Volatile Organic Compounds
EPA Method 8260B

Organic Analysis:
Volatile Organic Compounds

Summary Package

Sample and QC Results

COLUMBIA ANALYTICAL SERVICES, INC.

Client: Battelle Memorial Institute
Project: Novato Ballfields/G486063

Service Request: K2502554

Cover Page - Organic Analysis Data Package
Volatile Organic Compounds

Sample Name	Lab Code	Date Collected	Date Received
TO63-IDW-01	K2502554-001	04/07/2005	04/08/2005

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed in the case narrative. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on floppy diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: KLeason Name: KLeason

Date: 4/22/05 Title: Scientist

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Battelle Memorial Institute
Project: Novato Ballfields/G486063
Sample Matrix: Soil

Service Request: K2502554
Date Collected: 04/07/2005
Date Received: 04/08/2005

Volatile Organic Compounds

Sample Name: TO63-IDW-01
Lab Code: K2502554-001

Units: ug/Kg
Basis: Dry

Extraction Method: EPA 5035
Analysis Method: 8260B

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dichlorodifluoromethane	ND	U	6.9	1.1	1	04/13/05	04/13/05	KWG0506051	
Chloromethane	ND	U	6.9	1.5	1	04/13/05	04/13/05	KWG0506051	
Vinyl Chloride	ND	U	6.9	0.90	1	04/13/05	04/13/05	KWG0506051	
Bromomethane	ND	U	6.9	1.2	1	04/13/05	04/13/05	KWG0506051	
Chloroethane	ND	U	6.9	1.2	1	04/13/05	04/13/05	KWG0506051	
Trichlorofluoromethane	ND	U	6.9	1.1	1	04/13/05	04/13/05	KWG0506051	
Trichlorotrifluoroethane	ND	U	6.9	1.1	1	04/13/05	04/13/05	KWG0506051	
Acetone	ND	U	28	15	1	04/13/05	04/13/05	KWG0506051	
1,1-Dichloroethene	ND	U	6.9	1.1	1	04/13/05	04/13/05	KWG0506051	
Methyl Acetate	ND	U	6.9	1.1	1	04/13/05	04/13/05	KWG0506051	
Carbon Disulfide	ND	U	6.9	2.2	1	04/13/05	04/13/05	KWG0506051	
Diisopropyl Ether	ND	U	14	0.50	1	04/13/05	04/13/05	KWG0506051	
Methylene Chloride	ND	U	14	3.7	1	04/13/05	04/13/05	KWG0506051	
Methyl tert-Butyl Ether	ND	U	6.9	0.95	1	04/13/05	04/13/05	KWG0506051	
trans-1,2-Dichloroethene	ND	U	6.9	1.1	1	04/13/05	04/13/05	KWG0506051	
1,1-Dichloroethane	ND	U	6.9	1.2	1	04/13/05	04/13/05	KWG0506051	
2-Butanone (MEK)	ND	U	28	18	1	04/13/05	04/13/05	KWG0506051	
cis-1,2-Dichloroethene	ND	U	6.9	1.3	1	04/13/05	04/13/05	KWG0506051	
Chloroform	ND	U	6.9	0.83	1	04/13/05	04/13/05	KWG0506051	
1,1,1-Trichloroethane (TCA)	ND	U	6.9	0.83	1	04/13/05	04/13/05	KWG0506051	
Cyclohexane	ND	U	6.9	0.97	1	04/13/05	04/13/05	KWG0506051	
Carbon Tetrachloride	ND	U	6.9	0.87	1	04/13/05	04/13/05	KWG0506051	
1,2-Dichloroethane (EDC)	ND	U	6.9	0.97	1	04/13/05	04/13/05	KWG0506051	
Benzene	ND	U	6.9	1.2	1	04/13/05	04/13/05	KWG0506051	
Trichloroethene (TCE)	ND	U	6.9	0.41	1	04/13/05	04/13/05	KWG0506051	
1,2-Dichloropropane	ND	U	6.9	1.1	1	04/13/05	04/13/05	KWG0506051	
Bromodichloromethane	ND	U	6.9	0.77	1	04/13/05	04/13/05	KWG0506051	
Methylcyclohexane	ND	U	6.9	1.1	1	04/13/05	04/13/05	KWG0506051	
2-Hexanone	ND	U	28	8.9	1	04/13/05	04/13/05	KWG0506051	
cis-1,3-Dichloropropene	ND	U	6.9	1.1	1	04/13/05	04/13/05	KWG0506051	
Toluene	ND	U	6.9	1.3	1	04/13/05	04/13/05	KWG0506051	
trans-1,3-Dichloropropene	ND	U	6.9	0.87	1	04/13/05	04/13/05	KWG0506051	
1,1,2-Trichloroethane	ND	U	6.9	1.0	1	04/13/05	04/13/05	KWG0506051	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	Battelle Memorial Institute	**Service Request:**	K2502554
Project:	Novato Ballfields/G486063	**Date Collected:**	04/07/2005
Sample Matrix:	Soil	**Date Received:**	04/08/2005

Volatile Organic Compounds

Sample Name:	TO63-IDW-01	**Units:**	ug/Kg
Lab Code:	K2502554-001	**Basis:**	Dry
Extraction Method:	EPA 5035	**Level:**	Low
Analysis Method:	8260B		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
4-Methyl-2-pentanone (MIBK)	ND	U	28	8.0	1	04/13/05	04/13/05	KWG0506051	
Tetrachloroethene (PCE)	ND	U	6.9	0.45	1	04/13/05	04/13/05	KWG0506051	
Dibromochloromethane	ND	U	6.9	0.87	1	04/13/05	04/13/05	KWG0506051	
1,2-Dibromoethane (EDB)	ND	U	28	1.2	1	04/13/05	04/13/05	KWG0506051	
Chlorobenzene	ND	U	6.9	1.1	1	04/13/05	04/13/05	KWG0506051	
Ethylbenzene	ND	U	6.9	0.83	1	04/13/05	04/13/05	KWG0506051	
m,p-Xylenes	ND	U	6.9	2.2	1	04/13/05	04/13/05	KWG0506051	
o-Xylene	ND	U	6.9	1.0	1	04/13/05	04/13/05	KWG0506051	
Styrene	ND	U	6.9	1.1	1	04/13/05	04/13/05	KWG0506051	
Bromoform	ND	U	6.9	1.2	1	04/13/05	04/13/05	KWG0506051	
Isopropylbenzene	ND	U	28	0.99	1	04/13/05	04/13/05	KWG0506051	
1,1,2,2-Tetrachloroethane	ND	U	6.9	1.1	1	04/13/05	04/13/05	KWG0506051	
1,3-Dichlorobenzene	ND	U	6.9	1.1	1	04/13/05	04/13/05	KWG0506051	
1,4-Dichlorobenzene	ND	U	6.9	1.2	1	04/13/05	04/13/05	KWG0506051	
1,2-Dichlorobenzene	ND	U	6.9	0.95	1	04/13/05	04/13/05	KWG0506051	
1,2-Dibromo-3-chloropropane	ND	U	28	1.3	1	04/13/05	04/13/05	KWG0506051	
1,2,4-Trichlorobenzene	ND	U	28	1.2	1	04/13/05	04/13/05	KWG0506051	
Naphthalene	ND	U	28	1.3	1	04/13/05	04/13/05	KWG0506051	
Bromochloromethane	ND	U	6.9	1.5	1	04/13/05	04/13/05	KWG0506051	
1,2,3-Trichlorobenzene	ND	U	28	1.4	1	04/13/05	04/13/05	KWG0506051	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	105	70-119	04/13/05	Acceptable
Toluene-d8	108	72-121	04/13/05	Acceptable
4-Bromofluorobenzene	107	66-122	04/13/05	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Battelle Memorial Institute
Project: Novato Ballfields/G486063
Sample Matrix: Soil

Service Request: K2502554
Date Collected: NA
Date Received: NA

Volatile Organic Compounds

Sample Name: Method Blank
Lab Code: KWG0506051-3

Units: ug/Kg
Basis: Dry

Extraction Method: EPA 5035
Analysis Method: 8260B

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dichlorodifluoromethane	ND	U	5.0	0.70	1	04/13/05	04/13/05	KWG0506051	
Chloromethane	ND	U	5.0	0.99	1	04/13/05	04/13/05	KWG0506051	
Vinyl Chloride	ND	U	5.0	0.62	1	04/13/05	04/13/05	KWG0506051	
Bromomethane	**1.2**	J	5.0	0.80	1	04/13/05	04/13/05	KWG0506051	
Chloroethane	ND	U	5.0	0.78	1	04/13/05	04/13/05	KWG0506051	
Trichlorofluoromethane	ND	U	5.0	0.73	1	04/13/05	04/13/05	KWG0506051	
Trichlorotrifluoroethane	ND	U	5.0	0.74	1	04/13/05	04/13/05	KWG0506051	
Acetone	**10**	J	20	10	1	04/13/05	04/13/05	KWG0506051	
1,1-Dichloroethene	ND	U	5.0	0.71	1	04/13/05	04/13/05	KWG0506051	
Methyl Acetate	ND	U	5.0	0.74	1	04/13/05	04/13/05	KWG0506051	
Carbon Disulfide	ND	U	5.0	1.5	1	04/13/05	04/13/05	KWG0506051	
Diisopropyl Ether	ND	U	10	0.34	1	04/13/05	04/13/05	KWG0506051	
Methylene Chloride	**3.8**	J	10	2.5	1	04/13/05	04/13/05	KWG0506051	
Methyl tert-Butyl Ether	ND	U	5.0	0.65	1	04/13/05	04/13/05	KWG0506051	
trans-1,2-Dichloroethene	ND	U	5.0	0.73	1	04/13/05	04/13/05	KWG0506051	
1,1-Dichloroethane	ND	U	5.0	0.78	1	04/13/05	04/13/05	KWG0506051	
2-Butanone (MEK)	ND	U	20	12	1	04/13/05	04/13/05	KWG0506051	
cis-1,2-Dichloroethene	ND	U	5.0	0.83	1	04/13/05	04/13/05	KWG0506051	
Chloroform	ND	U	5.0	0.57	1	04/13/05	04/13/05	KWG0506051	
1,1,1-Trichloroethane (TCA)	ND	U	5.0	0.57	1	04/13/05	04/13/05	KWG0506051	
Cyclohexane	ND	U	5.0	0.67	1	04/13/05	04/13/05	KWG0506051	
Carbon Tetrachloride	ND	U	5.0	0.60	1	04/13/05	04/13/05	KWG0506051	
1,2-Dichloroethane (EDC)	ND	U	5.0	0.67	1	04/13/05	04/13/05	KWG0506051	
Benzene	ND	U	5.0	0.79	1	04/13/05	04/13/05	KWG0506051	
Trichloroethene (TCE)	ND	U	5.0	0.28	1	04/13/05	04/13/05	KWG0506051	
1,2-Dichloropropane	ND	U	5.0	0.72	1	04/13/05	04/13/05	KWG0506051	
Bromodichloromethane	ND	U	5.0	0.53	1	04/13/05	04/13/05	KWG0506051	
Methylcyclohexane	ND	U	5.0	0.71	1	04/13/05	04/13/05	KWG0506051	
2-Hexanone	ND	U	20	6.1	1	04/13/05	04/13/05	KWG0506051	
cis-1,3-Dichloropropene	ND	U	5.0	0.76	1	04/13/05	04/13/05	KWG0506051	
Toluene	ND	U	5.0	0.84	1	04/13/05	04/13/05	KWG0506051	
trans-1,3-Dichloropropene	ND	U	5.0	0.60	1	04/13/05	04/13/05	KWG0506051	
1,1,2-Trichloroethane	ND	U	5.0	0.69	1	04/13/05	04/13/05	KWG0506051	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	Battelle Memorial Institute	**Service Request:**	K2502554
Project:	Novato Ballfields/G486063	**Date Collected:**	NA
Sample Matrix:	Soil	**Date Received:**	NA

Volatile Organic Compounds

Sample Name:	Method Blank	**Units:**	ug/Kg
Lab Code:	KWG0506051-3	**Basis:**	Dry
Extraction Method:	EPA 5035	**Level:**	Low
Analysis Method:	8260B		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
4-Methyl-2-pentanone (MIBK)	ND	U	20	5.5	1	04/13/05	04/13/05	KWG0506051	
Tetrachloroethene (PCE)	ND	U	5.0	0.31	1	04/13/05	04/13/05	KWG0506051	
Dibromochloromethane	ND	U	5.0	0.60	1	04/13/05	04/13/05	KWG0506051	
1,2-Dibromoethane (EDB)	ND	U	20	0.79	1	04/13/05	04/13/05	KWG0506051	
Chlorobenzene	ND	U	5.0	0.70	1	04/13/05	04/13/05	KWG0506051	
Ethylbenzene	ND	U	5.0	0.57	1	04/13/05	04/13/05	KWG0506051	
m,p-Xylenes	ND	U	5.0	1.5	1	04/13/05	04/13/05	KWG0506051	
o-Xylene	ND	U	5.0	0.69	1	04/13/05	04/13/05	KWG0506051	
Styrene	ND	U	5.0	0.73	1	04/13/05	04/13/05	KWG0506051	
Bromoform	ND	U	5.0	0.77	1	04/13/05	04/13/05	KWG0506051	
Isopropylbenzene	ND	U	20	0.68	1	04/13/05	04/13/05	KWG0506051	
1,1,2,2-Tetrachloroethane	ND	U	5.0	0.74	1	04/13/05	04/13/05	KWG0506051	
1,3-Dichlorobenzene	ND	U	5.0	0.71	1	04/13/05	04/13/05	KWG0506051	
1,4-Dichlorobenzene	ND	U	5.0	0.82	1	04/13/05	04/13/05	KWG0506051	
1,2-Dichlorobenzene	ND	U	5.0	0.65	1	04/13/05	04/13/05	KWG0506051	
1,2-Dibromo-3-chloropropane	ND	U	20	0.85	1	04/13/05	04/13/05	KWG0506051	
1,2,4-Trichlorobenzene	ND	U	20	0.77	1	04/13/05	04/13/05	KWG0506051	
Naphthalene	ND	U	20	0.89	1	04/13/05	04/13/05	KWG0506051	
Bromochloromethane	ND	U	5.0	0.98	1	04/13/05	04/13/05	KWG0506051	
1,2,3-Trichlorobenzene	ND	U	20	0.90	1	04/13/05	04/13/05	KWG0506051	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	110	70-119	04/13/05	Acceptable
Toluene-d8	98	72-121	04/13/05	Acceptable
4-Bromofluorobenzene	94	66-122	04/13/05	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Battelle Memorial Institute
Project: Novato Ballfields/G486063
Sample Matrix: Soil

Service Request: K2502554

Surrogate Recovery Summary
Volatile Organic Compounds

Extraction Method: EPA 5035
Analysis Method: 8260B

Units: PERCENT
Level: Low

Sample Name	Lab Code	Sur1	Sur2	Sur3
TO63-IDW-01	K2502554-001	105	108	107
Method Blank	KWG0506051-3	110	98	94
Batch QC	K2502607-007	104	107	100
Batch QCMS	KWG0506051-4	105	107	100
Batch QCDMS	KWG0506051-5	106	107	101
Lab Control Sample	KWG0506051-1	106	111	112

Surrogate Recovery Control Limits (%)

Sur1 =	Dibromofluoromethane	70-119
Sur2 =	Toluene-d8	72-121
Sur3 =	4-Bromofluorobenzene	66-122

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Battelle Memorial Institute
Project: Novato Ballfields/G486063

Service Request: K2502554
Date Analyzed: 04/13/2005
Time Analyzed: 09:14

Internal Standard Area and RT Summary
Volatile Organic Compounds

File ID: J:\MS04\DATA\041305\0413F003.D
Instrument ID: MS04
Analysis Method: 8260B

Lab Code: KWG0506050-2
Analysis Lot: KWG0506050

		Fluorobenzene		Chlorobenzene-d5		1,4-Dichlorobenzene-d4	
		Area	RT	Area	RT	Area	RT
	Results ==>	7,370,956	11.35	5,088,337	15.94	2,169,733	19.13
	Upper Limit ==>	14,741,912	11.85	10,176,674	16.44	4,339,466	19.63
	Lower Limit ==>	3,685,478	10.85	2,544,169	15.44	1,084,867	18.63
	ICAL Result ==>	7,111,290	11.34	4,963,437	15.94	2,221,163	19.13
Associated Analyses							
Lab Control Sample	KWG0506051-1	5,909,921	11.35	4,306,673	15.94	2,137,581	19.13
Method Blank	KWG0506051-3	5,973,123	11.34	3,335,202	15.94	1,172,385	19.13
TO63-IDW-01	K2502554-001	6,882,502	11.34	4,943,419	15.94	2,208,903	19.12
Batch QC	K2502607-007	6,637,962	11.34	4,446,862	15.94	1,511,453	19.13
Batch QCMS	KWG0506051-4	7,152,317	11.34	4,730,259	15.93	1,541,853	19.12
Batch QCDMS	KWG0506051-5	7,183,480	11.34	4,808,182	15.93	1,694,466	19.12

Results flagged with an asterisk (*) indicate values outside control criteria.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	Battelle Memorial Institute	**Service Request:**	K2502554
Project:	Novato Ballfields/G486063	**Date Extracted:**	04/13/2005
Sample Matrix:	Soil	**Date Analyzed:**	04/13/2005

Matrix Spike/Duplicate Matrix Spike Summary
Volatile Organic Compounds

Sample Name:	Batch QC	**Units:**	ug/Kg
Lab Code:	K2502607-007	**Basis:**	Dry
Extraction Method:	EPA 5030A	**Level:**	Low
Analysis Method:	8260B	**Extraction Lot:**	KWG0506051

		Batch QCMS KWG0506051-4 Matrix Spike			Batch QCDMS KWG0506051-5 Duplicate Matrix Spike					
Analyte Name	**Sample Result**	**Result**	**Expected**	**%Rec**	**Result**	**Expected**	**%Rec**	**%Rec Limits**	**RPD**	**RPD Limit**
1,1-Dichloroethene	ND	63.0	81.3	78	63.8	81.3	78	35-127	1	40
Benzene	ND	61.6	81.3	76	61.9	81.3	76	26-125	0	40
Trichloroethene (TCE)	ND	51.6	81.3	64	52.2	81.3	64	18-130	1	40
Toluene	4.5	55.1	81.3	62	54.8	81.3	62	19-124	0	40
Chlorobenzene	ND	42.8	81.3	53	41.9	81.3	52	13-115	2	40
1,2-Dichlorobenzene	ND	33.1	81.3	41	31.4	81.3	39	10-119	5	40
Naphthalene	ND	18.6	81.3	23	20.6	81.3	25	10-127	11	40

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	Battelle Memorial Institute	**Service Request:**	K2502554
Project:	Novato Ballfields/G486063	**Date Extracted:**	04/13/2005
Sample Matrix:	Soil	**Date Analyzed:**	04/13/2005

Lab Control Spike Summary
Volatile Organic Compounds

Extraction Method:	EPA 5035	**Units:**	ug/Kg
Analysis Method:	8260B	**Basis:**	Dry
		Level:	Low
		Extraction Lot:	KWG0506051

	Lab Control Sample KWG0506051-1 Lab Control Spike			
Analyte Name	**Result**	**Expected**	**%Rec**	**%Rec Limits**
Dichlorodifluoromethane	37.9	50.0	76	30-187
Chloromethane	41.3	50.0	83	46-152
Vinyl Chloride	41.2	50.0	82	46-147
Bromomethane	51.7	50.0	103	30-157
Chloroethane	42.3	50.0	85	38-156
Trichlorofluoromethane	39.7	50.0	79	49-144
Trichlorotrifluoroethane	46.0	50.0	92	65-156
Acetone	192	250	77	49-128
1,1-Dichloroethene	45.9	50.0	92	70-132
Methyl Acetate	49.7	50.0	99	32-146
Carbon Disulfide	81.4	100	81	63-129
Diisopropyl Ether	44.4	50.0	89	64-125
Methylene Chloride	38.3	50.0	77	60-126
Methyl tert-Butyl Ether	46.9	50.0	94	60-144
trans-1,2-Dichloroethene	43.7	50.0	87	68-128
1,1-Dichloroethane	43.3	50.0	87	66-124
2-Butanone (MEK)	198	250	79	53-141
cis-1,2-Dichloroethene	43.7	50.0	87	67-126
Chloroform	43.1	50.0	86	67-126
1,1,1-Trichloroethane (TCA)	45.1	50.0	90	64-129
Cyclohexane	55.3	50.0	111	52-138
Carbon Tetrachloride	44.9	50.0	90	62-131
1,2-Dichloroethane (EDC)	45.0	50.0	90	62-130
Benzene	45.2	50.0	90	68-126
Trichloroethene (TCE)	46.0	50.0	92	67-130
1,2-Dichloropropane	45.1	50.0	90	67-124
Bromodichloromethane	46.2	50.0	92	66-127
Methylcyclohexane	53.1	50.0	106	49-141
2-Hexanone	200	250	80	46-146
cis-1,3-Dichloropropene	46.4	50.0	93	66-132
Toluene	45.7	50.0	91	68-127
trans-1,3-Dichloropropene	41.6	50.0	83	56-121
1,1,2-Trichloroethane	44.1	50.0	88	64-120
4-Methyl-2-pentanone (MIBK)	217	250	87	53-149
Tetrachloroethene (PCE)	44.1	50.0	88	63-129

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Battelle Memorial Institute
Project: Novato Ballfields/G486063
Sample Matrix: Soil

Service Request: K2502554
Date Extracted: 04/13/2005
Date Analyzed: 04/13/2005

Lab Control Spike Summary
Volatile Organic Compounds

Extraction Method: EPA 5035
Analysis Method: 8260B

Units: ug/Kg
Basis: Dry
Level: Low
Extraction Lot: KWG0506051

Analyte Name	Lab Control Sample KWG0506051-1 Lab Control Spike Result	Expected	%Rec	%Rec Limits
Dibromochloromethane	43.8	50.0	88	64-122
1,2-Dibromoethane (EDB)	43.7	50.0	87	63-122
Chlorobenzene	44.0	50.0	88	68-119
Ethylbenzene	45.4	50.0	91	65-128
m,p-Xylenes	91.1	100	91	64-131
o-Xylene	45.5	50.0	91	65-127
Styrene	47.0	50.0	94	65-129
Bromoform	45.2	50.0	90	64-126
Isopropylbenzene	41.4	50.0	83	55-120
1,1,2,2-Tetrachloroethane	38.7	50.0	77	56-119
1,3-Dichlorobenzene	43.1	50.0	86	64-123
1,4-Dichlorobenzene	43.4	50.0	87	65-124
1,2-Dichlorobenzene	42.8	50.0	86	64-119
1,2-Dibromo-3-chloropropane	43.8	50.0	88	58-126
1,2,4-Trichlorobenzene	45.8	50.0	92	61-139
Naphthalene	45.7	50.0	91	58-138
Bromochloromethane	44.2	50.0	88	68-129
1,2,3-Trichlorobenzene	44.9	50.0	90	64-132

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	Battelle Memorial Institute	**Service Request:**	K2502554
Project:	Novato Ballfields/G486063	**Date Extracted:**	04/13/2005
Sample Matrix:	Soil	**Date Analyzed:**	04/13/2005
		Time Analyzed:	11:14

Method Blank Summary
Volatile Organic Compounds

Sample Name:	Method Blank	**File ID:**	J:\MS04\DATA\041305\0413F007.D
Lab Code:	KWG0506051-3	**Instrument ID:**	MS04
Extraction Method:	EPA 5035	**Level:**	Low
Analysis Method:	8260B	**Extraction Lot:**	KWG0506051

This Method Blank applies to the following analyses:

Sample Name	Lab Code	File ID	Date Analyzed	Time Analyzed
Lab Control Sample	KWG0506051-1	J:\MS04\DATA\041305\0413F004.D	04/13/05	09:44
TO63-IDW-01	K2502554-001	J:\MS04\DATA\041305\0413F008.D	04/13/05	11:43
Batch QC	K2502607-007	J:\MS04\DATA\041305\0413F009.D	04/13/05	12:13
Batch QCMS	KWG0506051-4	J:\MS04\DATA\041305\0413F019.D	04/13/05	17:11
Batch QCDMS	KWG0506051-5	J:\MS04\DATA\041305\0413F020.D	04/13/05	17:41

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	Battelle Memorial Institute	**Service Request:**	K2502554
Project:	Novato Ballfields/G486063	**Date Extracted:**	04/13/2005
Sample Matrix:	Soil	**Date Analyzed:**	04/13/2005
		Time Analyzed:	09:44

Lab Control Sample Summary
Volatile Organic Compounds

Sample Name:	Lab Control Sample	**File ID:**	J:\MS04\DATA\041305\0413F004.D
Lab Code:	KWG0506051-1	**Instrument ID:**	MS04
Extraction Method:	EPA 5035	**Level:**	Low
Analysis Method:	8260B	**Extraction Lot:**	KWG0506051

This Lab Control Sample applies to the following analyses:

Sample Name	Lab Code	File ID	Date Analyzed	Time Analyzed
Method Blank	KWG0506051-3	J:\MS04\DATA\041305\0413F007.D	04/13/05	11:14
TO63-IDW-01	K2502554-001	J:\MS04\DATA\041305\0413F008.D	04/13/05	11:43
Batch QC	K2502607-007	J:\MS04\DATA\041305\0413F009.D	04/13/05	12:13
Batch QCMS	KWG0506051-4	J:\MS04\DATA\041305\0413F019.D	04/13/05	17:11
Batch QCDMS	KWG0506051-5	J:\MS04\DATA\041305\0413F020.D	04/13/05	17:41

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

Client: Battelle Memorial Institute
Project: Novato Ballfields/G486063

Service Request: K2502554
Date Analyzed: 04/13/2005
Time Analyzed: 08:44

Tune Summary
Volatile Organic Compounds

File ID: J:\MS04\DATA\041305\0413F002.D
Instrument ID: MS04
Column:

Analysis Method: 8260B
Analysis Lot: KWG0506050

Target Mass	Relative to Mass	Lower Limit%	Upper Limit%	Relative Abundance %	Raw Abundance	Result Pass/Fail
50	95	15	40	22.1	26161	PASS
75	95	30	60	50.5	59837	PASS
95	95	100	100	100.0	118581	PASS
96	95	5	9	6.4	7568	PASS
173	174	0	2	0.0	0	PASS
174	95	50	120	70.2	83293	PASS
175	174	5	9	7.7	6429	PASS
176	174	95	101	99.0	82488	PASS
177	176	5	9	6.8	5592	PASS

Sample Name	Lab Code	File ID	Date Analyzed	Time Analyzed	Q
Continuing Calibration Verification	KWG0506050-2	J:\MS04\DATA\041305\0413F003.D	04/13/2005	09:14	
Lab Control Sample	KWG0506051-1	J:\MS04\DATA\041305\0413F004.D	04/13/2005	09:44	
Method Blank	KWG0506051-3	J:\MS04\DATA\041305\0413F007.D	04/13/2005	11:14	
TO63-IDW-01	K2502554-001	J:\MS04\DATA\041305\0413F008.D	04/13/2005	11:43	
Batch QC	K2502607-007	J:\MS04\DATA\041305\0413F009.D	04/13/2005	12:13	
Batch QCMS	KWG0506051-4	J:\MS04\DATA\041305\0413F019.D	04/13/2005	17:11	
Batch QCDMS	KWG0506051-5	J:\MS04\DATA\041305\0413F020.D	04/13/2005	17:41	

Results flagged with an asterisk (*) indicate the analysis performed outside specified tune window

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

Client: Battelle Memorial Institute
Project: Novato Ballfields/G486063

Service Request: K2502554
Calibration Date: 04/11/2005

Initial Calibration Summary
Volatile Organic Compounds

Calibration ID: CAL4367
Instrument ID: MS04

Column: MS

Level ID	File ID	Level ID	File ID
A	J:\MS04\DATA\041105\0411F010.D	E	J:\MS04\DATA\041105\0411F014.D
B	J:\MS04\DATA\041105\0411F011.D	F	J:\MS04\DATA\041105\0411F015.D
C	J:\MS04\DATA\041105\0411F012.D	G	J:\MS04\DATA\041105\0411F016.D
D	J:\MS04\DATA\041105\0411F013.D		

Analyte Name	Level ID	Amt	RRF	Level ID	Amt	RRF	Level ID	Amt	RRF	Level ID	Amt	RRF	Level ID	Amt	RRF
Dichlorodifluoromethane	A	2.0	0.258	B	5.0	0.215	C	10	0.208	D	20	0.234	E	50	0.245
	F	100	0.246	G	200	0.244									
† Chloromethane	A	2.0	0.479	B	5.0	0.359	C	10	0.327	D	20	0.378	E	50	0.394
	F	100	0.397	G	200	0.381									
‡ Vinyl Chloride	A	2.0	0.318	B	5.0	0.276	C	10	0.275	D	20	0.302	E	50	0.321
	F	100	0.318	G	200	0.315									
Bromomethane				B	5.0	0.109	C	10	0.110	D	20	0.122	E	50	0.136
	F	100	0.150	G	200	0.157									
Chloroethane	A	2.0	0.182	B	5.0	0.146	C	10	0.142	D	20	0.157	E	50	0.163
	F	100	0.163	G	200	0.158									
Trichlorofluoromethane	A	2.0	0.234	B	5.0	0.205	C	10	0.211	D	20	0.236	E	50	0.248
	F	100	0.244	G	200	0.243									
Trichlorotrifluoroethane	A	2.0	0.162	B	5.0	0.150	C	10	0.156	D	20	0.176	E	50	0.187
	F	100	0.183	G	200	0.186									
Acetone				B	10	0.0835	C	20	0.0744	D	40	0.0765	E	100	0.0778
	F	200	0.0792	G	400	0.0761									
‡ 1,1-Dichloroethene	A	2.0	0.217	B	5.0	0.196	C	10	0.197	D	20	0.215	E	50	0.226
	F	100	0.223	G	200	0.220									
Methyl Acetate	A	2.0	0.265	B	5.0	0.228	C	10	0.229	D	20	0.238	E	50	0.232
	F	100	0.224	G	200	0.258									
Carbon Disulfide	A	2.0	1.10	B	5.0	0.894	C	10	0.883	D	20	0.957	E	50	1.01
	F	100	1.00												
Diisopropyl Ether	A	2.0	1.20	B	5.0	1.00	C	10	1.05	D	20	1.13	E	50	1.21
	F	100	1.23												
Methylene Chloride							C	10	0.396	D	20	0.341	E	50	0.312
	F	100	0.298	G	200	0.287									
Methyl tert-Butyl Ether	A	4.0	0.645	B	10	0.527	C	20	0.553	D	40	0.581	E	100	0.619
	F	200	0.637												

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† **SPCC Compound** ‡ **CCC Compound**

Client: Battelle Memorial Institute
Project: Novato Ballfields/G486063

Service Request: K2502554
Calibration Date: 04/11/2005

Initial Calibration Summary
Volatile Organic Compounds

Calibration ID: CAL4367
Instrument ID: MS04

Column: MS

Analyte Name	Level ID	Amt	RRF	Level ID	Amt	RRF	Level ID	Amt	RRF	Level ID	Amt	RRF	Level ID	Amt	RRF
trans-1,2-Dichloroethene	A	2.0	0.256	B	5.0	0.226	C	10	0.231	D	20	0.250	E	50	0.267
	F	100	0.263	G	200	0.257									
† 1,1-Dichloroethane	A	2.0	0.522	B	5.0	0.445	C	10	0.464	D	20	0.502	E	50	0.524
	F	100	0.521	G	200	0.514									
2-Butanone (MEK)	A	4.0	0.0287	B	10	0.0241	C	20	0.0237	D	40	0.0256	E	100	0.0275
	F	200	0.0291	G	400	0.0293									
cis-1,2-Dichloroethene	A	2.0	0.284	B	5.0	0.240	C	10	0.246	D	20	0.269	E	50	0.284
	F	100	0.285	G	200	0.281									
‡ Chloroform	A	2.0	0.441	B	5.0	0.380	C	10	0.391	D	20	0.425	E	50	0.449
	F	100	0.452	G	200	0.444									
1,1,1-Trichloroethane (TCA)	A	2.0	0.291	B	5.0	0.265	C	10	0.275	D	20	0.307	E	50	0.326
	F	100	0.326	G	200	0.324									
Cyclohexane	A	2.0	0.392	B	5.0	0.336	C	10	0.501	D	20	0.496	E	50	0.536
	F	100	0.467	G	200	0.517									
Carbon Tetrachloride	A	2.0	0.241	B	5.0	0.220	C	10	0.233	D	20	0.259	E	50	0.277
	F	100	0.275	G	200	0.270									
1,2-Dichloroethane (EDC)	A	2.0	0.306	B	5.0	0.254	C	10	0.258	D	20	0.276	E	50	0.290
	F	100	0.297	G	200	0.288									
Benzene	A	2.0	1.11	B	5.0	0.941	C	10	0.948	D	20	1.04	E	50	1.09
	F	100	1.09	G	200	0.819									
Trichloroethene (TCE)	A	2.0	0.249	B	5.0	0.224	C	10	0.229	D	20	0.252	E	50	0.266
	F	100	0.268	G	200	0.263									
‡ 1,2-Dichloropropane	A	2.0	0.326	B	5.0	0.275	C	10	0.285	D	20	0.306	E	50	0.324
	F	100	0.325	G	200	0.311									
Bromodichloromethane	A	2.0	0.334	B	5.0	0.283	C	10	0.293	D	20	0.320	E	50	0.338
	F	100	0.347	G	200	0.341									
Methylcyclohexane				B	5.0	0.280	C	10	0.428	D	20	0.421	E	50	0.453
	F	100	0.395	G	200	0.433									
2-Hexanone	A	4.0	0.395	B	10	0.342	C	20	0.328	D	40	0.333	E	100	0.355
	F	200	0.372	G	400	0.363									
cis-1,3-Dichloropropene	A	2.0	0.449	B	5.0	0.384	C	10	0.402	D	20	0.443	E	50	0.467
	F	100	0.484	G	200	0.471									
‡ Toluene	A	2.0	0.615	B	5.0	0.535	C	10	0.557	D	20	0.617	E	50	0.656
	F	100	0.665	G	200	0.604									

Results flagged with an asterisk (*) indicate values outside control criteria.

† SPCC Compound **‡ CCC Compound**

Client: Battelle Memorial Institute
Project: Novato Ballfields/G486063

Service Request: K2502554
Calibration Date: 04/11/2005

Initial Calibration Summary
Volatile Organic Compounds

Calibration ID: CAL4367
Instrument ID: MS04

Column: MS

Analyte Name	Level ID	Amt	RRF	Level ID	Amt	RRF	Level ID	Amt	RRF	Level ID	Amt	RRF	Level ID	Amt	RRF
trans-1,3-Dichloropropene	A	2.0	0.570	B	5.0	0.474	C	10	0.507	D	20	0.532	E	50	0.572
	F	100	0.578	G	200	0.584									
1,1,2-Trichloroethane	A	2.0	0.287	B	5.0	0.246	C	10	0.264	D	20	0.275	E	50	0.285
	F	100	0.288	G	200	0.289									
4-Methyl-2-pentanone (MIBK)	A	4.0	0.340	B	10	0.305	C	20	0.304	D	40	0.318	E	100	0.343
	F	200	0.371	G	400	0.332									
Tetrachloroethene (PCE)	A	2.0	0.260	B	5.0	0.239	C	10	0.254	D	20	0.281	E	50	0.297
	F	100	0.292	G	200	0.299									
Dibromochloromethane	A	2.0	0.335	B	5.0	0.293	C	10	0.315	D	20	0.329	E	50	0.353
	F	100	0.359	G	200	0.366									
1,2-Dibromoethane (EDB)	A	2.0	0.326	B	5.0	0.279	C	10	0.300	D	20	0.315	E	50	0.335
	F	100	0.341	G	200	0.340									
† Chlorobenzene	A	2.0	0.907	B	5.0	0.783	C	10	0.821	D	20	0.893	E	50	0.944
	F	100	0.946	G	200	0.893									
‡ Ethylbenzene	A	2.0	0.441	B	5.0	0.391	C	10	0.412	D	20	0.466	E	50	0.489
	F	100	0.489	G	200	0.467									
m,p-Xylenes	A	4.0	0.563	B	10	0.493	C	20	0.516	D	40	0.588	E	100	0.616
	F	200	0.624												
o-Xylene	A	2.0	0.535	B	5.0	0.471	C	10	0.502	D	20	0.569	E	50	0.595
	F	100	0.606	G	200	0.550									
Styrene	A	2.0	0.956	B	5.0	0.836	C	10	0.872	D	20	0.999	E	50	1.05
	F	100	1.08	G	200	0.915									
† Bromoform	A	2.0	0.200	B	5.0	0.188	C	10	0.190	D	20	0.202	E	50	0.218
	F	100	0.228	G	200	0.226									
Isopropylbenzene	A	2.0	1.38	B	5.0	1.24	C	10	1.31	D	20	1.52	E	50	1.62
	F	100	1.66												
† 1,1,2,2-Tetrachloroethane	A	2.0	1.04	B	5.0	0.998	C	10	0.956	D	20	0.933	E	50	0.990
	F	100	0.972	G	200	1.08									
1,3-Dichlorobenzene	A	2.0	1.41	B	5.0	1.24	C	10	1.28	D	20	1.37	E	50	1.45
	F	100	1.45	G	200	1.47									
1,4-Dichlorobenzene	A	2.0	1.43	B	5.0	1.23	C	10	1.32	D	20	1.37	E	50	1.44
	F	100	1.44	G	200	1.46									
1,2-Dichlorobenzene	A	2.0	1.26	B	5.0	1.16	C	10	1.20	D	20	1.27	E	50	1.34
	F	100	1.37	G	200	1.35									

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† SPCC Compound **‡ CCC Compound**

Client: Battelle Memorial Institute
Project: Novato Ballfields/G486063

Service Request: K2502554
Calibration Date: 04/11/2005

Initial Calibration Summary
Volatile Organic Compounds

Calibration ID: CAL4367
Instrument ID: MS04

Column: MS

Analyte Name	Level ID	Amt	RRF	Level ID	Amt	RRF	Level ID	Amt	RRF	Level ID	Amt	RRF	Level ID	Amt	RRF
1,2-Dibromo-3-chloropropane	A	2.0	0.142	B	5.0	0.147	C	10	0.152	D	20	0.147	E	50	0.161
	F	100	0.176	G	200	0.173									
1,2,4-Trichlorobenzene	A	2.0	0.783	B	5.0	0.775	C	10	0.833	D	20	0.806	E	50	0.859
	F	100	0.928	G	200	0.901									
Naphthalene	A	2.0	1.69	B	5.0	1.81	C	10	1.89	D	20	1.80	E	50	2.01
	F	100	2.24	G	200	2.23									
Bromochloromethane	A	2.0	0.140	B	5.0	0.117	C	10	0.118	D	20	0.127	E	50	0.133
	F	100	0.137	G	200	0.135									
1,2,3-Trichlorobenzene	A	2.0	0.727	B	5.0	0.731	C	10	0.761	D	20	0.730	E	50	0.782
	F	100	0.853	G	200	0.841									
Dibromofluoromethane	A	10	0.262	B	20	0.233	C	30	0.231	D	40	0.236	E	50	0.243
	F	70	0.253	G	80	0.258									
Toluene-d8	A	10	0.960	B	20	0.827	C	30	0.795	D	40	0.848	E	50	0.877
	F	70	0.917	G	80	0.920									
4-Bromofluorobenzene	A	10	0.485	B	20	0.433	C	30	0.418	D	40	0.453	E	50	0.466
	F	70	0.492	G	80	0.465									

Results flagged with an asterisk (*) indicate values outside control criteria.

† **SPCC Compound** ‡ **CCC Compound**

Client: Battelle Memorial Institute
Project: Novato Ballfields/G486063

Service Request: K2502554
Calibration Date: 04/11/2005

Initial Calibration Summary
Volatile Organic Compounds

Calibration ID: CAL4367
Instrument ID: MS04

Column: MS

Analyte Name	Compound Type	Calibration Evaluation					RRF Evaluation		
		Fit Type	Eval.	Eval. Result	Q	Control Criteria	Average RRF	Q	Minimum RRF
Dichlorodifluoromethane	TRG	AverageRF	% RSD	7.6		≤ 15	0.236		0.01
† Chloromethane	TRG	AverageRF	% RSD	12.1		≤ 15	0.388		0.10
‡ Vinyl Chloride	TRG	AverageRF	% RSD	6.7		≤ 15	0.304		0.01
Bromomethane	TRG	AverageRF	% RSD	15.7	*	≤ 15	0.131		0.01
Chloroethane	TRG	AverageRF	% RSD	8.3		≤ 15	0.159		0.01
Trichlorofluoromethane	TRG	AverageRF	% RSD	7.3		≤ 15	0.232		0.01
Trichlorotrifluoroethane	TRG	AverageRF	% RSD	9.0		≤ 15	0.171		0.01
Acetone	TRG	AverageRF	% RSD	4.1		≤ 15	0.0779		0.01
‡ 1,1-Dichloroethene	MS	AverageRF	% RSD	5.6		≤ 15	0.213		0.01
Methyl Acetate	TRG	AverageRF	% RSD	6.7		≤ 15	0.239		0.01
Carbon Disulfide	TRG	AverageRF	% RSD	8.2		≤ 15	0.974		0.01
Diisopropyl Ether	TRG	AverageRF	% RSD	8.3		≤ 15	1.14		0.01
Methylene Chloride	TRG	AverageRF	% RSD	13.4		≤ 15	0.327		0.01
Methyl tert-Butyl Ether	TRG	AverageRF	% RSD	8.1		≤ 15	0.594		0.01
trans-1,2-Dichloroethene	TRG	AverageRF	% RSD	6.3		≤ 15	0.250		0.01
† 1,1-Dichloroethane	TRG	AverageRF	% RSD	6.4		≤ 15	0.499		0.10
2-Butanone (MEK)	TRG	AverageRF	% RSD	8.9		≤ 15	0.0269		0.01
cis-1,2-Dichloroethene	TRG	AverageRF	% RSD	7.2		≤ 15	0.270		0.01
‡ Chloroform	TRG	AverageRF	% RSD	6.9		≤ 15	0.426		0.01
1,1,1-Trichloroethane (TCA)	TRG	AverageRF	% RSD	8.4		≤ 15	0.302		0.01
Cyclohexane	TRG	AverageRF	% RSD	15.8	*	≤ 15	0.464		0.01
Carbon Tetrachloride	TRG	AverageRF	% RSD	8.8		≤ 15	0.254		0.01
1,2-Dichloroethane (EDC)	TRG	AverageRF	% RSD	6.9		≤ 15	0.281		0.01
Benzene	MS	AverageRF	% RSD	10.8		≤ 15	1.01		0.01
Trichloroethene (TCE)	MS	AverageRF	% RSD	7.0		≤ 15	0.250		0.01
‡ 1,2-Dichloropropane	TRG	AverageRF	% RSD	6.6		≤ 15	0.307		0.01
Bromodichloromethane	TRG	AverageRF	% RSD	7.8		≤ 15	0.322		0.01
Methylcyclohexane	TRG	AverageRF	% RSD	15.5	*	≤ 15	0.402		0.01
2-Hexanone	TRG	AverageRF	% RSD	6.7		≤ 15	0.355		0.01
cis-1,3-Dichloropropene	TRG	AverageRF	% RSD	8.4		≤ 15	0.443		0.01
‡ Toluene	MS	AverageRF	% RSD	7.8		≤ 15	0.607		0.01
trans-1,3-Dichloropropene	TRG	AverageRF	% RSD	7.7		≤ 15	0.545		0.01
1,1,2-Trichloroethane	TRG	AverageRF	% RSD	5.9		≤ 15	0.276		0.01
4-Methyl-2-pentanone (MIBK)	TRG	AverageRF	% RSD	7.2		≤ 15	0.330		0.01
Tetrachloroethene (PCE)	TRG	AverageRF	% RSD	8.6		≤ 15	0.275		0.01
Dibromochloromethane	TRG	AverageRF	% RSD	7.7		≤ 15	0.336		0.01
1,2-Dibromoethane (EDB)	TRG	AverageRF	% RSD	7.3		≤ 15	0.319		0.01
† Chlorobenzene	MS	AverageRF	% RSD	6.9		≤ 15	0.884		0.30
‡ Ethylbenzene	TRG	AverageRF	% RSD	8.4		≤ 15	0.451		0.01
m,p-Xylenes	TRG	AverageRF	% RSD	9.4		≤ 15	0.567		0.01
o-Xylene	TRG	AverageRF	% RSD	8.9		≤ 15	0.547		0.01
Styrene	TRG	AverageRF	% RSD	9.4		≤ 15	0.957		0.01

Results flagged with an asterisk (*) indicate values outside control criteria.

† **SPCC Compound** ‡ **CCC Compound**

Client: Battelle Memorial Institute
Project: Novato Ballfields/G486063

Service Request: K2502554
Calibration Date: 04/11/2005

Initial Calibration Summary
Volatile Organic Compounds

Calibration ID: CAL4367
Instrument ID: MS04

Column: MS

Analyte Name	Compound Type	Calibration Evaluation					RRF Evaluation		
		Fit Type	Eval.	Eval. Result	Q	Control Criteria	Average RRF	Q	Minimum RRF
† Bromoform	TRG	AverageRF	% RSD	8.0		≤ 15	0.207		0.10
Isopropylbenzene	TRG	AverageRF	% RSD	11.7		≤ 15	1.45		0.01
† 1,1,2,2-Tetrachloroethane	TRG	AverageRF	% RSD	5.0		≤ 15	0.996		0.30
1,3-Dichlorobenzene	TRG	AverageRF	% RSD	6.5		≤ 15	1.38		0.01
1,4-Dichlorobenzene	TRG	AverageRF	% RSD	6.0		≤ 15	1.39		0.01
1,2-Dichlorobenzene	MS	AverageRF	% RSD	6.2		≤ 15	1.28		0.01
1,2-Dibromo-3-chloropropane	TRG	AverageRF	% RSD	8.5		≤ 15	0.157		0.01
1,2,4-Trichlorobenzene	TRG	AverageRF	% RSD	6.9		≤ 15	0.841		0.01
Naphthalene	MS	AverageRF	% RSD	11.1		≤ 15	1.95		0.01
Bromochloromethane	TRG	AverageRF	% RSD	7.1		≤ 15	0.130		0.01
1,2,3-Trichlorobenzene	TRG	AverageRF	% RSD	6.9		≤ 15	0.775		0.01
Dibromofluoromethane	SURR	AverageRF	% RSD	5.1		≤ 15	0.245		0.01
Toluene-d8	SURR	AverageRF	% RSD	6.6		≤ 15	0.878		0.01
4-Bromofluorobenzene	SURR	AverageRF	% RSD	5.8		≤ 15	0.459		0.01

Results flagged with an asterisk (*) indicate values outside control criteria.

† SPCC Compound **‡ CCC Compound**

Client: Battelle Memorial Institute
Project: Novato Ballfields/G486063

Service Request: K2502554
Calibration Date: 04/11/2005
Date Analyzed: 04/11/2005

Second Source Calibration Verification
Volatile Organic Compounds

Calibration Type: Internal Standard
Analysis Method: 8260B

Calibration ID: CAL4367
Units: ppb

File ID: J:\MS04\DATA\041105\0411F019.D

Analyte Name	Expected	Result	Average RF	SSV RF	%D	%Drift	Criteria	Curve Fit
Dichlorodifluoromethane	50	47	0.236	0.220	-7	NA	± 40 %	AverageRF
† Chloromethane	50	48	0.388	0.369	-5	NA	± 40 %	AverageRF
‡ Vinyl Chloride	50	46	0.304	0.282	-7	NA	± 20 %	AverageRF
Bromomethane	50	51	0.131	0.133	2	NA	± 40 %	AverageRF
Chloroethane	50	47	0.159	0.148	-7	NA	± 40 %	AverageRF
Trichlorofluoromethane	50	45	0.232	0.209	-10	NA	± 30 %	AverageRF
Trichlorotrifluoroethane	50	52	0.171	0.177	3	NA	± 30 %	AverageRF
Acetone	250	210	0.0779	0.0647	-17	NA	± 30 %	AverageRF
‡ 1,1-Dichloroethene	50	51	0.213	0.216	1	NA	± 20 %	AverageRF
Methyl Acetate	50	53	0.239	0.253	6	NA	± 30 %	AverageRF
Carbon Disulfide	100	92	0.974	0.891	-8	NA	± 30 %	AverageRF
Diisopropyl Ether	50	49	1.14	1.12	-2	NA	± 30 %	AverageRF
Methylene Chloride	50	43	0.327	0.281	-14	NA	± 30 %	AverageRF
Methyl tert-Butyl Ether	50	53	0.594	0.634	7	NA	± 30 %	AverageRF
trans-1,2-Dichloroethene	50	49	0.250	0.245	-2	NA	± 30 %	AverageRF
† 1,1-Dichloroethane	50	49	0.499	0.485	-3	NA	± 30 %	AverageRF
2-Butanone (MEK)	250	230	0.0269	0.0243	-9	NA	± 30 %	AverageRF
cis-1,2-Dichloroethene	50	49	0.270	0.266	-1	NA	± 30 %	AverageRF
‡ Chloroform	50	48	0.426	0.412	-3	NA	± 20 %	AverageRF
1,1,1-Trichloroethane (TCA)	50	50	0.302	0.304	1	NA	± 30 %	AverageRF
Cyclohexane	50	57	0.464	0.528	14	NA	± 30 %	AverageRF
Carbon Tetrachloride	50	50	0.254	0.254	0	NA	± 30 %	AverageRF
1,2-Dichloroethane (EDC)	50	50	0.281	0.280	0	NA	± 30 %	AverageRF
Benzene	50	51	1.01	1.02	1	NA	± 30 %	AverageRF
Trichloroethene (TCE)	50	50	0.250	0.251	1	NA	± 30 %	AverageRF
‡ 1,2-Dichloropropane	50	50	0.307	0.309	0	NA	± 20 %	AverageRF
Bromodichloromethane	50	51	0.322	0.330	2	NA	± 30 %	AverageRF
Methylcyclohexane	50	54	0.402	0.432	8	NA	± 30 %	AverageRF
2-Hexanone	250	230	0.355	0.327	-8	NA	± 30 %	AverageRF
cis-1,3-Dichloropropene	50	51	0.443	0.450	2	NA	± 30 %	AverageRF
‡ Toluene	50	49	0.607	0.593	-2	NA	± 20 %	AverageRF
trans-1,3-Dichloropropene	50	49	0.545	0.530	-3	NA	± 30 %	AverageRF
1,1,2-Trichloroethane	50	51	0.276	0.284	3	NA	± 30 %	AverageRF
4-Methyl-2-pentanone (MIBK)	250	240	0.330	0.315	-5	NA	± 30 %	AverageRF
Tetrachloroethene (PCE)	50	51	0.275	0.279	1	NA	± 30 %	AverageRF
Dibromochloromethane	50	52	0.336	0.346	3	NA	± 30 %	AverageRF
1,2-Dibromoethane (EDB)	50	50	0.319	0.322	1	NA	± 30 %	AverageRF
† Chlorobenzene	50	49	0.884	0.871	-1	NA	± 30 %	AverageRF
‡ Ethylbenzene	50	50	0.451	0.448	-1	NA	± 20 %	AverageRF
m,p-Xylenes	100	96	0.567	0.543	-4	NA	± 30 %	AverageRF

Results flagged with an asterisk (*) indicate values outside control criteria.

† SPCC Compound **‡ CCC Compound**

Client: Battelle Memorial Institute
Project: Novato Ballfields/G486063

Service Request: K2502554
Calibration Date: 04/11/2005
Date Analyzed: 04/11/2005

Second Source Calibration Verification
Volatile Organic Compounds

Calibration Type: Internal Standard
Analysis Method: 8260B

Calibration ID: CAL4367
Units: ppb

Analyte Name	Expected	Result	Average RF	SSV RF	%D	%Drift	Criteria	Curve Fit
o-Xylene	50	48	0.547	0.521	-5	NA	± 30 %	AverageRF
Styrene	50	49	0.957	0.933	-3	NA	± 30 %	AverageRF
† Bromoform	50	50	0.207	0.208	0	NA	± 30 %	AverageRF
Isopropylbenzene	50	43	1.45	1.25	-14	NA	± 30 %	AverageRF
† 1,1,2,2-Tetrachloroethane	50	50	0.996	0.995	0	NA	± 30 %	AverageRF
1,3-Dichlorobenzene	50	48	1.38	1.34	-3	NA	± 30 %	AverageRF
1,4-Dichlorobenzene	50	49	1.39	1.36	-1	NA	± 30 %	AverageRF
1,2-Dichlorobenzene	50	48	1.28	1.23	-4	NA	± 30 %	AverageRF
1,2-Dibromo-3-chloropropane	50	49	0.157	0.153	-2	NA	± 30 %	AverageRF
1,2,4-Trichlorobenzene	50	50	0.841	0.849	1	NA	± 30 %	AverageRF
Naphthalene	50	52	1.95	2.03	4	NA	± 30 %	AverageRF
Bromochloromethane	50	50	0.130	0.129	0	NA	± 30 %	AverageRF
1,2,3-Trichlorobenzene	50	51	0.775	0.792	2	NA	± 30 %	AverageRF

Results flagged with an asterisk (*) indicate values outside control criteria.

† SPCC Compound **‡ CCC Compound**

Client: Battelle Memorial Institute
Project: Novato Ballfields/G486063

Service Request: K2502554
Date Analyzed: 04/13/2005

Continuing Calibration Verification Summary
Volatile Organic Compounds

Calibration Type: Internal Standard
Analysis Method: 8260B

Calibration Date: 04/11/2005
Calibration ID: CAL4367
Analysis Lot: KWG0506050
Units: ppb

File ID: J:\MS04\DATA\041305\0413F003.D

Analyte Name	Expected	Result	Min RF	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Dichlorodifluoromethane	50	39	0.01	0.236	0.184	-22	NA	± 40 %	AverageRF
† Chloromethane	50	44	0.10	0.388	0.340	-12	NA	± 40 %	AverageRF
‡ Vinyl Chloride	50	46	0.01	0.304	0.279	-8	NA	± 20 %	AverageRF
Bromomethane	50	51	0.01	0.131	0.133	2	NA	± 40 %	AverageRF
Chloroethane	50	46	0.01	0.159	0.147	-7	NA	± 40 %	AverageRF
Trichlorofluoromethane	50	47	0.01	0.232	0.218	-6	NA	± 30 %	AverageRF
Trichlorotrifluoroethane	50	48	0.01	0.171	0.165	-4	NA	± 30 %	AverageRF
Acetone	100	100	0.01	0.0779	0.0798	2	NA	± 30 %	AverageRF
‡ 1,1-Dichloroethene	50	47	0.01	0.213	0.202	-5	NA	± 20 %	AverageRF
Methyl Acetate	50	55	0.01	0.239	0.262	9	NA	± 30 %	AverageRF
Carbon Disulfide	50	46	0.01	0.974	0.901	-7	NA	± 30 %	AverageRF
Diisopropyl Ether	50	52	0.01	1.14	1.18	3	NA	± 30 %	AverageRF
Methylene Chloride	50	43	0.01	0.327	0.278	-15	NA	± 30 %	AverageRF
Methyl tert-Butyl Ether	100	100	0.01	0.594	0.621	5	NA	± 30 %	AverageRF
trans-1,2-Dichloroethene	50	48	0.01	0.250	0.239	-4	NA	± 30 %	AverageRF
† 1,1-Dichloroethane	50	48	0.10	0.499	0.483	-3	NA	± 30 %	AverageRF
2-Butanone (MEK)	100	100	0.01	0.0269	0.0281	5	NA	± 30 %	AverageRF
cis-1,2-Dichloroethene	50	48	0.01	0.270	0.260	-4	NA	± 30 %	AverageRF
‡ Chloroform	50	49	0.01	0.426	0.416	-2	NA	± 20 %	AverageRF
1,1,1-Trichloroethane (TCA)	50	49	0.01	0.302	0.295	-2	NA	± 30 %	AverageRF
Cyclohexane	50	58	0.01	0.464	0.540	17	NA	± 30 %	AverageRF
Carbon Tetrachloride	50	49	0.01	0.254	0.247	-3	NA	± 30 %	AverageRF
1,2-Dichloroethane (EDC)	50	50	0.01	0.281	0.281	0	NA	± 30 %	AverageRF
Benzene	50	50	0.01	1.01	1.00	-1	NA	± 30 %	AverageRF
Trichloroethene (TCE)	50	49	0.01	0.250	0.244	-2	NA	± 30 %	AverageRF
‡ 1,2-Dichloropropane	50	49	0.01	0.307	0.304	-1	NA	± 20 %	AverageRF
Bromodichloromethane	50	50	0.01	0.322	0.320	-1	NA	± 30 %	AverageRF
Methylcyclohexane	50	56	0.01	0.402	0.451	12	NA	± 30 %	AverageRF
2-Hexanone	100	110	0.01	0.355	0.379	7	NA	± 30 %	AverageRF
cis-1,3-Dichloropropene	50	51	0.01	0.443	0.452	2	NA	± 30 %	AverageRF
‡ Toluene	50	49	0.01	0.607	0.594	-2	NA	± 20 %	AverageRF
trans-1,3-Dichloropropene	50	52	0.01	0.545	0.569	4	NA	± 30 %	AverageRF
1,1,2-Trichloroethane	50	51	0.01	0.276	0.283	2	NA	± 30 %	AverageRF
4-Methyl-2-pentanone (MIBK)	100	110	0.01	0.330	0.362	10	NA	± 30 %	AverageRF
Tetrachloroethene (PCE)	50	50	0.01	0.275	0.273	0	NA	± 30 %	AverageRF
Dibromochloromethane	50	51	0.01	0.336	0.344	2	NA	± 30 %	AverageRF
1,2-Dibromoethane (EDB)	50	52	0.01	0.319	0.333	4	NA	± 30 %	AverageRF
† Chlorobenzene	50	49	0.30	0.884	0.868	-2	NA	± 30 %	AverageRF

Results flagged with an asterisk (*) indicate values outside control criteria.

† SPCC Compound **‡ CCC Compound**

Client: Battelle Memorial Institute
Project: Novato Ballfields/G486063

Service Request: K2502554
Date Analyzed: 04/13/2005

Continuing Calibration Verification Summary
Volatile Organic Compounds

Calibration Type: Internal Standard
Analysis Method: 8260B

Calibration Date: 04/11/2005
Calibration ID: CAL4367
Analysis Lot: KWG0506050
Units: ppb

Analyte Name	Expected	Result	Min RF	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
‡ Ethylbenzene	50	49	0.01	0.451	0.442	-2	NA	± 20 %	AverageRF
m,p-Xylenes	100	98	0.01	0.567	0.556	-2	NA	± 30 %	AverageRF
o-Xylene	50	49	0.01	0.547	0.534	-2	NA	± 30 %	AverageRF
Styrene	50	50	0.01	0.957	0.958	0	NA	± 30 %	AverageRF
† Bromoform	50	52	0.10	0.207	0.214	3	NA	± 30 %	AverageRF
Isopropylbenzene	50	49	0.01	1.45	1.44	-1	NA	± 30 %	AverageRF
† 1,1,2,2-Tetrachloroethane	50	51	0.30	0.996	1.02	2	NA	± 30 %	AverageRF
1,3-Dichlorobenzene	50	49	0.01	1.38	1.36	-1	NA	± 30 %	AverageRF
1,4-Dichlorobenzene	50	49	0.01	1.39	1.37	-1	NA	± 30 %	AverageRF
1,2-Dichlorobenzene	50	49	0.01	1.28	1.26	-2	NA	± 30 %	AverageRF
1,2-Dibromo-3-chloropropane	50	51	0.01	0.157	0.161	3	NA	± 30 %	AverageRF
1,2,4-Trichlorobenzene	50	51	0.01	0.841	0.854	2	NA	± 30 %	AverageRF
Naphthalene	50	52	0.01	1.95	2.03	4	NA	± 30 %	AverageRF
Bromochloromethane	50	49	0.01	0.130	0.128	-1	NA	± 30 %	AverageRF
1,2,3-Trichlorobenzene	50	51	0.01	0.775	0.793	2	NA	± 30 %	AverageRF
Dibromofluoromethane	50	53	0.01	0.245	0.258	5	NA	± 30 %	AverageRF
Toluene-d8	50	54	0.01	0.878	0.942	7	NA	± 30 %	AverageRF
4-Bromofluorobenzene	50	53	0.01	0.459	0.487	6	NA	± 30 %	AverageRF

Results flagged with an asterisk (*) indicate values outside control criteria.

† **SPCC Compound** ‡ **CCC Compound**

Client: Battelle Memorial Institute
Project: Novato Ballfields/G486063

Service Request: K2502554

Analysis Run Log
Volatile Organic Compounds

Analysis Method: 8260B

Analysis Lot: KWG0506050
Instrument ID: MS04

File ID	Sample Name	Lab Code	Date Analysis Started	Start Time	Q	Date Analysis Finished	Finish Time
0413F002.D	GC/MS Tuning - Bromofluorobenzene	KWG0506050-1	4/13/2005	08:44		4/13/2005	09:07
0413F003.D	Continuing Calibration Verification	KWG0506050-2	4/13/2005	09:14		4/13/2005	09:37
0413F004.D	Lab Control Sample	KWG0506051-1	4/13/2005	09:44		4/13/2005	10:07
0413F005.D	ZZZZZZ	ZZZZZZ	4/13/2005	10:14		4/13/2005	10:37
0413F007.D	Method Blank	KWG0506051-3	4/13/2005	11:14		4/13/2005	11:37
0413F008.D	TO63-IDW-01	K2502554-001	4/13/2005	11:43		4/13/2005	12:06
0413F009.D	Batch QC	K2502607-007	4/13/2005	12:13		4/13/2005	12:36
0413F017.D	ZZZZZZ	ZZZZZZ	4/13/2005	16:12		4/13/2005	16:35
0413F018.D	ZZZZZZ	ZZZZZZ	4/13/2005	16:42		4/13/2005	17:05
0413F019.D	Batch QCMS	KWG0506051-4	4/13/2005	17:11		4/13/2005	17:34
0413F020.D	Batch QCDMS	KWG0506051-5	4/13/2005	17:41		4/13/2005	18:04

Results flagged with an asterisk (*) indicate the holding time was exceeded for the analysis

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

Client: Battelle Memorial Institute
Project: Novato Ballfields/G486063
Sample Matrix: Soil

Service Request: K2502554
Date Extracted: 04/13/2005

Extraction Prep Log
Volatile Organic Compounds

Extraction Method: EPA 5035
Analysis Method: 8260B

Extraction Lot: KWG0506051
Level: Low

Sample Name	Lab Code	Date Collected	Date Received	Sample Amount	Final Volume	% Solids	Note
TO63-IDW-01	K2502554-001	04/07/05	04/08/05	5.28g	5.0ml	69.1	
Method Blank	KWG0506051-3	NA	NA	5.00g	5.0ml	NA	
Batch QC	K2502607-007	NA	NA	5.09g	5.0ml	61.5	
Batch QCMS	KWG0506051-4	NA	NA	5.00g	5.0ml	61.5	
Batch QCDMS	KWG0506051-5	NA	NA	5.00g	5.0ml	61.5	
Lab Control Sample	KWG0506051-1	NA	NA	5.00g	5.0ml	NA	

Results flagged with an asterisk (*) indicate the holding time was exceeded for the analysis

Organic Analysis:
Volatile Organic Compounds

Validation Package

Organic Analysis:
Volatile Organic Compounds

Validation Package

QC Reports

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Battelle Memorial Institute
Project: Novato Ballfields/G486063
Sample Matrix: Soil

Service Request: K2502554

Surrogate Recovery Summary
Volatile Organic Compounds

Extraction Method: EPA 5035
Analysis Method: 8260B

Units: PERCENT
Level: Low

Sample Name	Lab Code	Sur1	Sur2	Sur3
TO63-IDW-01	K2502554-001	105	108	107
Method Blank	KWG0506051-3	110	98	94
Batch QC	K2502607-007	104	107	100
Batch QCMS	KWG0506051-4	105	107	100
Batch QCDMS	KWG0506051-5	106	107	101
Lab Control Sample	KWG0506051-1	106	111	112

Surrogate Recovery Control Limits (%)

Sur1 =	Dibromofluoromethane	70-119
Sur2 =	Toluene-d8	72-121
Sur3 =	4-Bromofluorobenzene	66-122

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Battelle Memorial Institute
Project: Novato Ballfields/G486063

Service Request: K2502554
Date Analyzed: 04/13/2005
Time Analyzed: 09:14

Internal Standard Area and RT Summary
Volatile Organic Compounds

File ID: J:\MS04\DATA\041305\0413F003.D
Instrument ID: MS04
Analysis Method: 8260B

Lab Code: KWG0506050-2
Analysis Lot: KWG0506050

		Fluorobenzene		Chlorobenzene-d5		1,4-Dichlorobenzene-d4	
		Area	**RT**	**Area**	**RT**	**Area**	**RT**
	Results ==>	7,370,956	11.35	5,088,337	15.94	2,169,733	19.13
	Upper Limit ==>	14,741,912	11.85	10,176,674	16.44	4,339,466	19.63
	Lower Limit ==>	3,685,478	10.85	2,544,169	15.44	1,084,867	18.63
	ICAL Result ==>	7,111,290	11.34	4,963,437	15.94	2,221,163	19.13
Associated Analyses							
Lab Control Sample	KWG0506051-1	5,909,921	11.35	4,306,673	15.94	2,137,581	19.13
Method Blank	KWG0506051-3	5,973,123	11.34	3,335,202	15.94	1,172,385	19.13
TO63-IDW-01	K2502554-001	6,882,502	11.34	4,943,419	15.94	2,208,903	19.12
Batch QC	K2502607-007	6,637,962	11.34	4,446,862	15.94	1,511,453	19.13
Batch QCMS	KWG0506051-4	7,152,317	11.34	4,730,259	15.93	1,541,853	19.12
Batch QCDMS	KWG0506051-5	7,183,480	11.34	4,808,182	15.93	1,694,466	19.12

Results flagged with an asterisk (*) indicate values outside control criteria.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	Battelle Memorial Institute	**Service Request:**	K2502554
Project:	Novato Ballfields/G486063	**Date Extracted:**	04/13/2005
Sample Matrix:	Soil	**Date Analyzed:**	04/13/2005

Matrix Spike/Duplicate Matrix Spike Summary
Volatile Organic Compounds

Sample Name:	Batch QC	**Units:**	ug/Kg
Lab Code:	K2502607-007	**Basis:**	Dry
Extraction Method:	EPA 5030A	**Level:**	Low
Analysis Method:	8260B	**Extraction Lot:**	KWG0506051

		Batch QCMS KWG0506051-4 Matrix Spike			Batch QCDMS KWG0506051-5 Duplicate Matrix Spike					
Analyte Name	**Sample Result**	**Result**	**Expected**	**%Rec**	**Result**	**Expected**	**%Rec**	**%Rec Limits**	**RPD**	**RPD Limit**
1,1-Dichloroethene	ND	63.0	81.3	78	63.8	81.3	78	35-127	1	40
Benzene	ND	61.6	81.3	76	61.9	81.3	76	26-125	0	40
Trichloroethene (TCE)	ND	51.6	81.3	64	52.2	81.3	64	18-130	1	40
Toluene	4.5	55.1	81.3	62	54.8	81.3	62	19-124	0	40
Chlorobenzene	ND	42.8	81.3	53	41.9	81.3	52	13-115	2	40
1,2-Dichlorobenzene	ND	33.1	81.3	41	31.4	81.3	39	10-119	5	40
Naphthalene	ND	18.6	81.3	23	20.6	81.3	25	10-127	11	40

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Client: Battelle Memorial Institute
Project: Novato Ballfields/G486063
Sample Matrix: Soil

Service Request: K2502554
Date Extracted: 04/13/2005
Date Analyzed: 04/13/2005

Lab Control Spike Summary
Volatile Organic Compounds

Extraction Method: EPA 5035
Analysis Method: 8260B

Units: ug/Kg
Basis: Dry
Level: Low
Extraction Lot: KWG0506051

	Lab Control Sample KWG0506051-1 Lab Control Spike			
Analyte Name	**Result**	**Expected**	**%Rec**	**%Rec Limits**
Dichlorodifluoromethane	37.9	50.0	76	30-187
Chloromethane	41.3	50.0	83	46-152
Vinyl Chloride	41.2	50.0	82	46-147
Bromomethane	51.7	50.0	103	30-157
Chloroethane	42.3	50.0	85	38-156
Trichlorofluoromethane	39.7	50.0	79	49-144
Trichlorotrifluoroethane	46.0	50.0	92	65-156
Acetone	192	250	77	49-128
1,1-Dichloroethene	45.9	50.0	92	70-132
Methyl Acetate	49.7	50.0	99	32-146
Carbon Disulfide	81.4	100	81	63-129
Diisopropyl Ether	44.4	50.0	89	64-125
Methylene Chloride	38.3	50.0	77	60-126
Methyl tert-Butyl Ether	46.9	50.0	94	60-144
trans-1,2-Dichloroethene	43.7	50.0	87	68-128
1,1-Dichloroethane	43.3	50.0	87	66-124
2-Butanone (MEK)	198	250	79	53-141
cis-1,2-Dichloroethene	43.7	50.0	87	67-126
Chloroform	43.1	50.0	86	67-126
1,1,1-Trichloroethane (TCA)	45.1	50.0	90	64-129
Cyclohexane	55.3	50.0	111	52-138
Carbon Tetrachloride	44.9	50.0	90	62-131
1,2-Dichloroethane (EDC)	45.0	50.0	90	62-130
Benzene	45.2	50.0	90	68-126
Trichloroethene (TCE)	46.0	50.0	92	67-130
1,2-Dichloropropane	45.1	50.0	90	67-124
Bromodichloromethane	46.2	50.0	92	66-127
Methylcyclohexane	53.1	50.0	106	49-141
2-Hexanone	200	250	80	46-146
cis-1,3-Dichloropropene	46.4	50.0	93	66-132
Toluene	45.7	50.0	91	68-127
trans-1,3-Dichloropropene	41.6	50.0	83	56-121
1,1,2-Trichloroethane	44.1	50.0	88	64-120
4-Methyl-2-pentanone (MIBK)	217	250	87	53-149
Tetrachloroethene (PCE)	44.1	50.0	88	63-129

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Client: Battelle Memorial Institute
Project: Novato Ballfields/G486063
Sample Matrix: Soil

Service Request: K2502554
Date Extracted: 04/13/2005
Date Analyzed: 04/13/2005

Lab Control Spike Summary
Volatile Organic Compounds

Extraction Method: EPA 5035
Analysis Method: 8260B

Units: ug/Kg
Basis: Dry
Level: Low
Extraction Lot: KWG0506051

	Lab Control Sample KWG0506051-1 Lab Control Spike			
Analyte Name	**Result**	**Expected**	**%Rec**	**%Rec Limits**
Dibromochloromethane	43.8	50.0	88	64-122
1,2-Dibromoethane (EDB)	43.7	50.0	87	63-122
Chlorobenzene	44.0	50.0	88	68-119
Ethylbenzene	45.4	50.0	91	65-128
m,p-Xylenes	91.1	100	91	64-131
o-Xylene	45.5	50.0	91	65-127
Styrene	47.0	50.0	94	65-129
Bromoform	45.2	50.0	90	64-126
Isopropylbenzene	41.4	50.0	83	55-120
1,1,2,2-Tetrachloroethane	38.7	50.0	77	56-119
1,3-Dichlorobenzene	43.1	50.0	86	64-123
1,4-Dichlorobenzene	43.4	50.0	87	65-124
1,2-Dichlorobenzene	42.8	50.0	86	64-119
1,2-Dibromo-3-chloropropane	43.8	50.0	88	58-126
1,2,4-Trichlorobenzene	45.8	50.0	92	61-139
Naphthalene	45.7	50.0	91	58-138
Bromochloromethane	44.2	50.0	88	68-129
1,2,3-Trichlorobenzene	44.9	50.0	90	64-132

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	Battelle Memorial Institute	**Service Request:**	K2502554
Project:	Novato Ballfields/G486063	**Date Extracted:**	04/13/2005
Sample Matrix:	Soil	**Date Analyzed:**	04/13/2005
		Time Analyzed:	11:14

Method Blank Summary
Volatile Organic Compounds

Sample Name:	Method Blank	**File ID:**	J:\MS04\DATA\041305\0413F007.D
Lab Code:	KWG0506051-3	**Instrument ID:**	MS04
Extraction Method:	EPA 5035	**Level:**	Low
Analysis Method:	8260B	**Extraction Lot:**	KWG0506051

This Method Blank applies to the following analyses:

Sample Name	Lab Code	File ID	Date Analyzed	Time Analyzed
Lab Control Sample	KWG0506051-1	J:\MS04\DATA\041305\0413F004.D	04/13/05	09:44
TO63-IDW-01	K2502554-001	J:\MS04\DATA\041305\0413F008.D	04/13/05	11:43
Batch QC	K2502607-007	J:\MS04\DATA\041305\0413F009.D	04/13/05	12:13
Batch QCMS	KWG0506051-4	J:\MS04\DATA\041305\0413F019.D	04/13/05	17:11
Batch QCDMS	KWG0506051-5	J:\MS04\DATA\041305\0413F020.D	04/13/05	17:41

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	Battelle Memorial Institute	**Service Request:**	K2502554
Project:	Novato Ballfields/G486063	**Date Extracted:**	04/13/2005
Sample Matrix:	Soil	**Date Analyzed:**	04/13/2005
		Time Analyzed:	09:44

Lab Control Sample Summary
Volatile Organic Compounds

Sample Name:	Lab Control Sample	**File ID:**	J:\MS04\DATA\041305\0413F004.D
Lab Code:	KWG0506051-1	**Instrument ID:**	MS04
Extraction Method:	EPA 5035	**Level:**	Low
Analysis Method:	8260B	**Extraction Lot:**	KWG0506051

This Lab Control Sample applies to the following analyses:

Sample Name	Lab Code	File ID	Date Analyzed	Time Analyzed
Method Blank	KWG0506051-3	J:\MS04\DATA\041305\0413F007.D	04/13/05	11:14
TO63-IDW-01	K2502554-001	J:\MS04\DATA\041305\0413F008.D	04/13/05	11:43
Batch QC	K2502607-007	J:\MS04\DATA\041305\0413F009.D	04/13/05	12:13
Batch QCMS	KWG0506051-4	J:\MS04\DATA\041305\0413F019.D	04/13/05	17:11
Batch QCDMS	KWG0506051-5	J:\MS04\DATA\041305\0413F020.D	04/13/05	17:41

Organic Analysis:
Volatile Organic Compounds

Validation Package

Raw Data

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	Battelle Memorial Institute	**Service Request:**	K2502554
Project:	Novato Ballfields/G486063	**Date Collected:**	04/07/2005
Sample Matrix:	Soil	**Date Received:**	04/08/2005

Volatile Organic Compounds

Sample Name:	TO63-IDW-01	**Units:**	ug/Kg
Lab Code:	K2502554-001	**Basis:**	Dry
Extraction Method:	EPA 5035	**Level:**	Low
Analysis Method:	8260B		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dichlorodifluoromethane	ND	U	6.9	1.1	1	04/13/05	04/13/05	KWG0506051	
Chloromethane	ND	U	6.9	1.5	1	04/13/05	04/13/05	KWG0506051	
Vinyl Chloride	ND	U	6.9	0.90	1	04/13/05	04/13/05	KWG0506051	
Bromomethane	ND	U	6.9	1.2	1	04/13/05	04/13/05	KWG0506051	
Chloroethane	ND	U	6.9	1.2	1	04/13/05	04/13/05	KWG0506051	
Trichlorofluoromethane	ND	U	6.9	1.1	1	04/13/05	04/13/05	KWG0506051	
Trichlorotrifluoroethane	ND	U	6.9	1.1	1	04/13/05	04/13/05	KWG0506051	
Acetone	ND	U	28	15	1	04/13/05	04/13/05	KWG0506051	
1,1-Dichloroethene	ND	U	6.9	1.1	1	04/13/05	04/13/05	KWG0506051	
Methyl Acetate	ND	U	6.9	1.1	1	04/13/05	04/13/05	KWG0506051	
Carbon Disulfide	ND	U	6.9	2.2	1	04/13/05	04/13/05	KWG0506051	
Diisopropyl Ether	ND	U	14	0.50	1	04/13/05	04/13/05	KWG0506051	
Methylene Chloride	ND	U	14	3.7	1	04/13/05	04/13/05	KWG0506051	
Methyl tert-Butyl Ether	ND	U	6.9	0.95	1	04/13/05	04/13/05	KWG0506051	
trans-1,2-Dichloroethene	ND	U	6.9	1.1	1	04/13/05	04/13/05	KWG0506051	
1,1-Dichloroethane	ND	U	6.9	1.2	1	04/13/05	04/13/05	KWG0506051	
2-Butanone (MEK)	ND	U	28	18	1	04/13/05	04/13/05	KWG0506051	
cis-1,2-Dichloroethene	ND	U	6.9	1.3	1	04/13/05	04/13/05	KWG0506051	
Chloroform	ND	U	6.9	0.83	1	04/13/05	04/13/05	KWG0506051	
1,1,1-Trichloroethane (TCA)	ND	U	6.9	0.83	1	04/13/05	04/13/05	KWG0506051	
Cyclohexane	ND	U	6.9	0.97	1	04/13/05	04/13/05	KWG0506051	
Carbon Tetrachloride	ND	U	6.9	0.87	1	04/13/05	04/13/05	KWG0506051	
1,2-Dichloroethane (EDC)	ND	U	6.9	0.97	1	04/13/05	04/13/05	KWG0506051	
Benzene	ND	U	6.9	1.2	1	04/13/05	04/13/05	KWG0506051	
Trichloroethene (TCE)	ND	U	6.9	0.41	1	04/13/05	04/13/05	KWG0506051	
1,2-Dichloropropane	ND	U	6.9	1.1	1	04/13/05	04/13/05	KWG0506051	
Bromodichloromethane	ND	U	6.9	0.77	1	04/13/05	04/13/05	KWG0506051	
Methylcyclohexane	ND	U	6.9	1.1	1	04/13/05	04/13/05	KWG0506051	
2-Hexanone	ND	U	28	8.9	1	04/13/05	04/13/05	KWG0506051	
cis-1,3-Dichloropropene	ND	U	6.9	1.1	1	04/13/05	04/13/05	KWG0506051	
Toluene	ND	U	6.9	1.3	1	04/13/05	04/13/05	KWG0506051	
trans-1,3-Dichloropropene	ND	U	6.9	0.87	1	04/13/05	04/13/05	KWG0506051	
1,1,2-Trichloroethane	ND	U	6.9	1.0	1	04/13/05	04/13/05	KWG0506051	

Comments:

Client: Battelle Memorial Institute
Project: Novato Ballfields/G486063
Sample Matrix: Soil

Service Request: K2502554
Date Collected: 04/07/2005
Date Received: 04/08/2005

Volatile Organic Compounds

Sample Name: TO63-IDW-01
Lab Code: K2502554-001

Units: ug/Kg
Basis: Dry

Extraction Method: EPA 5035
Analysis Method: 8260B

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
4-Methyl-2-pentanone (MIBK)	ND	U	28	8.0	1	04/13/05	04/13/05	KWG0506051	
Tetrachloroethene (PCE)	ND	U	6.9	0.45	1	04/13/05	04/13/05	KWG0506051	
Dibromochloromethane	ND	U	6.9	0.87	1	04/13/05	04/13/05	KWG0506051	
1,2-Dibromoethane (EDB)	ND	U	28	1.2	1	04/13/05	04/13/05	KWG0506051	
Chlorobenzene	ND	U	6.9	1.1	1	04/13/05	04/13/05	KWG0506051	
Ethylbenzene	ND	U	6.9	0.83	1	04/13/05	04/13/05	KWG0506051	
m,p-Xylenes	ND	U	6.9	2.2	1	04/13/05	04/13/05	KWG0506051	
o-Xylene	ND	U	6.9	1.0	1	04/13/05	04/13/05	KWG0506051	
Styrene	ND	U	6.9	1.1	1	04/13/05	04/13/05	KWG0506051	
Bromoform	ND	U	6.9	1.2	1	04/13/05	04/13/05	KWG0506051	
Isopropylbenzene	ND	U	28	0.99	1	04/13/05	04/13/05	KWG0506051	
1,1,2,2-Tetrachloroethane	ND	U	6.9	1.1	1	04/13/05	04/13/05	KWG0506051	
1,3-Dichlorobenzene	ND	U	6.9	1.1	1	04/13/05	04/13/05	KWG0506051	
1,4-Dichlorobenzene	ND	U	6.9	1.2	1	04/13/05	04/13/05	KWG0506051	
1,2-Dichlorobenzene	ND	U	6.9	0.95	1	04/13/05	04/13/05	KWG0506051	
1,2-Dibromo-3-chloropropane	ND	U	28	1.3	1	04/13/05	04/13/05	KWG0506051	
1,2,4-Trichlorobenzene	ND	U	28	1.2	1	04/13/05	04/13/05	KWG0506051	
Naphthalene	ND	U	28	1.3	1	04/13/05	04/13/05	KWG0506051	
Bromochloromethane	ND	U	6.9	1.5	1	04/13/05	04/13/05	KWG0506051	
1,2,3-Trichlorobenzene	ND	U	28	1.4	1	04/13/05	04/13/05	KWG0506051	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	105	70-119	04/13/05	Acceptable
Toluene-d8	108	72-121	04/13/05	Acceptable
4-Bromofluorobenzene	107	66-122	04/13/05	Acceptable

Comments:

Exception Report

Data File: J:\MS04\DATA\041305\0413F008.D
Lab ID: K2502554-001
RunType: SMPL
Matrix: SOIL

Date Acquired: 04/13/2005 11:43
Date Quantitated: 04/14/2005 12:28
Batch ID: KWG0506050
Analysis Method: 8260B
ListJoinID: LJ5610

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Tune Window	NA	NA	NA	x	
Analytical Holding Time	NA	NA	NA	x	
Preparation Holding Time	NA	NA	NA	x	
Pre-Preparation Holding Time	NA	NA	NA	x	
ICAL Pass/Fail	NA	NA	NA	x	
ICAL Average RSD	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA	x	
Initial Calibration SPCC/CCC	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Minimum RF	NA	NA	NA	x	
Continuing Calibration SPCC/CCC	NA	NA	NA	x	
Method Blank	NA	NA	NA	x	
MB Surrogate Recovery	NA	NA	NA	x	
Lab Control Spike	NA	NA	NA	x	
Duplicate Lab Control Spike	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Relative Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Primary Review: KR 4/15/05
Secondary Review: 4/15/05

Quantitation Report

Bottle ID:		**Tier:**	V	**Matrix:**	SOIL
Prod Code:	8260-EN	**Collect Date:**	04/07/2005	**Receive Date:**	04/08/2005

Analysis Lot:	KWG0506050	**Prep Lot:**	KWG0506051	**Report Group:**	K2502554
Analysis Method:	8260B	**Prep Method:**	EPA 5030A		
Prep Ref:	375099	**Prep Date:**	04/13/2005		

Quant Method:	J:\MS04\METHODS\041105SOILCL	**Calibration ID:**	CAL4367
Title:	Volatile Organic Compounds	**Report List ID:**	LJ5610
Tune Ref:	J:\MS04\DATA\041305\0413F002.D	**Method ID:**	MJ120
MB Ref:	J:\MS04\DATA\041305\0413F007.D	**Quant based on Report List**	

Data File:	J:\MS04\DATA\041305\0413F008.D			**Instrument:**	MS04
Acqu Date:	04/13/2005 11:43	**Quant Date:**	04/14/2005 12:28	**Vial:**	9
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K2502554-001			**Soln Conc. Units:**	ppb

Internal Standard Compounds

IS Ref	Parameter Name	RT	RT Dev	Quant Mass	Response	Solution Conc	Area Criteria
1	Fluorobenzene	11.34	-0.01	96	6882502	50.00	OK
2	Chlorobenzene-d5	15.94	0.00	117	4943419	50.00	OK
3	1,4-Dichlorobenzene-d4	19.12	-0.01	152	2208903	50.00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits	Rpt?
1	Dibromofluoromethane	10.23	0.00	0.00	113	1776982	52.67	105	70-119 OK	
1	Toluene-d8	13.79	-0.01	0.00	98	6550755	54.21	108	72-121 OK	
2	4-Bromofluorobenzene	17.53	0.00	0.00	95	2436676	53.73	107	66-122 OK	

Target Compounds

Final Conc. Units: ug/Kg Dry Weight

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Dichlorodifluoromethane				85	0d		1.1	U	
1	Chloromethane				50	0d		1.5	U	
1	Vinyl Chloride				62	0d		0.90	U	
1	Bromomethane	5.27	-0.01	0.00	94	13697	0.7600	1.2	U	
1	Chloroethane				64	0d		1.2	U	
1	Trichlorofluoromethane				101	0d		1.1	U	
1	Trichlorotrifluoroethane				151	0		1.1	U	
1	1,1-Dichloroethene				96	0d		1.1	U	
1	Acetone	6.72	-0.02	0.00	43	60358	5.63	15	U	
1	Carbon Disulfide				76	0d		2.2	U	
1	Methyl Acetate				43	0d		1.1	U	
1	Methylene Chloride	7.44	-0.02	0.00	84	90941	2.02	3.7	U	
1	Methyl tert-Butyl Ether				73	0d		0.95	U	
1	trans-1,2-Dichloroethene				96	0d		1.1	U	
1	Diisopropyl Ether				45	0d		0.50	U	

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File:	J:\MS04\DATA\041305\0413F008.D			**Instrument:**	MS04
Acqu Date:	04/13/2005 11:43	**Quant Date:**	04/14/2005 12:28	**Vial:**	9
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K2502554-001			**Soln Conc. Units:**	ppb

Target Compounds **Final Conc. Units:** ug/Kg Dry Weight

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
1	1,1-Dichloroethane				63	0		1.2	U	
1	2-Butanone (MEK)				72	0		18	U	
1	cis-1,2-Dichloroethene				96	0d		1.3	U	
1	Bromochloromethane				128	0		1.5	U	
1	Chloroform				83	0d		0.83	U	
1	1,1,1-Trichloroethane (TCA)				97	0		0.83	U	
1	Cyclohexane				56	0d		0.97	U	
1	Carbon Tetrachloride				117	0		0.87	U	
1	Benzene				78	0d		1.2	U	
1	1,2-Dichloroethane (EDC)				62	0d		0.97	U	
1	Trichloroethene (TCE)				95	0d		0.41	U	
1	1,2-Dichloropropane				63	0d		1.1	U	
1	Methylcyclohexane				83	0d		1.1	U	
1	Bromodichloromethane				83	0d		0.77	U	
1	cis-1,3-Dichloropropene				75	0d		1.1	U	
1	4-Methyl-2-pentanone (MIBK)	13.51	0.02	0.00	43	16808	0.3700	8.0	U	
1	Toluene				92	0d		1.3	U	
2	trans-1,3-Dichloropropene				75	0d		0.87	U	
2	1,1,2-Trichloroethane				83	0d		1.0	U	
2	Tetrachloroethene (PCE)				164	0		0.45	U	
2	2-Hexanone				43	0d		8.9	U	
2	Dibromochloromethane				129	0		0.87	U	
2	1,2-Dibromoethane (EDB)				107	0		1.2	U	
2	Chlorobenzene				112	0d		1.1	U	
2	Ethylbenzene				106	0d		0.83	U	
2	m,p-Xylenes				106	0d		2.2	U	
2	o-Xylene				106	0d		1.0	U	
2	Styrene	16.82	0.01	0.00	104	28412	0.3000	1.1	U	
2	Bromoform				173	0d		1.2	U	
2	Isopropylbenzene				105	0d		0.99	U	
3	1,1,2,2-Tetrachloroethane				83	0d		1.1	U	
3	1,3-Dichlorobenzene				146	0d		1.1	U	
3	1,4-Dichlorobenzene				146	0d		1.2	U	
3	1,2-Dichlorobenzene				146	0d		0.95	U	
3	1,2-Dibromo-3-chloropropane				157	0		1.3	U	
3	1,2,4-Trichlorobenzene				180	0d		1.2	U	
3	Naphthalene	22.45		0.00	128	13910	0.1600	1.3	U	
3	1,2,3-Trichlorobenzene				180	0d		1.4	U	

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File:	J:\MS04\DATA\041305\0413F008.D			**Instrument:**	MS04
Acqu Date:	04/13/2005 11:43	**Quant Date:**	04/14/2005 12:28	**Vial:**	9
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K2502554-001			**Soln Conc. Units:**	ppb

Prep Amount:	5.28 g	**Dilution:**	1.0
Prep Final Vol:	5.0 ml	**Unit Factor:**	1
Solids:	69.1 %		

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / (Prep Amount x Solids)) x Unit Factor

