Metals by ICP),
200.9 (Arsenic, As, by GFAA),

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

None

"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,

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: 3205 **Client Name/Project:** Geron

1. Sample Arrival

Date/Time Received 5/13/03 1528 Date/Time Opened 5/13/03 1600 By (name): Kenny Chan

Custody Transfer: ☐ Client ☐ Golden State ☐ UPS ☐ US Mail ☐ FedEx ☑ APCL Empl: Kenny Chan

2. Chain-of-Custody (CoC)

☑ With Samples? ☐ Faxed? ☐ Client has Copy? ☐ Signed, dated? By:
☑ Project ID? ☑ Analyses Clear? ☐ Hold Samples? #on Hold ____ # Received 8
☑ 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 3.0

(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 ☐ NO_3^- 48hr ☐ BOD 48hr
☐ Cl_2 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 H_2O ☑ Other Liq ☐ Soil ☐ Wipe ☐ Polymer ☐ Air ☐ Other: ____
☐ Ground H_2O ☐ 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: [signature] Date: 13 May 2003 Time: 7:46 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: [neal.texfiles]smprcl.tex.

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Sample Login: Check List

03-03205 (0470_ 147) (2202777_ 147)

05/13/03

Part 1: General Information

☐	Company Information	Name:	*GEOFON, Inc.*
		Address:	*22632 Golden Spring Dr Ste 270 ,Diamond Bar ,CA 91765*
☐	Project Information	Project Description:	*JPL*
		Project #:	*04-4428.10*
☐	Billing Information	P.O. #:	
		Bill Address:	*22632 Golden Spring Dr Ste 270 ,Diamond Bar ,CA 91765*
		Lab Project ID:	
		Client Database #:	*3*
☐	Receiving Information	Who Received Sample?	*Kenny Chan*
		Receiving Date/Time:	*05/13/03 1528*
		COC No.	
☐	Shipping Information	Shipping Company	*APCL pick up*
		Packing Information:	*Cooler/Ice Chester*
		Cooler Temperature:	*3.0 °C*
☐	Container Information	Container Provider:	*Client*
☐	Sampling Information	Sampling Person:	
		Sampling Company:	*Client*
☐	Turn-Around-Time Option:		*Rush 5 working day(s)*
☐	QC Option:		*NEESA C*
☐	Disposal Option:		*Not specify*

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-18-5	VOC	03-03205-7-α	W	V	C	40	3	G	051303	N	0	7	☐
	MW-18-5	Metal	03-03205-7-β	W	P	N	500	1	G	051303	N	0	7	☐
	MW-18-5	300	03-03205-7-γ	W	P		1000	1	G	051303	N	0	7	☐
2	MW-18-4	VOC	03-03205-6-α	W	V	C	40	3	G	051303	N	0	7	☐
	MW-18-4	Metal	03-03205-6-β	W	P	N	500	1	G	051303	N	0	7	☐
	MW-18-4	300	03-03205-6-γ	W	P		1000	1	G	051303	N	0	7	☐
3	MW-18-3	VOC	03-03205-5-α	W	V	C	40	3	G	051303	N	0	7	☐
	MW-18-3	Metal	03-03205-5-β	W	P	N	500	1	G	051303	N	0	7	☐
	MW-18-3	300	03-03205-5-γ	W	P		1000	1	G	051303	N	0	7	☐
4	MW-18-2	VOC	03-03205-4-α	W	V	C	40	3	G	051303	N	0	7	☐
	MW-18-2	Metal	03-03205-4-β	W	P	N	500	1	G	051303	N	0	7	☐
	MW-18-2	300	03-03205-4-γ	W	P		1000	1	G	051303	N	0	7	☐
5	MW-18-1	VOC	03-03205-3-α	W	V	C	40	3	G	051303	N	0	7	☐
	MW-18-1	Metal	03-03205-3-β	W	P	N	500	1	G	051303	N	0	7	☐
	MW-18-1	300	03-03205-3-γ	W	P		1000	1	G	051303	N	0	7	☐
6	EB-13-5/13/03	VOC	03-03205-2-α	W	V	C	40	3	G	051303	N	0	7	☐
	EB-13-5/13/03	Metal	03-03205-2-β	W	P	N	500	1	G	051303	N	0	7	☐
	EB-13-5/13/03	300	03-03205-2-γ	W	P		1000	1	G	051303	N	0	7	☐
7	TB-13-5/13/03	VOC	03-03205-8	W	V	C	40	2	G	051303	N	0	7	☐
8	DUPE-7-2Q03	VOC	03-03205-1-α	W	V	C	40	3	G	051303	N	0	7	☐
	DUPE-7-2Q03	Metal	03-03205-1-β	W	P	N	500	1	G	051303	N	0	7	☐
	DUPE-7-2Q03	300	03-03205-1-γ	W	P		1000	1	G	051303	N	0	7	☐

Part 3: Analysis Information

Test Items:

- ☐ *524.2* Volatile Organic Compounds
- ☐ *7196A* Chromium (VI)
- ☐ *314.0/300.0* Perchlorate, low level
- ☐ *300.0* Chloride Cl^- by IC
- ☐ *300.0* Sulfate (SO_4^{--}), by IC
- ☐ *300.0/SM4500NO3C* Nitrate (NO_3^-) as N by IC
- ☐ *SM2320B* Carbonate
- ☐ *SM2320B* Bicarbonate
- ☐ *9040B/150.1* pH
- ☐ *160.1* Solids, Total Dissolved (TDS)
- ☐ *200.7/6010B* Sodium, Na, by ICP
- ☐ *200.7/6010B* Calcium, Ca, by ICP

Level C Data Package Deliverables

Volatile Organics

Applied P & Ch Laboratory

Applied P & Ch Laboratory

Organic Analysis Results for Method 524.2

Client Name:	GEOFON, Inc.	Project No:	04-4428.10	Collection Date:	05/19/2003
Project ID:	JPL GW Mon-2Q03	Service ID:	33205	Collected by:	
		Lab Sample ID:	03G2534-MB-01	Received Date:	05/19/2003
Sample ID:	**03G2534-MB-01**	Sample Matrix	Water	Moisture %:	–
Sample Type:	Method Blank	Prep. Method:	5030	Instrument ID:	GC/MS: G
Anal. Method:	524.2	Prep. Date:	05/19/03	Anal. Date:	05/19/03
Batch No:	03G2534	Prep. No:	–	Anal. Time:	20:12
Data File Name:	G2534K01	Sample Amount:	25 mL	Dilution Factor:	1
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	25 mL	Heated Purge: (Y/N) N	

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	BENZENE	71-43-2	μg/L	0.5	<0.5	U
2	BROMOBENZENE	108-86-1	μg/L	0.5	<0.5	U
3	BROMOCHLOROMETHANE	74-97-5	μg/L	0.5	<0.5	U
4	BROMODICHLOROMETHANE	75-27-4	μg/L	0.5	<0.5	U
5	BROMOFORM	75-25-2	μg/L	0.5	<0.5	U
6	BROMOMETHANE	74-83-9	μg/L	0.5	<0.5	U
7	2-BUTANONE	78-93-3	μg/L	10	<10	U
8	N-BUTYLBENZENE	104-51-8	μg/L	0.5	<0.5	U
9	SEC-BUTYLBENZENE	135-98-8	μg/L	0.5	<0.5	U
10	TERT-BUTYLBENZENE	98-06-6	μg/L	0.5	<0.5	U
11	CARBON TETRACHLORIDE	56-23-5	μg/L	0.5	<0.5	U
12	CHLOROBENZENE	108-90-7	μg/L	0.5	<0.5	U
13	CHLORODIBROMOMETHANE	124-48-1	μg/L	0.5	<0.5	U
14	CHLOROETHANE	75-00-3	μg/L	0.5	<0.5	U
15	CHLOROFORM	67-66-3	μg/L	0.5	<0.5	U
16	CHLOROMETHANE	74-87-3	μg/L	0.5	<0.5	U
17	2-CHLOROTOLUENE	95-49-8	μg/L	0.5	<0.5	U
18	4-CHLOROTOLUENE	106-43-4	μg/L	0.5	<0.5	U
19	1,2-DIBROMO-3-CHLOROPROPANE	96-12-8	μg/L	1.1	<1.1	U
20	1,2-DIBROMOETHANE (EDB)	106-93-4	μg/L	0.5	<0.5	U
21	DIBROMOMETHANE	74-95-3	μg/L	0.5	<0.5	U
22	1,2-DICHLOROBENZENE	95-50-1	μg/L	0.5	<0.5	U
23	1,3-DICHLOROBENZENE	541-73-1	μg/L	0.5	<0.5	U
24	1,4-DICHLOROBENZENE	106-46-7	μg/L	0.5	<0.5	U
25	DICHLORODIFLUOROMETHANE	75-71-8	μg/L	0.5	<0.5	U
26	1,1-DICHLOROETHANE	75-34-3	μg/L	0.5	<0.5	U
27	1,2-DICHLOROETHANE	107-06-2	μg/L	0.5	<0.5	U
28	1,1-DICHLOROETHENE	75-35-4	μg/L	0.5	<0.5	U
29	CIS-1,2-DICHLOROETHENE	156-59-2	μg/L	0.5	<0.5	U
30	TRANS-1,2-DICHLOROETHENE	156-60-5	μg/L	0.5	<0.5	U
31	1,2-DICHLOROPROPANE	78-87-5	μg/L	0.5	<0.5	U
32	1,3-DICHLOROPROPANE	142-28-9	μg/L	0.5	<0.5	U
33	2,2-DICHLOROPROPANE	594-20-7	μg/L	0.5	<0.5	U
34	1,1-DICHLOROPROPENE	563-58-6	μg/L	0.5	<0.5	U
35	CIS-1,3-DICHLOROPROPENE	10061-01-5	μg/L	0.5	<0.5	U
36	TRANS-1,3-DICHLOROPROPENE	10061-02-6	μg/L	0.5	<0.5	U
37	ETHYLBENZENE	100-41-4	μg/L	0.5	<0.5	U
38	HEXACHLOROBUTADIENE	87-68-3	μg/L	0.5	<0.5	U
39	ISOPROPYLBENZENE (CUMENE)	98-82-8	μg/L	0.5	<0.5	U

#	Component Name	CAS No	Unit	RL	Result	Qualifier
40	P-ISOPROPYLTOLUENE	99-87-6	μg/L	0.5	<0.5	U
41	4-METHYL-2-PENTANONE (MIBK)	108-10-1	μg/L	10	<10	U
42	METHYLENE CHLORIDE	75-09-2	μg/L	1.8	4.7	
43	METHYL-T-BUTYL ETHER (MTBE)	1634-04-4	μg/L	1	<1	U
44	NAPHTHALENE	91-20-3	μg/L	0.5	<0.5	U
45	N-PROPYLBENZENE	103-65-1	μg/L	0.5	<0.5	U
46	STYRENE	100-42-5	μg/L	0.5	<0.5	U
47	1,1,1,2-TETRACHLOROETHANE	630-20-6	μg/L	0.5	<0.5	U
48	1,1,2,2-TETRACHLOROETHANE	79-34-5	μg/L	0.5	<0.5	U
49	TETRACHLOROETHENE	127-18-4	μg/L	0.5	<0.5	U
50	TOLUENE	108-88-3	μg/L	0.5	<0.5	U
51	1,2,3-TRICHLOROBENZENE	87-61-6	μg/L	0.5	<0.5	U
52	1,2,4-TRICHLOROBENZENE	120-82-1	μg/L	0.5	<0.5	U
53	1,1,1-TRICHLOROETHANE	71-55-6	μg/L	0.5	<0.5	U
54	1,1,2-TRICHLOROETHANE	79-00-5	μg/L	0.5	<0.5	U
55	TRICHLOROETHENE	79-01-6	μg/L	0.5	<0.5	U
56	TRICHLOROFLUOROMETHANE	75-69-4	μg/L	0.5	<0.5	U
57	1,2,3-TRICHLOROPROPANE	96-18-4	μg/L	0.5	<0.5	U
58	112TRICHLORO-122TRIFLUOROETHANE	76-13-1	μg/L	0.5	<0.5	U
59	1,2,4-TRIMETHYLBENZENE	95-63-6	μg/L	0.5	<0.5	U
60	1,3,5-TRIMETHYLBENZENE	108-67-8	μg/L	0.5	<0.5	U
61	VINYL CHLORIDE	75-01-4	μg/L	0.5	<0.5	U
62	O-XYLENE	95-47-6	μg/L	0.5	<0.5	U
63	M/P-XYLENE	108-38-3	μg/L	0.5	<0.5	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-BROMO-FLUOROBENZENE (BFB)	460-00-4	70-129	107
2	1,2-DICHLOROETHANE-D4	17060-07-0	70-129	98
3	DIBROMOFLUOROMETHANE	1868-53-7	70-122	104
4	TOLUENE-D8	2037-26-5	73-129	107
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	CHLOROBENZENE-D5	3114-55-4	50-200	85
2	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	89
3	FLUOROBENZENE	462-06-6	50-200	93
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

Quantitation Report: **Applied P &Ch Lab** EPA 524.2

Data Filename: C:\HPCHEM\1\DATA\03G2534\G2534K01.D
Method : C:\HPCHEM\1\METHODS\E524G004.M
Acq. Time : May 19 20:12 2003
Method Update: Fri May 16 12:11 2003
Quant. Time : May 20 09:45 2003
Print Time : Tue May 20 09:45 2003
Miscleneous :

Sample : f=1
Inst. : GCMS-G
RF via : Multiple Level Calibration
Operator: Eddie
Multiplr: 1.000000

ID	Component Name	R.T.	RT0	DRRT	QIon	Q1	RF/1000	C0,ppb	C,ppb	Quality	Note
Internal Standards										Dev(Min)	
1	1 Fluorobenzene I1	9.50	9.52	-0.002	96	70	648.041	10.00		-0.02	
47	47 Cl-benzene-d5, I2	13.11	13.12	-0.001	82	119	183.940	10.00		-0.02	
62	62 1,4-DCB-d4 150 15	15.62	15.63	0.000	152	150	165.027	10.00		-0.01	
System Monitoring Compounds (Surrogate)										%Recovery	
27	27 Di-Br-F-Methane (	7.96	7.97	0.000	111	113	499.235	20.75	20.7	103.74%	
29	29 1,2-di-Cl-ethane-	8.54	8.54	0.000	65	102	213.264	19.50	19.5	97.50%	
55	55 toluene-d8(S2)	11.59	11.61	-0.001	100	99	695.105	21.29	21.3	106.46%	
70	70 4-Br-1-F-Bz (S3)	14.34	14.36	0.000	174	95	291.442	21.43	21.4	107.15%	
Target Compounds										Qvalue	
<<< I1 : ISTD ID = 1 >>>											
111	111 isopropyl alcoho	4.77	4.76	0.002	45	43	2.823	10.88	~~10.9~~	~~38~~	#
102	102 Acrolein x10	4.45	4.67	-0.023	56	55	0.246	4.52	~~4.5~~	~~9~~	#
101	101 Acetonnitrilex10	4.72	4.71	0.000	41	40	1.218	12.37	12.4	82	#
113	113 Tert butyl alcoh	5.39	5.38	0.000	59	57	0.738	1.24	~~1.2~~	~~24~~	#
18	18 methylene chlorid	5.51	5.50	0.000	84	49	73.920	4.65	4.7	97	
98	98 Vinyl acetate x5	6.95	6.97	-0.002	43	86	0.918	12.56	12~~.6~~	~~69~~	#
201	201 Ethyl acetate x2	7.85	7.83	0.002	43	61	1.903	4.54	4~~.5~~	~~52~~	#?
117	117 Iso-butyl alcoho	7.85	7.83	0.002	43	42	2.159	14.94	14~~.9~~	~~59~~	#?
26	26 tetrahydrofuranx5	8.23	8.23	0.000	72	42	0.268	0.39	0~~.4~~	~~36~~	
107	107 Et methacrylate	11.60	11.80	-0.021	69	99	1.309	1.73	1~~.7~~	~~1~~	#?
93	93 2-Hexanone x5	12.01	11.93	0.008	43	58	0.573	5.77	5~~.8~~	~~95~~	
48	48 112-tri-Cl-Et	11.61	11.49	0.012	97	83	21.204	2.80	2~~.8~~	~~8~~	#?
<<< I2 : ISTD ID = 47 >>>											
54	54 MIBK	11.02	10.99	0.002	43	58	4.098	0.63	0~~.6~~	~~72~~	
49	49 1,3-di-cl-propane	11.61	11.75	-0.011	76	78	8.271	0.63	0.6	68	#?

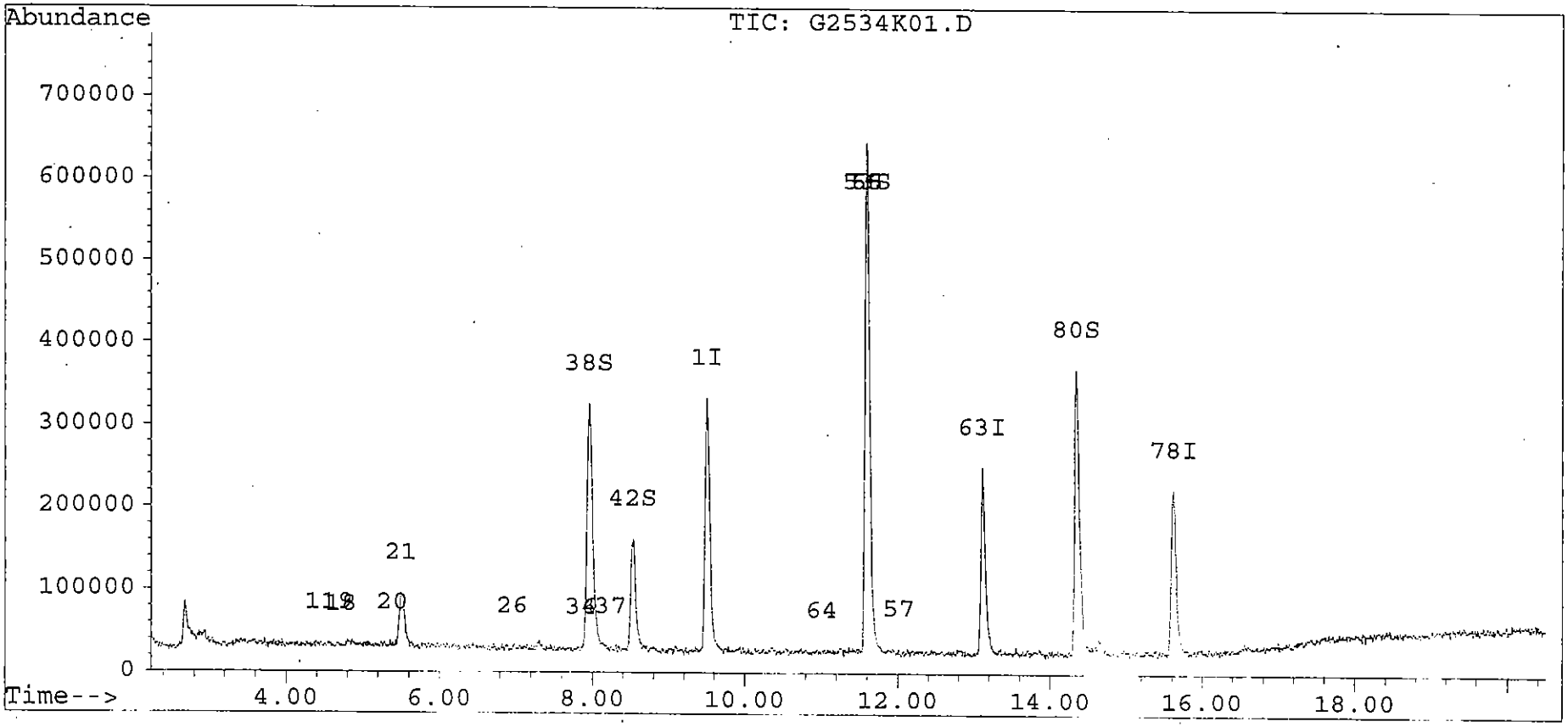
= qualifier out of range, m = manual integration, ? = RT coelution, * = DRRT > 0.06

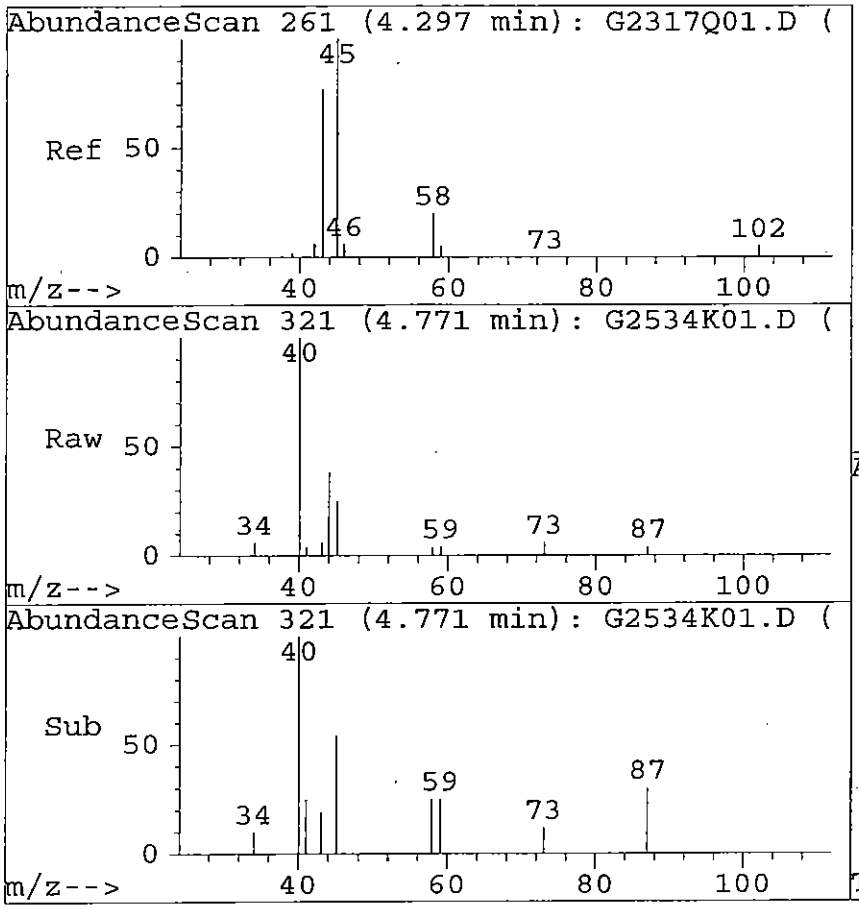
Quantitation Report

Data File : C:\HPCHEM\1\DATA\03G2534\G2534K01.D
Acq On : 19 May 03 8:12 pm
Sample : f=1
Misc :
Quant Time: May 20 9:45 2003

Vial: 12
Operator: Eddie
Inst : GCMS-G
Multiplr: 1.00
Quant Results File: quant.res

Method : C:\HPCHEM\1\METHODS\E524G004.M
Title : **Applied P &Ch Lab** EPA 524.2
Last Update : Fri May 16 12:11:07 2003
Response via : Multiple Level Calibration

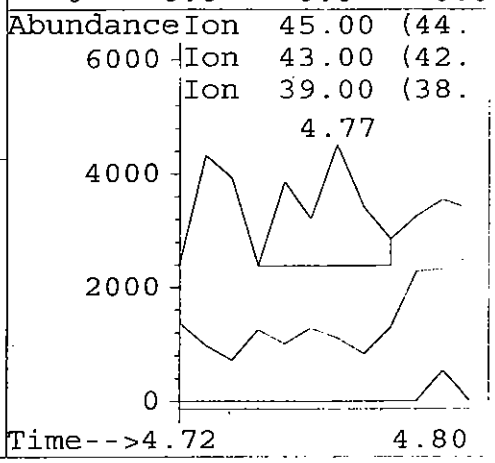


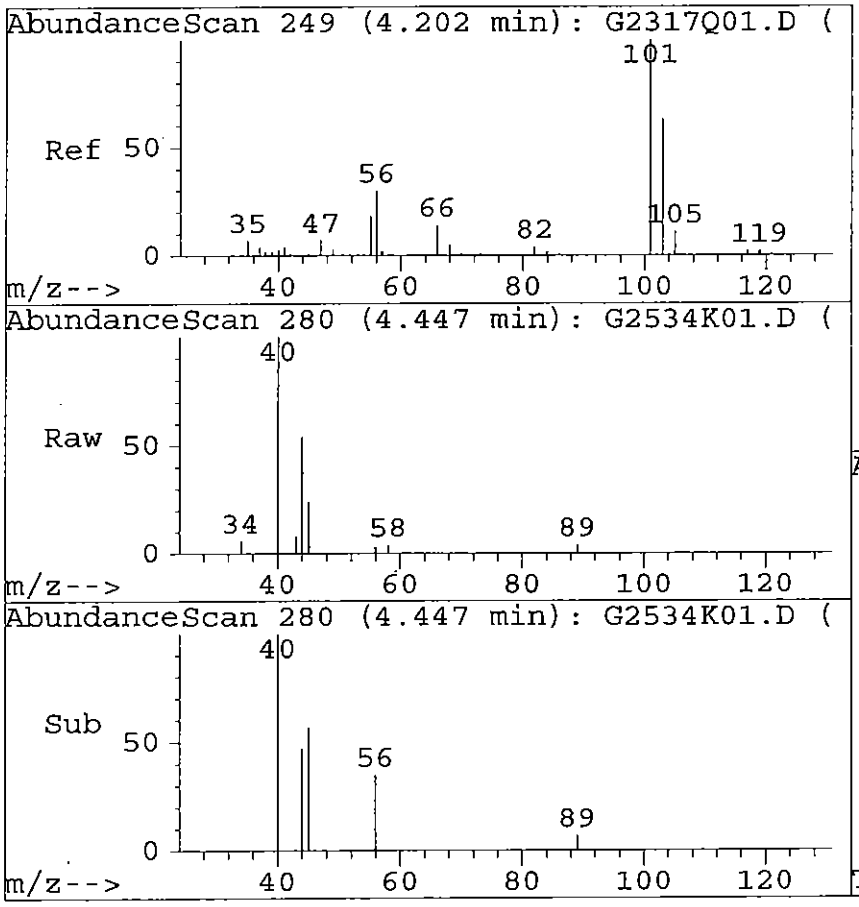


#9
111 isopropyl alcohol x10
Concen: 10.88 ppb
RT: 4.77 min Scan# 321
Delta R.T. 0.02 min
Lab File: G2534K01.D
Acq: 19 May 03 8:12 pm

Tgt Ion:45 Resp: 2823

Ion	Ratio	Lower	Upper
45	100		
43	31.5	77.0	115.5#
39	0.0	13.3	19.9#
0	0.0	0.0	0.0

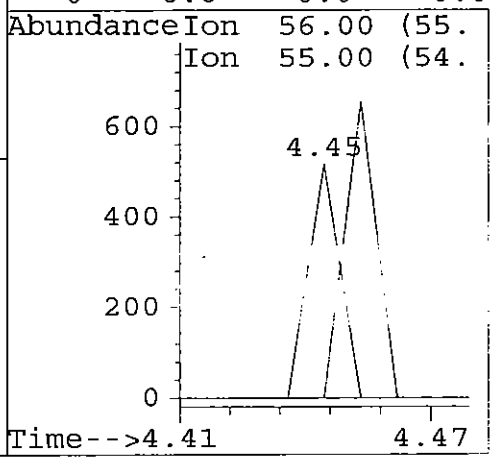


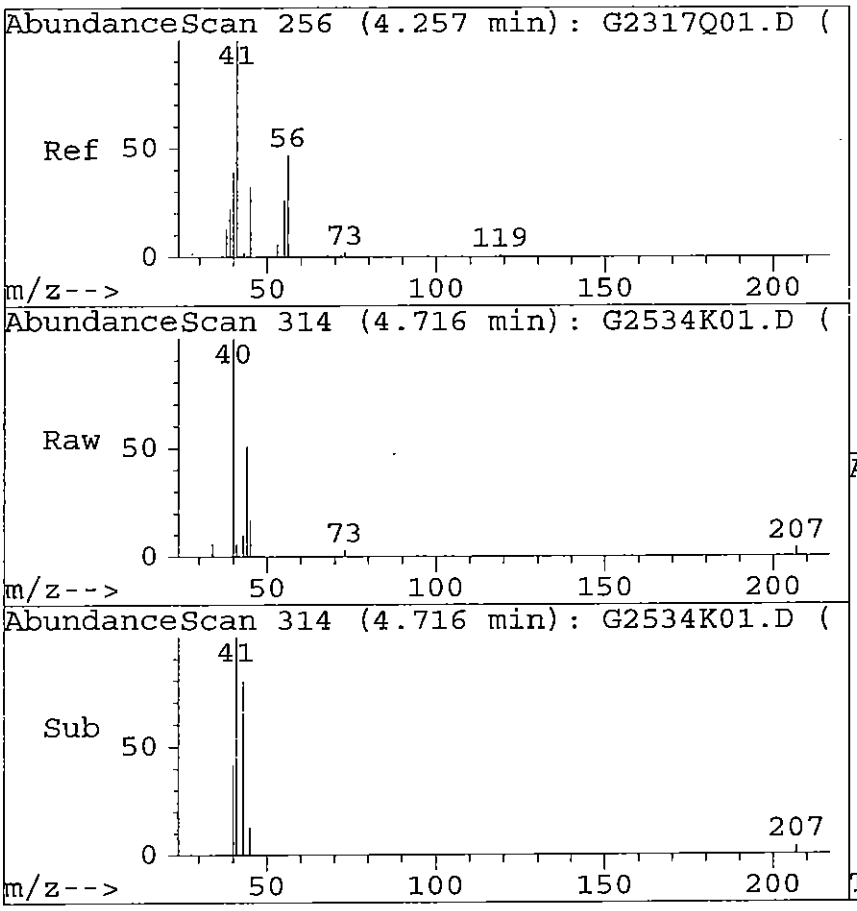


#11
102 Acrolein x10
Concen: 4.52 ppb
RT: 4.45 min Scan# 280
Delta R.T. -0.22 min
Lab File: G2534K01.D
Acq: 19 May 03 8:12 pm

Tgt Ion:56 Resp: 246

Ion	Ratio	Lower	Upper
56	100		
55	126.4	29.2	87.5#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

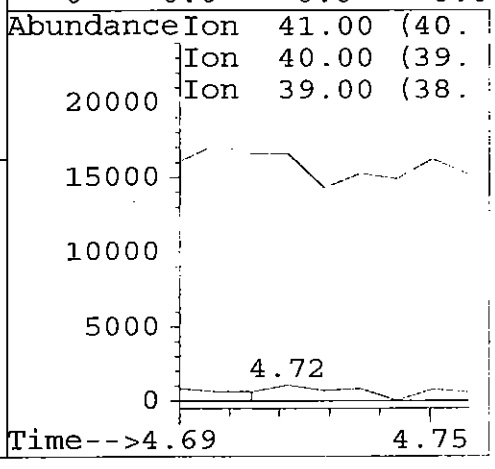


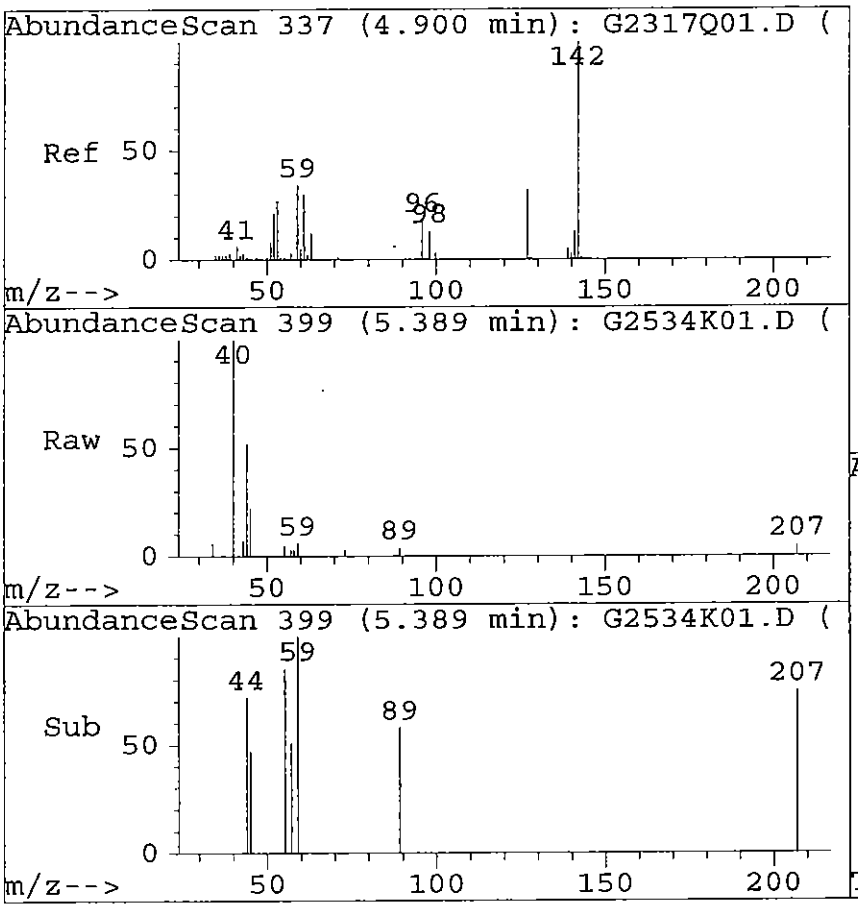


#18
101 Acetonnitrilex10
Concen: 12.37 ppb
RT: 4.72 min Scan# 314
Delta R.T. 0.00 min
Lab File: G2534K01.D
Acq: 19 May 03 8:12 pm

Tgt Ion:41 Resp: 1218

Ion	Ratio	Lower	Upper
41	100		
40	212.0	151.7	227.5
39	0.0	17.3	25.9#
0	0.0	0.0	0.0

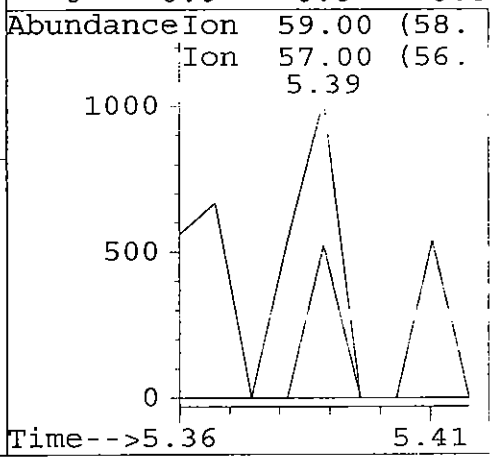


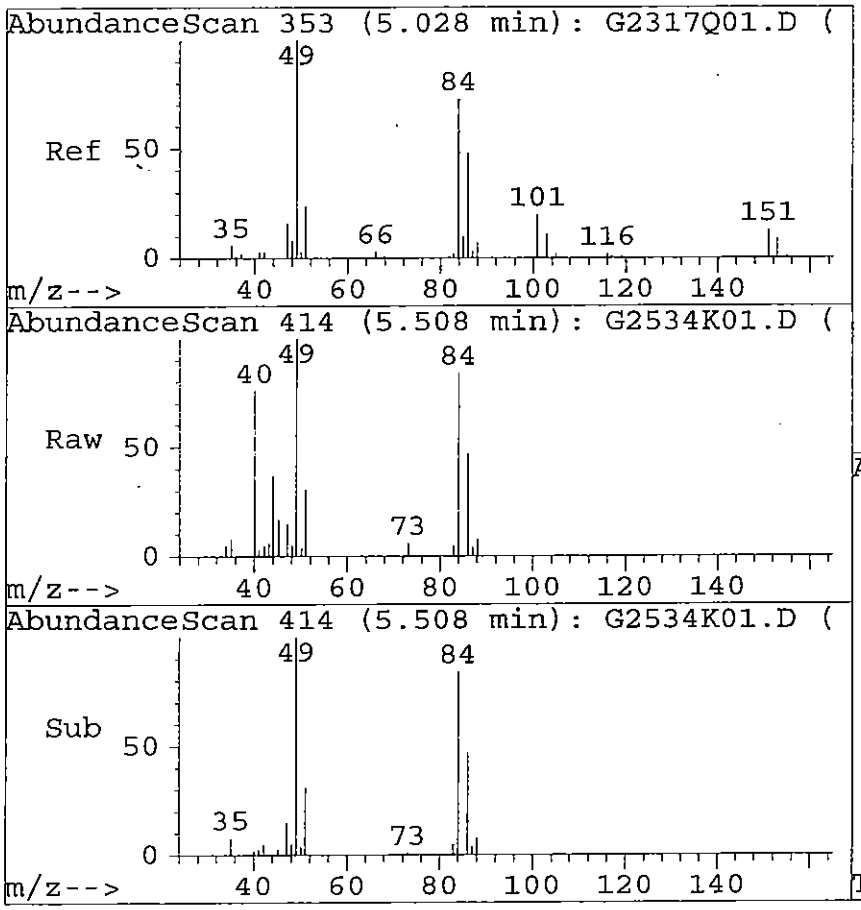


#20
113 Tert butyl alcohol x10
Concen: 1.24 ppb
RT: 5.39 min Scan# 399
Delta R.T. 0.01 min
Lab File: G2534K01.D
Acq: 19 May 03 8:12 pm

Tgt Ion:59 Resp: 738

Ion	Ratio	Lower	Upper
59	100		
57	33.6	5.8	8.7#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

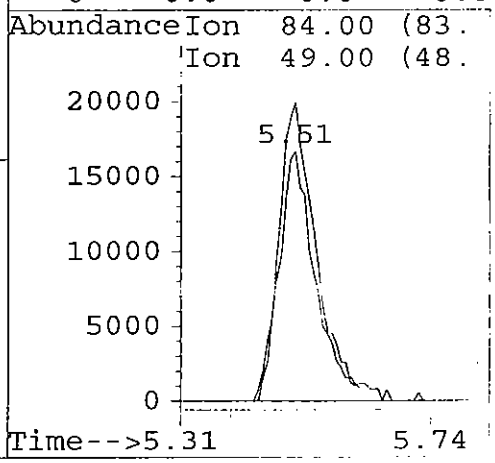


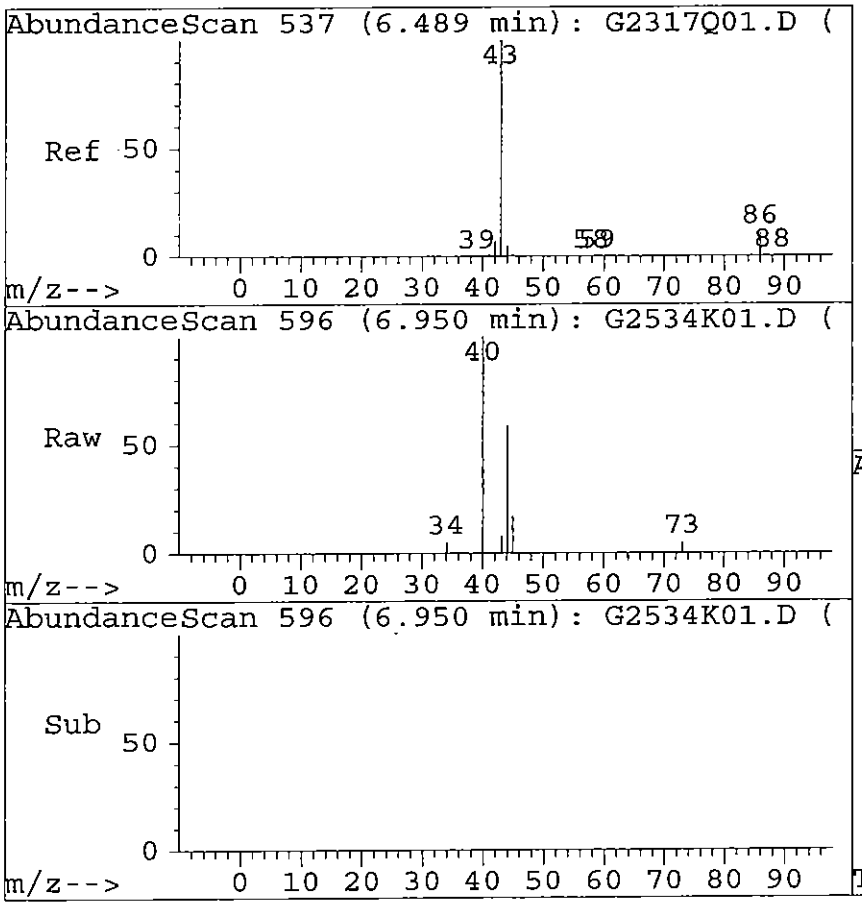


#21
18 methylene chloride 49 84
Concen: 4.65 ppb
RT: 5.51 min Scan# 414
Delta R.T. 0.00 min
Lab File: G2534K01.D
Acq: 19 May 03 8:12 pm

Tgt Ion:84 Resp: 73920

Ion	Ratio	Lower	Upper
84	100		
49	121.9	62.9	188.5
0	0.0	0.0	0.0
0	0.0	0.0	0.0

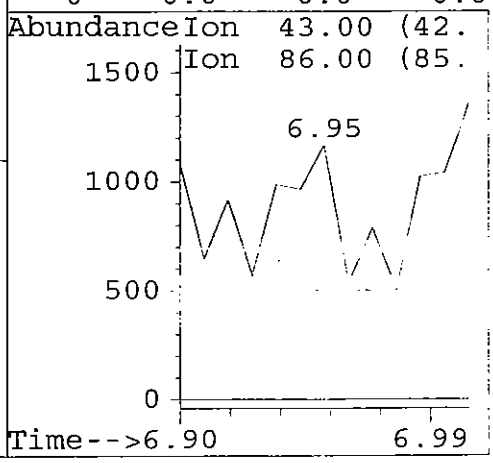


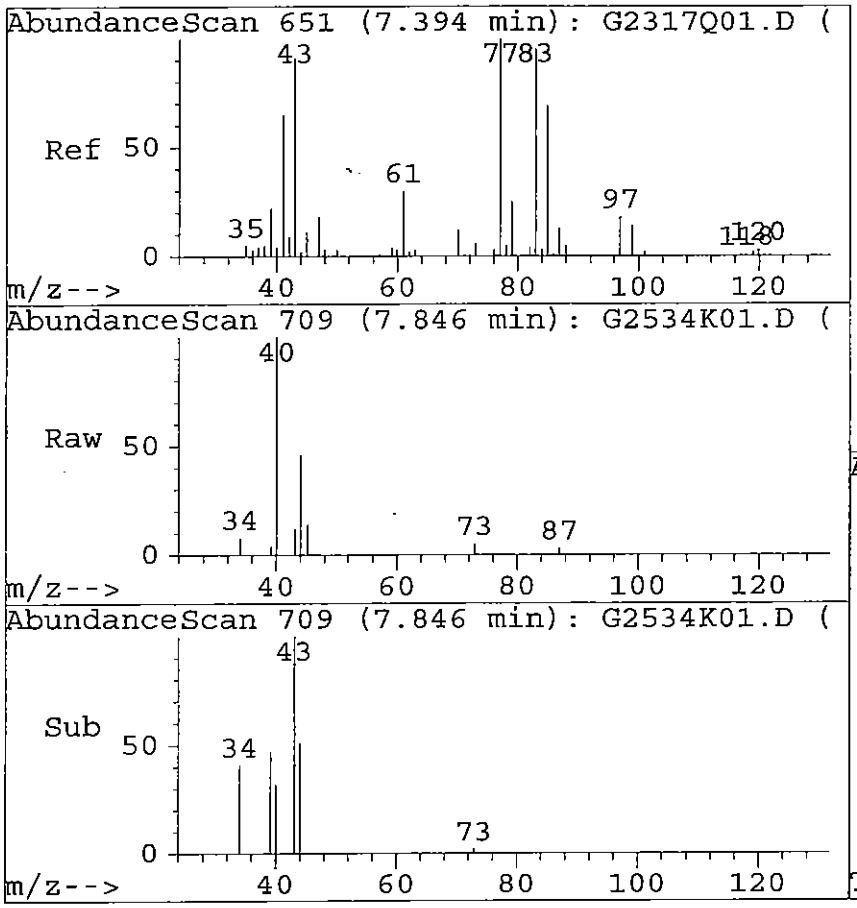


#26
98 Vinyl acetate x5
Concen: 12.56 ppb
RT: 6.95 min Scan# 596
Delta R.T. -0.02 min
Lab File: G2534K01.D
Acq: 19 May 03 8:12 pm

Tgt Ion:43 Resp: 918

Ion	Ratio	Lower	Upper
43	100		
86	0.0	9.5	14.2#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

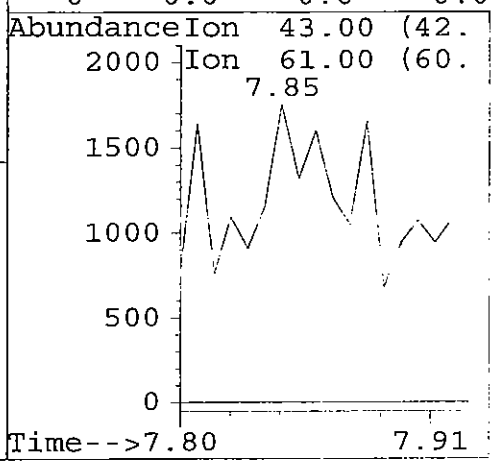


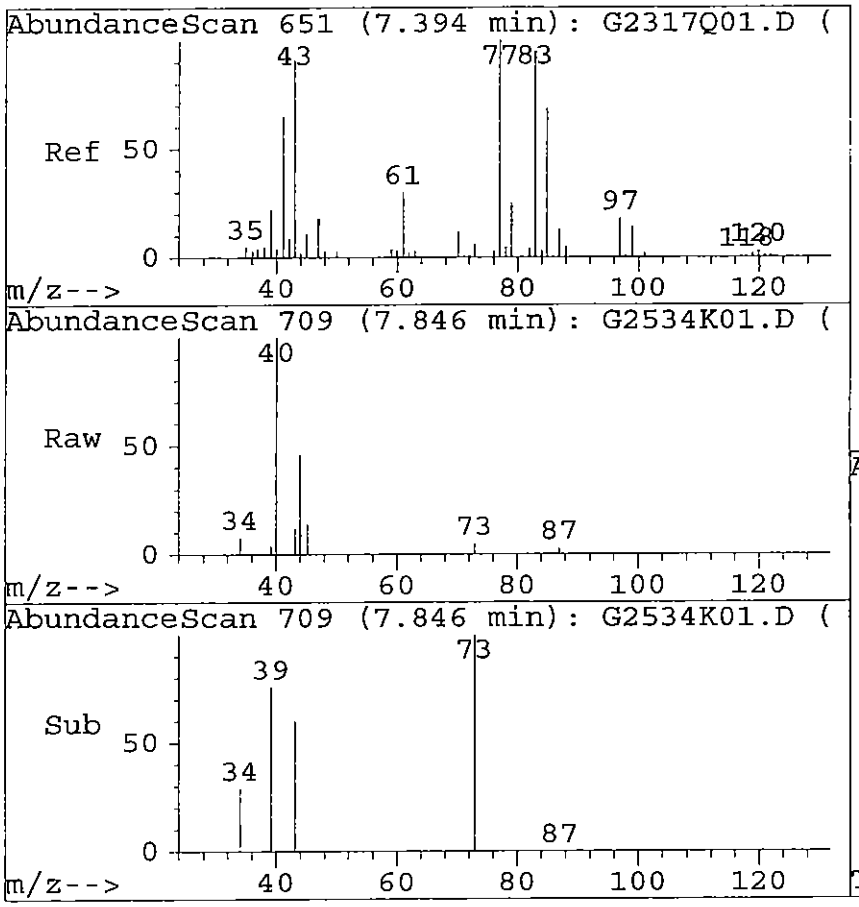


#34
201 Ethyl acetate x2
Concen: 4.54 ppb
RT: 7.85 min Scan# 709
Delta R.T. 0.01 min
Lab File: G2534K01.D
Acq: 19 May 03 8:12 pm

Tgt Ion:43 Resp: 1903

Ion	Ratio	Lower	Upper
43	100		
61	0.0	19.1	28.6#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

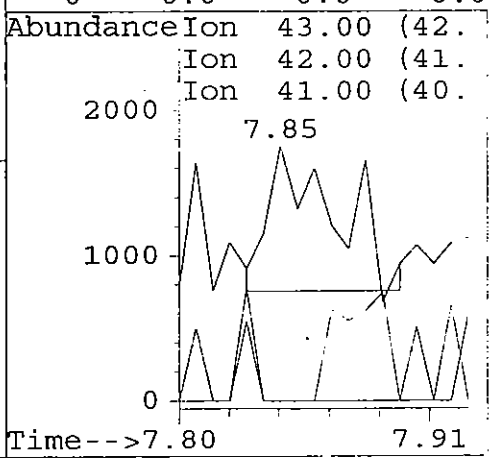


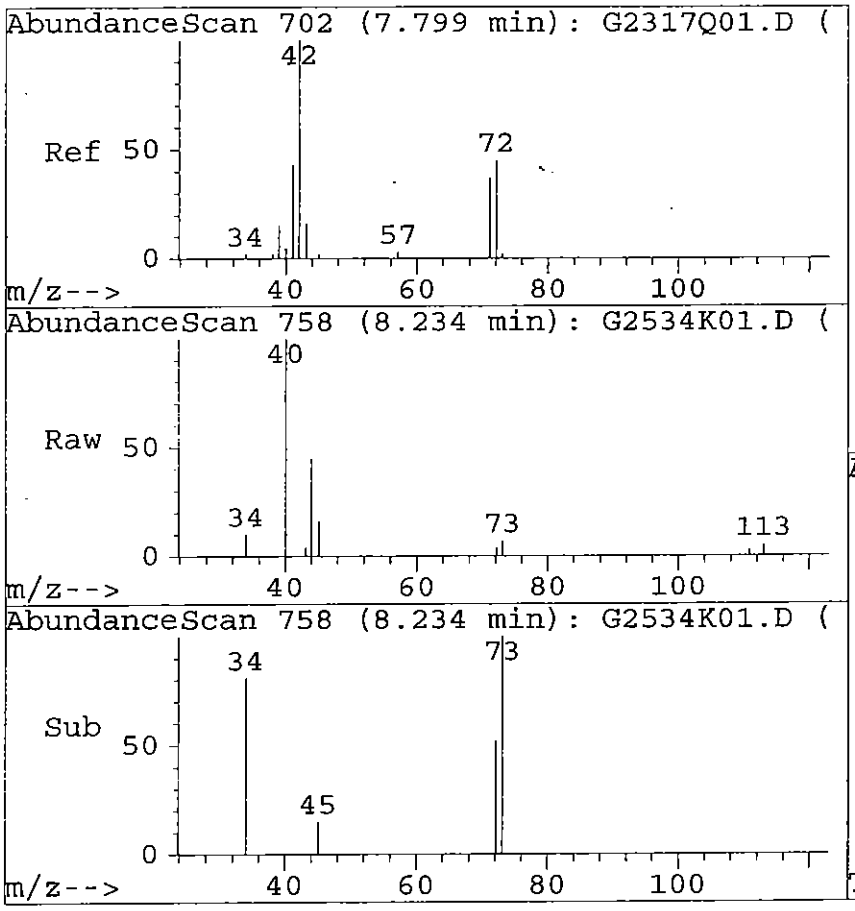


#36
117 Iso-butyl alcohol X10
Concen: 14.94 ppb
RT: 7.85 min Scan# 709
Delta R.T. 0.01 min
Lab File: G2534K01.D
Acq: 19 May 03 8:12 pm

Tgt Ion:43 Resp: 2159

Ion	Ratio	Lower	Upper
43	100		
42	12.0	7.3	10.9#
41	17.1	39.7	59.5#
0	0.0	0.0	0.0

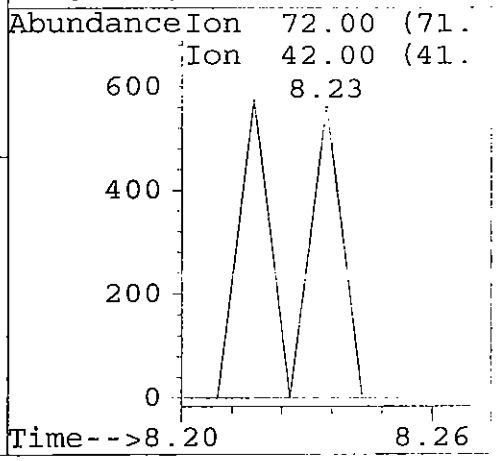


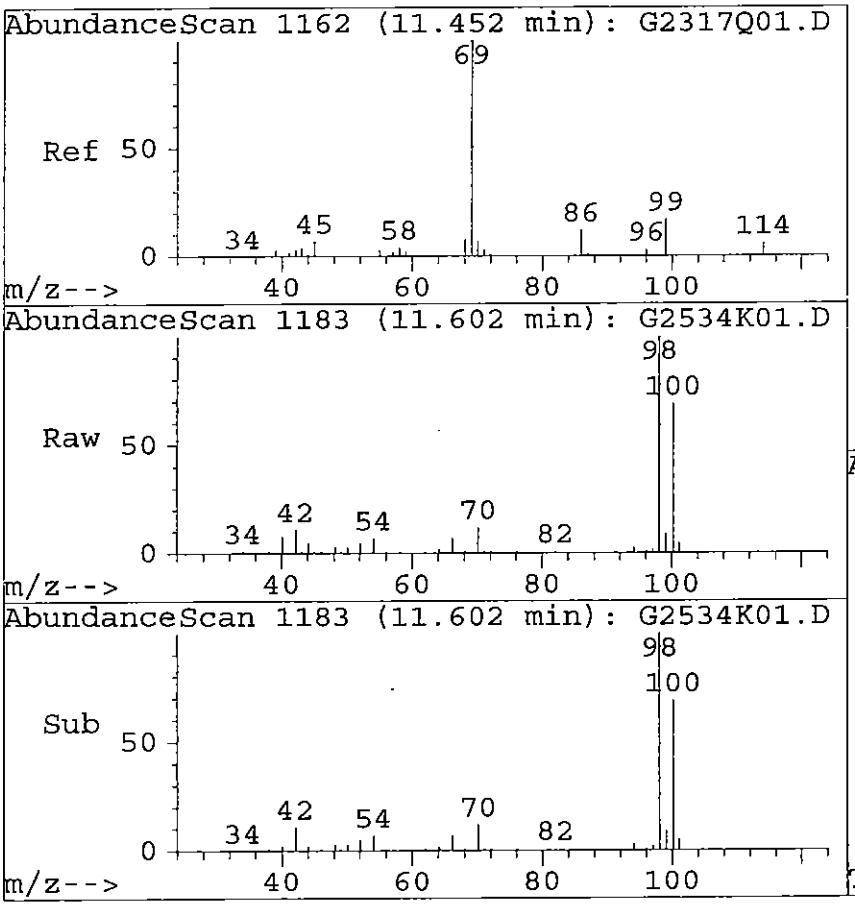


#37
26 tetrahydrofuranx5
Concen: 0.39 ppb
RT: 8.23 min Scan# 758
Delta R.T. 0.01 min
Lab File: G2534K01.D
Acq: 19 May 03 8:12 pm