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

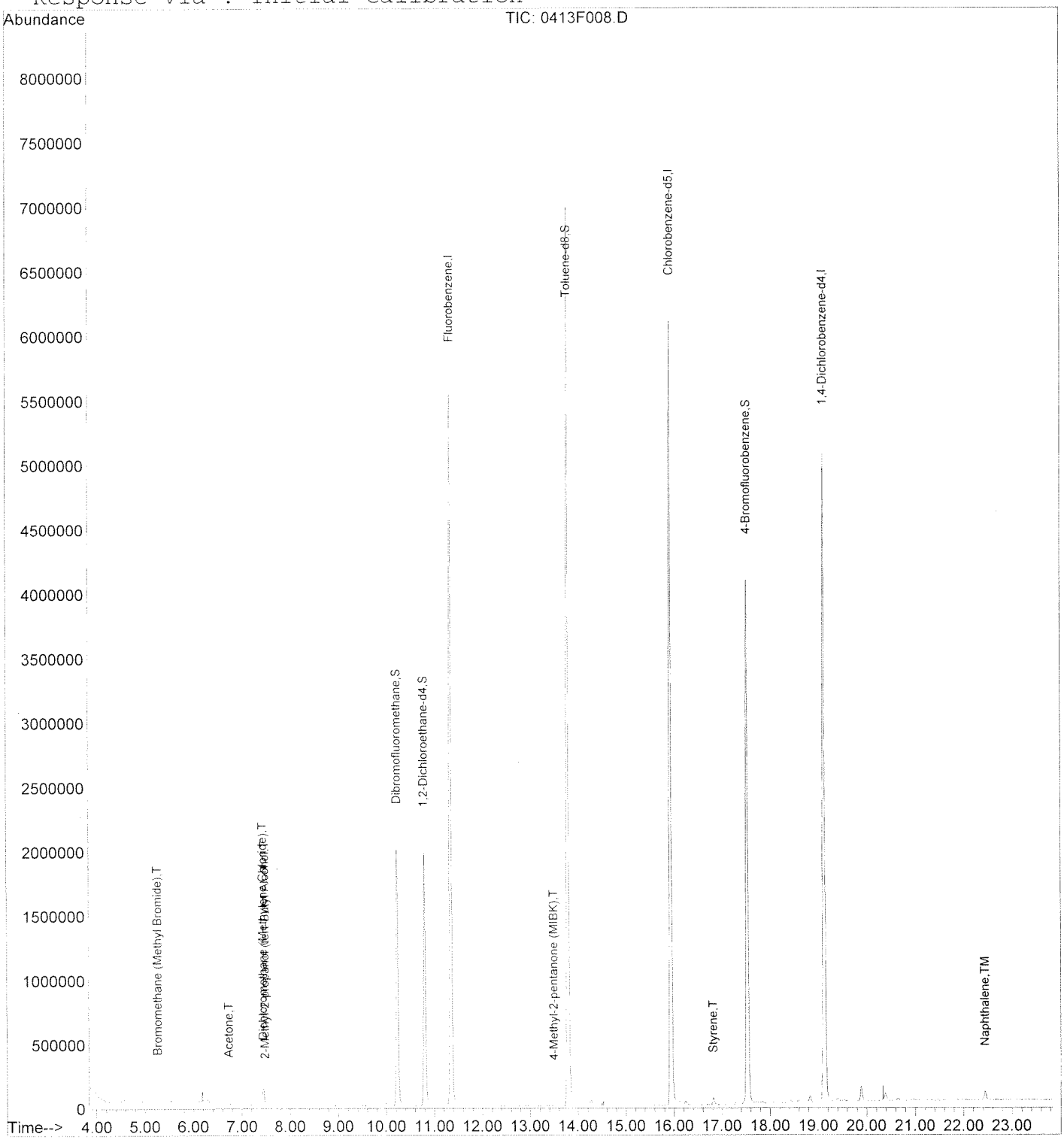
*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

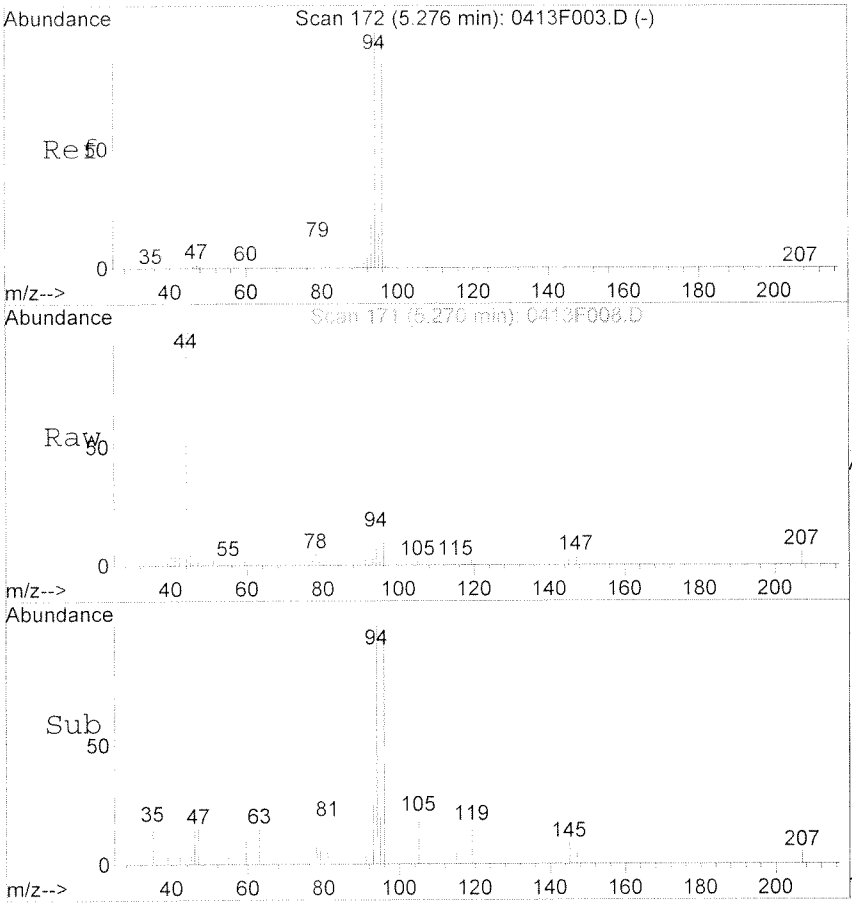
Quantitation Report (QT Reviewed)

Data File : J:\MS04\DATA\041305\0413F008.D
Acq On : 13 Apr 2005 11:43 am
Sample : K2502554-001
Misc :
MS Integration Params: RTEINT.P
Quant Time: Apr 14 12:28 2005

Vial: 9
Operator: KR
Inst : MS04
Multiplr: 1.00
Quant Results File: 041105SOILCL

Method : J:\MS04\METHODS\041105SOILCLP.M (RTE Integrator)
Title : MS04 APPX SOIL CAL 3288
Last Update : Mon Apr 11 19:41:27 2005
Response via : Initial Calibration

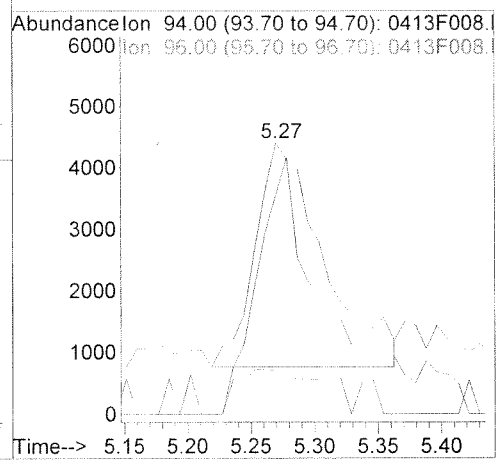


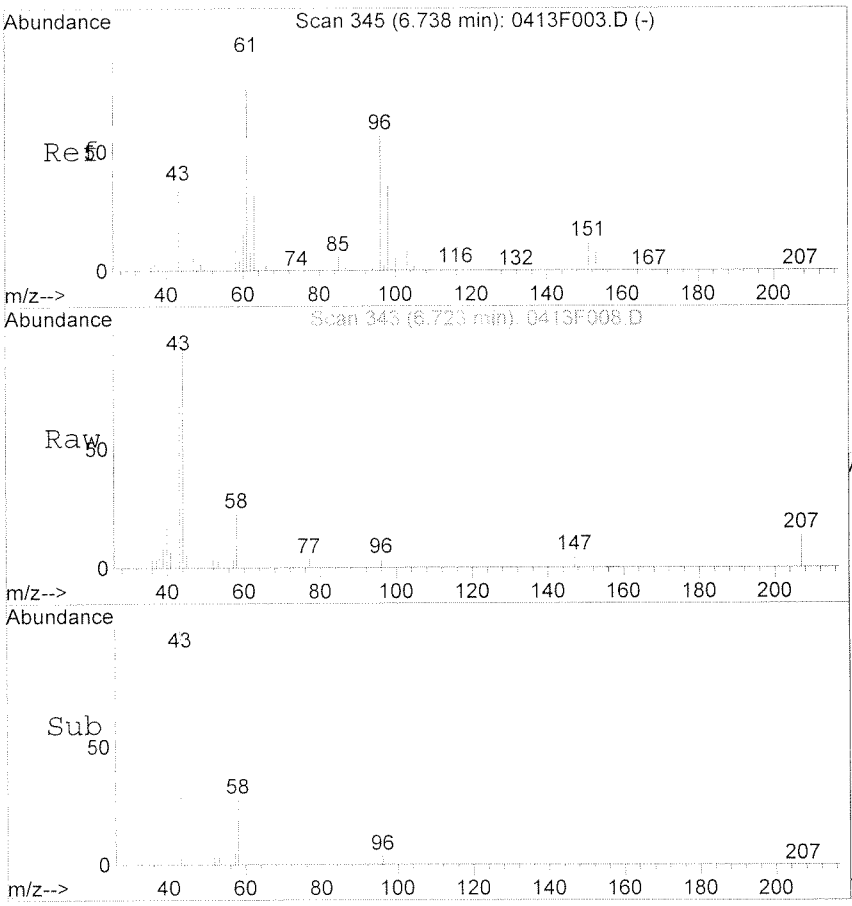


#5
Bromomethane (Methyl Bromide)
Concen: 0.76 ppb
RT: 5.27 min Scan# 171
Delta R.T. -0.01 min
Lab File: 0413F008.D
Acq: 13 Apr 2005 11:43 am

Tgt Ion: 94 Resp: 13697

Ion	Ratio	Lower	Upper
94	100		
96	97.8	63.5	123.5
81	19.4	0.0	41.0

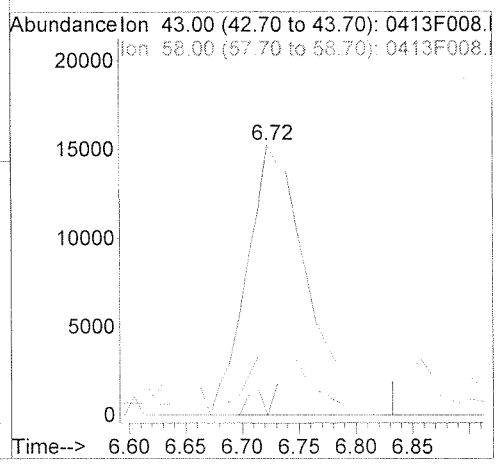


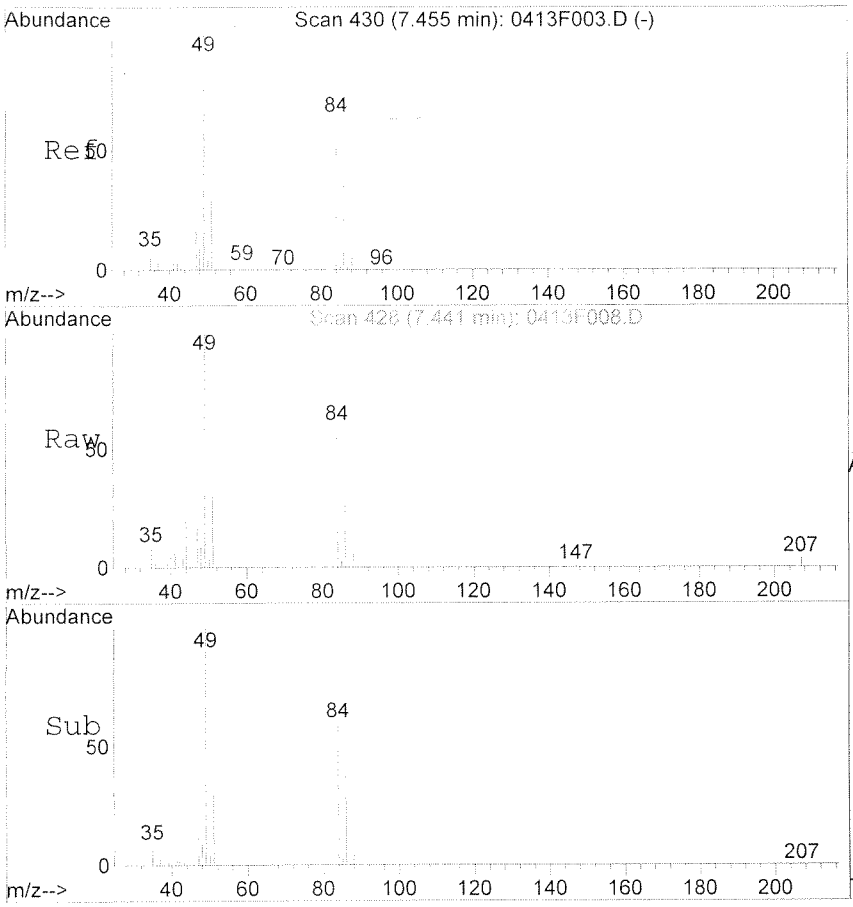


#11
Acetone
Concen: 5.63 ppb
RT: 6.72 min Scan# 343
Delta R.T. -0.01 min
Lab File: 0413F008.D
Acq: 13 Apr 2005 11:43 am

Tgt Ion: 43 Resp: 60358

Ion	Ratio	Lower	Upper
43	100		
58	23.5	0.0	59.3
42	0.0	0.0	38.1

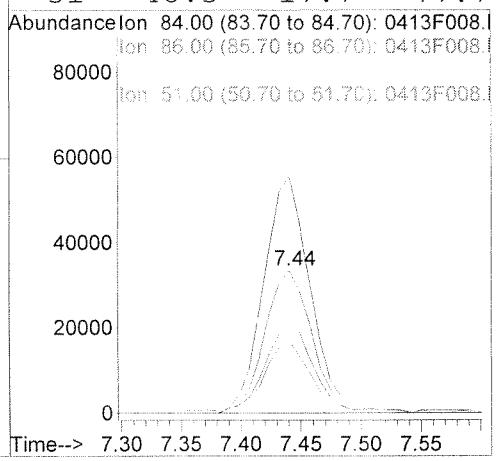


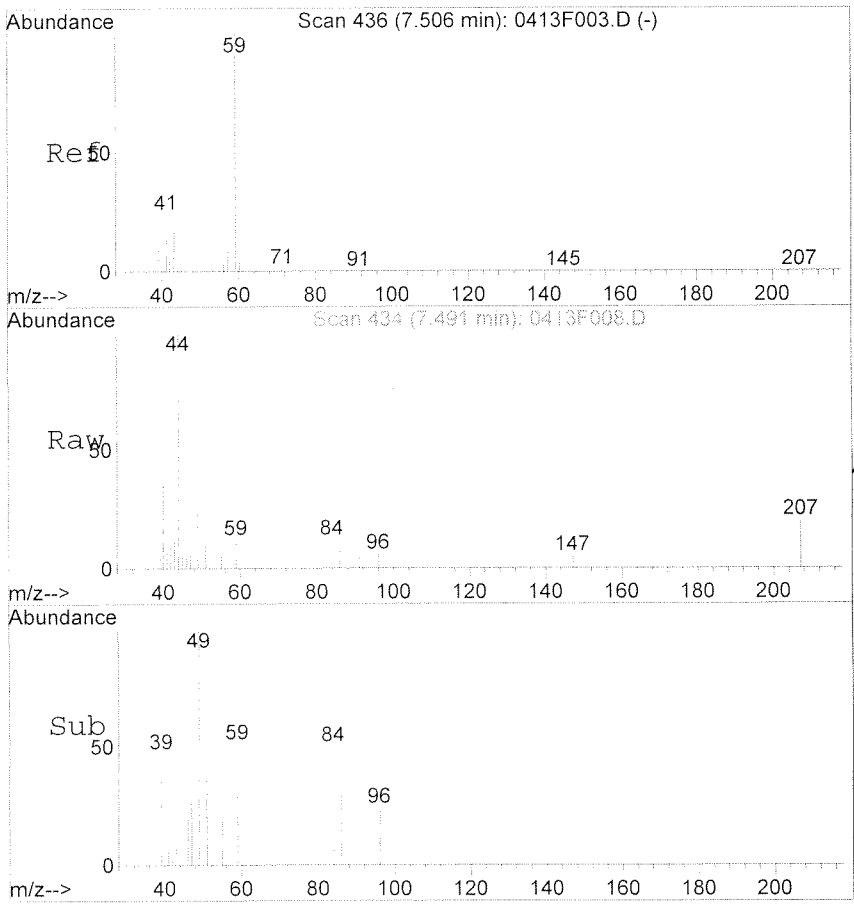


#15
Dichloromethane (Methylene Ch
Concen: 2.02 ppb
RT: 7.44 min Scan# 428
Delta R.T. -0.01 min
Lab File: 0413F008.D
Acq: 13 Apr 2005 11:43 am

Tgt Ion: 84 Resp: 90941

Ion	Ratio	Lower	Upper
84	100		
86	63.0	32.8	92.8
49	164.5	127.1	187.1
51	48.5	17.7	77.7

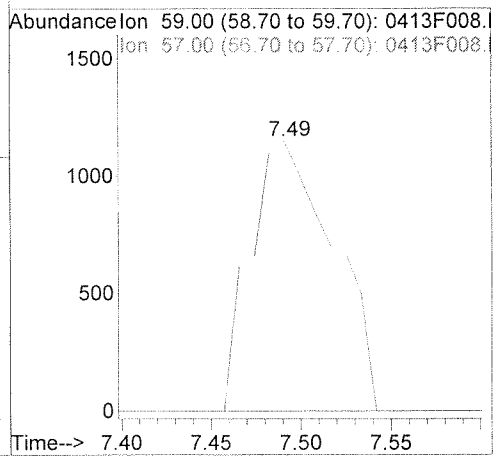


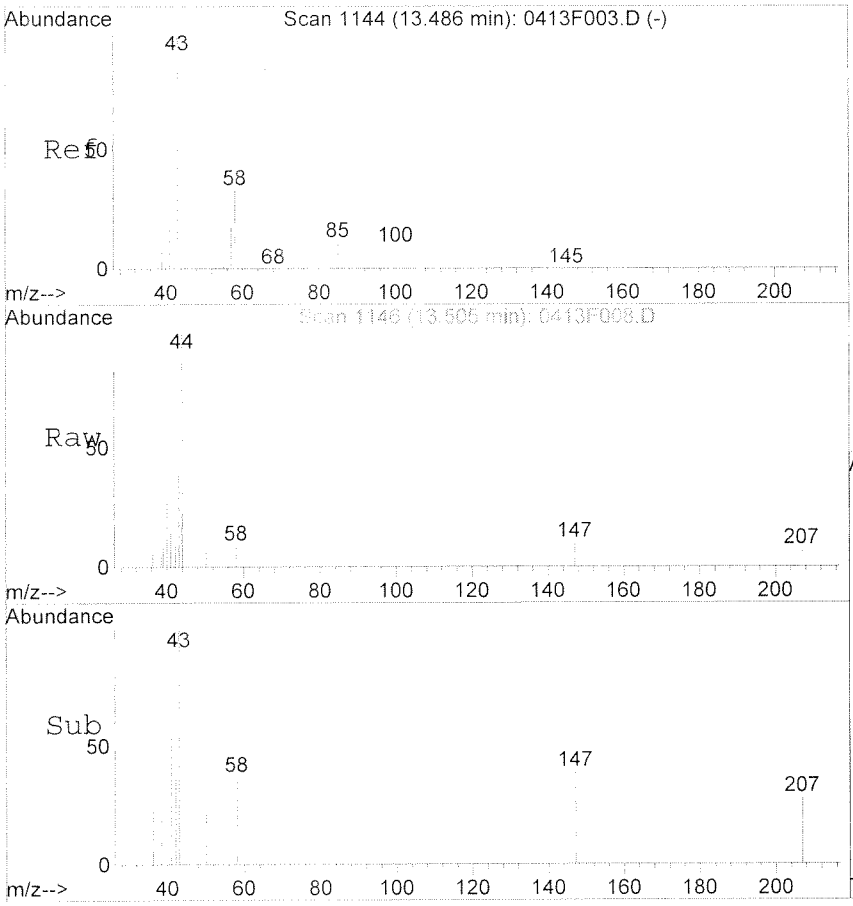


#16
2-Methyl-2-propanol (tert-But
Concen: 1.04 ppb
RT: 7.49 min Scan# 434
Delta R.T. -0.01 min
Lab File: 0413F008.D
Acq: 13 Apr 2005 11:43 am

Tgt Ion: 59 Resp: 3670

Ion	Ratio	Lower	Upper
59	100		
57	0.0	0.0	38.8
60	0.0	0.0	33.8

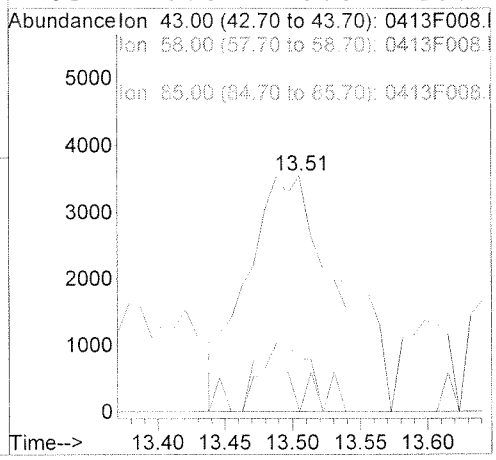


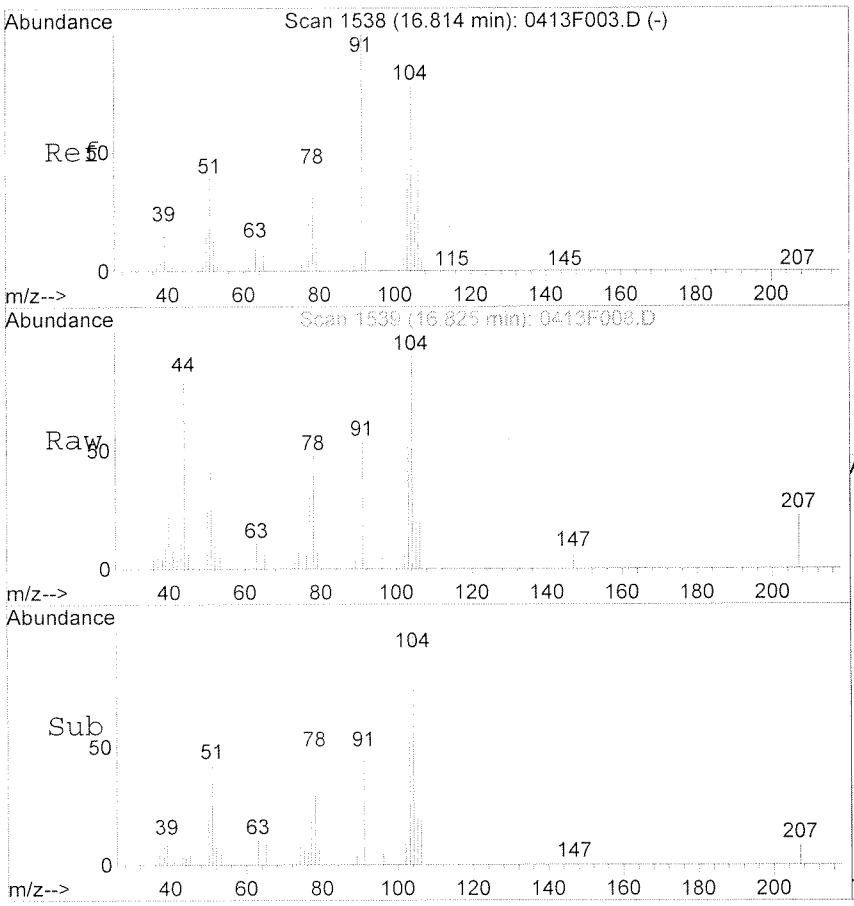


#44
4-Methyl-2-pentanone (MIBK)
Concen: 0.37 ppb
RT: 13.51 min Scan# 1146
Delta R.T. 0.02 min
Lab File: 0413F008.D
Acq: 13 Apr 2005 11:43 am

Tgt Ion: 43 Resp: 16808

Ion	Ratio	Lower	Upper
43	100		
58	22.3	3.4	63.4
57	0.0	0.0	48.0
85	0.0	0.0	40.7

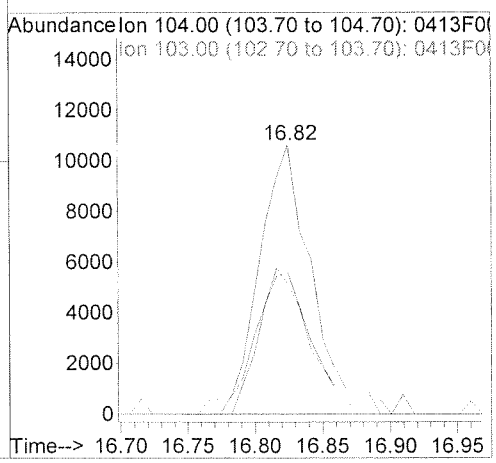


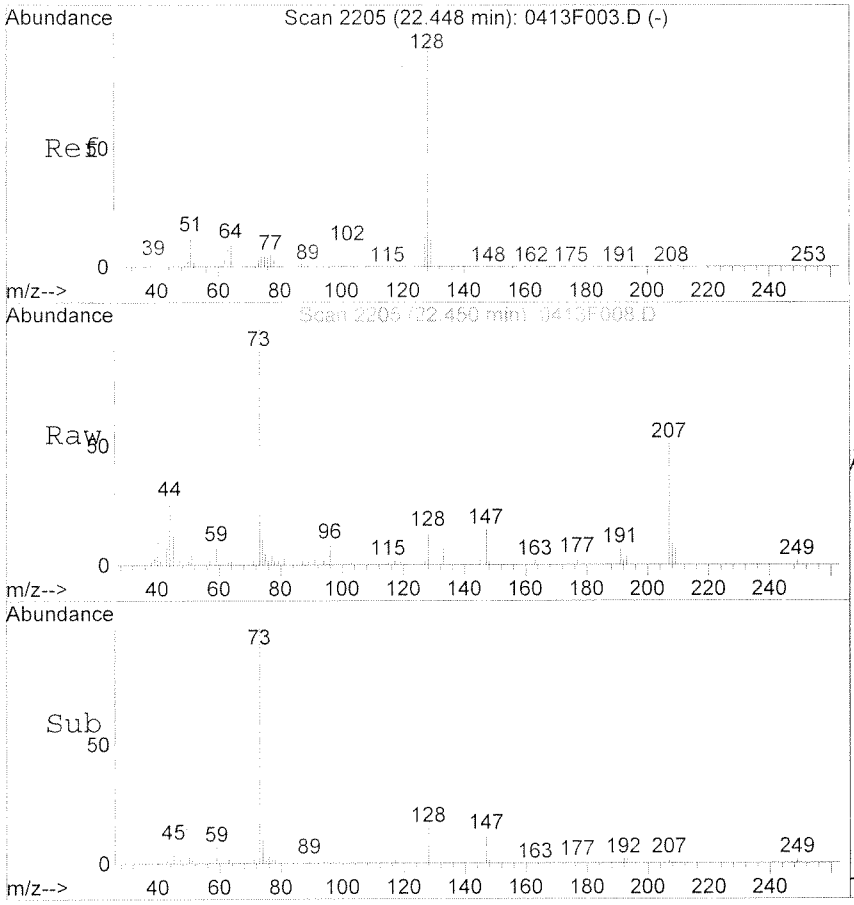


#61
Styrene
Concen: 0.30 ppb
RT: 16.82 min Scan# 1539
Delta R.T. 0.01 min
Lab File: 0413F008.D
Acq: 13 Apr 2005 11:43 am

Tgt Ion:104 Resp: 28412

Ion	Ratio	Lower	Upper
104	100		
103	52.4	23.1	83.1
78	48.0	24.8	84.8

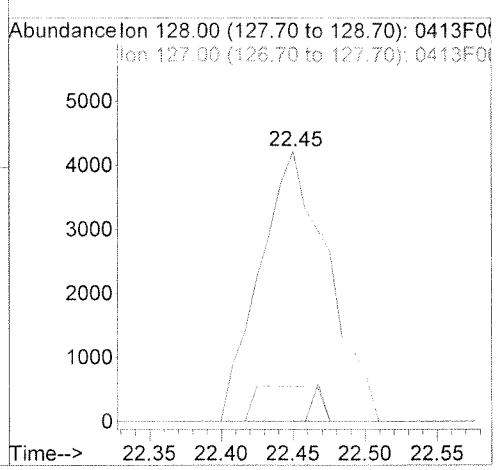




#85
Naphthalene
Concen: 0.16 ppb
RT: 22.45 min Scan# 2205
Delta R.T. 0.00 min
Lab File: 0413F008.D
Acq: 13 Apr 2005 11:43 am

Tgt Ion:128 Resp: 13910

Ion	Ratio	Lower	Upper
128	100		
127	12.6	0.0	43.4
102	0.0	0.0	38.8



COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Battelle Memorial Institute
Project: Novato Ballfields/G486063
Sample Matrix: Soil

Service Request: K2502554
Date Collected: NA
Date Received: NA

Volatile Organic Compounds

Sample Name: Method Blank
Lab Code: KWG0506051-3

Units: ug/Kg
Basis: Dry

Extraction Method: EPA 5035
Analysis Method: 8260B

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dichlorodifluoromethane	ND	U	5.0	0.70	1	04/13/05	04/13/05	KWG0506051	
Chloromethane	ND	U	5.0	0.99	1	04/13/05	04/13/05	KWG0506051	
Vinyl Chloride	ND	U	5.0	0.62	1	04/13/05	04/13/05	KWG0506051	
Bromomethane	**1.2**	J	5.0	0.80	1	04/13/05	04/13/05	KWG0506051	
Chloroethane	ND	U	5.0	0.78	1	04/13/05	04/13/05	KWG0506051	
Trichlorofluoromethane	ND	U	5.0	0.73	1	04/13/05	04/13/05	KWG0506051	
Trichlorotrifluoroethane	ND	U	5.0	0.74	1	04/13/05	04/13/05	KWG0506051	
Acetone	**10**	J	20	10	1	04/13/05	04/13/05	KWG0506051	
1,1-Dichloroethene	ND	U	5.0	0.71	1	04/13/05	04/13/05	KWG0506051	
Methyl Acetate	ND	U	5.0	0.74	1	04/13/05	04/13/05	KWG0506051	
Carbon Disulfide	ND	U	5.0	1.5	1	04/13/05	04/13/05	KWG0506051	
Diisopropyl Ether	ND	U	10	0.34	1	04/13/05	04/13/05	KWG0506051	
Methylene Chloride	**3.8**	J	10	2.5	1	04/13/05	04/13/05	KWG0506051	
Methyl tert-Butyl Ether	ND	U	5.0	0.65	1	04/13/05	04/13/05	KWG0506051	
trans-1,2-Dichloroethene	ND	U	5.0	0.73	1	04/13/05	04/13/05	KWG0506051	
1,1-Dichloroethane	ND	U	5.0	0.78	1	04/13/05	04/13/05	KWG0506051	
2-Butanone (MEK)	ND	U	20	12	1	04/13/05	04/13/05	KWG0506051	
cis-1,2-Dichloroethene	ND	U	5.0	0.83	1	04/13/05	04/13/05	KWG0506051	
Chloroform	ND	U	5.0	0.57	1	04/13/05	04/13/05	KWG0506051	
1,1,1-Trichloroethane (TCA)	ND	U	5.0	0.57	1	04/13/05	04/13/05	KWG0506051	
Cyclohexane	ND	U	5.0	0.67	1	04/13/05	04/13/05	KWG0506051	
Carbon Tetrachloride	ND	U	5.0	0.60	1	04/13/05	04/13/05	KWG0506051	
1,2-Dichloroethane (EDC)	ND	U	5.0	0.67	1	04/13/05	04/13/05	KWG0506051	
Benzene	ND	U	5.0	0.79	1	04/13/05	04/13/05	KWG0506051	
Trichloroethene (TCE)	ND	U	5.0	0.28	1	04/13/05	04/13/05	KWG0506051	
1,2-Dichloropropane	ND	U	5.0	0.72	1	04/13/05	04/13/05	KWG0506051	
Bromodichloromethane	ND	U	5.0	0.53	1	04/13/05	04/13/05	KWG0506051	
Methylcyclohexane	ND	U	5.0	0.71	1	04/13/05	04/13/05	KWG0506051	
2-Hexanone	ND	U	20	6.1	1	04/13/05	04/13/05	KWG0506051	
cis-1,3-Dichloropropene	ND	U	5.0	0.76	1	04/13/05	04/13/05	KWG0506051	
Toluene	ND	U	5.0	0.84	1	04/13/05	04/13/05	KWG0506051	
trans-1,3-Dichloropropene	ND	U	5.0	0.60	1	04/13/05	04/13/05	KWG0506051	
1,1,2-Trichloroethane	ND	U	5.0	0.69	1	04/13/05	04/13/05	KWG0506051	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	Battelle Memorial Institute	**Service Request:**	K2502554
Project:	Novato Ballfields/G486063	**Date Collected:**	NA
Sample Matrix:	Soil	**Date Received:**	NA

Volatile Organic Compounds

Sample Name:	Method Blank	**Units:**	ug/Kg
Lab Code:	KWG0506051-3	**Basis:**	Dry
Extraction Method:	EPA 5035	**Level:**	Low
Analysis Method:	8260B		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
4-Methyl-2-pentanone (MIBK)	ND	U	20	5.5	1	04/13/05	04/13/05	KWG0506051	
Tetrachloroethene (PCE)	ND	U	5.0	0.31	1	04/13/05	04/13/05	KWG0506051	
Dibromochloromethane	ND	U	5.0	0.60	1	04/13/05	04/13/05	KWG0506051	
1,2-Dibromoethane (EDB)	ND	U	20	0.79	1	04/13/05	04/13/05	KWG0506051	
Chlorobenzene	ND	U	5.0	0.70	1	04/13/05	04/13/05	KWG0506051	
Ethylbenzene	ND	U	5.0	0.57	1	04/13/05	04/13/05	KWG0506051	
m,p-Xylenes	ND	U	5.0	1.5	1	04/13/05	04/13/05	KWG0506051	
o-Xylene	ND	U	5.0	0.69	1	04/13/05	04/13/05	KWG0506051	
Styrene	ND	U	5.0	0.73	1	04/13/05	04/13/05	KWG0506051	
Bromoform	ND	U	5.0	0.77	1	04/13/05	04/13/05	KWG0506051	
Isopropylbenzene	ND	U	20	0.68	1	04/13/05	04/13/05	KWG0506051	
1,1,2,2-Tetrachloroethane	ND	U	5.0	0.74	1	04/13/05	04/13/05	KWG0506051	
1,3-Dichlorobenzene	ND	U	5.0	0.71	1	04/13/05	04/13/05	KWG0506051	
1,4-Dichlorobenzene	ND	U	5.0	0.82	1	04/13/05	04/13/05	KWG0506051	
1,2-Dichlorobenzene	ND	U	5.0	0.65	1	04/13/05	04/13/05	KWG0506051	
1,2-Dibromo-3-chloropropane	ND	U	20	0.85	1	04/13/05	04/13/05	KWG0506051	
1,2,4-Trichlorobenzene	ND	U	20	0.77	1	04/13/05	04/13/05	KWG0506051	
Naphthalene	ND	U	20	0.89	1	04/13/05	04/13/05	KWG0506051	
Bromochloromethane	ND	U	5.0	0.98	1	04/13/05	04/13/05	KWG0506051	
1,2,3-Trichlorobenzene	ND	U	20	0.90	1	04/13/05	04/13/05	KWG0506051	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	110	70-119	04/13/05	Acceptable
Toluene-d8	98	72-121	04/13/05	Acceptable
4-Bromofluorobenzene	94	66-122	04/13/05	Acceptable

Comments:

Exception Report

Data File: J:\MS04\DATA\041305\0413F007.D
Lab ID: KWG0506051-3
RunType: MB
Matrix: SOIL

Date Acquired: 04/13/2005 11:14
Date Quantitated: 04/14/2005 12:23
Batch ID: KWG0506050
Analysis Method: 8260B
MethodJoinID: MJ120

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Tune Window	NA	NA	NA	x	
Analytical Holding Time	NA	NA	NA	x	
ICAL Pass/Fail	NA	NA	NA	x	
ICAL Average RSD	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA	x	
Initial Calibration SPCC/CCC	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA		x
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Minimum RF	NA	NA	NA	x	
Continuing Calibration SPCC/CCC	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Relative Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Second Source ICAL Verification	trans-1,4-Dichloro-2-butene	-90.4	NA	30	
	1-Chlorohexane	101.4	NA	30	

Primary Review: _____

Secondary Review: _____

Quantitation Report

Bottle ID:		**Tier:**		**Matrix:**	SOIL
Prod Code:	8260	**Collect Date:**		**Receive Date:**	04/14/2005

Analysis Lot:	KWG0506050	**Prep Lot:**	KWG0506051	**Report Group:**
Analysis Method:	8260B	**Prep Method:**	EPA 5030A	
Prep Ref:	375094	**Prep Date:**	04/13/2005	

Quant Method:	J:\MS04\METHODS\041105SOILCL	**Calibration ID:**	CAL4367
Title:			
Tune Ref:	J:\MS04\DATA\041305\0413F002.D	**Method ID:**	MJ120
MB Ref:		**Quant based on Method**	

Data File:	J:\MS04\DATA\041305\0413F007.D			**Instrument:**	MS04
Acqu Date:	04/13/2005 11:14	**Quant Date:**	04/14/2005 12:23	**Vial:**	8
Run Type:	MB			**Dilution:**	1.0
Lab ID:	KWG0506051-3			**Soln Conc. Units:**	ppb

Internal Standard Compounds

IS Ref	Parameter Name	RT	RT Dev	Quant Mass	Response	Solution Conc	Area Criteria
1	Fluorobenzene	11.34	-0.01	96	5973123	50.00	OK
2	Chlorobenzene-d5	15.94	0.00	117	3335202	50.00	OK
3	1,4-Dichlorobenzene-d4	19.13	0.00	152	1172385	50.00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits	Rpt?
1	Dibromofluoromethane	10.23	0.00	0.00	113	1616738	55.22	110	70-119	OK
1	1,2-Dichloroethane-d4	10.80	0.00	0.00	65	1529209	53.80	108	61-123	OK
1	Toluene-d8	13.79	-0.01	0.00	98	5145684	49.07	98	72-121	OK
2	4-Bromofluorobenzene	17.53	0.00	0.00	95	1431838	46.80	94	66-122	OK

Target Compounds

Final Conc. Units: ug/Kg Wet Weight

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Dichlorodifluoromethane				85	0d		0.70	U	
1	Chloromethane	4.42	-0.02	0.00	50	10796	0.2300	0.99	U	
1	Vinyl Chloride				62	0d		0.62	U	
1	Bromomethane	5.28		0.00	94	19093	1.22	1.22	J	
1	Chloroethane				64	0d		0.78	U	
1	Trichlorofluoromethane				101	0		0.73	U	
1	Trichlorotrifluoroethane				151	0		0.74	U	
1	1,1-Dichloroethene				96	0d		0.71	U	
1	Acetone	6.72	-0.02	0.00	43	95649	10.28	10.3	J	
1	Carbon Disulfide				76	0d		1.5	U	
1	Methyl Acetate				43	0d		0.74	U	
1	Methylene Chloride	7.44	-0.02	0.00	84	149636	3.83	3.83	J	
1	tert-Butyl Alcohol	7.49	-0.02	0.00	59	5211	1.70	6.8	U	
1	Methyl tert-Butyl Ether				73	0d		0.65	U	

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File:	J:\MS04\DATA\041305\0413F007.D			**Instrument:**	MS04
Acqu Date:	04/13/2005 11:14	**Quant Date:**	04/14/2005 12:23	**Vial:**	8
Run Type:	MB			**Dilution:**	1.0
Lab ID:	KWG0506051-3			**Soln Conc. Units:**	ppb

Target Compounds **Final Conc. Units:** ug/Kg Wet Weight

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
1	trans-1,2-Dichloroethene				96	0d		0.73	U	
1	Diisopropyl Ether				45	0d		0.34	U	
1	Vinyl Acetate				86	0d		3.6	U	
1	1,1-Dichloroethane				63	0d		0.78	U	
1	tert-Butyl Ethyl Ether				59	0d		0.31	U	
1	2,2-Dichloropropane				77	0d		0.36	U	
1	2-Butanone (MEK)				72	0d		12	U	
1	cis-1,2-Dichloroethene				96	0d		0.83	U	
1	Bromochloromethane				128	0		0.98	U	
1	Chloroform				83	0d		0.57	U	
1	1,1,1-Trichloroethane (TCA)				97	0		0.57	U	
1	Cyclohexane				56	0d		0.67	U	
1	Carbon Tetrachloride				117	0		0.60	U	
1	1,1-Dichloropropene				75	0d		0.73	U	
1	tert-Amyl Methyl Ether				87	0		0.41	U	
1	Benzene				78	0d		0.79	U	
1	1,2-Dichloroethane (EDC)				62	0d		0.67	U	
1	Trichloroethene (TCE)				95	0d		0.28	U	
1	1,2-Dichloropropane				63	0d		0.72	U	
1	Methylcyclohexane				83	0d		0.71	U	
1	Dibromomethane				93	0		0.75	U	
1	Bromodichloromethane				83	0d		0.53	U	
1	2-Chloroethyl Vinyl Ether				63	0d		1.2	U	
1	cis-1,3-Dichloropropene				75	0d		0.76	U	
1	4-Methyl-2-pentanone (MIBK)	13.50	0.01	0.00	43	11753	0.3000	5.5	U	
1	Toluene	13.90		0.00	92	14966	0.2100	0.84	U	
2	trans-1,3-Dichloropropene				75	0d		0.60	U	
2	1,1,2-Trichloroethane				83	0d		0.69	U	
2	Tetrachloroethene (PCE)				164	0d		0.31	U	
2	2-Hexanone	14.75	0.02	0.00	43	7615	0.3200	6.1	U	
2	1,3-Dichloropropane				76	0d		0.52	U	
2	Dibromochloromethane				129	0d		0.60	U	
2	1,2-Dibromoethane (EDB)				107	0d		0.79	U	
2	1-Chlorohexane				91	0d		0.69	U	
2	Chlorobenzene				112	0d		0.70	U	
2	Ethylbenzene				106	0d		0.57	U	
2	1,1,1,2-Tetrachloroethane				131	0d		0.51	U	
2	m,p-Xylenes	16.24		0.00	106	11075	0.2900	1.5	U	
2	o-Xylene				106	0d		0.69	U	
2	Styrene	16.82	0.01	0.00	104	28827	0.4500	0.73	U	
2	Bromoform				173	0d		0.77	U	
2	Isopropylbenzene				105	0d		0.68	U	
3	1,1,2,2-Tetrachloroethane				83	0d		0.74	U	

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
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N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
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*: Result fails acceptance criteria
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?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File:	J:\MS04\DATA\041305\0413F007.D			**Instrument:**	MS04
Acqu Date:	04/13/2005 11:14	**Quant Date:**	04/14/2005 12:23	**Vial:**	8
Run Type:	MB			**Dilution:**	1.0
Lab ID:	KWG0506051-3			**Soln Conc. Units:**	ppb

Target Compounds **Final Conc. Units:** ug/Kg Wet Weight

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
3	Bromobenzene				156	0d		0.81	U	
3	n-Propylbenzene	17.85	0.01	0.00	91	25047	0.2500	0.72	U	
3	trans-1,4-Dichloro-2-butene				53	0d		1.5	U	
3	1,2,3-Trichloropropane				110	0d		1.1	U	
3	2-Chlorotoluene				91	0d		0.73	U	
3	1,3,5-Trimethylbenzene				105	0d		0.82	U	
3	4-Chlorotoluene				91	0d		0.74	U	
3	tert-Butylbenzene	18.54	0.01	0.00	119	9278	0.1500	0.74	U	
3	1,2,4-Trimethylbenzene	18.59	0.01	0.00	105	15191	0.2400	0.97	U	
3	sec-Butylbenzene	18.83	0.01	0.00	105	13621	0.1700	0.74	U	
3	4-Isopropyltoluene	18.98		0.00	119	9719	0.1500	0.72	U	
3	1,3-Dichlorobenzene	19.05		0.00	146	4408	0.1400	0.71	U	
3	1,4-Dichlorobenzene	19.16		0.00	146	6509	0.2000	0.82	U	
3	n-Butylbenzene	19.54	0.01	0.00	91	9938	0.1400	0.75	U	
3	1,2-Dichlorobenzene	19.69		0.00	146	4727	0.1600	0.65	U	
3	1,2-Dibromo-3-chloropropane				157	0		0.85	U	
3	1,2,4-Trichlorobenzene	22.01	0.01	0.00	180	4063	0.2100	0.77	U	
3	Hexachlorobutadiene				225	0		0.75	U	
3	Naphthalene	22.45		0.00	128	23331	0.5100	0.89	U	
3	1,2,3-Trichlorobenzene	22.85		0.00	180	4849	0.2700	0.90	U	
	n-Octane				0	0		10	U	NR

Prep Amount:	5.00 g	**Dilution:**	1.0
Prep Final Vol:	5.0 ml	**Unit Factor:**	1
Solids:	%		

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / (Prep Amount x Solids)) x Unit Factor

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
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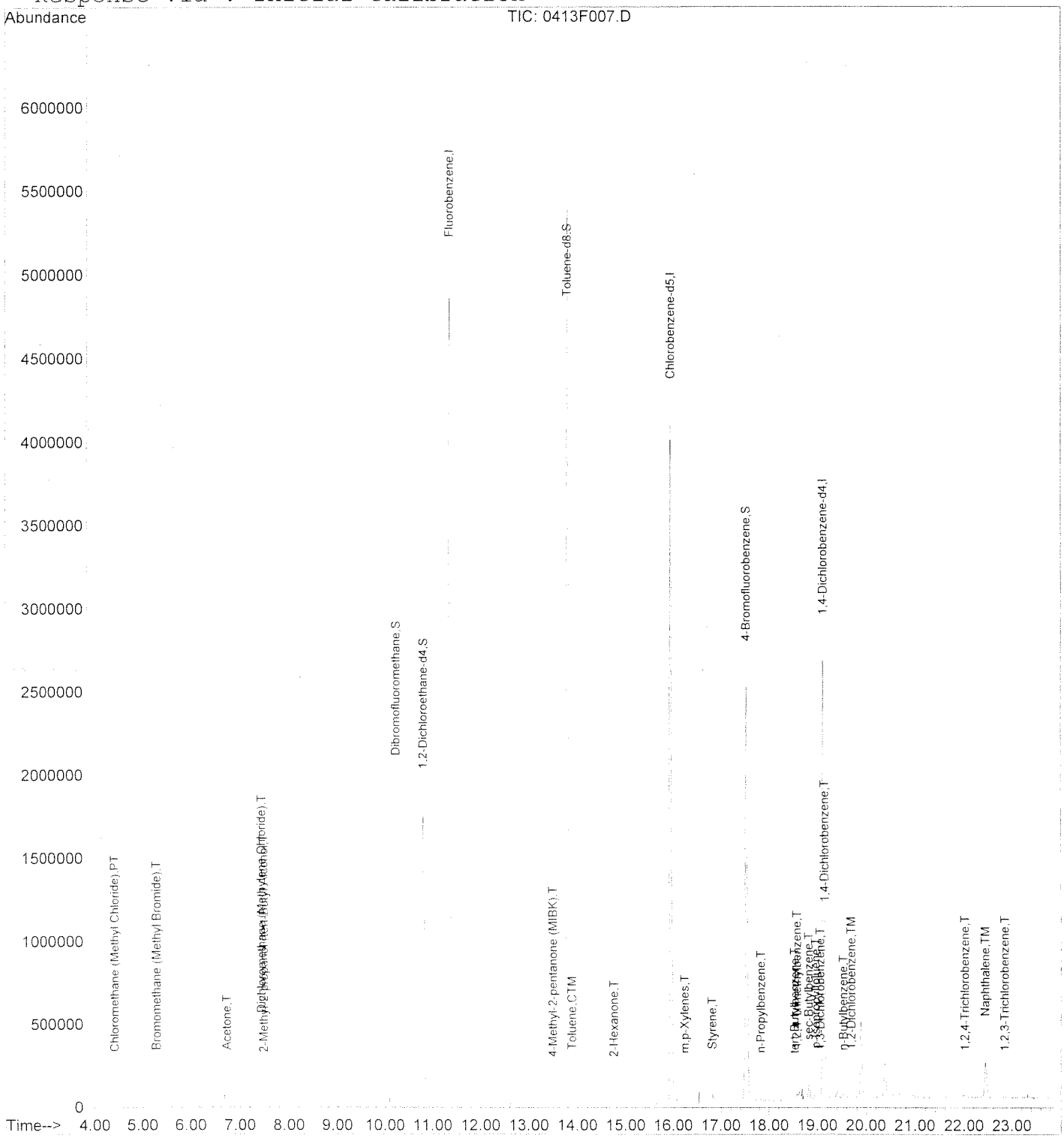
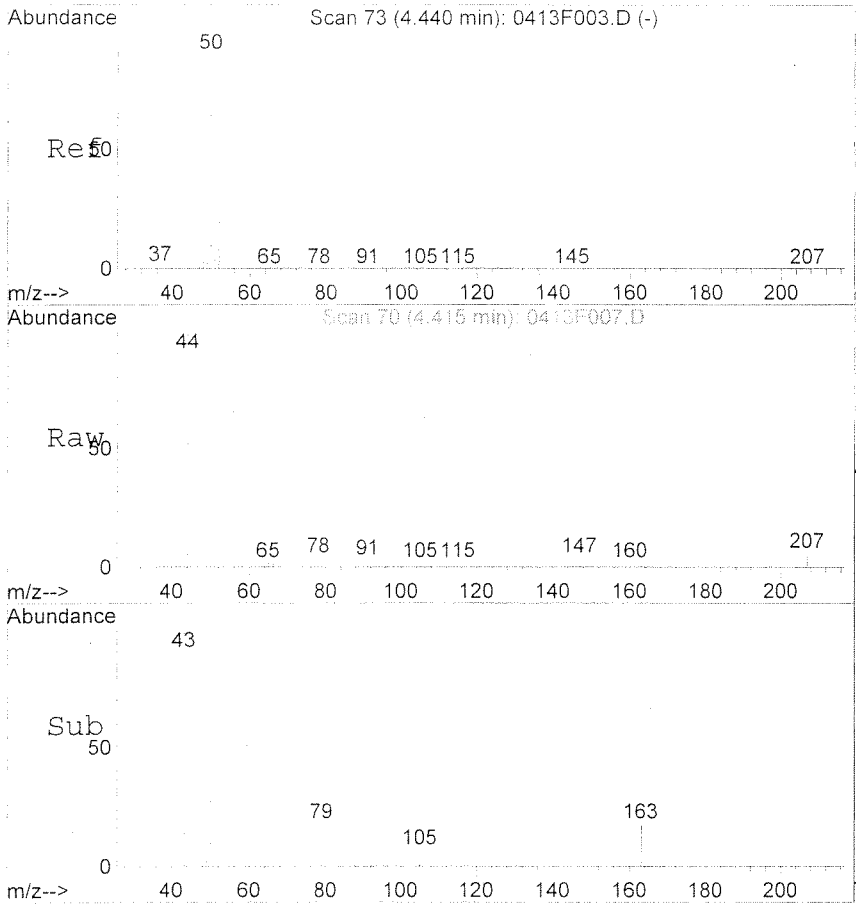
*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report (QT Reviewed)

Data File : J:\MS04\DATA\041305\0413F007.D Vial: 8
Acq On : 13 Apr 2005 11:14 am Operator: KR
Sample : 8260/CLP MB Inst : MS04
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 14 12:23 2005 Quant Results File: 041105SOILCL

Method : J:\MS04\METHODS\041105SOILCLP.M (RTE Integrator)
Title : MS04 APPX SOIL CAL 3288
Last Update : Mon Apr 11 19:41:27 2005
Response via : Initial Calibration

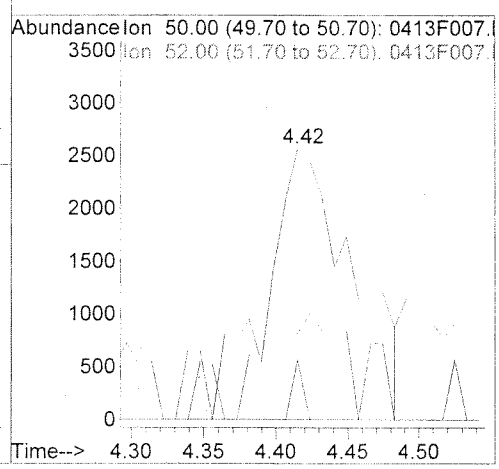


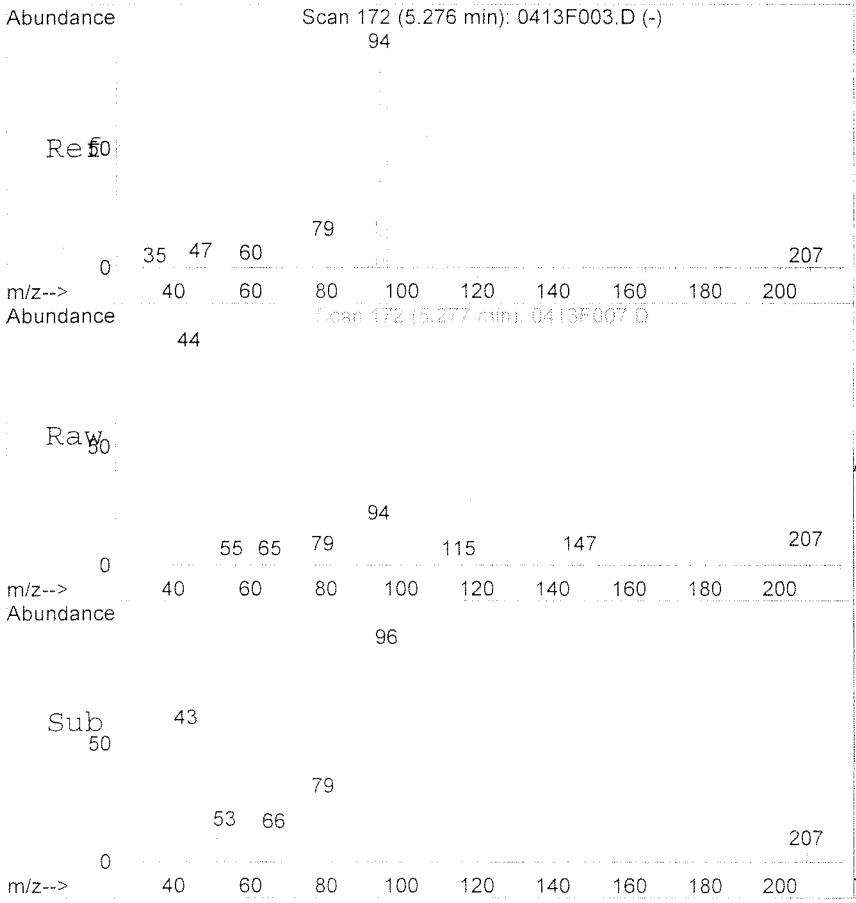


#3
Chloromethane (Methyl Chlorid
Concen: 0.23 ppb
RT: 4.42 min Scan# 70
Delta R.T. -0.02 min
Lab File: 0413F007.D
Acq: 13 Apr 2005 11:14 am

Tgt Ion: 50 Resp: 10796

Ion	Ratio	Lower	Upper
50	100		
52	31.5	2.1	62.1
49	22.1	0.0	40.1

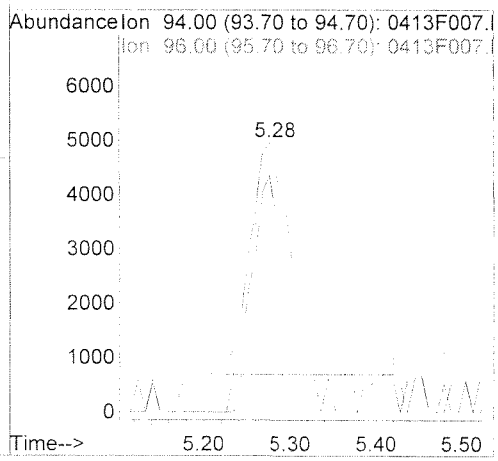


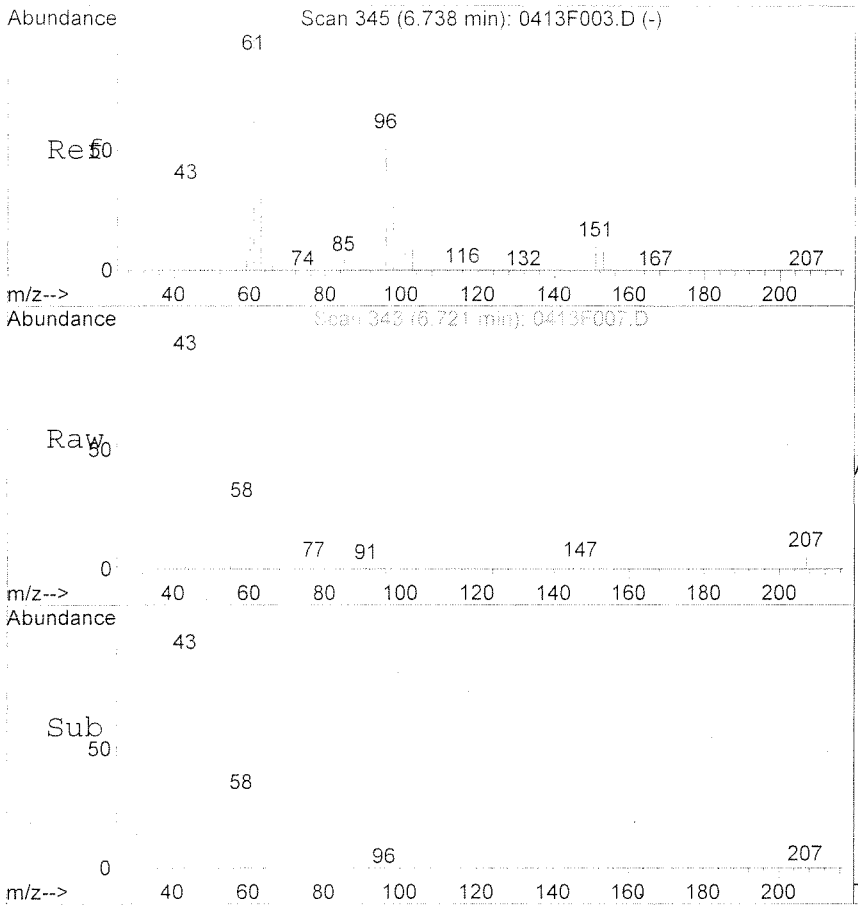


#5
Bromomethane (Methyl Bromide)
Concen: 1.22 ppb
RT: 5.28 min Scan# 172
Delta R.T. 0.00 min
Lab File: 0413F007.D
Acq: 13 Apr 2005 11:14 am

Tgt Ion: 94 Resp: 19093

Ion	Ratio	Lower	Upper
94	100		
96	101.8	63.5	123.5
81	25.4	0.0	41.0

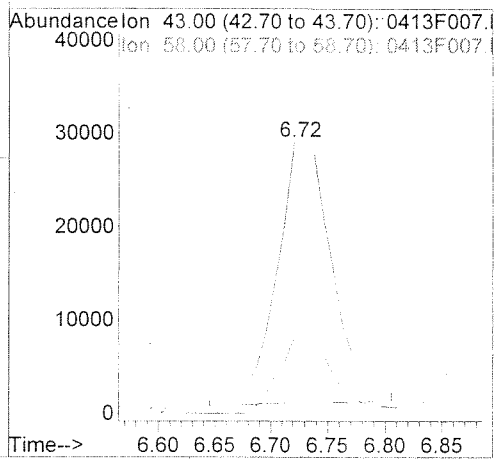


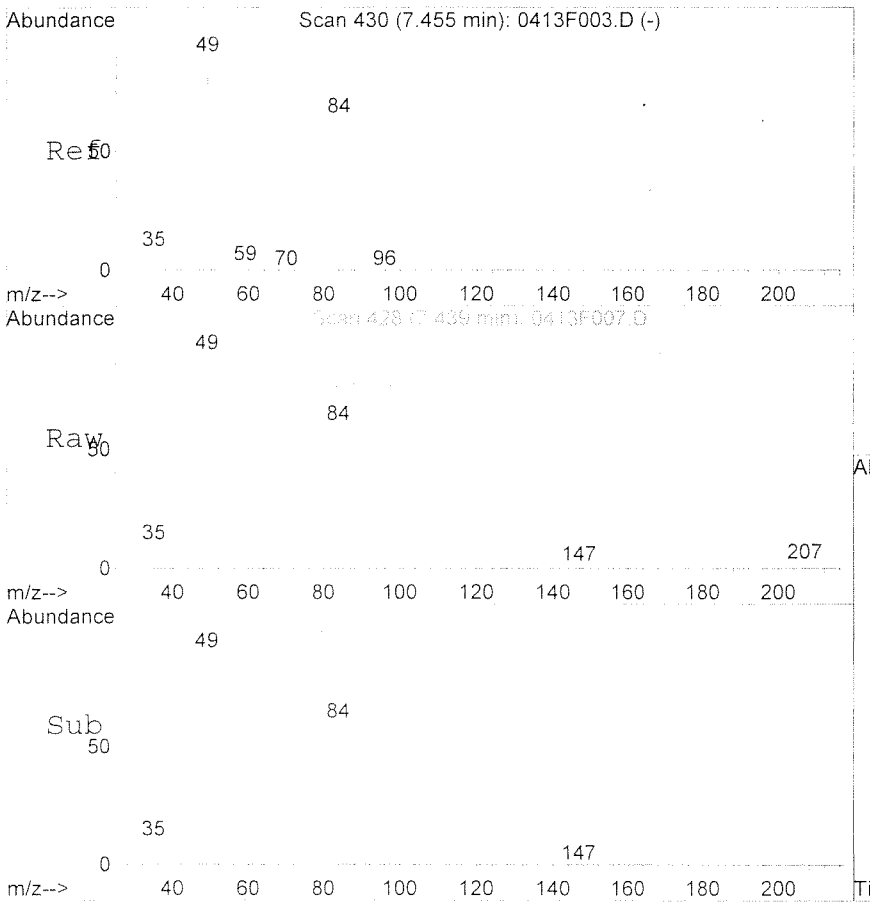


#11
Acetone
Concen: 10.28 ppb
RT: 6.72 min Scan# 343
Delta R.T. -0.02 min
Lab File: 0413F007.D
Acq: 13 Apr 2005 11:14 am

Tgt Ion: 43 Resp: 95649

Ion	Ratio	Lower	Upper
43	100		
58	29.4	0.0	59.3
42	8.2	0.0	38.1

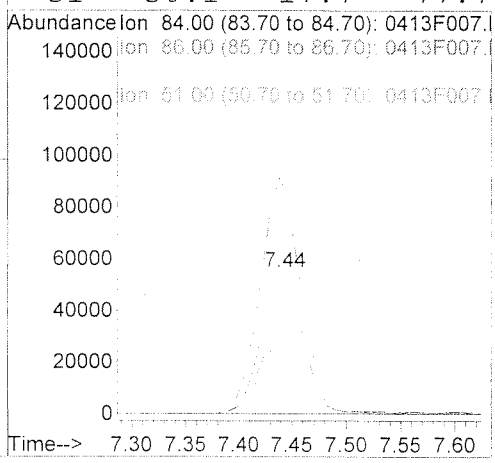


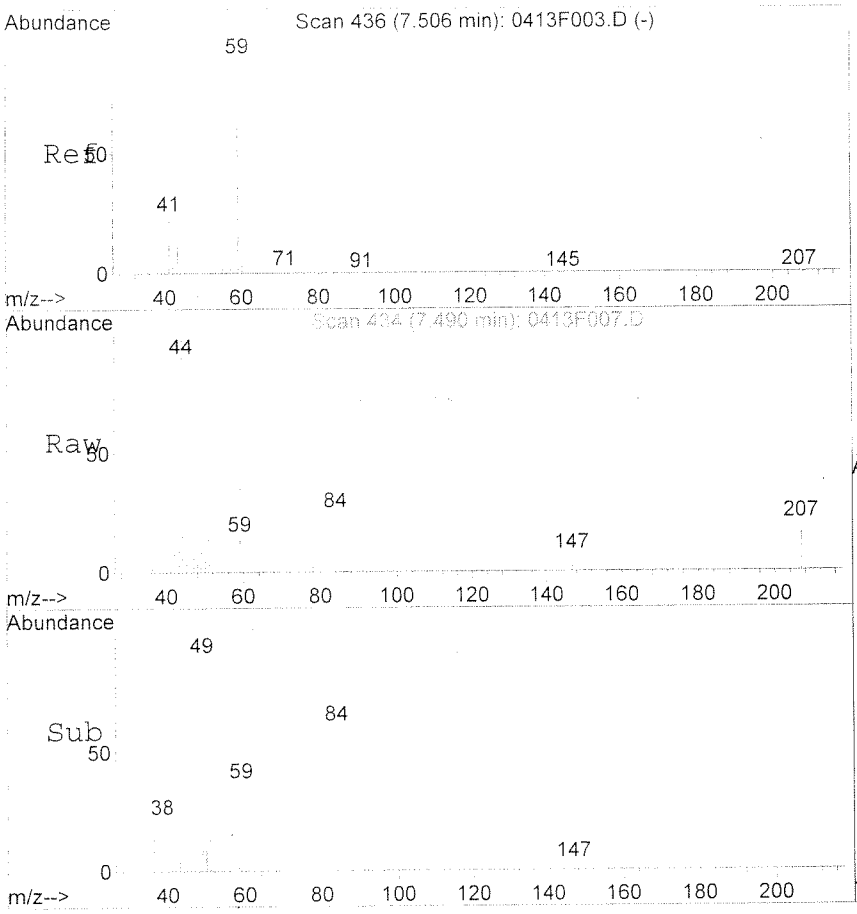


#15
Dichloromethane (Methylene Ch
Concen: 3.83 ppb
RT: 7.44 min Scan# 428
Delta R.T. -0.02 min
Lab File: 0413F007.D
Acq: 13 Apr 2005 11:14 am

Tgt Ion: 84 Resp: 149636

Ion	Ratio	Lower	Upper
84	100		
86	64.9	32.8	92.8
49	166.3	127.1	187.1
51	50.1	17.7	77.7

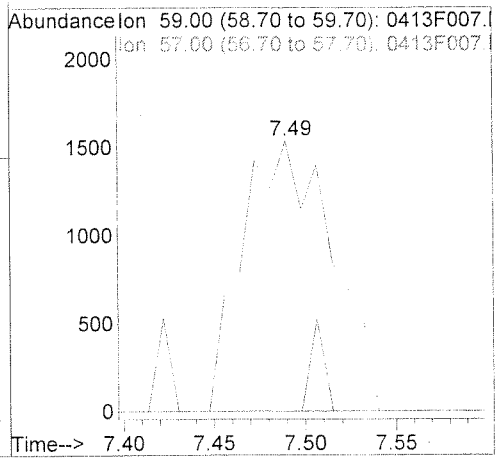


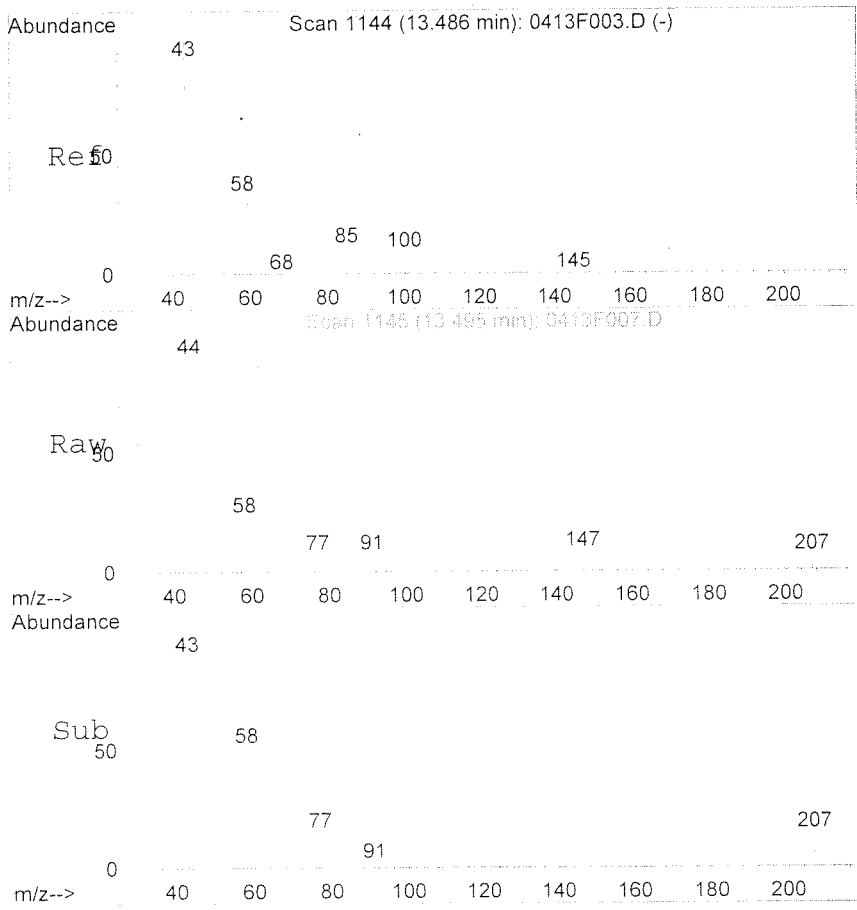


#16
2-Methyl-2-propanol (tert-But
Concen: 1.70 ppb
RT: 7.49 min Scan# 434
Delta R.T. -0.02 min
Lab File: 0413F007.D
Acq: 13 Apr 2005 11:14 am

Tgt Ion: 59 Resp: 5211

Ion	Ratio	Lower	Upper
59	100		
57	0.0	0.0	38.8
60	0.0	0.0	33.8

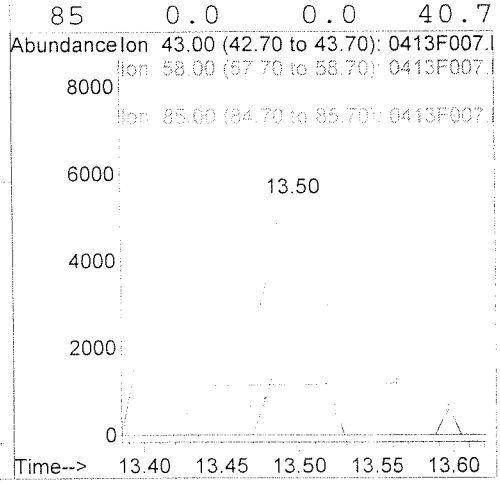


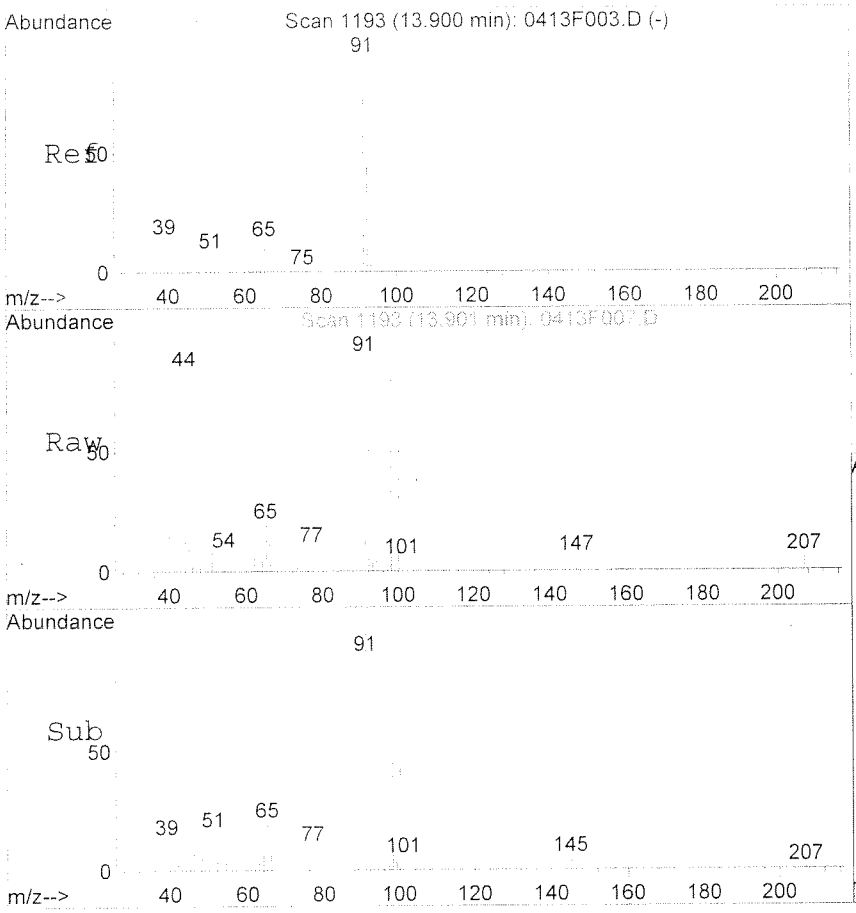


#44
4-Methyl-2-pentanone (MIBK)
Concen: 0.30 ppb
RT: 13.50 min Scan# 1145
Delta R.T. 0.01 min
Lab File: 0413F007.D
Acq: 13 Apr 2005 11:14 am

Tgt Ion: 43 Resp: 11753

Ion	Ratio	Lower	Upper
43	100		
58	48.3	3.4	63.4
57	23.6	0.0	48.0
85	0.0	0.0	40.7

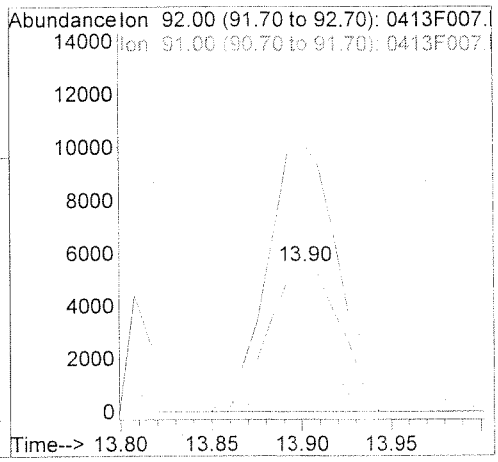


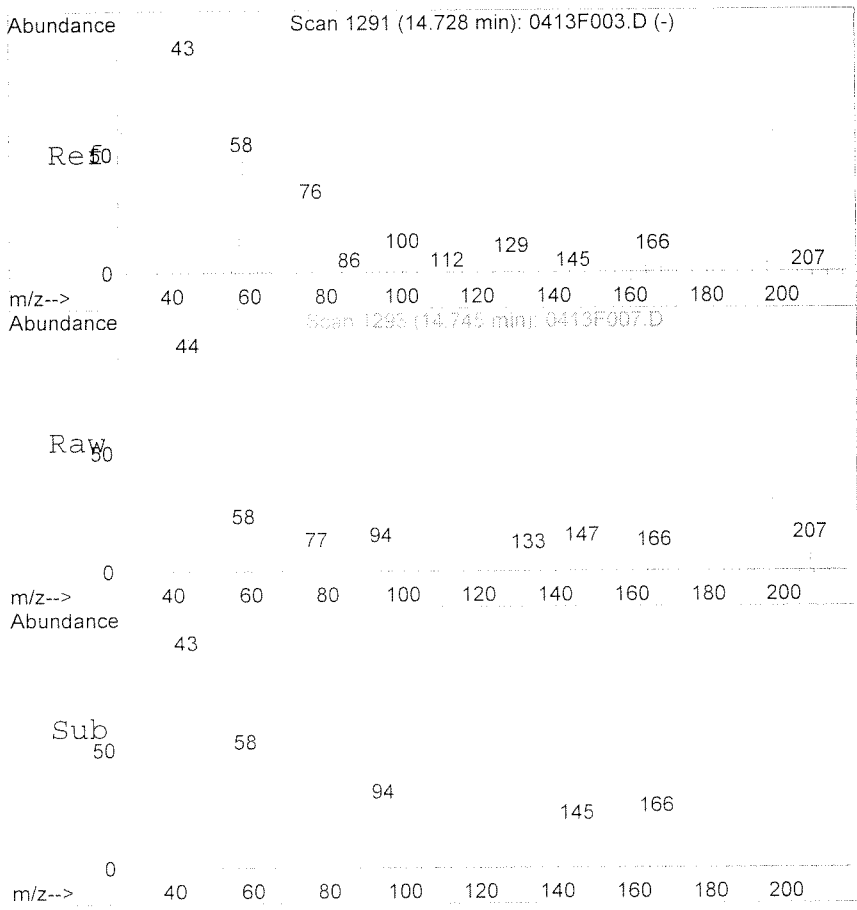


#46
Toluene
Concen: 0.21 ppb
RT: 13.90 min Scan# 1193
Delta R.T. 0.00 min
Lab File: 0413F007.D
Acq: 13 Apr 2005 11:14 am

Tgt Ion: 92 Resp: 14966

Ion	Ratio	Lower	Upper
92	100		
91	186.0	137.8	197.8
65	36.8	0.0	52.1

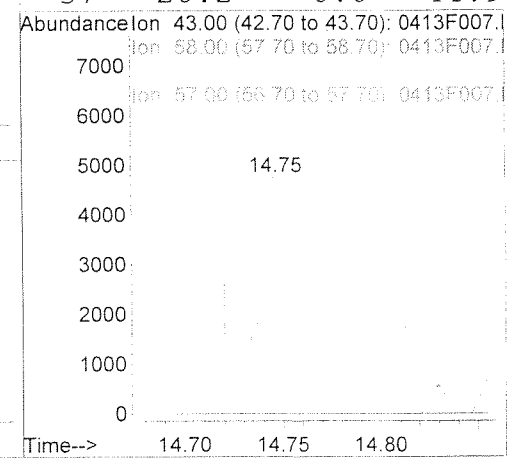


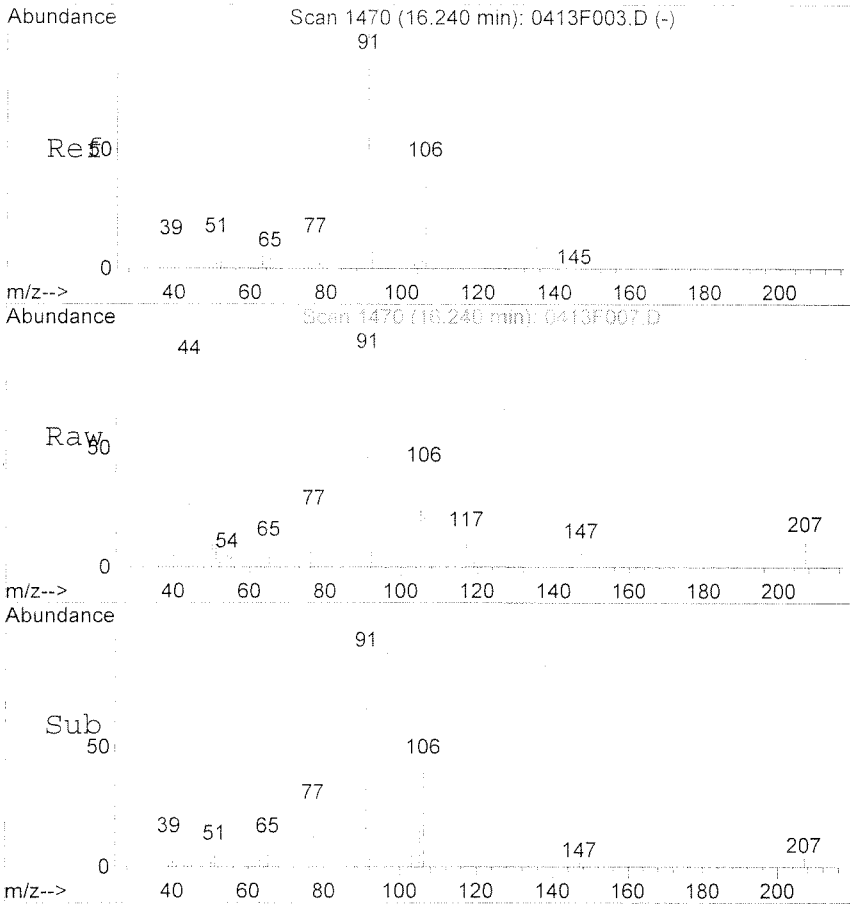


#51
2-Hexanone
Concen: 0.32 ppb
RT: 14.75 min Scan# 1293
Delta R.T. 0.02 min
Lab File: 0413F007.D
Acq: 13 Apr 2005 11:14 am

Tgt Ion: 43 Resp: 7615

Ion	Ratio	Lower	Upper
43	100		
58	27.6	18.7	78.7
100	0.0	0.0	38.0
57	20.2	0.0	44.9

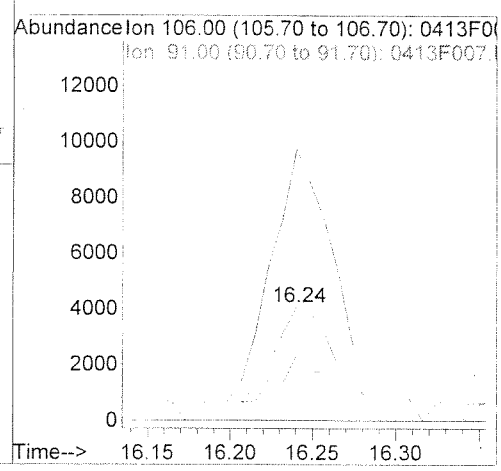


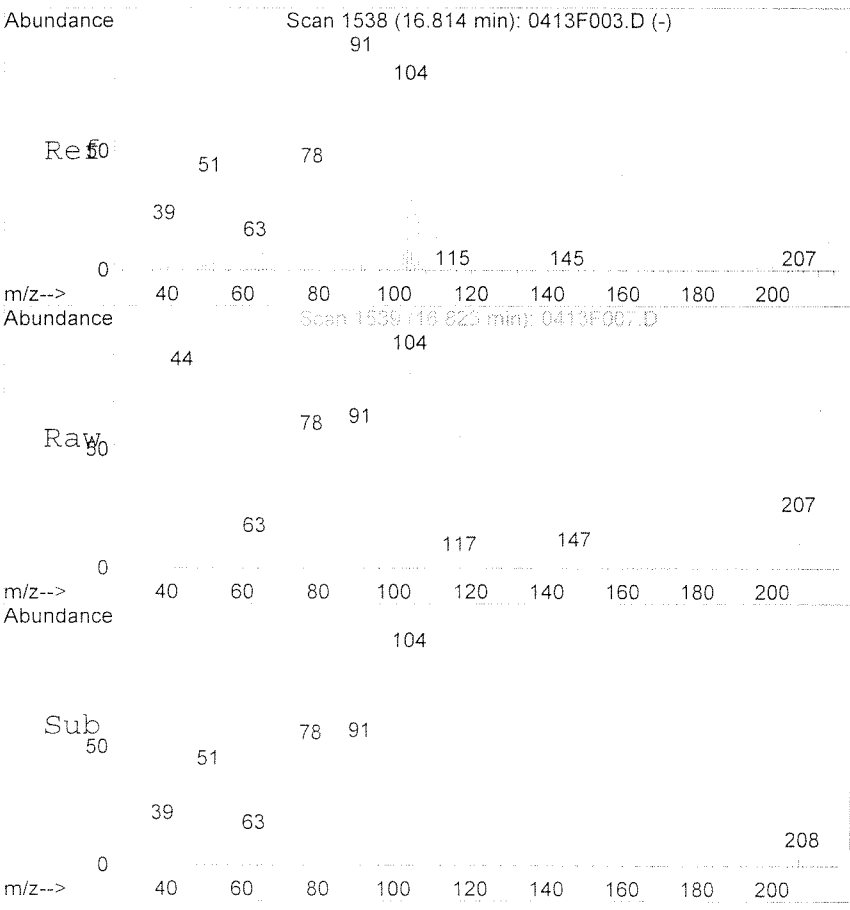


#59
m,p-Xylenes
Concen: 0.29 ppb
RT: 16.24 min Scan# 1470
Delta R.T. 0.00 min
Lab File: 0413F007.D
Acq: 13 Apr 2005 11:14 am

Tgt Ion:106 Resp: 11075

Ion	Ratio	Lower	Upper
106	100		
91	222.5	193.6	253.6
77	44.4	0.0	59.2

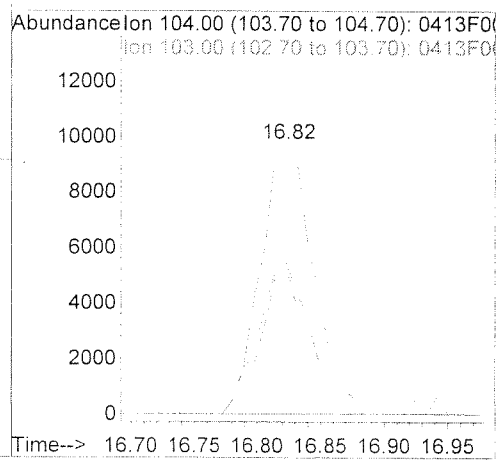


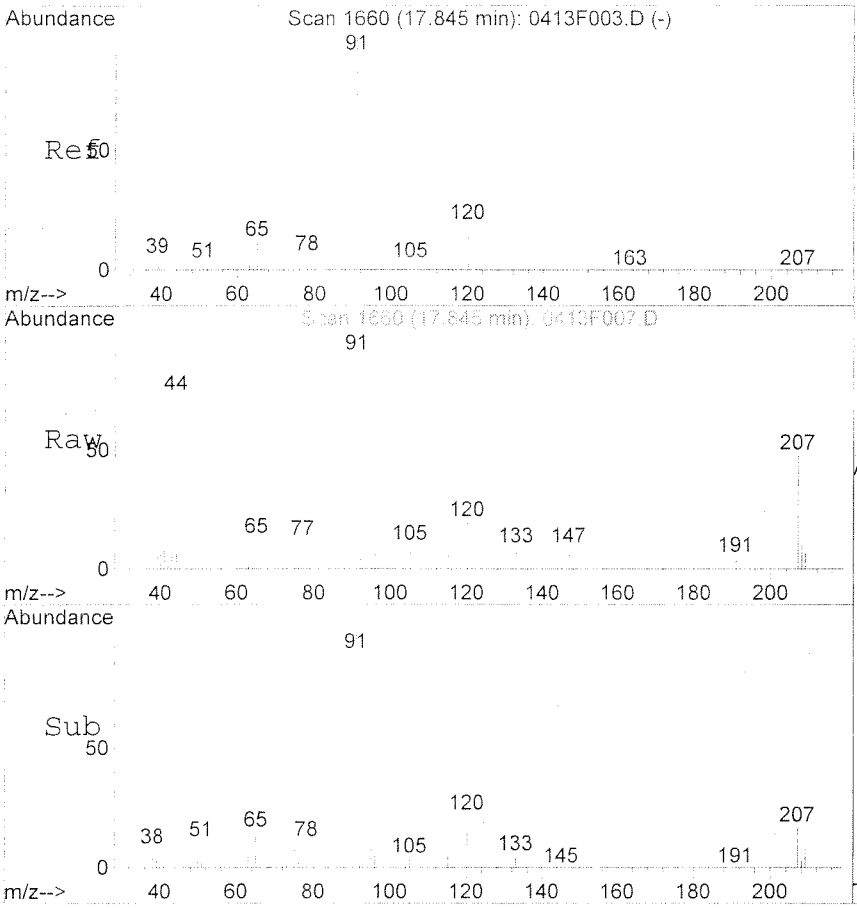


#61
Styrene
Concen: 0.45 ppb
RT: 16.82 min Scan# 1539
Delta R.T. 0.01 min
Lab File: 0413F007.D
Acq: 13 Apr 2005 11:14 am