Tgt Ion:72 Resp: 268

Ion	Ratio	Lower	Upper
72	100		
42	101.9	99.5	298.3
0	0.0	0.0	0.0
0	0.0	0.0	0.0

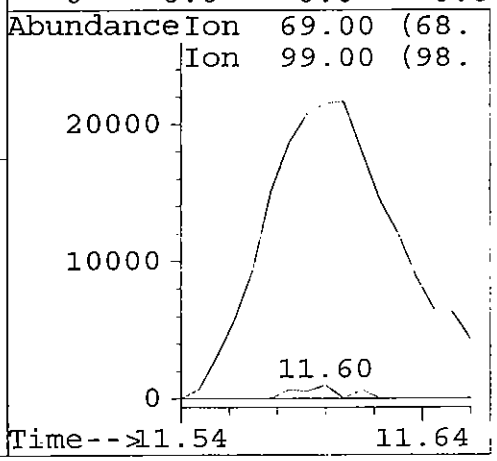


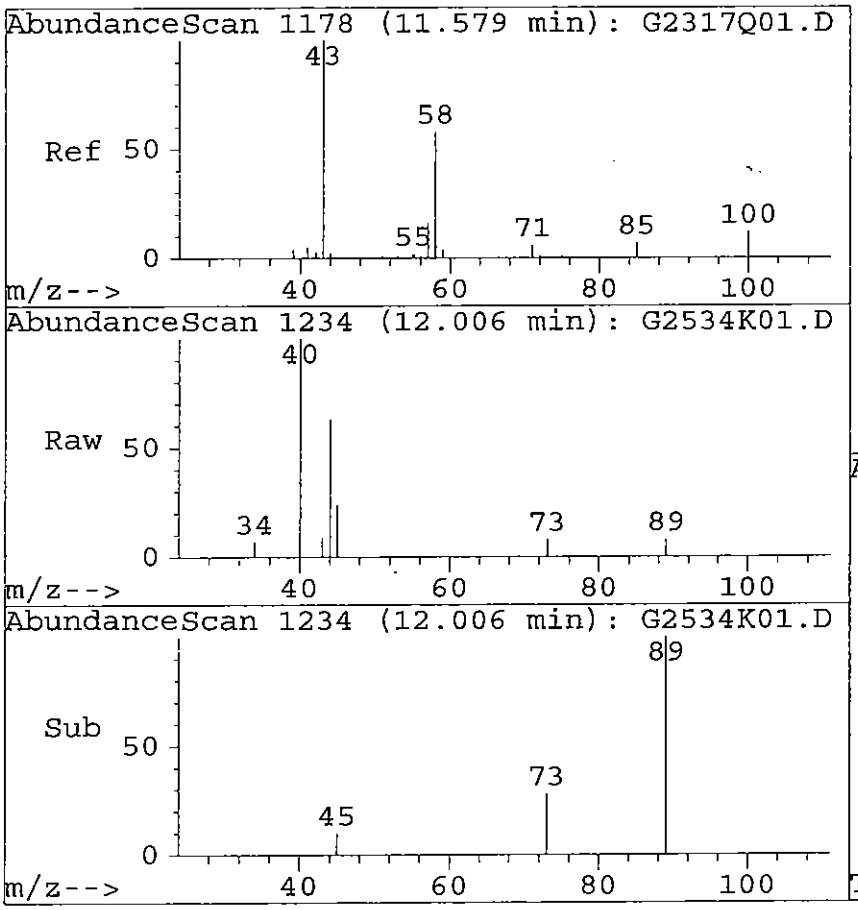


#56
107 Et methacrylate
Concen: 1.73 ppb
RT: 11.60 min Scan# 1183
Delta R.T. -0.20 min
Lab File: G2534K01.D
Acq: 19 May 03 8:12 pm

Tgt Ion:69 Resp: 1309

Ion	Ratio	Lower	Upper
69	100		
99	7171.3	9.4	28.0#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

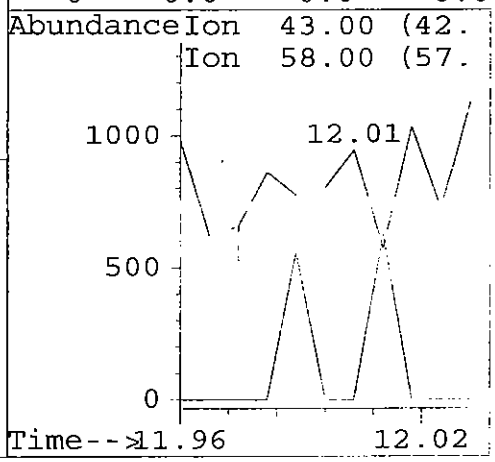


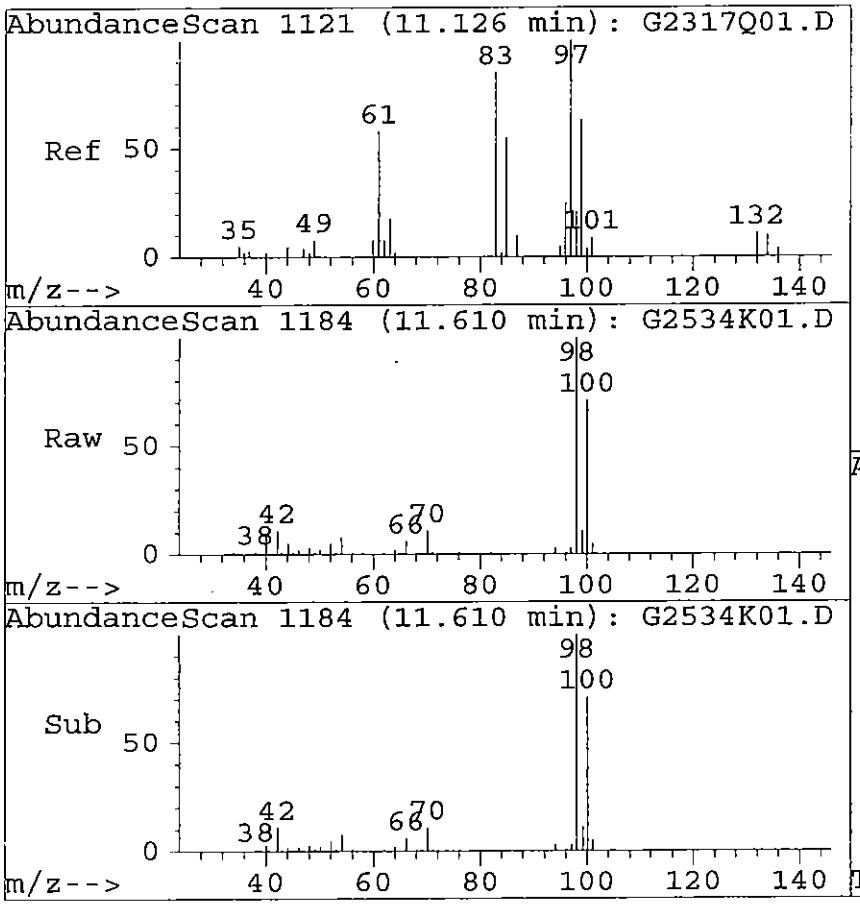


#57
93 2-Hexanone x5
Concen: 5.77 ppb
RT: 12.01 min Scan# 1234
Delta R.T. 0.08 min
Lab File: G2534K01.D
Acq: 19 May 03 8:12 pm

Tgt Ion:43 Resp: 573

Ion	Ratio	Lower	Upper
43	100		
58	51.8	44.5	66.8
0	0.0	0.0	0.0
0	0.0	0.0	0.0

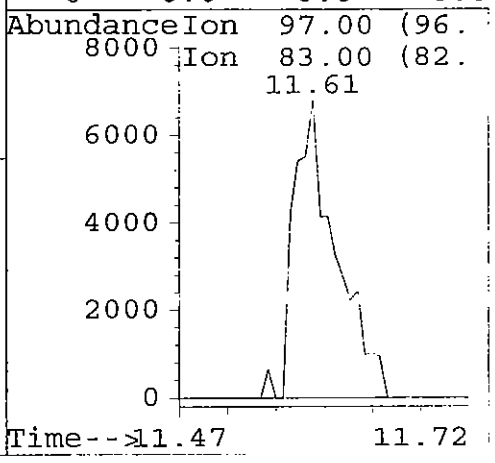


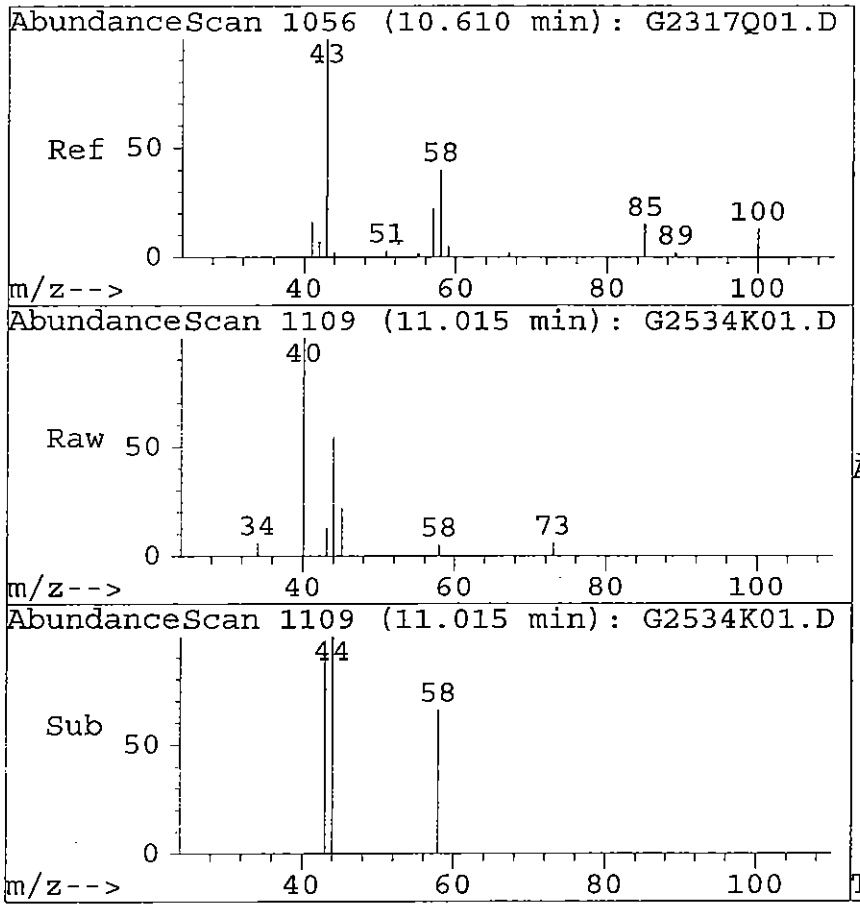


#58
48 112-tri-Cl-Et 97 83
Concen: 2.80 ppb
RT: 11.61 min Scan# 1184
Delta R.T. 0.12 min
Lab File: G2534K01.D
Acq: 19 May 03 8:12 pm

Tgt Ion:97 Resp: 21204

Ion	Ratio	Lower	Upper
97	100		
83	0.0	41.5	124.4#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

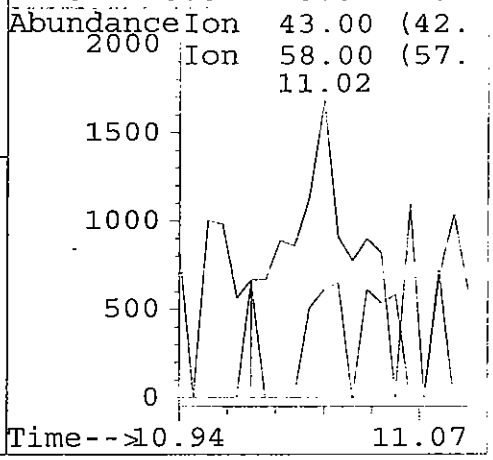


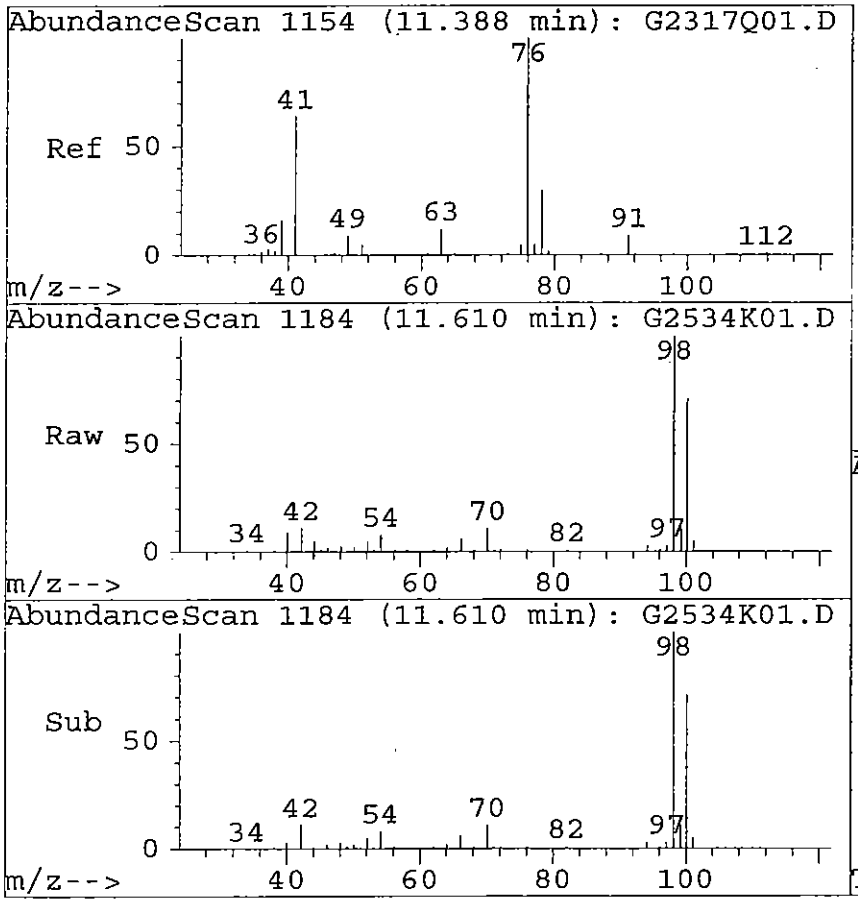


#64
54 MIBK
Concen: 0.63 ppb
RT: 11.02 min Scan# 1109
Delta R.T. 0.02 min
Lab File: G2534K01.D
Acq: 19 May 03 8:12 pm

Tgt Ion:43 Resp: 4098

Ion	Ratio	Lower	Upper
43	100		
58	20.5	17.5	57.5
0	0.0	0.0	0.0
0	0.0	0.0	0.0

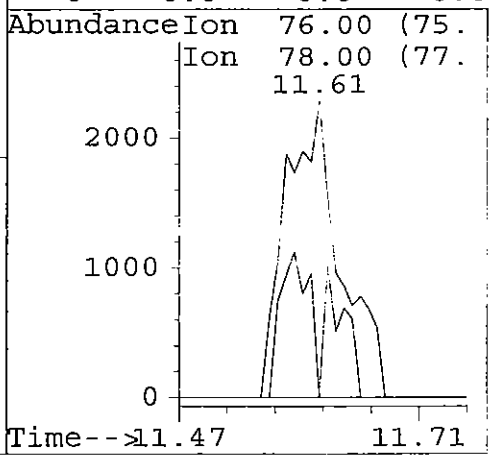




#65
49 1,3-di-cl-propane 76 78
Concen: 0.63 ppb
RT: 11.61 min Scan# 1184
Delta R.T. -0.14 min
Lab File: G2534K01.D
Acq: 19 May 03 8:12 pm

Tgt Ion:76 Resp: 8271

Ion	Ratio	Lower	Upper
76	100		
78	16.2	27.9	41.8#
0	0.0	0.0	0.0
0	0.0	0.0	0.0



Applied P & Ch Laboratory

Organic Analysis Results for Method 524.2

Client Name:	GEOFON, Inc.	Project No:	04-4428.10	Collection Date:	05/13/2003
Project ID:	JPL GW Mon-2Q03	Service ID:	33205	Collected by:	
		Lab Sample ID:	03-3205-1	Received Date:	05/13/2003
Sample ID:	**DUPE-7-2Q03**	Sample Matrix	Water	Moisture %:	–
Sample Type:	Field Sample	Prep. Method:	5030	Instrument ID:	GC/MS: G
Anal. Method:	524.2	Prep. Date:	05/20/03	Anal. Date:	05/20/03
Batch No:	03G2534	Prep. No:	–	Anal. Time:	00:32
Data File Name:	3205-01	Sample Amount:	25 mL	Dilution Factor:	1
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	25 mL	Heated Purge: (Y/N)	N

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	BENZENE	71-43-2	µg/L	0.5	<0.5	U
2	BROMOBENZENE	108-86-1	µg/L	0.5	<0.5	U
3	BROMOCHLOROMETHANE	74-97-5	µg/L	0.5	<0.5	U
4	BROMODICHLOROMETHANE	75-27-4	µg/L	0.5	<0.5	U
5	BROMOFORM	75-25-2	µg/L	0.5	<0.5	U
6	BROMOMETHANE	74-83-9	µg/L	0.5	<0.5	U
7	2-BUTANONE	78-93-3	µg/L	10	<10	U
8	N-BUTYLBENZENE	104-51-8	µg/L	0.5	<0.5	U
9	SEC-BUTYLBENZENE	135-98-8	µg/L	0.5	<0.5	U
10	TERT-BUTYLBENZENE	98-06-6	µg/L	0.5	<0.5	U
11	CARBON TETRACHLORIDE	56-23-5	µg/L	0.5	2.4	
12	CHLOROBENZENE	108-90-7	µg/L	0.5	<0.5	U
13	CHLORODIBROMOMETHANE	124-48-1	µg/L	0.5	<0.5	U
14	CHLOROETHANE	75-00-3	µg/L	0.5	<0.5	U
15	CHLOROFORM	67-66-3	µg/L	0.5	0.8	
16	CHLOROMETHANE	74-87-3	µg/L	0.5	<0.5	U
17	2-CHLOROTOLUENE	95-49-8	µg/L	0.5	<0.5	U
18	4-CHLOROTOLUENE	106-43-4	µg/L	0.5	<0.5	U
19	1,2-DIBROMO-3-CHLOROPROPANE	96-12-8	µg/L	1.1 [a]	<1.1	U
20	1,2-DIBROMOETHANE (EDB)	106-93-4	µg/L	0.5	<0.5	U
21	DIBROMOMETHANE	74-95-3	µg/L	0.5	<0.5	U
22	1,2-DICHLOROBENZENE	95-50-1	µg/L	0.5	<0.5	U
23	1,3-DICHLOROBENZENE	541-73-1	µg/L	0.5	<0.5	U
24	1,4-DICHLOROBENZENE	106-46-7	µg/L	0.5	<0.5	U
25	DICHLORODIFLUOROMETHANE	75-71-8	µg/L	0.5	<0.5	U
26	1,1-DICHLOROETHANE	75-34-3	µg/L	0.5	<0.5	U
27	1,2-DICHLOROETHANE	107-06-2	µg/L	0.5	<0.5	U
28	1,1-DICHLOROETHENE	75-35-4	µg/L	0.5	<0.5	U
29	CIS-1,2-DICHLOROETHENE	156-59-2	µg/L	0.5	<0.5	U
30	TRANS-1,2-DICHLOROETHENE	156-60-5	µg/L	0.5	<0.5	U
31	1,2-DICHLOROPROPANE	78-87-5	µg/L	0.5	<0.5	U
32	1,3-DICHLOROPROPANE	142-28-9	µg/L	0.5	<0.5	U
33	2,2-DICHLOROPROPANE	594-20-7	µg/L	0.5	<0.5	U
34	1,1-DICHLOROPROPENE	563-58-6	µg/L	0.5	<0.5	U
35	CIS-1,3-DICHLOROPROPENE	10061-01-5	µg/L	0.5	<0.5	U
36	TRANS-1,3-DICHLOROPROPENE	10061-02-6	µg/L	0.5	<0.5	U
37	ETHYLBENZENE	100-41-4	µg/L	0.5	<0.5	U
38	HEXACHLOROBUTADIENE	87-68-3	µg/L	0.5	<0.5	U
39	ISOPROPYLBENZENE (CUMENE)	98-82-8	µg/L	0.5	<0.5	U

#	Component Name	CAS No	Unit	RL	Result	Qualifier
40	P-ISOPROPYLTOLUENE	99-87-6	µg/L	0.5	<0.5	U
41	4-METHYL-2-PENTANONE (MIBK)	108-10-1	µg/L	10	6	J
42	METHYLENE CHLORIDE	75-09-2	µg/L	1.8 [a]	<1.8	U
43	METHYL-T-BUTYL ETHER (MTBE)	1634-04-4	µg/L	1	<1	U
44	NAPHTHALENE	91-20-3	µg/L	0.5	<0.5	U
45	N-PROPYLBENZENE	103-65-1	µg/L	0.5	<0.5	U
46	STYRENE	100-42-5	µg/L	0.5	<0.5	U
47	1,1,1,2-TETRACHLOROETHANE	630-20-6	µg/L	0.5	<0.5	U
48	1,1,2,2-TETRACHLOROETHANE	79-34-5	µg/L	0.5	<0.5	U
49	TETRACHLOROETHENE	127-18-4	µg/L	0.5	1.9	
50	TOLUENE	108-88-3	µg/L	0.5	<0.5	U
51	1,2,3-TRICHLOROBENZENE	87-61-6	µg/L	0.5	<0.5	U
52	1,2,4-TRICHLOROBENZENE	120-82-1	µg/L	0.5	<0.5	U
53	1,1,1-TRICHLOROETHANE	71-55-6	µg/L	0.5	<0.5	U
54	1,1,2-TRICHLOROETHANE	79-00-5	µg/L	0.5	<0.5	U
55	TRICHLOROETHENE	79-01-6	µg/L	0.5	0.9	
56	TRICHLOROFLUOROMETHANE	75-69-4	µg/L	0.5	<0.5	U
57	1,2,3-TRICHLOROPROPANE	96-18-4	µg/L	0.5	<0.5	U
58	112TRICHLORO-122TRIFLUOROETHANE	76-13-1	µg/L	0.5	<0.5	U
59	1,2,4-TRIMETHYLBENZENE	95-63-6	µg/L	0.5	<0.5	U
60	1,3,5-TRIMETHYLBENZENE	108-67-8	µg/L	0.5	<0.5	U
61	VINYL CHLORIDE	75-01-4	µg/L	0.5	<0.5	U
62	O-XYLENE	95-47-6	µg/L	0.5	<0.5	U
63	M/P-XYLENE	108-38-3	µg/L	0.5	<0.5	U

Surrogates			Control Limit, %	Surro. Rec.%
1	1-BROMO-4-FLUOROBENZENE (4-BROMOFL	460-00-4	70-129	112
2	1,2-DICHLOROETHANE-D4	17060-07-0	70-129	99
3	DIBROMOFLUOROMETHANE	1868-53-7	70-122	107
4	TOLUENE-D8	2037-26-5	73-129	111
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	CHLOROBENZENE-D5	3114-55-4	50-200	79
2	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	88
3	FLUOROBENZENE	462-06-6	50-200	89
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

[a] MDL reported.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

Quantitation Report: **Applied P &Ch Lab** EPA 524.2

20

Data Filename: C:\HPCHEM\1\DATA\03G2534\3205-01.D
Method : C:\HPCHEM\1\METHODS\E524G004.M
Acq. Time : May 20 00:32 2003
Method Update: Fri May 16 12:11 2003
Quant. Time : May 20 09:41 2003
Print Time : Tue May 20 09:41 2003
Miscleneous :

Sample : f=1 9
Inst. : GCMS-G
RF via : Multiple Level Calibration
Operator: Eddie
Multiplr: 1.000000

ID	Component Name	R.T.	RT0	DRRT	QIon	Q1	RF/1000	C0,ppb	C,ppb	Quality	Note
Internal Standards										Dev(Min)	
1	1 Fluorobenzene I1	9.49	9.52	-0.002	96	70	620.688	10.00		-0.02	
47	47 Cl-benzene-d5, I2	13.10	13.12	-0.002	82	119	171.702	10.00		-0.02	
62	62 1,4-DCB-d4 150 15	15.61	15.63	-0.001	152	150	163.610	10.00		-0.02	
System Monitoring Compounds (Surrogate)										%Recovery	
27	27 Di-Br-F-Methane (	7.94	7.97	-0.002	111	113	494.375	21.45	21.5	107.26%	
29	29 1,2-di-Cl-ethane-	8.51	8.54	-0.002	65	102	206.483	19.71	19.7	98.56%	
55	55 toluene-d8(S2)	11.59	11.61	-0.002	100	99	694.175	22.20	22.2	111.00%	
70	70 4-Br-1-F-Bz (S3)	14.34	14.36	-0.001	174	95	301.532	22.36	22.4	111.82%	
Target Compounds										Qvalue	
<<< I1 : ISTD ID = 1 >>>											
111	111 isopropyl alcoho	4.75	4.76	0.000	45	43	3.735	15.02	~~15.0~~	~~56~~	#
102	102 Acrolein x10	4.78	4.67	0.012	56	55	0.265	4.56	~~4.6~~	~~16~~	#
104	104 Carbon disulfide	5.74	5.74	0.000	76	78	25.145	0.65	0.7	84	#
101	101 Acetonnitrilex10	4.72	4.71	0.000	41	40	0.606	11.01	11.0	~~1~~	#
113	113 Tert butyl alcoh	5.38	5.38	0.000	59	57	0.371	0.65	~~0.6~~	~~79~~	#
18	18 methylene chlorid	5.49	5.50	-0.001	84	49	19.560	1.29	1.3	94	
200	200 Nitro methane x1	6.36	6.38	-0.002	61	46	1.087	0.45	0.4	~~8~~	#
98	98 Vinyl acetate x5	6.96	6.97	-0.002	43	86	1.559	12.61	12.6	~~69~~	#
91	91 2-butanone MEKx10	7.32	7.37	-0.005	43	72	6.433	1.10	1.1	~~82~~	#
25	25 chloroform	7.78	7.81	-0.003	83	85	24.164	0.76	0.8	91	
201	201 Ethyl acetate x2	7.82	7.83	0.000	43	61	1.626	4.52	~~4.5~~	~~52~~	#?
117	117 Iso-butyl alcoho	7.82	7.83	0.000	43	42	1.626	14.66	~~14.7~~	~~55~~	#?
26	26 tetrahydrofuranx5	8.22	8.23	0.000	72	42	0.246	0.37	0.4	~~30~~	#
30	30 12-dichloroethane	8.61	8.63	-0.002	62	64	0.243	0.90	0.9	~~40~~	#
37	37 CCl4	9.18	9.19	-0.002	117	119	52.742	2.37	2.4	94	
40	40 trichloroethene	10.00	10.02	-0.002	130	132	16.550	0.88	0.9	78	
107	107 Et methacrylate	11.63	11.80	-0.017	69	99	0.499	1.65	1.6	~~58~~	#
93	93 2-Hexanone x5	11.93	11.93	0.000	43	58	2.160	6.21	~~6.2~~	~~40~~	#
48	48 112-tri-Cl-Et	11.59	11.49	0.010	97	83	24.201	3.30	~~3.3~~	~~8~~	#?

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

Quantitation Report: **Applied P &Ch Lab** EPA 524.2

21

Data Filename: C:\HPCHEM\1\DATA\03G2534\3205-01.D
Method : C:\HPCHEM\1\METHODS\E524G004.M
Acq. Time : May 20 00:32 2003
Method Update: Fri May 16 12:11 2003
Quant. Time : May 20 09:41 2003
Print Time : Tue May 20 09:41 2003
Miscleneous :

Sample : f=1 9
Inst. : GCMS-G
RF via : Multiple Level Calibration
Operator: Eddie
Multiplr: 1.000000

ID		Component Name	R.T.	RT0	DRRT	QIon	Q1	RF/1000	C0,ppb	C,ppb	Quality	Note
<<< I2 : ISTD ID = 47 >>>												
54	54	MIBK	10.96	10.99	-0.003	43	58	33.262	6.04	6.0	99	
49	49	1,3-di-cl-propane	11.59	11.75	-0.013	76	78	7.263	0.60	0.~~6~~	~~77~~	#?
59	59	tetra-Cl-ethene	12.43	12.46	-0.002	166	168	27.911	1.90	1.9	97	

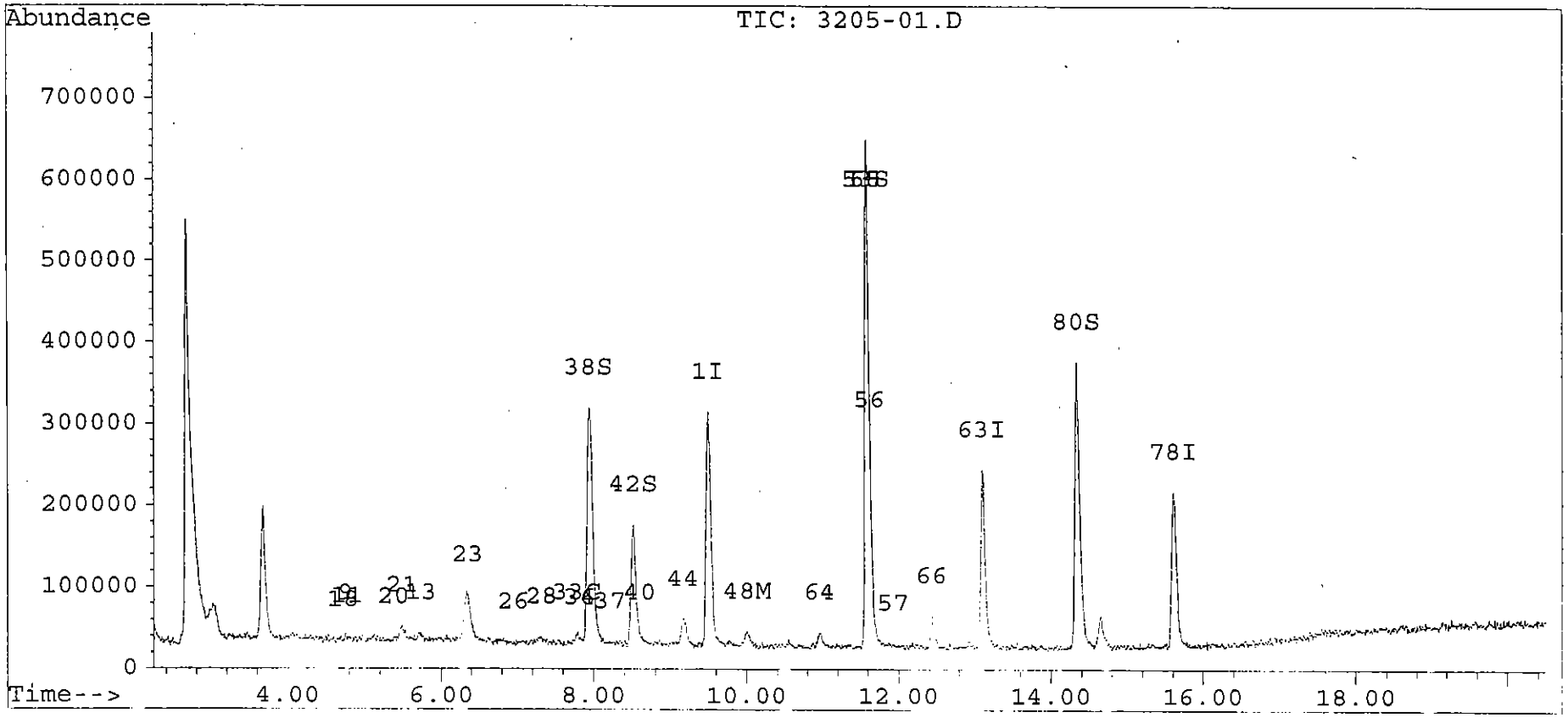
= qualifier out of range, m = manual integration, ? = RT coelution, * = DRRT > 0.06

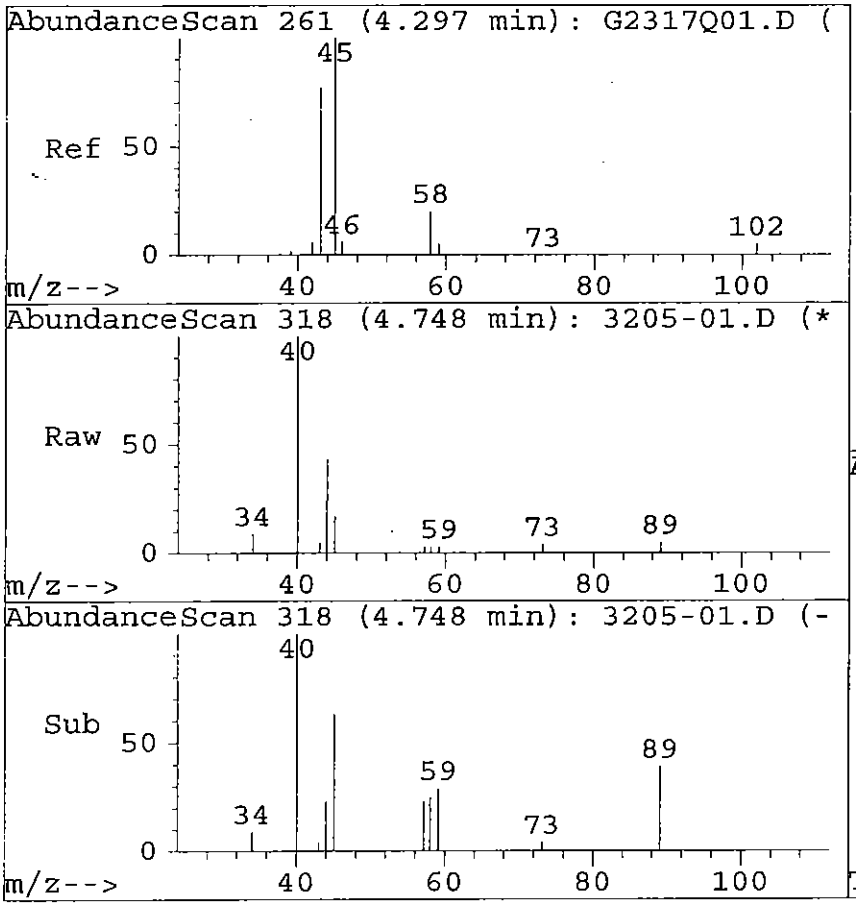
Quantitation Report

Data File : C:\HPCHEM\1\DATA\03G2534\3205-01.D
Acq On : 20 May 03 12:32 am
Sample : f=1 9
Misc :
Quant Time: May 20 9:41 2003

Vial: 22
Operator: Eddie
Inst : GCMS-G
Multiplr: 1.00
Quant Results File: quant.res

Method : C:\HPCHEM\1\METHODS\E524G004.M
Title : **Applied P &Ch Lab** EPA 524.2
Last Update : Fri May 16 12:11:07 2003
Response via : Multiple Level Calibration

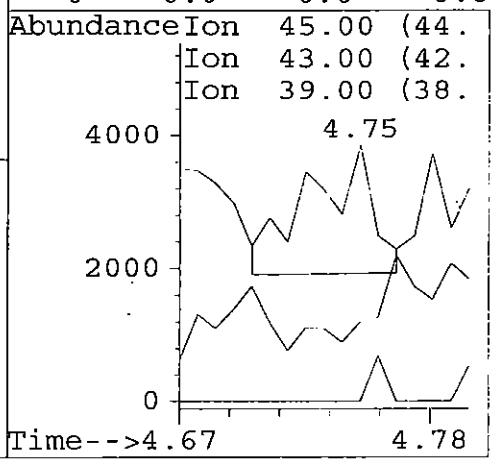


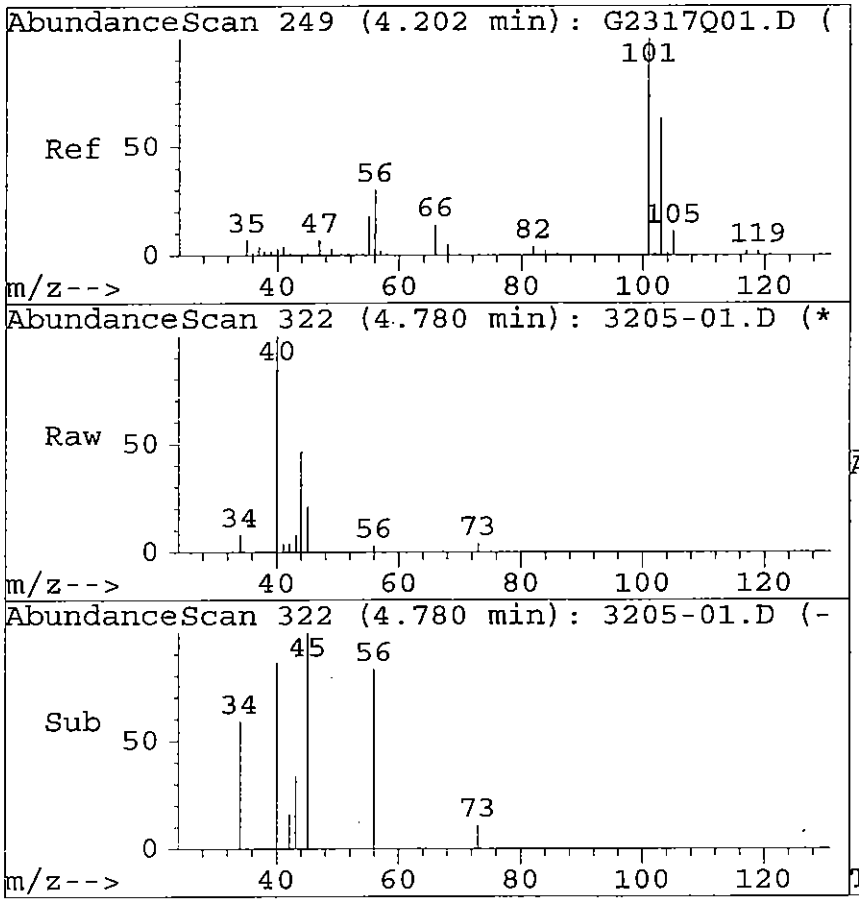


#9
111 isopropyl alcohol x10
Concen: 15.02 ppb
RT: 4.75 min Scan# 318
Delta R.T. -0.01 min
Lab File: 3205-01.D
Acq: 20 May 03 12:32 am

Tgt Ion:45 Resp: 3735

Ion	Ratio	Lower	Upper
45	100		
43	49.3	77.0	115.5#
39	8.8	13.3	19.9#
0	0.0	0.0	0.0

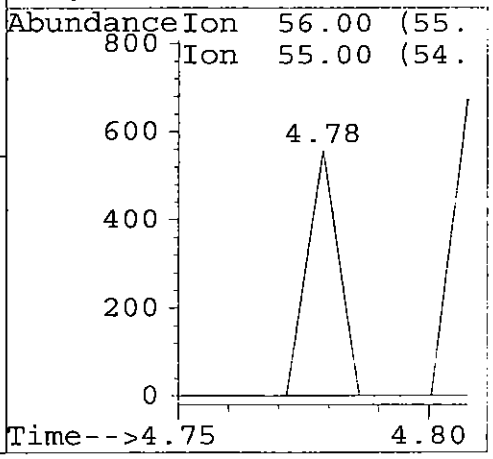


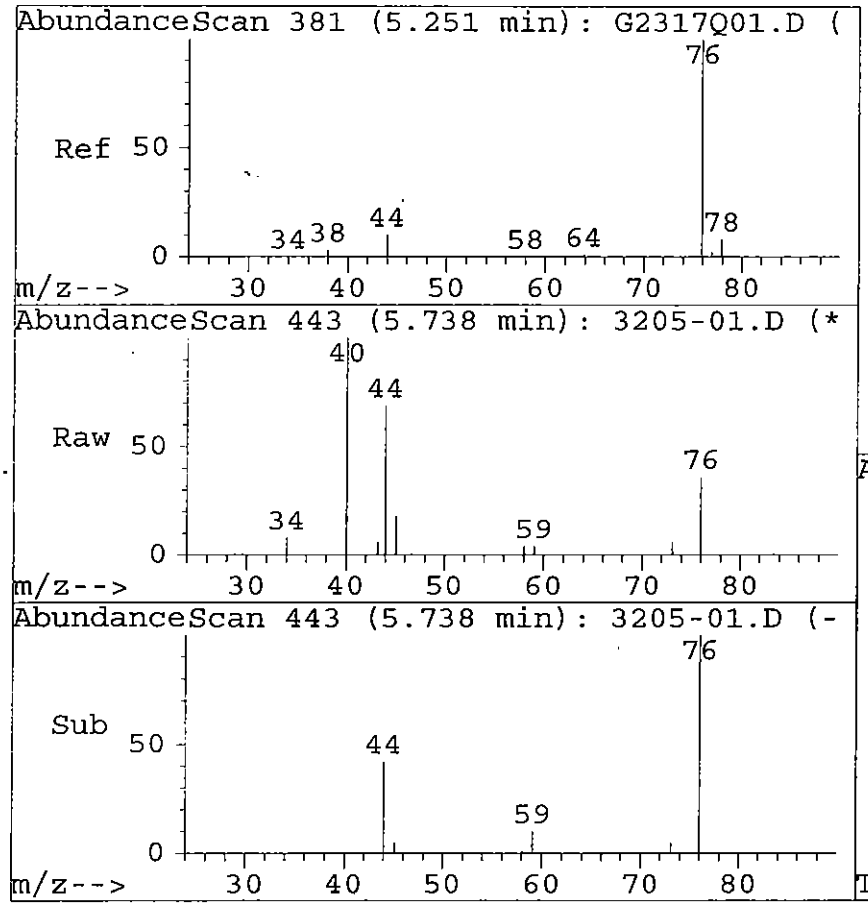


#11
102 Acrolein x10
Concen: 4.56 ppb
RT: 4.78 min Scan# 322
Delta R.T. 0.11 min
Lab File: 3205-01.D
Acq: 20 May 03 12:32 am

Tgt Ion:56 Resp: 265

Ion	Ratio	Lower	Upper
56	100		
55	120.8	29.2	87.5#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

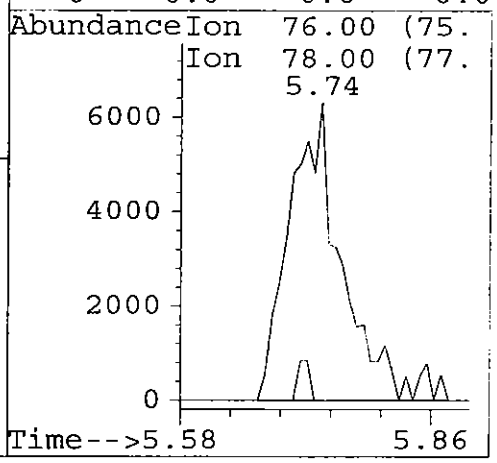


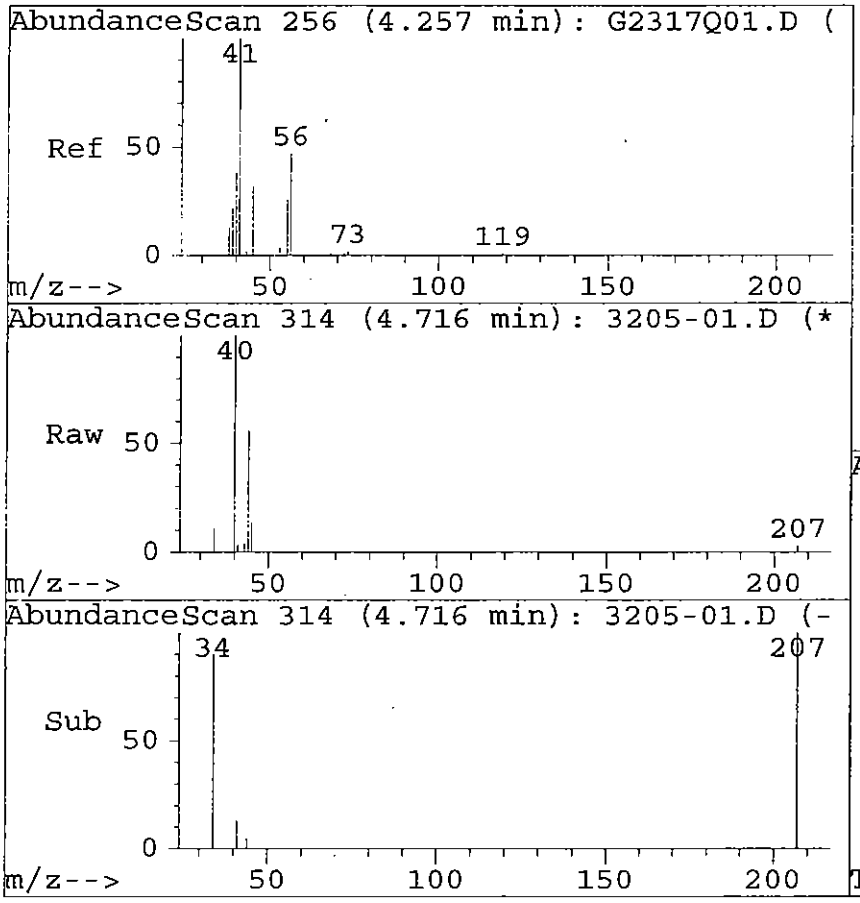


#13
104 Carbon disulfide
Concen: 0.65 ppb
RT: 5.74 min Scan# 443
Delta R.T. -0.00 min
Lab File: 3205-01.D
Acq: 20 May 03 12:32 am

Tgt Ion:76 Resp: 25145

Ion	Ratio	Lower	Upper
76	100		
78	3.2	4.5	13.4#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

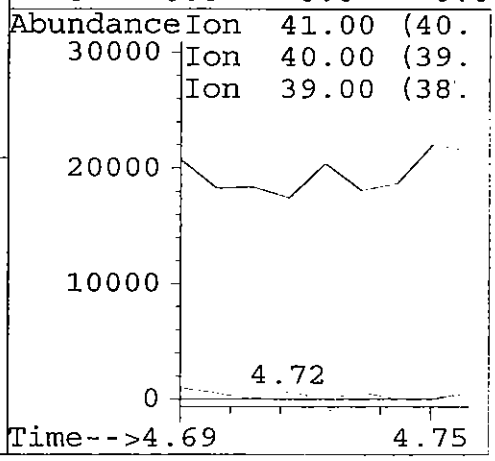


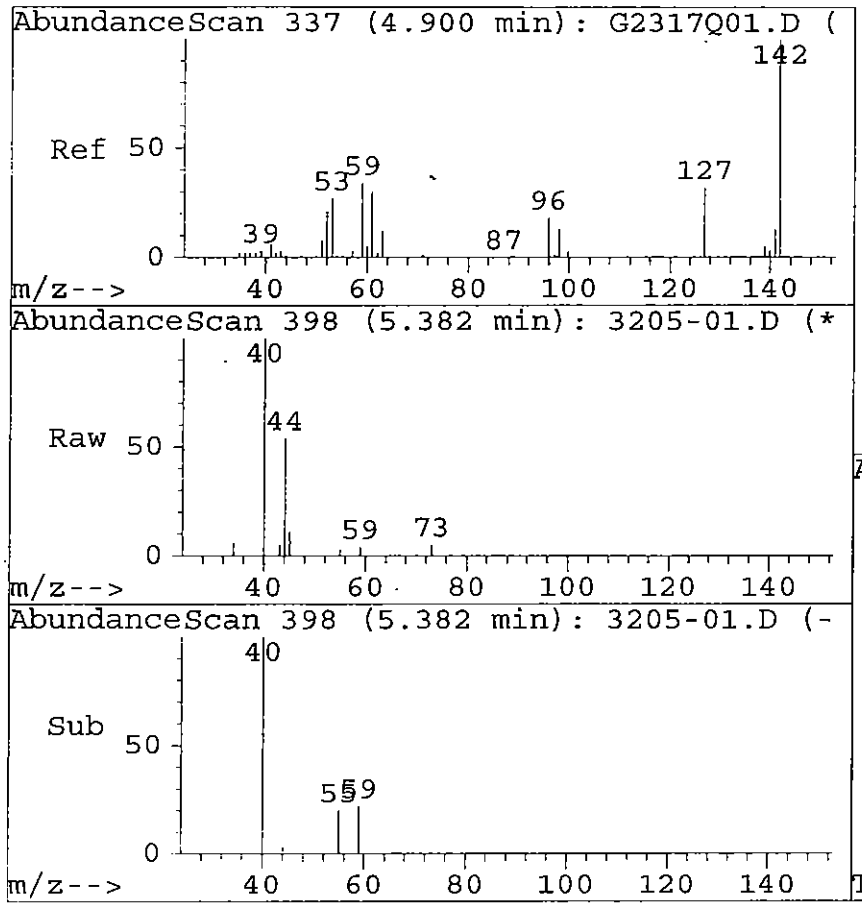


#18
101 Acetonnitrilex10
Concen: 11.01 ppb
RT: 4.72 min Scan# 314
Delta R.T. 0.01 min
Lab File: 3205-01.D
Acq: 20 May 03 12:32 am

Tgt Ion:41 Resp: 606

Ion	Ratio	Lower	Upper
41	100		
40	0.0	151.7	227.5#
39	0.0	17.3	25.9#
0	0.0	0.0	0.0

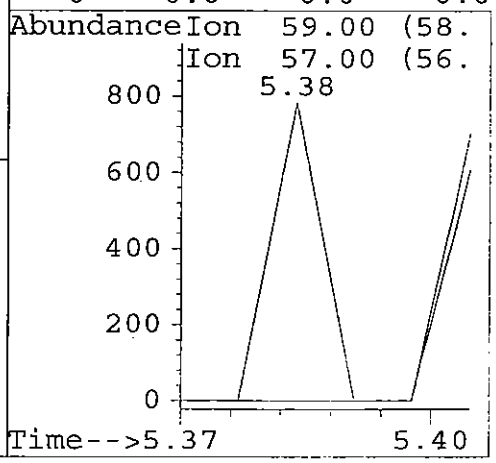


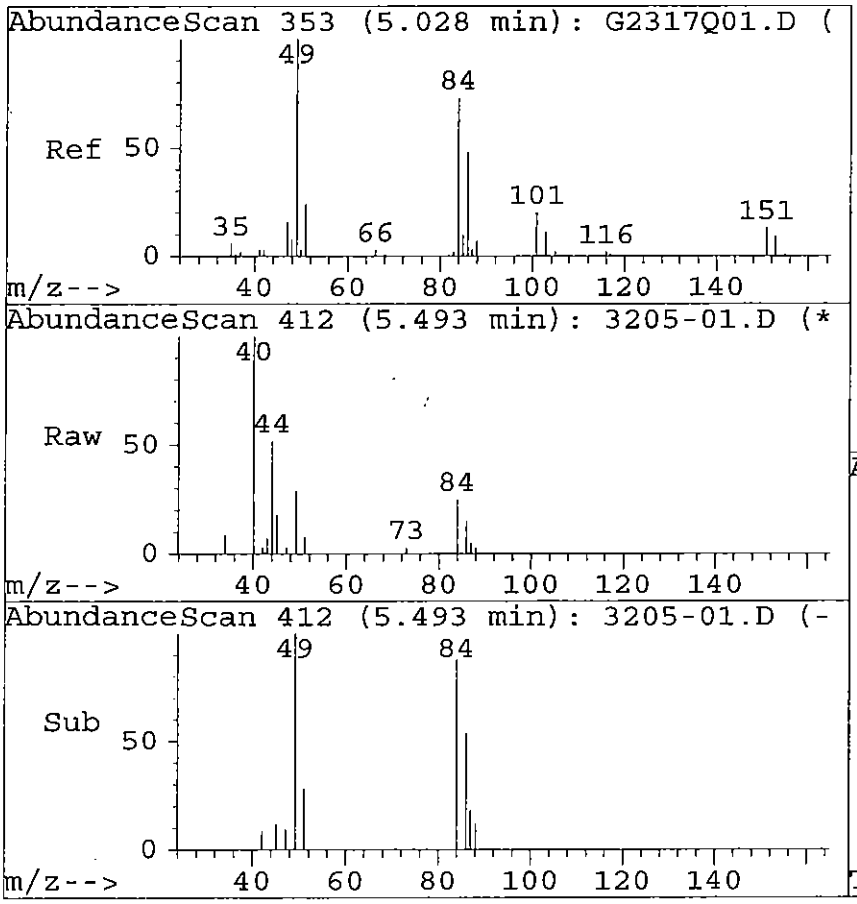


#20
113 Tert butyl alcohol x10
Concen: 0.65 ppb
RT: 5.38 min Scan# 398
Delta R.T. -0.00 min
Lab File: 3205-01.D
Acq: 20 May 03 12:32 am

Tgt Ion:59 Resp: 371

Ion	Ratio	Lower	Upper
59	100		
57	0.0	5.8	8.7#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

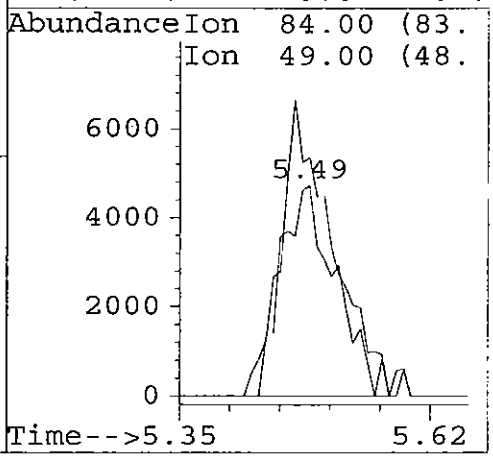


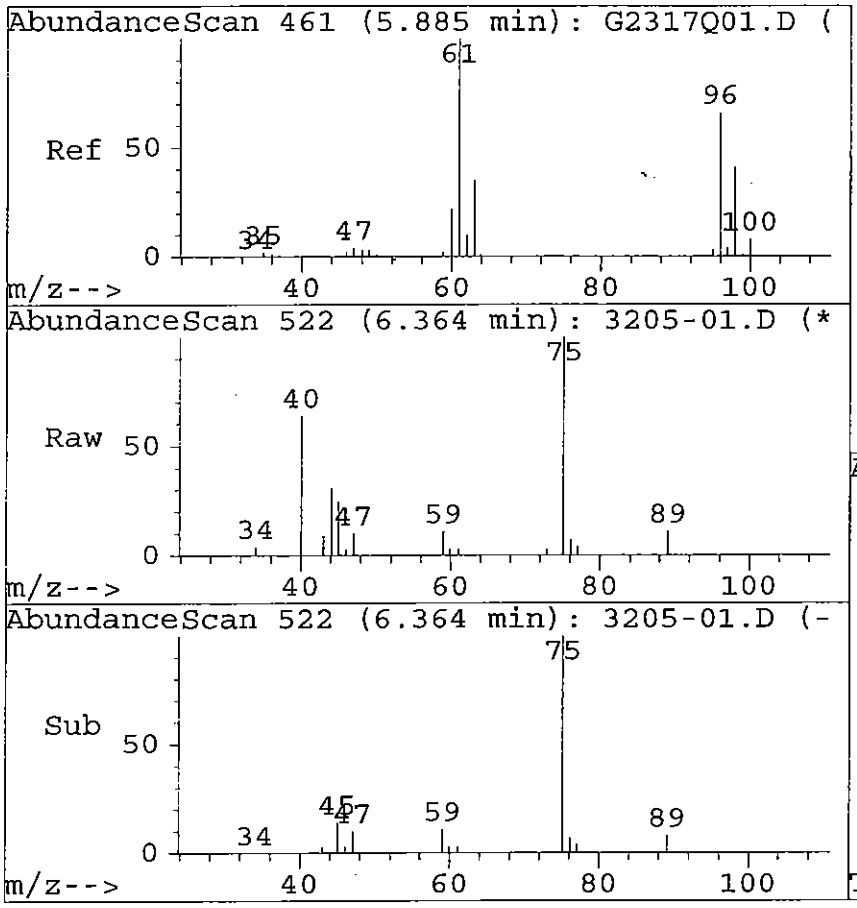


#21
18 methylene chloride 49 84
Concen: 1.29 ppb
RT: 5.49 min Scan# 412
Delta R.T. -0.01 min
Lab File: 3205-01.D
Acq: 20 May 03 12:32 am