Tgt Ion:104 Resp: 28827

Ion	Ratio	Lower	Upper
104	100		
103	54.4	23.1	83.1
78	55.9	24.8	84.8

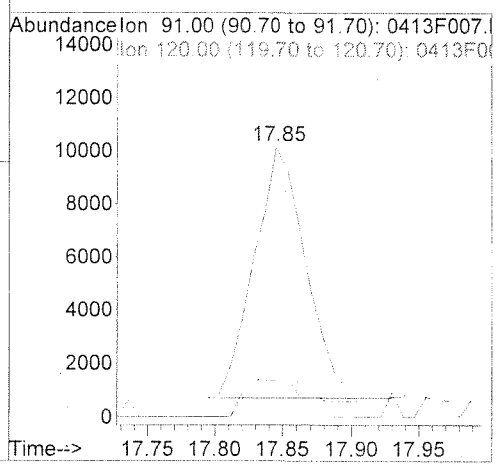


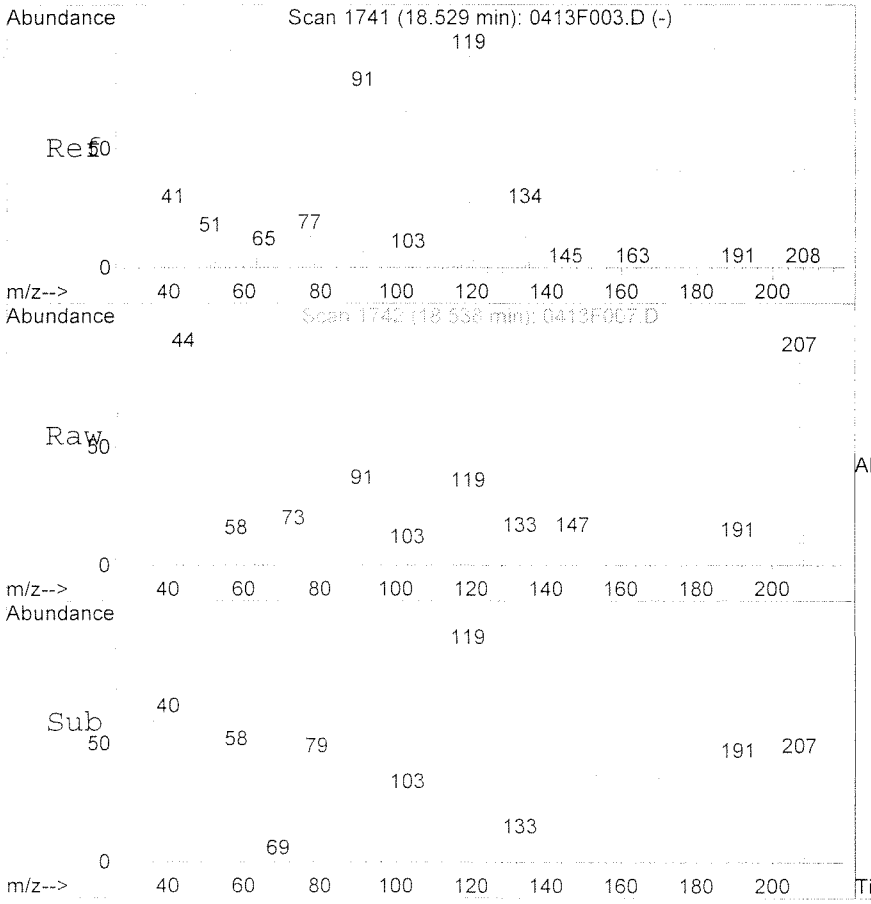


#68
n-Propylbenzene
Concen: 0.25 ppb
RT: 17.85 min Scan# 1660
Delta R.T. 0.00 min
Lab File: 0413F007.D
Acq: 13 Apr 2005 11:14 am

Tgt Ion: 91 Resp: 25047

Ion	Ratio	Lower	Upper
91	100		
120	21.4	0.0	49.1
65	14.1	0.0	41.5

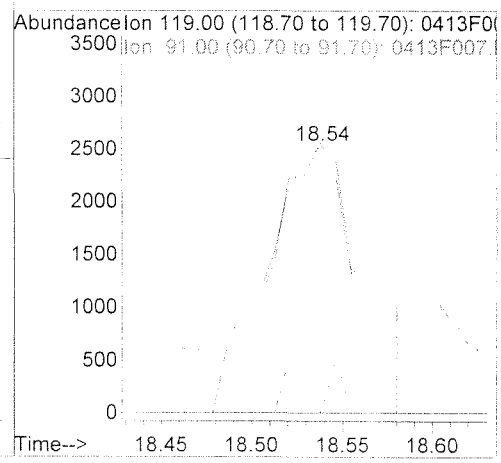


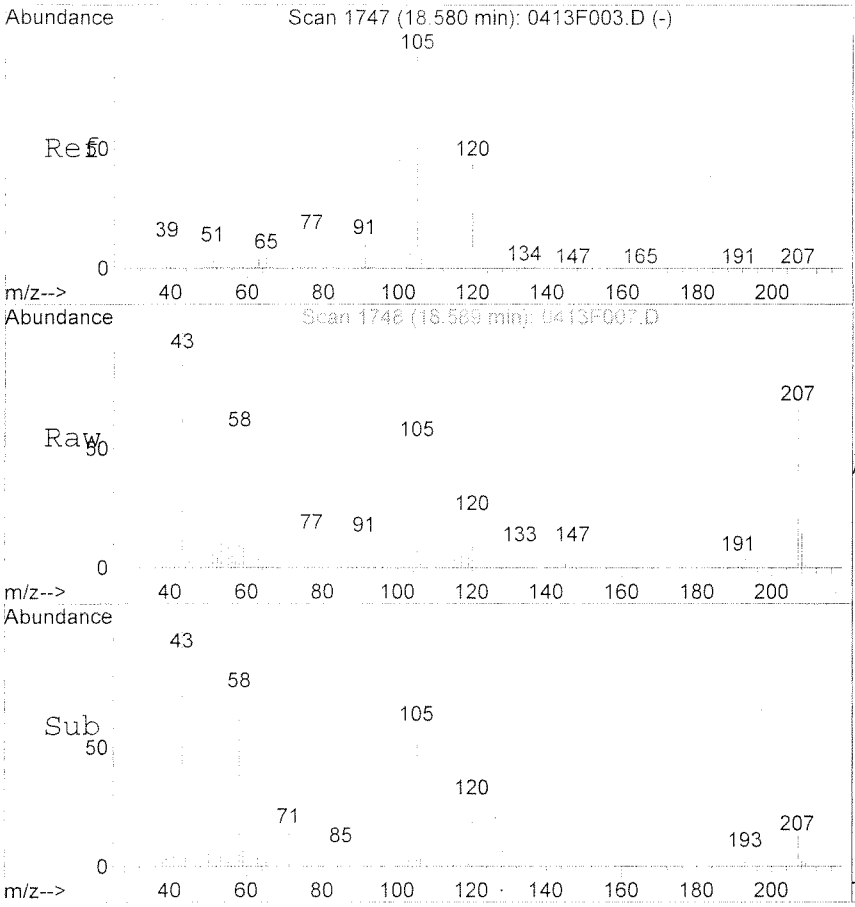


#74
tert-Butylbenzene
Concen: 0.15 ppb
RT: 18.54 min Scan# 1742
Delta R.T. 0.01 min
Lab File: 0413F007.D
Acq: 13 Apr 2005 11:14 am

Tgt Ion:119 Resp: 9278

Ion	Ratio	Lower	Upper
119	100		
91	72.9	43.8	103.8
134	0.0	0.0	54.8

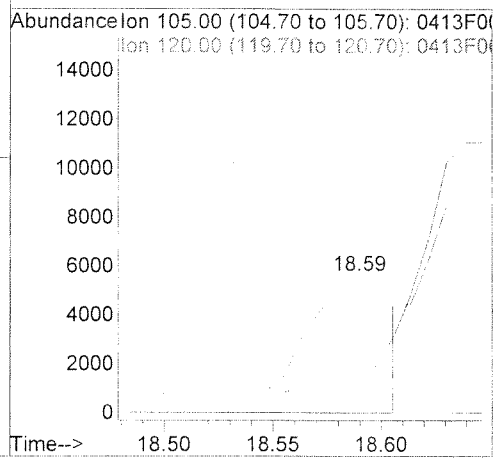


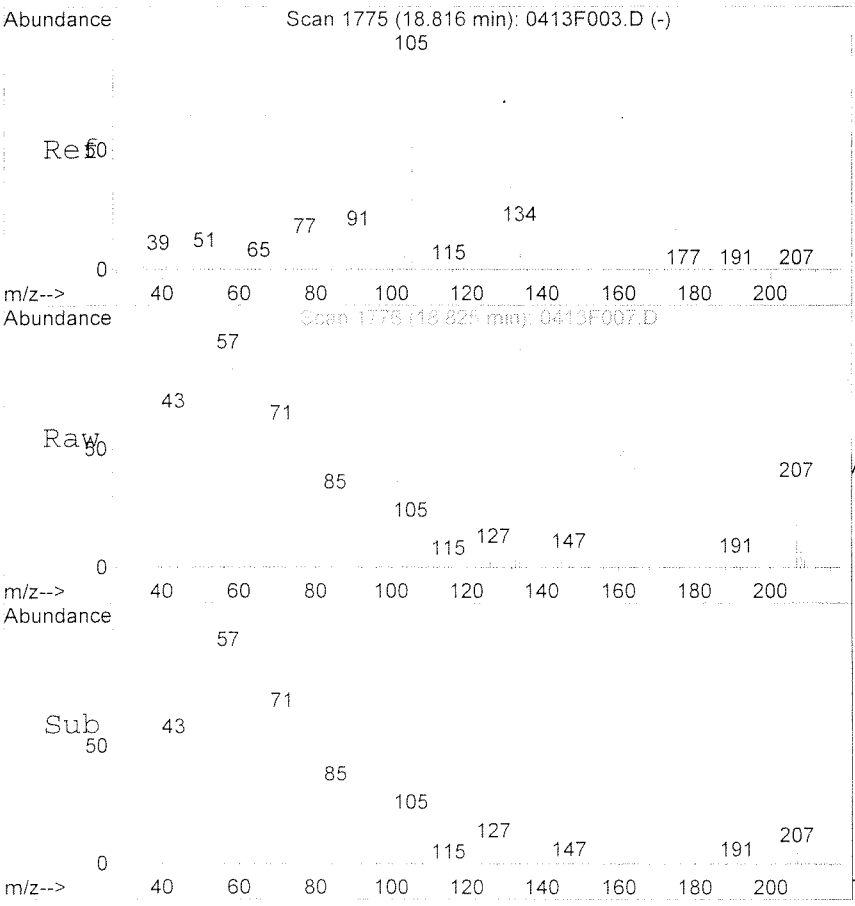


#75
1,2,4-Trimethylbenzene
Concen: 0.24 ppb
RT: 18.59 min Scan# 1748
Delta R.T. 0.01 min
Lab File: 0413F007.D
Acq: 13 Apr 2005 11:14 am

Tgt Ion:105 Resp: 15191

Ion	Ratio	Lower	Upper
105	100		
120	40.9	14.6	74.6
77	7.2	0.0	43.8

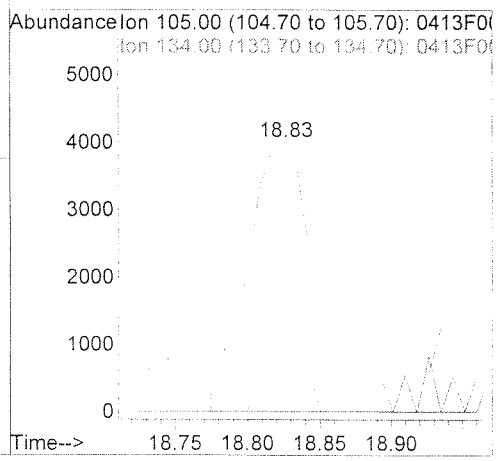


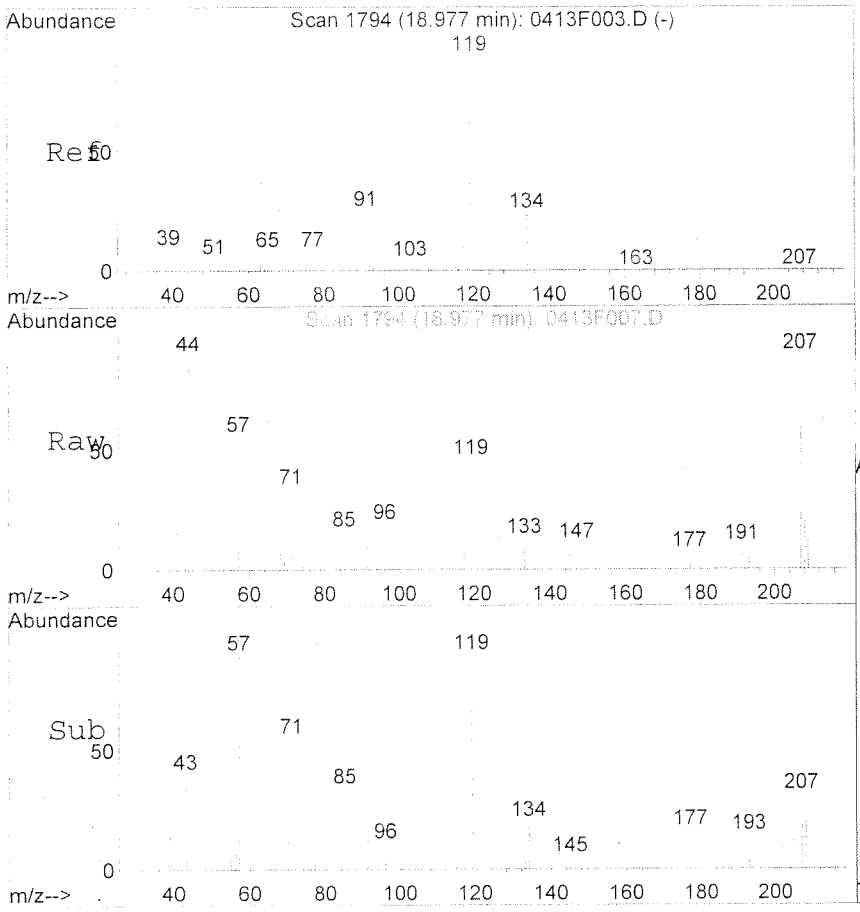


#76
sec-Butylbenzene
Concen: 0.17 ppb
RT: 18.83 min Scan# 1776
Delta R.T. 0.01 min
Lab File: 0413F007.D
Acq: 13 Apr 2005 11:14 am

Tgt Ion:105 Resp: 13621

Ion	Ratio	Lower	Upper
105	100		
134	19.9	0.0	47.7
91	12.6	0.0	45.9

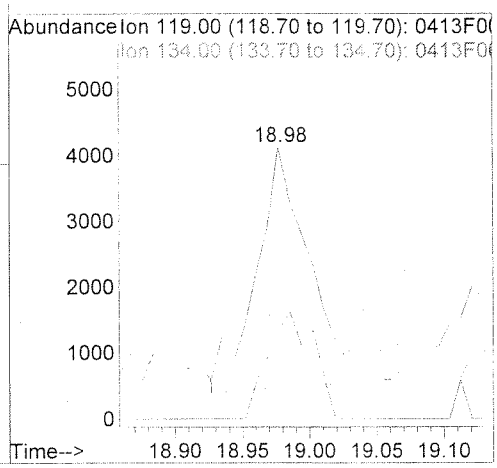


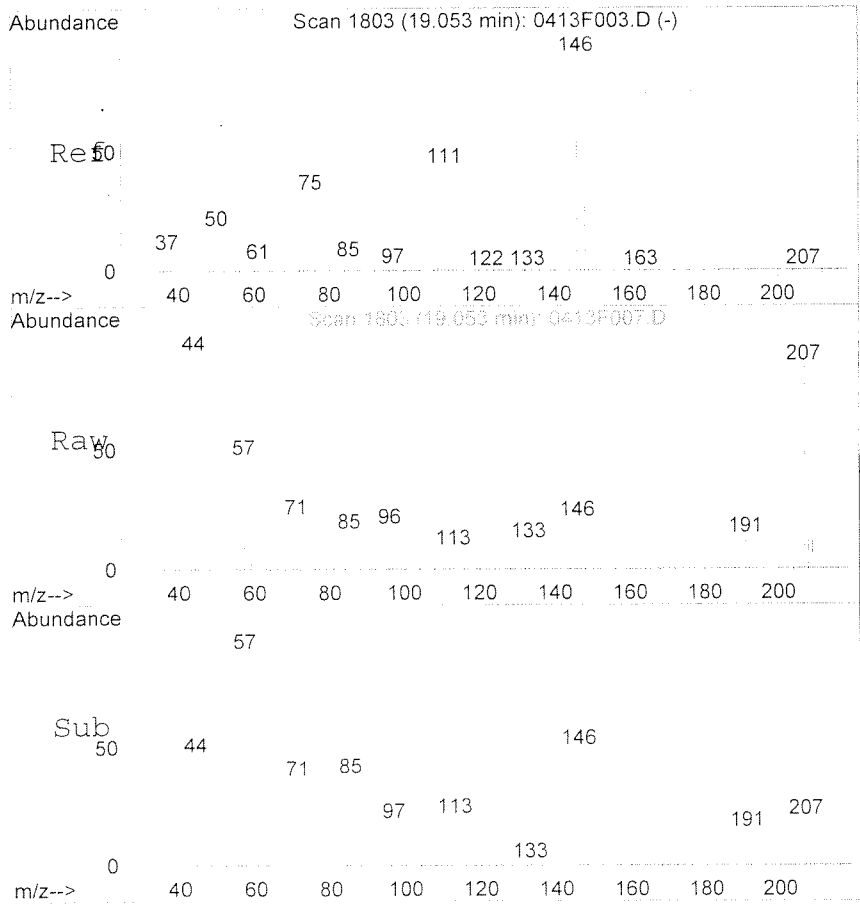


#77
p-Isopropyltoluene
Concen: 0.15 ppb
RT: 18.98 min Scan# 1794
Delta R.T. 0.00 min
Lab File: 0413F007.D
Acq: 13 Apr 2005 11:14 am

Tgt Ion:119 Resp: 9719

Ion	Ratio	Lower	Upper
119	100		
134	23.9	0.0	54.0
91	21.5	0.0	55.0

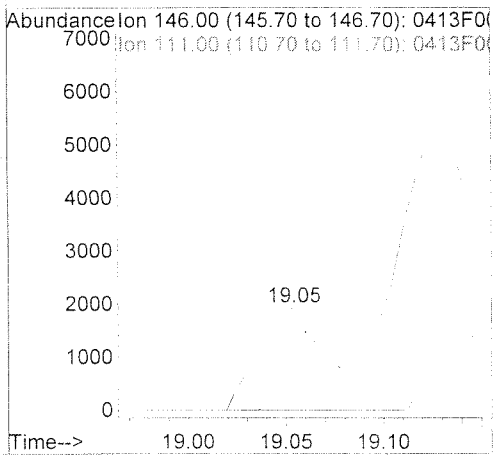


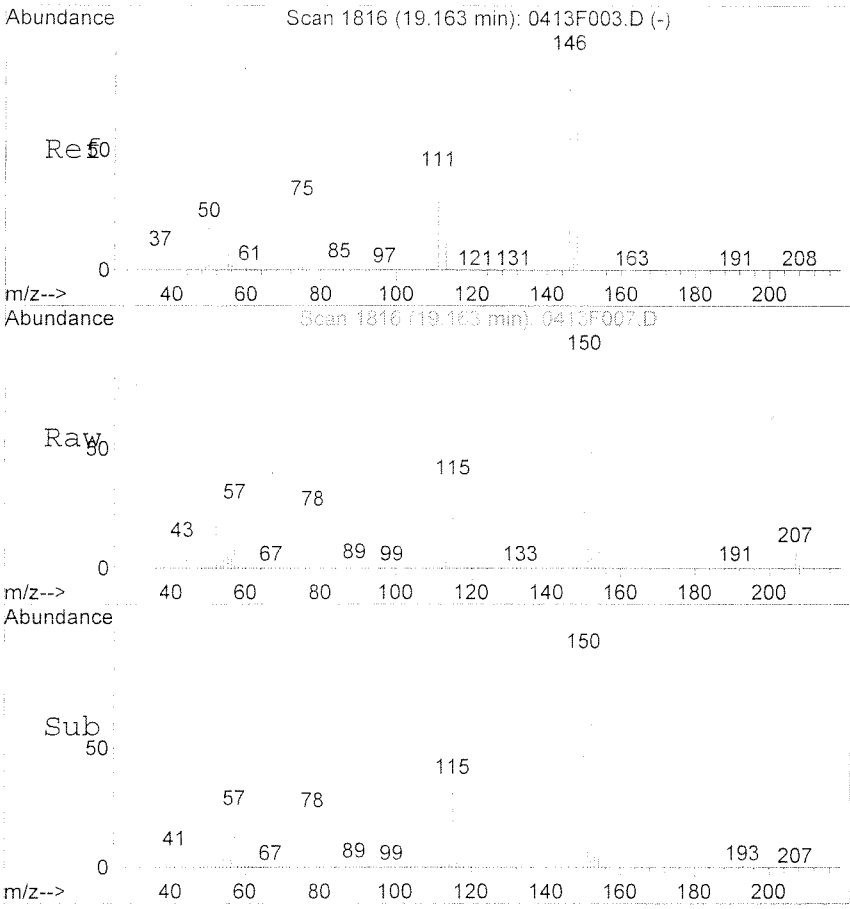


#78
1,3-Dichlorobenzene
Concen: 0.14 ppb
RT: 19.05 min Scan# 1803
Delta R.T. 0.00 min
Lab File: 0413F007.D
Acq: 13 Apr 2005 11:14 am

Tgt Ion:146 Resp: 4408

Ion	Ratio	Lower	Upper
146	100		
111	33.2	13.0	73.0
148	49.3	33.9	93.9

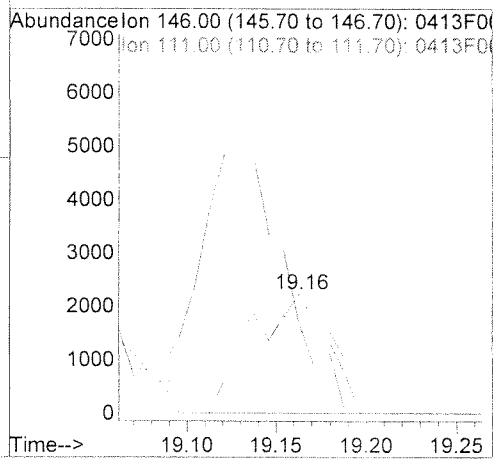


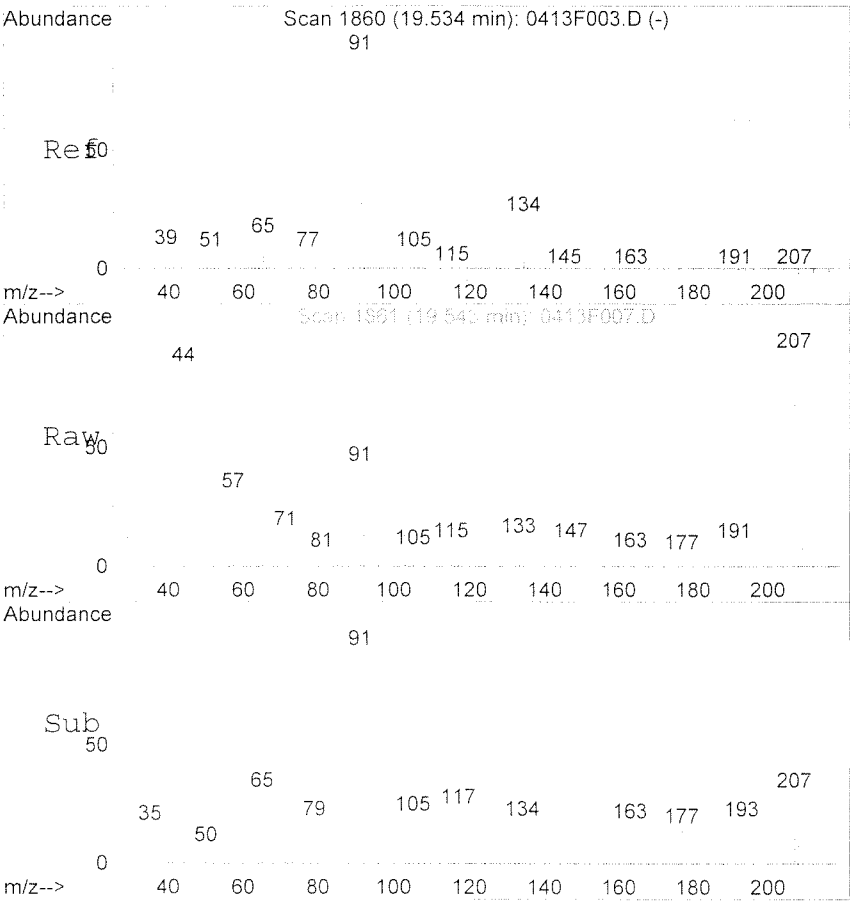


#79
1,4-Dichlorobenzene
Concen: 0.20 ppb
RT: 19.16 min Scan# 1816
Delta R.T. 0.00 min
Lab File: 0413F007.D
Acq: 13 Apr 2005 11:14 am

Tgt Ion:146 Resp: 6509

Ion	Ratio	Lower	Upper
146	100		
111	75.9	11.1	71.1#
148	67.5	34.3	94.3

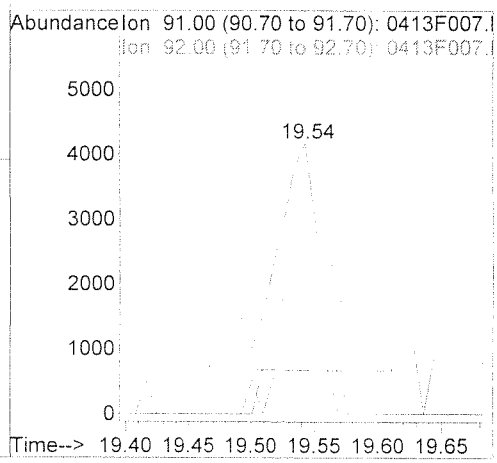


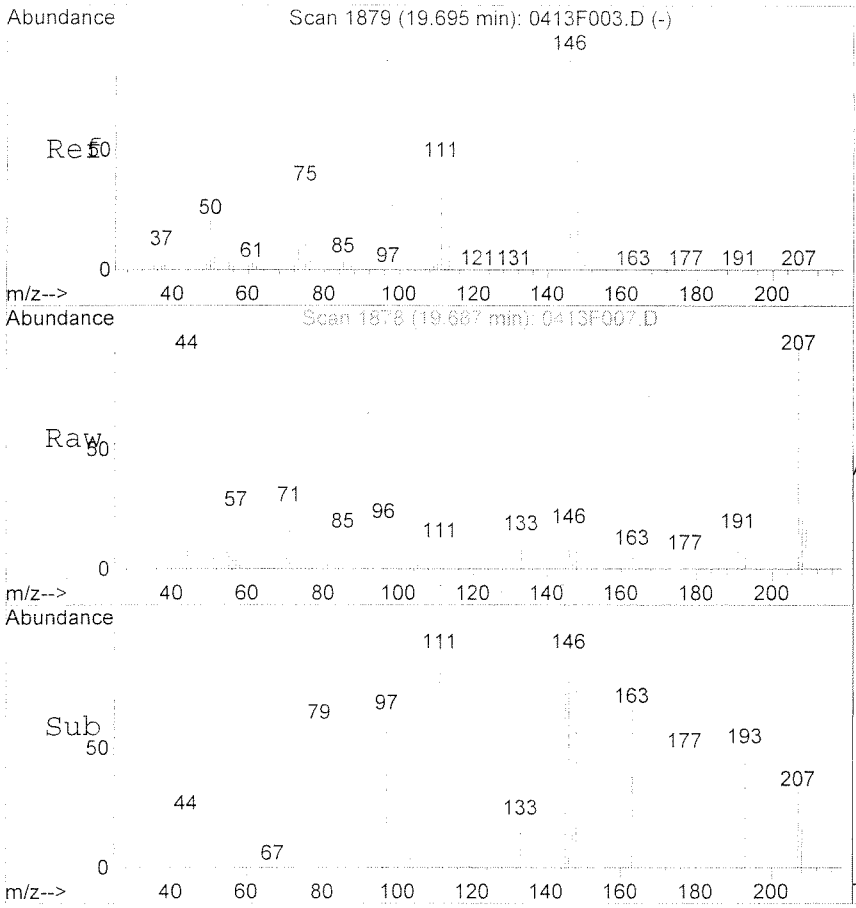


#80
n-Butylbenzene
Concen: 0.14 ppb
RT: 19.54 min Scan# 1861
Delta R.T. 0.01 min
Lab File: 0413F007.D
Acq: 13 Apr 2005 11:14 am

Tgt Ion: 91 Resp: 9938

Ion	Ratio	Lower	Upper
91	100		
92	46.4	28.0	88.0
134	17.8	0.0	51.6

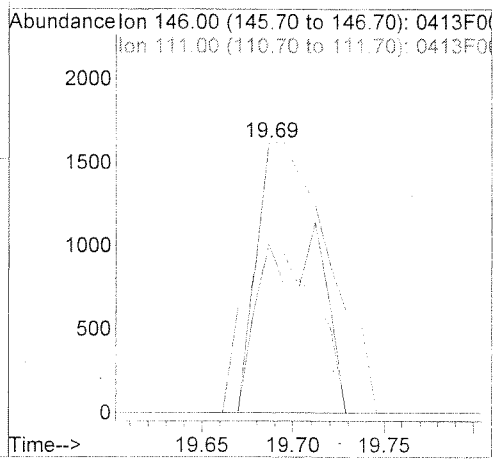


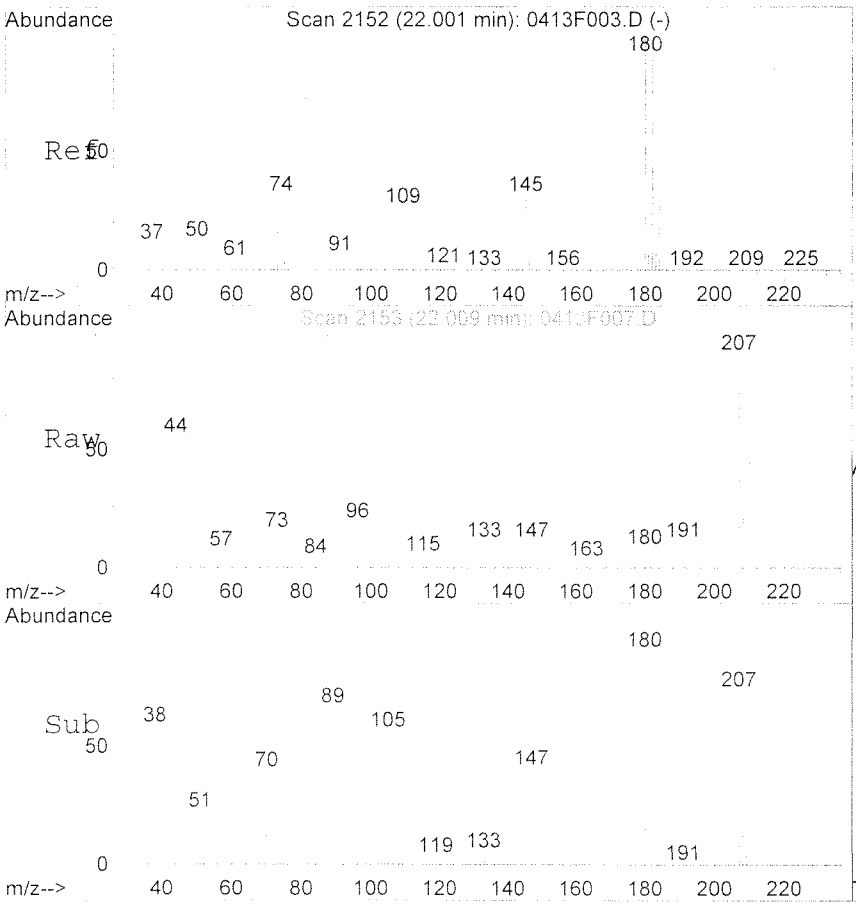


#81
1,2-Dichlorobenzene
Concen: 0.16 ppb
RT: 19.69 min Scan# 1878
Delta R.T. -0.01 min
Lab File: 0413F007.D
Acq: 13 Apr 2005 11:14 am

Tgt Ion:146 Resp: 4727

Ion	Ratio	Lower	Upper
146	100		
111	62.4	15.0	75.0
148	52.4	33.4	93.4

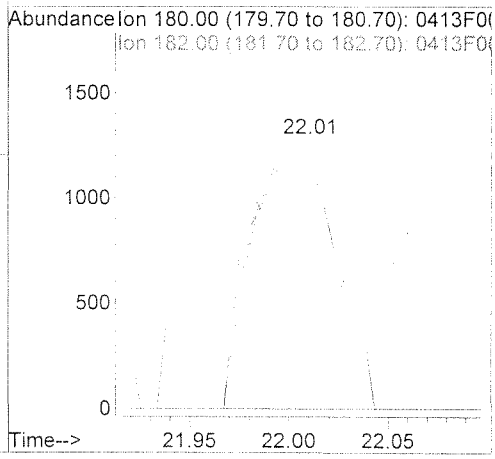


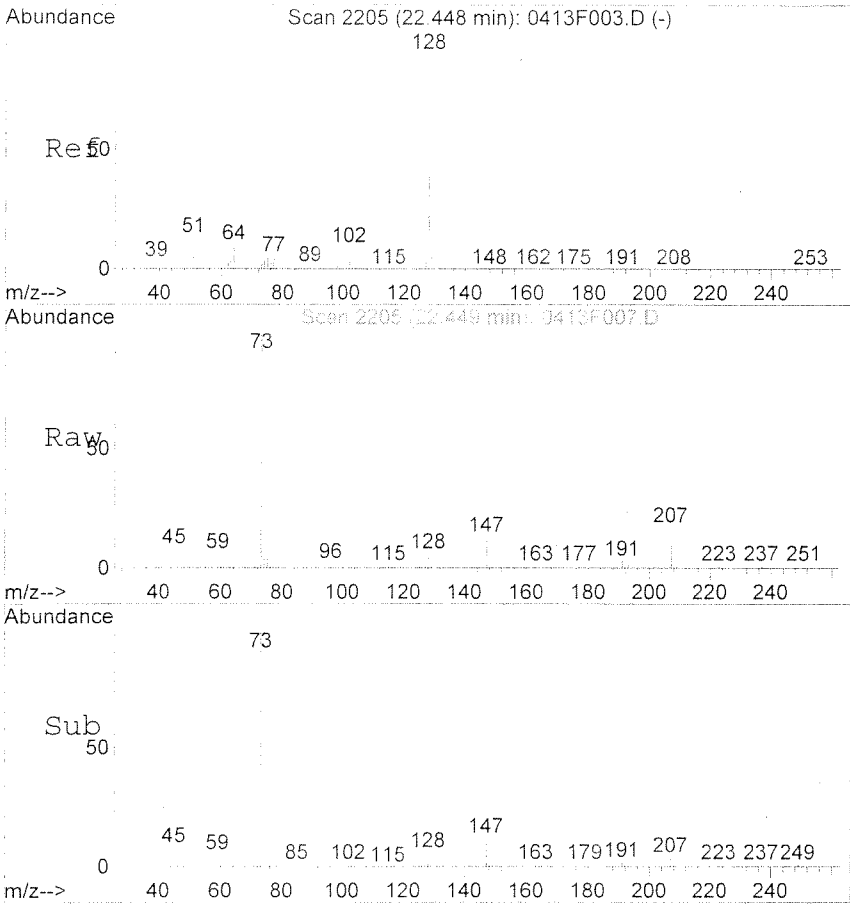


#83
1,2,4-Trichlorobenzene
Concen: 0.21 ppb
RT: 22.01 min Scan# 2153
Delta R.T. 0.01 min
Lab File: 0413F007.D
Acq: 13 Apr 2005 11:14 am

Tgt Ion:180 Resp: 4063

Ion	Ratio	Lower	Upper
180	100		
182	94.1	66.0	126.0
145	28.2	0.8	60.8

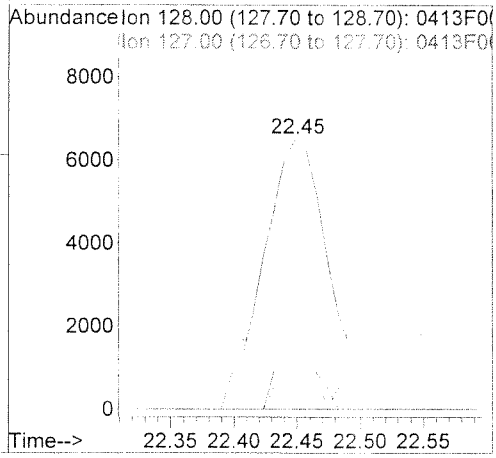


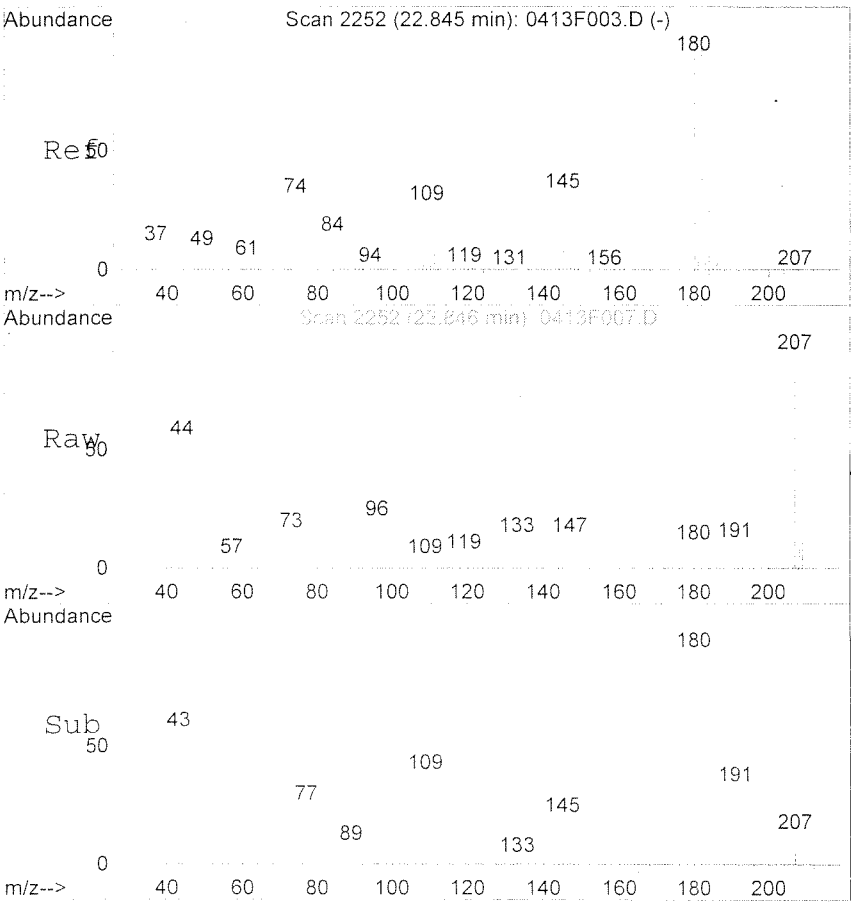


#85
Naphthalene
Concen: 0.51 ppb
RT: 22.45 min Scan# 2205
Delta R.T. 0.00 min
Lab File: 0413F007.D
Acq: 13 Apr 2005 11:14 am

Tgt Ion:128 Resp: 23331

Ion	Ratio	Lower	Upper
128	100		
127	14.5	0.0	43.4
102	11.2	0.0	38.8

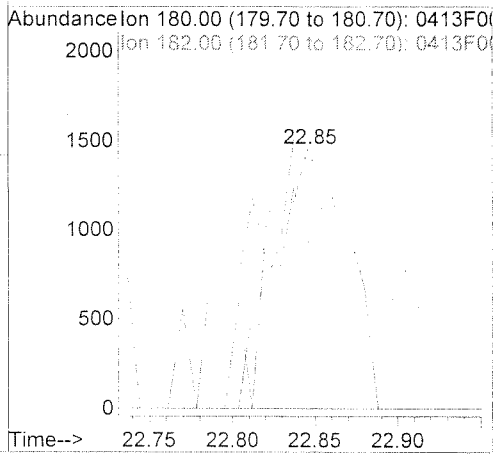




#86
1,2,3-Trichlorobenzene
Concen: 0.27 ppb
RT: 22.85 min Scan# 2252
Delta R.T. 0.00 min
Lab File: 0413F007.D
Acq: 13 Apr 2005 11:14 am

Tgt Ion:180 Resp: 4849

Ion	Ratio	Lower	Upper
180	100		
182	94.8	65.0	125.0
145	22.8	2.0	62.0



COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Battelle Memorial Institute
Project: Novato Ballfields/G486063
Sample Matrix: Soil

Service Request: K2502554
Date Collected: NA
Date Received: NA

Volatile Organic Compounds

Sample Name: Batch QC
Lab Code: K2502607-007

Units: ug/Kg
Basis: Dry

Extraction Method: EPA 5030A
Analysis Method: 8260B

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dichlorodifluoromethane	ND	U	8.0	1.2	1	04/13/05	04/13/05	KWG0506051	
Chloromethane	ND	U	8.0	1.7	1	04/13/05	04/13/05	KWG0506051	
Vinyl Chloride	ND	U	8.0	1.1	1	04/13/05	04/13/05	KWG0506051	
Bromomethane	ND	U	8.0	1.4	1	04/13/05	04/13/05	KWG0506051	
Chloroethane	ND	U	8.0	1.3	1	04/13/05	04/13/05	KWG0506051	
Trichlorofluoromethane	ND	U	8.0	1.2	1	04/13/05	04/13/05	KWG0506051	
Trichlorotrifluoroethane	ND	U	8.0	1.3	1	04/13/05	04/13/05	KWG0506051	
Acetone	**17**	J	32	17	1	04/13/05	04/13/05	KWG0506051	
1,1-Dichloroethene	ND	U	8.0	1.2	1	04/13/05	04/13/05	KWG0506051	
Methyl Acetate	ND	U	8.0	1.3	1	04/13/05	04/13/05	KWG0506051	
Carbon Disulfide	ND	U	8.0	2.5	1	04/13/05	04/13/05	KWG0506051	
Diisopropyl Ether	ND	U	16	0.56	1	04/13/05	04/13/05	KWG0506051	
Methylene Chloride	ND	U	16	4.1	1	04/13/05	04/13/05	KWG0506051	
Methyl tert-Butyl Ether	ND	U	8.0	1.1	1	04/13/05	04/13/05	KWG0506051	
trans-1,2-Dichloroethene	ND	U	8.0	1.2	1	04/13/05	04/13/05	KWG0506051	
1,1-Dichloroethane	ND	U	8.0	1.3	1	04/13/05	04/13/05	KWG0506051	
2-Butanone (MEK)	ND	U	32	20	1	04/13/05	04/13/05	KWG0506051	
cis-1,2-Dichloroethene	**3.2**	J	8.0	1.4	1	04/13/05	04/13/05	KWG0506051	
Chloroform	ND	U	8.0	0.93	1	04/13/05	04/13/05	KWG0506051	
1,1,1-Trichloroethane (TCA)	ND	U	8.0	0.93	1	04/13/05	04/13/05	KWG0506051	
Cyclohexane	ND	U	8.0	1.1	1	04/13/05	04/13/05	KWG0506051	
Carbon Tetrachloride	ND	U	8.0	0.98	1	04/13/05	04/13/05	KWG0506051	
1,2-Dichloroethane (EDC)	ND	U	8.0	1.1	1	04/13/05	04/13/05	KWG0506051	
Benzene	ND	U	8.0	1.3	1	04/13/05	04/13/05	KWG0506051	
Trichloroethene (TCE)	ND	U	8.0	0.46	1	04/13/05	04/13/05	KWG0506051	
1,2-Dichloropropane	ND	U	8.0	1.2	1	04/13/05	04/13/05	KWG0506051	
Bromodichloromethane	ND	Ui	8.0	0.88	1	04/13/05	04/13/05	KWG0506051	
Methylcyclohexane	**6.2**	J	8.0	1.2	1	04/13/05	04/13/05	KWG0506051	
2-Hexanone	ND	U	32	10	1	04/13/05	04/13/05	KWG0506051	
cis-1,3-Dichloropropene	ND	U	8.0	1.3	1	04/13/05	04/13/05	KWG0506051	
Toluene	**4.5**	J	8.0	1.4	1	04/13/05	04/13/05	KWG0506051	
trans-1,3-Dichloropropene	ND	U	8.0	0.98	1	04/13/05	04/13/05	KWG0506051	
1,1,2-Trichloroethane	ND	U	8.0	1.2	1	04/13/05	04/13/05	KWG0506051	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	Battelle Memorial Institute	**Service Request:**	K2502554
Project:	Novato Ballfields/G486063	**Date Collected:**	NA
Sample Matrix:	Soil	**Date Received:**	NA

Volatile Organic Compounds

Sample Name:	Batch QC	**Units:**	ug/Kg
Lab Code:	K2502607-007	**Basis:**	Dry
Extraction Method:	EPA 5030A	**Level:**	Low
Analysis Method:	8260B		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
4-Methyl-2-pentanone (MIBK)	ND	U	32	9.0	1	04/13/05	04/13/05	KWG0506051	
Tetrachloroethene (PCE)	**0.64**	J	8.0	0.51	1	04/13/05	04/13/05	KWG0506051	
Dibromochloromethane	ND	U	8.0	0.98	1	04/13/05	04/13/05	KWG0506051	
1,2-Dibromoethane (EDB)	ND	U	32	1.3	1	04/13/05	04/13/05	KWG0506051	
Chlorobenzene	ND	U	8.0	1.2	1	04/13/05	04/13/05	KWG0506051	
Ethylbenzene	**1.9**	J	8.0	0.93	1	04/13/05	04/13/05	KWG0506051	
m,p-Xylenes	**6.6**	J	8.0	2.5	1	04/13/05	04/13/05	KWG0506051	
o-Xylene	**4.8**	J	8.0	1.2	1	04/13/05	04/13/05	KWG0506051	
Styrene	ND	U	8.0	1.2	1	04/13/05	04/13/05	KWG0506051	
Bromoform	ND	U	8.0	1.3	1	04/13/05	04/13/05	KWG0506051	
Isopropylbenzene	**15**	J	32	1.2	1	04/13/05	04/13/05	KWG0506051	
1,1,2,2-Tetrachloroethane	ND	Ui	8.0	2.3	1	04/13/05	04/13/05	KWG0506051	
1,3-Dichlorobenzene	ND	U	8.0	1.2	1	04/13/05	04/13/05	KWG0506051	
1,4-Dichlorobenzene	ND	U	8.0	1.4	1	04/13/05	04/13/05	KWG0506051	
1,2-Dichlorobenzene	ND	U	8.0	1.1	1	04/13/05	04/13/05	KWG0506051	
1,2-Dibromo-3-chloropropane	ND	U	32	1.4	1	04/13/05	04/13/05	KWG0506051	
1,2,4-Trichlorobenzene	ND	U	32	1.3	1	04/13/05	04/13/05	KWG0506051	
Naphthalene	ND	U	32	1.5	1	04/13/05	04/13/05	KWG0506051	
Bromochloromethane	ND	U	8.0	1.6	1	04/13/05	04/13/05	KWG0506051	
1,2,3-Trichlorobenzene	ND	U	32	1.5	1	04/13/05	04/13/05	KWG0506051	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	104	70-119	04/13/05	Acceptable
Toluene-d8	107	72-121	04/13/05	Acceptable
4-Bromofluorobenzene	100	66-122	04/13/05	Acceptable

Comments:

Exception Report

Data File: J:\MS04\DATA\041305\0413F009.D
Lab ID: K2502607-007
RunType: SMPL
Matrix: SOIL

Date Acquired: 04/13/2005 12:13
Date Quantitated: 04/14/2005 12:34
Batch ID: KWG0506050
Analysis Method: 8260B
ListJoinID: LJ1601

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Tune Window	NA	NA	NA	x	
Analytical Holding Time	NA	NA	NA	x	
Preparation Holding Time	NA	NA	NA	x	
Pre-Preparation Holding Time	NA	NA	NA	x	
ICAL Pass/Fail	NA	NA	NA	x	
ICAL Average RSD	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA	x	
Initial Calibration SPCC/CCC	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Minimum RF	NA	NA	NA	x	
Continuing Calibration SPCC/CCC	NA	NA	NA	x	
Method Blank	NA	NA	NA	x	
MB Surrogate Recovery	NA	NA	NA	x	
Lab Control Spike	NA	NA	NA	x	
Duplicate Lab Control Spike	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Relative Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Primary Review: [illegible]

Secondary Review: [illegible]

Quantitation Report

Bottle ID:		**Tier:**	III	**Matrix:**	SOIL
Prod Code:	8260	**Collect Date:**	04/06/2005	**Receive Date:**	04/11/2005

Analysis Lot:	KWG0506050	**Prep Lot:**	KWG0506051	**Report Group:**	K2502607
Analysis Method:	8260B	**Prep Method:**	EPA 5030A		
Prep Ref:	375100	**Prep Date:**	04/13/2005		

Quant Method:	J:\MS04\METHODS\041105SOILCL	**Calibration ID:**	CAL4367
Title:	Volatile Organic Compounds	**Report List ID:**	LJ5610
Tune Ref:	J:\MS04\DATA\041305\0413F002.D	**Method ID:**	MJ120
MB Ref:	J:\MS04\DATA\041305\0413F007.D	**Quant based on Report List**	

Data File:	J:\MS04\DATA\041305\0413F009.D			**Instrument:**	MS04
Acqu Date:	04/13/2005 12:13	**Quant Date:**	04/14/2005 12:34	**Vial:**	10
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K2502607-007			**Soln Conc. Units:**	ppb

Internal Standard Compounds

IS Ref	Parameter Name	RT	RT Dev	Quant Mass	Response	Solution Conc	Area Criteria
1	Fluorobenzene	11.34	-0.01	96	6637962	50.00	OK
2	Chlorobenzene-d5	15.94	0.00	117	4446862	50.00	OK
3	1,4-Dichlorobenzene-d4	19.13	0.00	152	1511453	50.00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits	Rpt?
1	Dibromofluoromethane	10.22	-0.01	0.00	113	1690100	51.94	104	70-119	OK
1	Toluene-d8	13.80	0.00	0.00	98	6212368	53.31	107	72-121	OK
2	4-Bromofluorobenzene	17.53	0.00	0.00	95	2042918	50.08	100	66-122	OK

Target Compounds

Final Conc. Units: ug/Kg Dry Weight

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Dichlorodifluoromethane				85	0d		1.2	U	
1	Chloromethane	4.42	-0.02	0.00	50	12625	0.2500	1.7	U	
1	Vinyl Chloride	4.62	-0.03	0.00	62	13610	0.3400	1.1	U	
1	Bromomethane	5.28		0.00	94	11445	0.6600	1.4	U	
1	Chloroethane				64	0d		1.3	U	
1	Trichlorofluoromethane				101	0		1.2	U	
1	Trichlorotrifluoroethane				151	0		1.3	U	
1	1,1-Dichloroethene				96	0d		1.2	U	
1	Acetone	6.73	-0.01	0.00	43	111952	10.83	17	J	
1	Carbon Disulfide	7.16	-0.02	0.00	76	67724	0.5200	2.5	U	
1	Methyl Acetate				43	0d		1.3	U	
1	Methylene Chloride	7.44	-0.02	0.00	84	94065	2.17	4.1	U	
1	Methyl tert-Butyl Ether	7.87		0.00	73	30568	0.3900	1.1	U	
1	trans-1,2-Dichloroethene				96	0d		1.2	U	
1	Diisopropyl Ether				45	0d		0.56	U	

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File:	J:\MS04\DATA\041305\0413F009.D			**Instrument:**	MS04
Acqu Date:	04/13/2005 12:13	**Quant Date:**	04/14/2005 12:34	**Vial:**	10
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K2502607-007			**Soln Conc. Units:**	ppb

Target Compounds **Final Conc. Units:** ug/Kg Dry Weight

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
1	1,1-Dichloroethane				63	0d		1.3	U	
1	2-Butanone (MEK)				72	0d		20	U	
1	cis-1,2-Dichloroethene	9.50	-0.01	0.00	96	72443	2.02	3.2	J	
1	Bromochloromethane				128	0		1.6	U	
1	Chloroform				83	0d		0.93	U	
1	1,1,1-Trichloroethane (TCA)				97	0		0.93	U	
1	Cyclohexane				56	0d		1.1	U	
1	Carbon Tetrachloride				117	0		0.98	U	
1	Benzene	10.96		0.00	78	107064	0.8000	1.3	U	
1	1,2-Dichloroethane (EDC)				62	0d		1.1	U	
1	Trichloroethene (TCE)				95	0d		0.46	U	
1	1,2-Dichloropropane				63	0d		1.2	U	
1	Methylcyclohexane	12.29	-0.01	0.00	83	207871	3.90	6.2	J	
1	Bromodichloromethane	12.63	-0.02	0.00	83	23343m	0.5500	0.88	Ui	
1	cis-1,3-Dichloropropene				75	0d		1.3	U	
1	4-Methyl-2-pentanone (MIBK)				43	0d		9.0	U	
1	Toluene	13.90		0.00	92	229033	2.84	4.5	J	
2	trans-1,3-Dichloropropene				75	0d		0.98	U	
2	1,1,2-Trichloroethane				83	0d		1.2	U	
2	Tetrachloroethene (PCE)	14.76		0.00	164	9784	0.4000	0.64	J	
2	2-Hexanone				43	0d		10	U	
2	Dibromochloromethane				129	0d		0.98	U	
2	1,2-Dibromoethane (EDB)				107	0d		1.3	U	
2	Chlorobenzene				112	0d		1.2	U	
2	Ethylbenzene	16.08	-0.01	0.00	106	47317	1.18	1.9	J	
2	m,p-Xylenes	16.24		0.00	106	208072	4.13	6.6	J	
2	o-Xylene	16.81		0.00	106	146145	3.00	4.8	J	
2	Styrene				104	0d		1.2	U	
2	Bromoform				173	0		1.3	U	
2	Isopropylbenzene	17.28	-0.01	0.00	105	1235969	9.55	15	J	
3	1,1,2,2-Tetrachloroethane	17.62	-0.02	0.00	83	42550m	1.41	2.3	Ui	
3	1,3-Dichlorobenzene				146	0d		1.2	U	
3	1,4-Dichlorobenzene				146	0d		1.4	U	
3	1,2-Dichlorobenzene				146	0d		1.1	U	
3	1,2-Dibromo-3-chloropropane				157	0		1.4	U	
3	1,2,4-Trichlorobenzene				180	0d		1.3	U	
3	Naphthalene				128	0d		1.5	U	
3	1,2,3-Trichlorobenzene				180	0d		1.5	U	

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File:	J:\MS04\DATA\041305\0413F009.D			**Instrument:**	MS04
Acqu Date:	04/13/2005 12:13	**Quant Date:**	04/14/2005 12:34	**Vial:**	10
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K2502607-007			**Soln Conc. Units:**	ppb

Prep Amount:	5.09 g	**Dilution:**	1.0
Prep Final Vol:	5.0 ml	**Unit Factor:**	1
Solids:	61.5 %		

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / (Prep Amount x Solids)) x Unit Factor

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

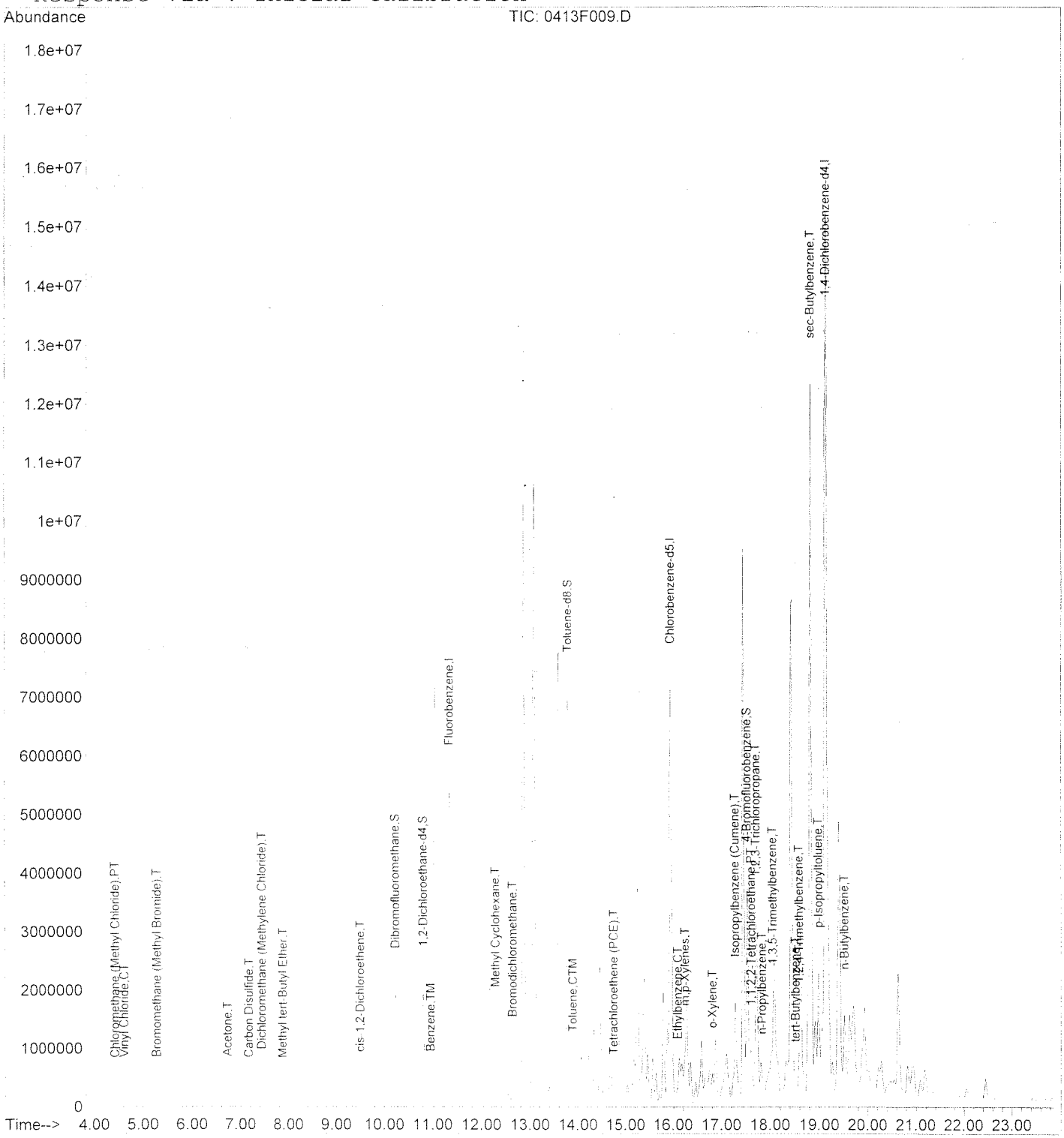
*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report (QT Reviewed)

Data File : J:\MS04\DATA\041305\0413F009.D
Acq On : 13 Apr 2005 12:13 pm
Sample : K2502607-007 KL 4/12/05
Misc :
MS Integration Params: RTEINT.P
Quant Time: Apr 14 12:34 2005

Vial: 10
Operator: KR
Inst : MS04
Multiplr: 1.00
Quant Results File: 041105SOILCL

Method : J:\MS04\METHODS\041105SOILCLP.M (RTE Integrator)
Title : MS04 APPX SOIL CAL 3288
Last Update : Mon Apr 11 19:41:27 2005
Response via : Initial Calibration



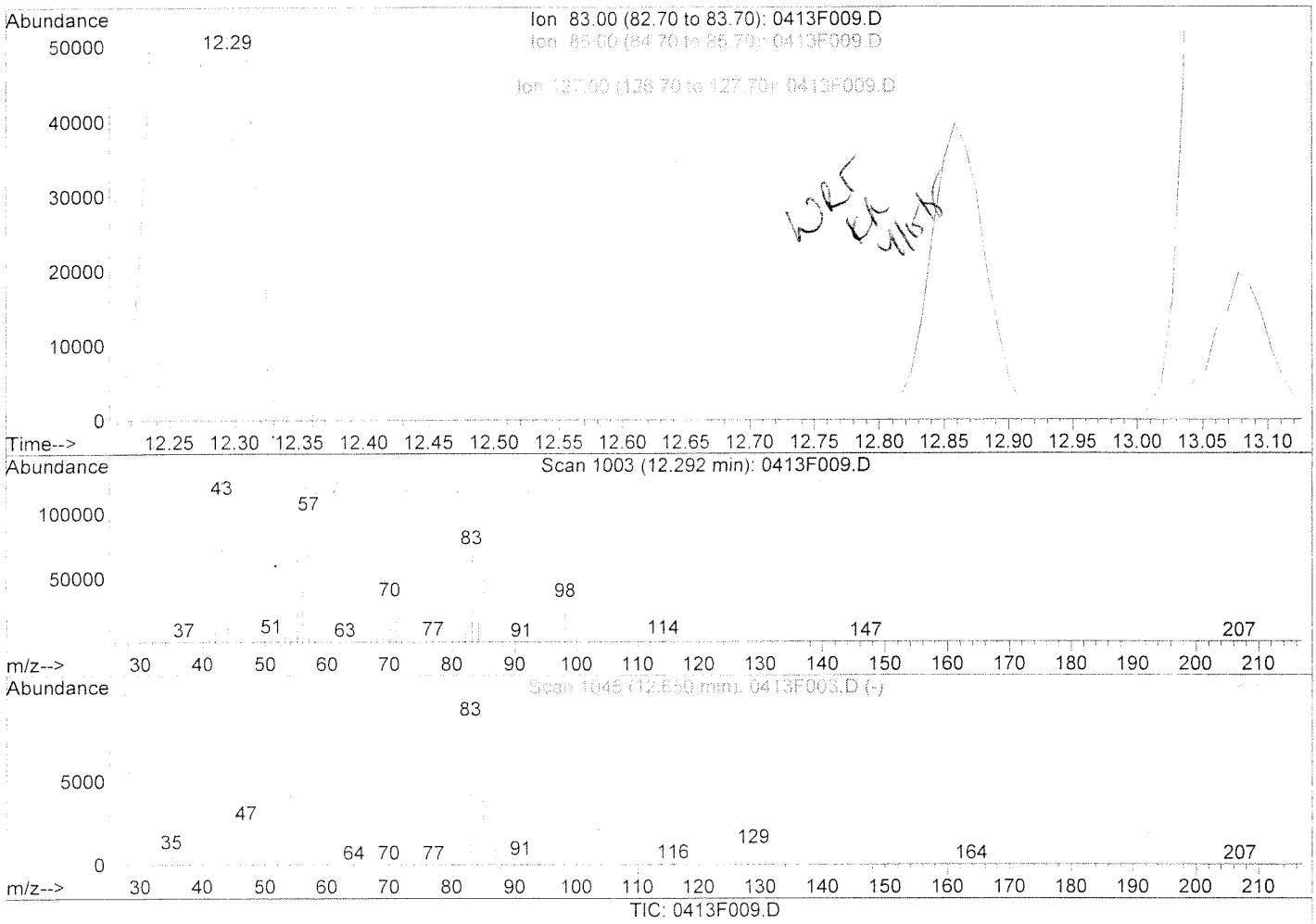
Quantitation Report (Qedit)

Data File : J:\MS04\DATA\041305\0413F009.D
Acq On : 13 Apr 2005 12:13 pm
Sample : K2502607-001 /7 KL 4/22/05
Misc :
MS Integration Params: RTEINT.P
Quant Time: Apr 14 12:30 2005

Vial: 10
Operator: KR
Inst : MS04
Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS04\METHODS\041105SOILCLP.M (RTE Integrator)
Title : MS04 APPX SOIL CAL 3288
Last Update : Mon Apr 11 19:41:27 2005
Response via : Multiple Level Calibration



(41) Bromodichloromethane (T)

12.29min 4.86ppb

response 207871

Ion	Exp%	Act%
83.00	100	100
85.00	62.80	77.46
129.00	9.80	0.00
127.00	7.90	0.00

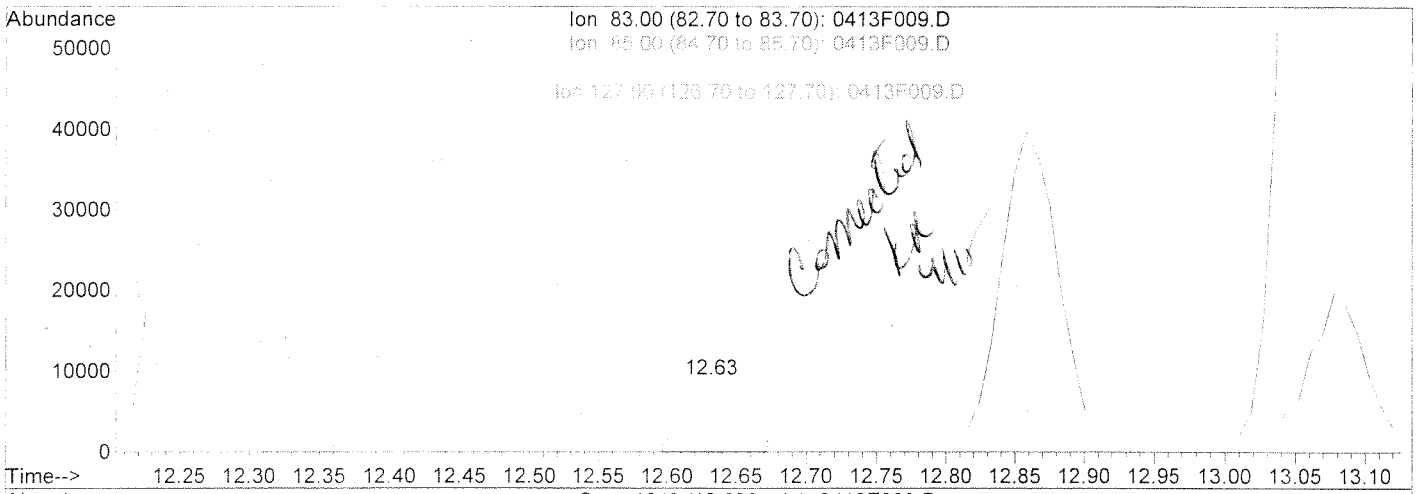
0413F009.D 041105SOILCLP.M Thu Apr 14 12:30:58 2005

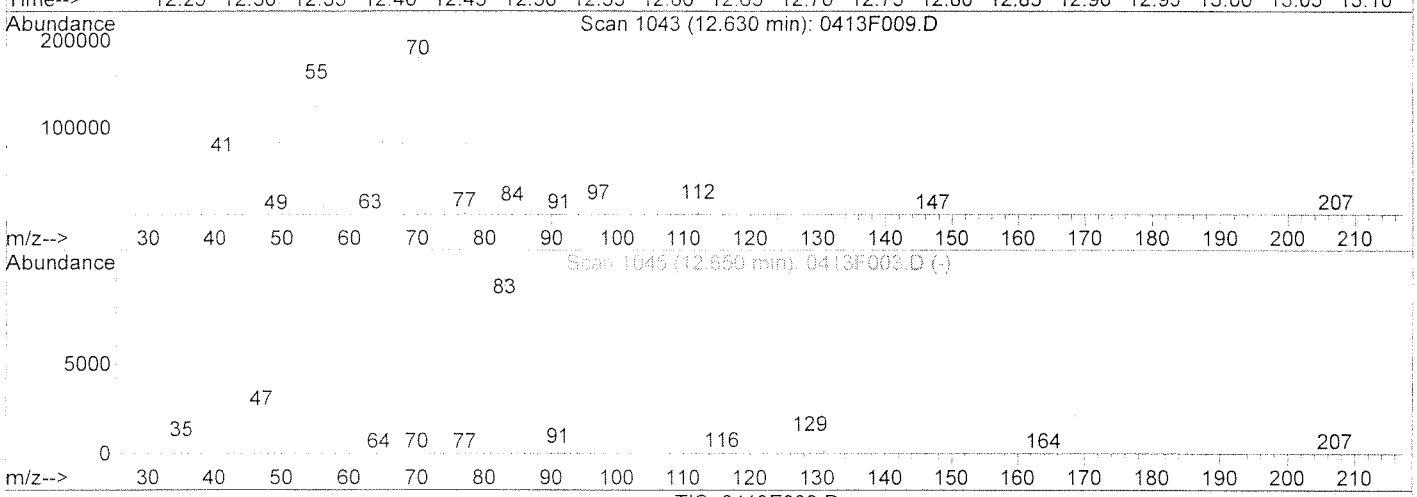
Quantitation Report (Qedit)

Data File : J:\MS04\DATA\041305\0413F009.D
Acq On : 13 Apr 2005 12:13 pm
Sample : K2502607-007 KL 4/14/05
Misc :
MS Integration Params: RTEINT.P
Quant Time: Apr 14 12:31 2005

Vial: 10
Operator: KR
Inst : MS04
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS04\METHODS\041105SOILCLP.M (RTE Integrator)
Title : MS04 APPX SOIL CAL 3288
Last Update : Mon Apr 11 19:41:27 2005
Response via : Multiple Level Calibration





(41) Bromodichloromethane (T)

12.63min 0.55ppb m

response 23343

Ion	Exp%	Act%
83.00	100	100
85.00	62.80	12.64#
129.00	9.80	0.00
127.00	7.90	0.00

4/14/05 [illegible]

0413F009.D 041105SOILCLP.M Thu Apr 14 12:31:08 2005

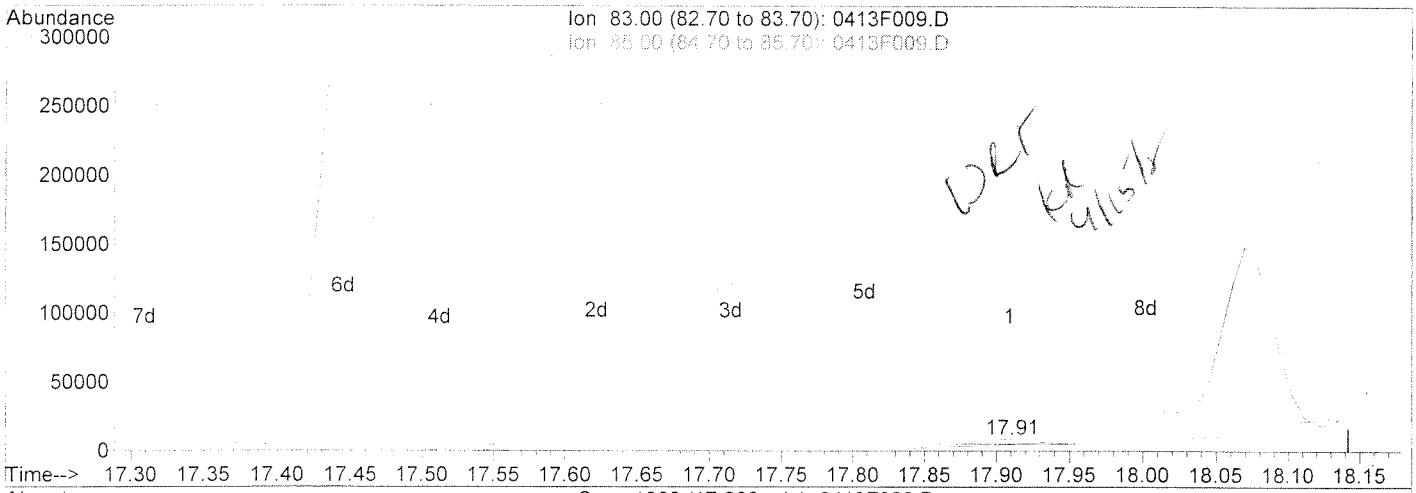
Quantitation Report (Qedit)

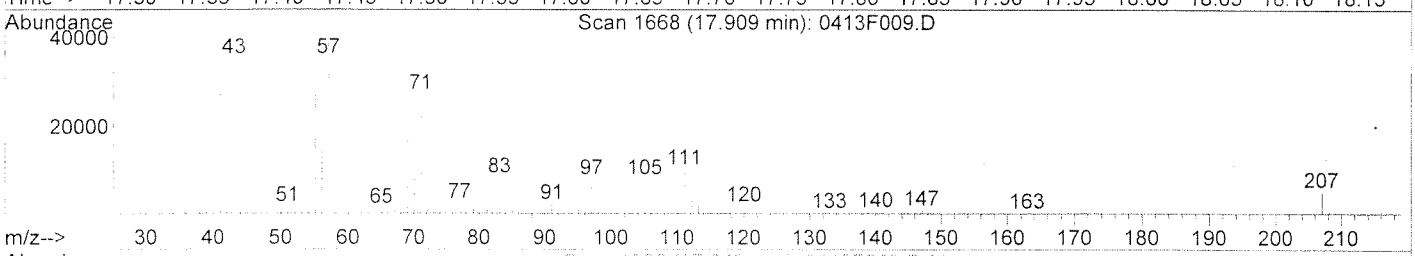
Data File : J:\MS04\DATA\041305\0413F009.D
Acq On : 13 Apr 2005 12:13 pm
Sample : K2502607-001/7 KR 4/22/5
Misc :
MS Integration Params: RTEINT.P
Quant Time: Apr 14 12:32 2005

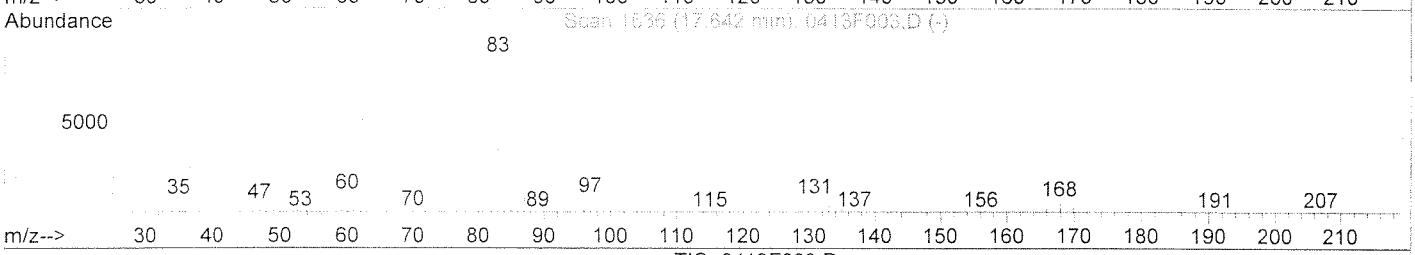
Vial: 10
Operator: KR
Inst : MS04
Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS04\METHODS\041105SOILCLP.M (RTE Integrator)
Title : MS04 APPX SOIL CAL 3288
Last Update : Mon Apr 11 19:41:27 2005
Response via : Multiple Level Calibration







(66) 1,1,2,2-Tetrachloroethane (PT)

17.91min 0.28ppb

response 8502

Ion	Exp%	Act%
83.00	100	100
85.00	64.30	39.74
131.00	7.40	0.00
0.00	0.00	0.00

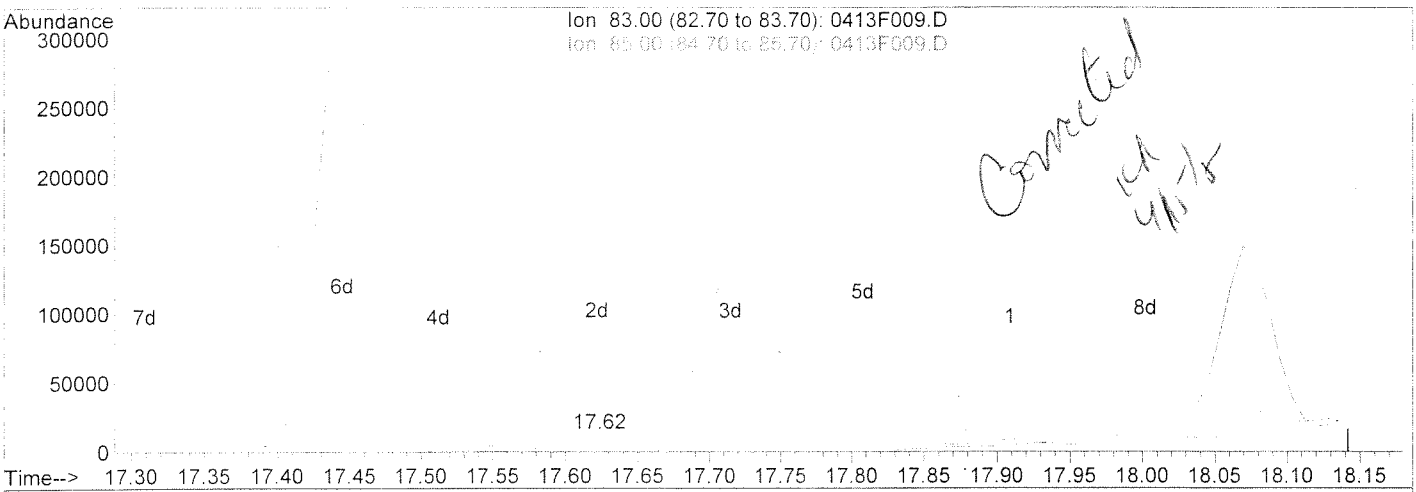
0413F009.D 041105SOILCLP.M Thu Apr 14 12:32:39 2005

Quantitation Report (Qedit)

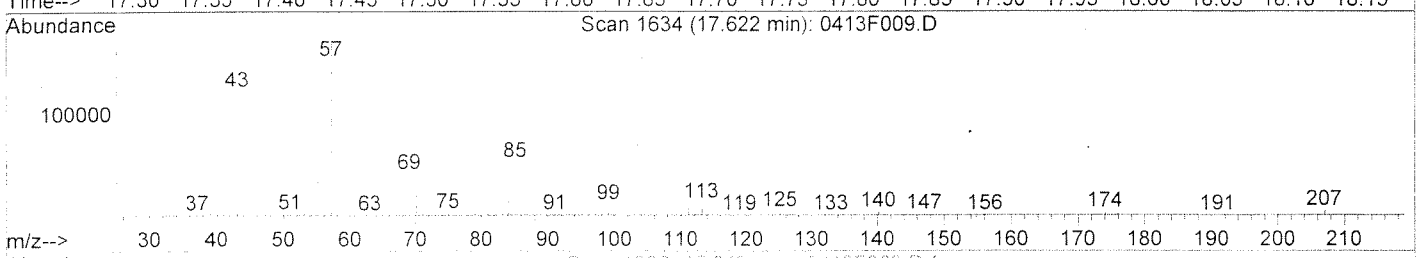
Data File : J:\MS04\DATA\041305\0413F009.D
Acq On : 13 Apr 2005 12:13 pm
Sample : K2502607-001/7 KR 4/22/05
Misc :
MS Integration Params: RTEINT.P
Quant Time: Apr 14 12:32 2005

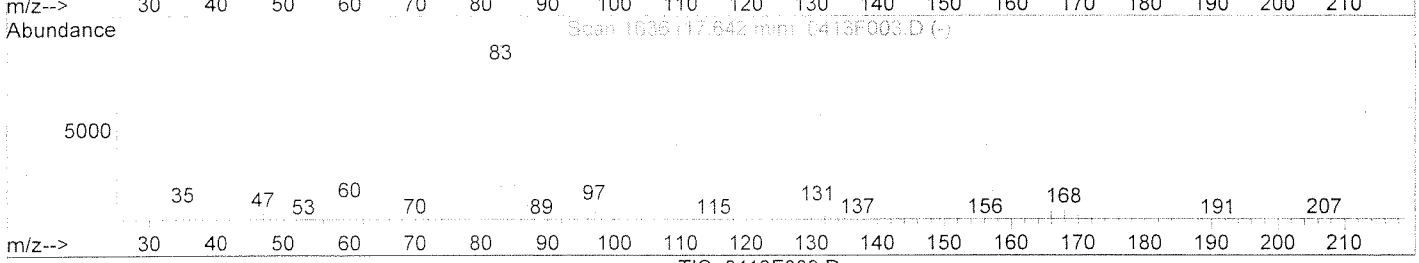
Vial: 10
Operator: KR
Inst : MS04
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS04\METHODS\041105SOILCLP.M (RTE Integrator)
Title : MS04 APPX SOIL CAL 3288
Last Update : Mon Apr 11 19:41:27 2005
Response via : Multiple Level Calibration



Corrected KR 4/15/5





TIC: 0413F009.D

(66) 1,1,2,2-Tetrachloroethane (PT)

17.62min 1.41ppb m

response 42550

Ion	Exp%	Act%
83.00	100	100
85.00	64.30	402.98#
131.00	7.40	0.00
0.00	0.00	0.00

< mre 4/18/5

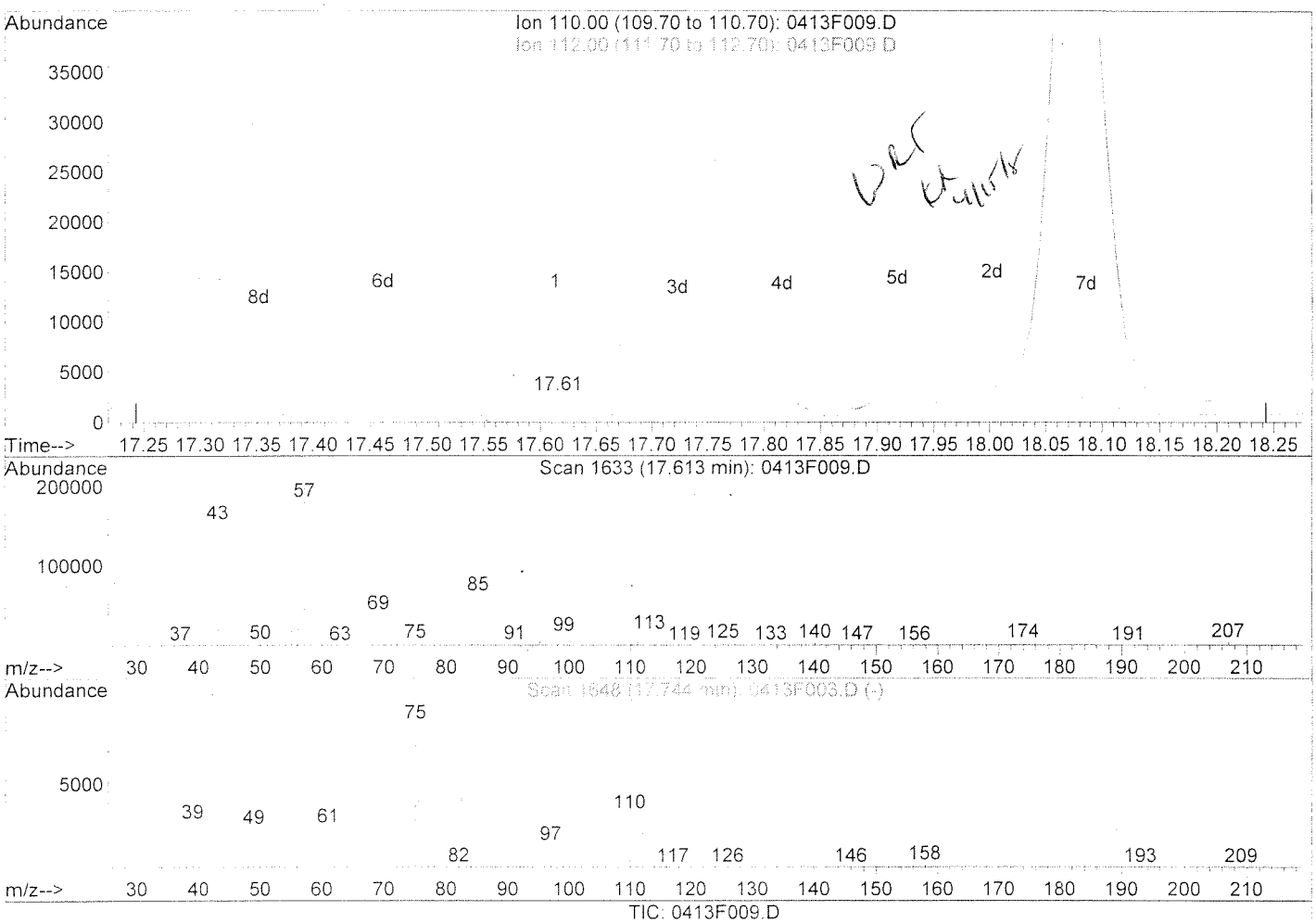
0413F009.D 041105SOILCLP.M Thu Apr 14 12:32:57 2005

Quantitation Report (Qedit)

Data File : J:\MS04\DATA\041305\0413F009.D
Acq On : 13 Apr 2005 12:13 pm
Sample : K2502607-007 KR 4/22/05
Misc :
MS Integration Params: RTEINT.P
Quant Time: Apr 14 12:33 2005

Vial: 10
Operator: KR
Inst : MS04
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS04\METHODS\041105SOILCLP.M (RTE Integrator)
Title : MS04 APPX SOIL CAL 3288
Last Update : Mon Apr 11 19:41:27 2005
Response via : Multiple Level Calibration



(70) 1,2,3-Trichloropropane (T)

17.61min 1.09ppb

response 8244

Ion	Exp%	Act%
110.00	100	100
112.00	65.80	84.84
101.00	5.30	0.00
0.00	0.00	0.00

0413F009.D 041105SOILCLP.M Thu Apr 14 12:33:18 2005

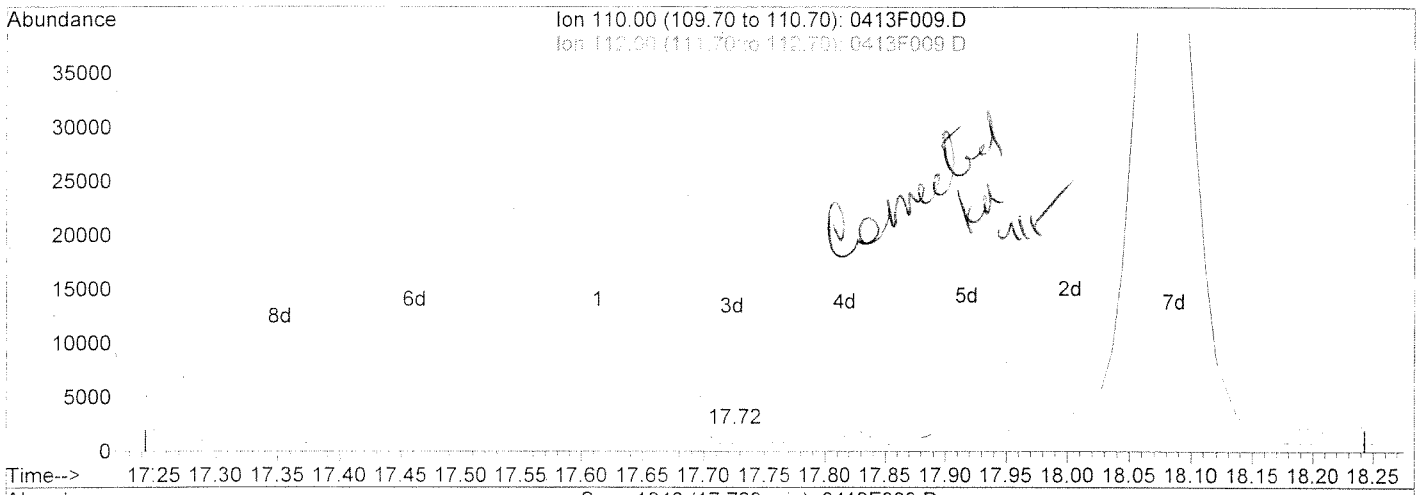
Quantitation Report (Qedit)

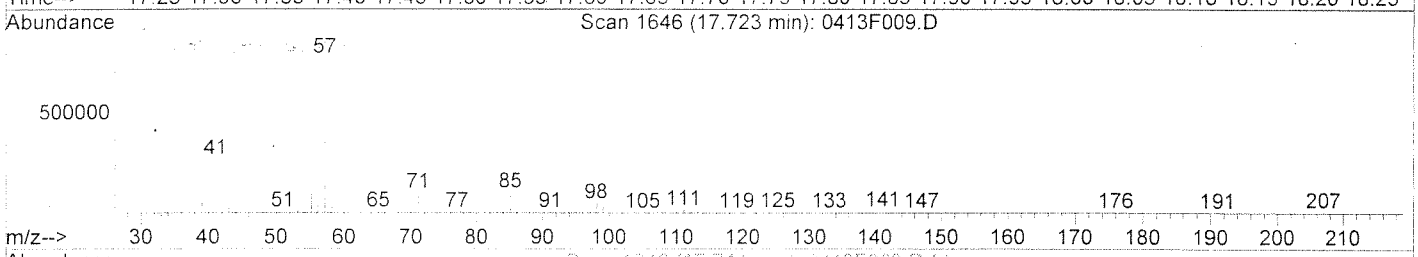
Data File : J:\MS04\DATA\041305\0413F009.D
Acq On : 13 Apr 2005 12:13 pm
Sample : K2502607-007
Misc :
MS Integration Params: RTEINT.P
Quant Time: Apr 14 12:33 2005

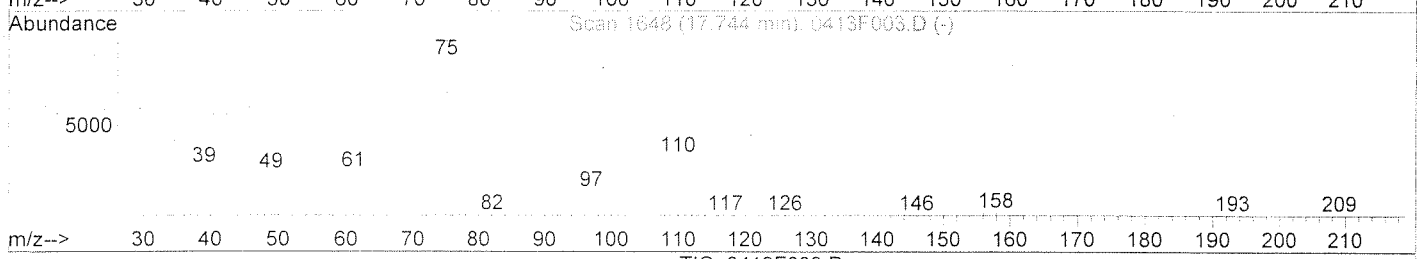
Vial: 10
Operator: KR
Inst : MS04
Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS04\METHODS\041105SOILCLP.M (RTE Integrator)
Title : MS04 APPX SOIL CAL 3288
Last Update : Mon Apr 11 19:41:27 2005
Response via : Multiple Level Calibration