Tgt Ion:84 Resp: 19560

Ion	Ratio	Lower	Upper
84	100		
49	132.7	62.9	188.5
0	0.0	0.0	0.0
0	0.0	0.0	0.0

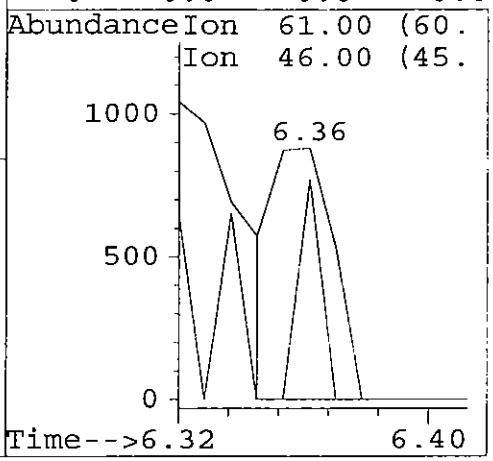


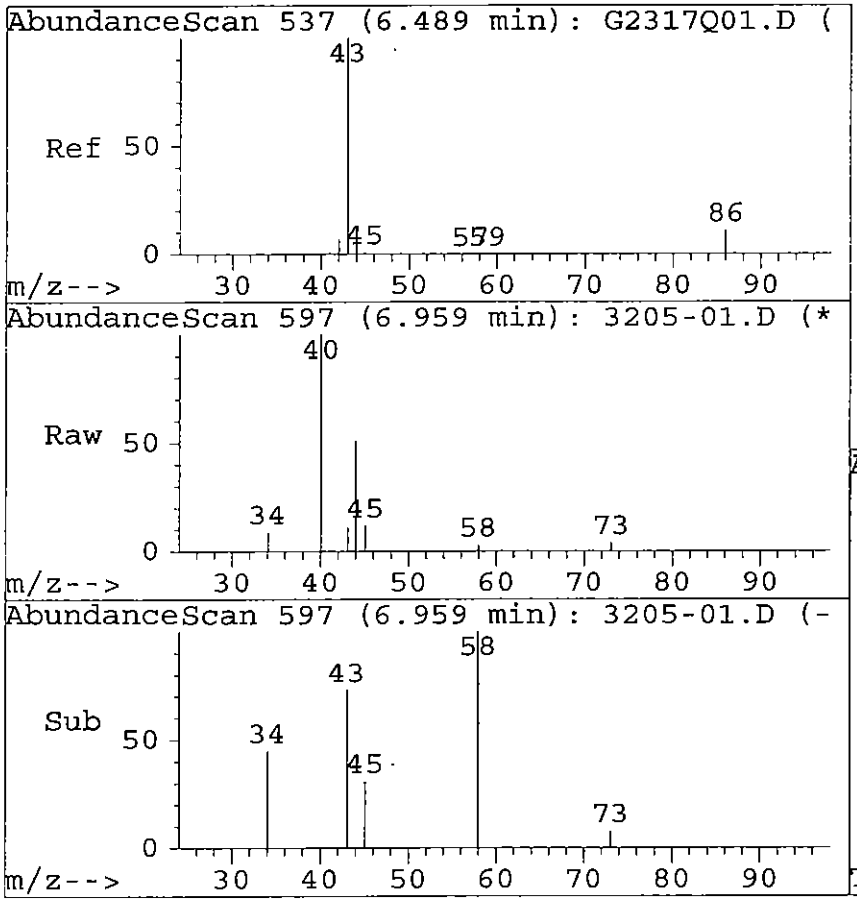


#23
200 Nitro methane x10
Concen: 0.45 ppb
RT: 6.36 min Scan# 522
Delta R.T. -0.02 min
Lab File: 3205-01.D
Acq: 20 May 03 12:32 am

Tgt Ion:61 Resp: 1087

Ion	Ratio	Lower	Upper
61	100		
46	33.7	2.5	3.8#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

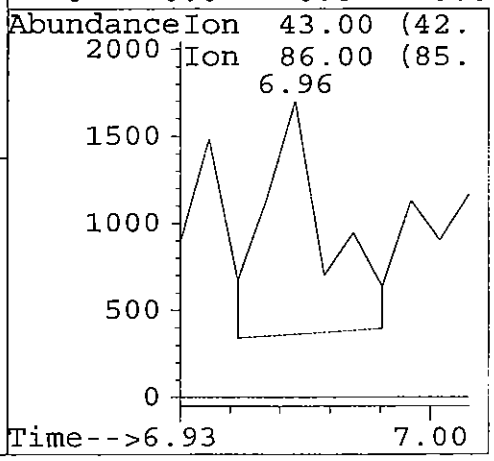


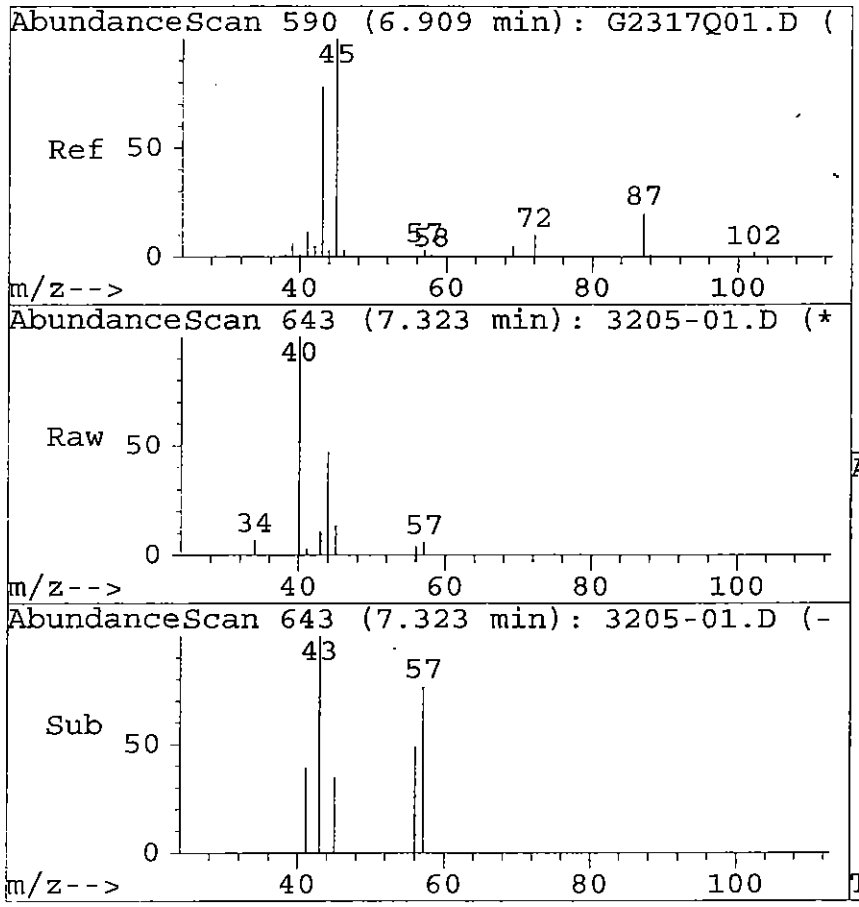


#26
98 Vinyl acetate x5
Concen: 12.61 ppb
RT: 6.96 min Scan# 597
Delta R.T. -0.01 min
Lab File: 3205-01.D
Acq: 20 May 03 12:32 am

Tgt Ion:43 Resp: 1559

Ion	Ratio	Lower	Upper
43	100		
86	0.0	9.5	14.2#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

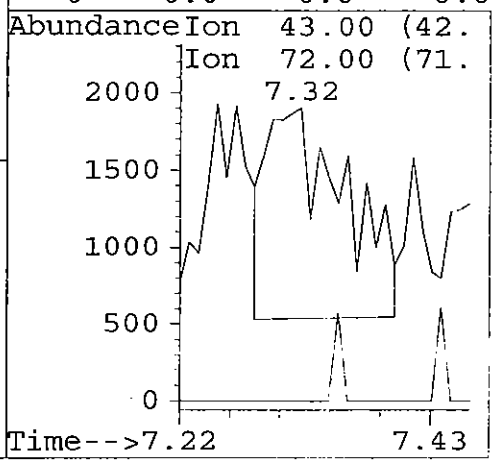


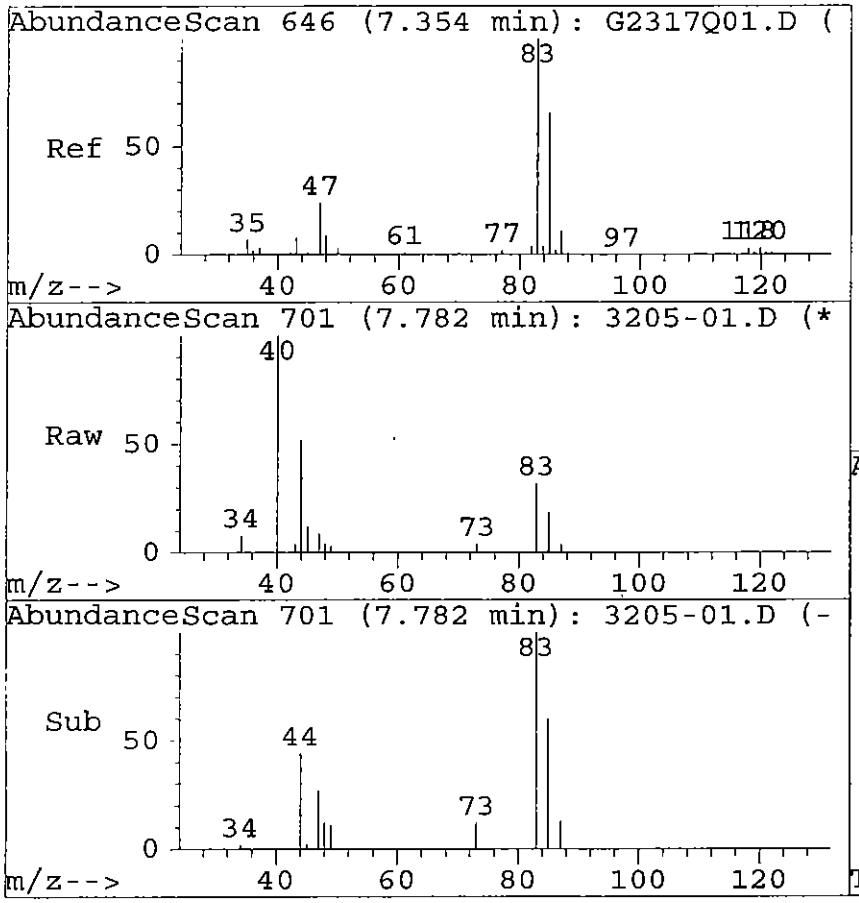


#28
91 2-butanone MEKx10
Concen: 1.10 ppb
RT: 7.32 min Scan# 643
Delta R.T. -0.05 min
Lab File: 3205-01.D
Acq: 20 May 03 12:32 am

Tgt Ion:43 Resp: 6433

Ion	Ratio	Lower	Upper
43	100		
72	4.2	9.0	13.5#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

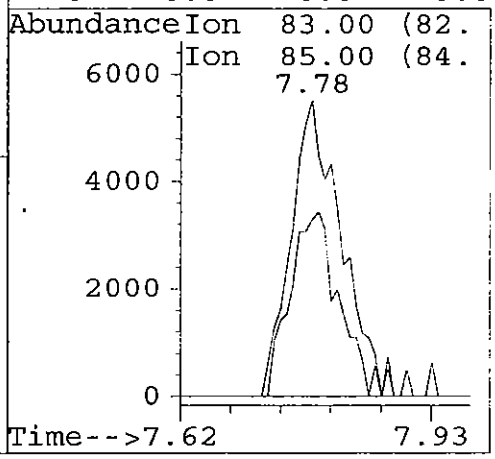


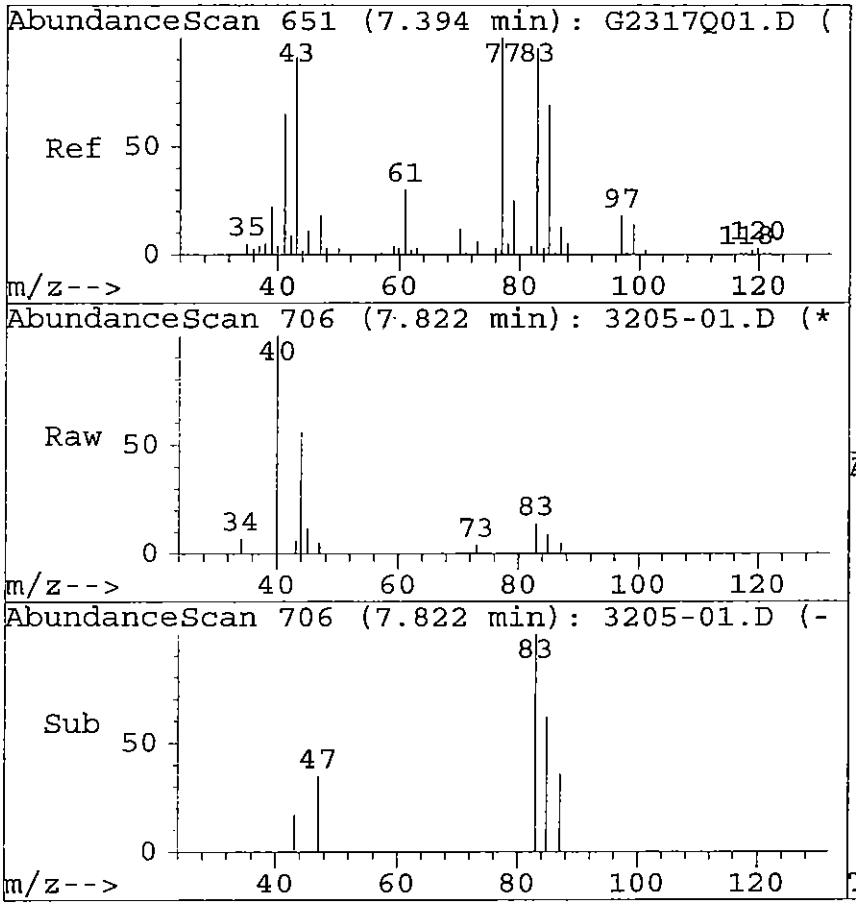


#33
25 chloroform 83 85
Concen: 0.76 ppb
RT: 7.78 min Scan# 701
Delta R.T. -0.03 min
Lab File: 3205-01.D
Acq: 20 May 03 12:32 am

Tgt Ion:83 Resp: 24164

Ion	Ratio	Lower	Upper
83	100		
85	59.3	33.5	100.3
0	0.0	0.0	0.0
0	0.0	0.0	0.0

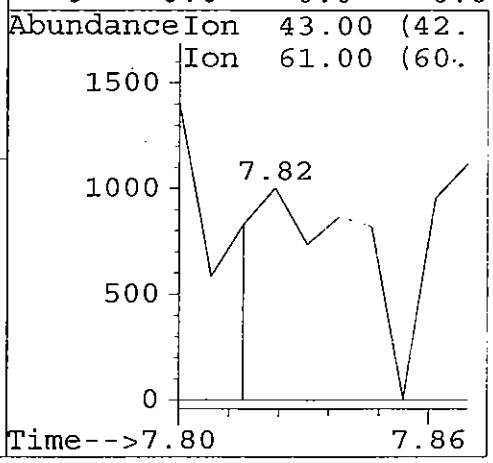


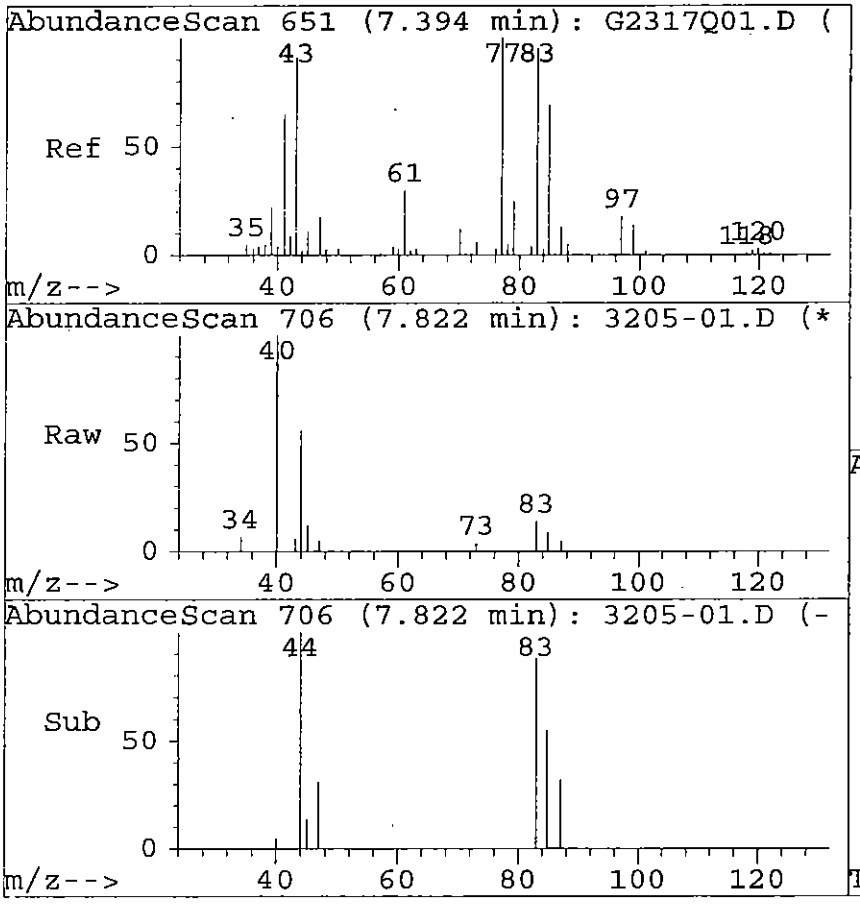


#34
201 Ethyl acetate x2
Concen: 4.52 ppb
RT: 7.82 min Scan# 706
Delta R.T. -0.01 min
Lab File: 3205-01.D
Acq: 20 May 03 12:32 am

Tgt Ion:43 Resp: 1626

Ion	Ratio	Lower	Upper
43	100		
61	0.0	19.1	28.6#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

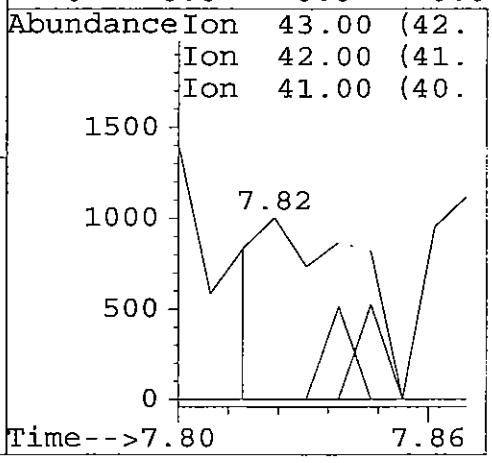


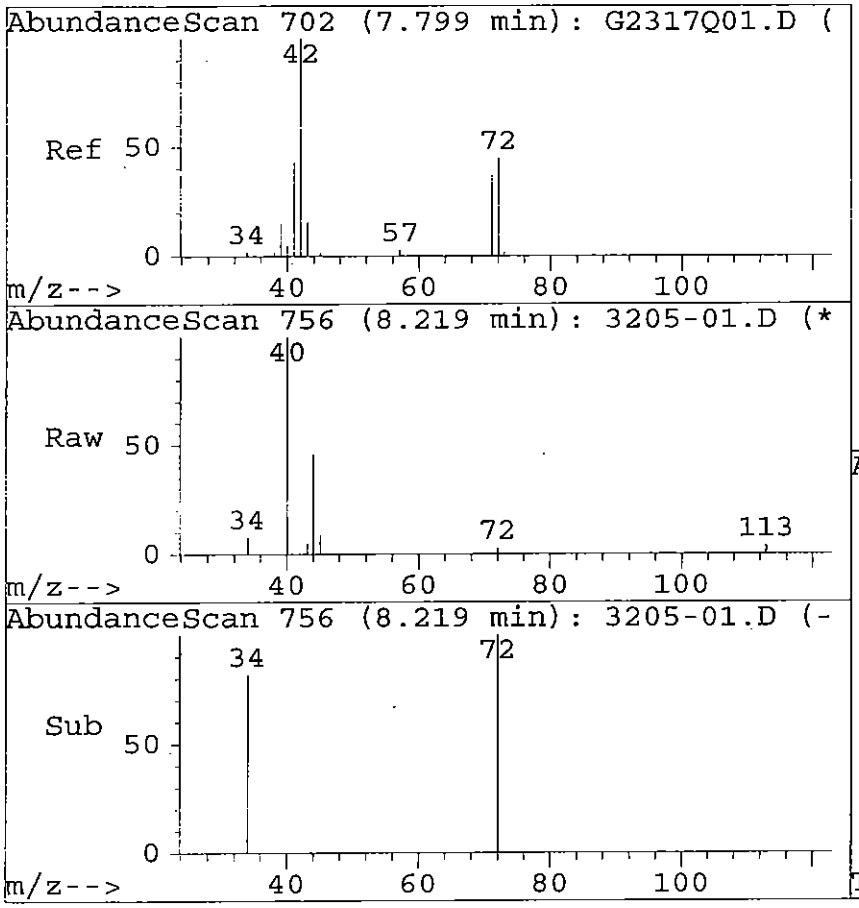


#36
117 Iso-butyl alcohol X10
Concen: 14.66 ppb
RT: 7.82 min Scan# 706
Delta R.T. -0.01 min
Lab File: 3205-01.D
Acq: 20 May 03 12:32 am

Tgt Ion:43 Resp: 1626

Ion	Ratio	Lower	Upper
43	100		
42	15.0	7.3	10.9#
41	15.4	39.7	59.5#
0	0.0	0.0	0.0

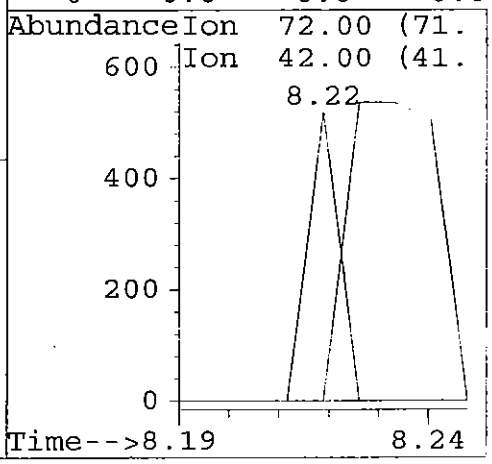


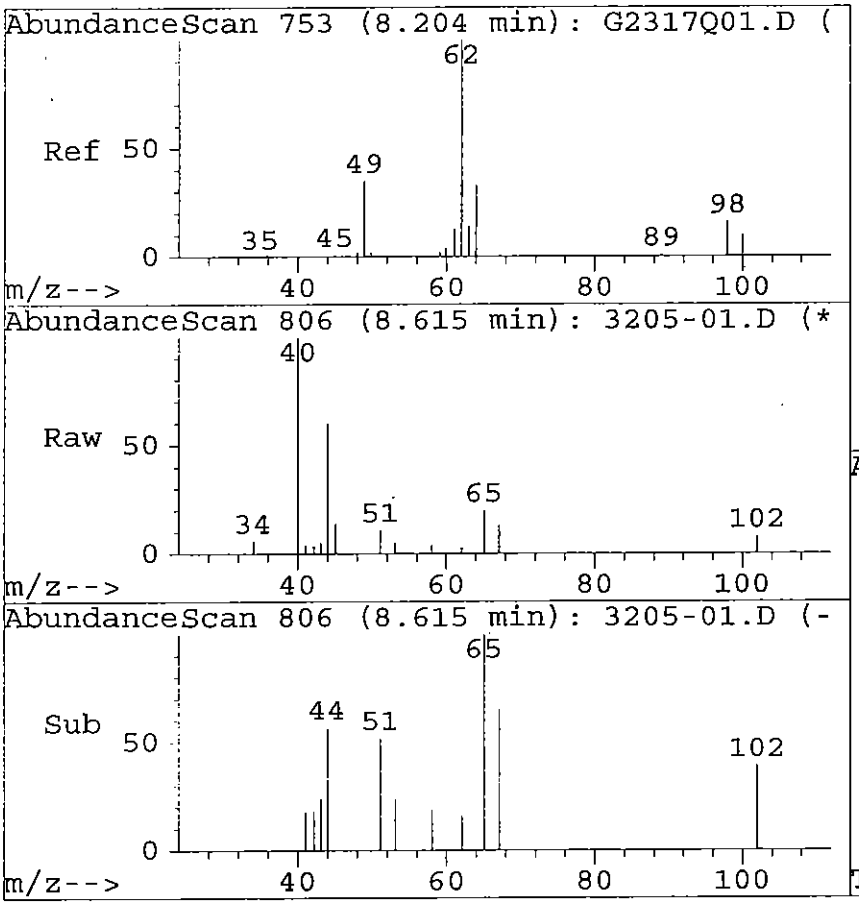


#37
26 tetrahydrofuranx5
Concen: 0.37 ppb
RT: 8.22 min Scan# 756
Delta R.T. -0.01 min
Lab File: 3205-01.D
Acq: 20 May 03 12:32 am

Tgt Ion:72 Resp: 246

Ion	Ratio	Lower	Upper
72	100		
42	304.5	99.5	298.3#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