TIC: 0413F009.D

(70) 1,2,3-Trichloropropane (T)

17.72min 0.33ppb m

response 2488

Ion	Exp%	Act%
110.00	100	100
112.00	65.80	290.06#
101.00	5.30	0.00
0.00	0.00	0.00

0413F009.D 041105SOILCLP.M Thu Apr 14 12:33:35 2005

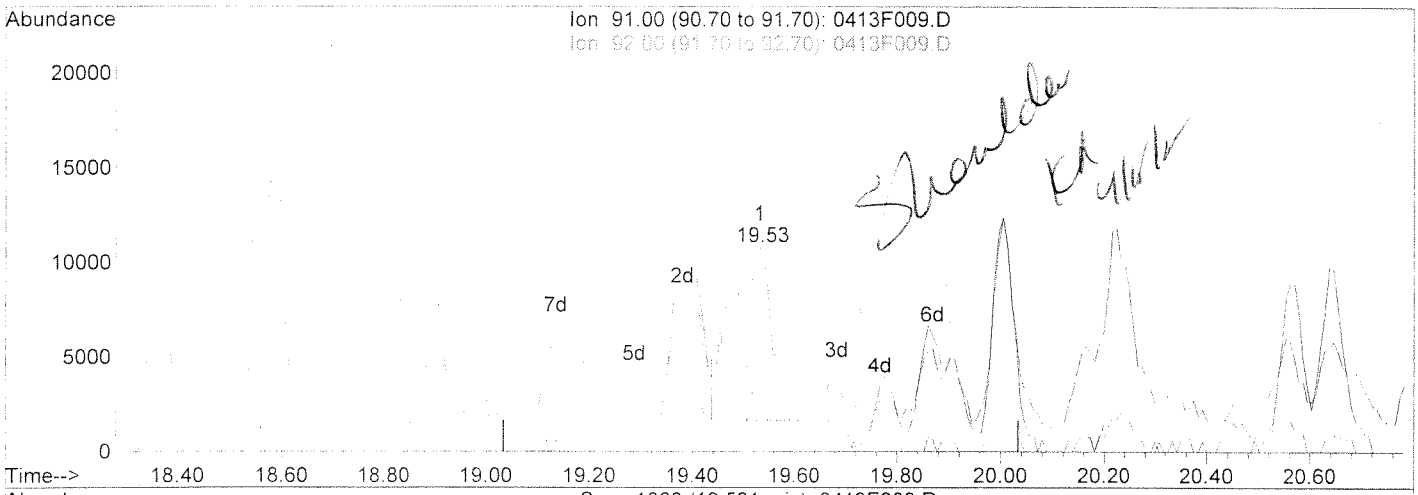
Quantitation Report (Qedit)

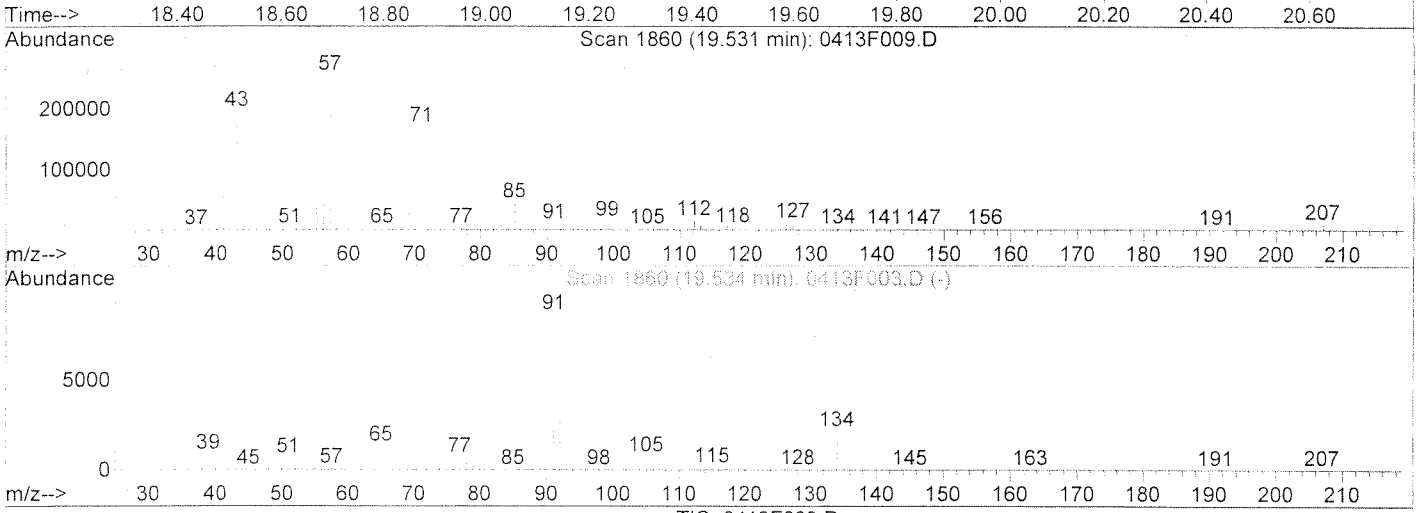
Data File : J:\MS04\DATA\041305\0413F009.D
Acq On : 13 Apr 2005 12:13 pm
Sample : K2502607-007 # 7 KR 4/14/05
Misc :
MS Integration Params: RTEINT.P
Quant Time: Apr 14 12:34 2005

Vial: 10
Operator: KR
Inst : MS04
Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS04\METHODS\041105SOILCLP.M (RTE Integrator)
Title : MS04 APPX SOIL CAL 3288
Last Update : Mon Apr 11 19:41:27 2005
Response via : Multiple Level Calibration





TIC: 0413F009.D

(80) n-Butylbenzene (T)

19.53min 0.52ppb

response 46183

Ion	Exp%	Act%
91.00	100	100
92.00	58.00	53.35
134.00	21.60	23.44
0.00	0.00	0.00

0413F009.D 041105SOILCLP.M Thu Apr 14 12:34:16 2005

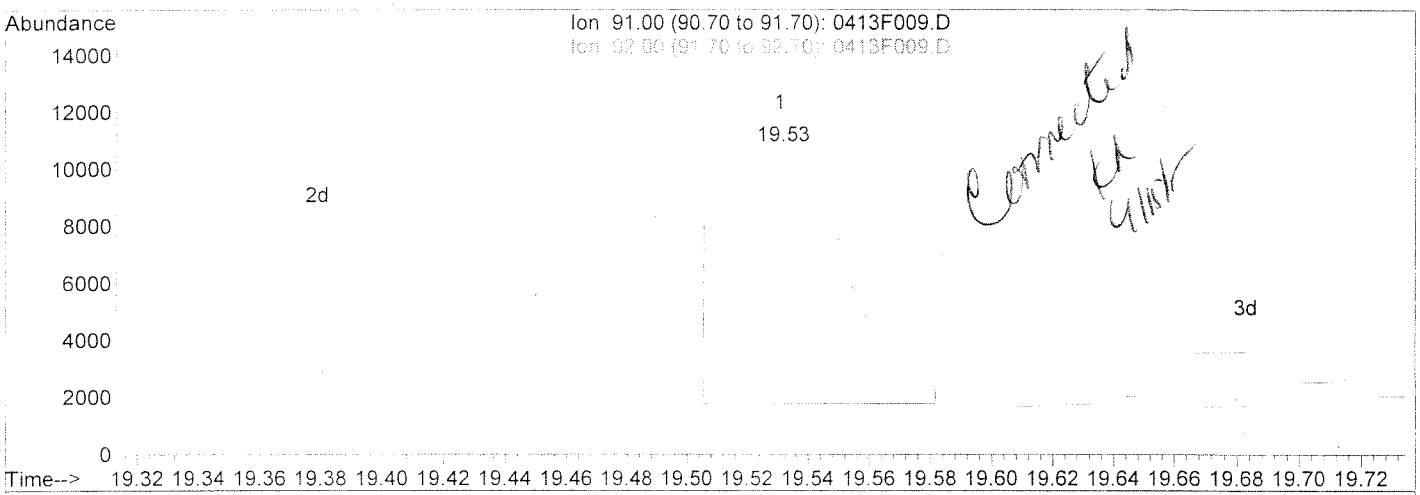
Quantitation Report (Qedit)

Data File : J:\MS04\DATA\041305\0413F009.D
Acq On : 13 Apr 2005 12:13 pm
Sample : K2502607-001 Kly1226
Misc :
MS Integration Params: RTEINT.P
Quant Time: Apr 14 12:34 2005

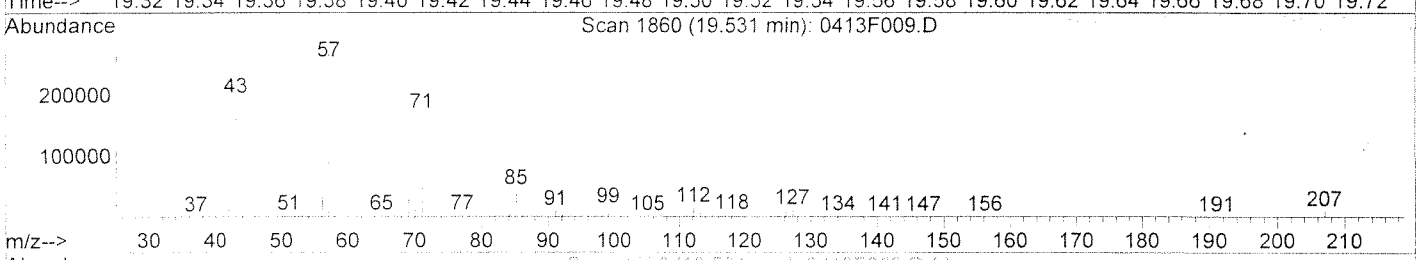
Vial: 10
Operator: KR
Inst : MS04
Multiplr: 1.00

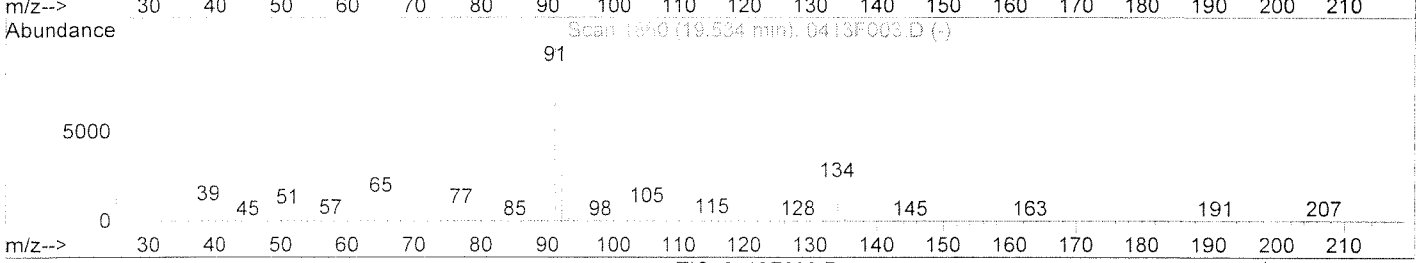
Quant Results File: temp.res

Method : J:\MS04\METHODS\041105SOILCLP.M (RTE Integrator)
Title : MS04 APPX SOIL CAL 3288
Last Update : Mon Apr 11 19:41:27 2005
Response via : Multiple Level Calibration



Corrected KR 4/11/05





TIC: 0413F009.D

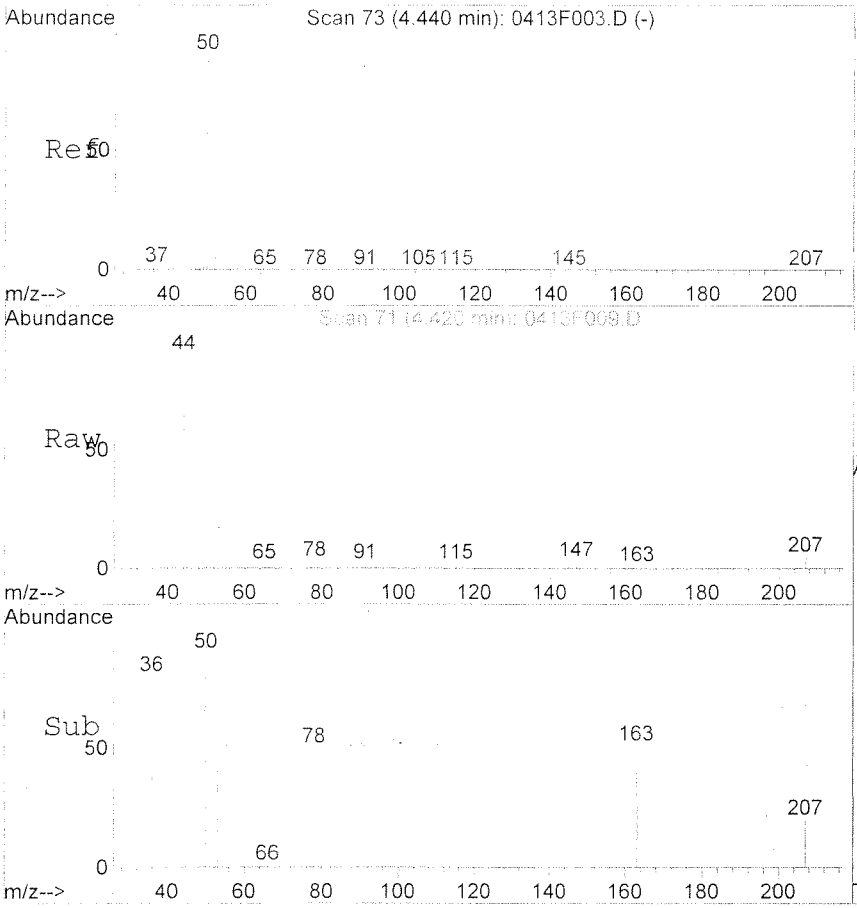
(80) n-Butylbenzene (T)

19.53min 0.26ppb m

response 23517

Ion	Exp%	Act%
91.00	100	100
92.00	58.00	45.03
134.00	21.60	19.78
0.00	0.00	0.00

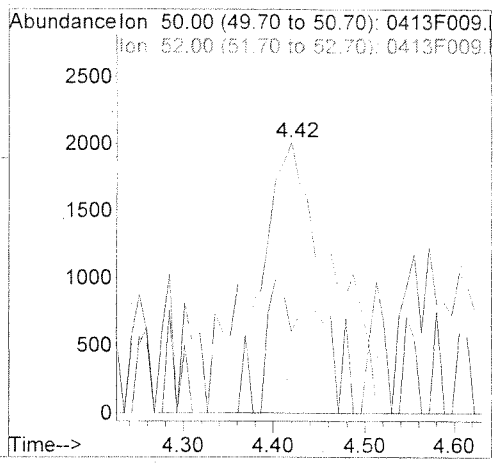
0413F009.D 041105SOILCLP.M Thu Apr 14 12:34:27 2005

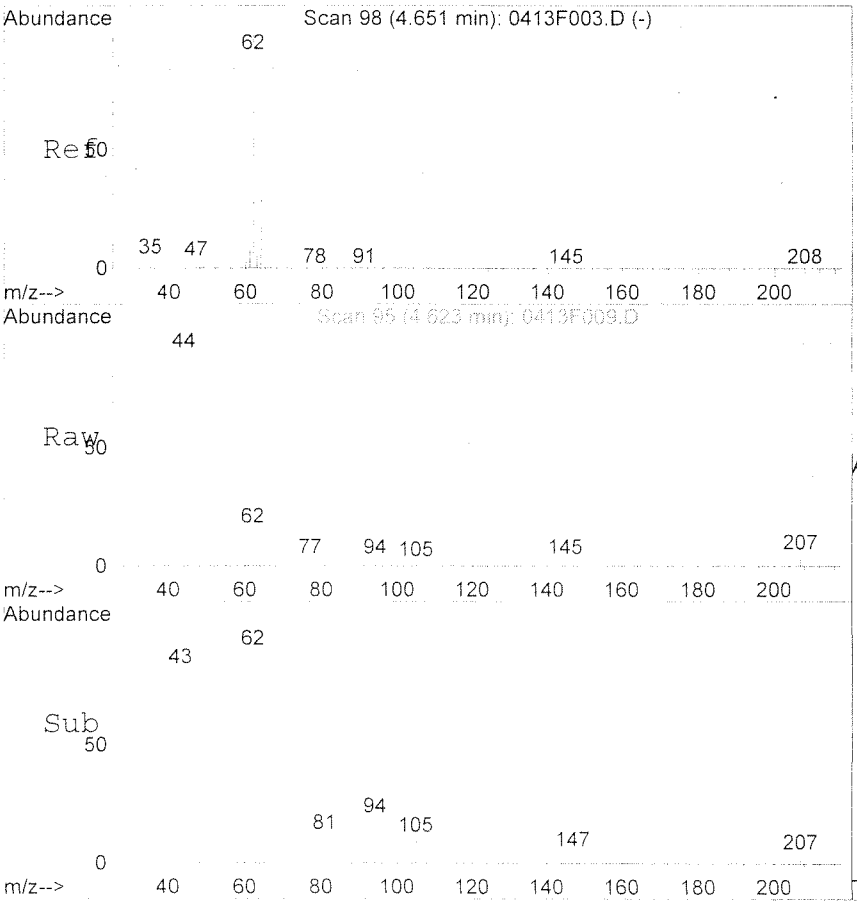


#3
Chloromethane (Methyl Chlorid
Concen: 0.25 ppb
RT: 4.42 min Scan# 71
Delta R.T. -0.02 min
Lab File: 0413F009.D
Acq: 13 Apr 2005 12:13 pm

Tgt Ion: 50 Resp: 12625

Ion	Ratio	Lower	Upper
50	100		
52	30.1	2.1	62.1
49	0.0	0.0	40.1

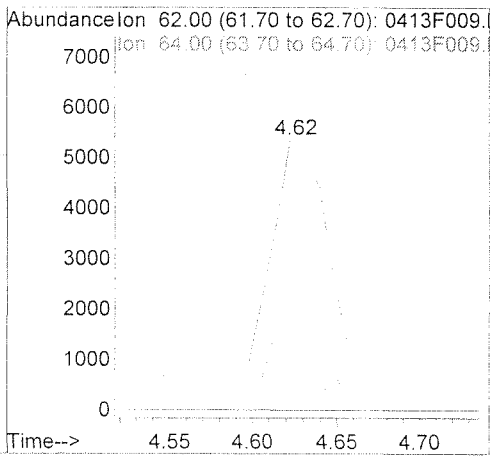


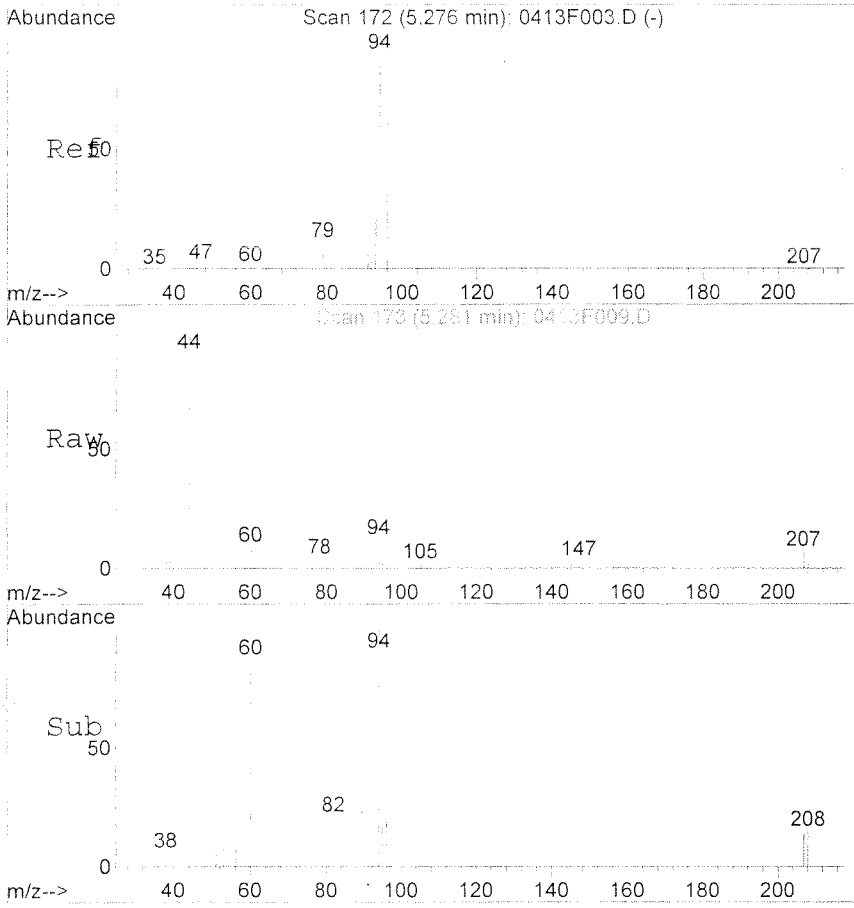


#4
Vinyl Chloride
Concen: 0.34 ppb
RT: 4.62 min Scan# 95
Delta R.T. -0.03 min
Lab File: 0413F009.D
Acq: 13 Apr 2005 12:13 pm

Tgt Ion: 62 Resp: 13610

Ion	Ratio	Lower	Upper
62	100		
64	34.5	1.8	61.8
61	12.7	0.0	39.4

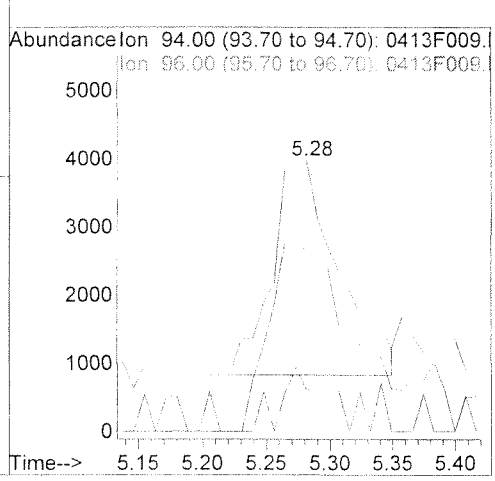


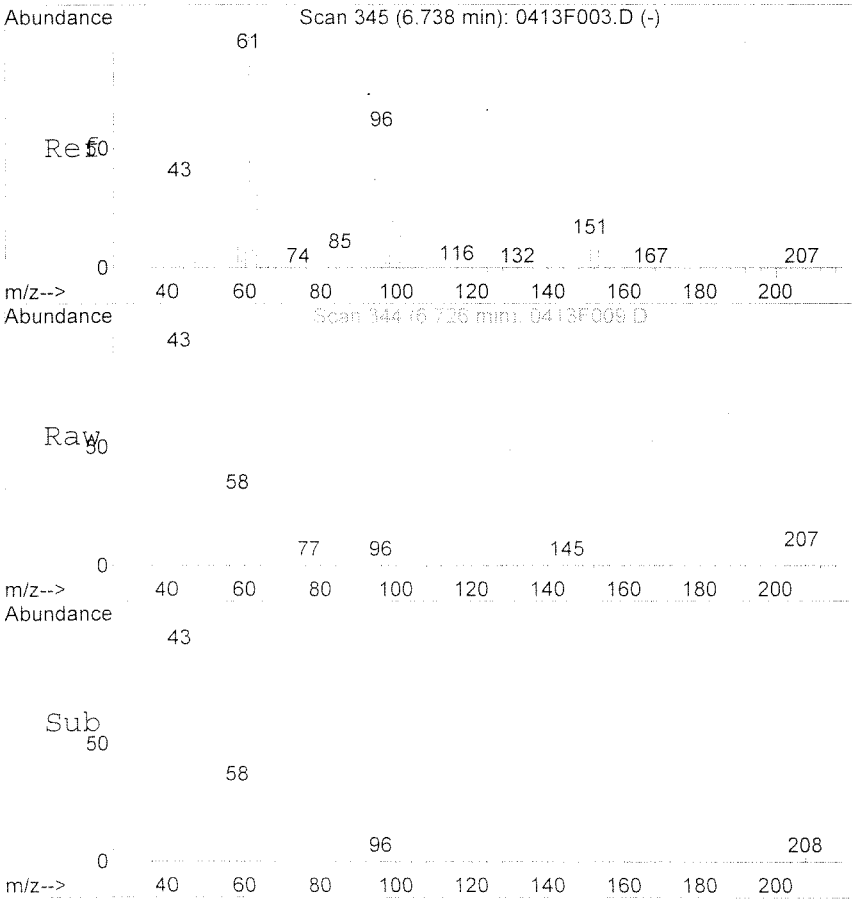


#5
Bromomethane (Methyl Bromide)
Concen: 0.66 ppb
RT: 5.28 min Scan# 173
Delta R.T. 0.01 min
Lab File: 0413F009.D
Acq: 13 Apr 2005 12:13 pm

Tgt Ion: 94 Resp: 11445

Ion	Ratio	Lower	Upper
94	100		
96	64.7	63.5	123.5
81	19.4	0.0	41.0

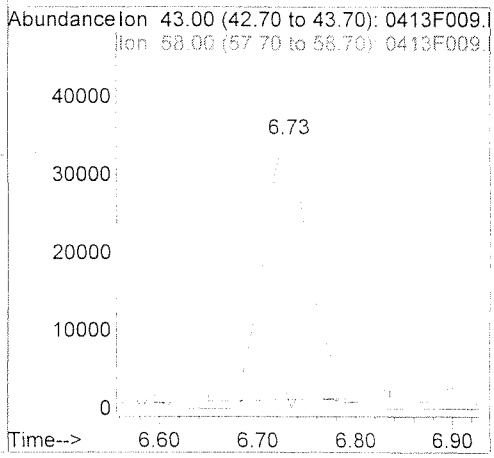


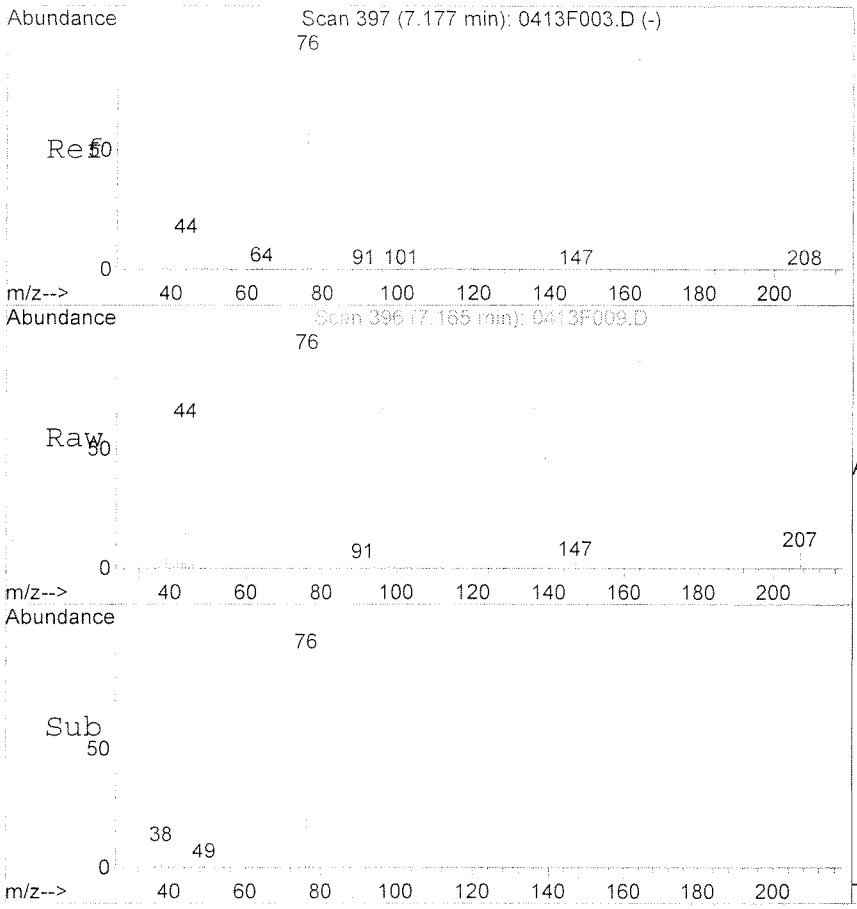


#11
Acetone
Concen: 10.83 ppb
RT: 6.73 min Scan# 344
Delta R.T. -0.01 min
Lab File: 0413F009.D
Acq: 13 Apr 2005 12:13 pm

Tgt Ion: 43 Resp: 111952

Ion	Ratio	Lower	Upper
43	100		
58	31.0	0.0	59.3
42	7.6	0.0	38.1

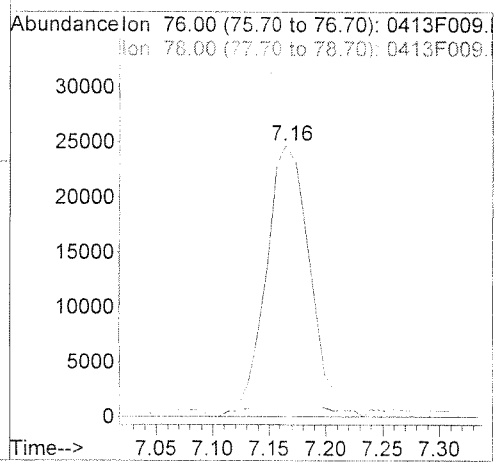


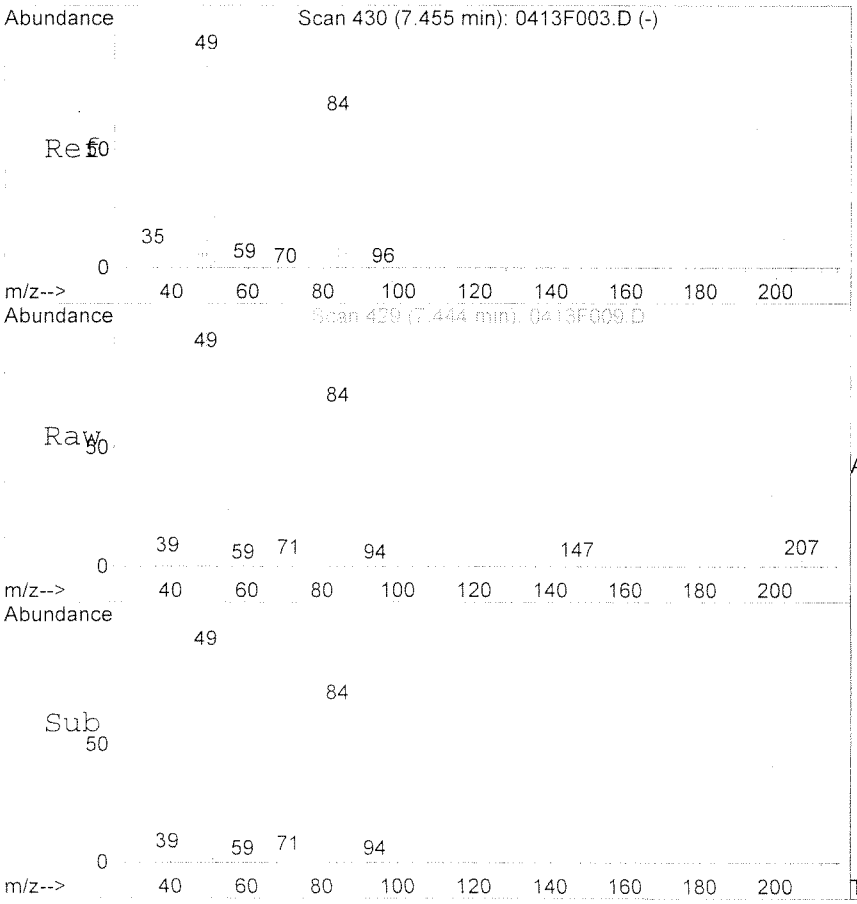


#13
Carbon Disulfide
Concen: 0.52 ppb
RT: 7.16 min Scan# 396
Delta R.T. -0.01 min
Lab File: 0413F009.D
Acq: 13 Apr 2005 12:13 pm

Tgt Ion: 76 Resp: 67724

Ion	Ratio	Lower	Upper
76	100		
78	10.9	0.0	38.9
77	2.6	0.0	32.8

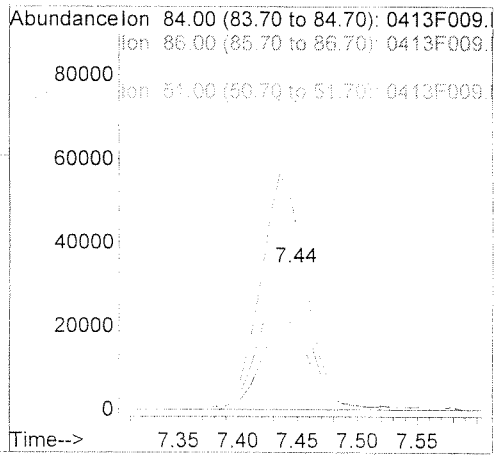


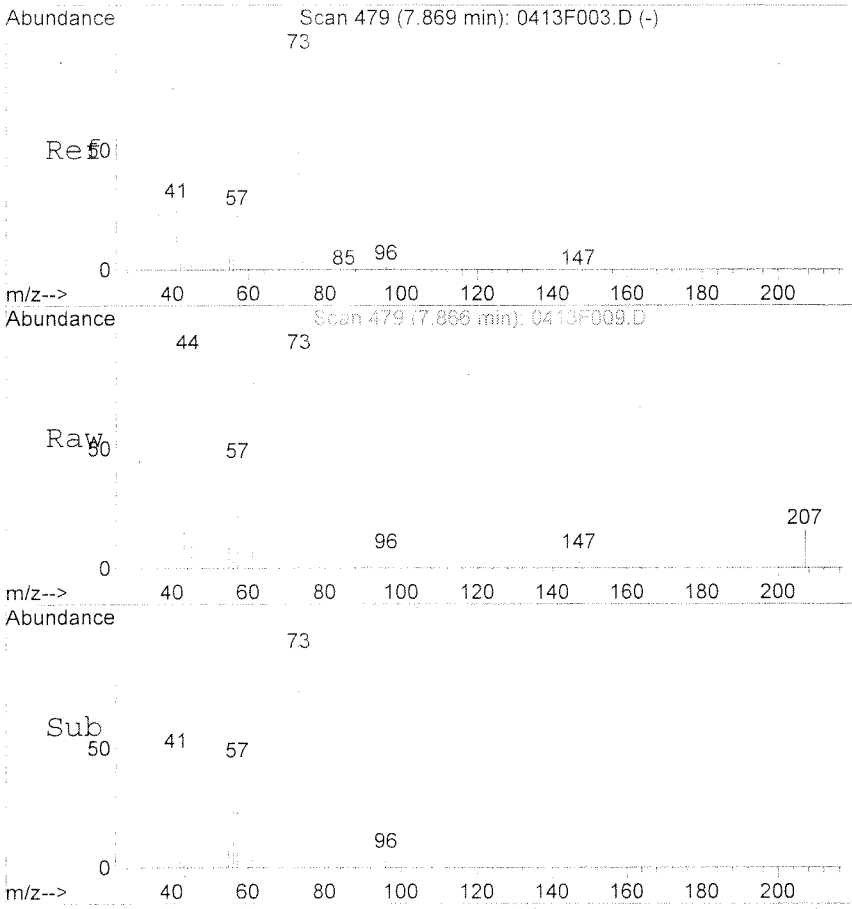


#15
Dichloromethane (Methylene Ch
Concen: 2.17 ppb
RT: 7.44 min Scan# 429
Delta R.T. -0.01 min
Lab File: 0413F009.D
Acq: 13 Apr 2005 12:13 pm

Tgt Ion: 84 Resp: 94065

Ion	Ratio	Lower	Upper
84	100		
86	61.3	32.8	92.8
49	148.3	127.1	187.1
51	45.5	17.7	77.7

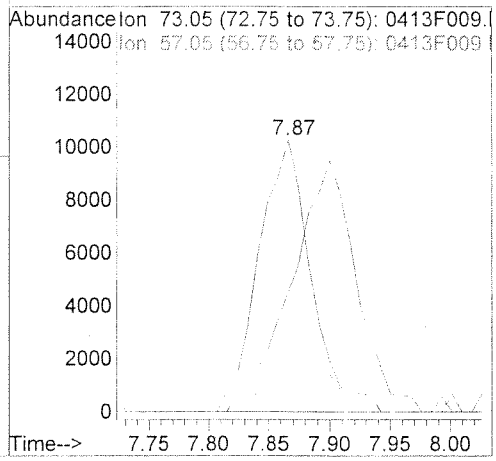


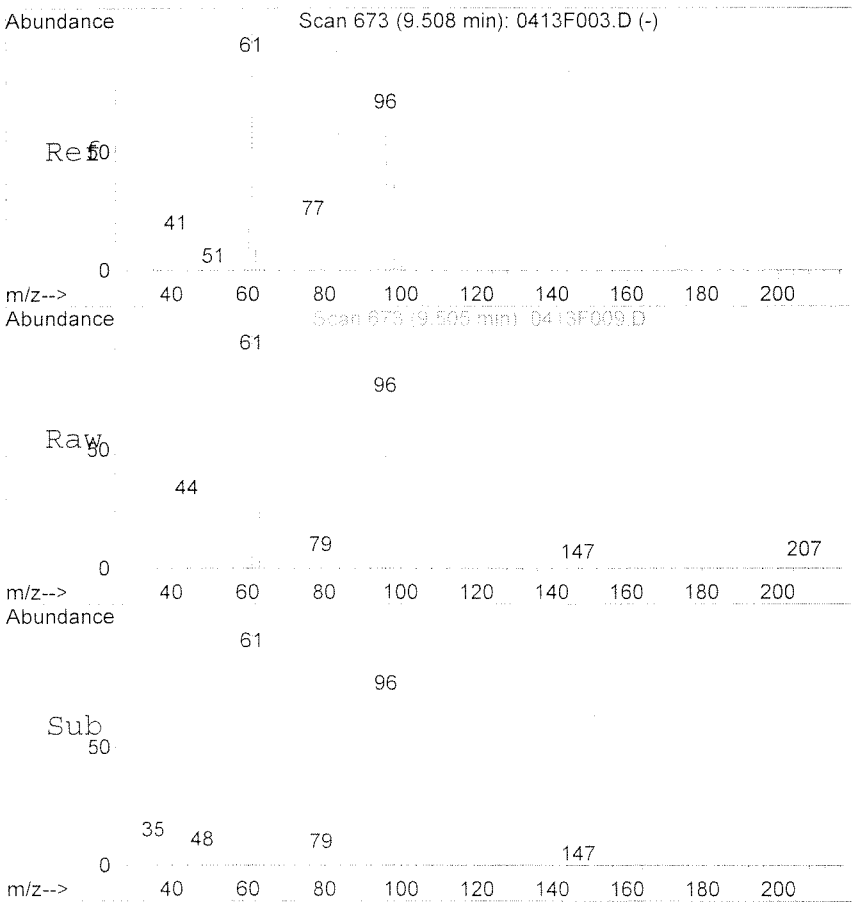


#17
Methyl tert-Butyl Ether
Concen: 0.39 ppb
RT: 7.87 min Scan# 479
Delta R.T. -0.00 min
Lab File: 0413F009.D
Acq: 13 Apr 2005 12:13 pm

Tgt Ion: 73 Resp: 30568

Ion	Ratio	Lower	Upper
73	100		
57	44.2	0.0	55.0
55	9.2	0.0	35.2

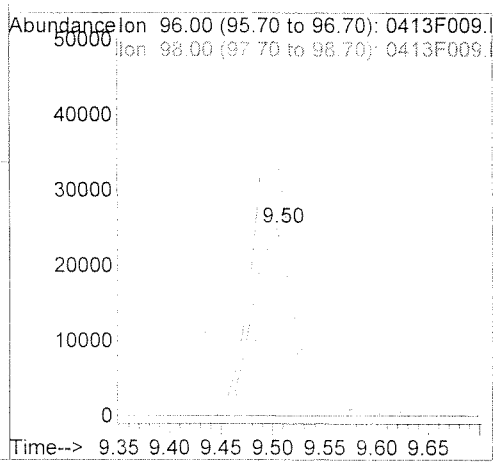


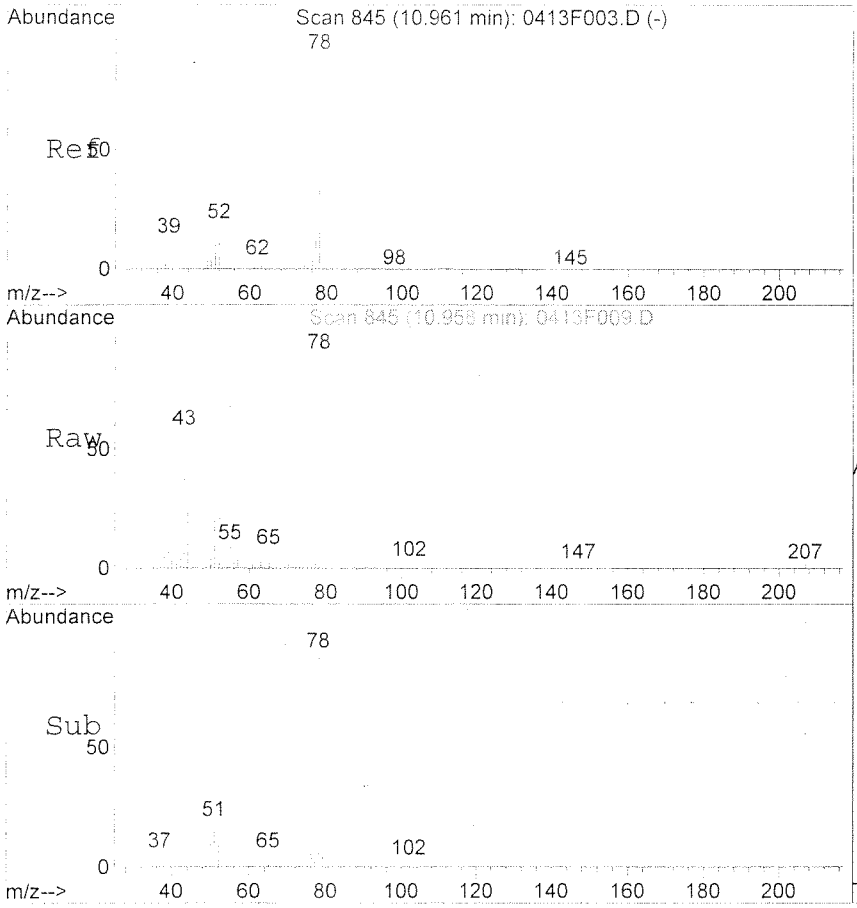


#25
cis-1,2-Dichloroethene
Concen: 2.02 ppb
RT: 9.50 min Scan# 673
Delta R.T. -0.00 min
Lab File: 0413F009.D
Acq: 13 Apr 2005 12:13 pm

Tgt Ion: 96 Resp: 72443

Ion	Ratio	Lower	Upper
96	100		
98	68.8	33.4	93.4
61	138.8	121.8	181.8

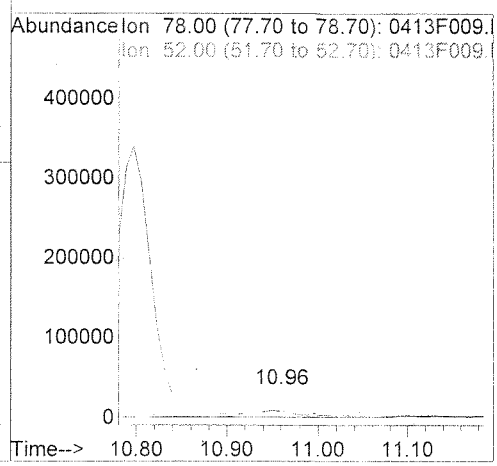


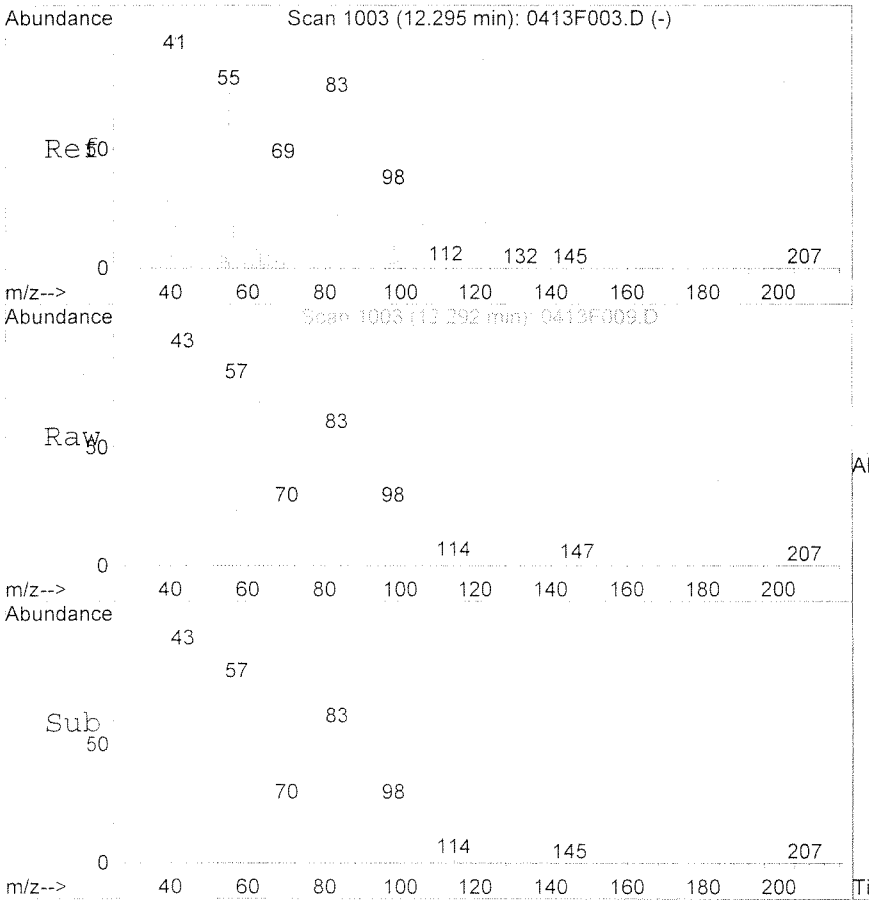


#35
Benzene
Concen: 0.80 ppb
RT: 10.96 min Scan# 845
Delta R.T. -0.00 min
Lab File: 0413F009.D
Acq: 13 Apr 2005 12:13 pm

Tgt Ion: 78 Resp: 107064

Ion	Ratio	Lower	Upper
78	100		
52	21.8	0.0	49.0
51	14.9	0.0	49.1

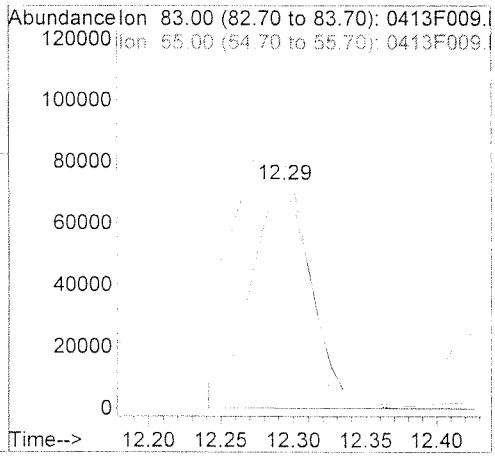


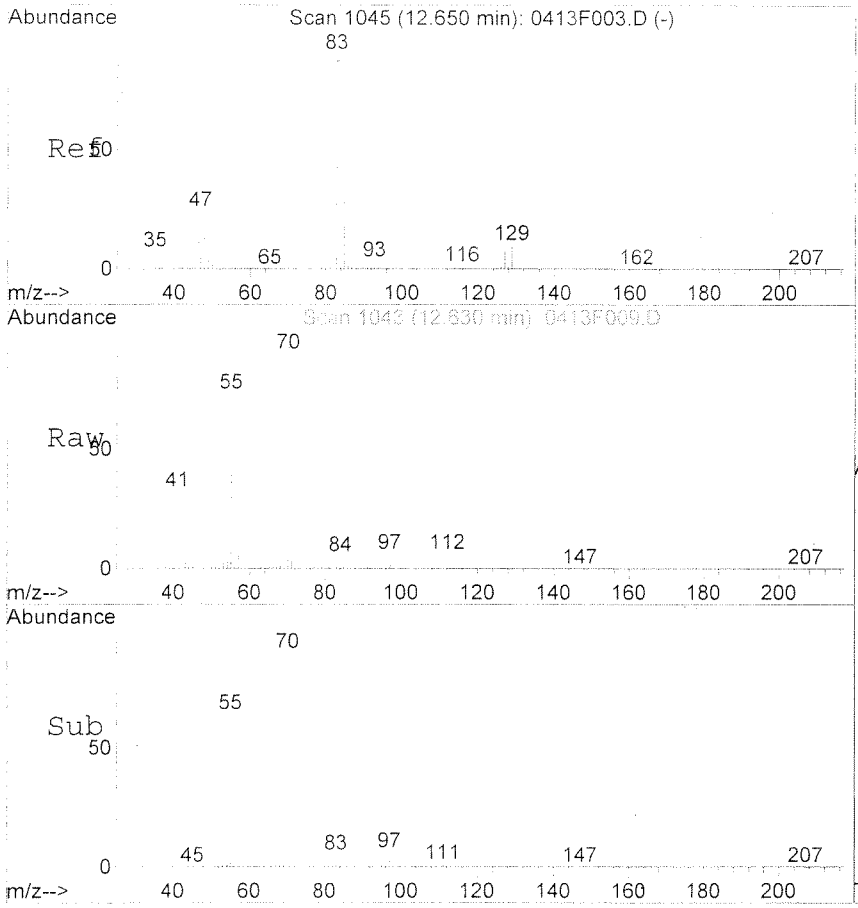


#39
Methyl Cyclohexane
Concen: 3.90 ppb
RT: 12.29 min Scan# 1003
Delta R.T. -0.00 min
Lab File: 0413F009.D
Acq: 13 Apr 2005 12:13 pm

Tgt Ion: 83 Resp: 207871

Ion	Ratio	Lower	Upper
83	100		
55	155.1	72.7	135.1#
98	42.6	31.4	58.4

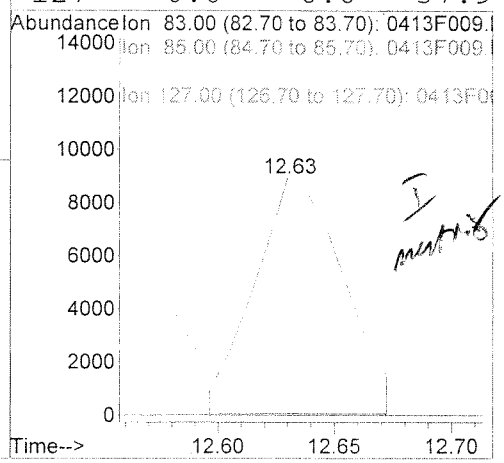


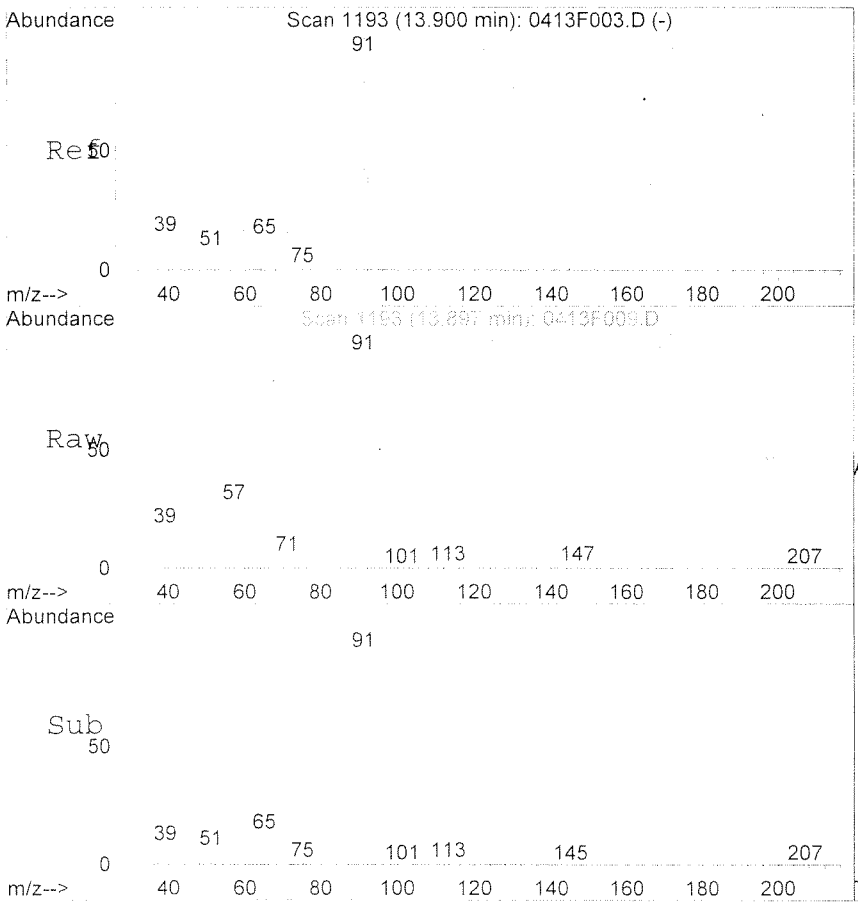


#41
Bromodichloromethane
Concen: 0.55 ppb m
RT: 12.63 min Scan# 1043
Delta R.T. -0.02 min
Lab File: 0413F009.D
Acq: 13 Apr 2005 12:13 pm

Tgt Ion: 83 Resp: 23343

Ion	Ratio	Lower	Upper
83	100		
85	12.6	32.8	92.8#
129	0.0	0.0	39.8
127	0.0	0.0	37.9

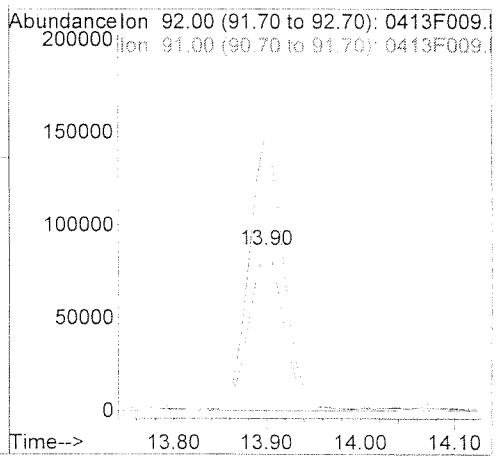


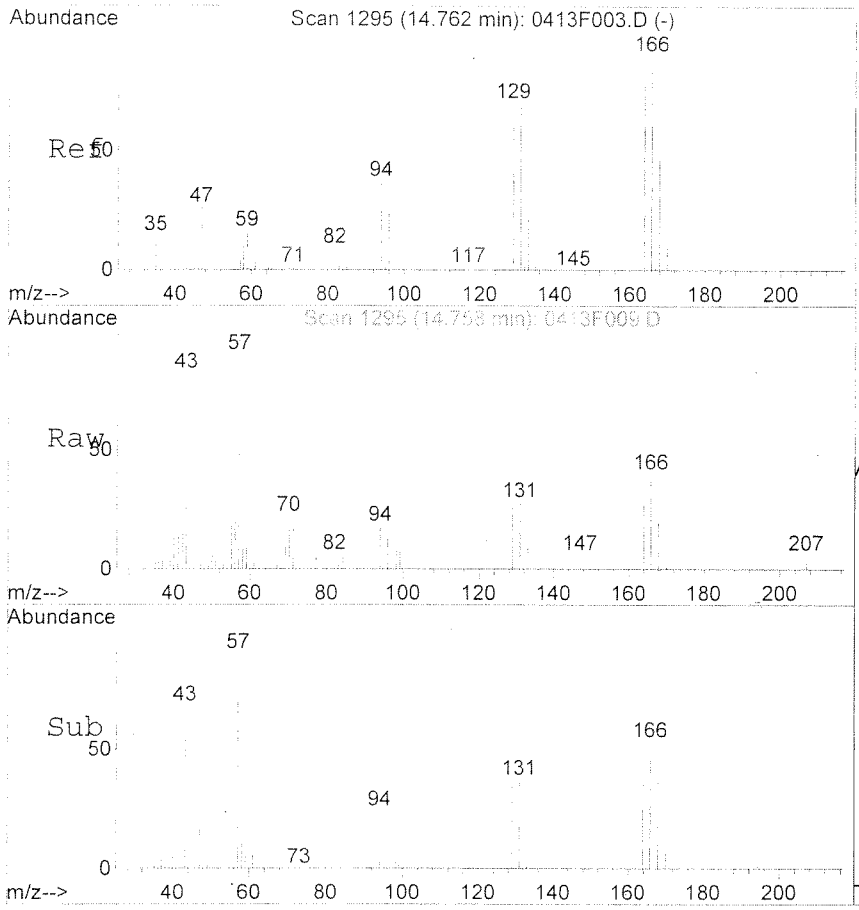


#46
Toluene
Concen: 2.84 ppb
RT: 13.90 min Scan# 1193
Delta R.T. -0.00 min
Lab File: 0413F009.D
Acq: 13 Apr 2005 12:13 pm

Tgt Ion: 92 Resp: 229033

Ion	Ratio	Lower	Upper
92	100		
91	166.7	137.8	197.8
65	21.7	0.0	52.1

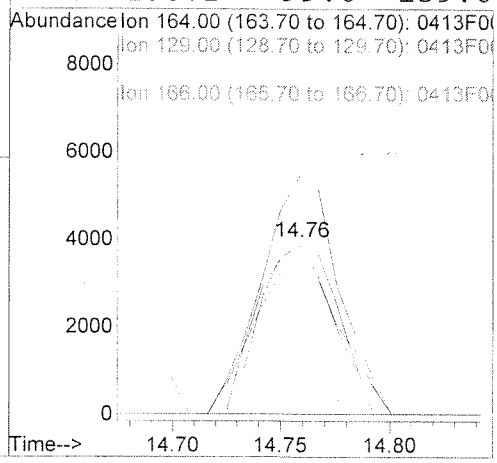


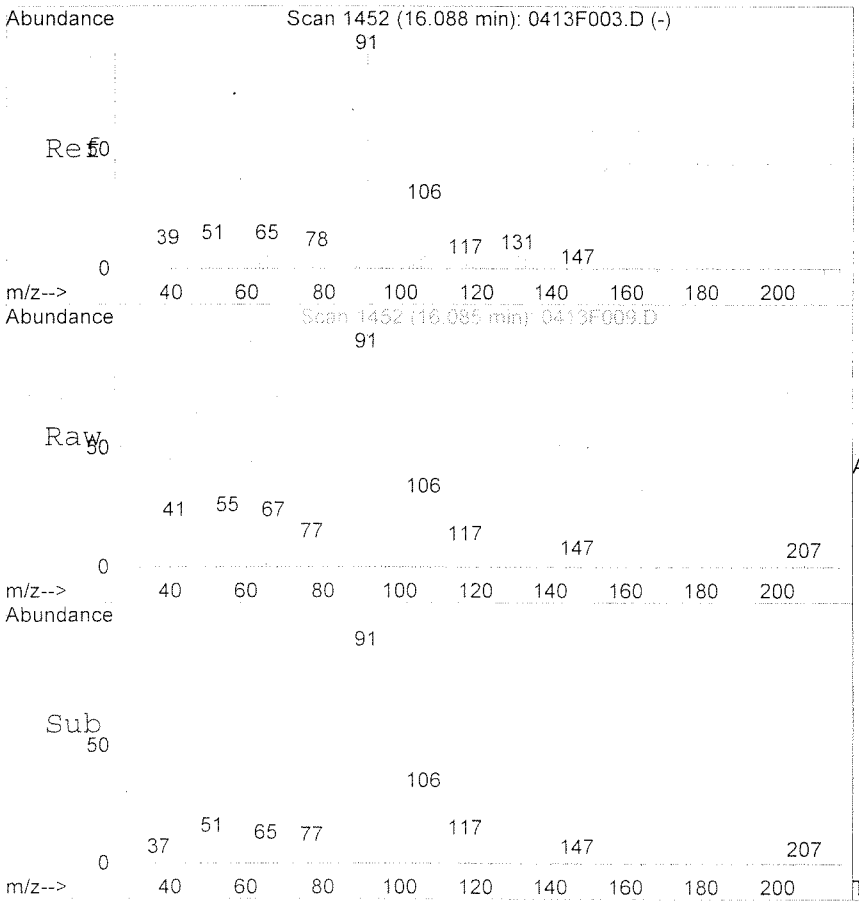


#50
Tetrachloroethene (PCE)
Concen: 0.40 ppb
RT: 14.76 min Scan# 1295
Delta R.T. -0.00 min
Lab File: 0413F009.D
Acq: 13 Apr 2005 12:13 pm

Tgt Ion:164 Resp: 9784

Ion	Ratio	Lower	Upper
164	100		
129	90.6	60.7	120.7
131	97.9	57.5	117.5
166	138.2	99.0	159.0

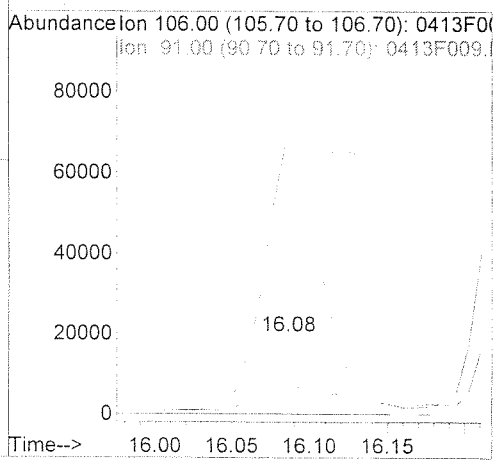


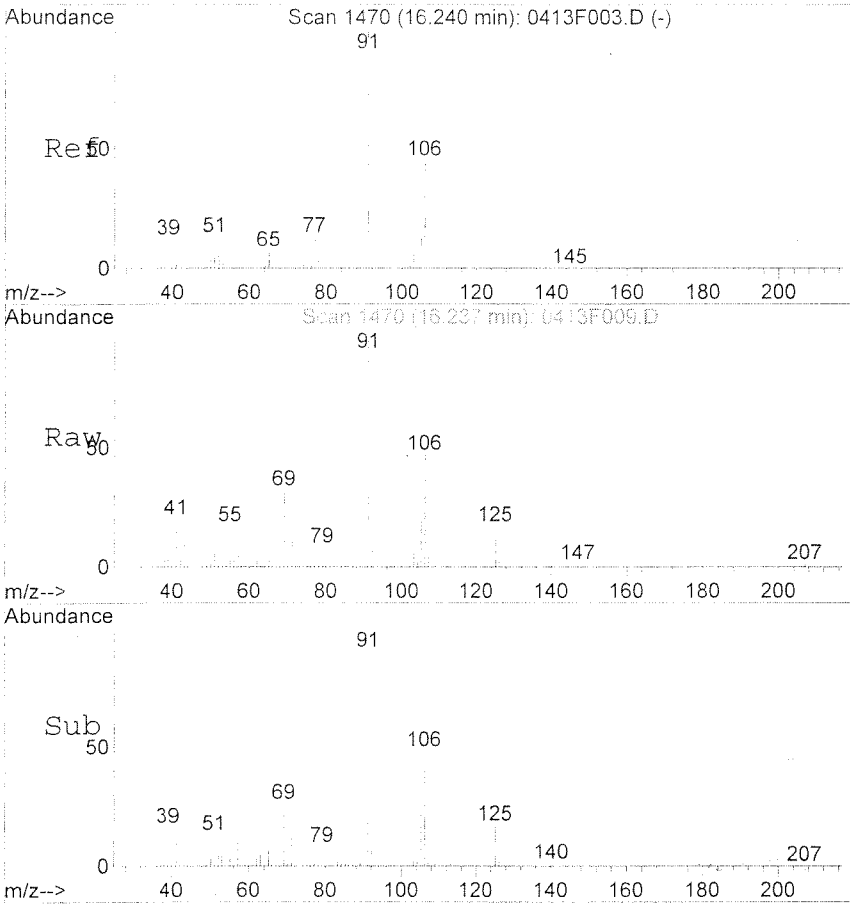


#57
Ethylbenzene
Concen: 1.18 ppb
RT: 16.08 min Scan# 1452
Delta R.T. -0.00 min
Lab File: 0413F009.D
Acq: 13 Apr 2005 12:13 pm

Tgt Ion:106 Resp: 47317

Ion	Ratio	Lower	Upper
106	100		
91	340.0	335.2	395.2
77	29.4	1.1	61.1

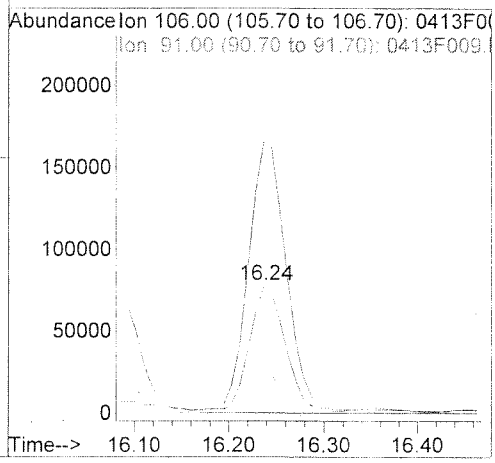


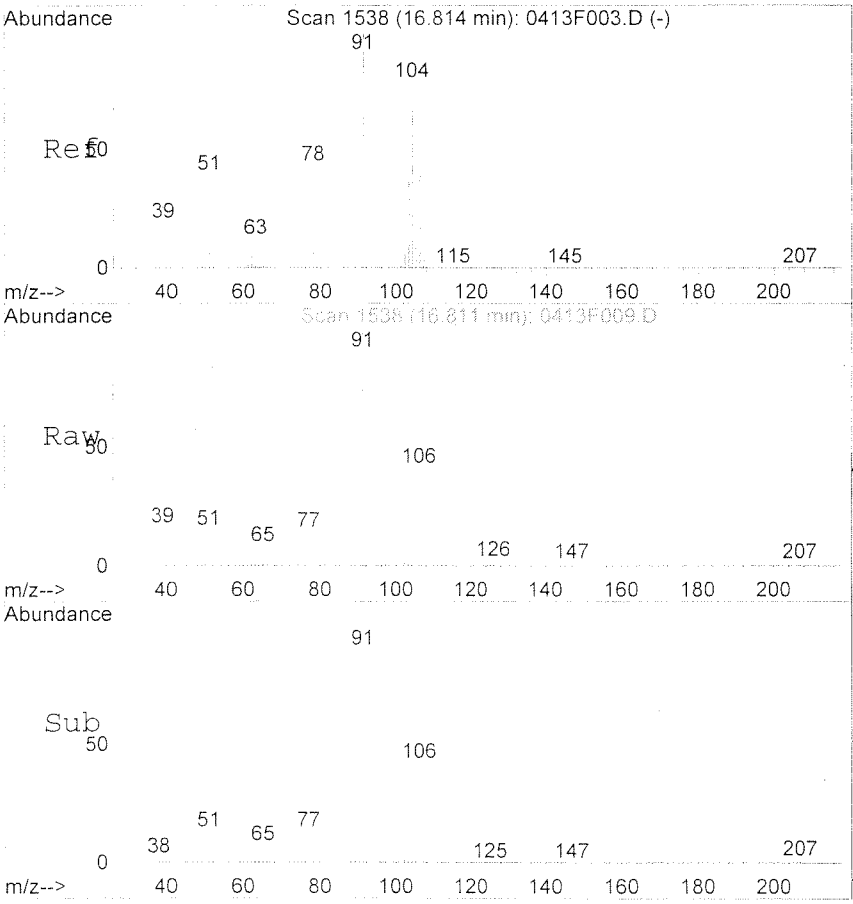


#59
m,p-Xylenes
Concen: 4.13 ppb
RT: 16.24 min Scan# 1470
Delta R.T. -0.00 min
Lab File: 0413F009.D
Acq: 13 Apr 2005 12:13 pm

Tgt Ion:106 Resp: 208072

Ion	Ratio	Lower	Upper
106	100		
91	210.2	193.6	253.6
77	27.9	0.0	59.2

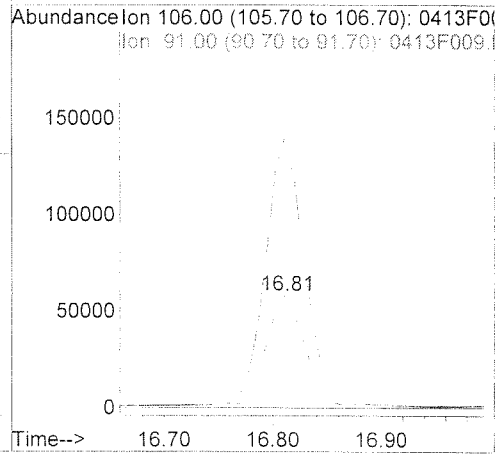


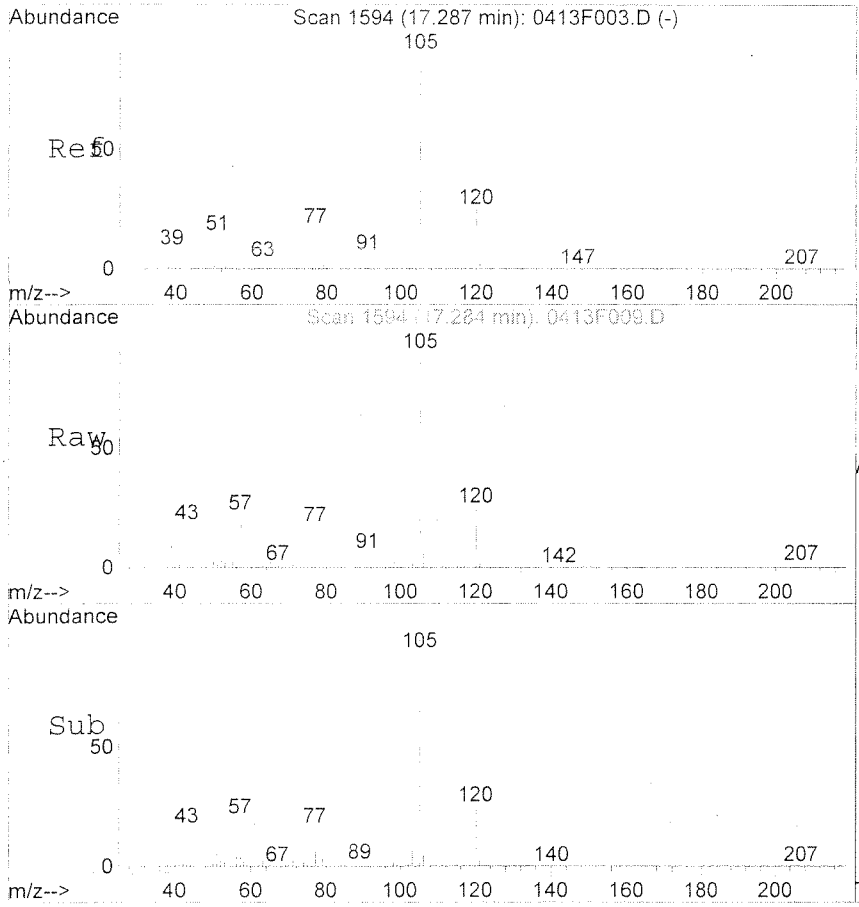


#60
o-Xylene
Concen: 3.00 ppb
RT: 16.81 min Scan# 1538
Delta R.T. -0.00 min
Lab File: 0413F009.D
Acq: 13 Apr 2005 12:13 pm

Tgt Ion:106 Resp: 146145

Ion	Ratio	Lower	Upper
106	100		
91	238.5	201.1	261.1
65	18.6	0.0	50.6

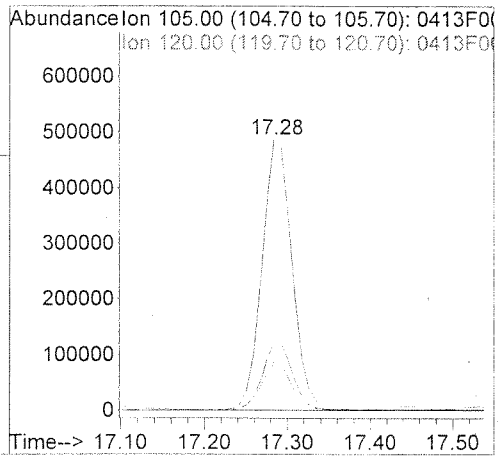


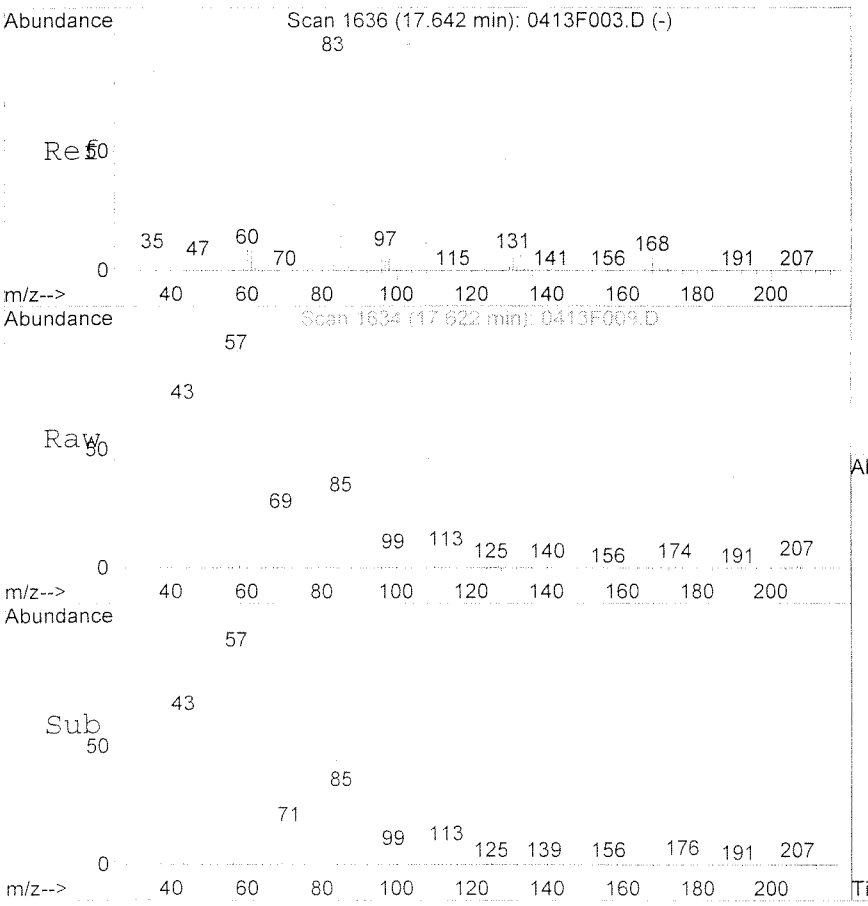


#63
Isopropylbenzene (Cumene)
Concen: 9.55 ppb
RT: 17.28 min Scan# 1594
Delta R.T. -0.00 min
Lab File: 0413F009.D
Acq: 13 Apr 2005 12:13 pm

Tgt Ion:105 Resp: 1235969

Ion	Ratio	Lower	Upper
105	100		
120	24.7	0.0	54.7
77	17.1	0.0	46.8

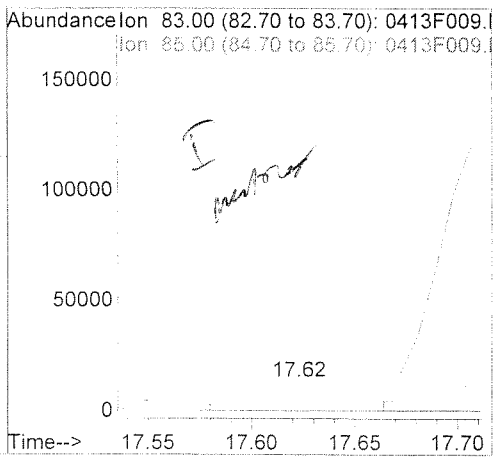


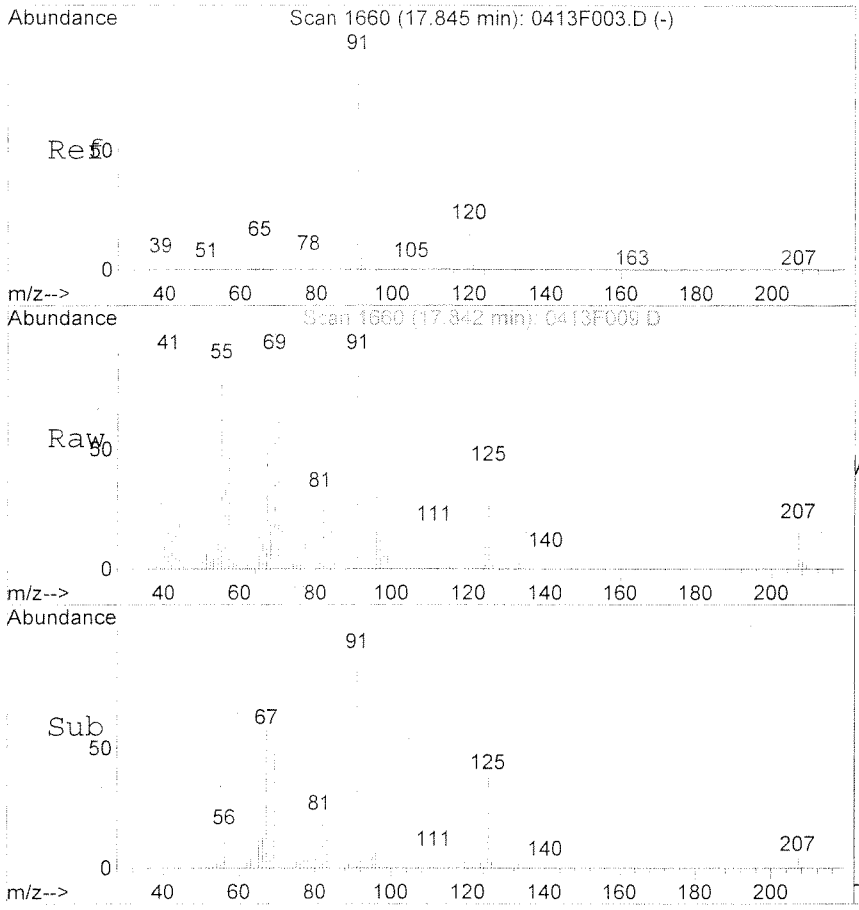


#66
1,1,2,2-Tetrachloroethane
Concen: 1.41 ppb m
RT: 17.62 min Scan# 1634
Delta R.T. -0.02 min
Lab File: 0413F009.D
Acq: 13 Apr 2005 12:13 pm

Tgt Ion: 83 Resp: 42550

Ion	Ratio	Lower	Upper
83	100		
85	403.0	34.3	94.3#
131	0.0	0.0	37.4

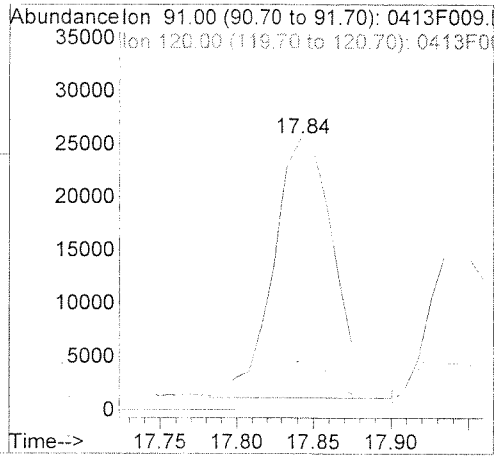


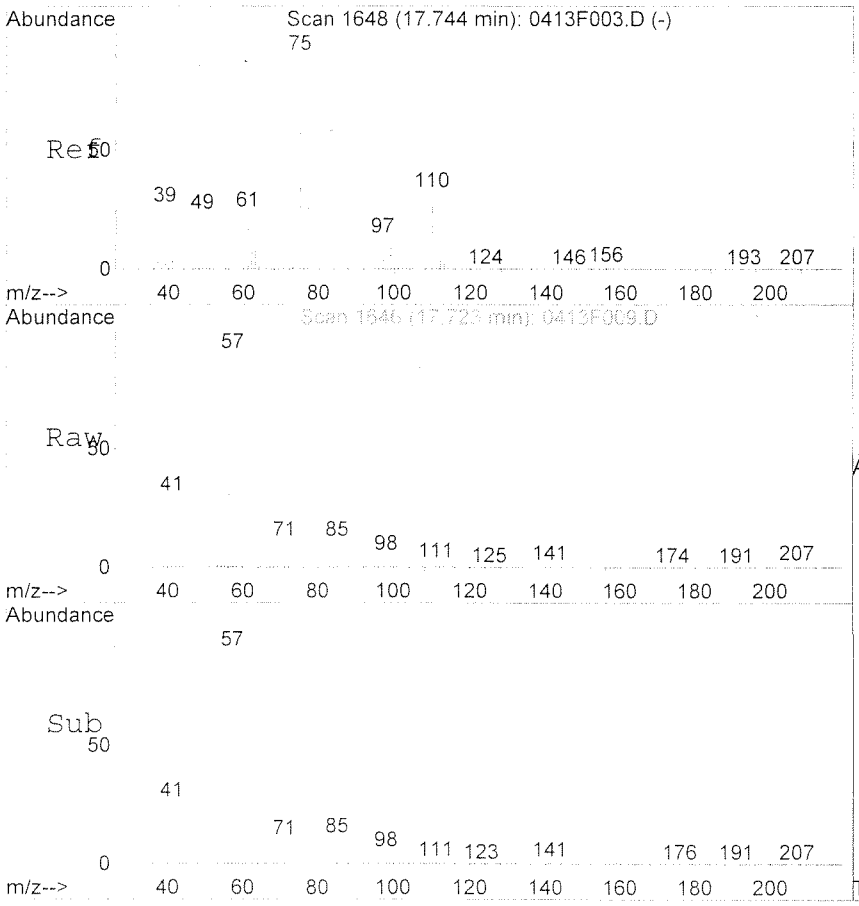


#68
n-Propylbenzene
Concen: 0.51 ppb
RT: 17.84 min Scan# 1660
Delta R.T. -0.00 min
Lab File: 0413F009.D
Acq: 13 Apr 2005 12:13 pm

Tgt Ion: 91 Resp: 66553

Ion	Ratio	Lower	Upper
91	100		
120	19.9	0.0	49.1
65	14.1	0.0	41.5

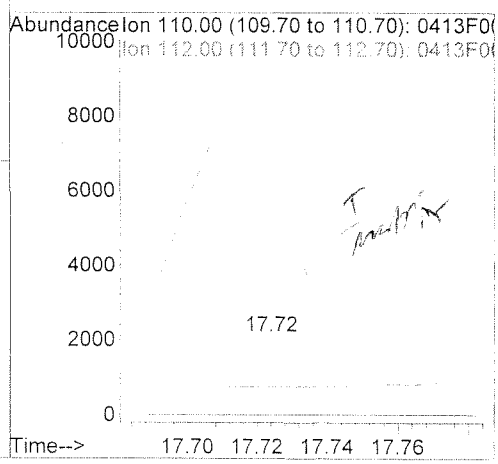


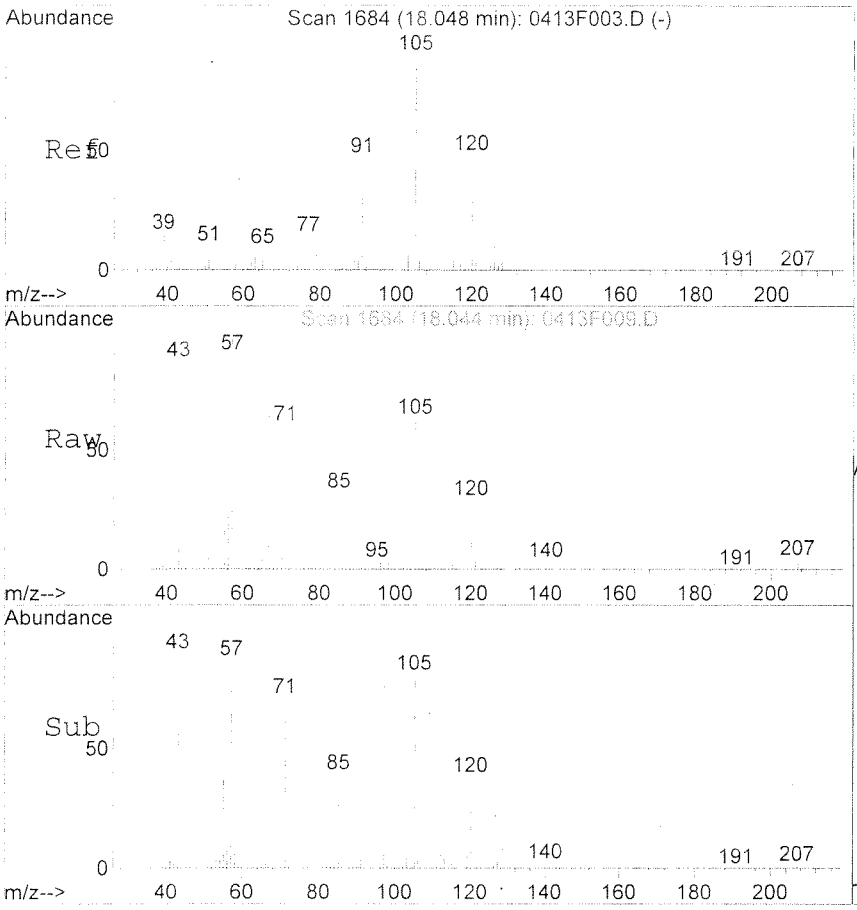


#70
1,2,3-Trichloropropane
Concen: 0.33 ppb m
RT: 17.72 min Scan# 1646
Delta R.T. -0.02 min
Lab File: 0413F009.D
Acq: 13 Apr 2005 12:13 pm

Tgt Ion:110 Resp: 2488

Ion	Ratio	Lower	Upper
110	100		
112	290.1	35.8	95.8#
101	0.0	0.0	35.3

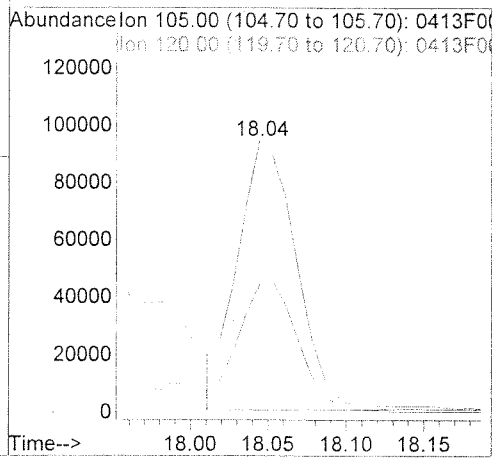


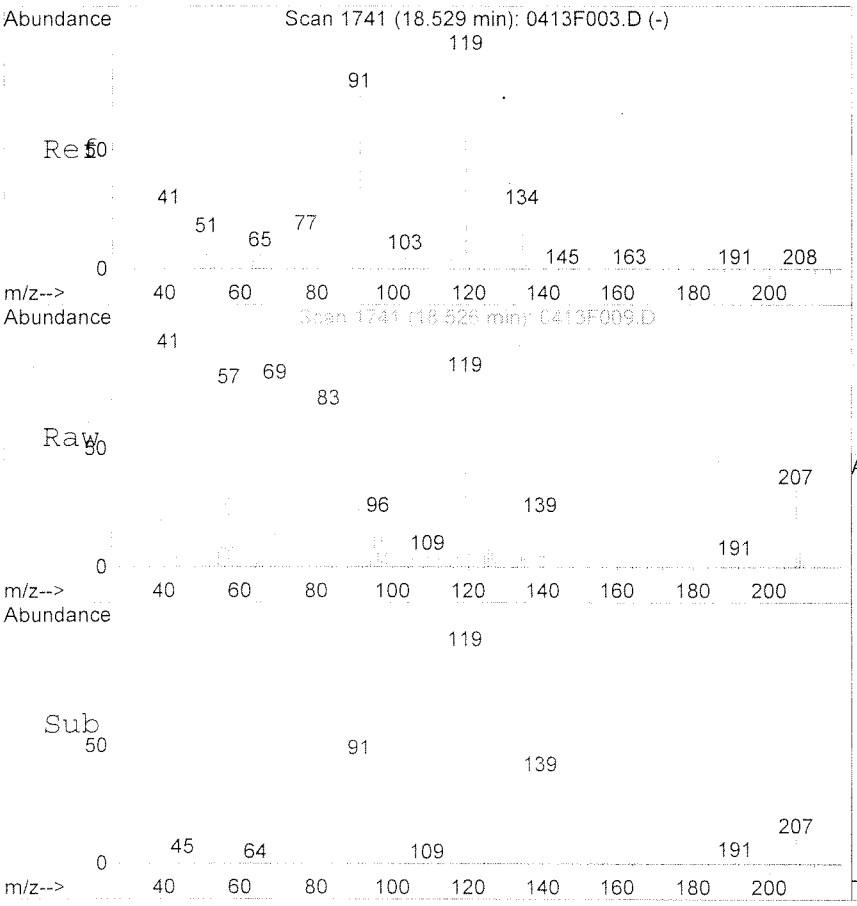


#72
1,3,5-Trimethylbenzene
Concen: 3.12 ppb
RT: 18.04 min Scan# 1684
Delta R.T. -0.00 min
Lab File: 0413F009.D
Acq: 13 Apr 2005 12:13 pm

Tgt Ion:105 Resp: 246841

Ion	Ratio	Lower	Upper
105	100		
120	47.1	18.3	78.3
77	15.3	0.0	44.0

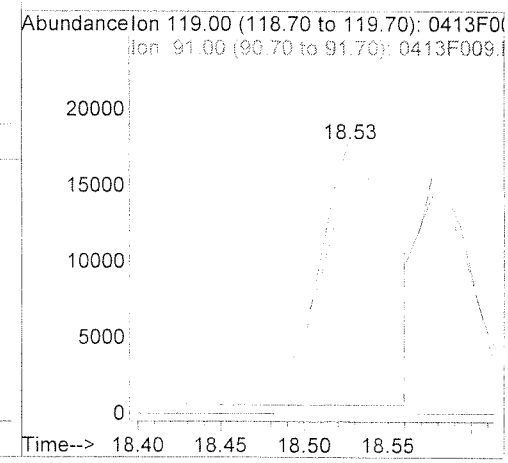


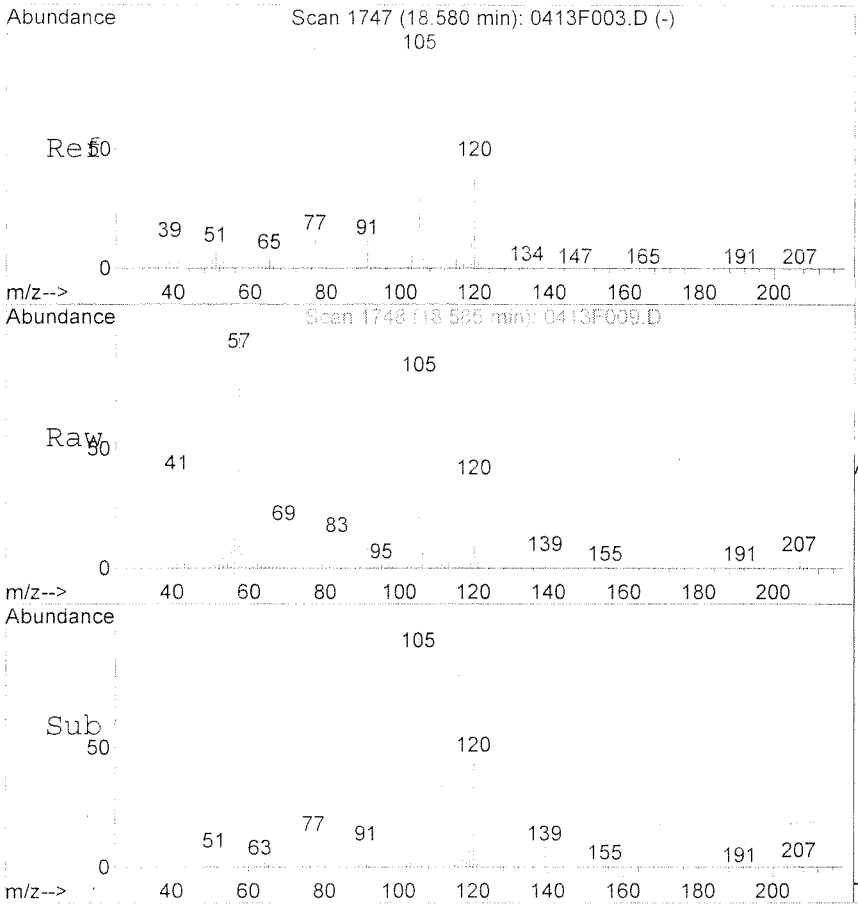


#74
tert-Butylbenzene
Concen: 0.63 ppb
RT: 18.53 min Scan# 1741
Delta R.T. -0.00 min
Lab File: 0413F009.D
Acq: 13 Apr 2005 12:13 pm

Tgt Ion:119 Resp: 49300

Ion	Ratio	Lower	Upper
119	100		
91	59.3	43.8	103.8
134	21.1	0.0	54.8

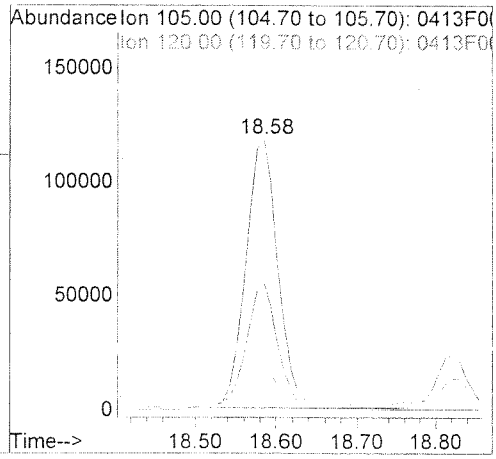


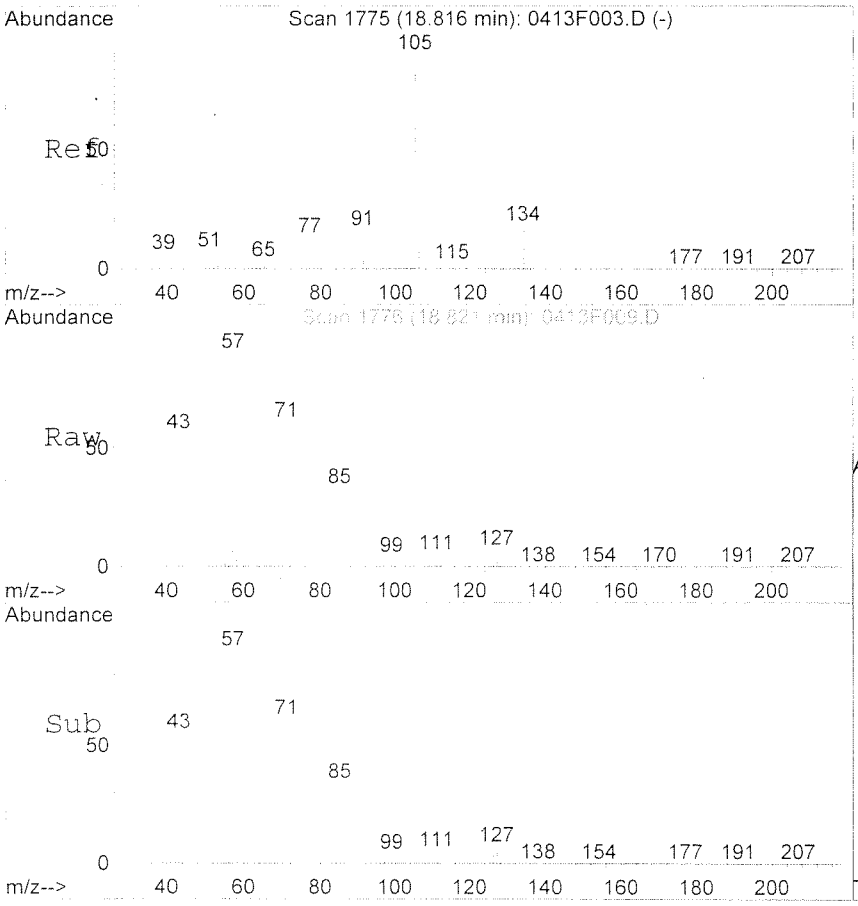


#75
1,2,4-Trimethylbenzene
Concen: 4.08 ppb
RT: 18.58 min Scan# 1748
Delta R.T. 0.01 min
Lab File: 0413F009.D
Acq: 13 Apr 2005 12:13 pm

Tgt Ion:105 Resp: 328441

Ion	Ratio	Lower	Upper
105	100		
120	46.8	14.6	74.6
77	13.6	0.0	43.8

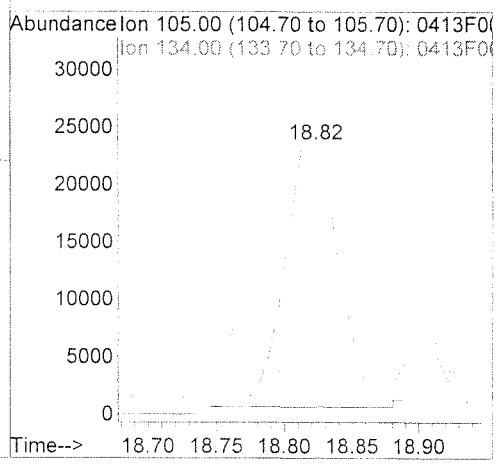


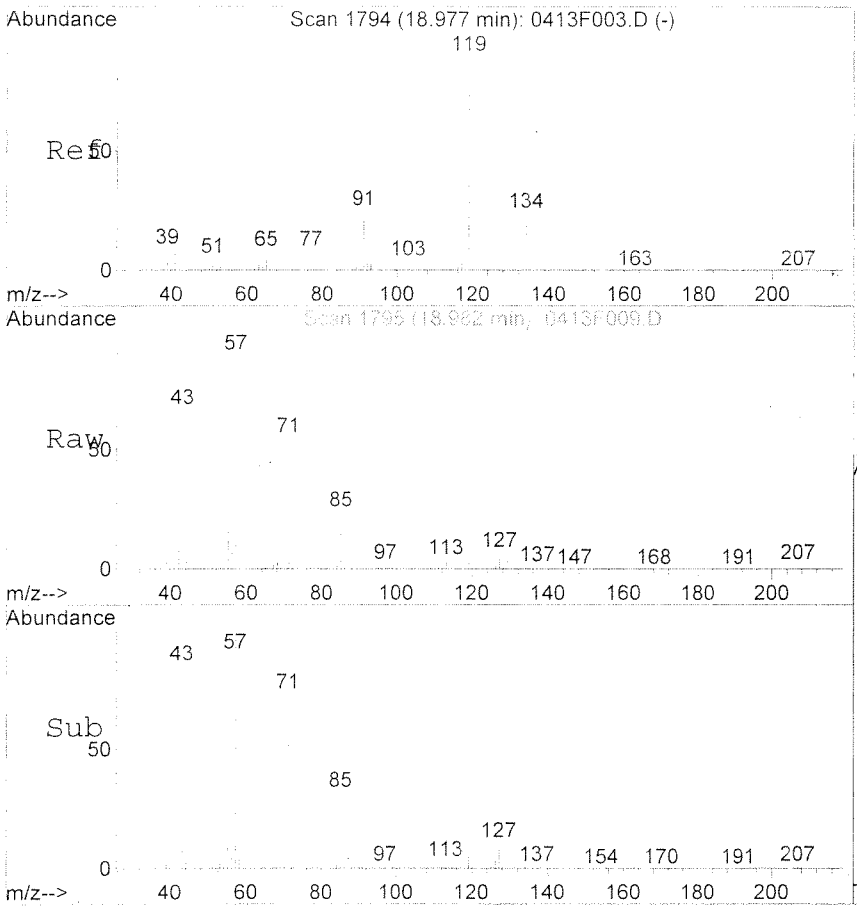


#76
sec-Butylbenzene
Concen: 0.62 ppb
RT: 18.82 min Scan# 1776
Delta R.T. 0.01 min
Lab File: 0413F009.D
Acq: 13 Apr 2005 12:13 pm

Tgt Ion:105 Resp: 63267

Ion	Ratio	Lower	Upper
105	100		
134	20.6	0.0	47.7
91	21.5	0.0	45.9

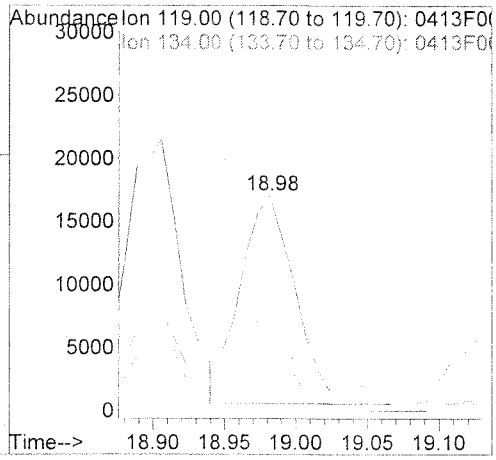


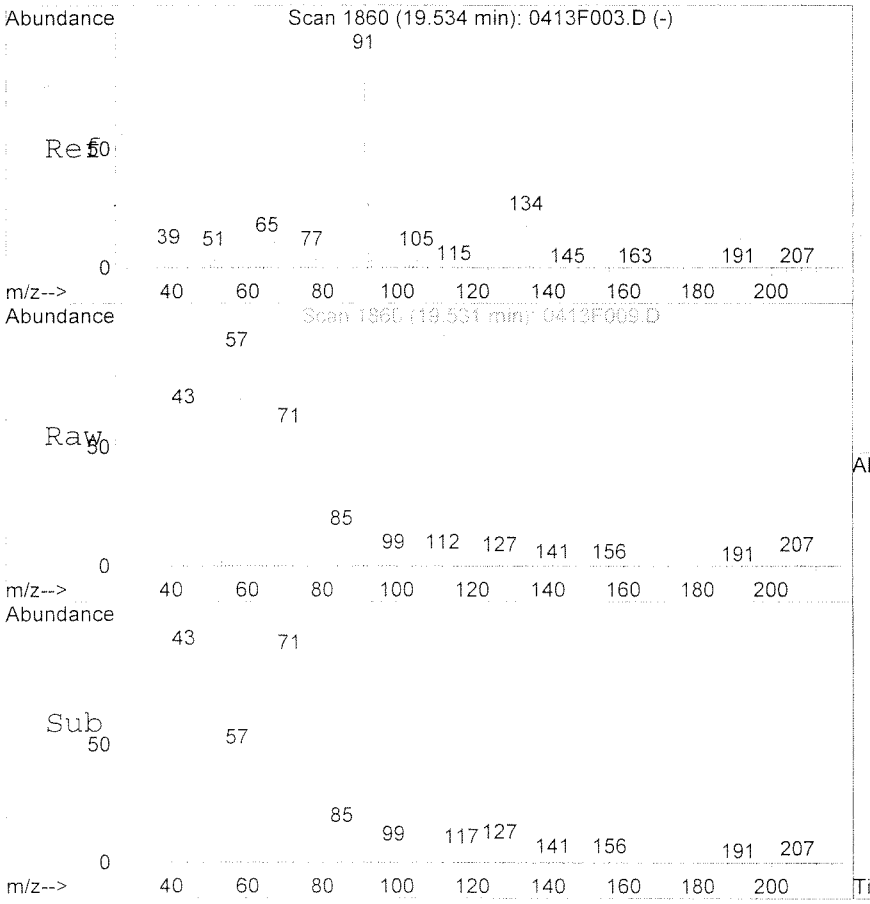


#77
p-Isopropyltoluene
Concen: 0.51 ppb
RT: 18.98 min Scan# 1795
Delta R.T. 0.01 min
Lab File: 0413F009.D
Acq: 13 Apr 2005 12:13 pm

Tgt Ion:119 Resp: 44042

Ion	Ratio	Lower	Upper
119	100		
134	24.2	0.0	54.0
91	29.3	0.0	55.0

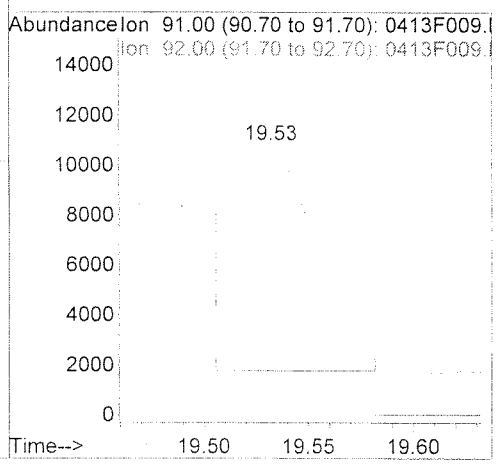




#80
n-Butylbenzene
Concen: 0.26 ppb m
RT: 19.53 min Scan# 1860
Delta R.T. -0.00 min
Lab File: 0413F009.D
Acq: 13 Apr 2005 12:13 pm

Tgt Ion: 91 Resp: 23517

Ion	Ratio	Lower	Upper
91	100		
92	45.0	28.0	88.0
134	19.8	0.0	51.6



COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	Battelle Memorial Institute	**Service Request:**	K2502554
Project:	Novato Ballfields/G486063	**Date Collected:**	NA
Sample Matrix:	Soil	**Date Received:**	NA

Volatile Organic Compounds

Sample Name:	Batch QCMS	**Units:**	ug/Kg
Lab Code:	KWG0506051-4	**Basis:**	Dry
Extraction Method:	EPA 5030A	**Level:**	Low
Analysis Method:	8260B		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dichlorodifluoromethane	**54.4**		8.2	1.2	1	04/13/05	04/13/05	KWG0506051	
Chloromethane	**62.3**		8.2	1.7	1	04/13/05	04/13/05	KWG0506051	
Vinyl Chloride	**64.1**		8.2	1.1	1	04/13/05	04/13/05	KWG0506051	
Bromomethane	**78.0**		8.2	1.4	1	04/13/05	04/13/05	KWG0506051	
Chloroethane	**64.2**		8.2	1.3	1	04/13/05	04/13/05	KWG0506051	
Trichlorofluoromethane	**52.9**		8.2	1.2	1	04/13/05	04/13/05	KWG0506051	
Trichlorotrifluoroethane	**48.2**		8.2	1.3	1	04/13/05	04/13/05	KWG0506051	
Acetone	**291**		33	17	1	04/13/05	04/13/05	KWG0506051	
1,1-Dichloroethene	**63.0**		8.2	1.2	1	04/13/05	04/13/05	KWG0506051	
Methyl Acetate	**121**		8.2	1.3	1	04/13/05	04/13/05	KWG0506051	
Carbon Disulfide	**97.4**		8.2	2.5	1	04/13/05	04/13/05	KWG0506051	
Diisopropyl Ether	**67.4**		17	0.56	1	04/13/05	04/13/05	KWG0506051	
Methylene Chloride	**58.0**		17	4.1	1	04/13/05	04/13/05	KWG0506051	
Methyl tert-Butyl Ether	**72.5**		8.2	1.1	1	04/13/05	04/13/05	KWG0506051	
trans-1,2-Dichloroethene	**55.3**		8.2	1.2	1	04/13/05	04/13/05	KWG0506051	
1,1-Dichloroethane	**63.8**		8.2	1.3	1	04/13/05	04/13/05	KWG0506051	
2-Butanone (MEK)	**296**		33	20	1	04/13/05	04/13/05	KWG0506051	
cis-1,2-Dichloroethene	**66.3**		8.2	1.4	1	04/13/05	04/13/05	KWG0506051	
Chloroform	**60.2**		8.2	0.93	1	04/13/05	04/13/05	KWG0506051	
1,1,1-Trichloroethane (TCA)	**56.2**		8.2	0.93	1	04/13/05	04/13/05	KWG0506051	
Cyclohexane	**64.8**		8.2	1.1	1	04/13/05	04/13/05	KWG0506051	
Carbon Tetrachloride	**50.2**		8.2	0.98	1	04/13/05	04/13/05	KWG0506051	
1,2-Dichloroethane (EDC)	**62.6**		8.2	1.1	1	04/13/05	04/13/05	KWG0506051	
Benzene	**61.6**		8.2	1.3	1	04/13/05	04/13/05	KWG0506051	
Trichloroethene (TCE)	**51.6**		8.2	0.46	1	04/13/05	04/13/05	KWG0506051	
1,2-Dichloropropane	**60.0**		8.2	1.2	1	04/13/05	04/13/05	KWG0506051	
Bromodichloromethane	**59.9**		8.2	0.87	1	04/13/05	04/13/05	KWG0506051	
Methylcyclohexane	**44.6**		8.2	1.2	1	04/13/05	04/13/05	KWG0506051	
2-Hexanone	**362**		33	10	1	04/13/05	04/13/05	KWG0506051	
cis-1,3-Dichloropropene	**55.3**		8.2	1.3	1	04/13/05	04/13/05	KWG0506051	
Toluene	**55.1**		8.2	1.4	1	04/13/05	04/13/05	KWG0506051	
trans-1,3-Dichloropropene	**51.0**		8.2	0.98	1	04/13/05	04/13/05	KWG0506051	
1,1,2-Trichloroethane	**60.5**		8.2	1.2	1	04/13/05	04/13/05	KWG0506051	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	Battelle Memorial Institute	**Service Request:**	K2502554
Project:	Novato Ballfields/G486063	**Date Collected:**	NA
Sample Matrix:	Soil	**Date Received:**	NA

Volatile Organic Compounds

Sample Name:	Batch QCMS	**Units:**	ug/Kg
Lab Code:	KWG0506051-4	**Basis:**	Dry
Extraction Method:	EPA 5030A	**Level:**	Low
Analysis Method:	8260B		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
4-Methyl-2-pentanone (MIBK)	**306**		33	9.0	1	04/13/05	04/13/05	KWG0506051	
Tetrachloroethene (PCE)	**41.6**		8.2	0.51	1	04/13/05	04/13/05	KWG0506051	
Dibromochloromethane	**55.7**		8.2	0.98	1	04/13/05	04/13/05	KWG0506051	
1,2-Dibromoethane (EDB)	**57.2**		33	1.3	1	04/13/05	04/13/05	KWG0506051	
Chlorobenzene	**42.8**		8.2	1.2	1	04/13/05	04/13/05	KWG0506051	
Ethylbenzene	**44.3**		8.2	0.93	1	04/13/05	04/13/05	KWG0506051	
m,p-Xylenes	**86.5**		8.2	2.5	1	04/13/05	04/13/05	KWG0506051	
o-Xylene	**45.5**		8.2	1.2	1	04/13/05	04/13/05	KWG0506051	
Styrene	**37.4**		8.2	1.2	1	04/13/05	04/13/05	KWG0506051	
Bromoform	**49.1**		8.2	1.3	1	04/13/05	04/13/05	KWG0506051	
Isopropylbenzene	**47.9**		33	1.2	1	04/13/05	04/13/05	KWG0506051	
1,1,2,2-Tetrachloroethane	**64.0**		8.2	1.3	1	04/13/05	04/13/05	KWG0506051	
1,3-Dichlorobenzene	**33.7**		8.2	1.2	1	04/13/05	04/13/05	KWG0506051	
1,4-Dichlorobenzene	**33.9**		8.2	1.4	1	04/13/05	04/13/05	KWG0506051	
1,2-Dichlorobenzene	**33.1**		8.2	1.1	1	04/13/05	04/13/05	KWG0506051	
1,2-Dibromo-3-chloropropane	**47.6**		33	1.4	1	04/13/05	04/13/05	KWG0506051	
1,2,4-Trichlorobenzene	**12.7**	J	33	1.3	1	04/13/05	04/13/05	KWG0506051	
Naphthalene	**18.6**	J	33	1.5	1	04/13/05	04/13/05	KWG0506051	
Bromochloromethane	**64.1**		8.2	1.6	1	04/13/05	04/13/05	KWG0506051	
1,2,3-Trichlorobenzene	**11.6**	J	33	1.5	1	04/13/05	04/13/05	KWG0506051	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	105	70-119	04/13/05	Acceptable
Toluene-d8	107	72-121	04/13/05	Acceptable
4-Bromofluorobenzene	100	66-122	04/13/05	Acceptable

Comments:

Exception Report

Data File: J:\MS04\DATA\041305\0413F019.D
Lab ID: KWG0506051-4 -- K2502607-007MS
RunType: MS
Matrix: SOIL

Date Acquired: 04/13/2005 17:11
Date Quantitated: 04/14/2005 07:56
Batch ID: KWG0506050
Analysis Method: 8260B
MethodJoinID: MJ120

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Tune Window	NA	NA	NA	x	
Analytical Holding Time	NA	NA	NA	x	
ICAL Pass/Fail	NA	NA	NA	x	
ICAL Average RSD	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA	x	
Initial Calibration SPCC/CCC	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA		x
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Minimum RF	NA	NA	NA	x	
Continuing Calibration SPCC/CCC	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Relative Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Second Source ICAL Verification	trans-1,4-Dichloro-2-butene	-90.4	NA	30	NT
	1-Chlorohexane	101.4	NA	30	+

Primary Review: KL 4/15/05

Secondary Review: [illegible]

Quantitation Report

Bottle ID:		**Tier:**		**Matrix:**	SOIL
Prod Code:	8260	**Collect Date:**		**Receive Date:**	04/15/2005

Analysis Lot:	KWG0506050	**Prep Lot:**	KWG0506051	**Report Group:**	
Analysis Method:	8260B	**Prep Method:**	EPA 5030A		
Prep Ref:	375095	**Prep Date:**	04/13/2005		

Quant Method:	J:\MS04\METHODS\041105SOILCL	**Calibration ID:**	CAL4367
Title:			
Tune Ref:	J:\MS04\DATA\041305\0413F002.D	**Method ID:**	MJ120
MB Ref:	J:\MS04\DATA\041305\0413F007.D	**Quant based on Method**	

Data File:	J:\MS04\DATA\041305\0413F019.D			**Instrument:**	MS04
Acqu Date:	04/13/2005 17:11	**Quant Date:**	04/14/2005 07:56	**Vial:**	19
Run Type:	MS			**Dilution:**	1.0
Lab ID:	KWG0506051-4 -- K2502607-007MS			**Soln Conc. Units:**	ppb

Internal Standard Compounds

IS Ref	Parameter Name	RT	RT Dev	Quant Mass	Response	Solution Conc	Area Criteria
1	Fluorobenzene	11.34	-0.01	96	7152317	50.00	OK
2	Chlorobenzene-d5	15.93	-0.01	117	4730259	50.00	OK
3	1,4-Dichlorobenzene-d4	19.12	-0.01	152	1541853	50.00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits	Rpt?
1	Dibromofluoromethane	10.23	0.00	0.00	113	1839756	52.47	105	70-119	OK
1	1,2-Dichloroethane-d4	10.80	0.00	0.00	65	1760079	51.71	103	61-123	OK
1	Toluene-d8	13.79	-0.01	0.00	98	6706594	53.41	107	72-121	OK
2	4-Bromofluorobenzene	17.53	0.00	0.00	95	2174996	50.12	100	66-122	OK

Target Compounds

Final Conc. Units: ug/Kg Dry Weight

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Dichlorodifluoromethane	4.06		0.00	85	1127404	33.44	54.4		
1	Chloromethane	4.44		0.00	50	2126354	38.34	62.3		
1	Vinyl Chloride	4.65		0.00	62	1711102	39.41	64.1		
1	Bromomethane	5.27	-0.01	0.00	94	896177	47.98	78.0		
1	Chloroethane	5.43	-0.02	0.00	64	895691	39.48	64.2		
1	Trichlorofluoromethane	5.88		0.00	101	1078588	32.56	52.9		
1	Trichlorotrifluoroethane	6.70		0.00	151	727123	29.67	48.2		
1	1,1-Dichloroethene	6.73	-0.01	0.00	96	1183342	38.77	63.0		
1	Acetone	6.73	-0.01	0.00	43	1997406	179.26	291		
1	Carbon Disulfide	7.17	-0.01	0.00	76	8341813	59.90	97.4		
1	Methyl Acetate	7.24		0.00	43	2535875	74.12	121		
1	Methylene Chloride	7.44	-0.02	0.00	84	1666272	35.64	58.0		
1	tert-Butyl Alcohol	7.50	-0.01	0.00	59	715437	195.07	317		
1	Methyl tert-Butyl Ether	7.86	-0.01	0.00	73	3788763	44.61	72.5		

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File:	J:\MS04\DATA\041305\0413F019.D			**Instrument:**	MS04
Acqu Date:	04/13/2005 17:11	**Quant Date:**	04/14/2005 07:56	**Vial:**	19
Run Type:	MS			**Dilution:**	1.0
Lab ID:	KWG0506051-4 -- K2502607-007MS			**Soln Conc. Units:**	ppb

Target Compounds **Final Conc. Units:** ug/Kg Dry Weight

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
1	trans-1,2-Dichloroethene	7.90		0.00	96	1215549	33.99	55.3		
1	Diisopropyl Ether	8.58	-0.01	0.00	45	6746323	41.47	67.4		
1	Vinyl Acetate	8.53	-0.01	0.00	86	158788	29.15	47.4		
1	1,1-Dichloroethane	8.55		0.00	63	2798071	39.21	63.8		
1	tert-Butyl Ethyl Ether	9.19	-0.01	0.00	59	4815974	42.71	69.4		
1	2,2-Dichloropropane	9.54		0.00	77	1672502	35.65	58.0		
1	2-Butanone (MEK)	9.44	-0.01	0.00	72	698981	181.87	296		
1	cis-1,2-Dichloroethene	9.50	-0.01	0.00	96	1574957	40.77	66.3		
1	Bromochloromethane	9.90	-0.01	0.00	128	730910	39.45	64.1		
1	Chloroform	9.97		0.00	83	2256230	37.02	60.2		
1	1,1,1-Trichloroethane (TCA)	10.36	-0.01	0.00	97	1492952	34.56	56.2		
1	Cyclohexane	10.51		0.00	56	2642589	39.86	64.8		
1	Carbon Tetrachloride	10.66	-0.01	0.00	117	1120917	30.90	50.2		
1	1,1-Dichloropropene	10.61		0.00	75	1558136	29.73	48.3		
1	tert-Amyl Methyl Ether	11.03	-0.01	0.00	87	780000	40.42	65.7		
1	Benzene	10.96		0.00	78	5459233	37.87	61.6		
1	1,2-Dichloroethane (EDC)	10.92	-0.01	0.00	62	1550109	38.51	62.6		
1	Trichloroethene (TCE)	11.93		0.00	95	1135771	31.76	51.6		
1	1,2-Dichloropropane	12.27		0.00	63	1621458	36.87	60.0		
1	Methylcyclohexane	12.29	-0.01	0.00	83	1575181	27.40	44.6		
1	Dibromomethane	12.46		0.00	93	858965	36.97	60.1		
1	Bromodichloromethane	12.65		0.00	83	1698959	36.86	59.9		
1	2-Chloroethyl Vinyl Ether	13.02		0.00	63	818712	39.77	64.7		
1	cis-1,3-Dichloropropene	13.33		0.00	75	2157450	34.04	55.3		
1	4-Methyl-2-pentanone (MIBK)	13.48	-0.01	0.00	43	8902267	188.36	306		
1	Toluene	13.90		0.00	92	2942181	33.87	55.1		
2	trans-1,3-Dichloropropene	14.13	-0.01	0.00	75	1619634	31.39	51.0		
2	1,1,2-Trichloroethane	14.44		0.00	83	971898	37.19	60.5		
2	Tetrachloroethene (PCE)	14.76		0.00	164	665488	25.61	41.6		
2	2-Hexanone	14.72	-0.01	0.00	43	7479095	222.40	362		
2	1,3-Dichloropropane	14.70		0.00	76	2097501	37.20	60.5		
2	Dibromochloromethane	15.07		0.00	129	1088254	34.27	55.7		
2	1,2-Dibromoethane (EDB)	15.29		0.00	107	1063060	35.20	57.2		
2	1-Chlorohexane	15.84		0.00	91	1138234	41.53	67.5		
2	Chlorobenzene	15.97	-0.02	0.00	112	2200432	26.32	42.8		
2	Ethylbenzene	16.08	-0.01	0.00	106	1160885	27.23	44.3		
2	1,1,1,2-Tetrachloroethane	16.06		0.00	131	860467	29.06	47.3		
2	m,p-Xylenes	16.24		0.00	106	2852148	53.20	86.5		
2	o-Xylene	16.81		0.00	106	1447552	27.97	45.5		
2	Styrene	16.81		0.00	104	2086295	23.03	37.4		
2	Bromoform	17.12	-0.01	0.00	173	592199	30.19	49.1		
2	Isopropylbenzene	17.28	-0.01	0.00	105	4049676	29.43	47.9		
3	1,1,2,2-Tetrachloroethane	17.64		0.00	83	1207845	39.34	64.0		

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File:	J:\MS04\DATA\041305\0413F019.D			**Instrument:**	MS04
Acqu Date:	04/13/2005 17:11	**Quant Date:**	04/14/2005 07:56	**Vial:**	19
Run Type:	MS			**Dilution:**	1.0
Lab ID:	KWG0506051-4 -- K2502607-007MS			**Soln Conc. Units:**	ppb

Target Compounds **Final Conc. Units:** ug/Kg Dry Weight

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
3	Bromobenzene	17.79		0.00	156	717751	29.78	48.4		
3	n-Propylbenzene	17.84		0.00	91	3269973	24.71	40.2		
3	trans-1,4-Dichloro-2-butene	17.71	0.01	0.00	53	93762	11.81	19.2	J	
3	1,2,3-Trichloropropane	17.73	-0.01	0.00	110	325433	42.28	68.7		
3	2-Chlorotoluene	18.02		0.00	91	2208089	26.20	42.6		
3	1,3,5-Trimethylbenzene	18.04	-0.01	0.00	105	2177326	26.95	43.8		
3	4-Chlorotoluene	18.15	-0.01	0.00	91	1946697	24.84	40.4		
3	tert-Butylbenzene	18.52	-0.01	0.00	119	1746931	22.00	35.8		
3	1,2,4-Trimethylbenzene	18.58		0.00	105	2231169	27.18	44.2		
3	sec-Butylbenzene	18.81	-0.01	0.00	105	2032227	19.37	31.5	J	
3	4-Isopropyltoluene	18.97	-0.01	0.00	119	1501112	17.12	27.8	J	
3	1,3-Dichlorobenzene	19.05		0.00	146	884933	20.75	33.7		
3	1,4-Dichlorobenzene	19.16		0.00	146	890072	20.84	33.9		
3	n-Butylbenzene	19.53		0.00	91	1367130	15.03	24.4	J	
3	1,2-Dichlorobenzene	19.69		0.00	146	802456	20.33	33.1		
3	1,2-Dibromo-3-chloropropane	20.74		0.00	157	141676	29.30	47.6		
3	1,2,4-Trichlorobenzene	21.99	-0.01	0.00	180	202922	7.83	12.7	J	
3	Hexachlorobutadiene	22.20		0.00	225	79090	5.96	9.69	J	
3	Naphthalene	22.44	-0.01	0.00	128	687203	11.41	18.6	J	
3	1,2,3-Trichlorobenzene	22.84	-0.01	0.00	180	171206	7.16	11.6	J	
	n-Octane				0	0		16	U	NR

Prep Amount:	5.00 g	**Dilution:**	1.0
Prep Final Vol:	5.0 ml	**Unit Factor:**	1
Solids:	61.5 %		

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / (Prep Amount x Solids)) x Unit Factor

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

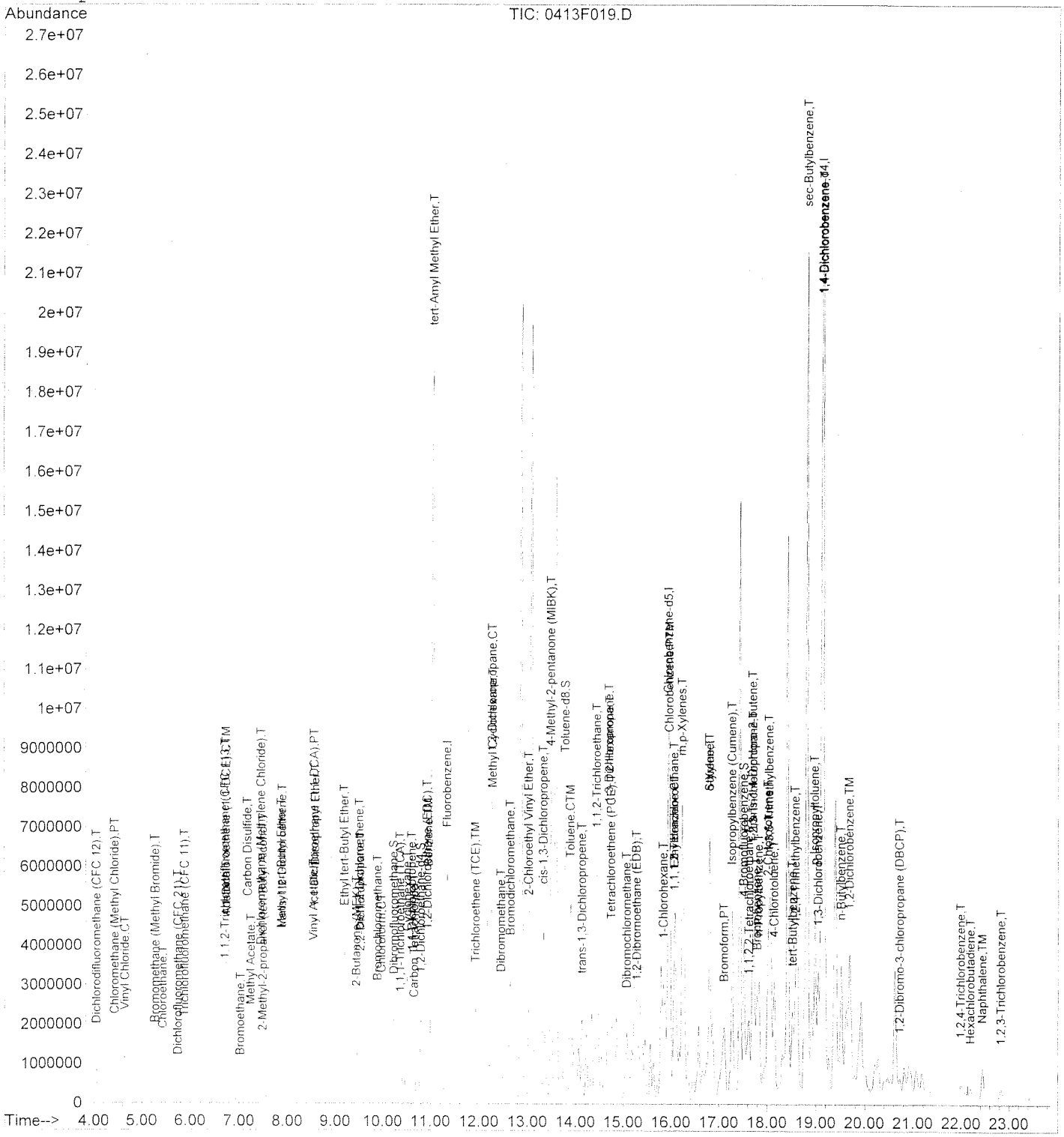
D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report (QT Reviewed)

Data File : J:\MS04\DATA\041305\0413F019.D Vial: 19
Acq On : 13 Apr 2005 5:11 pm Operator: KR
Sample : K2502607-007MS Inst : MS04
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 14 7:56 2005 Quant Results File: 041105SOILCL

Method : J:\MS04\METHODS\041105SOILCLP.M (RTE Integrator)
Title : MS04 APPX SOIL CAL 3288
Last Update : Mon Apr 11 19:41:27 2005
Response via : Initial Calibration



COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Battelle Memorial Institute
Project: Novato Ballfields/G486063
Sample Matrix: Soil

Service Request: K2502554
Date Collected: NA
Date Received: NA

Volatile Organic Compounds

Sample Name: Batch QCDMS
Lab Code: KWG0506051-5

Units: ug/Kg
Basis: Dry

Extraction Method: EPA 5030A
Analysis Method: 8260B

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dichlorodifluoromethane	**54.1**		8.2	1.2	1	04/13/05	04/13/05	KWG0506051	
Chloromethane	**60.3**		8.2	1.7	1	04/13/05	04/13/05	KWG0506051	
Vinyl Chloride	**62.6**		8.2	1.1	1	04/13/05	04/13/05	KWG0506051	
Bromomethane	**77.9**		8.2	1.4	1	04/13/05	04/13/05	KWG0506051	
Chloroethane	**63.9**		8.2	1.3	1	04/13/05	04/13/05	KWG0506051	
Trichlorofluoromethane	**53.8**		8.2	1.2	1	04/13/05	04/13/05	KWG0506051	
Trichlorotrifluoroethane	**48.9**		8.2	1.3	1	04/13/05	04/13/05	KWG0506051	
Acetone	**307**		33	17	1	04/13/05	04/13/05	KWG0506051	
1,1-Dichloroethene	**63.8**		8.2	1.2	1	04/13/05	04/13/05	KWG0506051	
Methyl Acetate	**131**		8.2	1.3	1	04/13/05	04/13/05	KWG0506051	
Carbon Disulfide	**95.8**		8.2	2.5	1	04/13/05	04/13/05	KWG0506051	
Diisopropyl Ether	**68.6**		17	0.56	1	04/13/05	04/13/05	KWG0506051	
Methylene Chloride	**58.4**		17	4.1	1	04/13/05	04/13/05	KWG0506051	
Methyl tert-Butyl Ether	**74.8**		8.2	1.1	1	04/13/05	04/13/05	KWG0506051	
trans-1,2-Dichloroethene	**55.8**		8.2	1.2	1	04/13/05	04/13/05	KWG0506051	
1,1-Dichloroethane	**64.9**		8.2	1.3	1	04/13/05	04/13/05	KWG0506051	
2-Butanone (MEK)	**311**		33	20	1	04/13/05	04/13/05	KWG0506051	
cis-1,2-Dichloroethene	**66.2**		8.2	1.4	1	04/13/05	04/13/05	KWG0506051	
Chloroform	**61.9**		8.2	0.93	1	04/13/05	04/13/05	KWG0506051	
1,1,1-Trichloroethane (TCA)	**57.3**		8.2	0.93	1	04/13/05	04/13/05	KWG0506051	
Cyclohexane	**60.5**		8.2	1.1	1	04/13/05	04/13/05	KWG0506051	
Carbon Tetrachloride	**51.1**		8.2	0.98	1	04/13/05	04/13/05	KWG0506051	
1,2-Dichloroethane (EDC)	**64.7**		8.2	1.1	1	04/13/05	04/13/05	KWG0506051	
Benzene	**61.9**		8.2	1.3	1	04/13/05	04/13/05	KWG0506051	
Trichloroethene (TCE)	**52.2**		8.2	0.46	1	04/13/05	04/13/05	KWG0506051	
1,2-Dichloropropane	**62.1**		8.2	1.2	1	04/13/05	04/13/05	KWG0506051	
Bromodichloromethane	**61.6**		8.2	0.87	1	04/13/05	04/13/05	KWG0506051	
Methylcyclohexane	**40.6**		8.2	1.2	1	04/13/05	04/13/05	KWG0506051	
2-Hexanone	**347**		33	10	1	04/13/05	04/13/05	KWG0506051	
cis-1,3-Dichloropropene	**57.2**		8.2	1.3	1	04/13/05	04/13/05	KWG0506051	
Toluene	**54.8**		8.2	1.4	1	04/13/05	04/13/05	KWG0506051	
trans-1,3-Dichloropropene	**51.6**		8.2	0.98	1	04/13/05	04/13/05	KWG0506051	
1,1,2-Trichloroethane	**62.5**		8.2	1.2	1	04/13/05	04/13/05	KWG0506051	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	Battelle Memorial Institute	**Service Request:**	K2502554
Project:	Novato Ballfields/G486063	**Date Collected:**	NA
Sample Matrix:	Soil	**Date Received:**	NA

Volatile Organic Compounds

Sample Name:	Batch QCDMS	**Units:**	ug/Kg
Lab Code:	KWG0506051-5	**Basis:**	Dry
Extraction Method:	EPA 5030A	**Level:**	Low
Analysis Method:	8260B		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
4-Methyl-2-pentanone (MIBK)	**322**		33	9.0	1	04/13/05	04/13/05	KWG0506051	
Tetrachloroethene (PCE)	**40.6**		8.2	0.51	1	04/13/05	04/13/05	KWG0506051	
Dibromochloromethane	**57.5**		8.2	0.98	1	04/13/05	04/13/05	KWG0506051	
1,2-Dibromoethane (EDB)	**59.6**		33	1.3	1	04/13/05	04/13/05	KWG0506051	
Chlorobenzene	**41.9**		8.2	1.2	1	04/13/05	04/13/05	KWG0506051	
Ethylbenzene	**42.3**		8.2	0.93	1	04/13/05	04/13/05	KWG0506051	
m,p-Xylenes	**81.6**		8.2	2.5	1	04/13/05	04/13/05	KWG0506051	
o-Xylene	**43.0**		8.2	1.2	1	04/13/05	04/13/05	KWG0506051	
Styrene	**35.9**		8.2	1.2	1	04/13/05	04/13/05	KWG0506051	
Bromoform	**51.3**		8.2	1.3	1	04/13/05	04/13/05	KWG0506051	
Isopropylbenzene	**41.1**		33	1.2	1	04/13/05	04/13/05	KWG0506051	
1,1,2,2-Tetrachloroethane	**61.5**		8.2	1.3	1	04/13/05	04/13/05	KWG0506051	
1,3-Dichlorobenzene	**30.7**		8.2	1.2	1	04/13/05	04/13/05	KWG0506051	
1,4-Dichlorobenzene	**30.9**		8.2	1.4	1	04/13/05	04/13/05	KWG0506051	
1,2-Dichlorobenzene	**31.4**		8.2	1.1	1	04/13/05	04/13/05	KWG0506051	
1,2-Dibromo-3-chloropropane	**49.3**		33	1.4	1	04/13/05	04/13/05	KWG0506051	
1,2,4-Trichlorobenzene	**14.9**	J	33	1.3	1	04/13/05	04/13/05	KWG0506051	
Naphthalene	**20.6**	J	33	1.5	1	04/13/05	04/13/05	KWG0506051	
Bromochloromethane	**65.2**		8.2	1.6	1	04/13/05	04/13/05	KWG0506051	
1,2,3-Trichlorobenzene	**14.1**	J	33	1.5	1	04/13/05	04/13/05	KWG0506051	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	106	70-119	04/13/05	Acceptable
Toluene-d8	107	72-121	04/13/05	Acceptable
4-Bromofluorobenzene	101	66-122	04/13/05	Acceptable

Comments:

Exception Report

Data File: J:\MS04\DATA\041305\0413F020.D
Lab ID: KWG0506051-5 -- K2502607-007DMS
RunType: DMS
Matrix: SOIL

Date Acquired: 04/13/2005 17:41
Date Quantitated: 04/14/2005 07:57
Batch ID: KWG0506050
Analysis Method: 8260B
MethodJoinID: MJ120

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Tune Window	NA	NA	NA	x	
Analytical Holding Time	NA	NA	NA	x	
ICAL Pass/Fail	NA	NA	NA	x	
ICAL Average RSD	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA	x	
Initial Calibration SPCC/CCC	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA		x
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Minimum RF	NA	NA	NA	x	
Continuing Calibration SPCC/CCC	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Relative Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Second Source ICAL Verification	trans-1,4-Dichloro-2-butene	-90.4	NA	30	NT
	1-Chlorohexane	101.4	NA	30	+

Primary Review: [illegible]

Secondary Review: [illegible]

Quantitation Report

Bottle ID:		**Tier:**		**Matrix:**	SOIL
Prod Code:	8260	**Collect Date:**		**Receive Date:**	04/15/2005

Analysis Lot:	KWG0506050	**Prep Lot:**	KWG0506051	**Report Group:**	
Analysis Method:	8260B	**Prep Method:**	EPA 5030A		
Prep Ref:	375096	**Prep Date:**	04/13/2005		

Quant Method:	J:\MS04\METHODS\041105SOILCL	**Calibration ID:**	CAL4367
Title:			
Tune Ref:	J:\MS04\DATA\041305\0413F002.D	**Method ID:**	MJ120
MB Ref:	J:\MS04\DATA\041305\0413F007.D	**Quant based on Method**	

Data File:	J:\MS04\DATA\041305\0413F020.D			**Instrument:**	MS04
Acqu Date:	04/13/2005 17:41	**Quant Date:**	04/14/2005 07:57	**Vial:**	20
Run Type:	DMS			**Dilution:**	1.0
Lab ID:	KWG0506051-5 -- K2502607-007DMS			**Soln Conc. Units:**	ppb

Internal Standard Compounds

IS Ref	Parameter Name	RT	RT Dev	Quant Mass	Response	Solution Conc	Area Criteria
1	Fluorobenzene	11.34	-0.01	96	7183480	50.00	OK
2	Chlorobenzene-d5	15.93	-0.01	117	4808182	50.00	OK
3	1,4-Dichlorobenzene-d4	19.12	-0.01	152	1694466	50.00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits	Rpt?
1	Dibromofluoromethane	10.23	0.00	0.00	113	1868443	53.06	106	70-119	OK
1	1,2-Dichloroethane-d4	10.80	0.00	0.00	65	1791865	52.42	105	61-123	OK
1	Toluene-d8	13.79	-0.01	0.00	98	6725271	53.33	107	72-121	OK
2	4-Bromofluorobenzene	17.53	0.00	0.00	95	2235406	50.68	101	66-122	OK

Target Compounds

Final Conc. Units: ug/Kg Dry Weight

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Dichlorodifluoromethane	4.05	-0.01	0.00	85	1126058	33.25	54.1		
1	Chloromethane	4.44		0.00	50	2066849	37.10	60.3		
1	Vinyl Chloride	4.65		0.00	62	1679685	38.52	62.6		
1	Bromomethane	5.27	-0.01	0.00	94	898211	47.88	77.9		
1	Chloroethane	5.44	-0.01	0.00	64	895493	39.30	63.9		
1	Trichlorofluoromethane	5.88		0.00	101	1100796	33.09	53.8		
1	Trichlorotrifluoroethane	6.70		0.00	151	740018	30.06	48.9		
1	1,1-Dichloroethene	6.73	-0.01	0.00	96	1202861	39.24	63.8		
1	Acetone	6.73	-0.01	0.00	43	2111913	188.71	307		
1	Carbon Disulfide	7.17	-0.01	0.00	76	8237019	58.89	95.8		
1	Methyl Acetate	7.24		0.00	43	2763236	80.41	131		
1	Methylene Chloride	7.44	-0.02	0.00	84	1686137	35.91	58.4		
1	tert-Butyl Alcohol	7.50	-0.01	0.00	59	758750	205.98	335		
1	Methyl tert-Butyl Ether	7.86	-0.01	0.00	73	3922853	45.99	74.8		

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File:	J:\MS04\DATA\041305\0413F020.D			**Instrument:**	MS04
Acqu Date:	04/13/2005 17:41	**Quant Date:**	04/14/2005 07:57	**Vial:**	20
Run Type:	DMS			**Dilution:**	1.0
Lab ID:	KWG0506051-5 -- K2502607-007DMS			**Soln Conc. Units:**	ppb

Target Compounds **Final Conc. Units:** ug/Kg Dry Weight

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
1	trans-1,2-Dichloroethene	7.90		0.00	96	1233039	34.33	55.8		
1	Diisopropyl Ether	8.58	-0.01	0.00	45	6892750	42.18	68.6		
1	Vinyl Acetate	8.53	-0.01	0.00	86	128356	23.46	38.1		
1	1,1-Dichloroethane	8.55		0.00	63	2859855	39.90	64.9		
1	tert-Butyl Ethyl Ether	9.19	-0.01	0.00	59	4989317	44.06	71.6		
1	2,2-Dichloropropane	9.54		0.00	77	1697235	36.02	58.6		
1	2-Butanone (MEK)	9.44	-0.01	0.00	72	739236	191.51	311		
1	cis-1,2-Dichloroethene	9.50	-0.01	0.00	96	1580737	40.74	66.2		
1	Bromochloromethane	9.90	-0.01	0.00	128	746416	40.11	65.2		
1	Chloroform	9.97		0.00	83	2330288	38.07	61.9		
1	1,1,1-Trichloroethane (TCA)	10.36	-0.01	0.00	97	1529431	35.25	57.3		
1	Cyclohexane	10.51		0.00	56	2477135	37.20	60.5		
1	Carbon Tetrachloride	10.66	-0.01	0.00	117	1144059	31.40	51.1		
1	1,1-Dichloropropene	10.61		0.00	75	1582763	30.07	48.9		
1	tert-Amyl Methyl Ether	11.03	-0.01	0.00	87	814276	42.02	68.3		
1	Benzene	10.96		0.00	78	5509065	38.05	61.9		
1	1,2-Dichloroethane (EDC)	10.91	-0.02	0.00	62	1607645	39.77	64.7		
1	Trichloroethene (TCE)	11.93		0.00	95	1152659	32.09	52.2		
1	1,2-Dichloropropane	12.27		0.00	63	1687293	38.20	62.1		
1	Methylcyclohexane	12.29	-0.01	0.00	83	1440730	24.96	40.6		
1	Dibromomethane	12.46		0.00	93	895350	38.37	62.4		
1	Bromodichloromethane	12.65		0.00	83	1754202	37.89	61.6		
1	2-Chloroethyl Vinyl Ether	13.02		0.00	63	848583	41.04	66.7		
1	cis-1,3-Dichloropropene	13.33		0.00	75	2240040	35.19	57.2		
1	4-Methyl-2-pentanone (MIBK)	13.48	-0.01	0.00	43	9399090	198.01	322		
1	Toluene	13.90		0.00	92	2941258	33.72	54.8		
2	trans-1,3-Dichloropropene	14.13	-0.01	0.00	75	1664365	31.73	51.6		
2	1,1,2-Trichloroethane	14.44		0.00	83	1020230	38.41	62.5		
2	Tetrachloroethene (PCE)	14.76		0.00	164	659458	24.97	40.6		
2	2-Hexanone	14.72	-0.01	0.00	43	7301876	213.61	347		
2	1,3-Dichloropropane	14.70		0.00	76	2205754	38.49	62.6		
2	Dibromochloromethane	15.07		0.00	129	1142501	35.39	57.5		
2	1,2-Dibromoethane (EDB)	15.29		0.00	107	1124670	36.63	59.6		
2	1-Chlorohexane	15.84		0.00	91	1104250	39.64	64.5		
2	Chlorobenzene	15.98	-0.01	0.00	112	2192143	25.79	41.9		
2	Ethylbenzene	16.08	-0.01	0.00	106	1127242	26.01	42.3		
2	1,1,1,2-Tetrachloroethane	16.06		0.00	131	895557	29.76	48.4		
2	m,p-Xylenes	16.23	-0.01	0.00	106	2734566	50.18	81.6		
2	o-Xylene	16.81		0.00	106	1390306	26.43	43.0		
2	Styrene	16.81		0.00	104	2032707	22.08	35.9		
2	Bromoform	17.12	-0.01	0.00	173	628990	31.55	51.3		
2	Isopropylbenzene	17.28	-0.01	0.00	105	3534134	25.26	41.1		
3	1,1,2,2-Tetrachloroethane	17.64		0.00	83	1276636	37.84	61.5		

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File:	J:\MS04\DATA\041305\0413F020.D			**Instrument:**	MS04
Acqu Date:	04/13/2005 17:41	**Quant Date:**	04/14/2005 07:57	**Vial:**	20
Run Type:	DMS			**Dilution:**	1.0
Lab ID:	KWG0506051-5 -- K2502607-007DMS			**Soln Conc. Units:**	ppb

Target Compounds **Final Conc. Units:** ug/Kg Dry Weight

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
3	Bromobenzene	17.79		0.00	156	708365	26.74	43.5		
3	n-Propylbenzene	17.84		0.00	91	3173121	21.82	35.5		
3	trans-1,4-Dichloro-2-butene	17.71	0.01	0.00	53	52183	5.98	9.72	J	
3	1,2,3-Trichloropropane	17.73	-0.01	0.00	110	346603	40.98	66.6		
3	2-Chlorotoluene	18.02		0.00	91	2165487	23.38	38.0		
3	1,3,5-Trimethylbenzene	18.04	-0.01	0.00	105	2039606	22.97	37.3		
3	4-Chlorotoluene	18.15	-0.01	0.00	91	1910563	22.18	36.1		
3	tert-Butylbenzene	18.52	-0.01	0.00	119	1678498	19.24	31.3	J	
3	1,2,4-Trimethylbenzene	18.57	-0.01	0.00	105	2124678	23.55	38.3		
3	sec-Butylbenzene	18.81	-0.01	0.00	105	1929054	16.73	27.2	J	
3	4-Isopropyltoluene	18.97	-0.01	0.00	119	1450519	15.05	24.5	J	
3	1,3-Dichlorobenzene	19.05		0.00	146	883764	18.85	30.7		
3	1,4-Dichlorobenzene	19.16		0.00	146	891129	18.98	30.9		
3	n-Butylbenzene	19.53		0.00	91	1313755	13.14	21.4	J	
3	1,2-Dichlorobenzene	19.69		0.00	146	837729	19.32	31.4		
3	1,2-Dibromo-3-chloropropane	20.73	-0.01	0.00	157	161308	30.35	49.3		
3	1,2,4-Trichlorobenzene	22.00		0.00	180	261221	9.17	14.9	J	
3	Hexachlorobutadiene	22.19	-0.01	0.00	225	90324	6.19	10.1	J	
3	Naphthalene	22.43	-0.02	0.00	128	839832	12.69	20.6	J	
3	1,2,3-Trichlorobenzene	22.84	-0.01	0.00	180	227924	8.68	14.1	J	
	n-Octane				0	0		16	U	NR

Prep Amount:	5.00 g	**Dilution:**	1.0
Prep Final Vol:	5.0 ml	**Unit Factor:**	1
Solids:	61.5 %		

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / (Prep Amount x Solids)) x Unit Factor

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

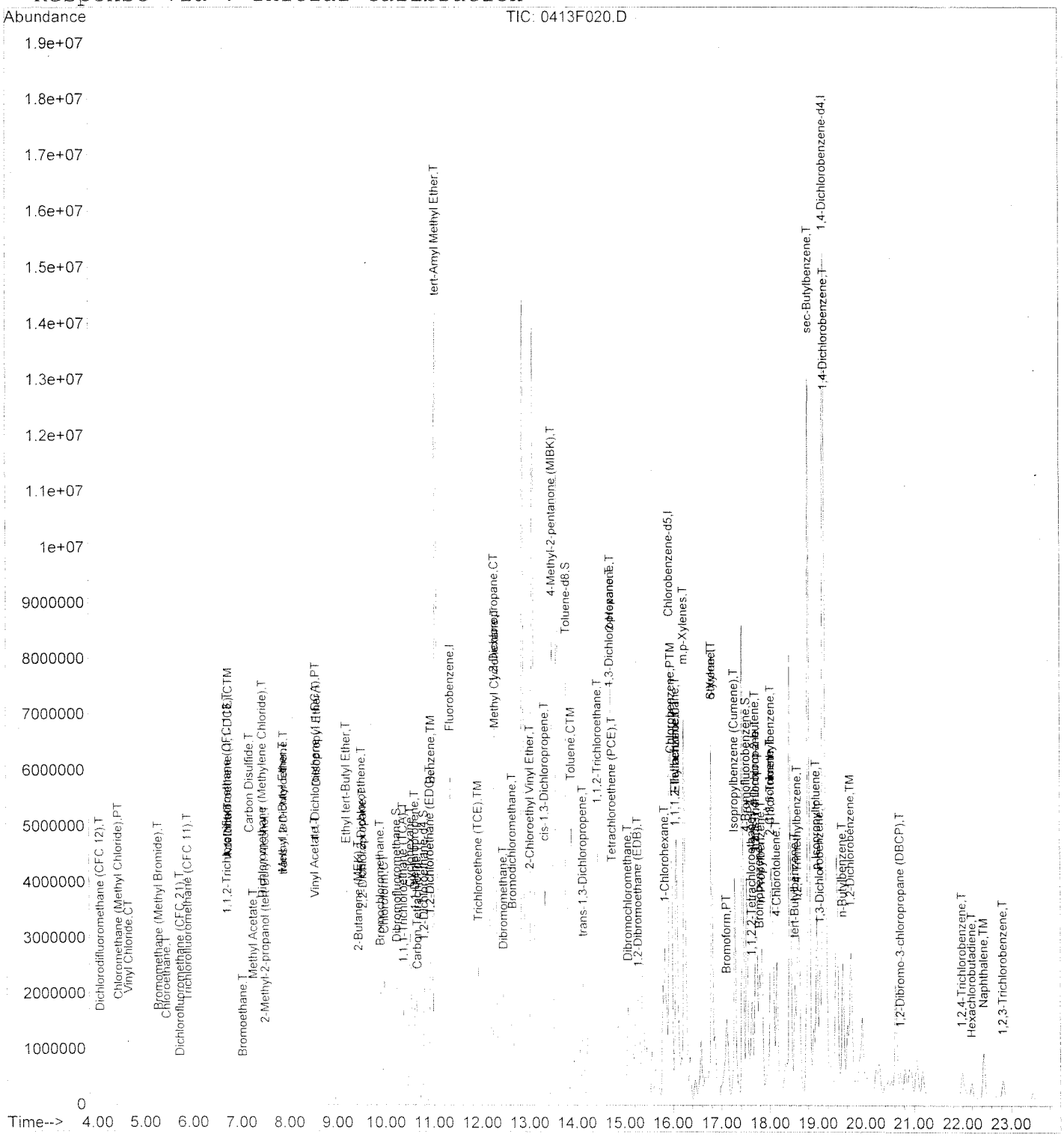
D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report (QT Reviewed)

Data File : J:\MS04\DATA\041305\0413F020.D Vial: 20
Acq On : 13 Apr 2005 5:41 pm Operator: KR
Sample : K2502607-007DMS Inst : MS04
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 14 7:57 2005 Quant Results File: 041105SOILCL

Method : J:\MS04\METHODS\041105SOILCLP.M (RTE Integrator)
Title : MS04 APPX SOIL CAL 3288
Last Update : Mon Apr 11 19:41:27 2005
Response via : Initial Calibration



COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Battelle Memorial Institute
Project: Novato Ballfields/G486063
Sample Matrix: Soil

Service Request: K2502554
Date Collected: NA
Date Received: NA

Volatile Organic Compounds

Sample Name: Lab Control Sample
Lab Code: KWG0506051-1

Units: ug/Kg
Basis: Dry

Extraction Method: EPA 5035
Analysis Method: 8260B

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dichlorodifluoromethane	**37.9**		5.0	0.70	1	04/13/05	04/13/05	KWG0506051	
Chloromethane	**41.3**		5.0	0.99	1	04/13/05	04/13/05	KWG0506051	
Vinyl Chloride	**41.2**		5.0	0.62	1	04/13/05	04/13/05	KWG0506051	
Bromomethane	**51.7**		5.0	0.80	1	04/13/05	04/13/05	KWG0506051	
Chloroethane	**42.3**		5.0	0.78	1	04/13/05	04/13/05	KWG0506051	
Trichlorofluoromethane	**39.7**		5.0	0.73	1	04/13/05	04/13/05	KWG0506051	
Trichlorotrifluoroethane	**46.0**		5.0	0.74	1	04/13/05	04/13/05	KWG0506051	
Acetone	**192**		20	10	1	04/13/05	04/13/05	KWG0506051	
1,1-Dichloroethene	**45.9**		5.0	0.71	1	04/13/05	04/13/05	KWG0506051	
Methyl Acetate	**49.7**		5.0	0.74	1	04/13/05	04/13/05	KWG0506051	
Carbon Disulfide	**81.4**		5.0	1.5	1	04/13/05	04/13/05	KWG0506051	
Diisopropyl Ether	**44.4**		10	0.34	1	04/13/05	04/13/05	KWG0506051	
Methylene Chloride	**38.3**		10	2.5	1	04/13/05	04/13/05	KWG0506051	
Methyl tert-Butyl Ether	**46.9**		5.0	0.65	1	04/13/05	04/13/05	KWG0506051	
trans-1,2-Dichloroethene	**43.7**		5.0	0.73	1	04/13/05	04/13/05	KWG0506051	
1,1-Dichloroethane	**43.3**		5.0	0.78	1	04/13/05	04/13/05	KWG0506051	
2-Butanone (MEK)	**198**		20	12	1	04/13/05	04/13/05	KWG0506051	
cis-1,2-Dichloroethene	**43.7**		5.0	0.83	1	04/13/05	04/13/05	KWG0506051	
Chloroform	**43.1**		5.0	0.57	1	04/13/05	04/13/05	KWG0506051	
1,1,1-Trichloroethane (TCA)	**45.1**		5.0	0.57	1	04/13/05	04/13/05	KWG0506051	
Cyclohexane	**55.3**		5.0	0.67	1	04/13/05	04/13/05	KWG0506051	
Carbon Tetrachloride	**44.9**		5.0	0.60	1	04/13/05	04/13/05	KWG0506051	
1,2-Dichloroethane (EDC)	**45.0**		5.0	0.67	1	04/13/05	04/13/05	KWG0506051	
Benzene	**45.2**		5.0	0.79	1	04/13/05	04/13/05	KWG0506051	
Trichloroethene (TCE)	**46.0**		5.0	0.28	1	04/13/05	04/13/05	KWG0506051	
1,2-Dichloropropane	**45.1**		5.0	0.72	1	04/13/05	04/13/05	KWG0506051	
Bromodichloromethane	**46.2**		5.0	0.53	1	04/13/05	04/13/05	KWG0506051	
Methylcyclohexane	**53.1**		5.0	0.71	1	04/13/05	04/13/05	KWG0506051	
2-Hexanone	**200**		20	6.1	1	04/13/05	04/13/05	KWG0506051	
cis-1,3-Dichloropropene	**46.4**		5.0	0.76	1	04/13/05	04/13/05	KWG0506051	
Toluene	**45.7**		5.0	0.84	1	04/13/05	04/13/05	KWG0506051	
trans-1,3-Dichloropropene	**41.6**		5.0	0.60	1	04/13/05	04/13/05	KWG0506051	
1,1,2-Trichloroethane	**44.1**		5.0	0.69	1	04/13/05	04/13/05	KWG0506051	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	Battelle Memorial Institute	**Service Request:**	K2502554
Project:	Novato Ballfields/G486063	**Date Collected:**	NA
Sample Matrix:	Soil	**Date Received:**	NA

Volatile Organic Compounds

Sample Name:	Lab Control Sample	**Units:**	ug/Kg
Lab Code:	KWG0506051-1	**Basis:**	Dry
Extraction Method:	EPA 5035	**Level:**	Low
Analysis Method:	8260B		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
4-Methyl-2-pentanone (MIBK)	**217**		20	5.5	1	04/13/05	04/13/05	KWG0506051	
Tetrachloroethene (PCE)	**44.1**		5.0	0.31	1	04/13/05	04/13/05	KWG0506051	
Dibromochloromethane	**43.8**		5.0	0.60	1	04/13/05	04/13/05	KWG0506051	
1,2-Dibromoethane (EDB)	**43.7**		20	0.79	1	04/13/05	04/13/05	KWG0506051	
Chlorobenzene	**44.0**		5.0	0.70	1	04/13/05	04/13/05	KWG0506051	
Ethylbenzene	**45.4**		5.0	0.57	1	04/13/05	04/13/05	KWG0506051	
m,p-Xylenes	**91.1**		5.0	1.5	1	04/13/05	04/13/05	KWG0506051	
o-Xylene	**45.5**		5.0	0.69	1	04/13/05	04/13/05	KWG0506051	
Styrene	**47.0**		5.0	0.73	1	04/13/05	04/13/05	KWG0506051	
Bromoform	**45.2**		5.0	0.77	1	04/13/05	04/13/05	KWG0506051	
Isopropylbenzene	**41.4**		20	0.68	1	04/13/05	04/13/05	KWG0506051	
1,1,2,2-Tetrachloroethane	**38.7**		5.0	0.74	1	04/13/05	04/13/05	KWG0506051	
1,3-Dichlorobenzene	**43.1**		5.0	0.71	1	04/13/05	04/13/05	KWG0506051	
1,4-Dichlorobenzene	**43.4**		5.0	0.82	1	04/13/05	04/13/05	KWG0506051	
1,2-Dichlorobenzene	**42.8**		5.0	0.65	1	04/13/05	04/13/05	KWG0506051	
1,2-Dibromo-3-chloropropane	**43.8**		20	0.85	1	04/13/05	04/13/05	KWG0506051	
1,2,4-Trichlorobenzene	**45.8**		20	0.77	1	04/13/05	04/13/05	KWG0506051	
Naphthalene	**45.7**		20	0.89	1	04/13/05	04/13/05	KWG0506051	
Bromochloromethane	**44.2**		5.0	0.98	1	04/13/05	04/13/05	KWG0506051	
1,2,3-Trichlorobenzene	**44.9**		20	0.90	1	04/13/05	04/13/05	KWG0506051	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	106	70-119	04/13/05	Acceptable
Toluene-d8	111	72-121	04/13/05	Acceptable
4-Bromofluorobenzene	112	66-122	04/13/05	Acceptable

Comments:

Exception Report

Data File: J:\MS04\DATA\041305\0413F004.D
Lab ID: KWG0506051-1
RunType: LCS
Matrix: SOIL

Date Acquired: 04/13/2005 09:44
Date Quantitated: 04/14/2005 07:56
Batch ID: KWG0506050
Analysis Method: 8260B
MethodJoinID: MJ120

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Tune Window	NA	NA	NA	x	
Analytical Holding Time	NA	NA	NA	x	
ICAL Pass/Fail	NA	NA	NA	x	
ICAL Average RSD	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA	x	
Initial Calibration SPCC/CCC	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA		x
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Minimum RF	NA	NA	NA	x	
Continuing Calibration SPCC/CCC	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Relative Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Second Source ICAL Verification	trans-1,4-Dichloro-2-butene	-90.4	NA	30	NT
	1-Chlorohexane	101.4	NA	30	

Primary Review: [illegible]

Secondary Review: [illegible]

Quantitation Report

Bottle ID:		**Tier:**		**Matrix:**	SOIL
Prod Code:	8260	**Collect Date:**		**Receive Date:**	04/14/2005

Analysis Lot:	KWG0506050	**Prep Lot:**	KWG0506051	**Report Group:**
Analysis Method:	8260B	**Prep Method:**	EPA 5030A	
Prep Ref:	375092	**Prep Date:**	04/13/2005	

Quant Method:	J:\MS04\METHODS\041105SOILCL	**Calibration ID:**	CAL4367
Title:			
Tune Ref:	J:\MS04\DATA\041305\0413F002.D	**Method ID:**	MJ120
MB Ref:	J:\MS04\DATA\041305\0413F007.D	**Quant based on Method**	

Data File:	J:\MS04\DATA\041305\0413F004.D			**Instrument:**	MS04
Acqu Date:	04/13/2005 09:44	**Quant Date:**	04/14/2005 07:56	**Vial:**	5
Run Type:	LCS			**Dilution:**	1.0
Lab ID:	KWG0506051-1			**Soln Conc. Units:**	ppb

Internal Standard Compounds

IS Ref	Parameter Name	RT	RT Dev	Quant Mass	Response	Solution Conc	Area Criteria
1	Fluorobenzene	11.35	0.00	96	5909921	50.00	OK
2	Chlorobenzene-d5	15.94	0.00	117	4306673	50.00	OK
3	1,4-Dichlorobenzene-d4	19.13	0.00	152	2137581	50.00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits	Rpt?
1	Dibromofluoromethane	10.23	0.00	0.00	113	1536824	53.05	106	70-119	OK
1	1,2-Dichloroethane-d4	10.80	0.00	0.00	65	1464741	52.08	104	61-123	OK
1	Toluene-d8	13.80	0.00	0.00	98	5739391	55.32	111	72-121	OK
2	4-Bromofluorobenzene	17.53	0.00	0.00	95	2216161	56.09	112	66-122	OK

Target Compounds

Final Conc. Units: ug/Kg Wet Weight

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Dichlorodifluoromethane	4.05	-0.01	0.00	85	1054511	37.85	37.9		
1	Chloromethane	4.43	-0.01	0.00	50	1890815	41.25	41.3		
1	Vinyl Chloride	4.64	-0.01	0.00	62	1479365	41.23	41.2		
1	Bromomethane	5.27	-0.01	0.00	94	797331	51.66	51.7		
1	Chloroethane	5.43	-0.02	0.00	64	793120	42.30	42.3		
1	Trichlorofluoromethane	5.88		0.00	101	1085280	39.65	39.7		
1	Trichlorotrifluoroethane	6.70		0.00	151	931612	46.00	46.0		
1	1,1-Dichloroethene	6.74		0.00	96	1156812	45.87	45.9		
1	Acetone	6.74		0.00	43	1768571	192.09	192		
1	Carbon Disulfide	7.17	-0.01	0.00	76	9371465	81.44	81.4		
1	Methyl Acetate	7.24		0.00	43	1403592	49.65	49.7		
1	Methylene Chloride	7.44	-0.02	0.00	84	1480085	38.31	38.3		
1	tert-Butyl Alcohol	7.50	-0.01	0.00	59	665158	219.49	219		
1	Methyl tert-Butyl Ether	7.87		0.00	73	3294024	46.94	46.9		

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File:	J:\MS04\DATA\041305\0413F004.D			**Instrument:**	MS04
Acqu Date:	04/13/2005 09:44	**Quant Date:**	04/14/2005 07:56	**Vial:**	5
Run Type:	LCS			**Dilution:**	1.0
Lab ID:	KWG0506051-1			**Soln Conc. Units:**	ppb

Target Compounds **Final Conc. Units:** ug/Kg Wet Weight

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
1	trans-1,2-Dichloroethene	7.90		0.00	96	1292046	43.73	43.7		
1	Diisopropyl Ether	8.59		0.00	45	5966996	44.39	44.4		
1	Vinyl Acetate	8.53	-0.01	0.00	86	406285	90.26	90.3		
1	1,1-Dichloroethane	8.55		0.00	63	2554311	43.31	43.3		
1	tert-Butyl Ethyl Ether	9.19	-0.01	0.00	59	4274187	45.87	45.9		
1	2,2-Dichloropropane	9.54		0.00	77	1686017	43.49	43.5		
1	2-Butanone (MEK)	9.45		0.00	72	627656	197.64	198		
1	cis-1,2-Dichloroethene	9.51		0.00	96	1395627	43.72	43.7		
1	Bromochloromethane	9.90	-0.01	0.00	128	677094	44.23	44.2		
1	Chloroform	9.97		0.00	83	2168932	43.06	43.1		
1	1,1,1-Trichloroethane (TCA)	10.37		0.00	97	1609813	45.10	45.1		
1	Cyclohexane	10.51		0.00	56	3028576	55.28	55.3		
1	Carbon Tetrachloride	10.66	-0.01	0.00	117	1346314	44.91	44.9		
1	1,1-Dichloropropene	10.61		0.00	75	1820425	42.04	42.0		
1	tert-Amyl Methyl Ether	11.03	-0.01	0.00	87	719726	45.14	45.1		
1	Benzene	10.96		0.00	78	5382983	45.19	45.2		
1	1,2-Dichloroethane (EDC)	10.92	-0.01	0.00	62	1496748	45.00	45.0		
1	Trichloroethene (TCE)	11.93		0.00	95	1359848	46.02	46.0		
1	1,2-Dichloropropane	12.27		0.00	63	1639846	45.13	45.1		
1	Methylcyclohexane	12.29	-0.01	0.00	83	2524141	53.14	53.1		
1	Dibromomethane	12.46		0.00	93	852507	44.41	44.4		
1	Bromodichloromethane	12.65		0.00	83	1759634	46.20	46.2		
1	2-Chloroethyl Vinyl Ether	13.02		0.00	63	797492	46.88	46.9		
1	cis-1,3-Dichloropropene	13.33		0.00	75	2431114	46.43	46.4		
1	4-Methyl-2-pentanone (MIBK)	13.49		0.00	43	8490339	217.41	217		
1	Toluene	13.90		0.00	92	3278715	45.68	45.7		
2	trans-1,3-Dichloropropene	14.13	-0.01	0.00	75	1954219	41.60	41.6		
2	1,1,2-Trichloroethane	14.44		0.00	83	1049887	44.13	44.1		
2	Tetrachloroethene (PCE)	14.76		0.00	164	1042227	44.06	44.1		
2	2-Hexanone	14.73		0.00	43	6132241	200.28	200		
2	1,3-Dichloropropane	14.70		0.00	76	2219108	43.23	43.2		
2	Dibromochloromethane	15.07		0.00	129	1265792	43.78	43.8		
2	1,2-Dibromoethane (EDB)	15.29		0.00	107	1201064	43.68	43.7		
2	1-Chlorohexane	15.84		0.00	91	2259584	90.56	90.6		
2	Chlorobenzene	15.98	-0.01	0.00	112	3346153	43.95	44.0		
2	Ethylbenzene	16.09		0.00	106	1762976	45.42	45.4		
2	1,1,1,2-Tetrachloroethane	16.06		0.00	131	1161522	43.09	43.1		
2	m,p-Xylenes	16.24		0.00	106	4444279	91.05	91.1		
2	o-Xylene	16.81		0.00	106	2143134	45.49	45.5		
2	Styrene	16.81		0.00	104	3875471	47.00	47.0		
2	Bromoform	17.12	-0.01	0.00	173	807252	45.20	45.2		
2	Isopropylbenzene	17.29		0.00	105	5181741	41.35	41.4		
3	1,1,2,2-Tetrachloroethane	17.64		0.00	83	1647219	38.70	38.7		

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File:	J:\MS04\DATA\041305\0413F004.D			**Instrument:**	MS04
Acqu Date:	04/13/2005 09:44	**Quant Date:**	04/14/2005 07:56	**Vial:**	5
Run Type:	LCS			**Dilution:**	1.0
Lab ID:	KWG0506051-1			**Soln Conc. Units:**	ppb

Target Compounds **Final Conc. Units:** ug/Kg Wet Weight

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
3	Bromobenzene	17.79		0.00	156	1349348	40.38	40.4		
3	n-Propylbenzene	17.84		0.00	91	7789116	42.46	42.5		
3	trans-1,4-Dichloro-2-butene	17.84	0.14	0.01	53	44212	4.02	4.02	J	
3	1,2,3-Trichloropropane	17.74		0.00	110	414546	38.85	38.9		
3	2-Chlorotoluene	18.03	0.01	0.00	91	4962033	42.47	42.5		
3	1,3,5-Trimethylbenzene	18.05		0.00	105	4870243	43.48	43.5		
3	4-Chlorotoluene	18.16		0.00	91	4571161	42.07	42.1		
3	tert-Butylbenzene	18.53		0.00	119	4634383	42.10	42.1		
3	1,2,4-Trimethylbenzene	18.59	0.01	0.00	105	4959969	43.59	43.6		
3	sec-Butylbenzene	18.82		0.00	105	6528594	44.89	44.9		
3	4-Isopropyltoluene	18.98		0.00	119	5065720	41.68	41.7		
3	1,3-Dichlorobenzene	19.05		0.00	146	2548057	43.09	43.1		
3	1,4-Dichlorobenzene	19.16		0.00	146	2572249	43.44	43.4		
3	n-Butylbenzene	19.53		0.00	91	5665872	44.93	44.9		
3	1,2-Dichlorobenzene	19.69		0.00	146	2343977	42.84	42.8		
3	1,2-Dibromo-3-chloropropane	20.74		0.00	157	293709	43.81	43.8		
3	1,2,4-Trichlorobenzene	22.00		0.00	180	1645876	45.79	45.8		
3	Hexachlorobutadiene	22.20		0.00	225	839919	45.62	45.6		
3	Naphthalene	22.45		0.00	128	3818296	45.73	45.7		
3	1,2,3-Trichlorobenzene	22.84	-0.01	0.00	180	1488755	44.93	44.9		
	n-Octane				0	0		10	UJ	NR

Prep Amount:	5.00 g	**Dilution:**	1.0
Prep Final Vol:	5.0 ml	**Unit Factor:**	1
Solids:	%		

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / (Prep Amount x Solids)) x Unit Factor

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

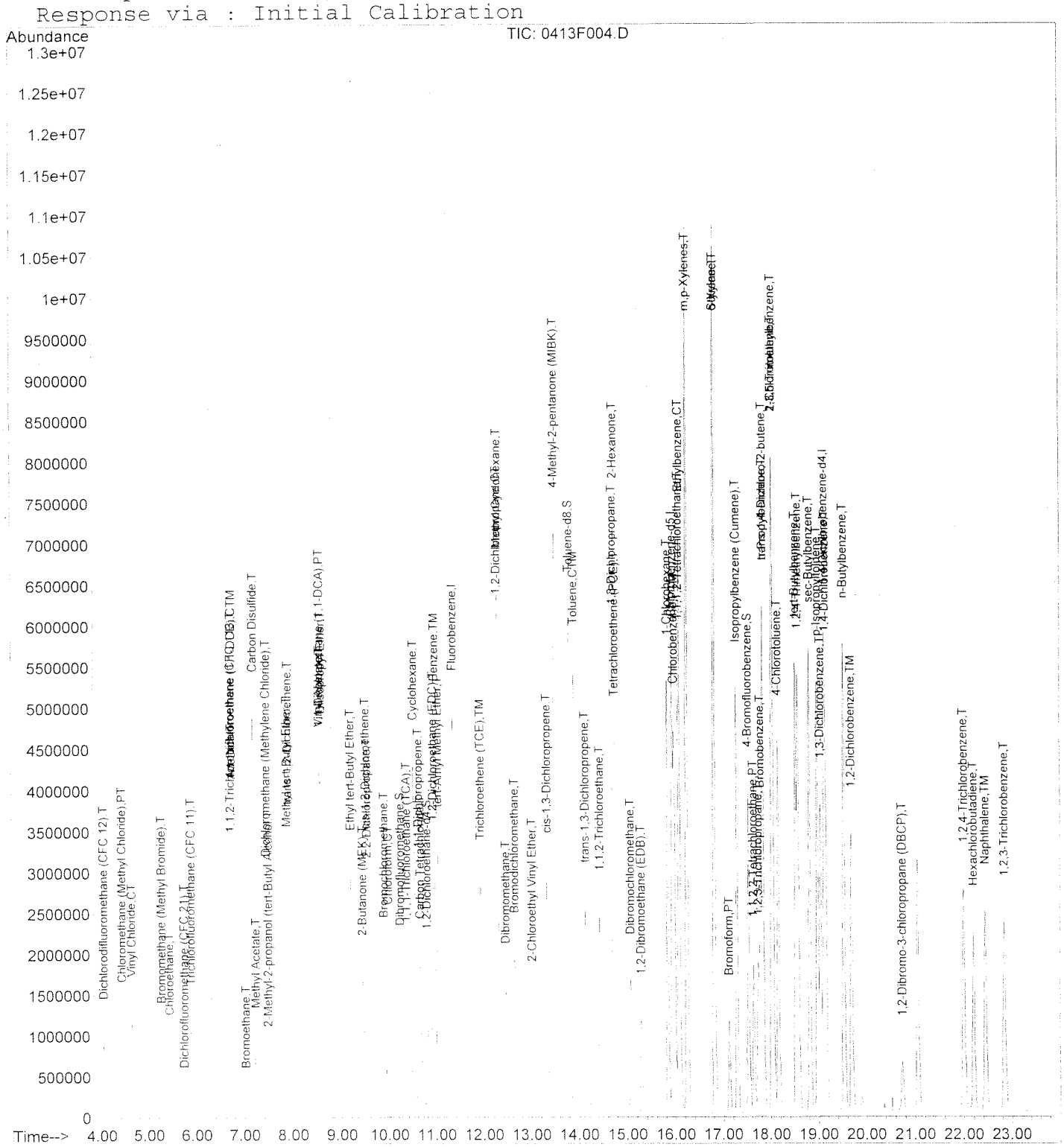
Quantitation Report (QT Reviewed)

Data File : J:\MS04\DATA\041305\0413F004.D
Acq On : 13 Apr 2005 9:44 am
Sample : 8260/CLP SOIL LCS
Misc :
MS Integration Params: RTEINT.P
Quant Time: Apr 14 7:56 2005

Vial: 5
Operator: KR
Inst : MS04
Multiplr: 1.00

Quant Results File: 041105SOILCL

Method : J:\MS04\METHODS\041105SOILCLP.M (RTE Integrator)
Title : MS04 APPX SOIL CAL 3288
Last Update : Mon Apr 11 19:41:27 2005
Response via : Initial Calibration



Organic Analysis:
Volatile Organic Compounds

Validation Package

Standards Data

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

Client: Battelle Memorial Institute
Project: Novato Ballfields/G486063

Service Request: K2502554
Date Analyzed: 04/13/2005
Time Analyzed: 08:44

Tune Summary
Volatile Organic Compounds

File ID: J:\MS04\DATA\041305\0413F002.D
Instrument ID: MS04
Column:

Analysis Method: 8260B
Analysis Lot: KWG0506050

Target Mass	Relative to Mass	Lower Limit%	Upper Limit%	Relative Abundance %	Raw Abundance	Result Pass/Fail
50	95	15	40	22.1	26161	PASS
75	95	30	60	50.5	59837	PASS
95	95	100	100	100.0	118581	PASS
96	95	5	9	6.4	7568	PASS
173	174	0	2	0.0	0	PASS
174	95	50	120	70.2	83293	PASS
175	174	5	9	7.7	6429	PASS
176	174	95	101	99.0	82488	PASS
177	176	5	9	6.8	5592	PASS

Sample Name	Lab Code	File ID	Date Analyzed	Time Analyzed	Q
Continuing Calibration Verification	KWG0506050-2	J:\MS04\DATA\041305\0413F003.D	04/13/2005	09:14	
Lab Control Sample	KWG0506051-1	J:\MS04\DATA\041305\0413F004.D	04/13/2005	09:44	
Method Blank	KWG0506051-3	J:\MS04\DATA\041305\0413F007.D	04/13/2005	11:14	
TO63-IDW-01	K2502554-001	J:\MS04\DATA\041305\0413F008.D	04/13/2005	11:43	
Batch QC	K2502607-007	J:\MS04\DATA\041305\0413F009.D	04/13/2005	12:13	
Batch QCMS	KWG0506051-4	J:\MS04\DATA\041305\0413F019.D	04/13/2005	17:11	
Batch QCDMS	KWG0506051-5	J:\MS04\DATA\041305\0413F020.D	04/13/2005	17:41	

Results flagged with an asterisk (*) indicate the analysis performed outside specified tune window

Exception Report

Data File: J:\MS04\DATA\041305\0413F002.D
Lab ID: KWG0506050-1
RunType: BFB
Matrix: SOIL

Date Acquired: 04/13/2005 08:44
Date Quantitated:
Batch ID: KWG0506050
Analysis Method: 8260B
MethodJoinID: MJ120

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Tune Ion Ratio	NA	NA	NA	x	

Primary Review: KL 4/15/5

Secondary Review: 4/15/5

Quantitation Report

Bottle ID:		**Tier:**		**Matrix:**	SOIL
Prod Code:	8260	**Collect Date:**		**Receive Date:**	04/14/2005

Analysis Lot:	KWG0506050	**Prep Lot:**		**Report Group:**	
Analysis Method:	BFB	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\MS04\METHODS\041105SOILCL	**Calibration ID:**	CAL4367
Title:	GC/MS Tuning Evaluation	**Report List ID:**	LJ774
Tune Ref:		**Method ID:**	MJ159
MB Ref:		**Quant based on Report List**	

Data File:	J:\MS04\DATA\041305\0413F002.D			**Instrument:**	MS04
Acqu Date:	04/13/2005 08:44	**Quant Date:**		**Vial:**	3
Run Type:	BFB			**Dilution:**	1.0
Lab ID:	KWG0506050-1			**Soln Conc. Units:**	

Tune Results

Target Mass	Relative to Mass	Lower Limit%	Upper Limit%	Relative Abundance %	Raw Abundance	Result Pass/Fail
50	95	15	40	22.1	26161	Pass
75	95	30	60	50.5	59837	Pass
95	95	100	100	100.0	118581	Pass
96	95	5	9	6.4	7568	Pass
173	174	0	2	0.0	0	Pass
174	95	50	120	70.2	83293	Pass
175	174	5	9	7.7	6429	Pass
176	174	95	101	99.0	82488	Pass
177	176	5	9	6.8	5592	Pass

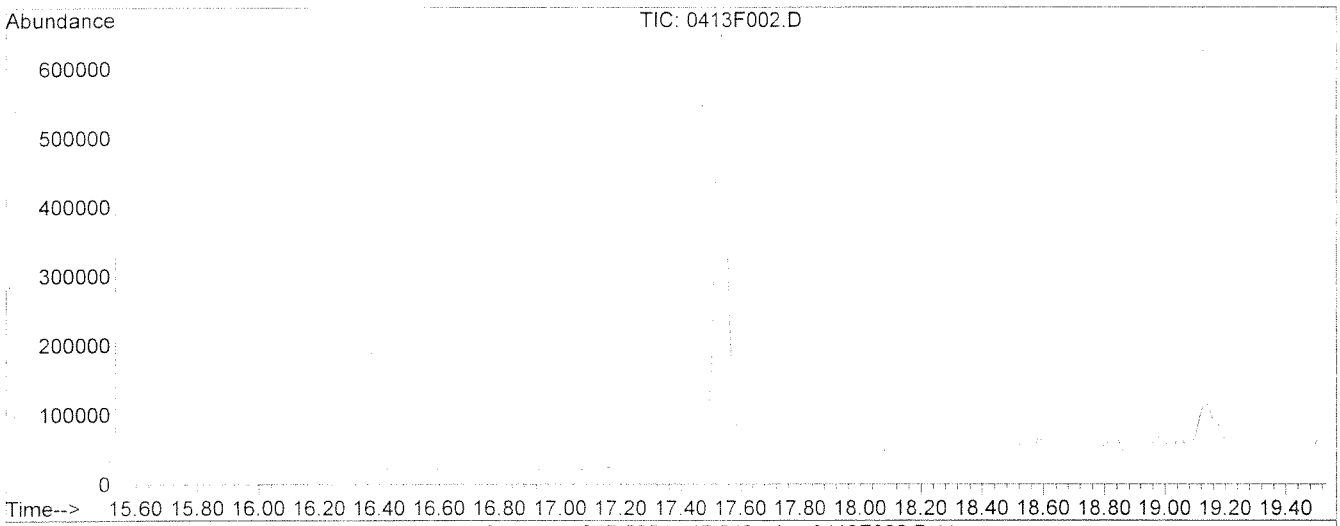
U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

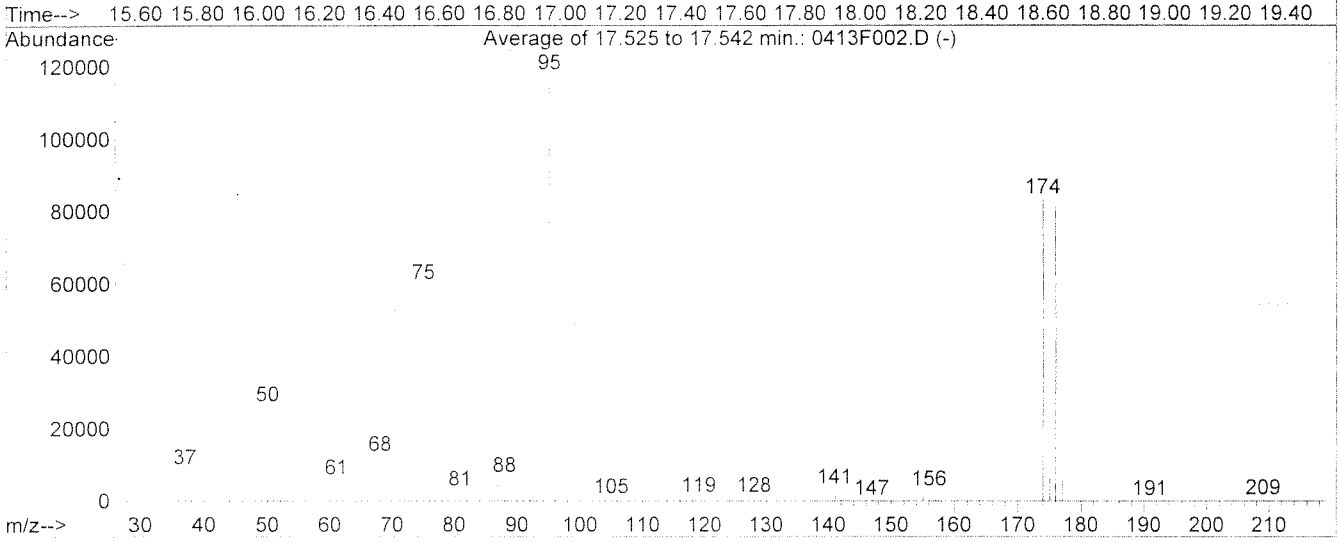
D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

BFB

Data File : J:\MS04\DATA\041305\0413F002.D Vial: 3
Acq On : 13 Apr 2005 8:44 am Operator: KR
Sample : BFB Inst : MS04
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Method : J:\MS04\METHODS\041105SOILCLP.M (RTE Integrator)
Title : MS04 APPX SOIL CAL 3288





AutoFind: Scans 1622, 1623, 1624; Background Corrected with Scan 1613

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	22.1	26161	PASS
75	95	30	60	50.5	59837	PASS
95	95	100	100	100.0	118581	PASS
96	95	5	9	6.4	7568	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	70.2	83293	PASS
175	174	5	9	7.7	6429	PASS
176	174	95	101	99.0	82488	PASS
177	176	5	9	6.8	5592	PASS

0413F002.D 041105SOILCLP.M Thu Apr 14 12:17:55 2005

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

Client: Battelle Memorial Institute
Project: Novato Ballfields/G486063

Service Request: K2502554
Calibration Date: 04/11/2005

Initial Calibration Summary
Volatile Organic Compounds

Calibration ID: CAL4367
Instrument ID: MS04

Column: MS

Level ID	File ID	Level ID	File ID
A	J:\MS04\DATA\041105\0411F010.D	E	J:\MS04\DATA\041105\0411F014.D
B	J:\MS04\DATA\041105\0411F011.D	F	J:\MS04\DATA\041105\0411F015.D
C	J:\MS04\DATA\041105\0411F012.D	G	J:\MS04\DATA\041105\0411F016.D
D	J:\MS04\DATA\041105\0411F013.D		

Analyte Name	Level ID	Amt	RRF	Level ID	Amt	RRF	Level ID	Amt	RRF	Level ID	Amt	RRF	Level ID	Amt	RRF
Dichlorodifluoromethane	A	2.0	0.258	B	5.0	0.215	C	10	0.208	D	20	0.234	E	50	0.245
	F	100	0.246	G	200	0.244									
† Chloromethane	A	2.0	0.479	B	5.0	0.359	C	10	0.327	D	20	0.378	E	50	0.394
	F	100	0.397	G	200	0.381									
‡ Vinyl Chloride	A	2.0	0.318	B	5.0	0.276	C	10	0.275	D	20	0.302	E	50	0.321
	F	100	0.318	G	200	0.315									
Bromomethane				B	5.0	0.109	C	10	0.110	D	20	0.122	E	50	0.136
	F	100	0.150	G	200	0.157									
Chloroethane	A	2.0	0.182	B	5.0	0.146	C	10	0.142	D	20	0.157	E	50	0.163
	F	100	0.163	G	200	0.158									
Trichlorofluoromethane	A	2.0	0.234	B	5.0	0.205	C	10	0.211	D	20	0.236	E	50	0.248
	F	100	0.244	G	200	0.243									
Trichlorotrifluoroethane	A	2.0	0.162	B	5.0	0.150	C	10	0.156	D	20	0.176	E	50	0.187
	F	100	0.183	G	200	0.186									
Acetone				B	10	0.0835	C	20	0.0744	D	40	0.0765	E	100	0.0778
	F	200	0.0792	G	400	0.0761									
‡ 1,1-Dichloroethene	A	2.0	0.217	B	5.0	0.196	C	10	0.197	D	20	0.215	E	50	0.226
	F	100	0.223	G	200	0.220									
Methyl Acetate	A	2.0	0.265	B	5.0	0.228	C	10	0.229	D	20	0.238	E	50	0.232
	F	100	0.224	G	200	0.258									
Carbon Disulfide	A	2.0	1.10	B	5.0	0.894	C	10	0.883	D	20	0.957	E	50	1.01
	F	100	1.00												
Diisopropyl Ether	A	2.0	1.20	B	5.0	1.00	C	10	1.05	D	20	1.13	E	50	1.21
	F	100	1.23												
Methylene Chloride							C	10	0.396	D	20	0.341	E	50	0.312
	F	100	0.298	G	200	0.287									
Methyl tert-Butyl Ether	A	4.0	0.645	B	10	0.527	C	20	0.553	D	40	0.581	E	100	0.619
	F	200	0.637												

Results flagged with an asterisk (*) indicate values outside control criteria.