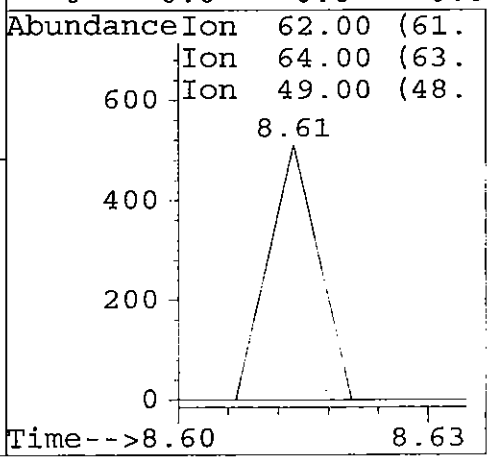


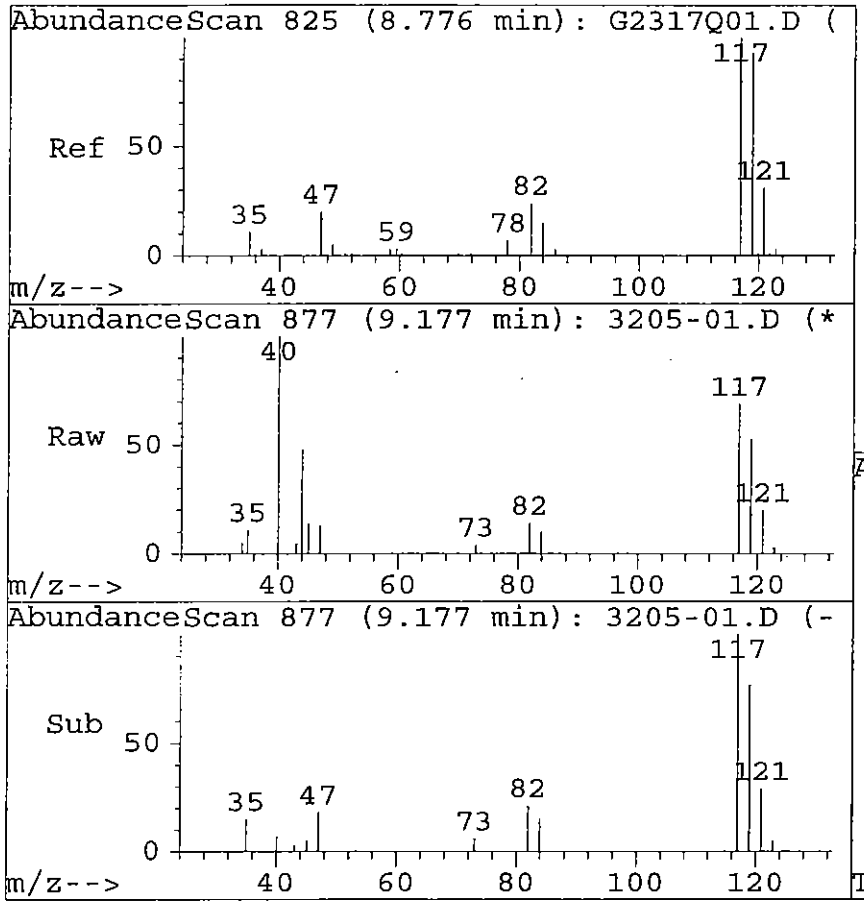


#40
30 12-dichloroethane 64 62
Concen: 0.90 ppb
RT: 8.61 min Scan# 806
Delta R.T. -0.02 min
Lab File: 3205-01.D
Acq: 20 May 03 12:32 am

Tgt Ion:62 Resp: 243

Ion	Ratio	Lower	Upper
62	100		
64	0.0	13.1	53.1#
49	0.0	16.2	56.2#
0	0.0	0.0	0.0

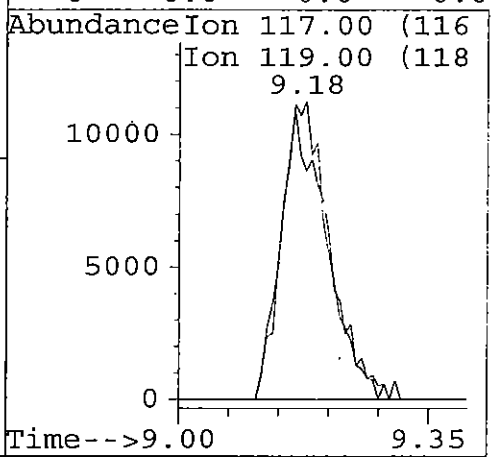


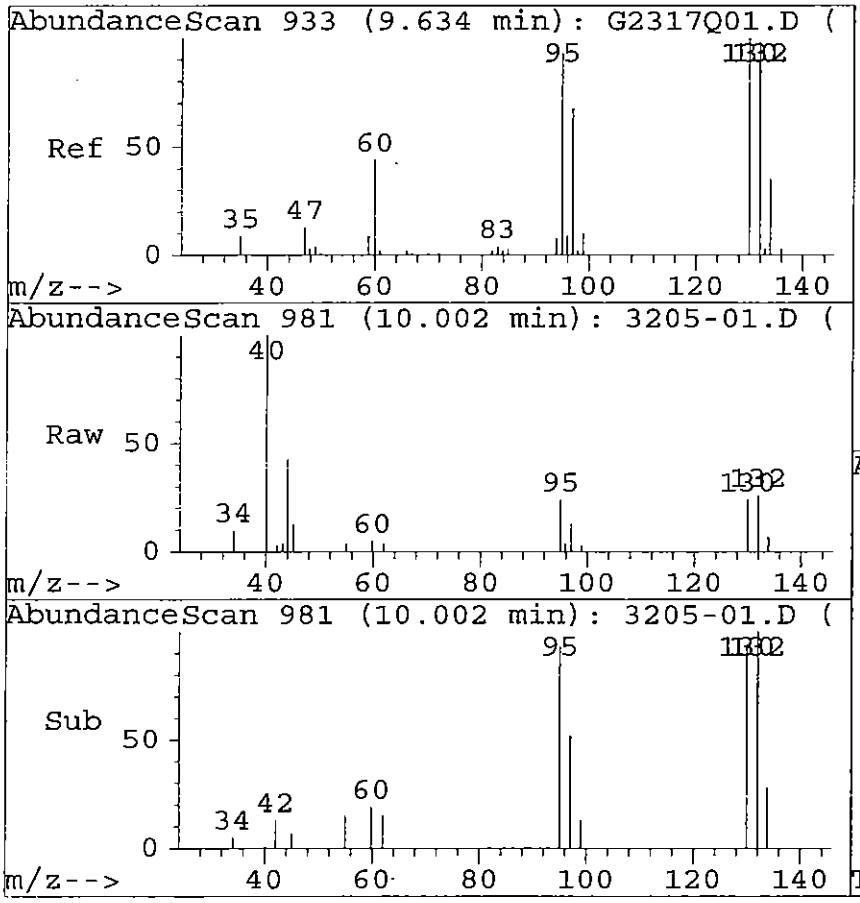


#44
37 CCl4 117 119
Concen: 2.37 ppb
RT: 9.18 min Scan# 877
Delta R.T. -0.01 min
Lab File: 3205-01.D
Acq: 20 May 03 12:32 am

Tgt Ion:117 Resp: 52742

Ion	Ratio	Lower	Upper
117	100		
119	94.4	80.3	120.3
0	0.0	0.0	0.0
0	0.0	0.0	0.0

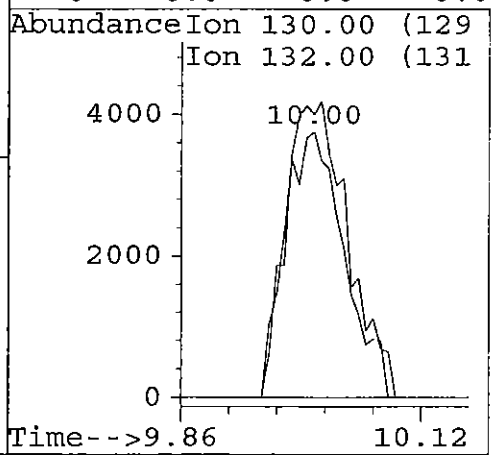


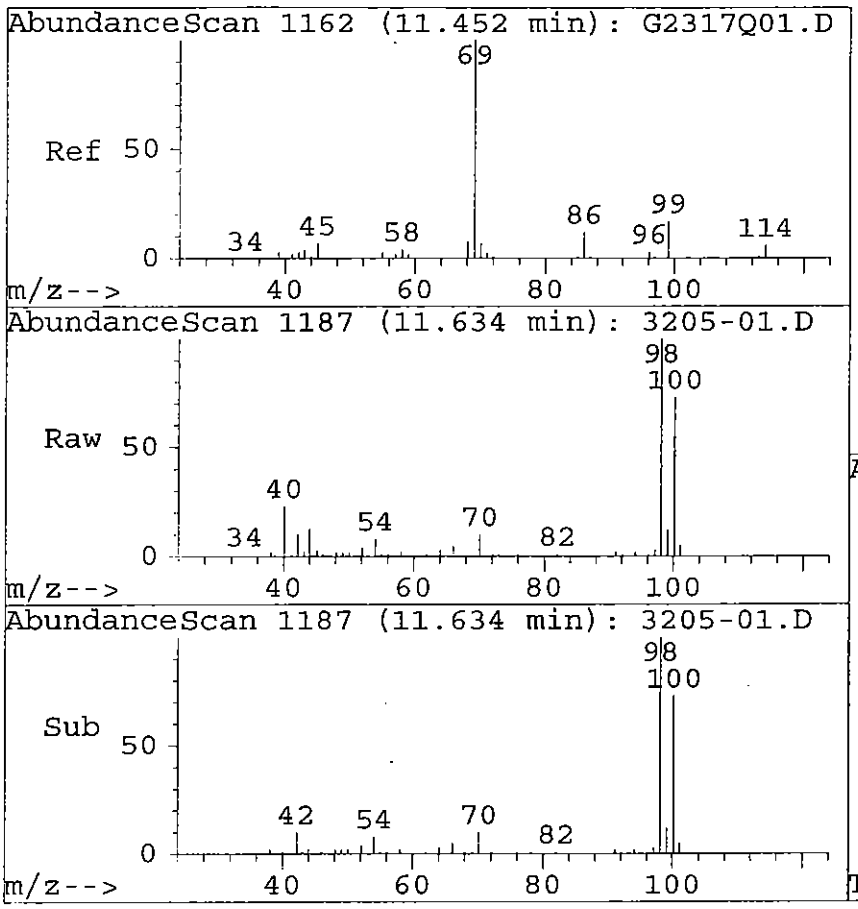


#48
40 trichloroethene 130 132
Concen: 0.88 ppb
RT: 10.00 min Scan# 981
Delta R.T. -0.02 min
Lab File: 3205-01.D
Acq: 20 May 03 12:32 am

Tgt Ion:130 Resp: 16550

Ion	Ratio	Lower	Upper
130	100		
132	115.6	47.4	142.1
0	0.0	0.0	0.0
0	0.0	0.0	0.0

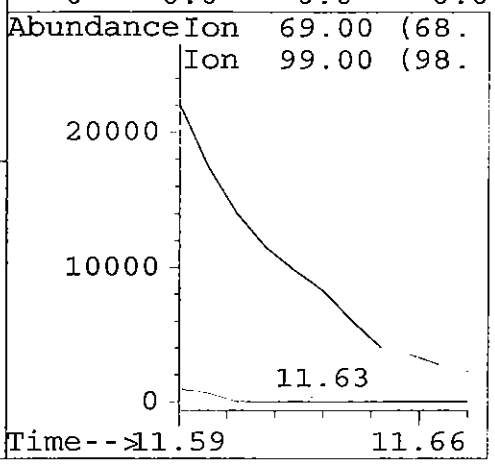


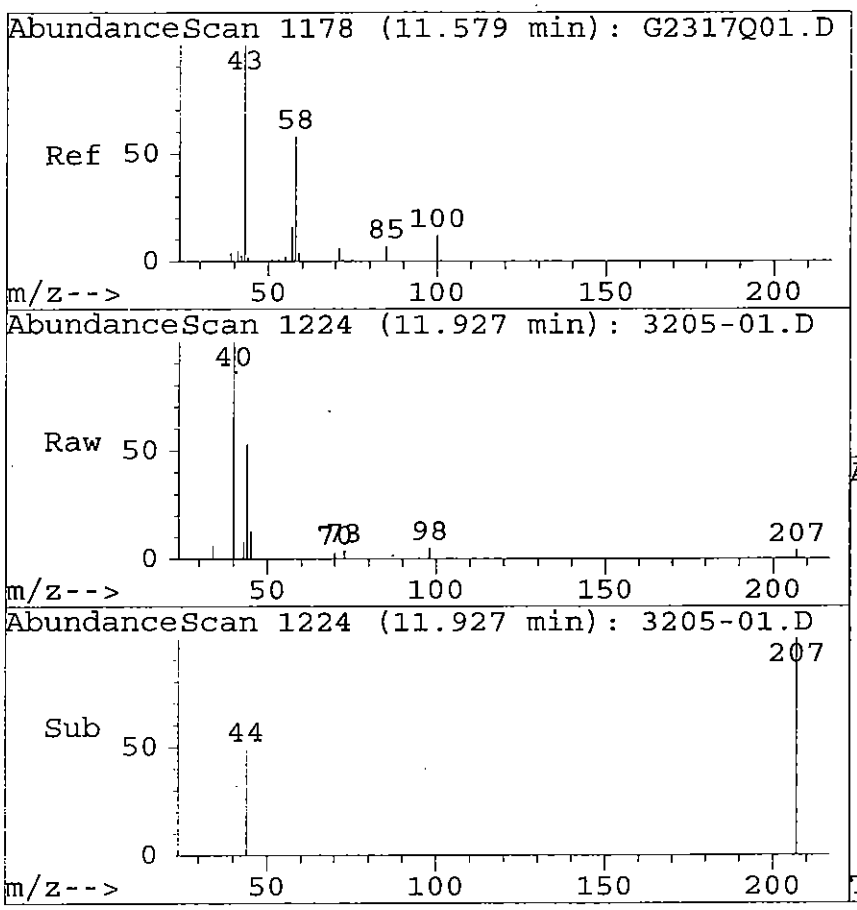


#56
107 Et methacrylate
Concen: 1.65 ppb
RT: 11.63 min Scan# 1187
Delta R.T. -0.16 min
Lab File: 3205-01.D
Acq: 20 May 03 12:32 am

Tgt Ion:69 Resp: 499

Ion	Ratio	Lower	Upper
69	100		
99	0.0	9.4	28.0#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

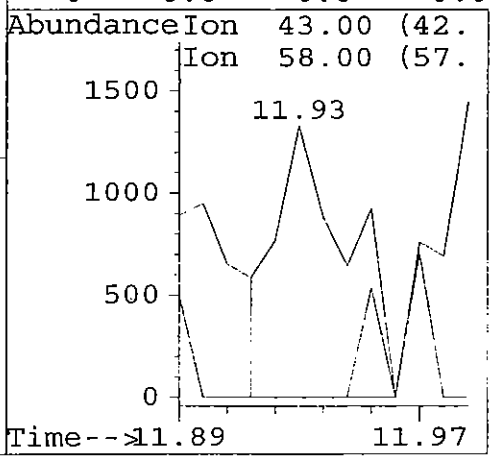


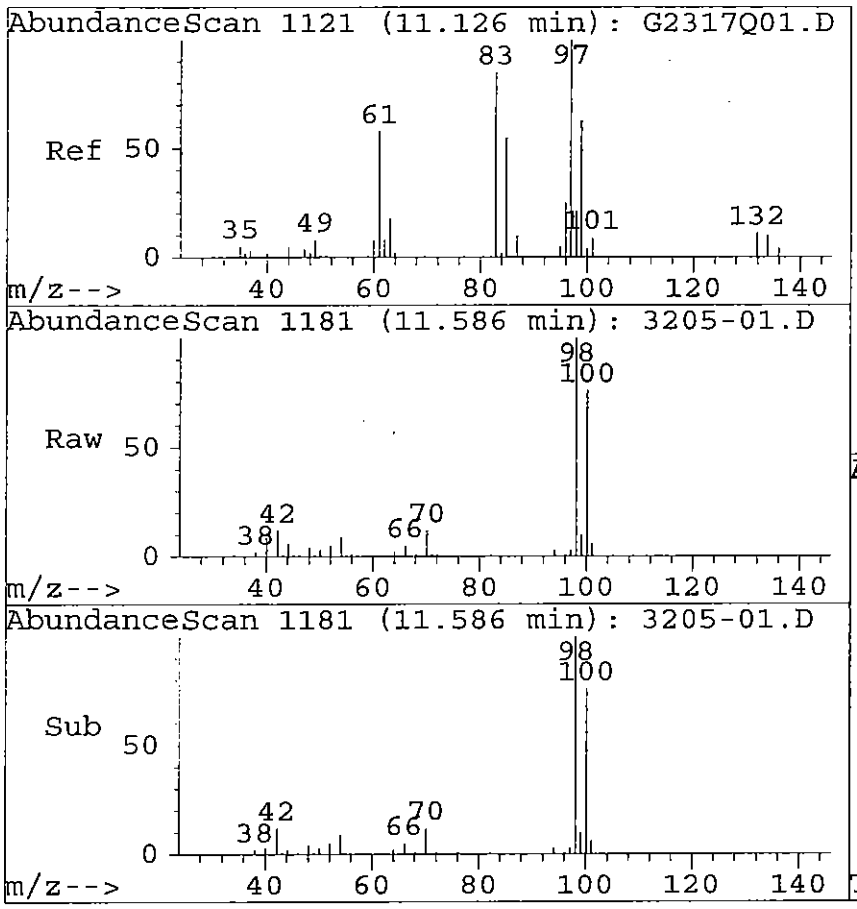


#57
93 2-Hexanone x5
Concen: 6.21 ppb
RT: 11.93 min Scan# 1224
Delta R.T. -0.00 min
Lab File: 3205-01.D
Acq: 20 May 03 12:32 am

Tgt Ion:43 Resp: 2160

Ion	Ratio	Lower	Upper
43	100		
58	11.8	44.5	66.8#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

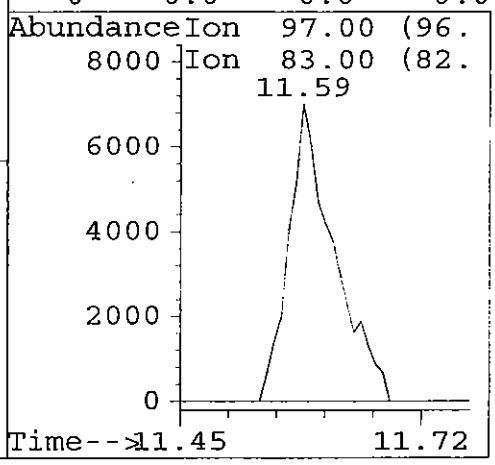


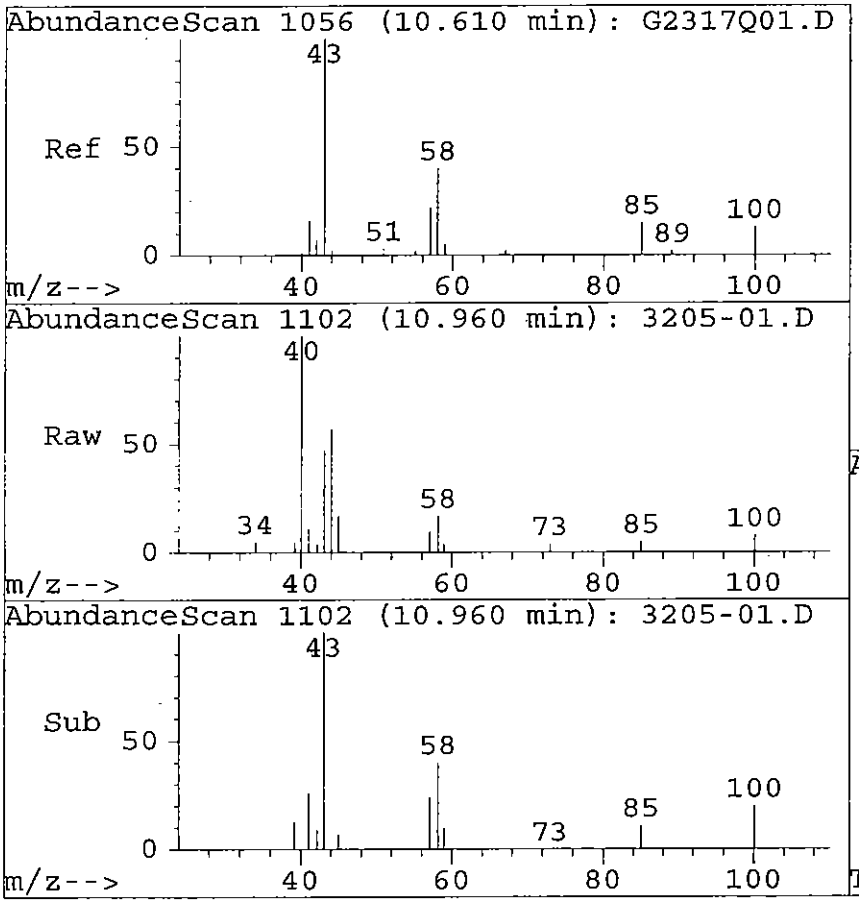


#58
48 112-tri-Cl-Et 97 83
Concen: 3.30 ppb
RT: 11.59 min Scan# 1181
Delta R.T. 0.10 min
Lab File: 3205-01.D
Acq: 20 May 03 12:32 am

Tgt Ion:97 Resp: 24201

Ion	Ratio	Lower	Upper
97	100		
83	0.0	41.5	124.4#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

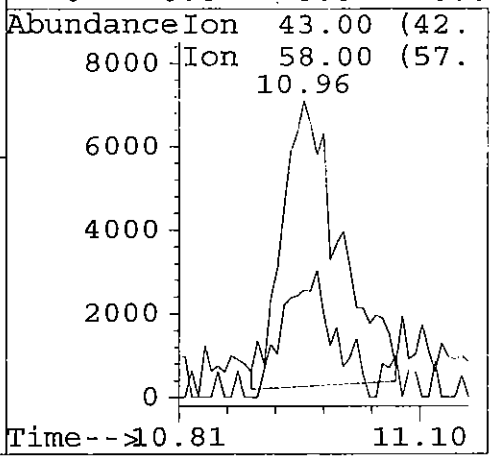


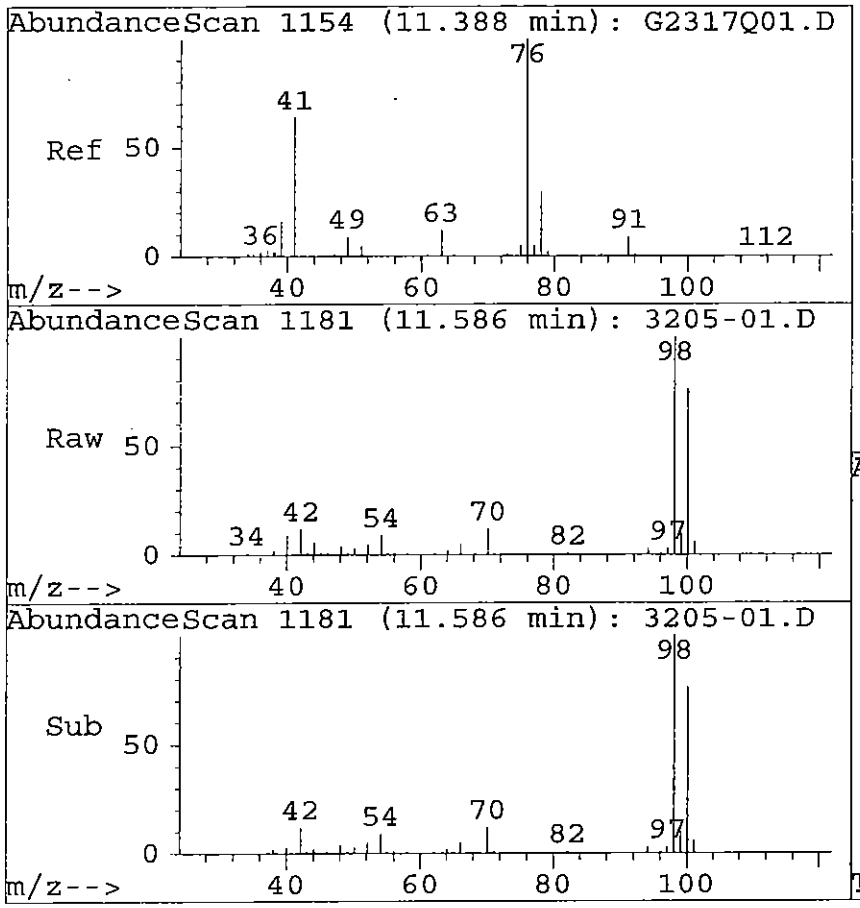


#64
54 MIBK
Concen: 6.04 ppb
RT: 10.96 min Scan# 1102
Delta R.T. -0.03 min
Lab File: 3205-01.D
Acq: 20 May 03 12:32 am

Tgt Ion:43 Resp: 33262

Ion	Ratio	Lower	Upper
43	100		
58	38.2	17.5	57.5
0	0.0	0.0	0.0
0	0.0	0.0	0.0

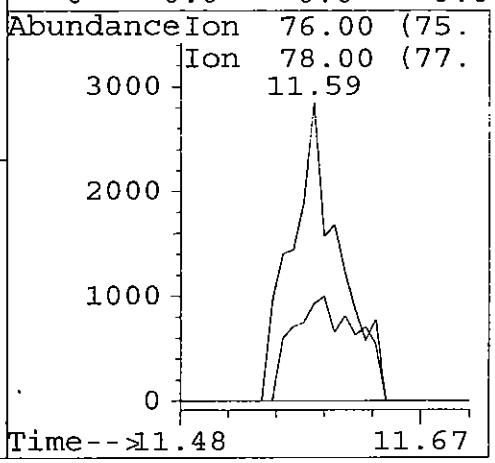


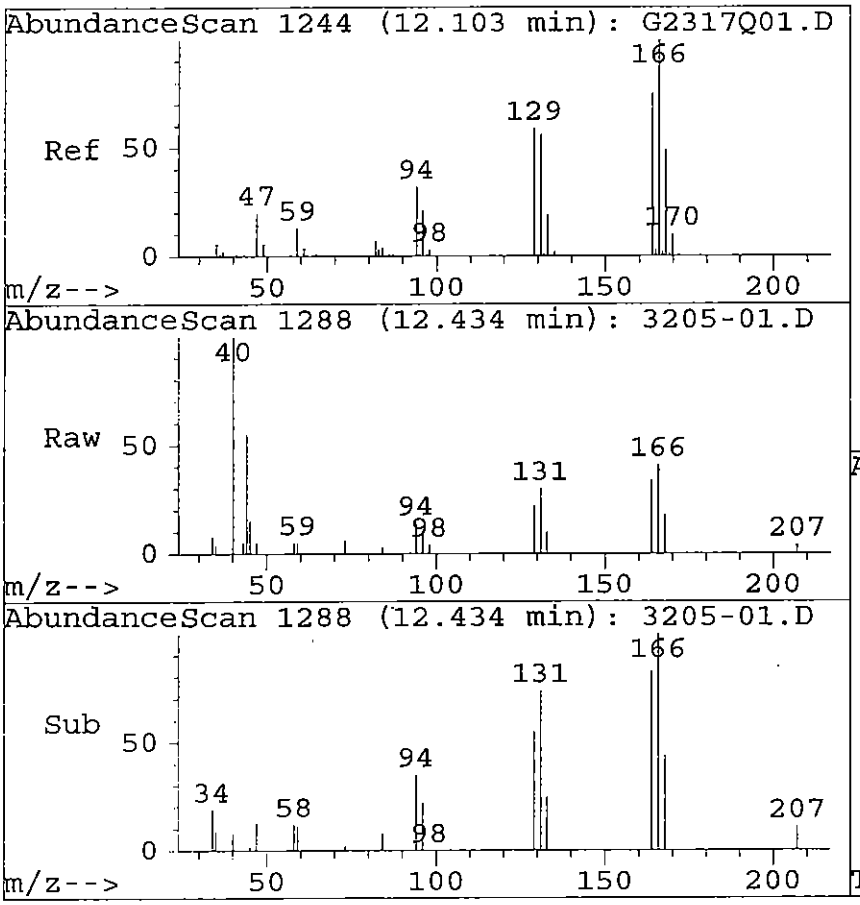


#65
49 1,3-di-cl-propane 76 78
Concen: 0.60 ppb
RT: 11.59 min Scan# 1181
Delta R.T. -0.17 min
Lab File: 3205-01.D
Acq: 20 May 03 12:32 am

Tgt Ion:76 Resp: 7263

Ion	Ratio	Lower	Upper
76	100		
78	48.2	27.9	41.8#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

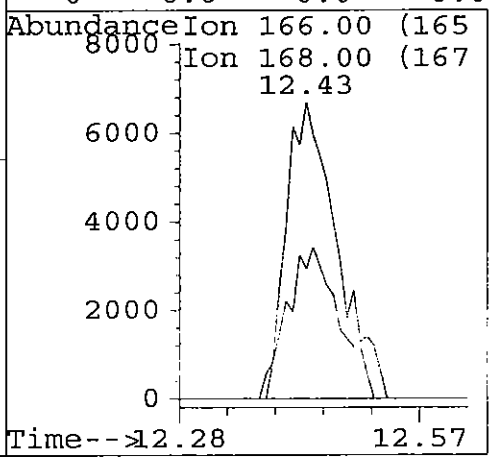




#66
59 tetra-Cl-ethene 166 168
Concen: 1.90 ppb
RT: 12.43 min Scan# 1288
Delta R.T. -0.03 min
Lab File: 3205-01.D
Acq: 20 May 03 12:32 am

Tgt Ion:166 Resp: 27911

Ion	Ratio	Lower	Upper
166	100		
168	50.9	24.4	73.0
0	0.0	0.0	0.0
0	0.0	0.0	0.0



Applied P & Ch Laboratory

Organic Analysis Results for Method 524.2

Client Name:	GEOFON, Inc.	Project No:	04-4428.10	Collection Date:	05/13/2003
Project ID:	JPL GW Mon-2Q03	Service ID:	33205	Collected by:	
		Lab Sample ID:	03-3205-2	Received Date:	05/13/2003
Sample ID:	**EB-13-5/13/03**	Sample Matrix	Water	Moisture %:	–
Sample Type:	Field Sample	Prep. Method:	5030	Instrument ID:	GC/MS: G
Anal. Method:	524.2	Prep. Date:	05/20/03	Anal. Date:	05/20/03
Batch No:	03G2534	Prep. No:	–	Anal. Time:	01:02
Data File Name:	3205-02	Sample Amount:	25 mL	Dilution Factor:	1
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	25 mL	Heated Purge: (Y/N)	N

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	BENZENE	71-43-2	μg/L	0.5	<0.5	U
2	BROMOBENZENE	108-86-1	μg/L	0.5	<0.5	U
3	BROMOCHLOROMETHANE	74-97-5	μg/L	0.5	<0.5	U
4	BROMODICHLOROMETHANE	75-27-4	μg/L	0.5	<0.5	U
5	BROMOFORM	75-25-2	μg/L	0.5	<0.5	U
6	BROMOMETHANE	74-83-9	μg/L	0.5	<0.5	U
7	2-BUTANONE	78-93-3	μg/L	10	<10	U
8	N-BUTYLBENZENE	104-51-8	μg/L	0.5	<0.5	U
9	SEC-BUTYLBENZENE	135-98-8	μg/L	0.5	<0.5	U
10	TERT-BUTYLBENZENE	98-06-6	μg/L	0.5	<0.5	U
11	CARBON TETRACHLORIDE	56-23-5	μg/L	0.5	<0.5	U
12	CHLOROBENZENE	108-90-7	μg/L	0.5	<0.5	U
13	CHLORODIBROMOMETHANE	124-48-1	μg/L	0.5	<0.5	U
14	CHLOROETHANE	75-00-3	μg/L	0.5	<0.5	U
15	CHLOROFORM	67-66-3	μg/L	0.5	<0.5	U
16	CHLOROMETHANE	74-87-3	μg/L	0.5	<0.5	U
17	2-CHLOROTOLUENE	95-49-8	μg/L	0.5	<0.5	U
18	4-CHLOROTOLUENE	106-43-4	μg/L	0.5	<0.5	U
19	1,2-DIBROMO-3-CHLOROPROPANE	96-12-8	μg/L	1.1 [a]	<1.1	U
20	1,2-DIBROMOETHANE (EDB)	106-93-4	μg/L	0.5	<0.5	U
21	DIBROMOMETHANE	74-95-3	μg/L	0.5	<0.5	U
22	1,2-DICHLOROBENZENE	95-50-1	μg/L	0.5	<0.5	U
23	1,3-DICHLOROBENZENE	541-73-1	μg/L	0.5	<0.5	U
24	1,4-DICHLOROBENZENE	106-46-7	μg/L	0.5	<0.5	U
25	DICHLORODIFLUOROMETHANE	75-71-8	μg/L	0.5	<0.5	U
26	1,1-DICHLOROETHANE	75-34-3	μg/L	0.5	<0.5	U
27	1,2-DICHLOROETHANE	107-06-2	μg/L	0.5	<0.5	U
28	1,1-DICHLOROETHENE	75-35-4	μg/L	0.5	<0.5	U
29	CIS-1,2-DICHLOROETHENE	156-59-2	μg/L	0.5	<0.5	U
30	TRANS-1,2-DICHLOROETHENE	156-60-5	μg/L	0.5	<0.5	U
31	1,2-DICHLOROPROPANE	78-87-5	μg/L	0.5	<0.5	U
32	1,3-DICHLOROPROPANE	142-28-9	μg/L	0.5	<0.5	U
33	2,2-DICHLOROPROPANE	594-20-7	μg/L	0.5	<0.5	U
34	1,1-DICHLOROPROPENE	563-58-6	μg/L	0.5	<0.5	U
35	CIS-1,3-DICHLOROPROPENE	10061-01-5	μg/L	0.5	<0.5	U
36	TRANS-1,3-DICHLOROPROPENE	10061-02-6	μg/L	0.5	<0.5	U
37	ETHYLBENZENE	100-41-4	μg/L	0.5	<0.5	U
38	HEXACHLOROBUTADIENE	87-68-3	μg/L	0.5	<0.5	U
39	ISOPROPYLBENZENE (CUMENE)	98-82-8	μg/L	0.5	<0.5	U

#	Component Name	CAS No	Unit	RL	Result	Qualifier
40	P-ISOPROPYLTOLUENE	99-87-6	µg/L	0.5	<0.5	U
41	4-METHYL-2-PENTANONE (MIBK)	108-10-1	µg/L	10	4	J
42	METHYLENE CHLORIDE	75-09-2	µg/L	1.8 [a]	<1.8	U
43	METHYL-T-BUTYL ETHER (MTBE)	1634-04-4	µg/L	1	<1	U
44	NAPHTHALENE	91-20-3	µg/L	0.5	<0.5	U
45	N-PROPYLBENZENE	103-65-1	µg/L	0.5	<0.5	U
46	STYRENE	100-42-5	µg/L	0.5	<0.5	U
47	1,1,1,2-TETRACHLOROETHANE	630-20-6	µg/L	0.5	<0.5	U
48	1,1,2,2-TETRACHLOROETHANE	79-34-5	µg/L	0.5	<0.5	U
49	TETRACHLOROETHENE	127-18-4	µg/L	0.5	<0.5	U
50	TOLUENE	108-88-3	µg/L	0.5	<0.5	U
51	1,2,3-TRICHLOROBENZENE	87-61-6	µg/L	0.5	<0.5	U
52	1,2,4-TRICHLOROBENZENE	120-82-1	µg/L	0.5	<0.5	U
53	1,1,1-TRICHLOROETHANE	71-55-6	µg/L	0.5	<0.5	U
54	1,1,2-TRICHLOROETHANE	79-00-5	µg/L	0.5	<0.5	U
55	TRICHLOROETHENE	79-01-6	µg/L	0.5	<0.5	U
56	TRICHLOROFLUOROMETHANE	75-69-4	µg/L	0.5	<0.5	U
57	1,2,3-TRICHLOROPROPANE	96-18-4	µg/L	0.5	<0.5	U
58	112TRICHLORO-122TRIFLUOROETHANE	76-13-1	µg/L	0.5	<0.5	U
59	1,2,4-TRIMETHYLBENZENE	95-63-6	µg/L	0.5	<0.5	U
60	1,3,5-TRIMETHYLBENZENE	108-67-8	µg/L	0.5	<0.5	U
61	VINYL CHLORIDE	75-01-4	µg/L	0.5	<0.5	U
62	O-XYLENE	95-47-6	µg/L	0.5	<0.5	U
63	M/P-XYLENE	108-38-3	µg/L	0.5	<0.5	U

Surrogates			Control Limit, %	Surro. Rec.%
1	1-BROMO-4-FLUOROBENZENE (4-BROMOFL	460-00-4	70-129	102
2	1,2-DICHLOROETHANE-D4	17060-07-0	70-129	91
3	DIBROMOFLUOROMETHANE	1868-53-7	70-122	99
4	TOLUENE-D8	2037-26-5	73-129	105
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	CHLOROBENZENE-D5	3114-55-4	50-200	89
2	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	100
3	FLUOROBENZENE	462-06-6	50-200	100
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

[a] MDL reported.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

Applied P & Ch Laboratory

Organic Analysis Results for Method 524.2

Client Name:	GEOFON, Inc.	Project No:	04-4428.10	Collection Date:	05/13/2003
Project ID:	JPL GW Mon-2Q03	Service ID:	33205	Collected by:	
		Lab Sample ID:	03-3205-3	Received Date:	05/13/2003
Sample ID:	**MW-18-1**	Sample Matrix	Water	Moisture %:	–
Sample Type:	Field Sample	Prep. Method:	5030	Instrument ID:	GC/MS: G
Anal. Method:	524.2	Prep. Date:	05/20/03	Anal. Date:	05/20/03
Batch No:	03G2534	Prep. No:	–	Anal. Time:	01:31
Data File Name:	3205-03	Sample Amount:	25 mL	Dilution Factor:	1
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	25 mL	Heated Purge: (Y/N)	N

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	BENZENE	71-43-2	μg/L	0.5	<0.5	U
2	BROMOBENZENE	108-86-1	μg/L	0.5	<0.5	U
3	BROMOCHLOROMETHANE	74-97-5	μg/L	0.5	<0.5	U
4	BROMODICHLOROMETHANE	75-27-4	μg/L	0.5	<0.5	U
5	BROMOFORM	75-25-2	μg/L	0.5	<0.5	U
6	BROMOMETHANE	74-83-9	μg/L	0.5	<0.5	U
7	2-BUTANONE	78-93-3	μg/L	10	<10	U
8	N-BUTYLBENZENE	104-51-8	μg/L	0.5	<0.5	U
9	SEC-BUTYLBENZENE	135-98-8	μg/L	0.5	<0.5	U
10	TERT-BUTYLBENZENE	98-06-6	μg/L	0.5	<0.5	U
11	CARBON TETRACHLORIDE	56-23-5	μg/L	0.5	<0.5	U
12	CHLOROBENZENE	108-90-7	μg/L	0.5	<0.5	U
13	CHLORODIBROMOMETHANE	124-48-1	μg/L	0.5	<0.5	U
14	CHLOROETHANE	75-00-3	μg/L	0.5	<0.5	U
15	CHLOROFORM	67-66-3	μg/L	0.5	<0.5	U
16	CHLOROMETHANE	74-87-3	μg/L	0.5	<0.5	U
17	2-CHLOROTOLUENE	95-49-8	μg/L	0.5	<0.5	U
18	4-CHLOROTOLUENE	106-43-4	μg/L	0.5	<0.5	U
19	1,2-DIBROMO-3-CHLOROPROPANE	96-12-8	μg/L	1.1 [a]	<1.1	U
20	1,2-DIBROMOETHANE (EDB)	106-93-4	μg/L	0.5	<0.5	U
21	DIBROMOMETHANE	74-95-3	μg/L	0.5	<0.5	U
22	1,2-DICHLOROBENZENE	95-50-1	μg/L	0.5	<0.5	U
23	1,3-DICHLOROBENZENE	541-73-1	μg/L	0.5	<0.5	U
24	1,4-DICHLOROBENZENE	106-46-7	μg/L	0.5	<0.5	U
25	DICHLORODIFLUOROMETHANE	75-71-8	μg/L	0.5	<0.5	U
26	1,1-DICHLOROETHANE	75-34-3	μg/L	0.5	<0.5	U
27	1,2-DICHLOROETHANE	107-06-2	μg/L	0.5	<0.5	U
28	1,1-DICHLOROETHENE	75-35-4	μg/L	0.5	<0.5	U
29	CIS-1,2-DICHLOROETHENE	156-59-2	μg/L	0.5	<0.5	U
30	TRANS-1,2-DICHLOROETHENE	156-60-5	μg/L	0.5	<0.5	U
31	1,2-DICHLOROPROPANE	78-87-5	μg/L	0.5	<0.5	U
32	1,3-DICHLOROPROPANE	142-28-9	μg/L	0.5	<0.5	U
33	2,2-DICHLOROPROPANE	594-20-7	μg/L	0.5	<0.5	U
34	1,1-DICHLOROPROPENE	563-58-6	μg/L	0.5	<0.5	U
35	CIS-1,3-DICHLOROPROPENE	10061-01-5	μg/L	0.5	<0.5	U
36	TRANS-1,3-DICHLOROPROPENE	10061-02-6	μg/L	0.5	<0.5	U
37	ETHYLBENZENE	100-41-4	μg/L	0.5	<0.5	U
38	HEXACHLOROBUTADIENE	87-68-3	μg/L	0.5	<0.5	U
39	ISOPROPYLBENZENE (CUMENE)	98-82-8	μg/L	0.5	<0.5	U

#	Component Name	CAS No	Unit	RL	Result	Qualifier
40	P-ISOPROPYLTOLUENE	99-87-6	μg/L	0.5	<0.5	U
41	4-METHYL-2-PENTANONE (MIBK)	108-10-1	μg/L	10	4	J
42	METHYLENE CHLORIDE	75-09-2	μg/L	1.8 [a]	<1.8	U
43	METHYL-T-BUTYL ETHER (MTBE)	1634-04-4	μg/L	1	<1	U
44	NAPHTHALENE	91-20-3	μg/L	0.5	<0.5	U
45	N-PROPYLBENZENE	103-65-1	μg/L	0.5	<0.5	U
46	STYRENE	100-42-5	μg/L	0.5	<0.5	U
47	1,1,1,2-TETRACHLOROETHANE	630-20-6	μg/L	0.5	<0.5	U
48	1,1,2,2-TETRACHLOROETHANE	79-34-5	μg/L	0.5	<0.5	U
49	TETRACHLOROETHENE	127-18-4	μg/L	0.5	<0.5	U
50	TOLUENE	108-88-3	μg/L	0.5	<0.5	U
51	1,2,3-TRICHLOROBENZENE	87-61-6	μg/L	0.5	<0.5	U
52	1,2,4-TRICHLOROBENZENE	120-82-1	μg/L	0.5	<0.5	U
53	1,1,1-TRICHLOROETHANE	71-55-6	μg/L	0.5	<0.5	U
54	1,1,2-TRICHLOROETHANE	79-00-5	μg/L	0.5	<0.5	U
55	TRICHLOROETHENE	79-01-6	μg/L	0.5	<0.5	U
56	TRICHLOROFLUOROMETHANE	75-69-4	μg/L	0.5	<0.5	U
57	1,2,3-TRICHLOROPROPANE	96-18-4	μg/L	0.5	<0.5	U
58	112TRICHLORO-122TRIFLUOROETHANE	76-13-1	μg/L	0.5	<0.5	U
59	1,2,4-TRIMETHYLBENZENE	95-63-6	μg/L	0.5	<0.5	U
60	1,3,5-TRIMETHYLBENZENE	108-67-8	μg/L	0.5	<0.5	U
61	VINYL CHLORIDE	75-01-4	μg/L	0.5	<0.5	U
62	O-XYLENE	95-47-6	μg/L	0.5	<0.5	U
63	M/P-XYLENE	108-38-3	μg/L	0.5	<0.5	U

Surrogates			Control Limit, %	Surro. Rec.%
1	1-BROMO-4-FLUOROBENZENE (4-BROMOFL	460-00-4	70-129	97
2	1,2-DICHLOROETHANE-D4	17060-07-0	70-129	82
3	DIBROMOFLUOROMETHANE	1868-53-7	70-122	93
4	TOLUENE-D8	2037-26-5	73-129	98
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	CHLOROBENZENE-D5	3114-55-4	50-200	100
2	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	108
3	FLUOROBENZENE	462-06-6	50-200	111
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

[a] MDL reported.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

Applied P & Ch Laboratory

Organic Analysis Results for Method 524.2

Client Name:	GEOFON, Inc.	Project No:	04-4428.10	Collection Date:	05/13/2003
Project ID:	JPL GW Mon-2Q03	Service ID:	33205	Collected by:	
		Lab Sample ID:	03-3205-4	Received Date:	05/13/2003
Sample ID:	**MW-18-2**	Sample Matrix	Water	Moisture %:	–
Sample Type:	Field Sample	Prep. Method:	5030	Instrument ID:	GC/MS: G
Anal. Method:	524.2	Prep. Date:	05/20/03	Anal. Date:	05/20/03
Batch No:	03G2534	Prep. No:	–	Anal. Time:	02:01
Data File Name:	3205-04	Sample Amount:	25 mL	Dilution Factor:	1
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	25 mL	Heated Purge: (Y/N)	N

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	BENZENE	71-43-2	µg/L	0.5	<0.5	U
2	BROMOBENZENE	108-86-1	µg/L	0.5	<0.5	U
3	BROMOCHLOROMETHANE	74-97-5	µg/L	0.5	<0.5	U
4	BROMODICHLOROMETHANE	75-27-4	µg/L	0.5	<0.5	U
5	BROMOFORM	75-25-2	µg/L	0.5	<0.5	U
6	BROMOMETHANE	74-83-9	µg/L	0.5	<0.5	U
7	2-BUTANONE	78-93-3	µg/L	10	<10	U
8	N-BUTYLBENZENE	104-51-8	µg/L	0.5	<0.5	U
9	SEC-BUTYLBENZENE	135-98-8	µg/L	0.5	<0.5	U
10	TERT-BUTYLBENZENE	98-06-6	µg/L	0.5	<0.5	U
11	CARBON TETRACHLORIDE	56-23-5	µg/L	0.5	<0.5	U
12	CHLOROBENZENE	108-90-7	µg/L	0.5	<0.5	U
13	CHLORODIBROMOMETHANE	124-48-1	µg/L	0.5	<0.5	U
14	CHLOROETHANE	75-00-3	µg/L	0.5	<0.5	U
15	CHLOROFORM	67-66-3	µg/L	0.5	<0.5	U
16	CHLOROMETHANE	74-87-3	µg/L	0.5	<0.5	U
17	2-CHLOROTOLUENE	95-49-8	µg/L	0.5	<0.5	U
18	4-CHLOROTOLUENE	106-43-4	µg/L	0.5	<0.5	U
19	1,2-DIBROMO-3-CHLOROPROPANE	96-12-8	µg/L	1.1 [a]	<1.1	U
20	1,2-DIBROMOETHANE (EDB)	106-93-4	µg/L	0.5	<0.5	U
21	DIBROMOMETHANE	74-95-3	µg/L	0.5	<0.5	U
22	1,2-DICHLOROBENZENE	95-50-1	µg/L	0.5	<0.5	U
23	1,3-DICHLOROBENZENE	541-73-1	µg/L	0.5	<0.5	U
24	1,4-DICHLOROBENZENE	106-46-7	µg/L	0.5	<0.5	U
25	DICHLORODIFLUOROMETHANE	75-71-8	µg/L	0.5	<0.5	U
26	1,1-DICHLOROETHANE	75-34-3	µg/L	0.5	<0.5	U
27	1,2-DICHLOROETHANE	107-06-2	µg/L	0.5	<0.5	U
28	1,1-DICHLOROETHENE	75-35-4	µg/L	0.5	<0.5	U
29	CIS-1,2-DICHLOROETHENE	156-59-2	µg/L	0.5	<0.5	U
30	TRANS-1,2-DICHLOROETHENE	156-60-5	µg/L	0.5	<0.5	U
31	1,2-DICHLOROPROPANE	78-87-5	µg/L	0.5	<0.5	U
32	1,3-DICHLOROPROPANE	142-28-9	µg/L	0.5	<0.5	U
33	2,2-DICHLOROPROPANE	594-20-7	µg/L	0.5	<0.5	U
34	1,1-DICHLOROPROPENE	563-58-6	µg/L	0.5	<0.5	U
35	CIS-1,3-DICHLOROPROPENE	10061-01-5	µg/L	0.5	<0.5	U
36	TRANS-1,3-DICHLOROPROPENE	10061-02-6	µg/L	0.5	<0.5	U
37	ETHYLBENZENE	100-41-4	µg/L	0.5	<0.5	U
38	HEXACHLOROBUTADIENE	87-68-3	µg/L	0.5	<0.5	U
39	ISOPROPYLBENZENE (CUMENE)	98-82-8	µg/L	0.5	<0.5	U

#	Component Name	CAS No	Unit	RL	Result	Qualifier
40	P-ISOPROPYLTOLUENE	99-87-6	µg/L	0.5	<0.5	U
41	4-METHYL-2-PENTANONE (MIBK)	108-10-1	µg/L	10	4	J
42	METHYLENE CHLORIDE	75-09-2	µg/L	1.8 [a]	<1.8	U
43	METHYL-T-BUTYL ETHER (MTBE)	1634-04-4	µg/L	1	<1	U
44	NAPHTHALENE	91-20-3	µg/L	0.5	<0.5	U
45	N-PROPYLBENZENE	103-65-1	µg/L	0.5	<0.5	U
46	STYRENE	100-42-5	µg/L	0.5	<0.5	U
47	1,1,1,2-TETRACHLOROETHANE	630-20-6	µg/L	0.5	<0.5	U
48	1,1,2,2-TETRACHLOROETHANE	79-34-5	µg/L	0.5	<0.5	U
49	TETRACHLOROETHENE	127-18-4	µg/L	0.5	<0.5	U
50	TOLUENE	108-88-3	µg/L	0.5	<0.5	U
51	1,2,3-TRICHLOROBENZENE	87-61-6	µg/L	0.5	<0.5	U
52	1,2,4-TRICHLOROBENZENE	120-82-1	µg/L	0.5	<0.5	U
53	1,1,1-TRICHLOROETHANE	71-55-6	µg/L	0.5	<0.5	U
54	1,1,2-TRICHLOROETHANE	79-00-5	µg/L	0.5	<0.5	U
55	TRICHLOROETHENE	79-01-6	µg/L	0.5	<0.5	U
56	TRICHLOROFLUOROMETHANE	75-69-4	µg/L	0.5	<0.5	U
57	1,2,3-TRICHLOROPROPANE	96-18-4	µg/L	0.5	<0.5	U
58	112TRICHLORO-122TRIFLUOROETHANE	76-13-1	µg/L	0.5	<0.5	U
59	1,2,4-TRIMETHYLBENZENE	95-63-6	µg/L	0.5	<0.5	U
60	1,3,5-TRIMETHYLBENZENE	108-67-8	µg/L	0.5	<0.5	U
61	VINYL CHLORIDE	75-01-4	µg/L	0.5	<0.5	U
62	O-XYLENE	95-47-6	µg/L	0.5	<0.5	U
63	M/P-XYLENE	108-38-3	µg/L	0.5	<0.5	U

Surrogates			Control Limit, %	Surro. Rec.%
1	1-BROMO-4-FLUOROBENZENE (4-BROMOFL	460-00-4	70-129	100
2	1,2-DICHLOROETHANE-D4	17060-07-0	70-129	89
3	DIBROMOFLUOROMETHANE	1868-53-7	70-122	96
4	TOLUENE-D8	2037-26-5	73-129	100
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	CHLOROBENZENE-D5	3114-55-4	50-200	99
2	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	109
3	FLUOROBENZENE	462-06-6	50-200	112
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

[a] MDL reported.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

Applied P & Ch Laboratory

Organic Analysis Results for Method 524.2

Client Name:	GEOFON, Inc.	Project No:	04-4428.10	Collection Date:	05/13/2003
Project ID:	JPL GW Mon-2Q03	Service ID:	33205	Collected by:	
		Lab Sample ID:	03-3205-5	Received Date:	05/13/2003
Sample ID:	**MW-18-3**	Sample Matrix	Water	Moisture %:	–
Sample Type:	Field Sample	Prep. Method:	5030	Instrument ID:	GC/MS: G
Anal. Method:	524.2	Prep. Date:	05/20/03	Anal. Date:	05/20/03
Batch No:	03G2534	Prep. No:	–	Anal. Time:	02:31
Data File Name:	3205-05	Sample Amount:	25 mL	Dilution Factor:	1
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	25 mL	Heated Purge: (Y/N) N	

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	BENZENE	71-43-2	μg/L	0.5	<0.5	U
2	BROMOBENZENE	108-86-1	μg/L	0.5	<0.5	U
3	BROMOCHLOROMETHANE	74-97-5	μg/L	0.5	<0.5	U
4	BROMODICHLOROMETHANE	75-27-4	μg/L	0.5	<0.5	U
5	BROMOFORM	75-25-2	μg/L	0.5	<0.5	U
6	BROMOMETHANE	74-83-9	μg/L	0.5	<0.5	U
7	2-BUTANONE	78-93-3	μg/L	10	<10	U
8	N-BUTYLBENZENE	104-51-8	μg/L	0.5	<0.5	U
9	SEC-BUTYLBENZENE	135-98-8	μg/L	0.5	<0.5	U
10	TERT-BUTYLBENZENE	98-06-6	μg/L	0.5	<0.5	U
11	CARBON TETRACHLORIDE	56-23-5	μg/L	0.5	<0.5	U
12	CHLOROBENZENE	108-90-7	μg/L	0.5	<0.5	U
13	CHLORODIBROMOMETHANE	124-48-1	μg/L	0.5	<0.5	U
14	CHLOROETHANE	75-00-3	μg/L	0.5	<0.5	U
15	CHLOROFORM	67-66-3	μg/L	0.5	1.2	
16	CHLOROMETHANE	74-87-3	μg/L	0.5	<0.5	U
17	2-CHLOROTOLUENE	95-49-8	μg/L	0.5	<0.5	U
18	4-CHLOROTOLUENE	106-43-4	μg/L	0.5	<0.5	U
19	1,2-DIBROMO-3-CHLOROPROPANE	96-12-8	μg/L	1.1 [a]	<1.1	U
20	1,2-DIBROMOETHANE (EDB)	106-93-4	μg/L	0.5	<0.5	U
21	DIBROMOMETHANE	74-95-3	μg/L	0.5	<0.5	U
22	1,2-DICHLOROBENZENE	95-50-1	μg/L	0.5	<0.5	U
23	1,3-DICHLOROBENZENE	541-73-1	μg/L	0.5	<0.5	U
24	1,4-DICHLOROBENZENE	106-46-7	μg/L	0.5	<0.5	U
25	DICHLORODIFLUOROMETHANE	75-71-8	μg/L	0.5	<0.5	U
26	1,1-DICHLOROETHANE	75-34-3	μg/L	0.5	<0.5	U
27	1,2-DICHLOROETHANE	107-06-2	μg/L	0.5	<0.5	U
28	1,1-DICHLOROETHENE	75-35-4	μg/L	0.5	<0.5	U
29	CIS-1,2-DICHLOROETHENE	156-59-2	μg/L	0.5	<0.5	U
30	TRANS-1,2-DICHLOROETHENE	156-60-5	μg/L	0.5	<0.5	U
31	1,2-DICHLOROPROPANE	78-87-5	μg/L	0.5	<0.5	U
32	1,3-DICHLOROPROPANE	142-28-9	μg/L	0.5	<0.5	U
33	2,2-DICHLOROPROPANE	594-20-7	μg/L	0.5	<0.5	U
34	1,1-DICHLOROPROPENE	563-58-6	μg/L	0.5	<0.5	U
35	CIS-1,3-DICHLOROPROPENE	10061-01-5	μg/L	0.5	<0.5	U
36	TRANS-1,3-DICHLOROPROPENE	10061-02-6	μg/L	0.5	<0.5	U
37	ETHYLBENZENE	100-41-4	μg/L	0.5	<0.5	U
38	HEXACHLOROBUTADIENE	87-68-3	μg/L	0.5	<0.5	U
39	ISOPROPYLBENZENE (CUMENE)	98-82-8	μg/L	0.5	<0.5	U