† **SPCC Compound** ‡ **CCC Compound**

Client: Battelle Memorial Institute
Project: Novato Ballfields/G486063

Service Request: K2502554
Calibration Date: 04/11/2005

Initial Calibration Summary
Volatile Organic Compounds

Calibration ID: CAL4367
Instrument ID: MS04

Column: MS

Analyte Name	Level ID	Amt	RRF	Level ID	Amt	RRF	Level ID	Amt	RRF	Level ID	Amt	RRF	Level ID	Amt	RRF
trans-1,2-Dichloroethene	A	2.0	0.256	B	5.0	0.226	C	10	0.231	D	20	0.250	E	50	0.267
	F	100	0.263	G	200	0.257									
† 1,1-Dichloroethane	A	2.0	0.522	B	5.0	0.445	C	10	0.464	D	20	0.502	E	50	0.524
	F	100	0.521	G	200	0.514									
2-Butanone (MEK)	A	4.0	0.0287	B	10	0.0241	C	20	0.0237	D	40	0.0256	E	100	0.0275
	F	200	0.0291	G	400	0.0293									
cis-1,2-Dichloroethene	A	2.0	0.284	B	5.0	0.240	C	10	0.246	D	20	0.269	E	50	0.284
	F	100	0.285	G	200	0.281									
‡ Chloroform	A	2.0	0.441	B	5.0	0.380	C	10	0.391	D	20	0.425	E	50	0.449
	F	100	0.452	G	200	0.444									
1,1,1-Trichloroethane (TCA)	A	2.0	0.291	B	5.0	0.265	C	10	0.275	D	20	0.307	E	50	0.326
	F	100	0.326	G	200	0.324									
Cyclohexane	A	2.0	0.392	B	5.0	0.336	C	10	0.501	D	20	0.496	E	50	0.536
	F	100	0.467	G	200	0.517									
Carbon Tetrachloride	A	2.0	0.241	B	5.0	0.220	C	10	0.233	D	20	0.259	E	50	0.277
	F	100	0.275	G	200	0.270									
1,2-Dichloroethane (EDC)	A	2.0	0.306	B	5.0	0.254	C	10	0.258	D	20	0.276	E	50	0.290
	F	100	0.297	G	200	0.288									
Benzene	A	2.0	1.11	B	5.0	0.941	C	10	0.948	D	20	1.04	E	50	1.09
	F	100	1.09	G	200	0.819									
Trichloroethene (TCE)	A	2.0	0.249	B	5.0	0.224	C	10	0.229	D	20	0.252	E	50	0.266
	F	100	0.268	G	200	0.263									
‡ 1,2-Dichloropropane	A	2.0	0.326	B	5.0	0.275	C	10	0.285	D	20	0.306	E	50	0.324
	F	100	0.325	G	200	0.311									
Bromodichloromethane	A	2.0	0.334	B	5.0	0.283	C	10	0.293	D	20	0.320	E	50	0.338
	F	100	0.347	G	200	0.341									
Methylcyclohexane				B	5.0	0.280	C	10	0.428	D	20	0.421	E	50	0.453
	F	100	0.395	G	200	0.433									
2-Hexanone	A	4.0	0.395	B	10	0.342	C	20	0.328	D	40	0.333	E	100	0.355
	F	200	0.372	G	400	0.363									
cis-1,3-Dichloropropene	A	2.0	0.449	B	5.0	0.384	C	10	0.402	D	20	0.443	E	50	0.467
	F	100	0.484	G	200	0.471									
‡ Toluene	A	2.0	0.615	B	5.0	0.535	C	10	0.557	D	20	0.617	E	50	0.656
	F	100	0.665	G	200	0.604									

Results flagged with an asterisk (*) indicate values outside control criteria.

† **SPCC Compound** ‡ **CCC Compound**

Client: Battelle Memorial Institute
Project: Novato Ballfields/G486063

Service Request: K2502554
Calibration Date: 04/11/2005

Initial Calibration Summary
Volatile Organic Compounds

Calibration ID: CAL4367
Instrument ID: MS04

Column: MS

Analyte Name	Level ID	Amt	RRF	Level ID	Amt	RRF	Level ID	Amt	RRF	Level ID	Amt	RRF	Level ID	Amt	RRF
trans-1,3-Dichloropropene	A	2.0	0.570	B	5.0	0.474	C	10	0.507	D	20	0.532	E	50	0.572
	F	100	0.578	G	200	0.584									
1,1,2-Trichloroethane	A	2.0	0.287	B	5.0	0.246	C	10	0.264	D	20	0.275	E	50	0.285
	F	100	0.288	G	200	0.289									
4-Methyl-2-pentanone (MIBK)	A	4.0	0.340	B	10	0.305	C	20	0.304	D	40	0.318	E	100	0.343
	F	200	0.371	G	400	0.332									
Tetrachloroethene (PCE)	A	2.0	0.260	B	5.0	0.239	C	10	0.254	D	20	0.281	E	50	0.297
	F	100	0.292	G	200	0.299									
Dibromochloromethane	A	2.0	0.335	B	5.0	0.293	C	10	0.315	D	20	0.329	E	50	0.353
	F	100	0.359	G	200	0.366									
1,2-Dibromoethane (EDB)	A	2.0	0.326	B	5.0	0.279	C	10	0.300	D	20	0.315	E	50	0.335
	F	100	0.341	G	200	0.340									
† Chlorobenzene	A	2.0	0.907	B	5.0	0.783	C	10	0.821	D	20	0.893	E	50	0.944
	F	100	0.946	G	200	0.893									
‡ Ethylbenzene	A	2.0	0.441	B	5.0	0.391	C	10	0.412	D	20	0.466	E	50	0.489
	F	100	0.489	G	200	0.467									
m,p-Xylenes	A	4.0	0.563	B	10	0.493	C	20	0.516	D	40	0.588	E	100	0.616
	F	200	0.624												
o-Xylene	A	2.0	0.535	B	5.0	0.471	C	10	0.502	D	20	0.569	E	50	0.595
	F	100	0.606	G	200	0.550									
Styrene	A	2.0	0.956	B	5.0	0.836	C	10	0.872	D	20	0.999	E	50	1.05
	F	100	1.08	G	200	0.915									
† Bromoform	A	2.0	0.200	B	5.0	0.188	C	10	0.190	D	20	0.202	E	50	0.218
	F	100	0.228	G	200	0.226									
Isopropylbenzene	A	2.0	1.38	B	5.0	1.24	C	10	1.31	D	20	1.52	E	50	1.62
	F	100	1.66												
† 1,1,2,2-Tetrachloroethane	A	2.0	1.04	B	5.0	0.998	C	10	0.956	D	20	0.933	E	50	0.990
	F	100	0.972	G	200	1.08									
1,3-Dichlorobenzene	A	2.0	1.41	B	5.0	1.24	C	10	1.28	D	20	1.37	E	50	1.45
	F	100	1.45	G	200	1.47									
1,4-Dichlorobenzene	A	2.0	1.43	B	5.0	1.23	C	10	1.32	D	20	1.37	E	50	1.44
	F	100	1.44	G	200	1.46									
1,2-Dichlorobenzene	A	2.0	1.26	B	5.0	1.16	C	10	1.20	D	20	1.27	E	50	1.34
	F	100	1.37	G	200	1.35									

Results flagged with an asterisk (*) indicate values outside control criteria.

† SPCC Compound **‡ CCC Compound**

Client: Battelle Memorial Institute
Project: Novato Ballfields/G486063

Service Request: K2502554
Calibration Date: 04/11/2005

Initial Calibration Summary
Volatile Organic Compounds

Calibration ID: CAL4367
Instrument ID: MS04

Column: MS

Analyte Name	Level ID	Amt	RRF	Level ID	Amt	RRF	Level ID	Amt	RRF	Level ID	Amt	RRF	Level ID	Amt	RRF
1,2-Dibromo-3-chloropropane	A	2.0	0.142	B	5.0	0.147	C	10	0.152	D	20	0.147	E	50	0.161
	F	100	0.176	G	200	0.173									
1,2,4-Trichlorobenzene	A	2.0	0.783	B	5.0	0.775	C	10	0.833	D	20	0.806	E	50	0.859
	F	100	0.928	G	200	0.901									
Naphthalene	A	2.0	1.69	B	5.0	1.81	C	10	1.89	D	20	1.80	E	50	2.01
	F	100	2.24	G	200	2.23									
Bromochloromethane	A	2.0	0.140	B	5.0	0.117	C	10	0.118	D	20	0.127	E	50	0.133
	F	100	0.137	G	200	0.135									
1,2,3-Trichlorobenzene	A	2.0	0.727	B	5.0	0.731	C	10	0.761	D	20	0.730	E	50	0.782
	F	100	0.853	G	200	0.841									
Dibromofluoromethane	A	10	0.262	B	20	0.233	C	30	0.231	D	40	0.236	E	50	0.243
	F	70	0.253	G	80	0.258									
Toluene-d8	A	10	0.960	B	20	0.827	C	30	0.795	D	40	0.848	E	50	0.877
	F	70	0.917	G	80	0.920									
4-Bromofluorobenzene	A	10	0.485	B	20	0.433	C	30	0.418	D	40	0.453	E	50	0.466
	F	70	0.492	G	80	0.465									

Results flagged with an asterisk (*) indicate values outside control criteria.

† **SPCC Compound** ‡ **CCC Compound**

Client: Battelle Memorial Institute
Project: Novato Ballfields/G486063

Service Request: K2502554
Calibration Date: 04/11/2005

Initial Calibration Summary
Volatile Organic Compounds

Calibration ID: CAL4367
Instrument ID: MS04

Column: MS

Analyte Name	Compound Type	Calibration Evaluation					RRF Evaluation		
		Fit Type	Eval.	Eval. Result	Q	Control Criteria	Average RRF	Q	Minimum RRF
Dichlorodifluoromethane	TRG	AverageRF	% RSD	7.6		≤ 15	0.236		0.01
† Chloromethane	TRG	AverageRF	% RSD	12.1		≤ 15	0.388		0.10
‡ Vinyl Chloride	TRG	AverageRF	% RSD	6.7		≤ 15	0.304		0.01
Bromomethane	TRG	AverageRF	% RSD	15.7	*	≤ 15	0.131		0.01
Chloroethane	TRG	AverageRF	% RSD	8.3		≤ 15	0.159		0.01
Trichlorofluoromethane	TRG	AverageRF	% RSD	7.3		≤ 15	0.232		0.01
Trichlorotrifluoroethane	TRG	AverageRF	% RSD	9.0		≤ 15	0.171		0.01
Acetone	TRG	AverageRF	% RSD	4.1		≤ 15	0.0779		0.01
‡ 1,1-Dichloroethene	MS	AverageRF	% RSD	5.6		≤ 15	0.213		0.01
Methyl Acetate	TRG	AverageRF	% RSD	6.7		≤ 15	0.239		0.01
Carbon Disulfide	TRG	AverageRF	% RSD	8.2		≤ 15	0.974		0.01
Diisopropyl Ether	TRG	AverageRF	% RSD	8.3		≤ 15	1.14		0.01
Methylene Chloride	TRG	AverageRF	% RSD	13.4		≤ 15	0.327		0.01
Methyl tert-Butyl Ether	TRG	AverageRF	% RSD	8.1		≤ 15	0.594		0.01
trans-1,2-Dichloroethene	TRG	AverageRF	% RSD	6.3		≤ 15	0.250		0.01
† 1,1-Dichloroethane	TRG	AverageRF	% RSD	6.4		≤ 15	0.499		0.10
2-Butanone (MEK)	TRG	AverageRF	% RSD	8.9		≤ 15	0.0269		0.01
cis-1,2-Dichloroethene	TRG	AverageRF	% RSD	7.2		≤ 15	0.270		0.01
‡ Chloroform	TRG	AverageRF	% RSD	6.9		≤ 15	0.426		0.01
1,1,1-Trichloroethane (TCA)	TRG	AverageRF	% RSD	8.4		≤ 15	0.302		0.01
Cyclohexane	TRG	AverageRF	% RSD	15.8	*	≤ 15	0.464		0.01
Carbon Tetrachloride	TRG	AverageRF	% RSD	8.8		≤ 15	0.254		0.01
1,2-Dichloroethane (EDC)	TRG	AverageRF	% RSD	6.9		≤ 15	0.281		0.01
Benzene	MS	AverageRF	% RSD	10.8		≤ 15	1.01		0.01
Trichloroethene (TCE)	MS	AverageRF	% RSD	7.0		≤ 15	0.250		0.01
‡ 1,2-Dichloropropane	TRG	AverageRF	% RSD	6.6		≤ 15	0.307		0.01
Bromodichloromethane	TRG	AverageRF	% RSD	7.8		≤ 15	0.322		0.01
Methylcyclohexane	TRG	AverageRF	% RSD	15.5	*	≤ 15	0.402		0.01
2-Hexanone	TRG	AverageRF	% RSD	6.7		≤ 15	0.355		0.01
cis-1,3-Dichloropropene	TRG	AverageRF	% RSD	8.4		≤ 15	0.443		0.01
‡ Toluene	MS	AverageRF	% RSD	7.8		≤ 15	0.607		0.01
trans-1,3-Dichloropropene	TRG	AverageRF	% RSD	7.7		≤ 15	0.545		0.01
1,1,2-Trichloroethane	TRG	AverageRF	% RSD	5.9		≤ 15	0.276		0.01
4-Methyl-2-pentanone (MIBK)	TRG	AverageRF	% RSD	7.2		≤ 15	0.330		0.01
Tetrachloroethene (PCE)	TRG	AverageRF	% RSD	8.6		≤ 15	0.275		0.01
Dibromochloromethane	TRG	AverageRF	% RSD	7.7		≤ 15	0.336		0.01
1,2-Dibromoethane (EDB)	TRG	AverageRF	% RSD	7.3		≤ 15	0.319		0.01
† Chlorobenzene	MS	AverageRF	% RSD	6.9		≤ 15	0.884		0.30
‡ Ethylbenzene	TRG	AverageRF	% RSD	8.4		≤ 15	0.451		0.01
m,p-Xylenes	TRG	AverageRF	% RSD	9.4		≤ 15	0.567		0.01
o-Xylene	TRG	AverageRF	% RSD	8.9		≤ 15	0.547		0.01
Styrene	TRG	AverageRF	% RSD	9.4		≤ 15	0.957		0.01

Results flagged with an asterisk (*) indicate values outside control criteria.

† **SPCC Compound** ‡ **CCC Compound**

Client: Battelle Memorial Institute
Project: Novato Ballfields/G486063

Service Request: K2502554
Calibration Date: 04/11/2005

Initial Calibration Summary
Volatile Organic Compounds

Calibration ID: CAL4367
Instrument ID: MS04

Column: MS

Analyte Name	Compound Type	Calibration Evaluation					RRF Evaluation		
		Fit Type	Eval.	Eval. Result	Q	Control Criteria	Average RRF	Q	Minimum RRF
† Bromoform	TRG	AverageRF	% RSD	8.0		≤ 15	0.207		0.10
Isopropylbenzene	TRG	AverageRF	% RSD	11.7		≤ 15	1.45		0.01
† 1,1,2,2-Tetrachloroethane	TRG	AverageRF	% RSD	5.0		≤ 15	0.996		0.30
1,3-Dichlorobenzene	TRG	AverageRF	% RSD	6.5		≤ 15	1.38		0.01
1,4-Dichlorobenzene	TRG	AverageRF	% RSD	6.0		≤ 15	1.39		0.01
1,2-Dichlorobenzene	MS	AverageRF	% RSD	6.2		≤ 15	1.28		0.01
1,2-Dibromo-3-chloropropane	TRG	AverageRF	% RSD	8.5		≤ 15	0.157		0.01
1,2,4-Trichlorobenzene	TRG	AverageRF	% RSD	6.9		≤ 15	0.841		0.01
Naphthalene	MS	AverageRF	% RSD	11.1		≤ 15	1.95		0.01
Bromochloromethane	TRG	AverageRF	% RSD	7.1		≤ 15	0.130		0.01
1,2,3-Trichlorobenzene	TRG	AverageRF	% RSD	6.9		≤ 15	0.775		0.01
Dibromofluoromethane	SURR	AverageRF	% RSD	5.1		≤ 15	0.245		0.01
Toluene-d8	SURR	AverageRF	% RSD	6.6		≤ 15	0.878		0.01
4-Bromofluorobenzene	SURR	AverageRF	% RSD	5.8		≤ 15	0.459		0.01

Results flagged with an asterisk (*) indicate values outside control criteria.

† SPCC Compound **‡ CCC Compound**

Client: Battelle Memorial Institute
Project: Novato Ballfields/G486063

Service Request: K2502554
Calibration Date: 04/11/2005
Date Analyzed: 04/11/2005

Second Source Calibration Verification
Volatile Organic Compounds

Calibration Type: Internal Standard
Analysis Method: 8260B

Calibration ID: CAL4367
Units: ppb

File ID: J:\MS04\DATA\041105\0411F019.D

Analyte Name	Expected	Result	Average RF	SSV RF	%D	%Drift	Criteria	Curve Fit
Dichlorodifluoromethane	50	47	0.236	0.220	-7	NA	± 40 %	AverageRF
† Chloromethane	50	48	0.388	0.369	-5	NA	± 40 %	AverageRF
‡ Vinyl Chloride	50	46	0.304	0.282	-7	NA	± 20 %	AverageRF
Bromomethane	50	51	0.131	0.133	2	NA	± 40 %	AverageRF
Chloroethane	50	47	0.159	0.148	-7	NA	± 40 %	AverageRF
Trichlorofluoromethane	50	45	0.232	0.209	-10	NA	± 30 %	AverageRF
Trichlorotrifluoroethane	50	52	0.171	0.177	3	NA	± 30 %	AverageRF
Acetone	250	210	0.0779	0.0647	-17	NA	± 30 %	AverageRF
‡ 1,1-Dichloroethene	50	51	0.213	0.216	1	NA	± 20 %	AverageRF
Methyl Acetate	50	53	0.239	0.253	6	NA	± 30 %	AverageRF
Carbon Disulfide	100	92	0.974	0.891	-8	NA	± 30 %	AverageRF
Diisopropyl Ether	50	49	1.14	1.12	-2	NA	± 30 %	AverageRF
Methylene Chloride	50	43	0.327	0.281	-14	NA	± 30 %	AverageRF
Methyl tert-Butyl Ether	50	53	0.594	0.634	7	NA	± 30 %	AverageRF
trans-1,2-Dichloroethene	50	49	0.250	0.245	-2	NA	± 30 %	AverageRF
† 1,1-Dichloroethane	50	49	0.499	0.485	-3	NA	± 30 %	AverageRF
2-Butanone (MEK)	250	230	0.0269	0.0243	-9	NA	± 30 %	AverageRF
cis-1,2-Dichloroethene	50	49	0.270	0.266	-1	NA	± 30 %	AverageRF
‡ Chloroform	50	48	0.426	0.412	-3	NA	± 20 %	AverageRF
1,1,1-Trichloroethane (TCA)	50	50	0.302	0.304	1	NA	± 30 %	AverageRF
Cyclohexane	50	57	0.464	0.528	14	NA	± 30 %	AverageRF
Carbon Tetrachloride	50	50	0.254	0.254	0	NA	± 30 %	AverageRF
1,2-Dichloroethane (EDC)	50	50	0.281	0.280	0	NA	± 30 %	AverageRF
Benzene	50	51	1.01	1.02	1	NA	± 30 %	AverageRF
Trichloroethene (TCE)	50	50	0.250	0.251	1	NA	± 30 %	AverageRF
‡ 1,2-Dichloropropane	50	50	0.307	0.309	0	NA	± 20 %	AverageRF
Bromodichloromethane	50	51	0.322	0.330	2	NA	± 30 %	AverageRF
Methylcyclohexane	50	54	0.402	0.432	8	NA	± 30 %	AverageRF
2-Hexanone	250	230	0.355	0.327	-8	NA	± 30 %	AverageRF
cis-1,3-Dichloropropene	50	51	0.443	0.450	2	NA	± 30 %	AverageRF
‡ Toluene	50	49	0.607	0.593	-2	NA	± 20 %	AverageRF
trans-1,3-Dichloropropene	50	49	0.545	0.530	-3	NA	± 30 %	AverageRF
1,1,2-Trichloroethane	50	51	0.276	0.284	3	NA	± 30 %	AverageRF
4-Methyl-2-pentanone (MIBK)	250	240	0.330	0.315	-5	NA	± 30 %	AverageRF
Tetrachloroethene (PCE)	50	51	0.275	0.279	1	NA	± 30 %	AverageRF
Dibromochloromethane	50	52	0.336	0.346	3	NA	± 30 %	AverageRF
1,2-Dibromoethane (EDB)	50	50	0.319	0.322	1	NA	± 30 %	AverageRF
† Chlorobenzene	50	49	0.884	0.871	-1	NA	± 30 %	AverageRF
‡ Ethylbenzene	50	50	0.451	0.448	-1	NA	± 20 %	AverageRF
m,p-Xylenes	100	96	0.567	0.543	-4	NA	± 30 %	AverageRF

Results flagged with an asterisk (*) indicate values outside control criteria.

† **SPCC Compound** ‡ **CCC Compound**

Client: Battelle Memorial Institute
Project: Novato Ballfields/G486063

Service Request: K2502554
Calibration Date: 04/11/2005
Date Analyzed: 04/11/2005

Second Source Calibration Verification
Volatile Organic Compounds

Calibration Type: Internal Standard
Analysis Method: 8260B

Calibration ID: CAL4367
Units: ppb

Analyte Name	Expected	Result	Average RF	SSV RF	%D	%Drift	Criteria	Curve Fit
o-Xylene	50	48	0.547	0.521	-5	NA	± 30 %	AverageRF
Styrene	50	49	0.957	0.933	-3	NA	± 30 %	AverageRF
† Bromoform	50	50	0.207	0.208	0	NA	± 30 %	AverageRF
Isopropylbenzene	50	43	1.45	1.25	-14	NA	± 30 %	AverageRF
† 1,1,2,2-Tetrachloroethane	50	50	0.996	0.995	0	NA	± 30 %	AverageRF
1,3-Dichlorobenzene	50	48	1.38	1.34	-3	NA	± 30 %	AverageRF
1,4-Dichlorobenzene	50	49	1.39	1.36	-1	NA	± 30 %	AverageRF
1,2-Dichlorobenzene	50	48	1.28	1.23	-4	NA	± 30 %	AverageRF
1,2-Dibromo-3-chloropropane	50	49	0.157	0.153	-2	NA	± 30 %	AverageRF
1,2,4-Trichlorobenzene	50	50	0.841	0.849	1	NA	± 30 %	AverageRF
Naphthalene	50	52	1.95	2.03	4	NA	± 30 %	AverageRF
Bromochloromethane	50	50	0.130	0.129	0	NA	± 30 %	AverageRF
1,2,3-Trichlorobenzene	50	51	0.775	0.792	2	NA	± 30 %	AverageRF

Results flagged with an asterisk (*) indicate values outside control criteria.

† SPCC Compound **‡ CCC Compound**

COLUMBIA ANALYTICAL SERVICES
VOA DAILY ANALYSIS LOG
GCMS 5971 MS-04

ICAL Date: [illegible]

DATE: [illegible]
OPERATOR [illegible]

TUNE FILE: [illegible]
NEW TUNE? [illegible]

SECOND REVIEW CA 4/14/05

[illegible] TORR [illegible] °C

ICV/LCS STD# [illegible] MISC: STD# [illegible]
IS/SS STD# [illegible] 1A/1B CCV STD# 35WA - 101D/97E/59D MS/D STD# [illegible]

RUN TIME		SAMPLE NAME	DATA FILE	METHOD	PH	DL	R	COMMENTS
1		Primer/1B	0411F007/8	524W.m				Cal 4367
2		Soil BFB	9			1µl → 5ml		Cal 4376
3		8260 Soil 1 cal 2ppb	10					Cal 4.2
4		5ppb	11					
5		10ppb	12					
6		20ppb	13					
7		50ppb	14					
8		100ppb	15					
9		200ppb	16					
10		1B ~~300ppb~~	17					
11		1B	18					
12		ICV	19					
13		ICV	20					
14		BFB	21			1µl → 5ml		
15		8260 Soil CCV	22			12.5/25µl → 50ml		
16		LCS	23					
17		DLCS	24					
18		1B	25					
19		8260 Soil MB	26					
20								
21								
22								
23								
24								
25								

LIMS WORKGROUP # [illegible]

INTIAL CALIBRATION CURVE

Date 4/11/5
Prepared By KR

Analysis 8260/CLP ICAL
Instrument MS05/MS04

Stock Solution #1 38VOA - 101F
Stock Solution #2 101D
Stock Solution #3 97E
Stock Solution #4 37VOA - 59D

Analytes Surrogates — Init. Concentra 100 ppm
Analytes 8260 soil CCV mix — Init. Concentra 200/400ppm ← NO 1-chlorohexane
Analytes CLP mix — Init. Concentra 100ppm
Analytes CLP mix — Init. Concentra 5000ppm

#	Aliquot of Stock Solution #1	Final Conc. of #1 (µg/L)	Aliquot of Stock Solution #2	Final Conc. of #2 (µg/L)	Aliquot of Stock Solution #3	Final Conc. of #3 (µg/L)	Aliquot of Stock Solution #4 (µL)	Final Conc. of #4 (µg/L)
1	5	10	0.5	2	1	2	–	–
2	10	20	1.25	5	2.5	5		
3	15	30	2.5	10	5	10		
4	20	40	5	20	10	20		
5	25	50	12.5	50	25	50		
6	35	70	25	100	–	–	1	100
7	40	80	50	200	–	–	2	200
8	50	100	75	300	–	–	3	300
9	–	–	–	–	–	–		

tert-butyl Alcohol @ higher level, all others normal. (m&p-Xylene coelute)

BFB std#: [illegible]
ICV std#: [illegible] > 50ml
misc std#:

Initial Calibration - Summary Report

Calibration ID: CAL4367
Method ID: MJ120
Instrument ID: MS04
Column Name: MS

Parameter Name	Type	Curve Fit	Min RF	Mean RF	Max %RSD	%RSD	Min COD	COD	MRL Check	Conc ½ Low pt.
Dichlorodifluoromethane	TRG	AverageRF	0.010	0.236	30	7.6			OK	
Chloromethane	TRG	AverageRF	0.100	0.388	30	12.1			OK	
Vinyl Chloride	TRG	AverageRF	0.010	0.304	30	6.7			OK	
Bromomethane	TRG	AverageRF	0.010	0.131	30	15.7			OK	
Chloroethane	TRG	AverageRF	0.010	0.159	30	8.3			OK	
Trichlorofluoromethane	TRG	AverageRF	0.010	0.232	30	7.3			OK	
Trichlorotrifluoroethane	TRG	AverageRF	0.010	0.171	30	9.0			OK	
1,1-Dichloroethene	MS	AverageRF	0.010	0.213	30	5.6			OK	
Acetone	TRG	AverageRF	0.010	0.078	30	4.1			OK	
Carbon Disulfide	TRG	AverageRF	0.010	0.974	30	8.2			OK	
Methyl Acetate	TRG	AverageRF	0.010	0.239	30	6.7			OK	
Methylene Chloride	TRG	AverageRF	0.010	0.327	30	13.4			OK	
tert-Butyl Alcohol	TRG	AverageRF	0.010	0.026	30	7.3			OK	
Methyl tert-Butyl Ether	TRG	AverageRF	0.010	0.594	30	8.1			OK	
trans-1,2-Dichloroethene	TRG	AverageRF	0.010	0.250	30	6.3			OK	
Diisopropyl Ether	TRG	AverageRF	0.010	1.137	30	8.3			OK	
Vinyl Acetate	TRG	AverageRF	0.010	0.038	30	9.9			OK	
1,1-Dichloroethane	TRG	AverageRF	0.100	0.499	30	6.4			OK	
tert-Butyl Ethyl Ether	TRG	AverageRF	0.010	0.788	30	7.3			OK	
2,2-Dichloropropane	TRG	AverageRF	0.010	0.328	30	7.0			OK	
2-Butanone (MEK)	TRG	AverageRF	0.010	0.027	30	8.9			OK	
cis-1,2-Dichloroethene	TRG	AverageRF	0.010	0.270	30	7.2			OK	
Bromochloromethane	TRG	AverageRF	0.010	0.130	30	7.1			OK	
Chloroform	TRG	AverageRF	0.010	0.426	30	6.9			OK	
1,1,1-Trichloroethane (TCA)	TRG	AverageRF	0.010	0.302	30	8.4			OK	
Dibromofluoromethane	SURR	AverageRF	0.010	0.245	30	5.1			NA	
Cyclohexane	TRG	AverageRF	0.010	0.464	30	15.8			OK	
Carbon Tetrachloride	TRG	AverageRF	0.010	0.254	30	8.8			OK	
1,1-Dichloropropene	TRG	AverageRF	0.010	0.366	30	7.4			OK	
tert-Amyl Methyl Ether	TRG	AverageRF	0.010	0.135	30	8.5			OK	
1,2-Dichloroethane-d4	SURR	AverageRF	0.010	0.238	30	4.2			NA	
Benzene	MS	AverageRF	0.010	1.008	30	10.8			OK	
1,2-Dichloroethane (EDC)	TRG	AverageRF	0.010	0.281	30	6.9			OK	
Trichloroethene (TCE)	MS	AverageRF	0.010	0.250	30	7.0			OK	
1,2-Dichloropropane	TRG	AverageRF	0.010	0.307	30	6.6			OK	
Methylcyclohexane	TRG	AverageRF	0.010	0.402	30	15.5			OK	
Dibromomethane	TRG	AverageRF	0.010	0.162	30	7.3			OK	
Bromodichloromethane	TRG	AverageRF	0.010	0.322	30	7.8			OK	
2-Chloroethyl Vinyl Ether	TRG	AverageRF	0.010	0.144	30	6.3			OK	
cis-1,3-Dichloropropene	TRG	AverageRF	0.010	0.443	30	8.4			OK	
4-Methyl-2-pentanone (MIBK)	TRG	AverageRF	0.010	0.330	30	7.2			OK	
Toluene-d8	SURR	AverageRF	0.010	0.878	30	6.6			NA	
Toluene	MS	AverageRF	0.010	0.607	30	7.8			OK	
trans-1,3-Dichloropropene	TRG	AverageRF	0.010	0.545	30	7.7			OK	
1,1,2-Trichloroethane	TRG	AverageRF	0.010	0.276	30	5.9			OK	
Tetrachloroethene (PCE)	TRG	AverageRF	0.010	0.275	30	8.6			OK	
2-Hexanone	TRG	AverageRF	0.010	0.355	30	6.7			OK	
1,3-Dichloropropane	TRG	AverageRF	0.010	0.596	30	6.0			OK	
Dibromochloromethane	TRG	AverageRF	0.010	0.336	30	7.7			OK	
1,2-Dibromoethane (EDB)	TRG	AverageRF	0.010	0.319	30	7.3			OK	
1-Chlorohexane DNR	TRG	AverageRF	0.010	0.290	30	9.3			OK	

KL 4/11/05

Initial Calibration - Summary Report

Calibration ID:	CAL4367	**Instrument ID:**	MS04
Method ID:	MJ120	**Column Name:**	MS

Parameter Name	Type	Curve Fit	Min RF	Mean RF	Max %RSD	%RSD	Min COD	COD	MRL Check	Conc ½ Low pt.
Chlorobenzene	MS	AverageRF	0.300	0.884	30	6.9			OK	
Ethylbenzene	TRG	AverageRF	0.010	0.451	30	8.4			OK	
1,1,1,2-Tetrachloroethane	TRG	AverageRF	0.010	0.313	30	6.4			OK	
m,p-Xylenes	TRG	AverageRF	0.010	0.567	30	9.4			OK	
o-Xylene	TRG	AverageRF	0.010	0.547	30	8.9			OK	
Styrene	TRG	AverageRF	0.010	0.957	30	9.4			OK	
Bromoform	TRG	AverageRF	0.100	0.207	30	8.0			OK	
Isopropylbenzene	TRG	AverageRF	0.010	1.455	30	11.7			OK	
4-Bromofluorobenzene	SURR	AverageRF	0.010	0.459	30	5.8			NA	
1,1,2,2-Tetrachloroethane	TRG	AverageRF	0.300	0.996	30	5.0			OK	
Bromobenzene	TRG	AverageRF	0.010	0.782	30	7.7			OK	
n-Propylbenzene	TRG	AverageRF	0.010	4.291	30	7.1			OK	
trans-1,4-Dichloro-2-butene	TRG	AverageRF	0.010	0.257	30	6.6			OK	
1,2,3-Trichloropropane	TRG	AverageRF	0.010	0.250	30	5.5			OK	
2-Chlorotoluene	TRG	AverageRF	0.010	2.733	30	6.2			OK	
1,3,5-Trimethylbenzene	TRG	AverageRF	0.010	2.620	30	7.6			OK	
4-Chlorotoluene	TRG	AverageRF	0.010	2.542	30	6.3			OK	
tert-Butylbenzene	TRG	AverageRF	0.010	2.575	30	7.3			OK	
1,2,4-Trimethylbenzene	TRG	AverageRF	0.010	2.662	30	6.9			OK	
sec-Butylbenzene	TRG	AverageRF	0.010	3.402	30	9.0			OK	
4-Isopropyltoluene	TRG	AverageRF	0.010	2.843	30	8.3			OK	
1,3-Dichlorobenzene	TRG	AverageRF	0.010	1.383	30	6.5			OK	
1,4-Dichlorobenzene	TRG	AverageRF	0.010	1.385	30	6.0			OK	
n-Butylbenzene	TRG	AverageRF	0.010	2.950	30	9.7			OK	
1,2-Dichlorobenzene	MS	AverageRF	0.010	1.280	30	6.2			OK	
1,2-Dibromo-3-chloropropane	TRG	AverageRF	0.010	0.157	30	8.5			OK	
1,2,4-Trichlorobenzene	TRG	AverageRF	0.010	0.841	30	6.9			OK	
Hexachlorobutadiene	TRG	AverageRF	0.010	0.431	30	9.1			OK	
Naphthalene	MS	AverageRF	0.010	1.953	30	11.1			OK	
1,2,3-Trichlorobenzene	TRG	AverageRF	0.010	0.775	30	6.9			OK	

Method Specified Maximum Average %RSD = 15.0 **Calculated Average %RSD =** 7.9

Calibration ID:	CAL4367	Instrument ID:	MS04
Method ID:	MJ120	Column Name:	MS

SPCC and CCC Evaluations

Parameter Name	Type	SPCC Criteria	SPCC Result	CCC Criteria	CCC Result
Chloromethane	SPCC	0.100	0.388		
Vinyl Chloride	CCC			30	6.7
1,1-Dichloroethene	CCC			30	5.6
1,1-Dichloroethane	SPCC	0.100	0.499		
Chloroform	CCC			30	6.9
1,2-Dichloropropane	CCC			30	6.6
Toluene	CCC			30	7.8
Chlorobenzene	SPCC	0.300	0.884		
Ethylbenzene	CCC			30	8.4
Bromoform	SPCC	0.100	0.207		
1,1,2,2-Tetrachloroethane	SPCC	0.300	0.996		

Initial Calibration - Detailed Report

Calibration ID:	CAL4367	Instrument ID:	MS04
Method ID:	MJ120	Column Name:	MS
		Calibration Fit:	AverageRF

FileID	File Location	Acquisition Date	Quantitation Date	Last Updated
78902	J:\MS04\DATA\041105\0411F010.D	04/11/2005 14:15	04/11/2005 14:42	04/11/2005 20:02
78903	J:\MS04\DATA\041105\0411F011.D	04/11/2005 14:45	04/11/2005 19:32	04/11/2005 20:02
78904	J:\MS04\DATA\041105\0411F012.D	04/11/2005 15:15	04/11/2005 19:34	04/11/2005 20:02
78905	J:\MS04\DATA\041105\0411F013.D	04/11/2005 15:45	04/11/2005 19:32	04/11/2005 20:03
78906	J:\MS04\DATA\041105\0411F014.D	04/11/2005 16:15	04/11/2005 19:36	04/11/2005 20:03
78907	J:\MS04\DATA\041105\0411F015.D	04/11/2005 16:44	04/11/2005 19:36	04/11/2005 20:03
78908	J:\MS04\DATA\041105\0411F016.D	04/11/2005 17:14	04/11/2005 19:38	04/11/2005 20:03

Parameter Name	FileID 78902	78903	78904	78905	78906	78907	78908	Mean RF	%RSD
Dichlorodifluoromethane	0.258	0.215	0.208	0.234	0.245	0.246	0.244	0.236	7.6
Chloromethane	0.479	0.359	0.327	0.378	0.394	0.397	0.381	0.388	12.1
Vinyl Chloride	0.318	0.276	0.275	0.302	0.321	0.318	0.315	0.304	6.7
Bromomethane		0.109	0.110	0.122	0.136	0.150	0.157	0.131	15.7
Chloroethane	0.182	0.146	0.142	0.157	0.163	0.163	0.158	0.159	8.3
Trichlorofluoromethane	0.234	0.205	0.211	0.236	0.248	0.244	0.243	0.232	7.3
Trichlorotrifluoroethane	0.162	0.150	0.156	0.176	0.187	0.183	0.186	0.171	9.0
1,1-Dichloroethene	0.217	0.196	0.197	0.215	0.226	0.223	0.220	0.213	5.6
Acetone		0.083	0.074	0.077	0.078	0.079	0.076	0.078	4.1
Carbon Disulfide	1.095	0.894	0.883	0.957	1.010	1.002		0.974	8.2
Methyl Acetate	0.265	0.228	0.229	0.238	0.232	0.224	0.258	0.239	6.7
Methylene Chloride			0.396	0.341	0.312	0.298	0.287	0.327	13.4
tert-Butyl Alcohol		0.028	0.024	0.024	0.025	0.027	0.027	0.026	7.3
Methyl tert-Butyl Ether	0.645	0.527	0.553	0.581	0.619	0.637		0.594	8.1
trans-1,2-Dichloroethene	0.256	0.226	0.231	0.250	0.267	0.263	0.257	0.250	6.3
Diisopropyl Ether	1.203	1.003	1.048	1.132	1.207	1.231		1.137	8.3
Vinyl Acetate	0.036	0.032	0.035	0.038	0.040	0.043	0.042	0.038	9.9
1,1-Dichloroethane	0.522	0.445	0.464	0.502	0.524	0.521	0.514	0.499	6.4
tert-Butyl Ethyl Ether	0.829	0.697	0.729	0.778	0.832	0.855	0.798	0.788	7.3
2,2-Dichloropropane	0.338	0.295	0.297	0.327	0.348	0.347	0.344	0.328	7.0
2-Butanone (MEK)	0.029	0.024	0.024	0.026	0.028	0.029	0.029	0.027	8.9
cis-1,2-Dichloroethene	0.284	0.240	0.246	0.269	0.284	0.285	0.281	0.270	7.2
Bromochloromethane	0.140	0.117	0.118	0.127	0.133	0.137	0.135	0.130	7.1
Chloroform	0.441	0.380	0.391	0.425	0.449	0.452	0.444	0.426	6.9
1,1,1-Trichloroethane (TCA)	0.291	0.265	0.275	0.307	0.326	0.326	0.324	0.302	8.4
Dibromofluoromethane	0.262	0.233	0.231	0.236	0.243	0.253	0.258	0.245	5.1
Cyclohexane	0.392	0.336	0.501	0.496	0.536	0.467	0.517	0.464	15.8
Carbon Tetrachloride	0.241	0.220	0.233	0.259	0.277	0.275	0.270	0.254	8.8
1,1-Dichloropropene	0.366	0.323	0.335	0.375	0.393	0.390	0.382	0.366	7.4
tert-Amyl Methyl Ether	0.142	0.115	0.124	0.132	0.142	0.147	0.141	0.135	8.5
1,2-Dichloroethane-d4	0.252	0.230	0.227	0.229	0.236	0.244	0.248	0.238	4.2
Benzene	1.114	0.941	0.948	1.045	1.094	1.092	0.819	1.008	10.8
1,2-Dichloroethane (EDC)	0.306	0.254	0.258	0.276	0.290	0.297	0.288	0.281	6.9
Trichloroethene (TCE)	0.249	0.224	0.229	0.252	0.266	0.268	0.263	0.250	7.0
1,2-Dichloropropane	0.326	0.275	0.285	0.306	0.324	0.325	0.311	0.307	6.6
Methylcyclohexane		0.280	0.428	0.421	0.453	0.395	0.433	0.402	15.5
Dibromomethane	0.174	0.145	0.148	0.160	0.168	0.173	0.168	0.162	7.3
Bromodichloromethane	0.334	0.283	0.293	0.320	0.338	0.347	0.341	0.322	7.8
2-Chloroethyl Vinyl Ether	0.157	0.130	0.138	0.143	0.150	0.150	0.139	0.144	6.3

Initial Calibration - Detailed Report

Calibration ID: CAL4367
Method ID: MJ120

Instrument ID: MS04
Column Name: MS
Calibration Fit: AverageRF

Parameter Name	FileID 78902	78903	78904	78905	78906	78907	78908	Mean RF	%RSD
cis-1,3-Dichloropropene	0.449	0.384	0.402	0.443	0.467	0.484	0.471	0.443	8.4
4-Methyl-2-pentanone (MIBK)	0.340	0.305	0.304	0.318	0.343	0.371	0.332	0.330	7.2
Toluene-d8	0.960	0.827	0.795	0.848	0.877	0.917	0.920	0.878	6.6
Toluene	0.615	0.535	0.557	0.617	0.656	0.665	0.604	0.607	7.8
trans-1,3-Dichloropropene	0.570	0.474	0.507	0.532	0.572	0.578	0.584	0.545	7.7
1,1,2-Trichloroethane	0.287	0.246	0.264	0.275	0.285	0.288	0.289	0.276	5.9
Tetrachloroethene (PCE)	0.260	0.239	0.254	0.281	0.297	0.292	0.299	0.275	8.6
2-Hexanone	0.395	0.342	0.328	0.333	0.355	0.372	0.363	0.355	6.7
1,3-Dichloropropane	0.631	0.533	0.570	0.584	0.616	0.621	0.616	0.596	6.0
Dibromochloromethane	0.335	0.293	0.315	0.329	0.353	0.359	0.366	0.336	7.7
1,2-Dibromoethane (EDB)	0.326	0.279	0.300	0.315	0.335	0.341	0.340	0.319	7.3
1-Chlorohexane	0.279	0.250	0.261	0.295	0.311	0.314	0.318	0.290	9.3
Chlorobenzene	0.907	0.783	0.821	0.893	0.944	0.946	0.893	0.884	6.9
Ethylbenzene	0.441	0.391	0.412	0.466	0.489	0.489	0.467	0.451	8.4
1,1,1,2-Tetrachloroethane	0.318	0.278	0.294	0.314	0.332	0.331	0.324	0.313	6.4
m,p-Xylenes	0.563	0.493	0.516	0.588	0.616	0.624		0.567	9.4
o-Xylene	0.535	0.471	0.502	0.569	0.595	0.606	0.550	0.547	8.9
Styrene	0.956	0.836	0.872	0.999	1.046	1.079	0.915	0.957	9.4
Bromoform	0.200	0.188	0.190	0.202	0.218	0.228	0.226	0.207	8.0
Isopropylbenzene	1.377	1.244	1.307	1.524	1.620	1.656		1.455	11.7
4-Bromofluorobenzene	0.485	0.433	0.418	0.453	0.466	0.492	0.465	0.459	5.8
1,1,2,2-Tetrachloroethane	1.043	0.998	0.956	0.933	0.990	0.972	1.077	0.996	5.0
Bromobenzene	0.791	0.707	0.712	0.772	0.817	0.792	0.880	0.782	7.7
n-Propylbenzene	4.251	3.889	4.068	4.478	4.760	4.298		4.291	7.1
trans-1,4-Dichloro-2-butene	0.279	0.246	0.240	0.243	0.259	0.253	0.282	0.257	6.6
1,2,3-Trichloropropane	0.268	0.242	0.239	0.236	0.249	0.243	0.269	0.250	5.5
2-Chlorotoluene	2.753	2.486	2.589	2.821	2.981	2.854	2.645	2.733	6.2
1,3,5-Trimethylbenzene	2.561	2.373	2.488	2.731	2.897	2.824	2.467	2.620	7.6
4-Chlorotoluene	2.587	2.274	2.416	2.611	2.745	2.662	2.497	2.542	6.3
tert-Butylbenzene	2.560	2.277	2.373	2.630	2.788	2.733	2.663	2.575	7.3
1,2,4-Trimethylbenzene	2.749	2.398	2.512	2.726	2.870	2.850	2.528	2.662	6.9
sec-Butylbenzene	3.289	2.996	3.159	3.505	3.765	3.699		3.402	9.0
4-Isopropyltoluene	2.734	2.538	2.670	2.910	3.116	3.091		2.843	8.3
1,3-Dichlorobenzene	1.414	1.241	1.284	1.374	1.448	1.452	1.471	1.383	6.5
1,4-Dichlorobenzene	1.427	1.232	1.318	1.375	1.441	1.443	1.459	1.385	6.0
n-Butylbenzene	2.748	2.579	2.797	3.045	3.238	3.291		2.950	9.7
1,2-Dichlorobenzene	1.262	1.158	1.204	1.272	1.339	1.369	1.354	1.280	6.2
1,2-Dibromo-3-chloropropane	0.142	0.147	0.152	0.147	0.161	0.176	0.173	0.157	8.5
1,2,4-Trichlorobenzene	0.783	0.775	0.833	0.806	0.859	0.928	0.901	0.841	6.9
Hexachlorobutadiene	0.397	0.378	0.410	0.421	0.460	0.485	0.464	0.431	9.1
Naphthalene	1.689	1.813	1.887	1.799	2.007	2.243	2.234	1.953	11.1
1,2,3-Trichlorobenzene	0.727	0.731	0.761	0.730	0.782	0.853	0.841	0.775	6.9

Alternate Calibration Evaluation Summary

Maximum Allowable Average %RSD =	15.0
Calculated Average %RSD =	7.9

Calibration ID:	CAL4367	Instrument ID:	MS04
Method ID:	MJ120	Column Name:	MS
		Calibration Fit:	AverageRF

Second Source Calibration Verification Summary

CalibrationID: CAL4367 Units: ug/Kg

Method ID: MJ120 Column: MS

DataFile Location: J:\MS04\DATA\041105\0411F019.D

Parameter Name	File ID	Curve Fit	Method Criteria	AveRF	SSV RF	% Diff	True Value	Sol'n Conc	% Drift
Dichlorodifluoromethane	78909	AverageRF	40	0.236	0.220	-6.8	50.00	46.6	
Chloromethane	78909	AverageRF	40	0.388	0.369	-4.8	50.00	47.6	
Vinyl Chloride	78909	AverageRF	20	0.304	0.282	-7.1	50.00	46.5	
Bromomethane	78909	AverageRF	40	0.131	0.133	1.7	50.00	50.9	
Chloroethane	78909	AverageRF	40	0.159	0.148	-6.8	50.00	46.6	
Trichlorofluoromethane	78909	AverageRF	30	0.232	0.209	-9.6	50.00	45.2	
Trichlorotrifluoroethane	78909	AverageRF	30	0.171	0.177	3.5	50.00	51.7	
1,1-Dichloroethene	78909	AverageRF	20	0.213	0.216	1.3	50.00	50.6	
Acetone	78909	AverageRF	30	0.078	0.065	-17.0	250.00	207.6	
Carbon Disulfide	78909	AverageRF	30	0.974	0.891	-8.5	100.00	91.5	
Methyl Acetate	78909	AverageRF	30	0.239	0.253	5.6	50.00	52.8	
Methylene Chloride	78909	AverageRF	30	0.327	0.281	-13.9	50.00	43.0	
tert-Butyl Alcohol	78909	AverageRF	30	0.026	0.024	-6.1	250.00	234.8	
Methyl tert-Butyl Ether	78909	AverageRF	30	0.594	0.634	6.8	50.00	53.4	
trans-1,2-Dichloroethene	78909	AverageRF	30	0.250	0.245	-1.8	50.00	49.1	
Diisopropyl Ether	78909	AverageRF	30	1.137	1.115	-1.9	50.00	49.0	
Vinyl Acetate	78909	AverageRF	40	0.038	0.040	4.5	100.00	104.5	
1,1-Dichloroethane	78909	AverageRF	30	0.499	0.485	-2.8	50.00	48.6	
tert-Butyl Ethyl Ether	78909	AverageRF	30	0.788	0.800	1.5	50.00	50.7	
2,2-Dichloropropane	78909	AverageRF	30	0.328	0.317	-3.4	50.00	48.3	
2-Butanone (MEK)	78909	AverageRF	30	0.027	0.024	-9.4	250.00	226.4	
cis-1,2-Dichloroethene	78909	AverageRF	30	0.270	0.266	-1.4	50.00	49.3	
Bromochloromethane	78909	AverageRF	30	0.130	0.129	-0.4	50.00	49.8	
Chloroform	78909	AverageRF	20	0.426	0.412	-3.4	50.00	48.3	
1,1,1-Trichloroethane (TCA)	78909	AverageRF	30	0.302	0.304	0.7	50.00	50.4	
Cyclohexane	78909	AverageRF	30	0.464	0.528	14.0	50.00	57.0	
Carbon Tetrachloride	78909	AverageRF	30	0.254	0.254	0.3	50.00	50.2	
1,1-Dichloropropene	78909	AverageRF	30	0.366	0.341	-6.9	50.00	46.6	
tert-Amyl Methyl Ether	78909	AverageRF	30	0.135	0.133	-1.6	50.00	49.2	
Benzene	78909	AverageRF	30	1.008	1.018	1.0	50.00	50.5	
1,2-Dichloroethane (EDC)	78909	AverageRF	30	0.281	0.280	-0.4	50.00	49.8	
Trichloroethene (TCE)	78909	AverageRF	30	0.250	0.251	0.6	50.00	50.3	
1,2-Dichloropropane	78909	AverageRF	20	0.307	0.309	0.5	50.00	50.2	
Methylcyclohexane	78909	AverageRF	30	0.402	0.432	7.5	50.00	53.8	
Dibromomethane	78909	AverageRF	30	0.162	0.158	-2.4	50.00	48.8	
Bromodichloromethane	78909	AverageRF	30	0.322	0.330	2.3	50.00	51.1	
2-Chloroethyl Vinyl Ether	78909	AverageRF	40	0.144	0.150	4.5	50.00	52.3	
cis-1,3-Dichloropropene	78909	AverageRF	30	0.443	0.450	1.6	50.00	50.8	
4-Methyl-2-pentanone (MIBK)	78909	AverageRF	30	0.330	0.315	-4.6	250.00	238.4	
Toluene	78909	AverageRF	20	0.607	0.593	-2.4	50.00	48.8	
trans-1,3-Dichloropropene	78909	AverageRF	30	0.545	0.530	-2.8	50.00	48.6	
1,1,2-Trichloroethane	78909	AverageRF	30	0.276	0.284	2.9	50.00	51.5	
Tetrachloroethene (PCE)	78909	AverageRF	30	0.275	0.279	1.4	50.00	50.7	
2-Hexanone	78909	AverageRF	30	0.355	0.327	-8.0	250.00	229.9	
1,3-Dichloropropane	78909	AverageRF	30	0.596	0.603	1.1	50.00	50.6	
Dibromochloromethane	78909	AverageRF	30	0.336	0.346	3.1	50.00	51.5	
1,2-Dibromoethane (EDB)	78909	AverageRF	30	0.319	0.322	0.7	50.00	50.4	

KL 4/11/05

Second Source Calibration Verification Summary

CalibrationID: CAL4367

Units: ug/Kg

Method ID: MJ120

Column: MS

DataFile Location: J:\MS04\DATA\041105\0411F019.D

Parameter Name	File ID	Curve Fit	Method Criteria	AveRF	SSV RF	% Diff	True Value	Sol'n Conc	% Drift
1-Chlorohexane	78909	AverageRF	30	0.290	0.584	101.4 *	50.00	100.7	NT
Chlorobenzene	78909	AverageRF	30	0.884	0.871	-1.5	50.00	49.3	
Ethylbenzene	78909	AverageRF	20	0.451	0.448	-0.7	50.00	49.7	
1,1,1,2-Tetrachloroethane	78909	AverageRF	30	0.313	0.312	-0.3	50.00	49.8	
m,p-Xylenes	78909	AverageRF	30	0.567	0.543	-4.2	100.00	95.8	
o-Xylene	78909	AverageRF	30	0.547	0.521	-4.8	50.00	47.6	
Styrene	78909	AverageRF	30	0.957	0.933	-2.6	50.00	48.7	
Bromoform	78909	AverageRF	30	0.207	0.208	0.5	50.00	50.2	
Isopropylbenzene	78909	AverageRF	30	1.455	1.254	-13.8	50.00	43.1	
1,1,2,2-Tetrachloroethane	78909	AverageRF	30	0.996	0.995	-0.1	50.00	49.9	
Bromobenzene	78909	AverageRF	30	0.782	0.786	0.5	50.00	50.2	
n-Propylbenzene	78909	AverageRF	30	4.291	4.360	1.6	50.00	50.8	
trans-1,4-Dichloro-2-butene	78909	AverageRF	30	0.257	0.025	-90.4 *	50.00	4.8	NT
1,2,3-Trichloropropane	78909	AverageRF	30	0.250	0.251	0.7	50.00	50.3	
2-Chlorotoluene	78909	AverageRF	30	2.733	2.773	1.5	50.00	50.7	
1,3,5-Trimethylbenzene	78909	AverageRF	30	2.620	2.670	1.9	50.00	50.9	
4-Chlorotoluene	78909	AverageRF	30	2.542	2.521	-0.8	50.00	49.6	
tert-Butylbenzene	78909	AverageRF	30	2.575	2.543	-1.2	50.00	49.4	
1,2,4-Trimethylbenzene	78909	AverageRF	30	2.662	2.692	1.1	50.00	50.6	
sec-Butylbenzene	78909	AverageRF	30	3.402	3.540	4.1	50.00	52.0	
4-Isopropyltoluene	78909	AverageRF	30	2.843	2.704	-4.9	50.00	47.5	
1,3-Dichlorobenzene	78909	AverageRF	30	1.383	1.340	-3.1	50.00	48.4	
1,4-Dichlorobenzene	78909	AverageRF	30	1.385	1.365	-1.5	50.00	49.3	
n-Butylbenzene	78909	AverageRF	30	2.950	2.945	-0.2	50.00	49.9	
1,2-Dichlorobenzene	78909	AverageRF	30	1.280	1.228	-4.0	50.00	48.0	
1,2-Dibromo-3-chloropropane	78909	AverageRF	30	0.157	0.153	-2.5	50.00	48.8	
1,2,4-Trichlorobenzene	78909	AverageRF	30	0.841	0.849	1.0	50.00	50.5	
Hexachlorobutadiene	78909	AverageRF	30	0.431	0.439	2.0	50.00	51.0	
Naphthalene	78909	AverageRF	30	1.953	2.031	4.0	50.00	52.0	
1,2,3-Trichlorobenzene	78909	AverageRF	30	0.775	0.792	2.1	50.00	51.1	

2 compound out of 77 failed max individual %D criteria.

Initial Calibration - Summary Report

Calibration ID:	CAL4376	Instrument ID:	MS04
Method ID:	MJ120	Column Name:	MS

Parameter Name	Type	Curve Fit	Min RF	Mean RF	Max %RSD	%RSD	Min COD	COD	MRL Check	Conc ½ Low pt.
Dichlorodifluoromethane	TRG	AverageRF	0.010	0.236	30	7.6			OK	
Chloromethane	TRG	AverageRF	0.100	0.388	30	12.1			OK	
Vinyl Chloride	TRG	AverageRF	0.010	0.304	30	6.7			OK	
Bromomethane	TRG	AverageRF	0.010	0.131	30	15.7			OK	
Chloroethane	TRG	AverageRF	0.010	0.159	30	8.3			OK	
Trichlorofluoromethane	TRG	AverageRF	0.010	0.232	30	7.3			OK	
Trichlorotrifluoroethane	TRG	AverageRF	0.010	0.171	30	9.0			OK	
1,1-Dichloroethene	MS	AverageRF	0.010	0.213	30	5.6			OK	
Acetone	TRG	AverageRF	0.010	0.078	30	4.1			OK	
Carbon Disulfide	TRG	AverageRF	0.010	0.974	30	8.2			OK	
Methyl Acetate	TRG	AverageRF	0.010	0.239	30	6.7			OK	
Methylene Chloride	TRG	AverageRF	0.010	0.360	30	24.9			OK	
tert-Butyl Alcohol	TRG	AverageRF	0.010	0.026	30	7.3			OK	
Methyl tert-Butyl Ether	TRG	AverageRF	0.010	0.594	30	8.1			OK	
trans-1,2-Dichloroethene	TRG	AverageRF	0.010	0.250	30	6.3			OK	
Diisopropyl Ether	TRG	AverageRF	0.010	1.137	30	8.3			OK	
Vinyl Acetate	TRG	AverageRF	0.010	0.038	30	9.9			OK	
1,1-Dichloroethane	TRG	AverageRF	0.100	0.499	30	6.4			OK	
tert-Butyl Ethyl Ether	TRG	AverageRF	0.010	0.788	30	7.3			OK	
2,2-Dichloropropane	TRG	AverageRF	0.010	0.328	30	7.0			OK	
2-Butanone (MEK)	TRG	AverageRF	0.010	0.027	30	8.9			OK	
cis-1,2-Dichloroethene	TRG	AverageRF	0.010	0.270	30	7.2			OK	
Bromochloromethane	TRG	AverageRF	0.010	0.130	30	7.1			OK	
Chloroform	TRG	AverageRF	0.010	0.426	30	6.9			OK	
1,1,1-Trichloroethane (TCA)	TRG	AverageRF	0.010	0.302	30	8.4			OK	
Dibromofluoromethane	SURR	AverageRF	0.010	0.245	30	5.1			NA	
Cyclohexane	TRG	AverageRF	0.010	0.464	30	15.8			OK	
Carbon Tetrachloride	TRG	AverageRF	0.010	0.254	30	8.8			OK	
1,1-Dichloropropene	TRG	AverageRF	0.010	0.366	30	7.4			OK	
tert-Amyl Methyl Ether	TRG	AverageRF	0.010	0.135	30	8.5			OK	
1,2-Dichloroethane-d4	SURR	AverageRF	0.010	0.238	30	4.2			NA	
Benzene	MS	AverageRF	0.010	1.008	30	10.8			OK	
1,2-Dichloroethane (EDC)	TRG	AverageRF	0.010	0.281	30	6.9			OK	
Trichloroethene (TCE)	MS	AverageRF	0.010	0.250	30	7.0			OK	
1,2-Dichloropropane	TRG	AverageRF	0.010	0.307	30	6.6			OK	
Methylcyclohexane	TRG	AverageRF	0.010	0.402	30	15.5			OK	
Dibromomethane	TRG	AverageRF	0.010	0.162	30	7.3			OK	
Bromodichloromethane	TRG	AverageRF	0.010	0.322	30	7.8			OK	
2-Chloroethyl Vinyl Ether	TRG	AverageRF	0.010	0.144	30	6.3			OK	
cis-1,3-Dichloropropene	TRG	AverageRF	0.010	0.443	30	8.4			OK	
4-Methyl-2-pentanone (MIBK)	TRG	AverageRF	0.010	0.330	30	7.2			OK	
Toluene-d8	SURR	AverageRF	0.010	0.878	30	6.6			NA	
Toluene	MS	AverageRF	0.010	0.607	30	7.8			OK	
trans-1,3-Dichloropropene	TRG	AverageRF	0.010	0.545	30	7.7			OK	
1,1,2-Trichloroethane	TRG	AverageRF	0.010	0.276	30	5.9			OK	
Tetrachloroethene (PCE)	TRG	AverageRF	0.010	0.275	30	8.6			OK	
2-Hexanone	TRG	AverageRF	0.010	0.355	30	6.7			OK	
1,3-Dichloropropane	TRG	AverageRF	0.010	0.596	30	6.0			OK	
Dibromochloromethane	TRG	AverageRF	0.010	0.336	30	7.7			OK	
1,2-Dibromoethane (EDB)	TRG	AverageRF	0.010	0.319	30	7.3			OK	
1-Chlorohexane	TRG	AverageRF	0.010	0.290	30	9.3			OK	

Initial Calibration - Summary Report

Calibration ID:	CAL4376	Instrument ID:	MS04
Method ID:	MJ120	Column Name:	MS

Parameter Name	Type	Curve Fit	Min RF	Mean RF	Max %RSD	%RSD	Min COD	COD	MRL Check	Conc ½ Low pt.
Chlorobenzene	MS	AverageRF	0.300	0.884	30	6.9			OK	
Ethylbenzene	TRG	AverageRF	0.010	0.451	30	8.4			OK	
1,1,1,2-Tetrachloroethane	TRG	AverageRF	0.010	0.313	30	6.4			OK	
m,p-Xylenes	TRG	AverageRF	0.010	0.567	30	9.4			OK	
o-Xylene	TRG	AverageRF	0.010	0.547	30	8.9			OK	
Styrene	TRG	AverageRF	0.010	0.957	30	9.4			OK	
Bromoform	TRG	AverageRF	0.100	0.207	30	8.0			OK	
Isopropylbenzene	TRG	AverageRF	0.010	1.455	30	11.7			OK	
4-Bromofluorobenzene	SURR	AverageRF	0.010	0.459	30	5.8			NA	
1,1,2,2-Tetrachloroethane	TRG	AverageRF	0.300	0.996	30	5.0			OK	
Bromobenzene	TRG	AverageRF	0.010	0.782	30	7.7			OK	
n-Propylbenzene	TRG	AverageRF	0.010	4.291	30	7.1			OK	
trans-1,4-Dichloro-2-butene	TRG	AverageRF	0.010	0.257	30	6.6			OK	
1,2,3-Trichloropropane	TRG	AverageRF	0.010	0.250	30	5.5			OK	
2-Chlorotoluene	TRG	AverageRF	0.010	2.733	30	6.2			OK	
1,3,5-Trimethylbenzene	TRG	AverageRF	0.010	2.620	30	7.6			OK	
4-Chlorotoluene	TRG	AverageRF	0.010	2.542	30	6.3			OK	
tert-Butylbenzene	TRG	AverageRF	0.010	2.575	30	7.3			OK	
1,2,4-Trimethylbenzene	TRG	AverageRF	0.010	2.662	30	6.9			OK	
sec-Butylbenzene	TRG	AverageRF	0.010	3.402	30	9.0			OK	
4-Isopropyltoluene	TRG	AverageRF	0.010	2.843	30	8.3			OK	
1,3-Dichlorobenzene	TRG	AverageRF	0.010	1.383	30	6.5			OK	
1,4-Dichlorobenzene	TRG	AverageRF	0.010	1.385	30	6.0			OK	
n-Butylbenzene	TRG	AverageRF	0.010	2.950	30	9.7			OK	
1,2-Dichlorobenzene	MS	AverageRF	0.010	1.280	30	6.2			OK	
1,2-Dibromo-3-chloropropane	TRG	AverageRF	0.010	0.157	30	8.5			OK	
1,2,4-Trichlorobenzene	TRG	AverageRF	0.010	0.841	30	6.9			OK	
Hexachlorobutadiene	TRG	AverageRF	0.010	0.431	30	9.1			OK	
Naphthalene	MS	AverageRF	0.010	1.953	30	11.1			OK	
1,2,3-Trichlorobenzene	TRG	AverageRF	0.010	0.775	30	6.9			OK	

Method Specified Maximum Average %RSD = 15.0 **Calculated Average %RSD =** 8.0

Calibration ID:	CAL4376	Instrument ID:	MS04
Method ID:	MJ120	Column Name:	MS

SPCC and CCC Evaluations

Parameter Name	Type	SPCC Criteria	SPCC Result	CCC Criteria	CCC Result
Chloromethane	SPCC	0.100	0.388		
Vinyl Chloride	CCC			30	6.7
1,1-Dichloroethene	CCC			30	5.6
1,1-Dichloroethane	SPCC	0.100	0.499		
Chloroform	CCC			30	6.9
1,2-Dichloropropane	CCC			30	6.6
Toluene	CCC			30	7.8
Chlorobenzene	SPCC	0.300	0.884		
Ethylbenzene	CCC			30	8.4
Bromoform	SPCC	0.100	0.207		
1,1,2,2-Tetrachloroethane	SPCC	0.300	0.996		

Initial Calibration - Detailed Report

Calibration ID:	CAL4376	Instrument ID:	MS04
Method ID:	MJ120	Column Name:	MS
		Calibration Fit:	AverageRF

FileID	File Location	Acquisition Date	Quantitation Date	Last Updated
79130	J:\MS04\DATA\041105A\0411F010.D	04/11/2005 14:15	04/11/2005 14:42	04/14/2005 08:24
79131	J:\MS04\DATA\041105A\0411F011.D	04/11/2005 14:45	04/11/2005 19:32	04/14/2005 08:24
79132	J:\MS04\DATA\041105A\0411F012.D	04/11/2005 15:15	04/11/2005 19:34	04/14/2005 08:24
79133	J:\MS04\DATA\041105A\0411F013.D	04/11/2005 15:45	04/11/2005 19:32	04/14/2005 08:24
79134	J:\MS04\DATA\041105A\0411F014.D	04/11/2005 16:15	04/11/2005 19:36	04/14/2005 08:24
79135	J:\MS04\DATA\041105A\0411F015.D	04/11/2005 16:44	04/11/2005 19:36	04/14/2005 08:24
79136	J:\MS04\DATA\041105A\0411F016.D	04/11/2005 17:14	04/11/2005 19:38	04/14/2005 08:24

Parameter Name	FileID 79130	79131	79132	79133	79134	79135	79136	Mean RF	%RSD
Dichlorodifluoromethane	0.258	0.215	0.208	0.234	0.245	0.246	0.244	0.236	7.6
Chloromethane	0.479	0.359	0.327	0.378	0.394	0.397	0.381	0.388	12.1
Vinyl Chloride	0.318	0.276	0.275	0.302	0.321	0.318	0.315	0.304	6.7
Bromomethane		0.109	0.110	0.122	0.136	0.150	0.157	0.131	15.7
Chloroethane	0.182	0.146	0.142	0.157	0.163	0.163	0.158	0.159	8.3
Trichlorofluoromethane	0.234	0.205	0.211	0.236	0.248	0.244	0.243	0.232	7.3
Trichlorotrifluoroethane	0.162	0.150	0.156	0.176	0.187	0.183	0.186	0.171	9.0
1,1-Dichloroethene	0.217	0.196	0.197	0.215	0.226	0.223	0.220	0.213	5.6
Acetone		0.083	0.074	0.077	0.078	0.079	0.076	0.078	4.1
Carbon Disulfide	1.095	0.894	0.883	0.957	1.010	1.002		0.974	8.2
Methyl Acetate	0.265	0.228	0.229	0.238	0.232	0.224	0.258	0.239	6.7
Methylene Chloride		0.524	0.396	0.341	0.312	0.298	0.287	0.360	24.9
tert-Butyl Alcohol		0.028	0.024	0.024	0.025	0.027	0.027	0.026	7.3
Methyl tert-Butyl Ether	0.645	0.527	0.553	0.581	0.619	0.637		0.594	8.1
trans-1,2-Dichloroethene	0.256	0.226	0.231	0.250	0.267	0.263	0.257	0.250	6.3
Diisopropyl Ether	1.203	1.003	1.048	1.132	1.207	1.231		1.137	8.3
Vinyl Acetate	0.036	0.032	0.035	0.038	0.040	0.043	0.042	0.038	9.9
1,1-Dichloroethane	0.522	0.445	0.464	0.502	0.524	0.521	0.514	0.499	6.4
tert-Butyl Ethyl Ether	0.829	0.697	0.729	0.778	0.832	0.855	0.798	0.788	7.3
2,2-Dichloropropane	0.338	0.295	0.297	0.327	0.348	0.347	0.344	0.328	7.0
2-Butanone (MEK)	0.029	0.024	0.024	0.026	0.028	0.029	0.029	0.027	8.9
cis-1,2-Dichloroethene	0.284	0.240	0.246	0.269	0.284	0.285	0.281	0.270	7.2
Bromochloromethane	0.140	0.117	0.118	0.127	0.133	0.137	0.135	0.130	7.1
Chloroform	0.441	0.380	0.391	0.425	0.449	0.452	0.444	0.426	6.9
1,1,1-Trichloroethane (TCA)	0.291	0.265	0.275	0.307	0.326	0.326	0.324	0.302	8.4
Dibromofluoromethane	0.262	0.233	0.231	0.236	0.243	0.253	0.258	0.245	5.1
Cyclohexane	0.392	0.336	0.501	0.496	0.536	0.467	0.517	0.464	15.8
Carbon Tetrachloride	0.241	0.220	0.233	0.259	0.277	0.275	0.270	0.254	8.8
1,1-Dichloropropene	0.366	0.323	0.335	0.375	0.393	0.390	0.382	0.366	7.4
tert-Amyl Methyl Ether	0.142	0.115	0.124	0.132	0.142	0.147	0.141	0.135	8.5
1,2-Dichloroethane-d4	0.252	0.230	0.227	0.229	0.236	0.244	0.248	0.238	4.2
Benzene	1.114	0.941	0.948	1.045	1.094	1.092	0.819	1.008	10.8
1,2-Dichloroethane (EDC)	0.306	0.254	0.258	0.276	0.290	0.297	0.288	0.281	6.9
Trichloroethene (TCE)	0.249	0.224	0.229	0.252	0.266	0.268	0.263	0.250	7.0
1,2-Dichloropropane	0.326	0.275	0.285	0.306	0.324	0.325	0.311	0.307	6.6
Methylcyclohexane		0.280	0.428	0.421	0.453	0.395	0.433	0.402	15.5
Dibromomethane	0.174	0.145	0.148	0.160	0.168	0.173	0.168	0.162	7.3
Bromodichloromethane	0.334	0.283	0.293	0.320	0.338	0.347	0.341	0.322	7.8
2-Chloroethyl Vinyl Ether	0.157	0.130	0.138	0.143	0.150	0.150	0.139	0.144	6.3

Calibration ID: CAL4376
Method ID: MJ120

Instrument ID: MS04
Column Name: MS
Calibration Fit: AverageRF

Parameter Name	FileID 79130	79131	79132	79133	79134	79135	79136	Mean RF	%RSD
cis-1,3-Dichloropropene	0.449	0.384	0.402	0.443	0.467	0.484	0.471	0.443	8.4
4-Methyl-2-pentanone (MIBK)	0.340	0.305	0.304	0.318	0.343	0.371	0.332	0.330	7.2
Toluene-d8	0.960	0.827	0.795	0.848	0.877	0.917	0.920	0.878	6.6
Toluene	0.615	0.535	0.557	0.617	0.656	0.665	0.604	0.607	7.8
trans-1,3-Dichloropropene	0.570	0.474	0.507	0.532	0.572	0.578	0.584	0.545	7.7
1,1,2-Trichloroethane	0.287	0.246	0.264	0.275	0.285	0.288	0.289	0.276	5.9
Tetrachloroethene (PCE)	0.260	0.239	0.254	0.281	0.297	0.292	0.299	0.275	8.6
2-Hexanone	0.395	0.342	0.328	0.333	0.355	0.372	0.363	0.355	6.7
1,3-Dichloropropane	0.631	0.533	0.570	0.584	0.616	0.621	0.616	0.596	6.0
Dibromochloromethane	0.335	0.293	0.315	0.329	0.353	0.359	0.366	0.336	7.7
1,2-Dibromoethane (EDB)	0.326	0.279	0.300	0.315	0.335	0.341	0.340	0.319	7.3
1-Chlorohexane	0.279	0.250	0.261	0.295	0.311	0.314	0.318	0.290	9.3
Chlorobenzene	0.907	0.783	0.821	0.893	0.944	0.946	0.893	0.884	6.9
Ethylbenzene	0.441	0.391	0.412	0.466	0.489	0.489	0.467	0.451	8.4
1,1,1,2-Tetrachloroethane	0.318	0.278	0.294	0.314	0.332	0.331	0.324	0.313	6.4
m,p-Xylenes	0.563	0.493	0.516	0.588	0.616	0.624		0.567	9.4
o-Xylene	0.535	0.471	0.502	0.569	0.595	0.606	0.550	0.547	8.9
Styrene	0.956	0.836	0.872	0.999	1.046	1.079	0.915	0.957	9.4
Bromoform	0.200	0.188	0.190	0.202	0.218	0.228	0.226	0.207	8.0
Isopropylbenzene	1.377	1.244	1.307	1.524	1.620	1.656		1.455	11.7
4-Bromofluorobenzene	0.485	0.433	0.418	0.453	0.466	0.492	0.465	0.459	5.8
1,1,2,2-Tetrachloroethane	1.043	0.998	0.956	0.933	0.990	0.972	1.077	0.996	5.0
Bromobenzene	0.791	0.707	0.712	0.772	0.817	0.792	0.880	0.782	7.7
n-Propylbenzene	4.251	3.889	4.068	4.478	4.760	4.298		4.291	7.1
trans-1,4-Dichloro-2-butene	0.279	0.246	0.240	0.243	0.259	0.253	0.282	0.257	6.6
1,2,3-Trichloropropane	0.268	0.242	0.239	0.236	0.249	0.243	0.269	0.250	5.5
2-Chlorotoluene	2.753	2.486	2.589	2.821	2.981	2.854	2.645	2.733	6.2
1,3,5-Trimethylbenzene	2.561	2.373	2.488	2.731	2.897	2.824	2.467	2.620	7.6
4-Chlorotoluene	2.587	2.274	2.416	2.611	2.745	2.662	2.497	2.542	6.3
tert-Butylbenzene	2.560	2.277	2.373	2.630	2.788	2.733	2.663	2.575	7.3
1,2,4-Trimethylbenzene	2.749	2.398	2.512	2.726	2.870	2.850	2.528	2.662	6.9
sec-Butylbenzene	3.289	2.996	3.159	3.505	3.765	3.699		3.402	9.0
4-Isopropyltoluene	2.734	2.538	2.670	2.910	3.116	3.091		2.843	8.3
1,3-Dichlorobenzene	1.414	1.241	1.284	1.374	1.448	1.452	1.471	1.383	6.5
1,4-Dichlorobenzene	1.427	1.232	1.318	1.375	1.441	1.443	1.459	1.385	6.0
n-Butylbenzene	2.748	2.579	2.797	3.045	3.238	3.291		2.950	9.7
1,2-Dichlorobenzene	1.262	1.158	1.204	1.272	1.339	1.369	1.354	1.280	6.2
1,2-Dibromo-3-chloropropane	0.142	0.147	0.152	0.147	0.161	0.176	0.173	0.157	8.5
1,2,4-Trichlorobenzene	0.783	0.775	0.833	0.806	0.859	0.928	0.901	0.841	6.9
Hexachlorobutadiene	0.397	0.378	0.410	0.421	0.460	0.485	0.464	0.431	9.1
Naphthalene	1.689	1.813	1.887	1.799	2.007	2.243	2.234	1.953	11.1
1,2,3-Trichlorobenzene	0.727	0.731	0.761	0.730	0.782	0.853	0.841	0.775	6.9

Alternate Calibration Evaluation Summary

Maximum Allowable Average %RSD =	15.0
Calculated Average %RSD =	8.0

Calibration ID:	CAL4376	**Instrument ID:**	MS04
Method ID:	MJ120	**Column Name:**	MS
		Calibration Fit:	AverageRF

Second Source Calibration Verification Summary

CalibrationID: CAL4376 Units: ug/Kg

Method ID: MJ120 Column: MS

DataFile Location: J:\MS04\DATA\041105A\0411F019.D

Parameter Name	File ID	Curve Fit	Method Criteria	AveRF	SSV RF	% Diff	True Value	Sol'n Conc	% Drift
Dichlorodifluoromethane	79137	AverageRF	40	0.236	0.220	-6.8	50.00	46.6	
Chloromethane	79137	AverageRF	40	0.388	0.369	-4.8	50.00	47.6	
Vinyl Chloride	79137	AverageRF	20	0.304	0.282	-7.1	50.00	46.5	
Bromomethane	79137	AverageRF	40	0.131	0.133	1.7	50.00	50.9	
Chloroethane	79137	AverageRF	40	0.159	0.148	-6.8	50.00	46.6	
Trichlorofluoromethane	79137	AverageRF	30	0.232	0.209	-9.6	50.00	45.2	
Trichlorotrifluoroethane	79137	AverageRF	30	0.171	0.177	3.5	50.00	51.7	
1,1-Dichloroethene	79137	AverageRF	20	0.213	0.216	1.3	50.00	50.6	
Acetone	79137	AverageRF	30	0.078	0.065	-17.0	250.00	207.6	
Carbon Disulfide	79137	AverageRF	30	0.974	0.891	-8.5	100.00	91.5	
Methyl Acetate	79137	AverageRF	30	0.239	0.253	5.6	50.00	52.8	
Methylene Chloride	79137	AverageRF	30	0.360	0.281	-21.8	50.00	39.1	
tert-Butyl Alcohol	79137	AverageRF	30	0.026	0.024	-6.1	250.00	234.8	
Methyl tert-Butyl Ether	79137	AverageRF	30	0.594	0.634	6.8	50.00	53.4	
trans-1,2-Dichloroethene	79137	AverageRF	30	0.250	0.245	-1.8	50.00	49.1	
Diisopropyl Ether	79137	AverageRF	30	1.137	1.115	-1.9	50.00	49.0	
Vinyl Acetate	79137	AverageRF	40	0.038	0.040	4.5	100.00	104.5	
1,1-Dichloroethane	79137	AverageRF	30	0.499	0.485	-2.8	50.00	48.6	
tert-Butyl Ethyl Ether	79137	AverageRF	30	0.788	0.800	1.5	50.00	50.7	
2,2-Dichloropropane	79137	AverageRF	30	0.328	0.317	-3.4	50.00	48.3	
2-Butanone (MEK)	79137	AverageRF	30	0.027	0.024	-9.4	250.00	226.4	
cis-1,2-Dichloroethene	79137	AverageRF	30	0.270	0.266	-1.4	50.00	49.3	
Bromochloromethane	79137	AverageRF	30	0.130	0.129	-0.4	50.00	49.8	
Chloroform	79137	AverageRF	20	0.426	0.412	-3.4	50.00	48.3	
1,1,1-Trichloroethane (TCA)	79137	AverageRF	30	0.302	0.304	0.7	50.00	50.4	
Cyclohexane	79137	AverageRF	30	0.464	0.528	14.0	50.00	57.0	
Carbon Tetrachloride	79137	AverageRF	30	0.254	0.254	0.3	50.00	50.2	
1,1-Dichloropropene	79137	AverageRF	30	0.366	0.341	-6.9	50.00	46.6	
tert-Amyl Methyl Ether	79137	AverageRF	30	0.135	0.133	-1.6	50.00	49.2	
Benzene	79137	AverageRF	30	1.008	1.018	1.0	50.00	50.5	
1,2-Dichloroethane (EDC)	79137	AverageRF	30	0.281	0.280	-0.4	50.00	49.8	
Trichloroethene (TCE)	79137	AverageRF	30	0.250	0.251	0.6	50.00	50.3	
1,2-Dichloropropane	79137	AverageRF	20	0.307	0.309	0.5	50.00	50.2	
Methylcyclohexane	79137	AverageRF	30	0.402	0.432	7.5	50.00	53.8	
Dibromomethane	79137	AverageRF	30	0.162	0.158	-2.4	50.00	48.8	
Bromodichloromethane	79137	AverageRF	30	0.322	0.330	2.3	50.00	51.1	
2-Chloroethyl Vinyl Ether	79137	AverageRF	40	0.144	0.150	4.5	50.00	52.3	
cis-1,3-Dichloropropene	79137	AverageRF	30	0.443	0.450	1.6	50.00	50.8	
4-Methyl-2-pentanone (MIBK)	79137	AverageRF	30	0.330	0.315	-4.6	250.00	238.4	
Toluene	79137	AverageRF	20	0.607	0.593	-2.4	50.00	48.8	
trans-1,3-Dichloropropene	79137	AverageRF	30	0.545	0.530	-2.8	50.00	48.6	
1,1,2-Trichloroethane	79137	AverageRF	30	0.276	0.284	2.9	50.00	51.5	
Tetrachloroethene (PCE)	79137	AverageRF	30	0.275	0.279	1.4	50.00	50.7	
2-Hexanone	79137	AverageRF	30	0.355	0.327	-8.0	250.00	229.9	
1,3-Dichloropropane	79137	AverageRF	30	0.596	0.603	1.1	50.00	50.6	
Dibromochloromethane	79137	AverageRF	30	0.336	0.346	3.1	50.00	51.5	
1,2-Dibromoethane (EDB)	79137	AverageRF	30	0.319	0.322	0.7	50.00	50.4	

Second Source Calibration Verification Summary

CalibrationID: CAL4376 **Units:** ug/Kg

Method ID: MJ120 **Column:** MS

DataFile Location: J:\MS04\DATA\041105A\0411F019.D

Parameter Name	File ID	Curve Fit	Method Criteria	AveRF	SSV RF	% Diff	True Value	Sol'n Conc	% Drift
1-Chlorohexane	79137	AverageRF	30	0.290	0.584	101.4 *	50.00	100.7	
Chlorobenzene	79137	AverageRF	30	0.884	0.871	-1.5	50.00	49.3	
Ethylbenzene	79137	AverageRF	20	0.451	0.448	-0.7	50.00	49.7	
1,1,1,2-Tetrachloroethane	79137	AverageRF	30	0.313	0.312	-0.3	50.00	49.8	
m,p-Xylenes	79137	AverageRF	30	0.567	0.542	-4.3	100.00	95.7	
o-Xylene	79137	AverageRF	30	0.547	0.521	-4.8	50.00	47.6	
Styrene	79137	AverageRF	30	0.957	0.933	-2.6	50.00	48.7	
Bromoform	79137	AverageRF	30	0.207	0.208	0.5	50.00	50.2	
Isopropylbenzene	79137	AverageRF	30	1.455	1.254	-13.8	50.00	43.1	
1,1,2,2-Tetrachloroethane	79137	AverageRF	30	0.996	0.995	-0.1	50.00	49.9	
Bromobenzene	79137	AverageRF	30	0.782	0.786	0.5	50.00	50.2	
n-Propylbenzene	79137	AverageRF	30	4.291	4.360	1.6	50.00	50.8	
trans-1,4-Dichloro-2-butene	79137	AverageRF	30	0.257	0.025	-90.4 *	50.00	4.8	
1,2,3-Trichloropropane	79137	AverageRF	30	0.250	0.251	0.7	50.00	50.3	
2-Chlorotoluene	79137	AverageRF	30	2.733	2.773	1.5	50.00	50.7	
1,3,5-Trimethylbenzene	79137	AverageRF	30	2.620	2.670	1.9	50.00	50.9	
4-Chlorotoluene	79137	AverageRF	30	2.542	2.521	-0.8	50.00	49.6	
tert-Butylbenzene	79137	AverageRF	30	2.575	2.543	-1.2	50.00	49.4	
1,2,4-Trimethylbenzene	79137	AverageRF	30	2.662	2.692	1.1	50.00	50.6	
sec-Butylbenzene	79137	AverageRF	30	3.402	3.540	4.1	50.00	52.0	
4-Isopropyltoluene	79137	AverageRF	30	2.843	2.704	-4.9	50.00	47.5	
1,3-Dichlorobenzene	79137	AverageRF	30	1.383	1.340	-3.1	50.00	48.4	
1,4-Dichlorobenzene	79137	AverageRF	30	1.385	1.365	-1.5	50.00	49.3	
n-Butylbenzene	79137	AverageRF	30	2.950	2.945	-0.2	50.00	49.9	
1,2-Dichlorobenzene	79137	AverageRF	30	1.280	1.228	-4.0	50.00	48.0	
1,2-Dibromo-3-chloropropane	79137	AverageRF	30	0.157	0.153	-2.5	50.00	48.8	
1,2,4-Trichlorobenzene	79137	AverageRF	30	0.841	0.849	1.0	50.00	50.5	
Hexachlorobutadiene	79137	AverageRF	30	0.431	0.439	2.0	50.00	51.0	
Naphthalene	79137	AverageRF	30	1.953	2.031	4.0	50.00	52.0	
1,2,3-Trichlorobenzene	79137	AverageRF	30	0.775	0.792	2.1	50.00	51.1	

2 compound out of 77 failed max individual %D criteria.