#	Component Name	CAS No	Unit	RL	Result	Qualifier
40	P-ISOPROPYLTOLUENE	99-87-6	μg/L	0.5	<0.5	U
41	4-METHYL-2-PENTANONE (MIBK)	108-10-1	μg/L	10	4	J
42	METHYLENE CHLORIDE	75-09-2	μg/L	1.8 [a]	<1.8	U
43	METHYL-T-BUTYL ETHER (MTBE)	1634-04-4	μg/L	1	<1	U
44	NAPHTHALENE	91-20-3	μg/L	0.5	<0.5	U
45	N-PROPYLBENZENE	103-65-1	μg/L	0.5	<0.5	U
46	STYRENE	100-42-5	μg/L	0.5	<0.5	U
47	1,1,1,2-TETRACHLOROETHANE	630-20-6	μg/L	0.5	<0.5	U
48	1,1,2,2-TETRACHLOROETHANE	79-34-5	μg/L	0.5	<0.5	U
49	TETRACHLOROETHENE	127-18-4	μg/L	0.5	<0.5	U
50	TOLUENE	108-88-3	μg/L	0.5	<0.5	U
51	1,2,3-TRICHLOROBENZENE	87-61-6	μg/L	0.5	<0.5	U
52	1,2,4-TRICHLOROBENZENE	120-82-1	μg/L	0.5	<0.5	U
53	1,1,1-TRICHLOROETHANE	71-55-6	μg/L	0.5	<0.5	U
54	1,1,2-TRICHLOROETHANE	79-00-5	μg/L	0.5	<0.5	U
55	TRICHLOROETHENE	79-01-6	μg/L	0.5	0.4	J
56	TRICHLOROFLUOROMETHANE	75-69-4	μg/L	0.5	<0.5	U
57	1,2,3-TRICHLOROPROPANE	96-18-4	μg/L	0.5	<0.5	U
58	112TRICHLORO-122TRIFLUOROETHANE	76-13-1	μg/L	0.5	<0.5	U
59	1,2,4-TRIMETHYLBENZENE	95-63-6	μg/L	0.5	<0.5	U
60	1,3,5-TRIMETHYLBENZENE	108-67-8	μg/L	0.5	<0.5	U
61	VINYL CHLORIDE	75-01-4	μg/L	0.5	<0.5	U
62	O-XYLENE	95-47-6	μg/L	0.5	<0.5	U
63	M/P-XYLENE	108-38-3	μg/L	0.5	<0.5	U

Surrogates			Control Limit, %	Surro. Rec.%
1	1-BROMO-4-FLUOROBENZENE (4-BROMOFL	460-00-4	70-129	103
2	1,2-DICHLOROETHANE-D4	17060-07-0	70-129	95
3	DIBROMOFLUOROMETHANE	1868-53-7	70-122	100
4	TOLUENE-D8	2037-26-5	73-129	106
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	CHLOROBENZENE-D5	3114-55-4	50-200	99
2	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	109
3	FLUOROBENZENE	462-06-6	50-200	109
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

[a] MDL reported.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 524.2

Client Name:	GEOFON, Inc.	Project No:	04-4428.10	Collection Date:	05/13/2003
Project ID:	JPL GW Mon-2Q03	Service ID:	33205	Collected by:	
		Lab Sample ID:	03-3205-6	Received Date:	05/13/2003
Sample ID:	**MW-18-4**	Sample Matrix	Water	Moisture %:	–
Sample Type:	Field Sample	Prep. Method:	5030	Instrument ID:	GC/MS: G
Anal. Method:	524.2	Prep. Date:	05/20/03	Anal. Date:	05/20/03
Batch No:	03G2534	Prep. No:	–	Anal. Time:	03:00
Data File Name:	3205-06	Sample Amount:	25 mL	Dilution Factor:	1
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	25 mL	Heated Purge: (Y/N)	N

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	BENZENE	71-43-2	μg/L	0.5	<0.5	U
2	BROMOBENZENE	108-86-1	μg/L	0.5	<0.5	U
3	BROMOCHLOROMETHANE	74-97-5	μg/L	0.5	<0.5	U
4	BROMODICHLOROMETHANE	75-27-4	μg/L	0.5	<0.5	U
5	BROMOFORM	75-25-2	μg/L	0.5	<0.5	U
6	BROMOMETHANE	74-83-9	μg/L	0.5	<0.5	U
7	2-BUTANONE	78-93-3	μg/L	10	<10	U
8	N-BUTYLBENZENE	104-51-8	μg/L	0.5	<0.5	U
9	SEC-BUTYLBENZENE	135-98-8	μg/L	0.5	<0.5	U
10	TERT-BUTYLBENZENE	98-06-6	μg/L	0.5	<0.5	U
11	CARBON TETRACHLORIDE	56-23-5	μg/L	0.5	2.4	
12	CHLOROBENZENE	108-90-7	μg/L	0.5	<0.5	U
13	CHLORODIBROMOMETHANE	124-48-1	μg/L	0.5	<0.5	U
14	CHLOROETHANE	75-00-3	μg/L	0.5	<0.5	U
15	CHLOROFORM	67-66-3	μg/L	0.5	0.9	
16	CHLOROMETHANE	74-87-3	μg/L	0.5	<0.5	U
17	2-CHLOROTOLUENE	95-49-8	μg/L	0.5	<0.5	U
18	4-CHLOROTOLUENE	106-43-4	μg/L	0.5	<0.5	U
19	1,2-DIBROMO-3-CHLOROPROPANE	96-12-8	μg/L	1.1 [a]	<1.1	U
20	1,2-DIBROMOETHANE (EDB)	106-93-4	μg/L	0.5	<0.5	U
21	DIBROMOMETHANE	74-95-3	μg/L	0.5	<0.5	U
22	1,2-DICHLOROBENZENE	95-50-1	μg/L	0.5	<0.5	U
23	1,3-DICHLOROBENZENE	541-73-1	μg/L	0.5	<0.5	U
24	1,4-DICHLOROBENZENE	106-46-7	μg/L	0.5	<0.5	U
25	DICHLORODIFLUOROMETHANE	75-71-8	μg/L	0.5	<0.5	U
26	1,1-DICHLOROETHANE	75-34-3	μg/L	0.5	<0.5	U
27	1,2-DICHLOROETHANE	107-06-2	μg/L	0.5	<0.5	U
28	1,1-DICHLOROETHENE	75-35-4	μg/L	0.5	<0.5	U
29	CIS-1,2-DICHLOROETHENE	156-59-2	μg/L	0.5	<0.5	U
30	TRANS-1,2-DICHLOROETHENE	156-60-5	μg/L	0.5	<0.5	U
31	1,2-DICHLOROPROPANE	78-87-5	μg/L	0.5	<0.5	U
32	1,3-DICHLOROPROPANE	142-28-9	μg/L	0.5	<0.5	U
33	2,2-DICHLOROPROPANE	594-20-7	μg/L	0.5	<0.5	U
34	1,1-DICHLOROPROPENE	563-58-6	μg/L	0.5	<0.5	U
35	CIS-1,3-DICHLOROPROPENE	10061-01-5	μg/L	0.5	<0.5	U
36	TRANS-1,3-DICHLOROPROPENE	10061-02-6	μg/L	0.5	<0.5	U
37	ETHYLBENZENE	100-41-4	μg/L	0.5	<0.5	U
38	HEXACHLOROBUTADIENE	87-68-3	μg/L	0.5	<0.5	U
39	ISOPROPYLBENZENE (CUMENE)	98-82-8	μg/L	0.5	<0.5	U

#	Component Name	CAS No	Unit	RL	Result	Qualifier
40	P-ISOPROPYLTOLUENE	99-87-6	μg/L	0.5	<0.5	U
41	4-METHYL-2-PENTANONE (MIBK)	108-10-1	μg/L	10	7	J
42	METHYLENE CHLORIDE	75-09-2	μg/L	1.8 [a]	<1.8	U
43	METHYL-T-BUTYL ETHER (MTBE)	1634-04-4	μg/L	1	<1	U
44	NAPHTHALENE	91-20-3	μg/L	0.5	<0.5	U
45	N-PROPYLBENZENE	103-65-1	μg/L	0.5	<0.5	U
46	STYRENE	100-42-5	μg/L	0.5	<0.5	U
47	1,1,1,2-TETRACHLOROETHANE	630-20-6	μg/L	0.5	<0.5	U
48	1,1,2,2-TETRACHLOROETHANE	79-34-5	μg/L	0.5	<0.5	U
49	TETRACHLOROETHENE	127-18-4	μg/L	0.5	2.1	
50	TOLUENE	108-88-3	μg/L	0.5	<0.5	U
51	1,2,3-TRICHLOROBENZENE	87-61-6	μg/L	0.5	<0.5	U
52	1,2,4-TRICHLOROBENZENE	120-82-1	μg/L	0.5	<0.5	U
53	1,1,1-TRICHLOROETHANE	71-55-6	μg/L	0.5	<0.5	U
54	1,1,2-TRICHLOROETHANE	79-00-5	μg/L	0.5	<0.5	U
55	TRICHLOROETHENE	79-01-6	μg/L	0.5	1.0	
56	TRICHLOROFLUOROMETHANE	75-69-4	μg/L	0.5	<0.5	U
57	1,2,3-TRICHLOROPROPANE	96-18-4	μg/L	0.5	<0.5	U
58	112TRICHLORO-122TRIFLUOROETHANE	76-13-1	μg/L	0.5	<0.5	U
59	1,2,4-TRIMETHYLBENZENE	95-63-6	μg/L	0.5	<0.5	U
60	1,3,5-TRIMETHYLBENZENE	108-67-8	μg/L	0.5	<0.5	U
61	VINYL CHLORIDE	75-01-4	μg/L	0.5	<0.5	U
62	O-XYLENE	95-47-6	μg/L	0.5	<0.5	U
63	M/P-XYLENE	108-38-3	μg/L	0.5	<0.5	U

Surrogates			Control Limit, %	Surro. Rec.%
1	1-BROMO-4-FLUOROBENZENE (4-BROMOFL	460-00-4	70-129	99
2	1,2-DICHLOROETHANE-D4	17060-07-0	70-129	94
3	DIBROMOFLUOROMETHANE	1868-53-7	70-122	102
4	TOLUENE-D8	2037-26-5	73-129	107
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	CHLOROBENZENE-D5	3114-55-4	50-200	94
2	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	108
3	FLUOROBENZENE	462-06-6	50-200	103
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

[a] MDL reported.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 524.2

Client Name:	GEOFON, Inc.	Project No:	04-4428.10	Collection Date:	05/13/2003
Project ID:	JPL GW Mon-2Q03	Service ID:	33205	Collected by:	
		Lab Sample ID:	03-3205-7	Received Date:	05/13/2003
Sample ID:	**MW-18-5**	Sample Matrix	Water	Moisture %:	–
Sample Type:	Field Sample	Prep. Method:	5030	Instrument ID:	GC/MS: G
Anal. Method:	524.2	Prep. Date:	05/20/03	Anal. Date:	05/20/03
Batch No:	03G2534	Prep. No:	–	Anal. Time:	03:29
Data File Name:	3205-07	Sample Amount:	25 mL	Dilution Factor:	1
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	25 mL	Heated Purge: (Y/N)	N

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	BENZENE	71-43-2	μg/L	0.5	<0.5	U
2	BROMOBENZENE	108-86-1	μg/L	0.5	<0.5	U
3	BROMOCHLOROMETHANE	74-97-5	μg/L	0.5	<0.5	U
4	BROMODICHLOROMETHANE	75-27-4	μg/L	0.5	<0.5	U
5	BROMOFORM	75-25-2	μg/L	0.5	<0.5	U
6	BROMOMETHANE	74-83-9	μg/L	0.5	<0.5	U
7	2-BUTANONE	78-93-3	μg/L	10	<10	U
8	N-BUTYLBENZENE	104-51-8	μg/L	0.5	<0.5	U
9	SEC-BUTYLBENZENE	135-98-8	μg/L	0.5	<0.5	U
10	TERT-BUTYLBENZENE	98-06-6	μg/L	0.5	<0.5	U
11	CARBON TETRACHLORIDE	56-23-5	μg/L	0.5	<0.5	U
12	CHLOROBENZENE	108-90-7	μg/L	0.5	<0.5	U
13	CHLORODIBROMOMETHANE	124-48-1	μg/L	0.5	<0.5	U
14	CHLOROETHANE	75-00-3	μg/L	0.5	<0.5	U
15	CHLOROFORM	67-66-3	μg/L	0.5	<0.5	U
16	CHLOROMETHANE	74-87-3	μg/L	0.5	<0.5	U
17	2-CHLOROTOLUENE	95-49-8	μg/L	0.5	<0.5	U
18	4-CHLOROTOLUENE	106-43-4	μg/L	0.5	<0.5	U
19	1,2-DIBROMO-3-CHLOROPROPANE	96-12-8	μg/L	1.1 [a]	<1.1	U
20	1,2-DIBROMOETHANE (EDB)	106-93-4	μg/L	0.5	<0.5	U
21	DIBROMOMETHANE	74-95-3	μg/L	0.5	<0.5	U
22	1,2-DICHLOROBENZENE	95-50-1	μg/L	0.5	<0.5	U
23	1,3-DICHLOROBENZENE	541-73-1	μg/L	0.5	<0.5	U
24	1,4-DICHLOROBENZENE	106-46-7	μg/L	0.5	<0.5	U
25	DICHLORODIFLUOROMETHANE	75-71-8	μg/L	0.5	<0.5	U
26	1,1-DICHLOROETHANE	75-34-3	μg/L	0.5	<0.5	U
27	1,2-DICHLOROETHANE	107-06-2	μg/L	0.5	<0.5	U
28	1,1-DICHLOROETHENE	75-35-4	μg/L	0.5	<0.5	U
29	CIS-1,2-DICHLOROETHENE	156-59-2	μg/L	0.5	<0.5	U
30	TRANS-1,2-DICHLOROETHENE	156-60-5	μg/L	0.5	<0.5	U
31	1,2-DICHLOROPROPANE	78-87-5	μg/L	0.5	<0.5	U
32	1,3-DICHLOROPROPANE	142-28-9	μg/L	0.5	<0.5	U
33	2,2-DICHLOROPROPANE	594-20-7	μg/L	0.5	<0.5	U
34	1,1-DICHLOROPROPENE	563-58-6	μg/L	0.5	<0.5	U
35	CIS-1,3-DICHLOROPROPENE	10061-01-5	μg/L	0.5	<0.5	U
36	TRANS-1,3-DICHLOROPROPENE	10061-02-6	μg/L	0.5	<0.5	U
37	ETHYLBENZENE	100-41-4	μg/L	0.5	<0.5	U
38	HEXACHLOROBUTADIENE	87-68-3	μg/L	0.5	<0.5	U
39	ISOPROPYLBENZENE (CUMENE)	98-82-8	μg/L	0.5	<0.5	U

#	Component Name	CAS No	Unit	RL	Result	Qualifier
40	P-ISOPROPYLTOLUENE	99-87-6	μg/L	0.5	<0.5	U
41	4-METHYL-2-PENTANONE (MIBK)	108-10-1	μg/L	10	5	J
42	METHYLENE CHLORIDE	75-09-2	μg/L	1.8 [a]	<1.8	U
43	METHYL-T-BUTYL ETHER (MTBE)	1634-04-4	μg/L	1	<1	U
44	NAPHTHALENE	91-20-3	μg/L	0.5	<0.5	U
45	N-PROPYLBENZENE	103-65-1	μg/L	0.5	<0.5	U
46	STYRENE	100-42-5	μg/L	0.5	<0.5	U
47	1,1,1,2-TETRACHLOROETHANE	630-20-6	μg/L	0.5	<0.5	U
48	1,1,2,2-TETRACHLOROETHANE	79-34-5	μg/L	0.5	<0.5	U
49	TETRACHLOROETHENE	127-18-4	μg/L	0.5	<0.5	U
50	TOLUENE	108-88-3	μg/L	0.5	<0.5	U
51	1,2,3-TRICHLOROBENZENE	87-61-6	μg/L	0.5	<0.5	U
52	1,2,4-TRICHLOROBENZENE	120-82-1	μg/L	0.5	<0.5	U
53	1,1,1-TRICHLOROETHANE	71-55-6	μg/L	0.5	<0.5	U
54	1,1,2-TRICHLOROETHANE	79-00-5	μg/L	0.5	<0.5	U
55	TRICHLOROETHENE	79-01-6	μg/L	0.5	<0.5	U
56	TRICHLOROFLUOROMETHANE	75-69-4	μg/L	0.5	<0.5	U
57	1,2,3-TRICHLOROPROPANE	96-18-4	μg/L	0.5	<0.5	U
58	112TRICHLORO-122TRIFLUOROETHANE	76-13-1	μg/L	0.5	<0.5	U
59	1,2,4-TRIMETHYLBENZENE	95-63-6	μg/L	0.5	<0.5	U
60	1,3,5-TRIMETHYLBENZENE	108-67-8	μg/L	0.5	<0.5	U
61	VINYL CHLORIDE	75-01-4	μg/L	0.5	<0.5	U
62	O-XYLENE	95-47-6	μg/L	0.5	<0.5	U
63	M/P-XYLENE	108-38-3	μg/L	0.5	<0.5	U

Surrogates			Control Limit, %	Surro. Rec.%
1	1-BROMO-4-FLUOROBENZENE (4-BROMOFL	460-00-4	70-129	108
2	1,2-DICHLOROETHANE-D4	17060-07-0	70-129	101
3	DIBROMOFLUOROMETHANE	1868-53-7	70-122	109
4	TOLUENE-D8	2037-26-5	73-129	113
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	CHLOROBENZENE-D5	3114-55-4	50-200	92
2	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	101
3	FLUOROBENZENE	462-06-6	50-200	100
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

[a] MDL reported.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

Applied P & Ch Laboratory

Organic Analysis Results for Method 524.2

Client Name:	GEOFON, Inc.	Project No:	04-4428.10	Collection Date:	05/13/2003
Project ID:	JPL GW Mon-2Q03	Service ID:	33205	Collected by:	
		Lab Sample ID:	03-3205-8	Received Date:	05/13/2003
Sample ID:	**TB-13-5/13/03**	Sample Matrix	Water	Moisture %:	–
Sample Type:	Field Sample	Prep. Method:	5030	Instrument ID:	GC/MS: G
Anal. Method:	524.2	Prep. Date:	05/20/03	Anal. Date:	05/20/03
Batch No:	03G2534	Prep. No:	–	Anal. Time:	03:59
Data File Name:	3205-08	Sample Amount:	25 mL	Dilution Factor:	1
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	25 mL	Heated Purge: (Y/N) N	

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	BENZENE	71-43-2	μg/L	0.5	<0.5	U
2	BROMOBENZENE	108-86-1	μg/L	0.5	<0.5	U
3	BROMOCHLOROMETHANE	74-97-5	μg/L	0.5	<0.5	U
4	BROMODICHLOROMETHANE	75-27-4	μg/L	0.5	<0.5	U
5	BROMOFORM	75-25-2	μg/L	0.5	<0.5	U
6	BROMOMETHANE	74-83-9	μg/L	0.5	<0.5	U
7	2-BUTANONE	78-93-3	μg/L	10	<10	U
8	N-BUTYLBENZENE	104-51-8	μg/L	0.5	<0.5	U
9	SEC-BUTYLBENZENE	135-98-8	μg/L	0.5	<0.5	U
10	TERT-BUTYLBENZENE	98-06-6	μg/L	0.5	<0.5	U
11	CARBON TETRACHLORIDE	56-23-5	μg/L	0.5	<0.5	U
12	CHLOROBENZENE	108-90-7	μg/L	0.5	<0.5	U
13	CHLORODIBROMOMETHANE	124-48-1	μg/L	0.5	<0.5	U
14	CHLOROETHANE	75-00-3	μg/L	0.5	<0.5	U
15	CHLOROFORM	67-66-3	μg/L	0.5	<0.5	U
16	CHLOROMETHANE	74-87-3	μg/L	0.5	<0.5	U
17	2-CHLOROTOLUENE	95-49-8	μg/L	0.5	<0.5	U
18	4-CHLOROTOLUENE	106-43-4	μg/L	0.5	<0.5	U
19	1,2-DIBROMO-3-CHLOROPROPANE	96-12-8	μg/L	1.1 [a]	<1.1	U
20	1,2-DIBROMOETHANE (EDB)	106-93-4	μg/L	0.5	<0.5	U
21	DIBROMOMETHANE	74-95-3	μg/L	0.5	<0.5	U
22	1,2-DICHLOROBENZENE	95-50-1	μg/L	0.5	<0.5	U
23	1,3-DICHLOROBENZENE	541-73-1	μg/L	0.5	<0.5	U
24	1,4-DICHLOROBENZENE	106-46-7	μg/L	0.5	<0.5	U
25	DICHLORODIFLUOROMETHANE	75-71-8	μg/L	0.5	<0.5	U
26	1,1-DICHLOROETHANE	75-34-3	μg/L	0.5	<0.5	U
27	1,2-DICHLOROETHANE	107-06-2	μg/L	0.5	<0.5	U
28	1,1-DICHLOROETHENE	75-35-4	μg/L	0.5	<0.5	U
29	CIS-1,2-DICHLOROETHENE	156-59-2	μg/L	0.5	<0.5	U
30	TRANS-1,2-DICHLOROETHENE	156-60-5	μg/L	0.5	<0.5	U
31	1,2-DICHLOROPROPANE	78-87-5	μg/L	0.5	<0.5	U
32	1,3-DICHLOROPROPANE	142-28-9	μg/L	0.5	<0.5	U
33	2,2-DICHLOROPROPANE	594-20-7	μg/L	0.5	<0.5	U
34	1,1-DICHLOROPROPENE	563-58-6	μg/L	0.5	<0.5	U
35	CIS-1,3-DICHLOROPROPENE	10061-01-5	μg/L	0.5	<0.5	U
36	TRANS-1,3-DICHLOROPROPENE	10061-02-6	μg/L	0.5	<0.5	U
37	ETHYLBENZENE	100-41-4	μg/L	0.5	<0.5	U
38	HEXACHLOROBUTADIENE	87-68-3	μg/L	0.5	<0.5	U
39	ISOPROPYLBENZENE (CUMENE)	98-82-8	μg/L	0.5	<0.5	U

#	Component Name	CAS No	Unit	RL	Result	Qualifier
40	P-ISOPROPYLTOLUENE	99-87-6	μg/L	0.5	<0.5	U
41	4-METHYL-2-PENTANONE (MIBK)	108-10-1	μg/L	10	6	J
42	METHYLENE CHLORIDE	75-09-2	μg/L	1.8 [a]	3.9	B
43	METHYL-T-BUTYL ETHER (MTBE)	1634-04-4	μg/L	1	<1	U
44	NAPHTHALENE	91-20-3	μg/L	0.5	<0.5	U
45	N-PROPYLBENZENE	103-65-1	μg/L	0.5	<0.5	U
46	STYRENE	100-42-5	μg/L	0.5	<0.5	U
47	1,1,1,2-TETRACHLOROETHANE	630-20-6	μg/L	0.5	<0.5	U
48	1,1,2,2-TETRACHLOROETHANE	79-34-5	μg/L	0.5	<0.5	U
49	TETRACHLOROETHENE	127-18-4	μg/L	0.5	<0.5	U
50	TOLUENE	108-88-3	μg/L	0.5	<0.5	U
51	1,2,3-TRICHLOROBENZENE	87-61-6	μg/L	0.5	<0.5	U
52	1,2,4-TRICHLOROBENZENE	120-82-1	μg/L	0.5	<0.5	U
53	1,1,1-TRICHLOROETHANE	71-55-6	μg/L	0.5	<0.5	U
54	1,1,2-TRICHLOROETHANE	79-00-5	μg/L	0.5	<0.5	U
55	TRICHLOROETHENE	79-01-6	μg/L	0.5	<0.5	U
56	TRICHLOROFLUOROMETHANE	75-69-4	μg/L	0.5	<0.5	U
57	1,2,3-TRICHLOROPROPANE	96-18-4	μg/L	0.5	<0.5	U
58	112TRICHLORO-122TRIFLUOROETHANE	76-13-1	μg/L	0.5	<0.5	U
59	1,2,4-TRIMETHYLBENZENE	95-63-6	μg/L	0.5	<0.5	U
60	1,3,5-TRIMETHYLBENZENE	108-67-8	μg/L	0.5	<0.5	U
61	VINYL CHLORIDE	75-01-4	μg/L	0.5	<0.5	U
62	O-XYLENE	95-47-6	μg/L	0.5	<0.5	U
63	M/P-XYLENE	108-38-3	μg/L	0.5	<0.5	U

Surrogates			Control Limit, %	Surro. Rec.%
1	1-BROMO-4-FLUOROBENZENE (4-BROMOFL	460-00-4	70-129	105
2	1,2-DICHLOROETHANE-D4	17060-07-0	70-129	91
3	DIBROMOFLUOROMETHANE	1868-53-7	70-122	99
4	TOLUENE-D8	2037-26-5	73-129	106
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	CHLOROBENZENE-D5	3114-55-4	50-200	96
2	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	106
3	FLUOROBENZENE	462-06-6	50-200	110
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

[a] MDL reported.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

FORM-2A

Applied P & Ch Laboratory

Surrogate Recovery Summary for Method 524.2

Client Name:	GEOFON, Inc.	Contract No:		Lab Code:	APCL
Case No:		SAS No:		SDG Number:	033205
Project ID:	JPL GW Mon-2Q03	Project No:	04-4428.10	Sample Matrix:	Water
		Batch No:	03G2534		

#	Client Sample No	Lab Sample ID	S1 % #	S2 % #	S3 % #	S4 % #	TOT OUT
1	03G2534-LCS-01	03G2534-LCS-01	88	105	102	99	0
2	MW-22-1MS	03-3130-2MS	87	97	95	94	0
3	MW-22-1MSD	03-3130-2MSD	96	111	107	103	0
4	03G2534-MB-01	03G2534-MB-01	107	98	104	107	0
5	DUPE-7-2Q03	03-3205-1	112	99	107	111	0
6	EB-13-5/13/03	03-3205-2	102	91	99	105	0
7	MW-18-1	03-3205-3	97	82	93	98	0
8	MW-18-2	03-3205-4	100	89	96	100	0
9	MW-18-3	03-3205-5	103	95	100	106	0
10	MW-18-4	03-3205-6	99	94	102	107	0
11	MW-18-5	03-3205-7	108	101	109	113	0
12	TB-13-5/13/03	03-3205-8	105	91	99	106	0
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							

	QC Control Limit
S1 = 1-BROMO-4-FLUOROBENZENE (4-BROMOFL	70-129
S2 = 1,2-DICHLOROETHANE-D4	70-129
S3 = DIBROMOFLUOROMETHANE	70-122
S4 = TOLUENE-D8	73-129

Column to be used to flag recovery values:

* – Values outside of contract required QC Limits D – Surrogate diluted out I – Matrix Interference

FORM-3A

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Lab Control Spike/Lab Control Spike Duplicate Recovery for Method 524.2

Client Name:	GEOFON, Inc.	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	33205
Project ID:	JPL GW Mon-2Q03	Project No:	04-4428.10	Sample Matrix:	Water
		Batch No:	03G2534		
LCS Filename:	G2534L01	Date Analyzed:	051903	Time Analyzed:	17:18
LCSD Filename:	–	Date Analyzed:	–	Time Analyzed:	–

Spiked Components	Unit	Spike Added	Concentration Unspiked	Concentration LCS	LCS Rec% #	QC Limit, % REC
BENZENE	μg/L	20	0	20.1	101	65-120
CHLOROBENZENE	μg/L	20	0	20.4	102	65-134
1,1-DICHLOROETHENE	μg/L	20	0	20.0	100	65-127
TOLUENE	μg/L	20	0	19.2	96	65-134
TRICHLOROETHENE	μg/L	20	0	20.0	100	67-122
# of Out-of-control					0	

Column to be used to flag recovery and RPD values:

* – Values outside of contract required QC Limits D – Spiked components diluted out

Comments: _____