Quantitation Report (Not Reviewed)

Data File : J:\MS04\DATA\041105\0411F007.D
Acq On : 11 Apr 2005 12:37 pm
Sample : SOIL PRIMER
Misc :
MS Integration Params: RTEINT.P
Quant Time: Apr 11 13:26:49 2005

Vial: 1
Operator: KR
Inst : MS04
Multiplr: 1.00

Quant Results File: 041105SOILCLP.R

Quant Method : J:\MS04\METHODS\041105SOILCLP.M (RTE Integrator)
Title : MS04 APPX SOIL CAL 3288
Last Update : Mon Apr 11 13:19:07 2005
Response via : Initial Calibration
DataAcq Meth : 524W2

4/14/05

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	11.34	96	7935152	50.00	ppb	0.03
47) Chlorobenzene-d5	15.93	117	5391669	50.00	ppb	0.02
65) 1,4-Dichlorobenzene-d4	19.12	152	2273284	50.00	ppb	0.02
System Monitoring Compounds						
29) Dibromofluoromethane	10.22	113	1876587	45.92	ppb	0.02
Spiked Amount 50.000			Recovery =	91.84%		
34) 1,2-Dichloroethane-d4	10.80	65	1833848	39.01	ppb	0.03
Spiked Amount 50.000			Recovery =	78.02%		
45) Toluene-d8	13.79	98	6744993	45.13	ppb	0.02
Spiked Amount 50.000			Recovery =	90.26%		
64) 4-Bromofluorobenzene	17.53	95	2412009	41.05	ppb	0.03
Spiked Amount 50.000			Recovery =	82.10%		
Target Compounds						Qvalue
2) Dichlorodifluoromethane (C	4.05	85	1910382	36.47	ppb	99
3) Chloromethane (Methyl Chlo	4.43	50	3048316	33.33	ppb	99
4) Vinyl Chloride	4.64	62	2527784	38.15	ppb	99
5) Bromomethane (Methyl Bromi	5.27	94	1056352	28.59	ppb	98
6) Chloroethane	5.43	64	1303339	36.72	ppb	97
7) Dichlorofluoromethane (CFC	5.73	67	3256940	44.13	ppb	99
8) Trichlorofluoromethane (CF	5.88	101	1990875	45.27	ppb	99
9) 1,1,2-Trichlorotrifluoroet	6.70	151	1435596	59.49	ppb	99
10) 1,1-Dichloroethene (1,1-DC	6.73	96	1754949	52.49	ppb	91
11) Acetone	6.73	43	1237136	82.87	ppb	86
13) Carbon Disulfide	7.17	76	8077633	53.14	ppb	99
15) Dichloromethane (Methylene	7.44	84	2475814	45.54	ppb	88
16) 2-Methyl-2-propanol (tert-	7.49	59	1024444	176.60	ppb	98
17) Methyl tert-Butyl Ether	7.86	73	10019064	91.74	ppb	94
18) trans-1,2-Dichloroethene	7.90	96	2066859	52.57	ppb	99
19) Diisopropyl Ether	8.58	45	9554013	47.66	ppb	98
20) Vinyl Acetate	8.53	86	342413	51.46	ppb #	59
21) 1,1-Dichloroethane (1,1-DC	8.55	63	4128887	48.74	ppb	98
22) Ethyl tert-Butyl Ether	9.18	59	6698968	43.99	ppb	96
23) 2,2-Dichloropropane	9.53	77	2780137	44.90	ppb	97
24) 2-Butanone (MEK)	9.44	72	445863	90.12	ppb #	75
25) cis-1,2-Dichloroethene	9.50	96	2215893	50.70	ppb	88
26) Bromochloromethane	9.89	128	1038459	49.73	ppb #	75
27) Chloroform	9.97	83	3499434	48.46	ppb	98
28) 1,1,1-Trichloroethane (TCA	10.37	97	2511461	43.68	ppb	99
31) Carbon Tetrachloride	10.66	117	2138591	42.65	ppb	99
32) 1,1-Dichloropropene	10.61	75	3070051	47.07	ppb	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : J:\MS04\DATA\041105\0411F007.D
Acq On : 11 Apr 2005 12:37 pm
Sample : SOIL PRIMER
Misc :
MS Integration Params: RTEINT.P
Quant Time: Apr 11 13:26:49 2005

Vial: 1
Operator: KR
Inst : MS04
Multiplr: 1.00
Quant Results File: 041105SOILCLP.R

Quant Method : J:\MS04\METHODS\041105SOILCLP.M (RTE Integrator)
Title : MS04 APPX SOIL CAL 3288
Last Update : Mon Apr 11 13:19:07 2005
Response via : Initial Calibration
DataAcq Meth : 524W2

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
33)	tert-Amyl Methyl Ether	11.03	87	1140314	43.01 ppb	#	83
35)	Benzene	10.95	78	8558327	44.54 ppb		97
36)	1,2-Dichloroethane (EDC)	10.91	62	2300857	40.55 ppb		85
37)	Trichloroethene (TCE)	11.93	95	2053978	48.08 ppb		97
38)	1,2-Dichloropropane	12.27	63	2506473	47.06 ppb		97
40)	Dibromomethane	12.46	93	1297974	44.82 ppb		98
41)	Bromodichloromethane	12.65	83	2637799	42.94 ppb		99
42)	2-Chloroethyl Vinyl Ether	13.02	63	1109989	35.50 ppb		94
43)	cis-1,3-Dichloropropene	13.33	75	3670859	46.28 ppb		86
44)	4-Methyl-2-pentanone (MIBK	13.48	43	5408594	80.59 ppb		94
46)	Toluene	13.90	92	5041376	47.19 ppb		100
48)	trans-1,3-Dichloropropene	14.13	75	3137635	42.42 ppb		95
49)	1,1,2-Trichloroethane	14.43	83	1545568	46.40 ppb		94
50)	Tetrachloroethene (PCE)	14.76	164	1590687	50.84 ppb		96
51)	2-Hexanone	14.72	43	3860021	76.58 ppb		97
52)	1,3-Dichloropropane	14.70	76	3353718	45.72 ppb		99
53)	Dibromochloromethane	15.07	129	1880926	43.19 ppb		99
54)	1,2-Dibromoethane (EDB)	15.29	107	1790212	45.04 ppb		99
55)	1-Chlorohexane	15.84	91	1656752	26.47 ppb		96
56)	Chlorobenzene	15.97	112	4967874	48.56 ppb		96
57)	Ethylbenzene	16.08	106	2570672	48.34 ppb		95
58)	1,1,1,2-Tetrachloroethane	16.06	131	1748122	44.95 ppb		97
59)	m,p-Xylenes	16.24	106	6493778	94.58 ppb		99
60)	o-Xylene	16.81	106	3084711	47.61 ppb		99
61)	Styrene	16.81	104	5482761	47.18 ppb		97
62)	Bromoform	17.12	173	1145894	41.40 ppb		99
63)	Isopropylbenzene (Cumene)	17.28	105	8368589	45.63 ppb		99
66)	1,1,2,2-Tetrachloroethane	17.64	83	2327048	45.30 ppb		97
67)	Bromobenzene	17.79	156	1918796	51.07 ppb		88
68)	n-Propylbenzene	17.84	91	10976826	50.17 ppb		97
69)	trans-1,4-Dichloro-2-buten	17.70	53	612376	31.65 ppb		92
70)	1,2,3-Trichloropropane	17.73	110	588269	41.14 ppb		97
71)	2-Chlorotoluene	18.02	91	6843726	46.37 ppb		98
72)	1,3,5-Trimethylbenzene	18.04	105	6524834	47.16 ppb		99
73)	4-Chlorotoluene	18.15	91	6408029	47.42 ppb		97
74)	tert-Butylbenzene	18.52	119	6333054	53.94 ppb		98
75)	1,2,4-Trimethylbenzene	18.58	105	6515488	47.45 ppb		99
76)	sec-Butylbenzene	18.81	105	8470891	49.44 ppb		98
77)	p-Isopropyltoluene	18.97	119	7092174	48.74 ppb		99
78)	1,3-Dichlorobenzene	19.05	146	3331369	50.26 ppb		99
79)	1,4-Dichlorobenzene	19.16	146	3296656	49.69 ppb		99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : J:\MS04\DATA\041105\0411F007.D
Acq On : 11 Apr 2005 12:37 pm
Sample : SOIL PRIMER
Misc :
MS Integration Params: RTEINT.P
Quant Time: Apr 11 13:26:49 2005

Vial: 1
Operator: KR
Inst : MS04
Multiplr: 1.00

Quant Results File: 041105SOILCLP.R

Quant Method : J:\MS04\METHODS\041105SOILCLP.M (RTE Integrator)
Title : MS04 APPX SOIL CAL 3288
Last Update : Mon Apr 11 13:19:07 2005
Response via : Initial Calibration
DataAcq Meth : 524W2

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
80)	n-Butylbenzene	19.53	91	7447417	49.77 ppb	98
81)	1,2-Dichlorobenzene	19.69	146	3009105	49.07 ppb	98
82)	1,2-Dibromo-3-chloropropan	20.74	157	349419	39.17 ppb	92
83)	1,2,4-Trichlorobenzene	22.00	180	2031178	49.30 ppb	99
84)	Hexachlorobutadiene	22.20	225	992034	39.68 ppb	99
85)	Naphthalene	22.44	128	4463464	44.03 ppb	99
86)	1,2,3-Trichlorobenzene	22.83	180	1817446	47.32 ppb	97

(#) = qualifier out of range (m) = manual integration

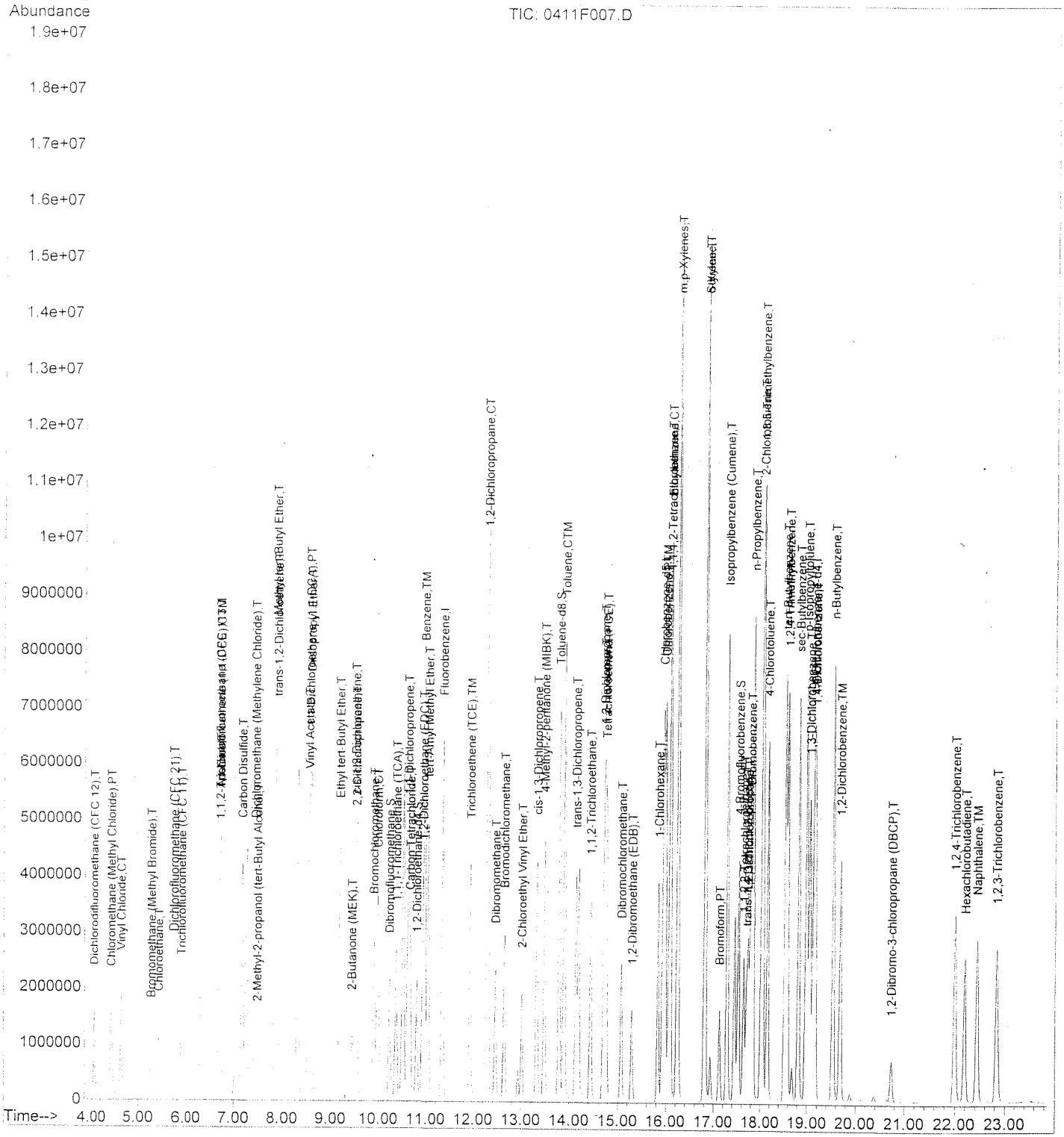
Quantitation Report (Not Reviewed)

Data File : J:\MS04\DATA\041105\0411F007.D
Acq On : 11 Apr 2005 12:37 pm
Sample : SOIL PRIMER
Misc :
MS Integration Params: RTEINT.P
Quant Time: Apr 11 13:26 2005

Vial: 1
Operator: KR
Inst : MS04
Multiplr: 1.00

Quant Results File: 041105SOILCL

Method : J:\MS04\METHODS\041105SOILCLP.M (RTE Integrator)
Title : MS04 APPX SOIL CAL 3288
Last Update : Mon Apr 11 13:19:07 2005
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : J:\MS04\DATA\041105\0411F008.D
Acq On : 11 Apr 2005 1:07 pm
Sample : IB
Misc :
MS Integration Params: RTEINT.P
Quant Time: Apr 11 14:12:05 2005

Vial: 2
Operator: KR
Inst : MS04
Multiplr: 1.00

Quant Results File: 041105SOILCLP.R

Quant Method : J:\MS04\METHODS\041105SOILCLP.M (RTE Integrator)
Title : MS04 APPX SOIL CAL 3288
Last Update : Mon Apr 11 13:19:07 2005
Response via : Initial Calibration
DataAcq Meth : 524W2

CA 4/11/05 KR

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	11.35	96	7503944	50.00	ppb	0.03
47) Chlorobenzene-d5	15.93	117	5185896	50.00	ppb	0.03
65) 1,4-Dichlorobenzene-d4	19.13	152	2180680	50.00	ppb	0.03
System Monitoring Compounds						
29) Dibromofluoromethane	10.23	113	5076	0.13	ppb	0.03
Spiked Amount 50.000			Recovery	=	0.26%	
34) 1,2-Dichloroethane-d4	10.80	65	6011	0.14	ppb	0.03
Spiked Amount 50.000			Recovery	=	0.28%	
45) Toluene-d8	13.80	98	22628	0.16	ppb	0.03
Spiked Amount 50.000			Recovery	=	0.32%	
64) 4-Bromofluorobenzene	17.53	95	11218	0.20	ppb	0.03
Spiked Amount 50.000			Recovery	=	0.40%	

Target Compounds							Qvalue
2) Dichlorodifluoromethane (C	4.05	85	2254	0.05	ppb		84
3) Chloromethane (Methyl Chlo	4.44	50	7610	0.09	ppb		71
4) Vinyl Chloride	4.64	62	695	0.01	ppb	#	50
5) Bromomethane (Methyl Bromi	5.29	94	16234	0.46	ppb		74
6) Chloroethane	5.43	64	266	0.01	ppb	#	44
7) Dichlorofluoromethane (CFC	5.74	67	2422	0.03	ppb	#	50
8) Trichlorofluoromethane (CF	5.90	101	543	0.01	ppb	#	3
9) 1,1,2-Trichlorotrifluoroet	6.72	151	285	0.01	ppb	#	10
10) 1,1-Dichloroethene (1,1-DC	6.70	96	595	0.02	ppb	#	1
11) Acetone	6.74	43	57081	4.04	ppb		92
13) Carbon Disulfide	7.18	76	56962	0.40	ppb		98
15) Dichloromethane (Methylene	7.45	84	209478	4.07	ppb		90
16) 2-Methyl-2-propanol (tert-	7.56	59	264	0.05	ppb		76
17) Methyl tert-Butyl Ether	7.87	73	7426	0.07	ppb		71
18) trans-1,2-Dichloroethene	7.91	96	3313	0.09	ppb	#	70
19) Diisopropyl Ether	8.58	45	8155	0.04	ppb		74
20) Vinyl Acetate	8.32	86	652	0.10	ppb	#	1
21) 1,1-Dichloroethane (1,1-DC	8.54	63	3239	0.04	ppb	#	50
22) Ethyl tert-Butyl Ether	9.18	59	4225	0.03	ppb	#	52
23) 2,2-Dichloropropane	9.53	77	3267	0.06	ppb		77
24) 2-Butanone (MEK)	9.49	72	259	0.06	ppb	#	1
25) cis-1,2-Dichloroethene	9.51	96	2051	0.05	ppb	#	21
26) Bromochloromethane	9.91	128	254	0.01	ppb	#	39
27) Chloroform	9.97	83	4828	0.07	ppb		89
28) 1,1,1-Trichloroethane (TCA	10.37	97	887	0.02	ppb	#	24
31) Carbon Tetrachloride	10.65	117	1634	0.03	ppb	#	75
32) 1,1-Dichloropropene	10.61	75	2932	0.05	ppb	#	39

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : J:\MS04\DATA\041105\0411F008.D
Acq On : 11 Apr 2005 1:07 pm
Sample : IB
Misc :
MS Integration Params: RTEINT.P
Quant Time: Apr 11 14:12:05 2005

Vial: 2
Operator: KR
Inst : MS04
Multiplr: 1.00

Quant Results File: 041105SOILCLP.R

Quant Method : J:\MS04\METHODS\041105SOILCLP.M (RTE Integrator)
Title : MS04 APPX SOIL CAL 3288
Last Update : Mon Apr 11 13:19:07 2005
Response via : Initial Calibration
DataAcq Meth : 524W2

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
35)	Benzene	10.96	78	28645	0.16	ppb		91
36)	1,2-Dichloroethane (EDC)	11.35	62	97759	1.82	ppb	#	1
37)	Trichloroethene (TCE)	11.93	95	2795	0.07	ppb		88
38)	1,2-Dichloropropane	12.27	63	3057	0.06	ppb	#	49
40)	Dibromomethane	12.48	93	923	0.03	ppb	#	71
41)	Bromodichloromethane	12.66	83	2158	0.04	ppb		82
42)	2-Chloroethyl Vinyl Ether	13.03	63	366	0.01	ppb	#	44
43)	cis-1,3-Dichloropropene	13.34	75	3132	0.04	ppb	#	54
44)	4-Methyl-2-pentanone (MIBK	13.50	43	8079	0.13	ppb		84
46)	Toluene	13.91	92	9327	0.09	ppb		90
48)	trans-1,3-Dichloropropene	14.15	75	3707	0.05	ppb		82
49)	1,1,2-Trichloroethane	14.44	83	1741	0.05	ppb		83
50)	Tetrachloroethene (PCE)	14.76	164	1958	0.07	ppb		85
51)	2-Hexanone	14.73	43	6995	0.14	ppb		83
52)	1,3-Dichloropropane	14.72	76	4947	0.07	ppb		81
53)	Dibromochloromethane	15.08	129	1858	0.04	ppb		86
54)	1,2-Dibromoethane (EDB)	15.30	107	2474	0.06	ppb		73
55)	1-Chlorohexane	15.84	91	3422	0.06	ppb	#	72
56)	Chlorobenzene	15.98	112	9125	0.09	ppb	#	64
57)	Ethylbenzene	16.09	106	4961	0.10	ppb	#	51
58)	1,1,1,2-Tetrachloroethane	16.06	131	2610	0.07	ppb	#	22
59)	m,p-Xylenes	16.25	106	13471	0.20	ppb		90
60)	o-Xylene	16.80	106	7013	0.11	ppb		91
61)	Styrene	16.82	104	27268	0.24	ppb		92
62)	Bromoform	17.12	173	1455	0.05	ppb	#	32
63)	Isopropylbenzene (Cumene)	17.29	105	20855	0.12	ppb		96
66)	1,1,2,2-Tetrachloroethane	17.64	83	5251	0.11	ppb		87
67)	Bromobenzene	17.80	156	4132	0.11	ppb		87
68)	n-Propylbenzene	17.84	91	27980	0.13	ppb		93
69)	trans-1,4-Dichloro-2-buten	17.69	53	929	0.05	ppb	#	26
70)	1,2,3-Trichloropropane	17.74	110	588	0.04	ppb	#	21
71)	2-Chlorotoluene	18.03	91	13093	0.09	ppb		92
72)	1,3,5-Trimethylbenzene	18.04	105	14258	0.11	ppb		94
73)	4-Chlorotoluene	18.16	91	13350	0.10	ppb		94
74)	tert-Butylbenzene	18.53	119	19534	0.17	ppb		94
75)	1,2,4-Trimethylbenzene	18.58	105	18557	0.14	ppb		99
76)	sec-Butylbenzene	18.82	105	19723	0.12	ppb		96
77)	p-Isopropyltoluene	18.98	119	18766	0.13	ppb		90
78)	1,3-Dichlorobenzene	19.04	146	12323	0.19	ppb		90
79)	1,4-Dichlorobenzene	19.16	146	10940	0.17	ppb	#	49
80)	n-Butylbenzene	19.54	91	18854	0.13	ppb		96

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : J:\MS04\DATA\041105\0411F008.D
Acq On : 11 Apr 2005 1:07 pm
Sample : IB
Misc :
MS Integration Params: RTEINT.P
Quant Time: Apr 11 14:12:05 2005

Vial: 2
Operator: KR
Inst : MS04
Multiplr: 1.00

Quant Results File: 041105SOILCLP.R

Quant Method : J:\MS04\METHODS\041105SOILCLP.M (RTE Integrator)
Title : MS04 APPX SOIL CAL 3288
Last Update : Mon Apr 11 13:19:07 2005
Response via : Initial Calibration
DataAcq Meth : 524W2

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
81)	1,2-Dichlorobenzene	19.69	146	8897	0.15 ppb		91
82)	1,2-Dibromo-3-chloropropan	20.74	157	631	0.07 ppb	#	30
83)	1,2,4-Trichlorobenzene	21.99	180	11423	0.29 ppb		92
84)	Hexachlorobutadiene	22.20	225	3695	0.15 ppb		88
85)	Naphthalene	22.45	128	61955	0.64 ppb		97
86)	1,2,3-Trichlorobenzene	22.83	180	13871	0.38 ppb		87

(#) = qualifier out of range (m) = manual integration

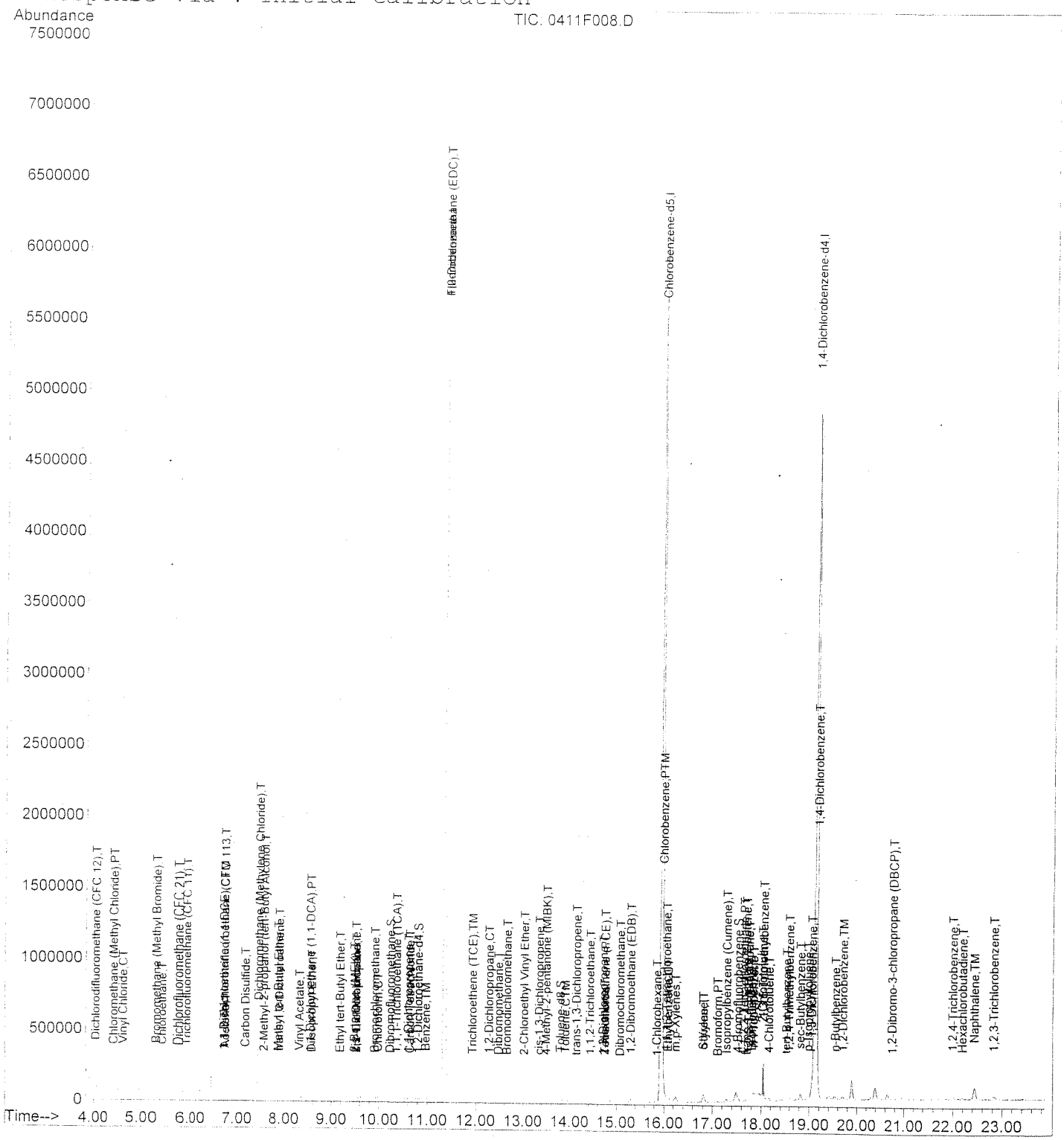
Quantitation Report (Not Reviewed)

Data File : J:\MS04\DATA\041105\0411F008.D
Acq On : 11 Apr 2005 1:07 pm
Sample : IB
Misc :
MS Integration Params: RTEINT.P
Quant Time: Apr 11 14:12 2005

Vial: 2
Operator: KR
Inst : MS04
Multiplr: 1.00

Quant Results File: 041105SOILCL

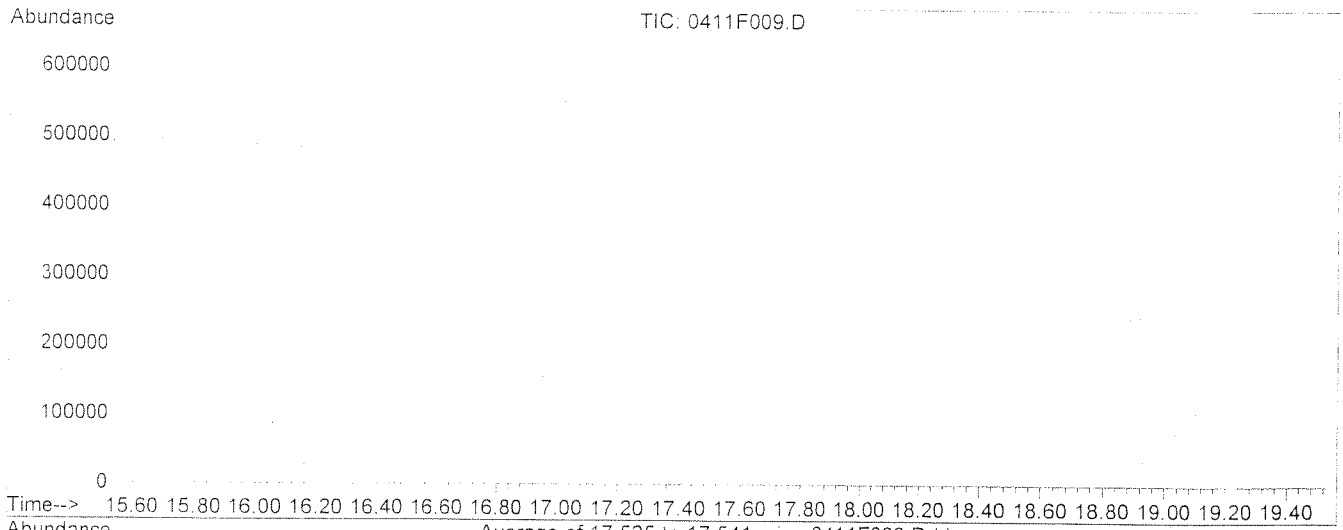
Method : J:\MS04\METHODS\041105SOILCLP.M (RTE Integrator)
Title : MS04 APPX SOIL CAL 3288
Last Update : Mon Apr 11 13:19:07 2005
Response via : Initial Calibration

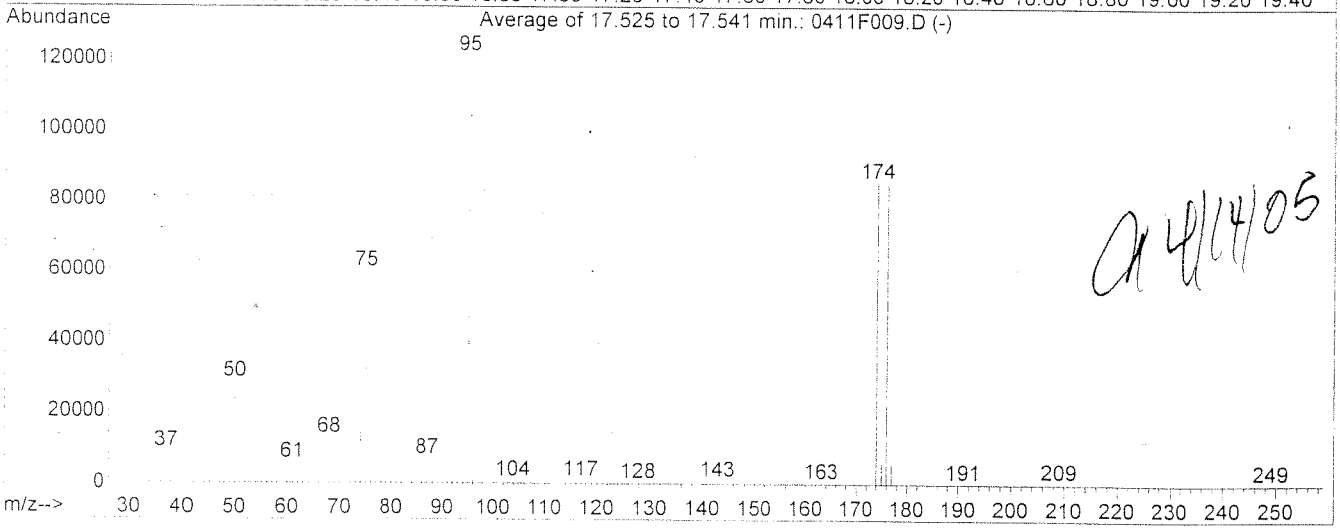


BFB

Data File : J:\MS04\DATA\041105\0411F009.D
Acq On : 11 Apr 2005 1:37 pm
Sample : SOIL BFB
Misc :
MS Integration Params: RTEINT.P
Method : J:\MS04\METHODS\041105SOILCLP.M (RTE Integrator)
Title : MS04 APPX SOIL CAL 3288

Vial: 3
Operator: KR
Inst : MS04
Multiplr: 1.00





4/14/05

AutoFind: Scans 1622, 1623, 1624; Background Corrected with Scan 1613

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	23.2	28253	PASS
75	95	30	60	49.0	59608	PASS
95	95	100	100	100.0	121685	PASS
96	95	5	9	6.7	8153	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	70.0	85202	PASS
175	174	5	9	7.8	6621	PASS
176	174	95	101	99.2	84517	PASS
177	176	5	9	7.0	5951	PASS

KR 4/14/05

0411F009.D 041105SOILCLP.M Mon Apr 11 14:13:09 2005

Quantitation Report (QT Reviewed)

Data File : J:\MS04\DATA\041105\0411F010.D
Acq On : 11 Apr 2005 2:15 pm
Sample : 8260/CLP ICAL 2PPB
Misc :
MS Integration Params: RTEINT.P
Quant Time: Apr 11 14:42:10 2005

Vial: 4
Operator: KR
Inst : MS04
Multiplr: 1.00

Quant Results File: 041105SOILCLP.R

Quant Method : J:\MS04\METHODS\041105SOILCLP.M (RTE Integrator)
Title : MS04 APPX SOIL CAL 3288
Last Update : Mon Apr 11 14:40:53 2005
Response via : Initial Calibration
DataAcq Meth : 524W2

4/14/05 4/14/05

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene	11.34	96	7261324	50.00 ppb	0.03
47) Chlorobenzene-d5	15.94	117	5001835	50.00 ppb	0.03
65) 1,4-Dichlorobenzene-d4	19.12	152	2084614	50.00 ppb	0.03
System Monitoring Compounds					
29) Dibromofluoromethane	10.23	113	380274	5.73 ppb	0.03
Spiked Amount 50.000			Recovery	= 11.46%	
34) 1,2-Dichloroethane-d4	10.80	65	366078	5.20 ppb	0.04
Spiked Amount 50.000			Recovery	= 10.40%	
45) Toluene-d8	13.79	98	1393767	5.82 ppb	0.03
Spiked Amount 50.000			Recovery	= 11.64%	
64) 4-Bromofluorobenzene	17.53	95	484750	5.33 ppb	0.03
Spiked Amount 50.000			Recovery	= 10.66%	

Target Compounds					Qvalue
2) Dichlorodifluoromethane (C	4.05	85	74894	0.44 ppb	96
3) Chloromethane (Methyl Chlo	4.44	50	139077	0.50 ppb	93
4) Vinyl Chloride	4.64	62	92358	0.41 ppb	98
5) Bromomethane (Methyl Bromi	5.28	94	48465	0.50 ppb	91
6) Chloroethane	5.44	64	52924	0.46 ppb	93
7) Dichlorofluoromethane (CFC	5.73	67	121774	0.43 ppb	99
8) Trichlorofluoromethane (CF	5.89	101	67914	0.39 ppb	93
9) 1,1,2-Trichlorotrifluoroet	6.70	151	47029	0.39 ppb	96
10) 1,1-Dichloroethene (1,1-DC	6.74	96	62938	0.43 ppb	91
11) Acetone	6.73	43	95997	1.77 ppb	90
13) Carbon Disulfide	7.18	76	318133	0.47 ppb	99
15) Dichloromethane (Methylene	7.45	84	294387	1.35 ppb	83
16) 2-Methyl-2-propanol (tert-	7.49	59	41093	6.78 ppb	96
17) Methyl tert-Butyl Ether	7.87	73	374883	0.87 ppb	91
18) trans-1,2-Dichloroethene	7.90	96	74368	0.43 ppb	90
19) Diisopropyl Ether	8.59	45	349493	0.43 ppb	98
20) Vinyl Acetate	8.53	86	10572	0.36 ppb #	89
21) 1,1-Dichloroethane (1,1-DC	8.55	63	151538	0.43 ppb	99
22) Ethyl tert-Butyl Ether	9.19	59	240781	0.41 ppb	96
23) 2,2-Dichloropropane	9.54	77	98080	0.41 ppb	96
24) 2-Butanone (MEK)	9.45	72	16661	0.87 ppb	94
25) cis-1,2-Dichloroethene	9.51	96	82611	0.44 ppb #	78
26) Bromochloromethane	9.90	128	40554	0.46 ppb #	80
27) Chloroform	9.97	83	128088	0.43 ppb	94
28) 1,1,1-Trichloroethane (TCA	10.37	97	84472	0.39 ppb	96
30) Cyclohexane	10.51	56	113779	0.11 ppb	99
31) Carbon Tetrachloride	10.66	117	70132	0.38 ppb	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : J:\MS04\DATA\041105\0411F010.D
Acq On : 11 Apr 2005 2:15 pm
Sample : 8260/CLP ICAL 2PPB
Misc :
MS Integration Params: RTEINT.P
Quant Time: Apr 11 14:42:10 2005

Vial: 4
Operator: KR
Inst : MS04
Multiplr: 1.00

Quant Results File: 041105SOILCLP.R

Quant Method : J:\MS04\METHODS\041105SOILCLP.M (RTE Integrator)
Title : MS04 APPX SOIL CAL 3288
Last Update : Mon Apr 11 14:40:53 2005
Response via : Initial Calibration
DataAcq Meth : 524W2

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
32)	1,1-Dichloropropene	10.61	75	106399	0.40 ppb		96
33)	tert-Amyl Methyl Ether	11.04	87	41151	0.41 ppb	#	82
35)	Benzene	10.95	78	323690	0.44 ppb		95
36)	1,2-Dichloroethane (EDC)	10.93	62	89013	0.44 ppb		88
37)	Trichloroethene (TCE)	11.93	95	72298	0.41 ppb		95
38)	1,2-Dichloropropane	12.27	63	94672	0.44 ppb		97
39)	Methyl Cyclohexane	12.29	83	94623	0.11 ppb		94
40)	Dibromomethane	12.47	93	50600	0.45 ppb		98
41)	Bromodichloromethane	12.65	83	97113	0.42 ppb		98
42)	2-Chloroethyl Vinyl Ether	13.02	63	45574	0.46 ppb		93
43)	cis-1,3-Dichloropropene	13.33	75	130383	0.41 ppb		89
44)	4-Methyl-2-pentanone (MIBK	13.49	43	197486	0.83 ppb		92
46)	Toluene	13.90	92	178734	0.41 ppb		99
48)	trans-1,3-Dichloropropene	14.14	75	114122	0.41 ppb		94
49)	1,1,2-Trichloroethane	14.43	83	57356	0.43 ppb		97
50)	Tetrachloroethene (PCE)	14.75	164	52084	0.38 ppb		97
51)	2-Hexanone	14.73	43	158255	0.91 ppb		93
52)	1,3-Dichloropropane	14.70	76	126335	0.43 ppb		98
53)	Dibromochloromethane	15.08	129	67021	0.40 ppb		100
54)	1,2-Dibromoethane (EDB)	15.29	107	65216	0.42 ppb		99
55)	1-Chlorohexane	15.84	91	55744	0.34 ppb		93
56)	Chlorobenzene	15.98	112	181383	0.42 ppb		97
57)	Ethylbenzene	16.09	106	88274	0.40 ppb		98
58)	1,1,1,2-Tetrachloroethane	16.06	131	63554	0.41 ppb		94
59)	m,p-Xylenes	16.24	106	225262	0.80 ppb		96
60)	o-Xylene	16.81	106	107071	0.40 ppb		96
61)	Styrene	16.82	104	191305	0.40 ppb		98
62)	Bromoform	17.13	173	40034	0.39 ppb		100
63)	Isopropylbenzene (Cumene)	17.29	105	275600	0.38 ppb		98
66)	1,1,2,2-Tetrachloroethane	17.63	83	87009	0.43 ppb		96
67)	Bromobenzene	17.80	156	65990	0.41 ppb		87
68)	n-Propylbenzene	17.85	91	354429	0.38 ppb		99
69)	trans-1,4-Dichloro-2-buten	17.70	53	23251	0.41 ppb		92
70)	1,2,3-Trichloropropane	17.74	110	22385	0.43 ppb		95
71)	2-Chlorotoluene	18.02	91	229543	0.39 ppb		98
72)	1,3,5-Trimethylbenzene	18.05	105	213525	0.38 ppb		98
73)	4-Chlorotoluene	18.16	91	215747	0.39 ppb		95
74)	tert-Butylbenzene	18.53	119	213457	0.40 ppb		98
75)	1,2,4-Trimethylbenzene	18.58	105	229245	0.41 ppb		98
76)	sec-Butylbenzene	18.82	105	274258	0.38 ppb		99
77)	p-Isopropyltoluene	18.98	119	227990	0.38 ppb		98

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : J:\MS04\DATA\041105\0411F010.D
Acq On : 11 Apr 2005 2:15 pm
Sample : 8260/CLP ICAL 2PPB
Misc :
MS Integration Params: RTEINT.P
Quant Time: Apr 11 14:42:10 2005

Vial: 4
Operator: KR
Inst : MS04
Multiplr: 1.00

Quant Results File: 041105SOILCLP.R

Quant Method : J:\MS04\METHODS\041105SOILCLP.M (RTE Integrator)
Title : MS04 APPX SOIL CAL 3288
Last Update : Mon Apr 11 14:40:53 2005
Response via : Initial Calibration
DataAcq Meth : 524W2

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
78)	1,3-Dichlorobenzene	19.05	146	117930	0.42 ppb	96
79)	1,4-Dichlorobenzene	19.16	146	119019	0.43 ppb	93
80)	n-Butylbenzene	19.54	91	229133	0.36 ppb	97
81)	1,2-Dichlorobenzene	19.70	146	105225	0.41 ppb	96
82)	1,2-Dibromo-3-chloropropan	20.73	157	11881	0.38 ppb	91
83)	1,2,4-Trichlorobenzene	22.00	180	65330	0.38 ppb	99
84)	Hexachlorobutadiene	22.20	225	33087	0.38 ppb	98
85)	Naphthalene	22.45	128	140876	0.37 ppb	98
86)	1,2,3-Trichlorobenzene	22.85	180	60659	0.39 ppb	98

(#) = qualifier out of range (m) = manual integration

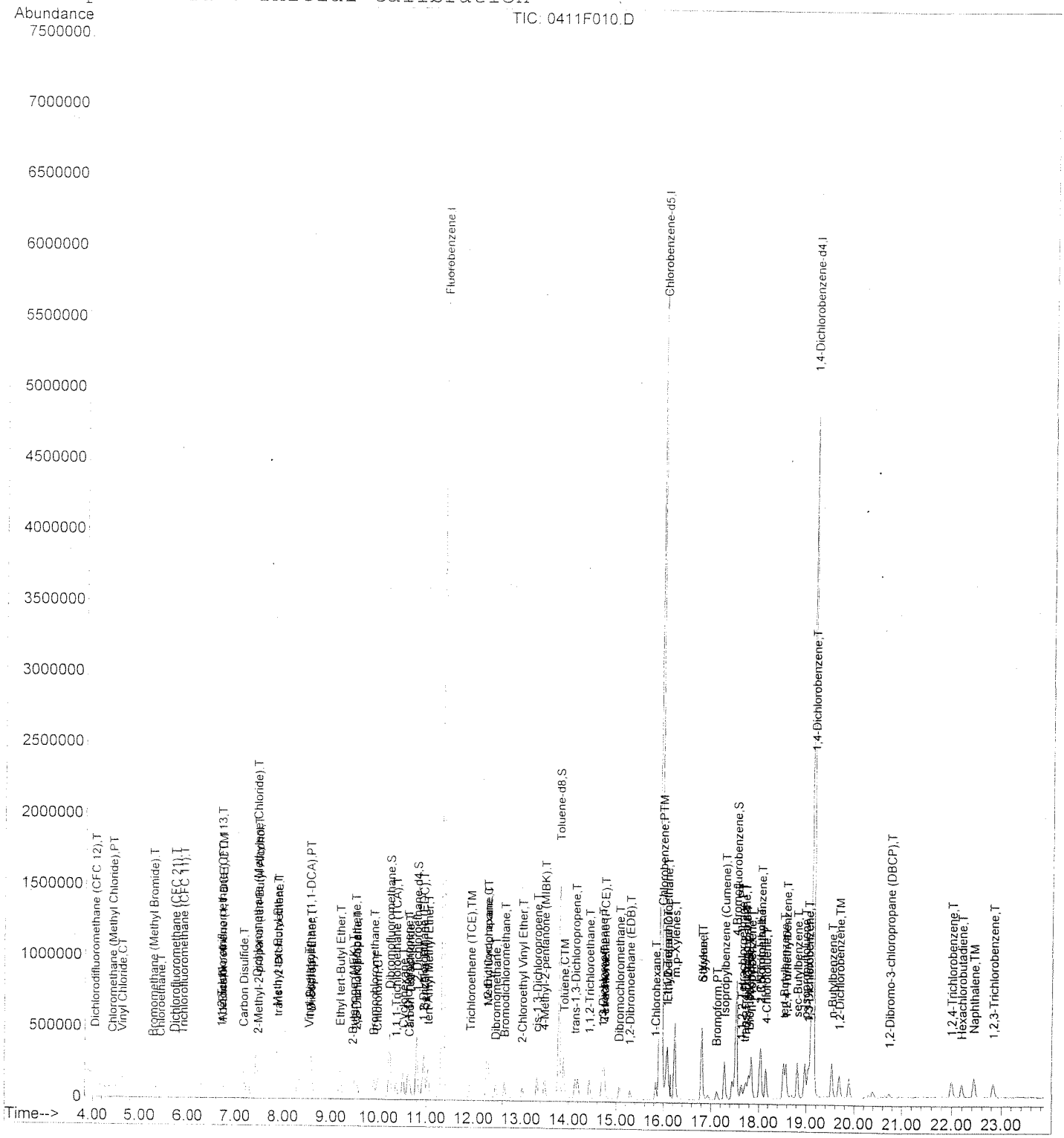
Quantitation Report (QT Reviewed)

Data File : J:\MS04\DATA\041105\0411F010.D
Acq On : 11 Apr 2005 2:15 pm
Sample : 8260/CLP ICAL 2PPB
Misc :
MS Integration Params: RTEINT.P
Quant Time: Apr 11 14:42 2005

Vial: 4
Operator: KR
Inst : MS04
Multiplr: 1.00

Quant Results File: 041105SOILCL

Method : J:\MS04\METHODS\041105SOILCLP.M (RTE Integrator)
Title : MS04 APPX SOIL CAL 3288
Last Update : Mon Apr 11 14:40:53 2005
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : J:\MS04\DATA\041105\0411F011.D
Acq On : 11 Apr 2005 2:45 pm
Sample : 8260/CLP ICAL 5PPB
Misc :
MS Integration Params: RTEINT.P
Quant Time: Apr 11 19:32:34 2005

Vial: 5
Operator: KR
Inst : MS04
Multiplr: 1.00

Quant Results File: 041105SOILCLP.R

Quant Method : J:\MS04\METHODS\041105SOILCLP.M (RTE Integrator)
Title : MS04 APPX SOIL CAL 3288
Last Update : Mon Apr 11 19:32:14 2005
Response via : Initial Calibration
DataAcq Meth : 524W2

M 4/14/05

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene	11.35	96	7404885	50.00 ppb	0.00
47) Chlorobenzene-d5	15.94	117	5089357	50.00 ppb	0.00
65) 1,4-Dichlorobenzene-d4	19.12	152	2125126	50.00 ppb	0.00
System Monitoring Compounds					
29) Dibromofluoromethane	10.23	113	690643	10.20 ppb	0.00
Spiked Amount 50.000			Recovery =	20.40%	
34) 1,2-Dichloroethane-d4	10.80	65	680999	9.49 ppb	0.01
Spiked Amount 50.000			Recovery =	18.98%	
45) Toluene-d8	13.79	98	2450670	10.04 ppb	0.00
Spiked Amount 50.000			Recovery =	20.08%	
64) 4-Bromofluorobenzene	17.53	95	882162	9.53 ppb	0.00
Spiked Amount 50.000			Recovery =	19.06%	
Target Compounds					Qvalue
2) Dichlorodifluoromethane (C	4.06	85	159201	0.92 ppb	97
3) Chloromethane (Methyl Chlo	4.44	50	265550	0.94 ppb	99
4) Vinyl Chloride	4.65	62	204076	0.89 ppb	97
5) Bromomethane (Methyl Bromi	5.27	94	80685	0.81 ppb	97
6) Chloroethane	5.44	64	107756	0.91 ppb	95
7) Dichlorofluoromethane (CFC	5.73	67	259372	0.90 ppb	98
8) Trichlorofluoromethane (CF	5.89	101	151853	0.86 ppb	95
9) 1,1,2-Trichlorotrifluoroet	6.71	151	111044	0.91 ppb	98
10) 1,1-Dichloroethene (1,1-DC	6.73	96	145234	0.97 ppb	96
11) Acetone	6.74	43	123595	2.23 ppb	99
13) Carbon Disulfide	7.18	76	662126	0.95 ppb	98
15) Dichloromethane (Methylene	7.45	84	388280	1.74 ppb	98
16) 2-Methyl-2-propanol (tert-	7.50	59	102979	16.66 ppb	96
17) Methyl tert-Butyl Ether	7.87	73	781129	1.78 ppb	97
18) trans-1,2-Dichloroethene	7.91	96	167142	0.94 ppb	99
19) Diisopropyl Ether	8.59	45	742437	0.89 ppb	100
20) Vinyl Acetate	8.55	86	23895	0.80 ppb	97
21) 1,1-Dichloroethane (1,1-DC	8.56	63	329187	0.92 ppb	98
22) Ethyl tert-Butyl Ether	9.19	59	516262	0.87 ppb	99
23) 2,2-Dichloropropane	9.54	77	218570	0.89 ppb	99
24) 2-Butanone (MEK)	9.45	72	35736	1.82 ppb	92
25) cis-1,2-Dichloroethene	9.50	96	177534	0.93 ppb	97
26) Bromochloromethane	9.90	128	86792	0.96 ppb	98
27) Chloroform	9.98	83	281464	0.92 ppb	98
28) 1,1,1-Trichloroethane (TCA	10.37	97	196258	0.88 ppb	94
30) Cyclohexane	10.52	56	248473	0.23 ppb	100
31) Carbon Tetrachloride	10.66	117	163145	0.86 ppb	96

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : J: MS04 DATA\041105\0411F011.D
Acq On : 11 Apr 2005 2:45 pm
Sample : 8260/CLP ICAL 5PPB
Misc :
MS Integration Params: RTEINT.P
Quant Time: Apr 11 19:32:34 2005

Vial: 5
Operator: KR
Inst : MS04
Multiplr: 1.00

Quant Results File: 041105SOILCLP.R

Quant Method : J:\MS04\METHODS\041105SOILCLP.M (RTE Integrator)
Title : MS04 APPX SOIL CAL 3288
Last Update : Mon Apr 11 19:32:14 2005
Response via : Initial Calibration
DataAcq Meth : 524W2

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
32)	1,1-Dichloropropene	10.62	75	239419	0.89 ppb		100
33)	tert-Amyl Methyl Ether	11.03	87	85496	0.84 ppb		98
35)	Benzene	10.96	78	696833	0.93 ppb		99
36)	1,2-Dichloroethane (EDC)	10.92	62	188432	0.91 ppb		96
37)	Trichloroethene (TCE)	11.93	95	165911	0.93 ppb		96
38)	1,2-Dichloropropane	12.27	63	203825	0.93 ppb	#	81
39)	Methyl Cyclohexane	12.29	83	207496	0.23 ppb		97
40)	Dibromomethane	12.46	93	107571	0.94 ppb		99
41)	Bromodichloromethane	12.65	83	209274	0.89 ppb		96
42)	2-Chloroethyl Vinyl Ether	13.03	63	96100	0.95 ppb		96
43)	cis-1,3-Dichloropropene	13.33	75	284503	0.88 ppb		97
44)	4-Methyl-2-pentanone (MIBK	13.49	43	452149	1.87 ppb		99
46)	Toluene	13.90	92	396223	0.90 ppb		99
48)	trans-1,3-Dichloropropene	14.13	75	241370	0.85 ppb		98
49)	1,1,2-Trichloroethane	14.44	83	124963	0.91 ppb		96
50)	Tetrachloroethene (PCE)	14.76	164	121747	0.87 ppb		95
51)	2-Hexanone	14.73	43	348295	1.97 ppb		100
52)	1,3-Dichloropropane	14.71	76	271095	0.91 ppb		99
53)	Dibromochloromethane	15.07	129	149212	0.88 ppb		99
54)	1,2-Dibromoethane (EDB)	15.29	107	141843	0.89 ppb		99
55)	1-Chlorohexane	15.84	91	127337	0.77 ppb		97
56)	Chlorobenzene	15.98	112	398701	0.91 ppb		99
57)	Ethylbenzene	16.08	106	198909	0.88 ppb		97
58)	1,1,1,2-Tetrachloroethane	16.06	131	141476	0.91 ppb		100
59)	m,p-Xylenes	16.24	106	501596	1.75 ppb		98
60)	o-Xylene	16.81	106	239642	0.88 ppb		99
61)	Styrene	16.82	104	425252	0.88 ppb		99
62)	Bromoform	17.13	173	95428	0.92 ppb		98
63)	Isopropylbenzene (Cumene)	17.29	105	633331	0.85 ppb		99
66)	1,1,2,2-Tetrachloroethane	17.64	83	212101	1.04 ppb		99
67)	Bromobenzene	17.79	156	150198	0.91 ppb		98
68)	n-Propylbenzene	17.84	91	826516	0.87 ppb		99
69)	trans-1,4-Dichloro-2-buten	17.70	53	52380	0.92 ppb		92
70)	1,2,3-Trichloropropane	17.74	110	51327	0.98 ppb		98
71)	2-Chlorotoluene	18.03	91	528264	0.88 ppb		99
72)	1,3,5-Trimethylbenzene	18.04	105	504202	0.88 ppb		100
73)	4-Chlorotoluene	18.15	91	483195	0.86 ppb		98
74)	tert-Butylbenzene	18.52	119	483928	0.89 ppb		97
75)	1,2,4-Trimethylbenzene	18.58	105	509525	0.89 ppb		99
76)	sec-Butylbenzene	18.82	105	636583	0.86 ppb		99
77)	p-Isopropyltoluene	18.98	119	539262	0.87 ppb		99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : J:\MS04\DATA\041105\0411F011.D
Acq On : 11 Apr 2005 2:45 pm
Sample : 8260/CLP ICAL 5PPB
Misc :
MS Integration Params: RTEINT.P
Quant Time: Apr 11 19:32:34 2005

Vial: 5
Operator: KR
Inst : MS04
Multiplr: 1.00

Quant Results File: 041105SOILCLP.R

Quant Method : J:\MS04\METHODS\041105SOILCLP.M (RTE Integrator)
Title : MS04 APPX SOIL CAL 3288
Last Update : Mon Apr 11 19:32:14 2005
Response via : Initial Calibration
DataAcq Meth : 524W2

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
78)	1,3-Dichlorobenzene	19.05	146	263665	0.92 ppb	99
79)	1,4-Dichlorobenzene	19.16	146	261862	0.92 ppb	96
80)	n-Butylbenzene	19.53	91	547975	0.85 ppb	99
81)	1,2-Dichlorobenzene	19.69	146	246112	0.94 ppb	99
82)	1,2-Dibromo-3-chloropropan	20.74	157	31150	0.99 ppb	93
83)	1,2,4-Trichlorobenzene	22.00	180	164665	0.94 ppb	97
84)	Hexachlorobutadiene	22.20	225	80411	0.90 ppb	97
85)	Naphthalene	22.44	128	385234	0.98 ppb	97
86)	1,2,3-Trichlorobenzene	22.84	180	155241	0.98 ppb	99

(#) = qualifier out of range (m) = manual integration

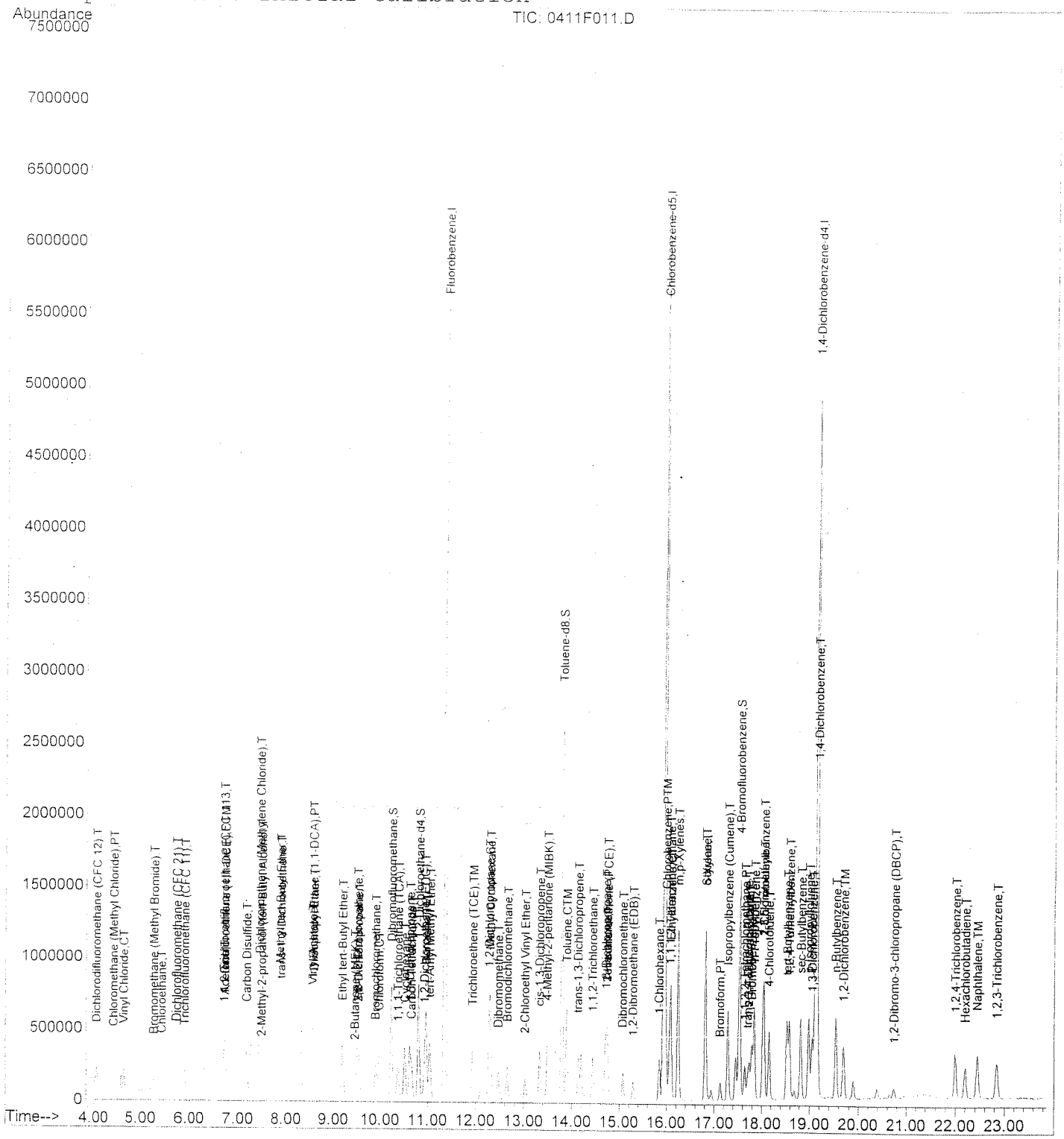
Quantitation Report (QT Reviewed)

Data File : J:\MS04\DATA\041105\0411F011.D
Acq On : 11 Apr 2005 2:45 pm
Sample : 8260/CLP ICAL 5PPB
Misc :
MS Integration Params: RTEINT.P
Quant Time: Apr 11 19:32 2005

Vial: 5
Operator: KR
Inst : MS04
Multiplr: 1.00

Quant Results File: 041105SOILCL

Method : J:\MS04\METHODS\041105SOILCLP.M (RTE Integrator)
Title : MS04 APPX SOIL CAL 3288
Last Update : Mon Apr 11 19:32:14 2005
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : J:\MS04\DATA\041105\0411F012.D
Acq On : 11 Apr 2005 3:15 pm
Sample : 8260/CLP ICAL 10PPB
Misc :
MS Integration Params: RTEINT.P
Quant Time: Apr 11 19:32:37 2005

Vial: 6
Operator: KR
Inst : MS04
Multiplr: 1.00

Quant Results File: 041105SOILCLP.R

Quant Method : J:\MS04\METHODS\041105SOILCLP.M (RTE Integrator)
Title : MS04 APPX SOIL CAL 3288
Last Update : Mon Apr 11 19:32:14 2005
Response via : Initial Calibration
DataAcq Meth : 524W2

a 4/14/05

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene	11.35	96	7392831	50.00 ppb	0.00
47) Chlorobenzene-d5	15.94	117	4931972	50.00 ppb	0.00
65) 1,4-Dichlorobenzene-d4	19.12	152	2094103	50.00 ppb	0.00
System Monitoring Compounds					
29) Dibromofluoromethane	10.23	113	1024852	15.17 ppb	0.00
Spiked Amount 50.000			Recovery =	30.34%	
34) 1,2-Dichloroethane-d4	10.80	65	1007615	14.07 ppb	0.00
Spiked Amount 50.000			Recovery =	28.14%	
45) Toluene-d8	13.79	98	3527395	14.48 ppb	0.00
Spiked Amount 50.000			Recovery =	28.96%	
64) 4-Bromofluorobenzene	17.53	95	1236810	13.79 ppb	0.00
Spiked Amount 50.000			Recovery =	27.58%	

Target Compounds					Qvalue
2) Dichlorodifluoromethane (C	4.06	85	307665	1.78 ppb	100
3) Chloromethane (Methyl Chlo	4.44	50	482772	1.72 ppb	97
4) Vinyl Chloride	4.64	62	406384	1.78 ppb	99
5) Bromomethane (Methyl Bromi	5.28	94	162254	1.63 ppb	99
6) Chloroethane	5.44	64	210138	1.78 ppb	97
7) Dichlorofluoromethane (CFC	5.73	67	513230	1.78 ppb	98
8) Trichlorofluoromethane (CF	5.88	101	312020	1.78 ppb	99
9) 1,1,2-Trichlorotrifluoroet	6.70	151	229956	1.90 ppb	100
10) 1,1-Dichloroethene (1,1-DC	6.74	96	291831	1.94 ppb	98
11) Acetone	6.74	43	219885	3.97 ppb	93
13) Carbon Disulfide	7.18	76	1305160	1.89 ppb	100
15) Dichloromethane (Methylene	7.46	84	586102	2.63 ppb	95
16) 2-Methyl-2-propanol (tert-	7.51	59	174001	28.20 ppb	98
17) Methyl tert-Butyl Ether	7.87	73	1634405	3.73 ppb	99
18) trans-1,2-Dichloroethene	7.90	96	342248	1.93 ppb	93
19) Diisopropyl Ether	8.59	45	1549507	1.86 ppb	100
20) Vinyl Acetate	8.54	86	51683	1.74 ppb #	88
21) 1,1-Dichloroethane (1,1-DC	8.55	63	686597	1.92 ppb	97
22) Ethyl tert-Butyl Ether	9.20	59	1078443	1.82 ppb	100
23) 2,2-Dichloropropane	9.54	77	438817	1.79 ppb	99
24) 2-Butanone (MEK)	9.46	72	70055	3.57 ppb	91
25) cis-1,2-Dichloroethene	9.51	96	364383	1.91 ppb	95
26) Bromochloromethane	9.91	128	174039	1.94 ppb	96
27) Chloroform	9.97	83	577835	1.90 ppb	99
28) 1,1,1-Trichloroethane (TCA	10.37	97	407106	1.83 ppb	99
30) Cyclohexane	10.51	56	741253	0.69 ppb	98
31) Carbon Tetrachloride	10.67	117	344328	1.81 ppb	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : J: MS04 DATA\041105 0411F012.D
Acq On : 11 Apr 2005 3:15 pm
Sample : 8260/CLP ICAL 10PPB
Misc :
MS Integration Params: RTEINT.P
Quant Time: Apr 11 19:32:37 2005

Vial: 6
Operator: KR
Inst : MS04
Multiplr: 1.00

Quant Results File: 041105SOILCLP.R

Quant Method : J:\MS04\METHODS\041105SOILCLP.M (RTE Integrator)
Title : MS04 APPX SOIL CAL 3288
Last Update : Mon Apr 11 19:32:14 2005
Response via : Initial Calibration
DataAcq Meth : 524W2

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
32)	1,1-Dichloropropene	10.61	75	495840	1.85 ppb	99
33)	tert-Amyl Methyl Ether	11.04	87	183439	1.81 ppb	96
35)	Benzene	10.96	78	1402296	1.88 ppb	99
36)	1,2-Dichloroethane (EDC)	10.92	62	381448	1.85 ppb	98
37)	Trichloroethene (TCE)	11.93	95	338407	1.89 ppb	98
38)	1,2-Dichloropropane	12.27	63	421945	1.93 ppb	92
39)	Methyl Cyclohexane	12.30	83	633405	0.71 ppb	100
40)	Dibromomethane	12.46	93	218453	1.91 ppb	96
41)	Bromodichloromethane	12.65	83	432675	1.85 ppb	100
42)	2-Chloroethyl Vinyl Ether	13.02	63	204025	2.01 ppb	99
43)	cis-1,3-Dichloropropene	13.33	75	594824	1.85 ppb	98
44)	4-Methyl-2-pentanone (MIBK	13.49	43	898950	3.72 ppb	99
46)	Toluene	13.90	92	824127	1.88 ppb	98
48)	trans-1,3-Dichloropropene	14.14	75	500458	1.83 ppb	98
49)	1,1,2-Trichloroethane	14.44	83	260456	1.96 ppb	99
50)	Tetrachloroethene (PCE)	14.76	164	250203	1.85 ppb	95
51)	2-Hexanone	14.73	43	647932	3.79 ppb	99
52)	1,3-Dichloropropane	14.70	76	561916	1.94 ppb	99
53)	Dibromochloromethane	15.07	129	311037	1.90 ppb	100
54)	1,2-Dibromoethane (EDB)	15.29	107	295687	1.91 ppb	97
55)	1-Chlorohexane	15.84	91	257461	1.61 ppb	98
56)	Chlorobenzene	15.98	112	810173	1.91 ppb	97
57)	Ethylbenzene	16.09	106	406218	1.85 ppb	99
58)	1,1,1,2-Tetrachloroethane	16.06	131	290099	1.92 ppb	99
59)	m,p-Xylenes	16.24	106	1017927	3.67 ppb	96
60)	o-Xylene	16.81	106	495616	1.88 ppb	99
61)	Styrene	16.81	104	860052	1.83 ppb	99
62)	Bromoform	17.13	173	187451	1.86 ppb	98
63)	Isopropylbenzene (Cumene)	17.29	105	1289308	1.79 ppb	100
66)	1,1,2,2-Tetrachloroethane	17.64	83	400187	1.99 ppb	97
67)	Bromobenzene	17.79	156	298395	1.83 ppb	98
68)	n-Propylbenzene	17.85	91	1703947	1.82 ppb	99
69)	trans-1,4-Dichloro-2-buten	17.70	53	100311	1.78 ppb	95
70)	1,2,3-Trichloropropane	17.74	110	100196	1.93 ppb	92
71)	2-Chlorotoluene	18.02	91	1084496	1.84 ppb	100
72)	1,3,5-Trimethylbenzene	18.05	105	1042092	1.85 ppb	100
73)	4-Chlorotoluene	18.16	91	1011728	1.84 ppb	100
74)	tert-Butylbenzene	18.53	119	993783	1.85 ppb	99
75)	1,2,4-Trimethylbenzene	18.58	105	1051934	1.87 ppb	98
76)	sec-Butylbenzene	18.82	105	1322975	1.82 ppb	99
77)	p-Isopropyltoluene	18.98	119	1118435	1.84 ppb	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : J: MS04 DATA\041105\0411F012.D
Acq On : 11 Apr 2005 3:15 pm
Sample : 8260/CLP ICAL 10PPB
Misc :
MS Integration Params: RTEINT.P
Quant Time: Apr 11 19:32:37 2005

Vial: 6
Operator: KR
Inst : MS04
Multiplr: 1.00

Quant Results File: 041105SOILCLP.R

Quant Method : J:\MS04\METHODS\041105SOILCLP.M (RTE Integrator)
Title : MS04 APPX SOIL CAL 3288
Last Update : Mon Apr 11 19:32:14 2005
Response via : Initial Calibration
DataAcq Meth : 524W2

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
78) 1,3-Dichlorobenzene	19.05	146	537698	1.89 ppb	99
79) 1,4-Dichlorobenzene	19.16	146	552080	1.96 ppb	99
80) n-Butylbenzene	19.53	91	1171581	1.84 ppb	99
81) 1,2-Dichlorobenzene	19.70	146	504408	1.96 ppb	99
82) 1,2-Dibromo-3-chloropropan	20.73	157	63697	2.05 ppb	94
83) 1,2,4-Trichlorobenzene	22.00	180	348973	2.01 ppb	98
84) Hexachlorobutadiene	22.20	225	171638	1.95 ppb	98
85) Naphthalene	22.44	128	790441	2.05 ppb	98
86) 1,2,3-Trichlorobenzene	22.84	180	318601	2.04 ppb	97

(#) = qualifier out of range (m) = manual integration

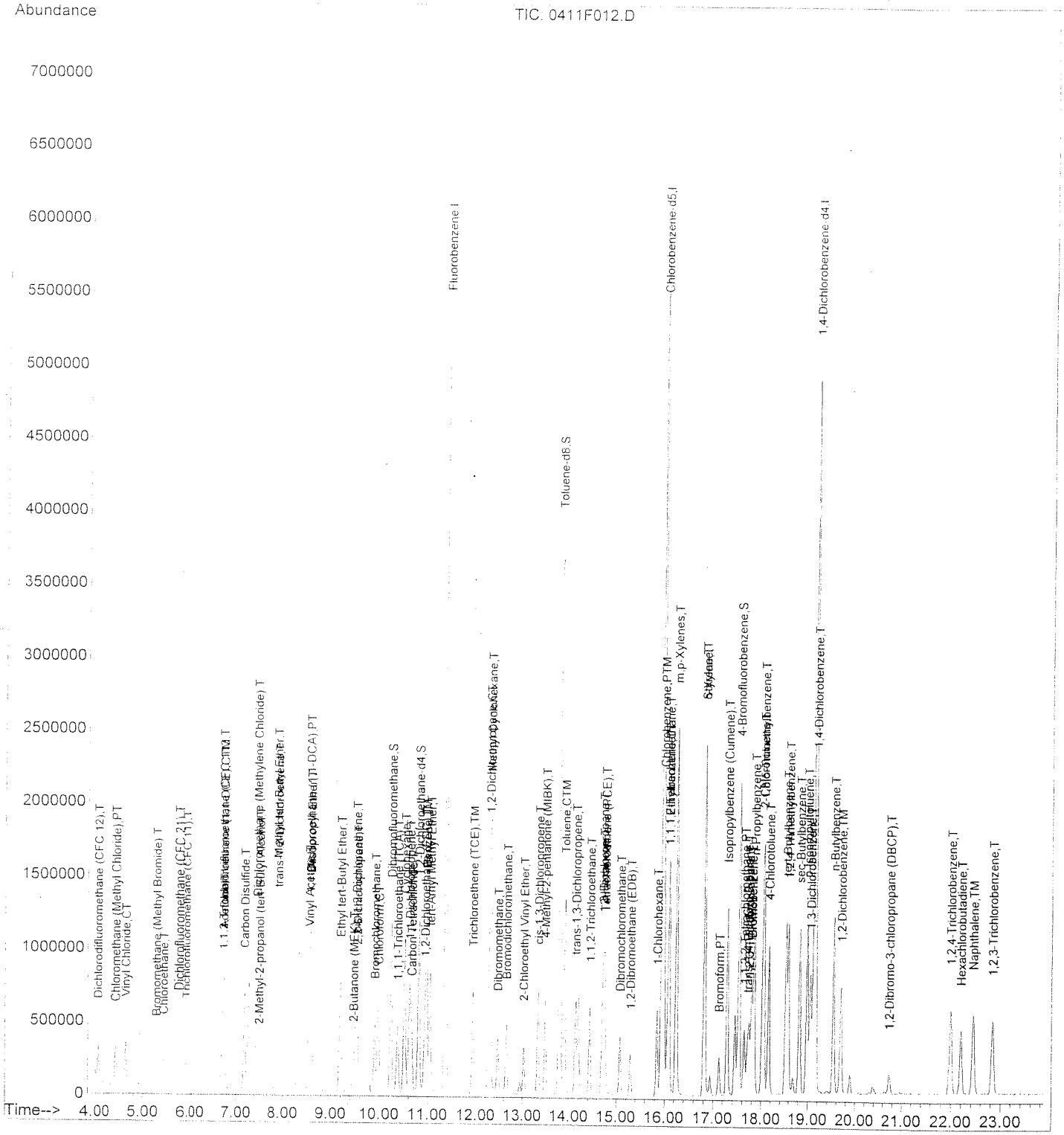
Quantitation Report (QT Reviewed)

Data File : J:\MS04\DATA\041105\0411F012.D
Acq On : 11 Apr 2005 3:15 pm
Sample : 8260/CLP ICAL 10PPB
Misc :
MS Integration Params: RTEINT.P
Quant Time: Apr 11 19:34 2005

Vial: 6
Operator: KR
Inst : MS04
Multiplr: 1.00

Quant Results File: 041105SOILCL

Method : J:\MS04\METHODS\041105SOILCLP.M (RTE Integrator)
Title : MS04 APPX SOIL CAL 3288
Last Update : Mon Apr 11 19:32:14 2005
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : J:\MS04\DATA\041105\0411F013.D
Acq On : 11 Apr 2005 3:45 pm
Sample : 8260/CLP ICAL 20PPB
Misc :
MS Integration Params: RTEINT.P
Quant Time: Apr 11 19:32:40 2005

Vial: 7
Operator: KR
Inst : MS04
Multiplr: 1.00

Quant Results File: 041105SOILCLP.R

Quant Method : J:\MS04\METHODS\041105SOILCLP.M (RTE Integrator)
Title : MS04 APPX SOIL CAL 3288
Last Update : Mon Apr 11 19:32:14 2005
Response via : Initial Calibration
DataAcq Meth : 524W2

04/14/05

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	11.34	96	7173223	50.00	ppb	0.00
47) Chlorobenzene-d5	15.94	117	4977024	50.00	ppb	0.00
65) 1,4-Dichlorobenzene-d4	19.13	152	2239767	50.00	ppb	0.00
System Monitoring Compounds						
29) Dibromofluoromethane	10.23	113	1352684	20.63	ppb	0.00
Spiked Amount 50.000			Recovery =	41.26%		
34) 1,2-Dichloroethane-d4	10.80	65	1315421	18.93	ppb	0.00
Spiked Amount 50.000			Recovery =	37.86%		
45) Toluene-d8	13.79	98	4866538	20.59	ppb	0.00
Spiked Amount 50.000			Recovery =	41.18%		
64) 4-Bromofluorobenzene	17.53	95	1802735	19.92	ppb	0.00
Spiked Amount 50.000			Recovery =	39.84%		
Target Compounds						Qvalue
2) Dichlorodifluoromethane (C	4.03	85	671823	4.00	ppb	99
3) Chloromethane (Methyl Chlo	4.41	50	1085942	3.99	ppb	98
4) Vinyl Chloride	4.63	62	865506	3.90	ppb	100
5) Bromomethane (Methyl Bromi	5.26	94	348729	3.61	ppb	99
6) Chloroethane	5.42	64	449208	3.92	ppb	100
7) Dichlorofluoromethane (CFC	5.72	67	1104724	3.96	ppb	99
8) Trichlorofluoromethane (CF	5.87	101	677857	3.98	ppb	99
9) 1,1,2-Trichlorotrifluoroet	6.69	151	505400	4.29	ppb	99
10) 1,1-Dichloroethene (1,1-DC	6.72	96	616646	4.23	ppb	99
11) Acetone	6.72	43	439023	8.18	ppb	98
12) Bromoethane	7.03	108	2641	0.77	ppb	100
13) Carbon Disulfide	7.17	76	2747203	4.09	ppb	100
15) Dichloromethane (Methylene	7.44	84	978498	4.53	ppb	98
16) 2-Methyl-2-propanol (tert-	7.49	59	338422	56.54	ppb	98
17) Methyl tert-Butyl Ether	7.86	73	3333320	7.85	ppb	100
18) trans-1,2-Dichloroethene	7.89	96	716615	4.16	ppb	99
19) Diisopropyl Ether	8.58	45	3248498	4.01	ppb	99
20) Vinyl Acetate	8.53	86	109836	3.81	ppb #	79
21) 1,1-Dichloroethane (1,1-DC	8.54	63	1440548	4.14	ppb	100
22) Ethyl tert-Butyl Ether	9.18	59	2230900	3.88	ppb	100
23) 2,2-Dichloropropane	9.53	77	937584	3.95	ppb	99
24) 2-Butanone (MEK)	9.44	72	147013	7.73	ppb	99
25) cis-1,2-Dichloroethene	9.50	96	771946	4.16	ppb	98
26) Bromochloromethane	9.90	128	363701	4.17	ppb	99
27) Chloroform	9.96	83	1219360	4.12	ppb	99
28) 1,1,1-Trichloroethane (TCA	10.36	97	880214	4.07	ppb	99
30) Cyclohexane	10.50	56	1422818	1.37	ppb	100

(#) = qualifier out of range (m) = manual integration

Quantification Report (QT Reviewed)

Data File : J:\MS04\DATA\041105\0411F013.D
Acq On : 11 Apr 2005 3:45 pm
Sample : 8260/CLP ICAL 20PPB
Misc :
MS Integration Params: RTEINT.P
Quant Time: Apr 11 19:32:40 2005

Vial: 7
Operator: KR
Inst : MS04
Multiplr: 1.00

Quant Results File: 041105SOILCLP.R

Quant Method : J:\MS04\METHODS\041105SOILCLP.M (RTE Integrator)
Title : MS04 APPX SOIL CAL 3288
Last Update : Mon Apr 11 19:32:14 2005
Response via : Initial Calibration
DataAcq Meth : 524W2

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
31) Carbon Tetrachloride	10.66	117	742436	4.02 ppb	98
32) 1,1-Dichloropropene	10.61	75	1076087	4.13 ppb	100
33) tert-Amyl Methyl Ether	11.03	87	379479	3.86 ppb	98
35) Benzene	10.95	78	2997196	4.13 ppb	99
36) 1,2-Dichloroethane (EDC)	10.92	62	792504	3.96 ppb	99
37) Trichloroethene (TCE)	11.93	95	721936	4.16 ppb	98
38) 1,2-Dichloropropane	12.27	63	878404	4.14 ppb	99
39) Methyl Cyclohexane	12.29	83	1208871	1.40 ppb	100
40) Dibromomethane	12.46	93	459087	4.14 ppb	99
41) Bromodichloromethane	12.65	83	917816	4.04 ppb	100
42) 2-Chloroethyl Vinyl Ether	13.02	63	411051	4.18 ppb	99
43) cis-1,3-Dichloropropene	13.33	75	1271431	4.08 ppb	98
44) 4-Methyl-2-pentanone (MIBK	13.49	43	1823705	7.78 ppb	100
46) Toluene	13.90	92	1770567	4.15 ppb	100
48) trans-1,3-Dichloropropene	14.14	75	1058149	3.83 ppb	99
49) 1,1,2-Trichloroethane	14.43	83	547056	4.09 ppb	99
50) Tetrachloroethene (PCE)	14.76	164	559691	4.11 ppb	98
51) 2-Hexanone	14.73	43	1324331	7.68 ppb	100
52) 1,3-Dichloropropane	14.70	76	1163353	3.99 ppb	99
53) Dibromochloromethane	15.07	129	654933	3.96 ppb	99
54) 1,2-Dibromoethane (EDB)	15.29	107	627030	4.01 ppb	99
55) 1-Chlorohexane	15.84	91	587043	3.63 ppb	99
56) Chlorobenzene	15.98	112	1777581	4.15 ppb	98
57) Ethylbenzene	16.09	106	927462	4.18 ppb	99
58) 1,1,1,2-Tetrachloroethane	16.06	131	625443	4.10 ppb	98
59) m,p-Xylenes	16.24	106	2340788	8.36 ppb	98
60) o-Xylene	16.81	106	1133692	4.26 ppb	99
61) Styrene	16.81	104	1987913	4.19 ppb	99
62) Bromoform	17.13	173	402627	3.97 ppb	97
63) Isopropylbenzene (Cumene)	17.29	105	3033544	4.18 ppb	99
66) 1,1,2,2-Tetrachloroethane	17.64	83	835945	3.88 ppb	99
67) Bromobenzene	17.79	156	691274	3.96 ppb	98
68) n-Propylbenzene	17.84	91	4012142	4.01 ppb	99
69) trans-1,4-Dichloro-2-buten	17.70	53	217994	3.62 ppb	99
70) 1,2,3-Trichloropropane	17.73	110	211837	3.82 ppb	96
71) 2-Chlorotoluene	18.02	91	2527401	4.00 ppb	100
72) 1,3,5-Trimethylbenzene	18.05	105	2447026	4.07 ppb	100
73) 4-Chlorotoluene	18.16	91	2339390	3.97 ppb	100
74) tert-Butylbenzene	18.53	119	2356506	4.11 ppb	100
75) 1,2,4-Trimethylbenzene	18.58	105	2442257	4.07 ppb	100
76) sec-Butylbenzene	18.82	105	3139888	4.04 ppb	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : J:\MS04\DATA\041105\0411F013.D
Acq On : 11 Apr 2005 3:45 pm
Sample : 8260/CLP ICAL 20PPB
Misc :
MS Integration Params: RTEINT.P
Quant Time: Apr 11 19:32:40 2005

Vial: 7
Operator: KR
Inst : MS04
Multiplr: 1.00

Quant Results File: 041105SOILCLP.R

Quant Method : J:\MS04\METHODS\041105SOILCLP.M (RTE Integrator)
Title : MS04 APPX SOIL CAL 3288
Last Update : Mon Apr 11 19:32:14 2005
Response via : Initial Calibration
DataAcq Meth : 524W2

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
77)	p-Isopropyltoluene	18.98	119	2607442	4.01 ppb	99
78)	1,3-Dichlorobenzene	19.05	146	1231007	4.05 ppb	99
79)	1,4-Dichlorobenzene	19.16	146	1231562	4.09 ppb	99
80)	n-Butylbenzene	19.53	91	2728239	4.01 ppb	100
81)	1,2-Dichlorobenzene	19.69	146	1139267	4.14 ppb	99
82)	1,2-Dibromo-3-chloropropan	20.74	157	131446	3.95 ppb	97
83)	1,2,4-Trichlorobenzene	22.00	180	722235	3.89 ppb	99
84)	Hexachlorobutadiene	22.20	225	377371	4.00 ppb	99
85)	Naphthalene	22.45	128	1611310	3.90 ppb	99
86)	1,2,3-Trichlorobenzene	22.84	180	654090	3.91 ppb	99

(#) = qualifier out of range (m) = manual integration

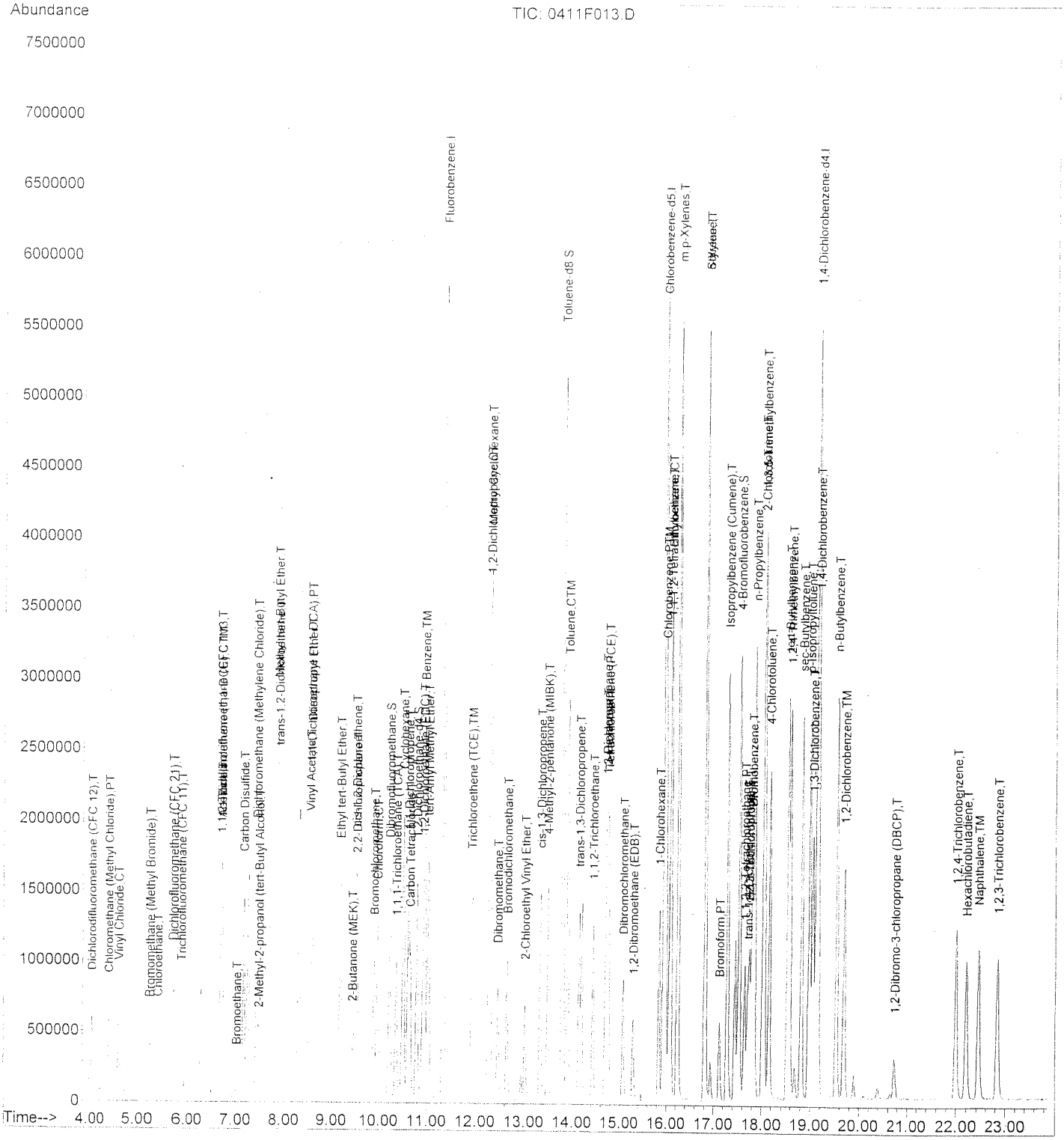
Quantitation Report (QT Reviewed)

Data File : J: MS04\DATA\041105\0411F013.D
Acq On : 11 Apr 2005 3:45 pm
Sample : 8260/CLP ICAL 20PPB
Misc :
MS Integration Params: RTEINT.P
Quant Time: Apr 11 19:32 2005

Vial: 7
Operator: KR
Inst : MS04
Multiplr: 1.00

Quant Results File: 041105SOILCL

Method : J:\MS04\METHODS\041105SOILCLP.M (RTE Integrator)
Title : MS04 APPX SOIL CAL 3288
Last Update : Mon Apr 11 19:32:14 2005
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : J:\MS04\DATA\041105\0411F014.D
Acq On : 11 Apr 2005 4:15 pm
Sample : 8260/CLP ICAL 50PPB
Misc :
MS Integration Params: RTEINT.P
Quant Time: Apr 11 19:30:41 2005

Vial: 8
Operator: KR
Inst : MS04
Multiplr: 1.00

Quant Results File: 041105SOILCLP.R

Quant Method : J:\MS04\METHODS\041105SOILCLP.M (RTE Integrator)
Title : MS04 APPX SOIL CAL 3288
Last Update : Mon Apr 11 14:40:53 2005
Response via : Initial Calibration
DataAcq Meth : 524W2

04/11/05

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	11.34	96	7111290	50.00	ppb	0.03
47) Chlorobenzene-d5	15.94	117	4963437	50.00	ppb	0.03
65) 1,4-Dichlorobenzene-d4	19.13	152	2221163	50.00	ppb	0.04
System Monitoring Compounds						
29) Dibromofluoromethane	10.23	113	1726529	26.56	ppb	0.03
Spiked Amount 50.000			Recovery =	53.12%		
34) 1,2-Dichloroethane-d4	10.79	65	1676724	24.34	ppb	0.03
Spiked Amount 50.000			Recovery =	48.68%		
45) Toluene-d8	13.79	98	6236412	26.61	ppb	0.03
Spiked Amount 50.000			Recovery =	53.22%		
64) 4-Bromofluorobenzene	17.53	95	2310833	25.61	ppb	0.04
Spiked Amount 50.000			Recovery =	51.22%		

Target Compounds							Qvalue
2) Dichlorodifluoromethane (C	4.04	85	1739311	10.44	ppb		98
3) Chloromethane (Methyl Chlo	4.42	50	2802278	10.38	ppb		99
4) Vinyl Chloride	4.63	62	2285719	10.39	ppb		99
5) Bromomethane (Methyl Bromi	5.25	94	965165	10.07	ppb		97
6) Chloroethane	5.42	64	1160226	10.22	ppb		98
7) Dichlorofluoromethane (CFC	5.72	67	2857489	10.33	ppb		98
8) Trichlorofluoromethane (CF	5.87	101	1763478	10.44	ppb		100
9) 1,1,2-Trichlorotrifluoroet	6.69	151	1331405	11.41	ppb		96
10) 1,1-Dichloroethene (1,1-DC	6.72	96	1605200	11.11	ppb		91
11) Acetone	6.72	43	1105958	20.78	ppb		86
13) Carbon Disulfide	7.17	76	7182054	10.79	ppb		99
15) Dichloromethane (Methylene	7.44	84	2218825	10.36	ppb		87
16) 2-Methyl-2-propanol (tert-	7.49	59	885532	149.22	ppb		98
17) Methyl tert-Butyl Ether	7.86	73	8803552	20.91	ppb		94
18) trans-1,2-Dichloroethene	7.90	96	1895381	11.10	ppb		97
19) Diisopropyl Ether	8.58	45	8580583	10.68	ppb		98
20) Vinyl Acetate	8.53	86	287975	10.07	ppb	#	47
21) 1,1-Dichloroethane (1,1-DC	8.55	63	3728338	10.82	ppb		98
22) Ethyl tert-Butyl Ether	9.19	59	5916843	10.38	ppb		96
23) 2,2-Dichloropropane	9.53	77	2476960	10.51	ppb		97
24) 2-Butanone (MEK)	9.44	72	391322	20.75	ppb	#	88
25) cis-1,2-Dichloroethene	9.50	96	2021778	10.99	ppb		88
26) Bromochloromethane	9.90	128	947799	10.96	ppb	#	81
27) Chloroform	9.97	83	3194486	10.90	ppb		97
28) 1,1,1-Trichloroethane (TCA	10.37	97	2317470	10.82	ppb		98
30) Cyclohexane	10.51	56	3813247	3.70	ppb		99
31) Carbon Tetrachloride	10.66	117	1969099	10.76	ppb		98

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : J: MS04 DATA\041105\0411F014.D
Acq On : 11 Apr 2005 4:15 pm
Sample : 8260/CLP ICAL 50PPB
Misc :
MS Integration Params: RTEINT.P
Quant Time: Apr 11 19:30:41 2005

Vial: 3
Operator: KR
Inst : MS04
Multiplr: 1.00

Quant Results File: 041105SOILCLP.R

Quant Method : J:\MS04\METHODS\041105SOILCLP.M (RTE Integrator)
Title : MS04 APPX SOIL CAL 3288
Last Update : Mon Apr 11 14:40:53 2005
Response via : Initial Calibration
DataAcq Meth : 524W2

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
32)	1,1-Dichloropropene	10.61	75	2791215	10.81	ppb		100
33)	tert-Amyl Methyl Ether	11.03	87	1010328	10.38	ppb	#	84
35)	Benzene	10.95	78	7783060	10.83	ppb		97
36)	1,2-Dichloroethane (EDC)	10.92	62	2061166	10.40	ppb		84
37)	Trichloroethene (TCE)	11.92	95	1890106	10.98	ppb		99
38)	1,2-Dichloropropane	12.27	63	2303798	10.96	ppb		90
39)	Methyl Cyclohexane	12.30	83	3218803	3.77	ppb		98
40)	Dibromomethane	12.46	93	1194716	10.88	ppb		97
41)	Bromodichloromethane	12.65	83	2400864	10.65	ppb		100
42)	2-Chloroethyl Vinyl Ether	13.02	63	1064729	10.92	ppb		94
43)	cis-1,3-Dichloropropene	13.33	75	3324438	10.76	ppb		89
44)	4-Methyl-2-pentanone (MIBK	13.49	43	4873645	20.96	ppb		94
46)	Toluene	13.90	92	4665076	11.04	ppb		100
48)	trans-1,3-Dichloropropene	14.14	75	2837873	10.30	ppb		95
49)	1,1,2-Trichloroethane	14.43	83	1416818	10.61	ppb		95
50)	Tetrachloroethene (PCE)	14.76	164	1474484	10.85	ppb		96
51)	2-Hexanone	14.73	43	3521528	20.47	ppb		97
52)	1,3-Dichloropropane	14.70	76	3059500	10.51	ppb		99
53)	Dibromochloromethane	15.08	129	1750741	10.61	ppb		99
54)	1,2-Dibromoethane (EDB)	15.29	107	1661313	10.65	ppb		99
55)	1-Chlorohexane	15.84	91	1541797	9.56	ppb		97
56)	Chlorobenzene	15.98	112	4685739	10.98	ppb		98
57)	Ethylbenzene	16.09	106	2429115	10.99	ppb		98
58)	1,1,1,2-Tetrachloroethane	16.06	131	1646443	10.82	ppb		97
59)	m,p-Xylenes	16.24	106	6117676	21.90	ppb		99
60)	o-Xylene	16.82	106	2951500	11.11	ppb		100
61)	Styrene	16.82	104	5192159	10.99	ppb		98
62)	Bromoform	17.13	173	1080904	10.68	ppb		100
63)	Isopropylbenzene (Cumene)	17.29	105	8039466	11.11	ppb		100
66)	1,1,2,2-Tetrachloroethane	17.64	83	2200043	10.31	ppb		99
67)	Bromobenzene	17.80	156	1815655	10.48	ppb		86
68)	n-Propylbenzene	17.85	91	10572957	10.65	ppb		97
69)	trans-1,4-Dichloro-2-buten	17.70	53	574777	9.62	ppb		91
70)	1,2,3-Trichloropropane	17.74	110	553469	10.06	ppb		97
71)	2-Chlorotoluene	18.02	91	6620733	10.56	ppb		97
72)	1,3,5-Trimethylbenzene	18.05	105	6434795	10.78	ppb		99
73)	4-Chlorotoluene	18.16	91	6097872	10.44	ppb		97
74)	tert-Butylbenzene	18.53	119	6191880	10.89	ppb		97
75)	1,2,4-Trimethylbenzene	18.58	105	6373951	10.70	ppb		99
76)	sec-Butylbenzene	18.83	105	8362354	10.86	ppb		98
77)	p-Isopropyltoluene	18.98	119	6921326	10.74	ppb		100

(#) = qualifier out of range (m) = manual integration

Data File : J: MS04 DATA 041105 0411F014.D
Acq On : 11 Apr 2005 4:15 pm
Sample : 8260/CLP ICAL 50PPB
Misc :
MS Integration Params: RTEINT.P
Quant Time: Apr 11 19:30:41 2005

Vial: 8
Operator: KR
Inst : MS04
Multiplr: 1.00

Quant Results File: 041105SOILCLP.R

Quant Method : J:\MS04\METHODS\041105SOILCLP.M (RTE Integrator)
Title : MS04 APPX SOIL CAL 3288
Last Update : Mon Apr 11 14:40:53 2005
Response via : Initial Calibration
DataAcq Meth : 524W2

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
78)	1,3-Dichlorobenzene	19.05	146	3215238	10.68 ppb	99
79)	1,4-Dichlorobenzene	19.16	146	3201447	10.73 ppb	98
80)	n-Butylbenzene	19.54	91	7192824	10.65 ppb	98
81)	1,2-Dichlorobenzene	19.70	146	2973479	10.89 ppb	99
82)	1,2-Dibromo-3-chloropropan	20.74	157	357814	10.83 ppb	92
83)	1,2,4-Trichlorobenzene	22.00	180	1908895	10.38 ppb	99
84)	Hexachlorobutadiene	22.20	225	1021319	10.92 ppb	99
85)	Naphthalene	22.45	128	4456831	10.88 ppb	98
86)	1,2,3-Trichlorobenzene	22.85	180	1737399	10.47 ppb	99

(#) = qualifier out of range (m) = manual integration

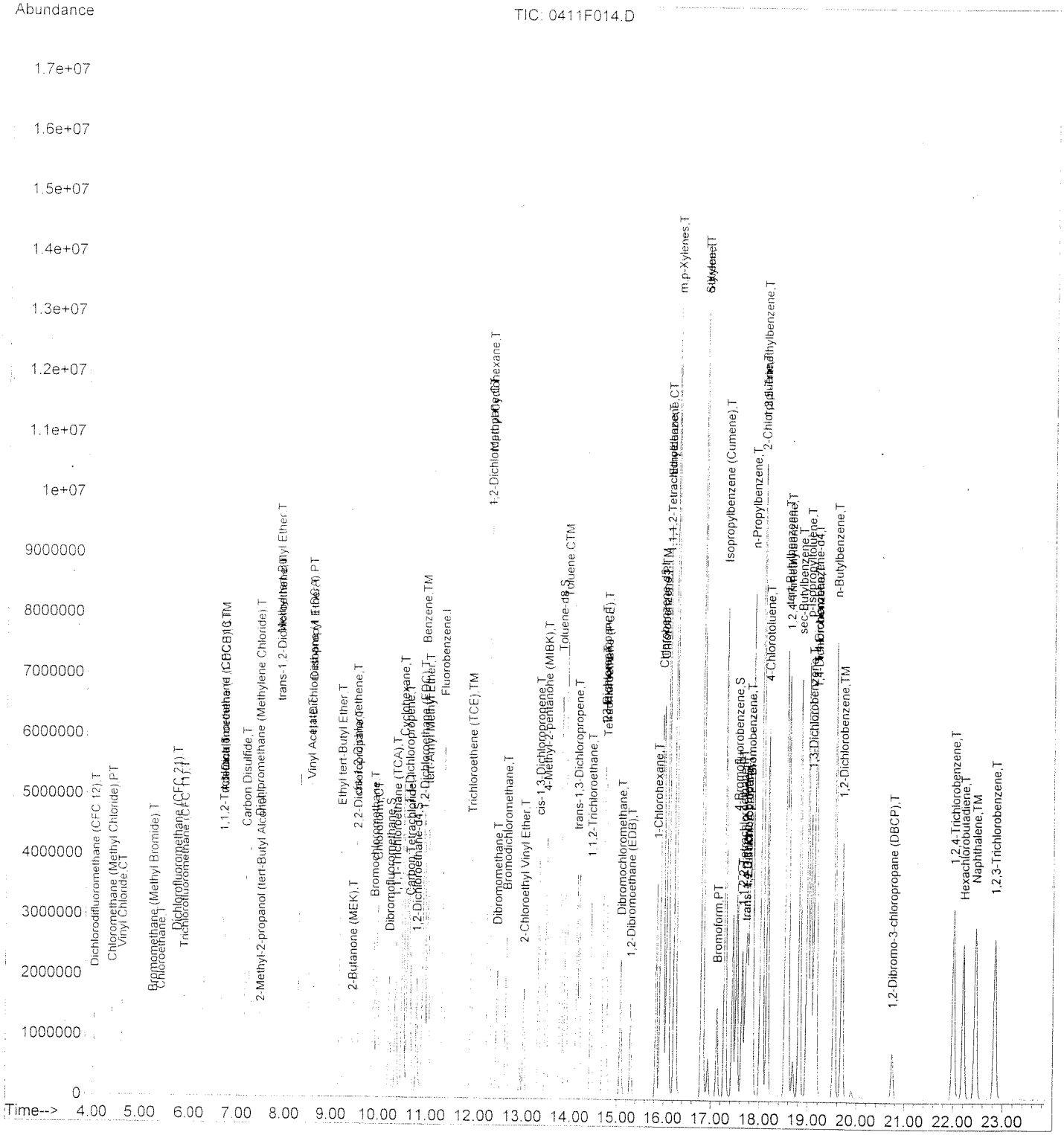
Quantitation Report (QT Reviewed)

Data File : J:\MS04\DATA\041105\0411F014.D
Acq On : 11 Apr 2005 4:15 pm
Sample : 8260/CLP ICAL 50PPB
Misc :
MS Integration Params: RTEINT.P
Quant Time: Apr 11 19:36 2005

Vial: 3
Operator: KR
Inst : MS04
Multiplr: 1.00

Quant Results File: 041105SOILCL

Method : J:\MS04\METHODS\041105SOILCLP.M (RTE Integrator)
Title : MS04 APPX SOIL CAL 3288
Last Update : Mon Apr 11 19:32:14 2005
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : J:\MS04\DATA\041105\0411F015.D
Acq On : 11 Apr 2005 4:44 pm
Sample : 8260/CLP ICAL 100PPB
Misc :
MS Integration Params: RTEINT.P
Quant Time: Apr 11 19:32:43 2005

Vial: 9
Operator: KR
Inst : MS04
Multiplr: 1.00

Quant Results File: 041105SOILCLP.R

Quant Method : J:\MS04\METHODS\041105SOILCLP.M (RTE Integrator)
Title : MS04 APPX SOIL CAL 3288
Last Update : Mon Apr 11 19:32:14 2005
Response via : Initial Calibration
DataAcq Meth : 524W2

04/14/05

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	11.35	96	6158103	50.00	ppb	0.00
47) Chlorobenzene-d5	15.94	117	4412083	50.00	ppb	0.00
65) 1,4-Dichlorobenzene-d4	19.13	152	2133980	50.00	ppb	0.00
System Monitoring Compounds						
29) Dibromofluoromethane	10.23	113	2180020	38.73	ppb	0.00
Spiked Amount 50.000			Recovery =	77.46%		
34) 1,2-Dichloroethane-d4	10.80	65	2101789	35.24	ppb	0.00
Spiked Amount 50.000			Recovery =	70.48%		
45) Toluene-d8	13.80	98	7908995	38.98	ppb	0.00
Spiked Amount 50.000			Recovery =	77.96%		
64) 4-Bromofluorobenzene	17.53	95	3036405	37.85	ppb	0.00
Spiked Amount 50.000			Recovery =	75.70%		

Target Compounds							Qvalue
2) Dichlorodifluoromethane (C	4.05	85	3028356	20.99	ppb		100
3) Chloromethane (Methyl Chlo	4.43	50	4890194	20.92	ppb		100
4) Vinyl Chloride	4.64	62	3921801	20.58	ppb		99
5) Bromomethane (Methyl Bromi	5.27	94	1850718	22.30	ppb		100
6) Chloroethane	5.44	64	2001955	20.37	ppb		99
7) Dichlorofluoromethane (CFC	5.73	67	4952571	20.68	ppb		99
8) Trichlorofluoromethane (CF	5.88	101	3005060	20.53	ppb		99
9) 1,1,2-Trichlorotrifluoroet	6.70	151	2253069	22.30	ppb		99
10) 1,1-Dichloroethene (1,1-DC	6.74	96	2749981	21.98	ppb		98
11) Acetone	6.74	43	1949681	42.30	ppb		100
13) Carbon Disulfide	7.18	76	12341239	21.40	ppb		100
15) Dichloromethane (Methylene	7.45	84	3670388	19.79	ppb		100
16) 2-Methyl-2-propanol (tert-	7.50	59	1652310	321.53	ppb		99
17) Methyl tert-Butyl Ether	7.87	73	15697179	43.05	ppb		100
18) trans-1,2-Dichloroethene	7.90	96	3239151	21.91	ppb		98
19) Diisopropyl Ether	8.59	45	15163891	21.81	ppb		100
20) Vinyl Acetate	8.54	86	523616	21.14	ppb	#	87
21) 1,1-Dichloroethane (1,1-DC	8.55	63	6419973	21.51	ppb		99
22) Ethyl tert-Butyl Ether	9.19	59	10530703	21.34	ppb		100
23) 2,2-Dichloropropane	9.54	77	4278047	20.97	ppb		100
24) 2-Butanone (MEK)	9.45	72	717119	43.92	ppb		100
25) cis-1,2-Dichloroethene	9.51	96	3514944	22.07	ppb		99
26) Bromochloromethane	9.90	128	1683504	22.47	ppb		99
27) Chloroform	9.97	83	5571795	21.96	ppb		100
28) 1,1,1-Trichloroethane (TCA	10.37	97	4012424	21.63	ppb		99
30) Cyclohexane	10.51	56	5748321	6.44	ppb		100
31) Carbon Tetrachloride	10.66	117	3381339	21.35	ppb		99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : J:\MS04\DATA\041105\0411F015.D
Acq On : 11 Apr 2005 4:44 pm
Sample : 8260/CLP ICAL 100PPB
Misc :
MS Integration Params: RTEINT.P
Quant Time: Apr 11 19:32:43 2005

Vial: 9
Operator: KR
Inst : MS04
Multiplr: 1.00

Quant Results File: 041105SOILCLP.R

Quant Method : J:\MS04\METHODS\041105SOILCLP.M (RTE Integrator)
Title : MS04 APPX SOIL CAL 3288
Last Update : Mon Apr 11 19:32:14 2005
Response via : Initial Calibration
DataAcq Meth : 524W2

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
32)	1,1-Dichloropropene	10.62	75	4808703	21.51 ppb		99
33)	tert-Amyl Methyl Ether	11.04	87	1815860	21.54 ppb		97
35)	Benzene	10.96	78	13454353	21.62 ppb		100
36)	1,2-Dichloroethane (EDC)	10.93	62	3655373	21.29 ppb		99
37)	Trichloroethene (TCE)	11.93	95	3295199	22.10 ppb		100
38)	1,2-Dichloropropane	12.27	63	3998893	21.98 ppb		85
39)	Methyl Cyclohexane	12.29	83	4869450	6.59 ppb		99
40)	Dibromomethane	12.46	93	2132449	22.43 ppb		99
41)	Bromodichloromethane	12.65	83	4276609	21.91 ppb		99
42)	2-Chloroethyl Vinyl Ether	13.02	63	1852541	21.94 ppb		100
43)	cis-1,3-Dichloropropene	13.33	75	5960724	22.29 ppb		98
44)	4-Methyl-2-pentanone (MIBK	13.49	43	9145245	45.42 ppb		100
46)	Toluene	13.90	92	8194325	22.39 ppb		99
48)	trans-1,3-Dichloropropene	14.14	75	5102001	20.82 ppb		99
49)	1,1,2-Trichloroethane	14.44	83	2543364	21.42 ppb		100
50)	Tetrachloroethene (PCE)	14.76	164	2574909	21.32 ppb		99
51)	2-Hexanone	14.73	43	6561261	42.91 ppb		99
52)	1,3-Dichloropropane	14.70	76	5478936	21.18 ppb		100
53)	Dibromochloromethane	15.07	129	3168299	21.60 ppb		100
54)	1,2-Dibromoethane (EDB)	15.29	107	3007399	21.70 ppb		98
55)	1-Chlorohexane	15.84	91	2773215	19.35 ppb		99
56)	Chlorobenzene	15.99	112	8347951	22.01 ppb		99
57)	Ethylbenzene	16.09	106	4312977	21.95 ppb		97
58)	1,1,1,2-Tetrachloroethane	16.06	131	2917662	21.57 ppb		99
59)	m,p-Xylenes	16.25	106	11018017	44.38 ppb	#	66
60)	o-Xylene	16.81	106	5350001	22.66 ppb		100
61)	Styrene	16.81	104	9519906	22.66 ppb		99
62)	Bromoform	17.13	173	2012234	22.37 ppb		98
63)	Isopropylbenzene (Cumene)	17.29	105	14612573	22.72 ppb		100
66)	1,1,2,2-Tetrachloroethane	17.64	83	4147554	20.23 ppb		99
67)	Bromobenzene	17.79	156	3379323	20.29 ppb		99
68)	n-Propylbenzene	17.84	91	18344587	19.23 ppb		93
69)	trans-1,4-Dichloro-2-buten	17.70	53	1080018	18.82 ppb		99
70)	1,2,3-Trichloropropane	17.74	110	1036676	19.61 ppb		99
71)	2-Chlorotoluene	18.03	91	12178763	20.23 ppb		100
72)	1,3,5-Trimethylbenzene	18.06	105	12052218	21.01 ppb		98
73)	4-Chlorotoluene	18.16	91	11363296	20.25 ppb		99
74)	tert-Butylbenzene	18.53	119	11662937	21.35 ppb		100
75)	1,2,4-Trimethylbenzene	18.59	105	12165369	21.26 ppb		99
76)	sec-Butylbenzene	18.82	105	15788636	21.33 ppb		99
77)	p-Isopropyltoluene	18.98	119	13190250	21.30 ppb		99

(#) = qualifier out of range (m) = manual integration

Data File : J:\MS04\DATA\041105\0411F015.D
Acq On : 11 Apr 2005 4:44 pm
Sample : 8260/CLP ICAL 100PPB
Misc :
MS Integration Params: RTEINT.P
Quant Time: Apr 11 19:32:43 2005

Vial: 9
Operator: KR
Inst : MS04
Multiplr: 1.00

Quant Results File: 041105SOILCLP.R

Quant Method : J:\MS04\METHODS\041105SOILCLP.M (RTE Integrator)
Title : MS04 APPX SOIL CAL 3288
Last Update : Mon Apr 11 19:32:14 2005
Response via : Initial Calibration
DataAcq Meth : 524W2

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
78) 1,3-Dichlorobenzene	19.05	146	6195156	21.42 ppb	99
79) 1,4-Dichlorobenzene	19.16	146	6159186	21.48 ppb	99
80) n-Butylbenzene	19.53	91	14043930	21.64 ppb	99
81) 1,2-Dichlorobenzene	19.69	146	5843433	22.27 ppb	99
82) 1,2-Dibromo-3-chloropropan	20.74	157	750867	23.66 ppb	98
83) 1,2,4-Trichlorobenzene	22.00	180	3959058	22.41 ppb	100
84) Hexachlorobutadiene	22.20	225	2068751	23.02 ppb	99
85) Naphthalene	22.45	128	9574910	24.33 ppb	100
86) 1,2,3-Trichlorobenzene	22.84	180	3641522	22.83 ppb	99

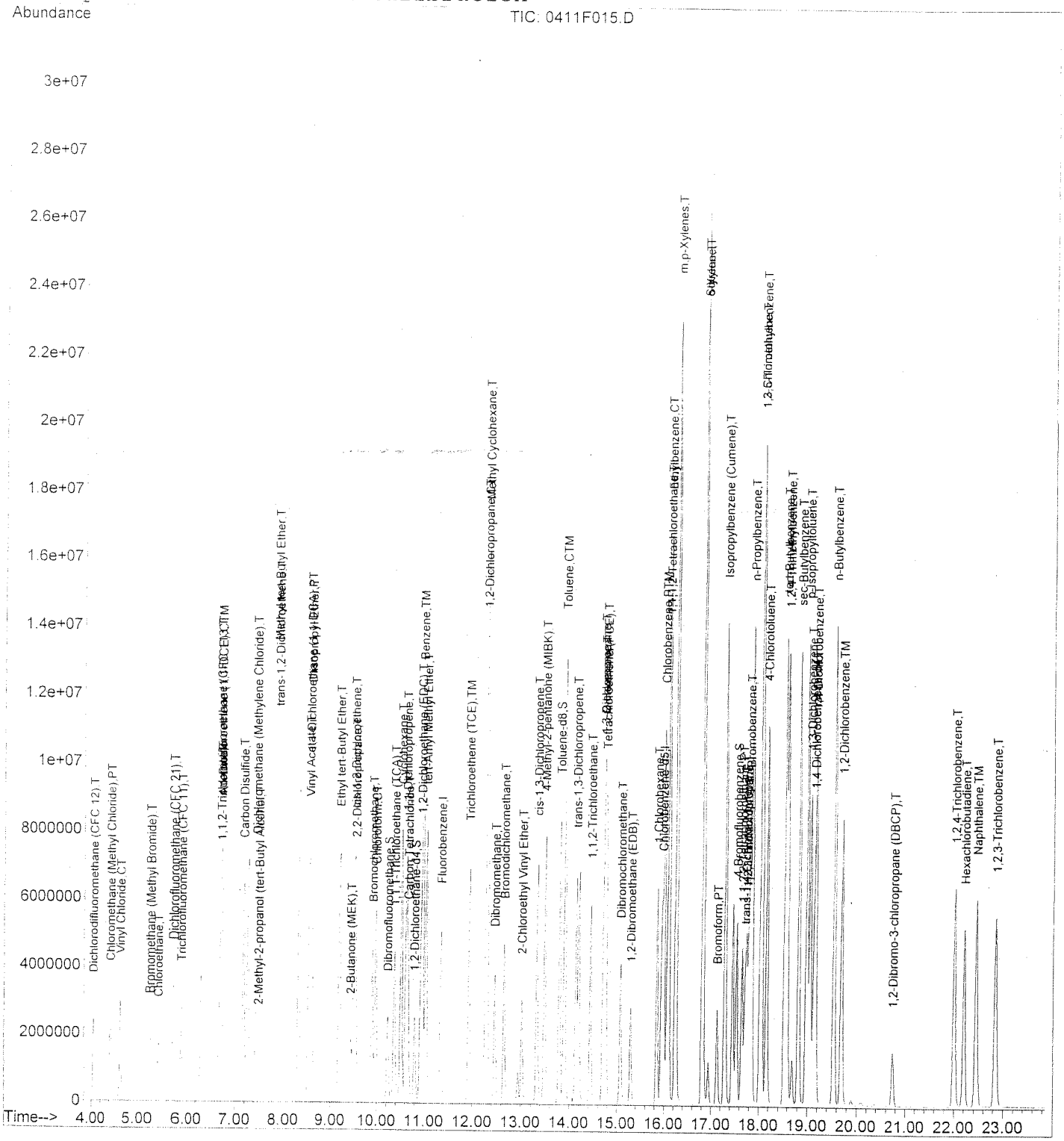
(#) = qualifier out of range (m) = manual integration

Data File : J:\MS04\DATA\041105\0411F015.D
Acq On : 11 Apr 2005 4:44 pm
Sample : 8260/CLP ICAL 100PPB
Misc :
MS Integration Params: RTEINT.P
Quant Time: Apr 11 19:36 2005

Vial: 9
Operator: KR
Inst : MS04
Multiplr: 1.00

Quant Results File: 041105SOILCL

Method : J:\MS04\METHODS\041105SOILCLP.M (RTE Integrator)
Title : MS04 APPX SOIL CAL 3288
Last Update : Mon Apr 11 19:32:14 2005
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : J: MS04\DATA\041105\0411F016.D
Acq On : 11 Apr 2005 5:14 pm
Sample : 8260/CLP ICAL 200PPB
Misc :
MS Integration Params: RTEINT.P
Quant Time: Apr 11 19:32:45 2005

Vial: 10
Operator: KR
Inst : MS04
Multiplr: 1.00

Quant Results File: 041105SOILCLP.R

Quant Method : J:\MS04\METHODS\041105SOILCLP.M (RTE Integrator)
Title : MS04 APPX SOIL CAL 3288
Last Update : Mon Apr 11 19:32:14 2005
Response via : Initial Calibration
DataAcq Meth : 524W2

04/14/05

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	11.35	96	7349188	50.00	ppb	0.01
47) Chlorobenzene-d5	15.94	117	4996255	50.00	ppb	0.00
65) 1,4-Dichlorobenzene-d4	19.13	152	2026597	50.00	ppb	0.00
System Monitoring Compounds						
29) Dibromofluoromethane	10.24	113	3037160	45.22	ppb	0.01
Spiked Amount 50.000			Recovery =	90.44%		
34) 1,2-Dichloroethane-d4	10.80	65	2910578	40.89	ppb	0.01
Spiked Amount 50.000			Recovery =	81.78%		
45) Toluene-d8	13.80	98	10816929	44.67	ppb	0.01
Spiked Amount 50.000			Recovery =	89.34%		
64) 4-Bromofluorobenzene	17.54	95	3718279	40.93	ppb	0.00
Spiked Amount 50.000			Recovery =	81.86%		
Target Compounds						Qvalue
2) Dichlorodifluoromethane (C	4.06	85	7181803	41.71	ppb	99
3) Chloromethane (Methyl Chlo	4.44	50	11193520	40.13	ppb	99
4) Vinyl Chloride	4.65	62	9256074	40.70	ppb	100
5) Bromomethane (Methyl Bromi	5.27	94	4623863	46.68	ppb	99
6) Chloroethane	5.44	64	4650944	39.66	ppb	99
7) Dichlorofluoromethane (CFC	5.74	67	11719572	41.00	ppb	99
8) Trichlorofluoromethane (CF	5.89	101	7139069	40.88	ppb	100
9) 1,1,2-Trichlorotrifluoroet	6.71	151	5459184	45.27	ppb	98
10) 1,1-Dichloroethene (1,1-DC	6.74	96	6453590	43.22	ppb	98
11) Acetone	6.74	43	4476624	81.39	ppb	100
15) Dichloromethane (Methylene	7.45	84	8426587	38.07	ppb	99
16) 2-Methyl-2-propanol (tert-	7.50	59	3992053	650.92	ppb	98
18) trans-1,2-Dichloroethene	7.91	96	7567935	42.90	ppb	100
20) Vinyl Acetate	8.54	86	1225187	41.44	ppb #	67
21) 1,1-Dichloroethane (1,1-DC	8.56	63	15115798	42.43	ppb	98
22) Ethyl tert-Butyl Ether	9.20	59	23449238	39.82	ppb	89
23) 2,2-Dichloropropane	9.55	77	10103181	41.49	ppb	100
24) 2-Butanone (MEK)	9.44	72	1724296	88.48	ppb	91
25) cis-1,2-Dichloroethene	9.51	96	8267948	43.50	ppb	98
26) Bromochloromethane	9.91	128	3979196	44.51	ppb	98
27) Chloroform	9.98	83	13059057	43.12	ppb	99
28) 1,1,1-Trichloroethane (TCA	10.37	97	9536125	43.08	ppb	100
30) Cyclohexane	10.52	56	15200793	14.27	ppb	99
31) Carbon Tetrachloride	10.67	117	7949780	42.05	ppb	100
32) 1,1-Dichloropropene	10.62	75	11218773	42.06	ppb	99
33) tert-Amyl Methyl Ether	11.04	87	4154055	41.29	ppb #	84
35) Benzene	10.96	78	24069339	32.41	ppb	73

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : J:\MS04\DATA\041105\0411F016.D
Acq On : 11 Apr 2005 5:14 pm
Sample : 8260/CLP ICAL 200PPB
Misc :
MS Integration Params: RTEINT.P
Quant Time: Apr 11 19:32:45 2005

Vial: 10
Operator: KR
Inst : MS04
Multiplr: 1.00

Quant Results File: 041105SOILCLP.R

Quant Method : J:\MS04\METHODS\041105SOILCLP.M (RTE Integrator)
Title : MS04 APPX SOIL CAL 3288
Last Update : Mon Apr 11 19:32:14 2005
Response via : Initial Calibration
DataAcq Meth : 524W2

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
36)	1,2-Dichloroethane (EDC)	10.93	62	8465169	41.31 ppb		98
37)	Trichloroethene (TCE)	11.94	95	7737318	43.48 ppb		98
38)	1,2-Dichloropropane	12.27	63	9127796	42.03 ppb		89
39)	Methyl Cyclohexane	12.30	83	12730484	14.43 ppb		99
40)	Dibromomethane	12.47	93	4953021	43.65 ppb		95
41)	Bromodichloromethane	12.65	83	10032618	43.06 ppb		99
42)	2-Chloroethyl Vinyl Ether	13.03	63	4097259	40.65 ppb		100
43)	cis-1,3-Dichloropropene	13.34	75	13849861	43.39 ppb		97
44)	4-Methyl-2-pentanone (MIBK	13.49	43	19503466	81.16 ppb		89
46)	Toluene	13.90	92	17758519	40.67 ppb	#	58
48)	trans-1,3-Dichloropropene	14.14	75	11678198	42.09 ppb		99
49)	1,1,2-Trichloroethane	14.44	83	5773048	42.94 ppb		99
50)	Tetrachloroethene (PCE)	14.77	164	5980255	43.73 ppb		99
51)	2-Hexanone	14.73	43	14510996	83.80 ppb		100
52)	1,3-Dichloropropane	14.71	76	12317232	42.04 ppb		99
53)	Dibromochloromethane	15.08	129	7305050	43.99 ppb		100
54)	1,2-Dibromoethane (EDB)	15.30	107	6793462	43.28 ppb		99
55)	1-Chlorohexane	15.85	91	6359274	39.18 ppb		98
56)	Chlorobenzene	15.99	112	17840687	41.53 ppb		92
57)	Ethylbenzene	16.09	106	9330158	41.94 ppb	#	23
58)	1,1,1,2-Tetrachloroethane	16.07	131	6484979	42.35 ppb		99
60)	o-Xylene	16.82	106	10995543	41.13 ppb	#	58
61)	Styrene	16.82	104	18279648	38.42 ppb		86
62)	Bromoform	17.13	173	4509109	44.28 ppb		100
66)	1,1,2,2-Tetrachloroethane	17.65	83	8732279	44.85 ppb		98
67)	Bromobenzene	17.80	156	7136055	45.12 ppb		96
69)	trans-1,4-Dichloro-2-buten	17.71	53	2287817	41.98 ppb		99
70)	1,2,3-Trichloropropane	17.75	110	2183880	43.51 ppb		100
71)	2-Chlorotoluene	18.03	91	21444466	37.50 ppb		85
72)	1,3,5-Trimethylbenzene	18.05	105	19996025	36.71 ppb		75
73)	4-Chlorotoluene	18.16	91	20241346	37.97 ppb		85
74)	tert-Butylbenzene	18.53	119	21584285	41.61 ppb		87
75)	1,2,4-Trimethylbenzene	18.58	105	20489507	37.71 ppb		79
78)	1,3-Dichlorobenzene	19.06	146	11926330	43.42 ppb		97
79)	1,4-Dichlorobenzene	19.17	146	11825005	43.43 ppb		98
81)	1,2-Dichlorobenzene	19.70	146	10978227	44.05 ppb		99
82)	1,2-Dibromo-3-chloropropan	20.75	157	1401666	46.50 ppb		97
83)	1,2,4-Trichlorobenzene	22.00	180	7301036	43.51 ppb		99
84)	Hexachlorobutadiene	22.21	225	3761126	44.08 ppb		99
85)	Naphthalene	22.45	128	18106466	48.44 ppb		100
86)	1,2,3-Trichlorobenzene	22.85	180	6817745	45.02 ppb		99

(#) = qualifier out of range (m) = manual integration

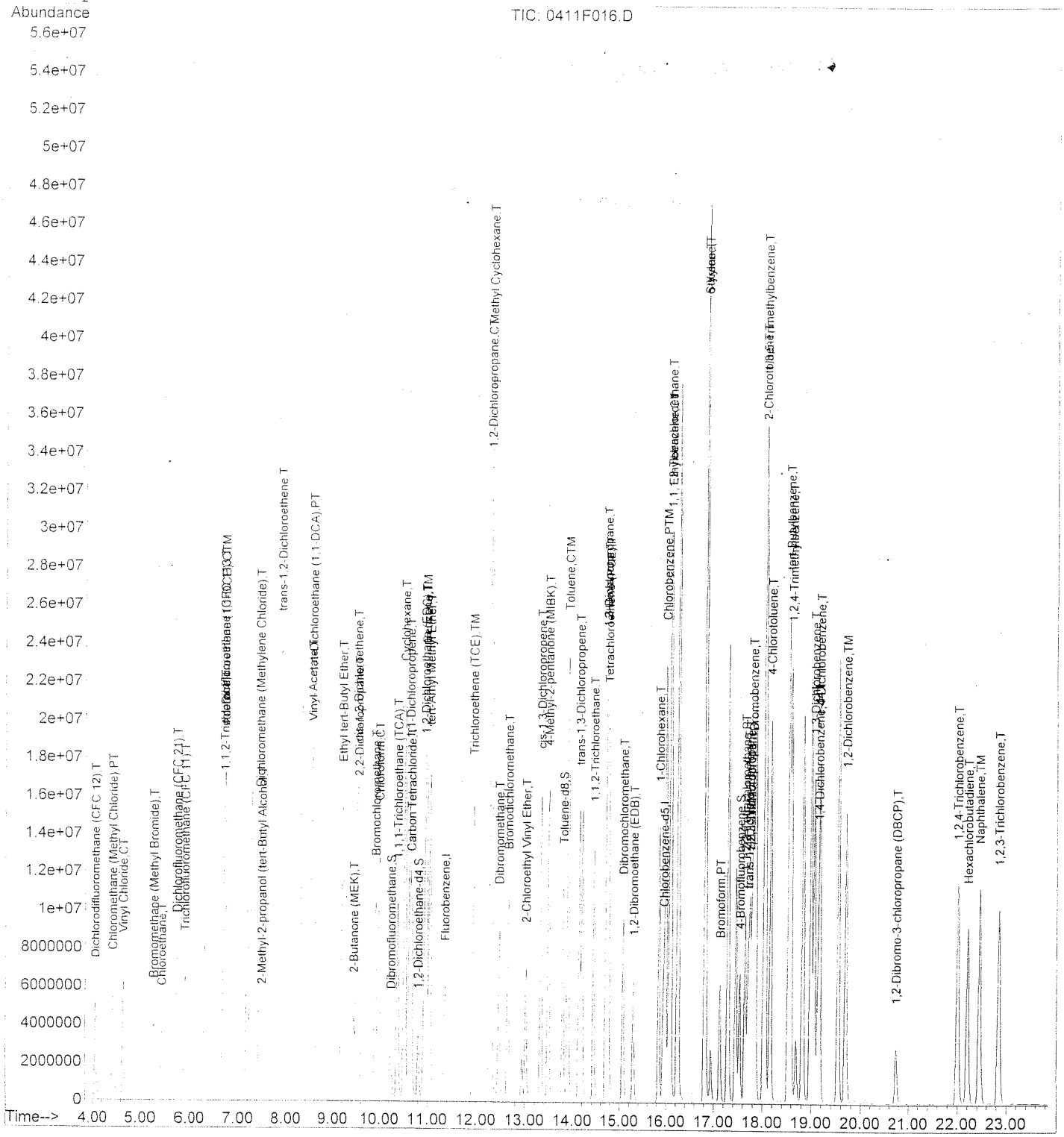
Quantitation Report (QT Reviewed)

Data File : J:\MS04\DATA\041105\0411F016.D
Acq On : 11 Apr 2005 5:14 pm
Sample : 8260/CLP ICAL 200PPB
Misc :
MS Integration Params: RTEINT.P
Quant Time: Apr 11 19:38 2005

Vial: 10
Operator: KR
Inst : MS04
Multiplr: 1.00

Quant Results File: 041105SOILCL

Method : J:\MS04\METHODS\041105SOILCLP.M (RTE Integrator)
Title : MS04 APPX SOIL CAL 3288
Last Update : Mon Apr 11 19:32:14 2005
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : J:\MS04\DATA\041105\0411F017.D
Acq On : 11 Apr 2005 5:44 pm
Sample : 8260/CLP ICAL 300PPB
Misc :
MS Integration Params: RTEINT.P
Quant Time: Apr 11 19:43:24 2005

Vial: 11
Operator: KR
Inst : MS04
Multiplr: 1.00

Quant Results File: 041105SOILCLP.R

Quant Method : J:\MS04\METHODS\041105SOILCLP.M (RTE Integrator)
Title : MS04 APPX SOIL CAL 3288
Last Update : Mon Apr 11 19:41:27 2005
Response via : Initial Calibration
DataAcq Meth : 524W2

4/14/05

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	11.35	96	7348335	50.00	ppb	0.00
47) Chlorobenzene-d5	15.94	117	5097704	50.00	ppb	0.00
65) 1,4-Dichlorobenzene-d4	19.13	152	2079270	50.00	ppb	0.00
System Monitoring Compounds						
29) Dibromofluoromethane	10.24	113	7582	0.21	ppb	0.01
Spiked Amount 50.000			Recovery	=	0.42%	
34) 1,2-Dichloroethane-d4	10.81	65	9976	0.29	ppb	0.01
Spiked Amount 50.000			Recovery	=	0.58%	
45) Toluene-d8	13.80	98	35846	0.28	ppb	0.01
Spiked Amount 50.000			Recovery	=	0.56%	
64) 4-Bromofluorobenzene	17.54	95	18565	0.40	ppb	0.00
Spiked Amount 50.000			Recovery	=	0.80%	

Target Compounds							Qvalue
2) Dichlorodifluoromethane (C	4.05	85	5050	0.15	ppb		94
3) Chloromethane (Methyl Chlo	4.44	50	36774	0.65	ppb		93
4) Vinyl Chloride	4.65	62	5978	0.13	ppb		86
5) Bromomethane (Methyl Bromi	5.29	94	34692	1.81	ppb		86
6) Chloroethane	5.45	64	4116	0.18	ppb	#	48
7) Dichlorofluoromethane (CFC	5.74	67	8890	0.16	ppb		84
8) Trichlorofluoromethane (CF	5.89	101	4714	0.14	ppb		89
9) 1,1,2-Trichlorotrifluoroet	6.70	151	3400	0.14	ppb	#	73
10) 1,1-Dichloroethene (1,1-DC	6.74	96	5893	0.19	ppb		86
11) Acetone	6.74	43	40730	3.56	ppb		88
13) Carbon Disulfide	7.18	76	51891	0.36	ppb		94
14) Methyl Acetate	7.25	43	14037	0.40	ppb	#	71
15) Dichloromethane (Methylene	7.45	84	103015	2.14	ppb		99
16) 2-Methyl-2-propanol (tert-	7.51	59	5780	1.53	ppb		78
17) Methyl tert-Butyl Ether	7.88	73	27597	0.32	ppb		97
18) trans-1,2-Dichloroethene	7.91	96	9197	0.25	ppb		91
19) Diisopropyl Ether	8.59	45	32167	0.19	ppb		97
20) Vinyl Acetate	8.54	86	261	0.05	ppb	#	1
21) 1,1-Dichloroethane (1,1-DC	8.57	63	13149	0.18	ppb		87
22) Ethyl tert-Butyl Ether	9.20	59	19618	0.17	ppb		88
23) 2,2-Dichloropropane	9.55	77	11826	0.25	ppb		99
24) 2-Butanone (MEK)	9.48	72	1166	0.30	ppb	#	46
25) cis-1,2-Dichloroethene	9.51	96	9919	0.25	ppb		88
26) Bromochloromethane	9.91	128	4346	0.23	ppb	#	67
27) Chloroform	9.97	83	14399	0.23	ppb		97
28) 1,1,1-Trichloroethane (TCA	10.38	97	8379	0.19	ppb		98
30) Cyclohexane	10.52	56	17502	0.26	ppb		99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : J:\MS04\DATA\041105\0411F017.D
Acq On : 11 Apr 2005 5:44 pm
Sample : 8260/CLP ICAL 300PPB
Misc :
MS Integration Params: RTEINT.P
Quant Time: Apr 11 19:43:24 2005

Vial: 11
Operator: KR
Inst : MS04
Multiplr: 1.00

Quant Results File: 041105SOILCLP.R

Quant Method : J:\MS04\METHODS\041105SOILCLP.M (RTE Integrator)
Title : MS04 APPX SOIL CAL 3288
Last Update : Mon Apr 11 19:41:27 2005
Response via : Initial Calibration
DataAcq Meth : 524W2

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
31)	Carbon Tetrachloride	10.67	117	7779	0.21 ppb		92
32)	1,1-Dichloropropene	10.62	75	13319	0.25 ppb		95
33)	tert-Amyl Methyl Ether	11.04	87	3841	0.19 ppb	#	92
35)	Benzene	10.96	78	60994	0.41 ppb		96
36)	1,2-Dichloroethane (EDC)	10.93	62	11397	0.28 ppb		87
37)	Trichloroethene (TCE)	11.94	95	11492	0.31 ppb		97
38)	1,2-Dichloropropane	12.28	63	13065	0.29 ppb		84
39)	Methyl Cyclohexane	12.30	83	16630	0.28 ppb		92
40)	Dibromomethane	12.46	93	7459	0.31 ppb		89
41)	Bromodichloromethane	12.66	83	12772	0.27 ppb		97
42)	2-Chloroethyl Vinyl Ether	13.04	63	6145	0.29 ppb		79
43)	cis-1,3-Dichloropropene	13.34	75	18796	0.29 ppb		85
44)	4-Methyl-2-pentanone (MIBK	13.50	43	34955	0.72 ppb		93
46)	Toluene	13.91	92	32463	0.36 ppb		94
48)	trans-1,3-Dichloropropene	14.15	75	19061	0.34 ppb		94
49)	1,1,2-Trichloroethane	14.45	83	10143	0.36 ppb		93
50)	Tetrachloroethene (PCE)	14.76	164	10565	0.38 ppb		88
51)	2-Hexanone	14.74	43	34152	0.94 ppb		94
52)	1,3-Dichloropropane	14.71	76	23271	0.38 ppb		94
53)	Dibromochloromethane	15.08	129	12739	0.37 ppb		86
54)	1,2-Dibromoethane (EDB)	15.29	107	13369	0.41 ppb		99
55)	1-Chlorohexane	15.85	91	10850	0.37 ppb		83
56)	Chlorobenzene	15.98	112	40815	0.45 ppb		92
57)	Ethylbenzene	16.09	106	19120	0.42 ppb		87
58)	1,1,1,2-Tetrachloroethane	16.07	131	12809	0.40 ppb		85
59)	m,p-Xylenes	16.25	106	52762	0.91 ppb		97
60)	o-Xylene	16.82	106	26001	0.47 ppb		97
61)	Styrene	16.83	104	54461	0.56 ppb		97
62)	Bromoform	17.13	173	9304	0.44 ppb		87
63)	Isopropylbenzene (Cumene)	17.29	105	69793	0.47 ppb		99
66)	1,1,2,2-Tetrachloroethane	17.64	83	24825	0.60 ppb		96
67)	Bromobenzene	17.80	156	19064	0.59 ppb		86
68)	n-Propylbenzene	17.85	91	88148	0.49 ppb		96
69)	trans-1,4-Dichloro-2-buten	17.71	53	7113	0.66 ppb		92
70)	1,2,3-Trichloropropane	17.74	110	6128	0.59 ppb		89
71)	2-Chlorotoluene	18.03	91	59004	0.52 ppb		96
72)	1,3,5-Trimethylbenzene	18.05	105	55685	0.51 ppb		99
73)	4-Chlorotoluene	18.16	91	60013	0.57 ppb		95
74)	tert-Butylbenzene	18.54	119	57660	0.54 ppb		97
75)	1,2,4-Trimethylbenzene	18.59	105	68913	0.62 ppb		96
76)	sec-Butylbenzene	18.83	105	71217	0.50 ppb		97

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : J:\MS04\DATA\041105\0411F017.D
Acq On : 11 Apr 2005 5:44 pm
Sample : 8260/CLP ICAL 300PPB
Misc :
MS Integration Params: RTEINT.P
Quant Time: Apr 11 19:43:24 2005

Vial: 11
Operator: KR
Inst : MS04
Multiplr: 1.00

Quant Results File: 041105SOILCLP.R

Quant Method : J:\MS04\METHODS\041105SOILCLP.M (RTE Integrator)
Title : MS04 APPX SOIL CAL 3288
Last Update : Mon Apr 11 19:41:27 2005
Response via : Initial Calibration
DataAcq Meth : 524W2

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
77)	p-Isopropyltoluene	18.98	119	58346	0.49 ppb	95
78)	1,3-Dichlorobenzene	19.06	146	36555	0.64 ppb	94
79)	1,4-Dichlorobenzene	19.16	146	40797	0.71 ppb	81
80)	n-Butylbenzene	19.54	91	60752	0.50 ppb	98
81)	1,2-Dichlorobenzene	19.70	146	36696	0.69 ppb	94
82)	1,2-Dibromo-3-chloropropan	20.74	157	5534	0.85 ppb	96
83)	1,2,4-Trichlorobenzene	22.01	180	42651	1.22 ppb	98
84)	Hexachlorobutadiene	22.21	225	14013	0.78 ppb	92
85)	Naphthalene	22.45	128	229138	2.82 ppb	99
86)	1,2,3-Trichlorobenzene	22.84	180	51102	1.59 ppb	97

(#) = qualifier out of range (m) = manual integration

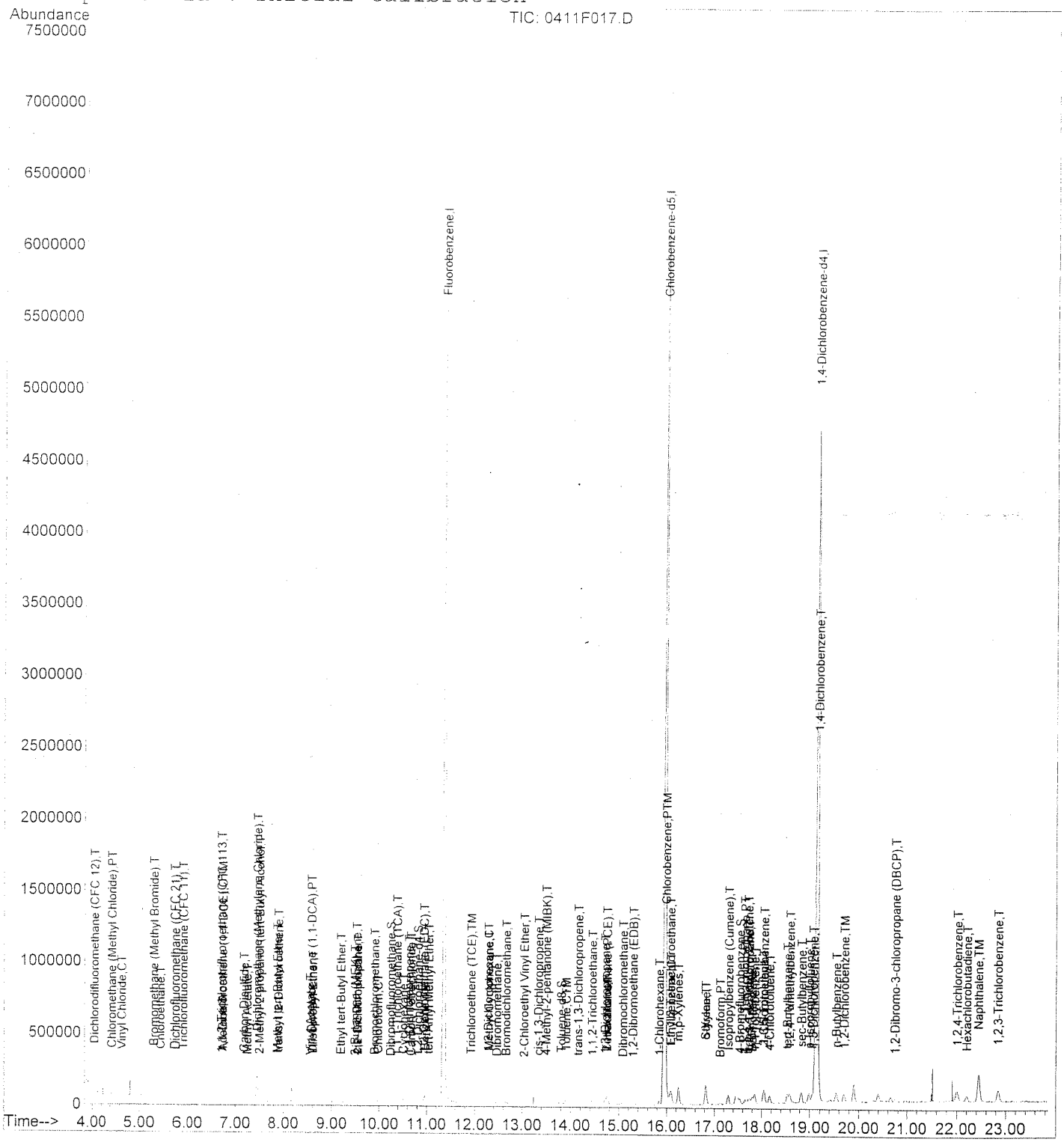
Quantitation Report (Not Reviewed)

Data File : J:\MS04\DATA\041105\0411F017.D
Acq On : 11 Apr 2005 5:44 pm
Sample : 8260/CLP ICAL 300PPB
Misc :
MS Integration Params: RTEINT.P
Quant Time: Apr 11 19:43 2005

Vial: 11
Operator: KR
Inst : MS04
Multiplr: 1.00

Quant Results File: 041105SOILCL

Method : J:\MS04\METHODS\041105SOILCLP.M (RTE Integrator)
Title : MS04 APPX SOIL CAL 3288
Last Update : Mon Apr 11 19:41:27 2005
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : J:\MS04\DATA\041105\0411F018.D
Acq On : 11 Apr 2005 6:14 pm
Sample : IB
Misc :
MS Integration Params: RTEINT.P
Quant Time: Apr 11 19:43:33 2005

Vial: 12
Operator: KR
Inst : MS04
Multiplr: 1.00

Quant Results File: 041105SOILCLP.R

Quant Method : J:\MS04\METHODS\041105SOILCLP.M (RTE Integrator)
Title : MS04 APPX SOIL CAL 3288
Last Update : Mon Apr 11 19:41:27 2005
Response via : Initial Calibration
DataAcq Meth : 524W2

4/14/05

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene	11.35	96	7291852	50.00 ppb	0.01
47) Chlorobenzene-d5	15.94	117	5056070	50.00 ppb	0.00
65) 1,4-Dichlorobenzene-d4	19.13	152	2056665	50.00 ppb	0.00
System Monitoring Compounds					
29) Dibromofluoromethane	10.24	113	4512	0.13 ppb	0.01
Spiked Amount 50.000			Recovery	= 0.26%	
34) 1,2-Dichloroethane-d4	10.82	65	5582	0.16 ppb	0.03
Spiked Amount 50.000			Recovery	= 0.32%	
45) Toluene-d8	13.80	98	21373	0.17 ppb	0.01
Spiked Amount 50.000			Recovery	= 0.34%	
64) 4-Bromofluorobenzene	17.54	95	11209	0.24 ppb	0.01
Spiked Amount 50.000			Recovery	= 0.48%	
Target Compounds					Qvalue
2) Dichlorodifluoromethane (C	4.07	85	1607	0.05 ppb #	41
3) Chloromethane (Methyl Chlo	4.44	50	14834	0.26 ppb	82
4) Vinyl Chloride	4.67	62	281	0.01 ppb #	50
5) Bromomethane (Methyl Bromi	5.30	94	17714	0.93 ppb	87
6) Chloroethane	5.51	64	800	0.03 ppb	57
7) Dichlorofluoromethane (CFC	5.72	67	621	0.01 ppb #	49
10) 1,1-Dichloroethene (1,1-DC	6.70	96	1004	0.03 ppb #	1
11) Acetone	6.75	43	25422	2.24 ppb	95
13) Carbon Disulfide	7.18	76	25457	0.18 ppb	91
14) Methyl Acetate	7.23	43	1696	0.05 ppb #	67
15) Dichloromethane (Methylene	7.46	84	96262	2.02 ppb	93
16) 2-Methyl-2-propanol (tert-	7.51	59	4326	1.16 ppb	78
17) Methyl tert-Butyl Ether	8.07	73	259	0.00 ppb	56
18) trans-1,2-Dichloroethene	7.92	96	2461	0.07 ppb #	73
19) Diisopropyl Ether	8.60	45	6977	0.04 ppb	75
20) Vinyl Acetate	8.33	86	1720	0.31 ppb #	1
21) 1,1-Dichloroethane (1,1-DC	8.57	63	2674	0.04 ppb #	50
22) Ethyl tert-Butyl Ether	9.20	59	2455	0.02 ppb #	43
23) 2,2-Dichloropropane	9.54	77	3293	0.07 ppb	61
24) 2-Butanone (MEK)	9.48	72	555	0.14 ppb #	1
25) cis-1,2-Dichloroethene	9.52	96	2758	0.07 ppb #	50
27) Chloroform	9.98	83	3399	0.05 ppb #	68
28) 1,1,1-Trichloroethane (TCA	10.37	97	1089	0.02 ppb #	23
30) Cyclohexane	10.50	56	2195	0.03 ppb #	71
31) Carbon Tetrachloride	10.67	117	1466	0.04 ppb #	83
32) 1,1-Dichloropropene	10.64	75	3685	0.07 ppb #	12
35) Benzene	10.97	78	33782	0.23 ppb	95

(#) = qualifier out of range (m) = manual integration

Data File : J:\MS04\DATA\041105\0411F018.D
Acq On : 11 Apr 2005 6:14 pm
Sample : IB
Misc :
MS Integration Params: RTEINT.P
Quant Time: Apr 11 19:43:33 2005

Vial: 12
Operator: KR
Inst : MS04
Multiplr: 1.00
Quant Results File: 041105SOILCLP.R

Quant Method : J:\MS04\METHODS\041105SOILCLP.M (RTE Integrator)
Title : MS04 APPX SOIL CAL 3288
Last Update : Mon Apr 11 19:41:27 2005
Response via : Initial Calibration
DataAcq Meth : 524W2

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
36)	1,2-Dichloroethane (EDC)	10.93	62	3271	0.08 ppb		90
37)	Trichloroethene (TCE)	11.94	95	3345	0.09 ppb		90
38)	1,2-Dichloropropane	12.27	63	3332	0.07 ppb	#	31
39)	Methyl Cyclohexane	12.30	83	4824	0.08 ppb	#	72
40)	Dibromomethane	12.47	93	1986	0.08 ppb	#	79
41)	Bromodichloromethane	12.66	83	3382	0.07 ppb		91
42)	2-Chloroethyl Vinyl Ether	13.03	63	1309	0.06 ppb	#	47
43)	cis-1,3-Dichloropropene	13.34	75	6228	0.10 ppb	#	30
44)	4-Methyl-2-pentanone (MIBK	13.52	43	18134	0.38 ppb		82
46)	Toluene	13.90	92	12690	0.14 ppb		80
48)	trans-1,3-Dichloropropene	14.15	75	6153	0.11 ppb		80
49)	1,1,2-Trichloroethane	14.44	83	2500	0.09 ppb		80
50)	Tetrachloroethene (PCE)	14.77	164	3839	0.14 ppb		92
51)	2-Hexanone	14.74	43	12868	0.36 ppb		69
52)	1,3-Dichloropropane	14.72	76	7585	0.13 ppb		57
53)	Dibromochloromethane	15.09	129	3388	0.10 ppb		86
54)	1,2-Dibromoethane (EDB)	15.29	107	4227	0.13 ppb		95
55)	1-Chlorohexane	15.86	91	6219	0.21 ppb		74
56)	Chlorobenzene	15.98	112	14792	0.17 ppb		86
57)	Ethylbenzene	16.09	106	6907	0.15 ppb	#	86
58)	1,1,1,2-Tetrachloroethane	16.07	131	3316	0.10 ppb	#	57
59)	m,p-Xylenes	16.24	106	20221	0.35 ppb		87
60)	o-Xylene	16.82	106	10174	0.18 ppb	#	81
61)	Styrene	16.82	104	22884	0.24 ppb		91
62)	Bromoform	17.13	173	2579	0.12 ppb	#	62
63)	Isopropylbenzene (Cumene)	17.29	105	27060	0.18 ppb		94
66)	1,1,2,2-Tetrachloroethane	17.65	83	8282	0.20 ppb		82
67)	Bromobenzene	17.80	156	6227	0.19 ppb	#	66
68)	n-Propylbenzene	17.85	91	42079	0.24 ppb		93
69)	trans-1,4-Dichloro-2-buten	17.71	53	2497	0.24 ppb	#	66
70)	1,2,3-Trichloropropane	17.74	110	1376	0.13 ppb		90
71)	2-Chlorotoluene	18.03	91	21536	0.19 ppb		87
72)	1,3,5-Trimethylbenzene	18.06	105	22748	0.21 ppb		95
73)	4-Chlorotoluene	18.17	91	21440	0.21 ppb		99
74)	tert-Butylbenzene	18.53	119	24323	0.23 ppb		93
75)	1,2,4-Trimethylbenzene	18.58	105	31757	0.29 ppb		98
76)	sec-Butylbenzene	18.82	105	27739	0.20 ppb		98
77)	p-Isopropyltoluene	18.99	119	21081	0.18 ppb		92
78)	1,3-Dichlorobenzene	19.07	146	12838	0.23 ppb		87
79)	1,4-Dichlorobenzene	19.17	146	14963	0.26 ppb		75
80)	n-Butylbenzene	19.54	91	23762	0.20 ppb		90

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : J:\MS04\DATA\041105\0411F018.D
Acq On : 11 Apr 2005 6:14 pm
Sample : IB
Misc :
MS Integration Params: RTEINT.P
Quant Time: Apr 11 19:43:33 2005

Vial: 12
Operator: KR
Inst : MS04
Multiplr: 1.00
Quant Results File: 041105SOILCLP.R

Quant Method : J:\MS04\METHODS\041105SOILCLP.M (RTE Integrator)
Title : MS04 APPX SOIL CAL 3288
Last Update : Mon Apr 11 19:41:27 2005
Response via : Initial Calibration
DataAcq Meth : 524W2

Compound	R.T.	QIon	Response	Conc Unit		Qvalue
81) 1,2-Dichlorobenzene	19.70	146	12392	0.24 ppb		97
82) 1,2-Dibromo-3-chloropropan	20.75	157	333	0.05 ppb	#	45
83) 1,2,4-Trichlorobenzene	22.01	180	9334	0.27 ppb		94
84) Hexachlorobutadiene	22.21	225	2847	0.16 ppb		97
85) Naphthalene	22.45	128	44799	0.56 ppb		98
86) 1,2,3-Trichlorobenzene	22.85	180	11266	0.35 ppb		89

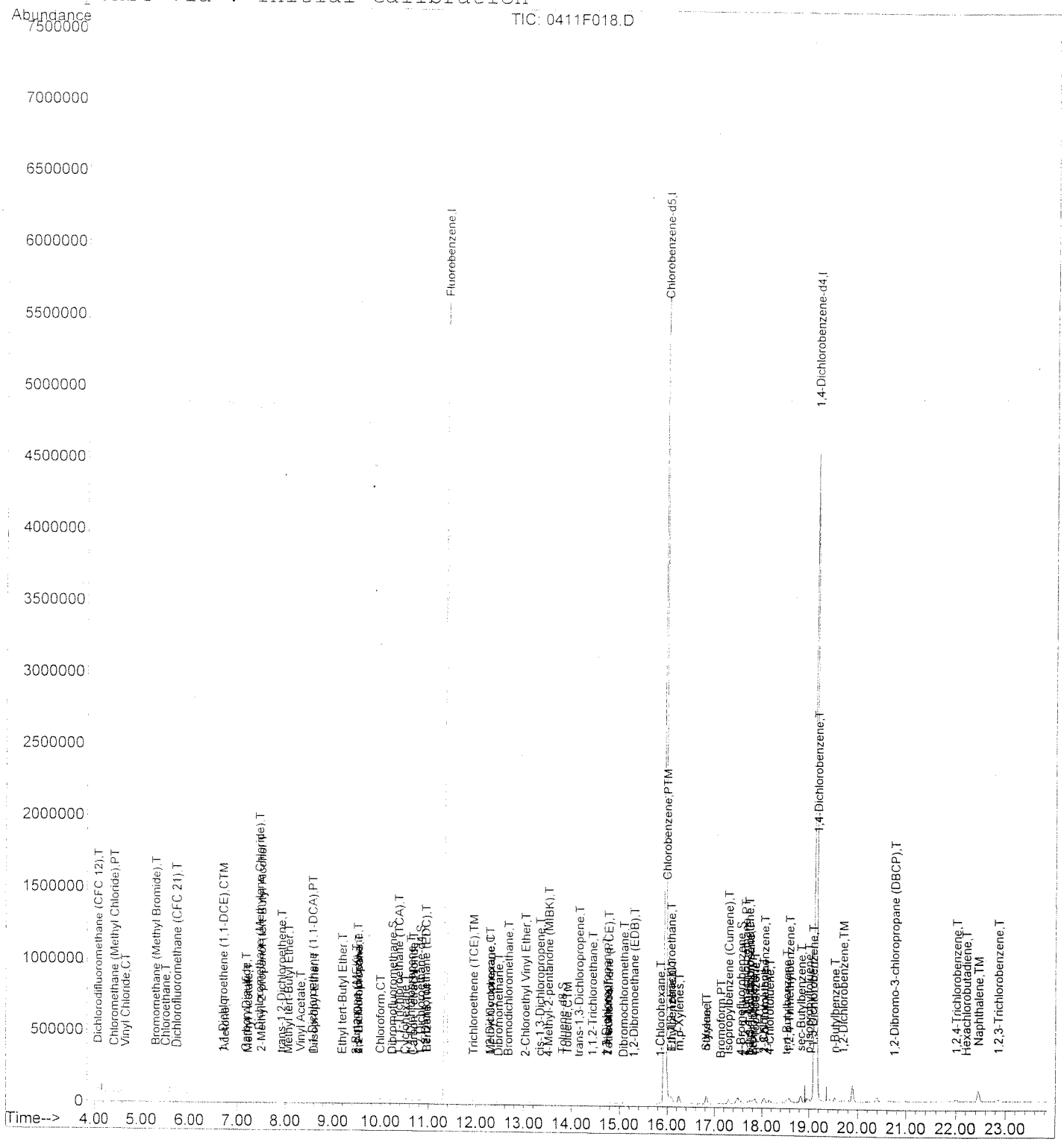
(#) = qualifier out of range (m) = manual integration

Data File : J:\MS04\DATA\041105\0411F018.D
Acq On : 11 Apr 2005 6:14 pm
Sample : IB
Misc :
MS Integration Params: RTEINT.P
Quant Time: Apr 11 19:43 2005

Vial: 12
Operator: KR
Inst : MS04
Multiplr: 1.00

Quant Results File: 041105SOILCL

Method : J:\MS04\METHODS\041105SOILCLP.M (RTE Integrator)
Title : MS04 APPX SOIL CAL 3288
Last Update : Mon Apr 11 19:41:27 2005
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : J:\MS04\DATA\041105\0411F019.D
Acq On : 11 Apr 2005 6:44 pm
Sample : ~~IB~~
Misc :
MS Integration Params: RTEINT.P
Quant Time: Apr 11 19:45:30 2005

Vial: 13
Operator: KR
Inst : MS04
Multiplr: 1.00

Quant Results File: 041105SOILCLP.R

Quant Method : J:\MS04\METHODS\041105SOILCLP.M (RTE Integrator)
Title : MS04 APPX SOIL CAL 3288
Last Update : Mon Apr 11 19:41:27 2005
Response via : Initial Calibration
DataAcq Meth : 524W2

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene	11.35	96	7391812	50.00 ppb	0.01
47) Chlorobenzene-d5	15.94	117	5020833	50.00 ppb	0.00
65) 1,4-Dichlorobenzene-d4	19.13	152	2075486	50.00 ppb	0.00
System Monitoring Compounds					
29) Dibromofluoromethane	10.24	113	1673549	46.19 ppb	0.01
Spiked Amount 50.000			Recovery =	92.38%	
34) 1,2-Dichloroethane-d4	10.81	65	1685171	47.91 ppb	0.01
Spiked Amount 50.000			Recovery =	95.82%	
45) Toluene-d8	13.80	98	5688786	43.84 ppb	0.01
Spiked Amount 50.000			Recovery =	87.68%	
64) 4-Bromofluorobenzene	17.54	95	2071032	44.96 ppb	0.00
Spiked Amount 50.000			Recovery =	89.92%	

Target Compounds					Qvalue
2) Dichlorodifluoromethane (C	4.06	85	1623136	46.58 ppb	99
3) Chloromethane (Methyl Chlo	4.44	50	2727744	47.58 ppb	100
4) Vinyl Chloride	4.65	62	2085467	46.47 ppb	100
5) Bromomethane (Methyl Bromi	5.27	94	981831	50.86 ppb	98
6) Chloroethane	5.44	64	1093130	46.62 ppb	99
8) Trichlorofluoromethane (CF	5.89	101	1547356	45.20 ppb	100
9) 1,1,2-Trichlorotrifluoroet	6.71	151	1310311	51.73 ppb	98
10) 1,1-Dichloroethene (1,1-DC	6.74	96	1597260	50.63 ppb	100
11) Acetone	6.74	43	2390115	207.55 ppb	99
12) Bromoethane	7.04	108	17899	131.54 ppb #	77
13) Carbon Disulfide	7.18	76	13174554	91.53 ppb	100
14) Methyl Acetate	7.25	43	1866938	52.80 ppb	99
15) Dichloromethane (Methylene	7.45	84	2079869	43.05 ppb	98
16) 2-Methyl-2-propanol (tert-	7.51	59	890064	234.82 ppb	97
17) Methyl tert-Butyl Ether	7.87	73	4686099	53.38 ppb	100
18) trans-1,2-Dichloroethene	7.91	96	1813751	49.08 ppb	99
19) Diisopropyl Ether	8.59	45	8243304	49.03 ppb	100
20) Vinyl Acetate	8.54	86	588204	104.47 ppb #	93
21) 1,1-Dichloroethane (1,1-DC	8.56	63	3584106	48.59 ppb	99
22) Ethyl tert-Butyl Ether	9.20	59	5912749	50.74 ppb	99
23) 2,2-Dichloropropane	9.55	77	2341218	48.29 ppb	100
24) 2-Butanone (MEK)	9.45	72	899464	226.45 ppb #	90
25) cis-1,2-Dichloroethene	9.51	96	1968528	49.30 ppb	99
26) Bromochloromethane	9.91	128	953975	49.82 ppb	98
27) Chloroform	9.98	83	3043643	48.32 ppb	99
28) 1,1,1-Trichloroethane (TCA	10.37	97	2248677	50.37 ppb	99
30) Cyclohexane	10.52	56	3906134	57.00 ppb	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : J:\MS04\DATA\041105\0411F019.D
Acq On : 11 Apr 2005 6:44 pm
Sample : ~~IB~~
Misc :
MS Integration Params: RTEINT.P
Quant Time: Apr 11 19:45:30 2005

Vial: 13
Operator: KR
Inst : MS04
Multiplr: 1.00

Quant Results File: 041105SOILCLP.R

Quant Method : J:\MS04\METHODS\041105SOILCLP.M (RTE Integrator)
Title : MS04 APPX SOIL CAL 3288
Last Update : Mon Apr 11 19:41:27 2005
Response via : Initial Calibration
DataAcq Meth : 524W2

Compound	R.T.	QIon	Response	Conc Unit		Qvalue
31) Carbon Tetrachloride	10.67	117	1880433	50.15 ppb		100
32) 1,1-Dichloropropene	10.62	75	2522077	46.56 ppb		100
33) tert-Amyl Methyl Ether	11.04	87	981662	49.22 ppb		98
35) Benzene	10.97	78	7524339	50.51 ppb		99
36) 1,2-Dichloroethane (EDC)	10.93	62	2070644	49.78 ppb		98
37) Trichloroethene (TCE)	11.94	95	1858624	50.29 ppb		100
38) 1,2-Dichloropropane	12.27	63	2283458	50.25 ppb		86
39) Methyl Cyclohexane	12.30	83	3194086	53.77 ppb		98
40) Dibromomethane	12.47	93	1171270	48.78 ppb		98
41) Bromodichloromethane	12.66	83	2436341	51.14 ppb		99
42) 2-Chloroethyl Vinyl Ether	13.03	63	1112113	52.27 ppb		99
43) cis-1,3-Dichloropropene	13.34	75	3326236	50.79 ppb		98
44) 4-Methyl-2-pentanone (MIBK	13.49	43	11645620	238.43 ppb		99
46) Toluene	13.91	92	4382729	48.82 ppb		100
48) trans-1,3-Dichloropropene	14.14	75	2662655	48.62 ppb		99
49) 1,1,2-Trichloroethane	14.45	83	1427607	51.47 ppb		99
50) Tetrachloroethene (PCE)	14.77	164	1398382	50.71 ppb		99
51) 2-Hexanone	14.73	43	8207626	229.94 ppb		99
52) 1,3-Dichloropropane	14.71	76	3026268	50.57 ppb		99
53) Dibromochloromethane	15.08	129	1737165	51.54 ppb		99
54) 1,2-Dibromoethane (EDB)	15.30	107	1614525	50.36 ppb		98
55) 1-Chlorohexane	15.85	91	2929750	100.71 ppb		99
56) Chlorobenzene	15.99	112	4371192	49.25 ppb		99
57) Ethylbenzene	16.09	106	2247578	49.66 ppb		99
58) 1,1,1,2-Tetrachloroethane	16.07	131	1566019	49.83 ppb		100
59) m,p-Xylenes	16.24	106	5451086	95.79 ppb		99
60) o-Xylene	16.82	106	2614138	47.59 ppb		99
61) Styrene	16.82	104	4682729	48.71 ppb		99
62) Bromoform	17.13	173	1045792	50.23 ppb		98
63) Isopropylbenzene (Cumene)	17.29	105	6297314	43.11 ppb		100
66) 1,1,2,2-Tetrachloroethane	17.65	83	2064193	49.94 ppb		99
67) Bromobenzene	17.80	156	1630457	50.25 ppb		95
68) n-Propylbenzene	17.85	91	9049037	50.81 ppb		100
69) trans-1,4-Dichloro-2-buten	17.85	53	51447	4.81 ppb	#	1
70) 1,2,3-Trichloropropane	17.75	110	521491	50.33 ppb		100
71) 2-Chlorotoluene	18.03	91	5754831	50.73 ppb		100
72) 1,3,5-Trimethylbenzene	18.05	105	5541158	50.95 ppb		99
73) 4-Chlorotoluene	18.16	91	5231951	49.59 ppb		99
74) tert-Butylbenzene	18.53	119	5277153	49.38 ppb		99
75) 1,2,4-Trimethylbenzene	18.58	105	5587288	50.57 ppb		100
76) sec-Butylbenzene	18.83	105	7347177	52.03 ppb		100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : J:\MS04\DATA\041105\0411F019.D
Acq On : 11 Apr 2005 6:44 pm
Sample : ~~IB~~ 5260 soil RC
Misc :
MS Integration Params: RTEINT.P
Quant Time: Apr 11 19:45:30 2005

Vial: 13
Operator: KR
Inst : MS04
Multiplr: 1.00

Quant Results File: 041105SOILCLP.R

Quant Method : J:\MS04\METHODS\041105SOILCLP.M (RTE Integrator)
Title : MS04 APPX SOIL CAL 3288
Last Update : Mon Apr 11 19:41:27 2005
Response via : Initial Calibration
DataAcq Meth : 524W2

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
77) p-Isopropyltoluene	18.98	119	5611172	47.54 ppb	100
78) 1,3-Dichlorobenzene	19.06	146	2781326	48.44 ppb	99
79) 1,4-Dichlorobenzene	19.17	146	2832783	49.27 ppb	99
80) n-Butylbenzene	19.54	91	6111706	49.92 ppb	99
81) 1,2-Dichlorobenzene	19.70	146	2548986	47.98 ppb	99
82) 1,2-Dibromo-3-chloropropan	20.75	157	317479	48.77 ppb	100
83) 1,2,4-Trichlorobenzene	22.01	180	1762166	50.49 ppb	99
84) Hexachlorobutadiene	22.21	225	911490	50.99 ppb	99
85) Naphthalene	22.45	128	4215219	51.99 ppb	100
86) 1,2,3-Trichlorobenzene	22.85	180	1642760	51.06 ppb	99

(#) = qualifier out of range (m) = manual integration

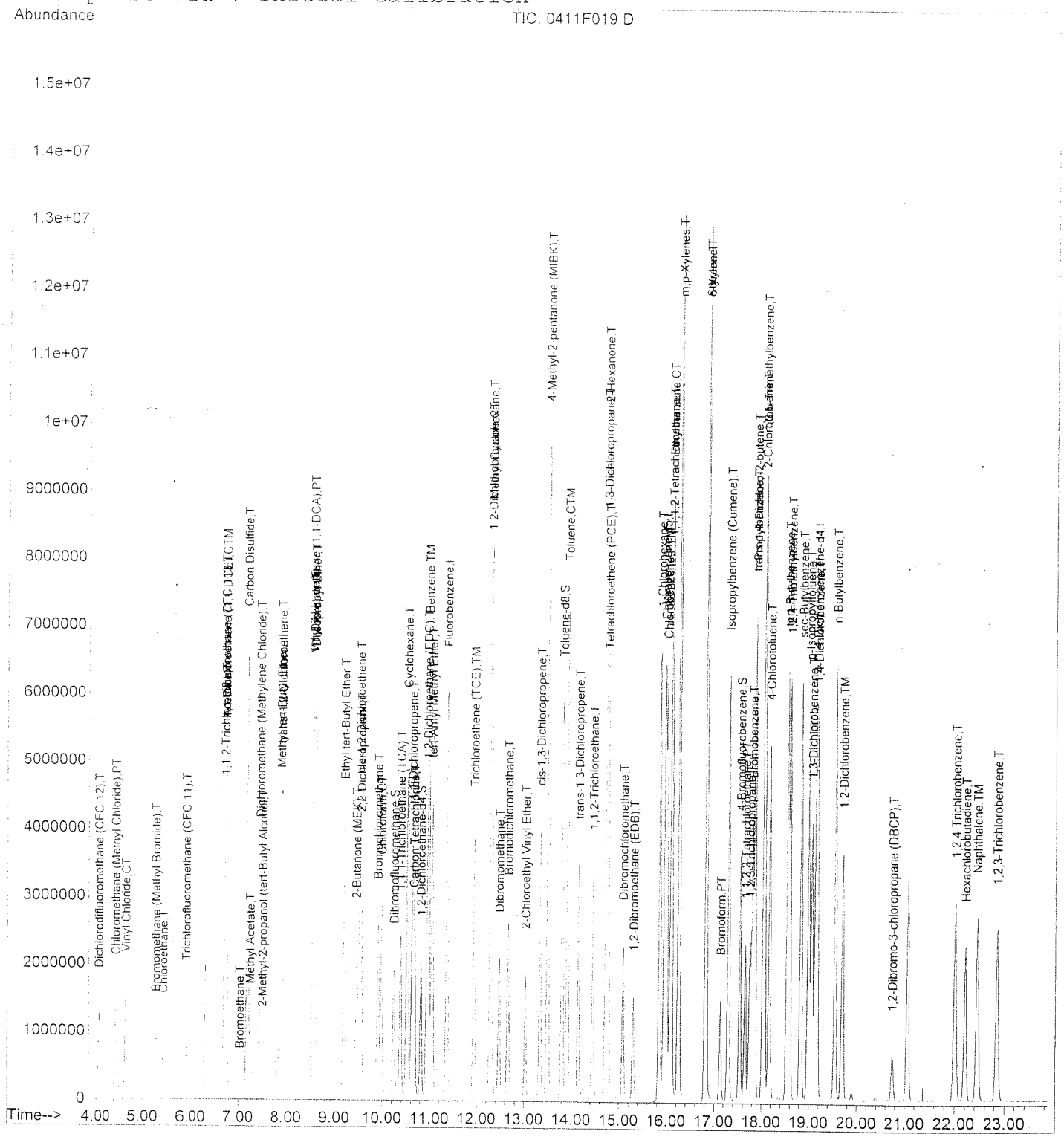
Quantitation Report (QT Reviewed)

Data File : J:\MS04\DATA\041105\0411F019.D
Acq On : 11 Apr 2005 6:44 pm
Sample : ~~IB~~ 9240 Soil 10
Misc :
MS Integration Params: RTEINT.P KR 4/4/5
Quant Time: Apr 11 19:46 2005

Vial: 13
Operator: KR
Inst : MS04
Multiplr: 1.00

Quant Results File: 041105SOILCL

Method : J:\MS04\METHODS\041105SOILCLP.M (RTE Integrator)
Title : MS04 APPX SOIL CAL 3288
Last Update : Mon Apr 11 19:41:27 2005
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : J:\MS04\DATA\041105A\0411F019.D
Acq On : 11 Apr 2005 6:44 pm
Sample : ~~IB~~ KV
Misc :
MS Integration Params: RTEINT.P
Quant Time: Apr 14 08:21:03 2005

Vial: 13
Operator: KR
Inst : MS04
Multiplr: 1.00

Quant Results File: 041105SOILCLP4.

Quant Method : J:\MS04\M...\041105SOILCLP4.2.M (RTE Integrator)
Title : MS04 APPX ~~SOIL CAL 3288~~
Last Update : Thu Apr 14 08:18:35 2005
Response via : Initial Calibration
DataAcq Meth : 524W2

04/14/05

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene	11.35	96	7391812	50.00 ppb	0.00
47) Chlorobenzene-d5	15.94	117	5020833	50.00 ppb	0.00
65) 1,4-Dichlorobenzene-d4	19.13	152	2075486	50.00 ppb	0.00
System Monitoring Compounds					
29) Dibromofluoromethane	10.24	113	1673549	46.19 ppb	0.00
Spiked Amount 50.000			Recovery =	92.38%	
34) 1,2-Dichloroethane-d4	10.81	65	1685171	47.91 ppb	0.00
Spiked Amount 50.000			Recovery =	95.82%	
45) Toluene-d8	13.80	98	5688786	43.84 ppb	0.00
Spiked Amount 50.000			Recovery =	87.68%	
64) 4-Bromofluorobenzene	17.54	95	2071032	44.96 ppb	0.00
Spiked Amount 50.000			Recovery =	89.92%	

Target Compounds					Qvalue
2) Dichlorodifluoromethane (C	4.06	85	1623136	46.58 ppb	100
3) Chloromethane (Methyl Chlo	4.44	50	2727744	47.58 ppb	100
4) Vinyl Chloride	4.65	62	2085467	46.47 ppb	100
5) Bromomethane (Methyl Bromi	5.27	94	981831	50.86 ppb	99
6) Chloroethane	5.44	64	1093130	46.62 ppb	99
7) Dichlorofluoromethane (CFC	5.73	67	1550	0.03 ppb #	49
8) Trichlorofluoromethane (CF	5.89	101	1547356	45.20 ppb	100
9) 1,1,2-Trichlorotrifluoroet	6.71	151	1310311	51.73 ppb	97
10) 1,1-Dichloroethene (1,1-DC	6.74	96	1597260	50.63 ppb	98
11) Acetone	6.74	43	2390115	207.55 ppb	99
12) Bromoethane	7.04	108	17899	131.54 ppb	93
13) Carbon Disulfide	7.18	76	13174554	91.53 ppb	100
14) Methyl Acetate	7.25	43	1866938	52.80 ppb	99
15) Dichloromethane (Methylene	7.45	84	2079869	39.11 ppb	95
16) 2-Methyl-2-propanol (tert-	7.51	59	890064	234.82 ppb	100
17) Methyl tert-Butyl Ether	7.87	73	4686099	53.38 ppb	100
18) trans-1,2-Dichloroethene	7.91	96	1813751	49.08 ppb	98
19) Diisopropyl Ether	8.59	45	8243304	49.03 ppb	100
20) Vinyl Acetate	8.54	86	588204	104.47 ppb #	90
21) 1,1-Dichloroethane (1,1-DC	8.56	63	3584106	48.59 ppb	100
22) Ethyl tert-Butyl Ether	9.20	59	5912749	50.74 ppb	99
23) 2,2-Dichloropropane	9.55	77	2341218	48.29 ppb	100
24) 2-Butanone (MEK)	9.45	72	899464	226.45 ppb	99
25) cis-1,2-Dichloroethene	9.51	96	1968528	49.30 ppb	99
26) Bromochloromethane	9.91	128	953975	49.82 ppb	97
27) Chloroform	9.98	83	3043643	48.32 ppb	100
28) 1,1,1-Trichloroethane (TCA	10.37	97	2248677	50.37 ppb	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : J:\MS04\DATA\041105A\0411F019.D
Acq On : 11 Apr 2005 6:44 pm
Sample : ~~IB~~ IC
Misc :
MS Integration Params: RTEINT.P
Quant Time: Apr 14 08:21:03 2005

Vial: 13
Operator: KR
Inst : MS04
Multiplr: 1.00

Quant Results File: 041105SOILCLP4.

Quant Method : J:\MS04\M...\041105SOILCLP4.2.M (RTE Integrator)
Title : MS04 APPX SOIL CAL 3288
Last Update : Thu Apr 14 08:18:35 2005
Response via : Initial Calibration
DataAcq Meth : 524W2

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
30)	Cyclohexane	10.52	56	3906134	57.00	ppb		99
31)	Carbon Tetrachloride	10.67	117	1880433	50.15	ppb		99
32)	1,1-Dichloropropene	10.62	75	2522077	46.56	ppb		99
33)	tert-Amyl Methyl Ether	11.04	87	981662	49.22	ppb		99
35)	Benzene	10.97	78	7524339	50.51	ppb		99
36)	1,2-Dichloroethane (EDC)	10.93	62	2070644	49.78	ppb		99
37)	Trichloroethene (TCE)	11.94	95	1858624	50.29	ppb		99
38)	1,2-Dichloropropane	12.27	63	2283458	50.25	ppb		93
39)	Methyl Cyclohexane	12.30	83	3194086	53.77	ppb		97
40)	Dibromomethane	12.47	93	1171270	48.78	ppb		99
41)	Bromodichloromethane	12.66	83	2436341	51.14	ppb		98
42)	2-Chloroethyl Vinyl Ether	13.03	63	1112113	52.27	ppb		100
43)	cis-1,3-Dichloropropene	13.34	75	3326236	50.79	ppb		99
44)	4-Methyl-2-pentanone (MIBK	13.49	43	11645620	238.43	ppb		100
46)	Toluene	13.91	92	4382729	48.82	ppb		99
48)	trans-1,3-Dichloropropene	14.14	75	2662655	48.62	ppb		99
49)	1,1,2-Trichloroethane	14.45	83	1427607	51.47	ppb		99
50)	Tetrachloroethene (PCE)	14.77	164	1398382	50.71	ppb		99
51)	2-Hexanone	14.73	43	8207626	229.94	ppb		99
52)	1,3-Dichloropropane	14.71	76	3026268	50.57	ppb		99
53)	Dibromochloromethane	15.08	129	1737165	51.54	ppb		100
54)	1,2-Dibromoethane (EDB)	15.30	107	1614525	50.36	ppb		100
55)	1-Chlorohexane	15.85	91	2929750	100.71	ppb		99
56)	Chlorobenzene	15.99	112	4371192	49.25	ppb		100
57)	Ethylbenzene	16.09	106	2247578	49.66	ppb		98
58)	1,1,1,2-Tetrachloroethane	16.07	131	1566019	49.83	ppb		99
59)	m,p-Xylenes	16.24	106	5445433	95.69	ppb		98
60)	o-Xylene	16.82	106	2614138	47.59	ppb		99
61)	Styrene	16.82	104	4682729	48.71	ppb		99
62)	Bromoform	17.13	173	1045792	50.23	ppb		99
63)	Isopropylbenzene (Cumene)	17.29	105	6297314	43.11	ppb		100
66)	1,1,2,2-Tetrachloroethane	17.65	83	2064193	49.94	ppb		99
67)	Bromobenzene	17.80	156	1630457	50.25	ppb		94
68)	n-Propylbenzene	17.85	91	9049037	50.81	ppb		99
69)	trans-1,4-Dichloro-2-buten	17.85	53	51447	4.81	ppb	#	1
70)	1,2,3-Trichloropropane	17.75	110	521491	50.33	ppb		99
71)	2-Chlorotoluene	18.03	91	5754831	50.73	ppb		99
72)	1,3,5-Trimethylbenzene	18.05	105	5541158	50.95	ppb		100
73)	4-Chlorotoluene	18.16	91	5231951	49.59	ppb		100
74)	tert-Butylbenzene	18.53	119	5277153	49.38	ppb		99
75)	1,2,4-Trimethylbenzene	18.58	105	5587288	50.57	ppb		100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : J:\MS04\DATA\041105A\0411F019.D
Acq On : 11 Apr 2005 6:44 pm
Sample : ~~IE~~ IC
Misc :
MS Integration Params: RTEINT.P
Quant Time: Apr 14 08:21:03 2005

Vial: 13
Operator: KR
Inst : MS04
Multiplr: 1.00
Quant Results File: 041105SOILCLP4.

Quant Method : J:\MS04\M...\041105SOILCLP4.2.M (RTE Integrator)
Title : MS04 APPX SOIL CAL 3288
Last Update : Thu Apr 14 08:18:35 2005
Response via : Initial Calibration
DataAcq Meth : 524W2

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
76)	sec-Butylbenzene	18.83	105	7347177	52.03 ppb	99
77)	p-Isopropyltoluene	18.98	119	5611172	47.54 ppb	100
78)	1,3-Dichlorobenzene	19.06	146	2781326	48.44 ppb	99
79)	1,4-Dichlorobenzene	19.17	146	2832783	49.27 ppb	99
80)	n-Butylbenzene	19.54	91	6111706	49.92 ppb	99
81)	1,2-Dichlorobenzene	19.70	146	2548986	47.98 ppb	99
82)	1,2-Dibromo-3-chloropropan	20.75	157	317479	48.77 ppb	98
83)	1,2,4-Trichlorobenzene	22.01	180	1762166	50.49 ppb	99
84)	Hexachlorobutadiene	22.21	225	911490	50.99 ppb	98
85)	Naphthalene	22.45	128	4215219	51.99 ppb	100
86)	1,2,3-Trichlorobenzene	22.85	180	1642760	51.06 ppb	99

(#) = qualifier out of range (m) = manual integration

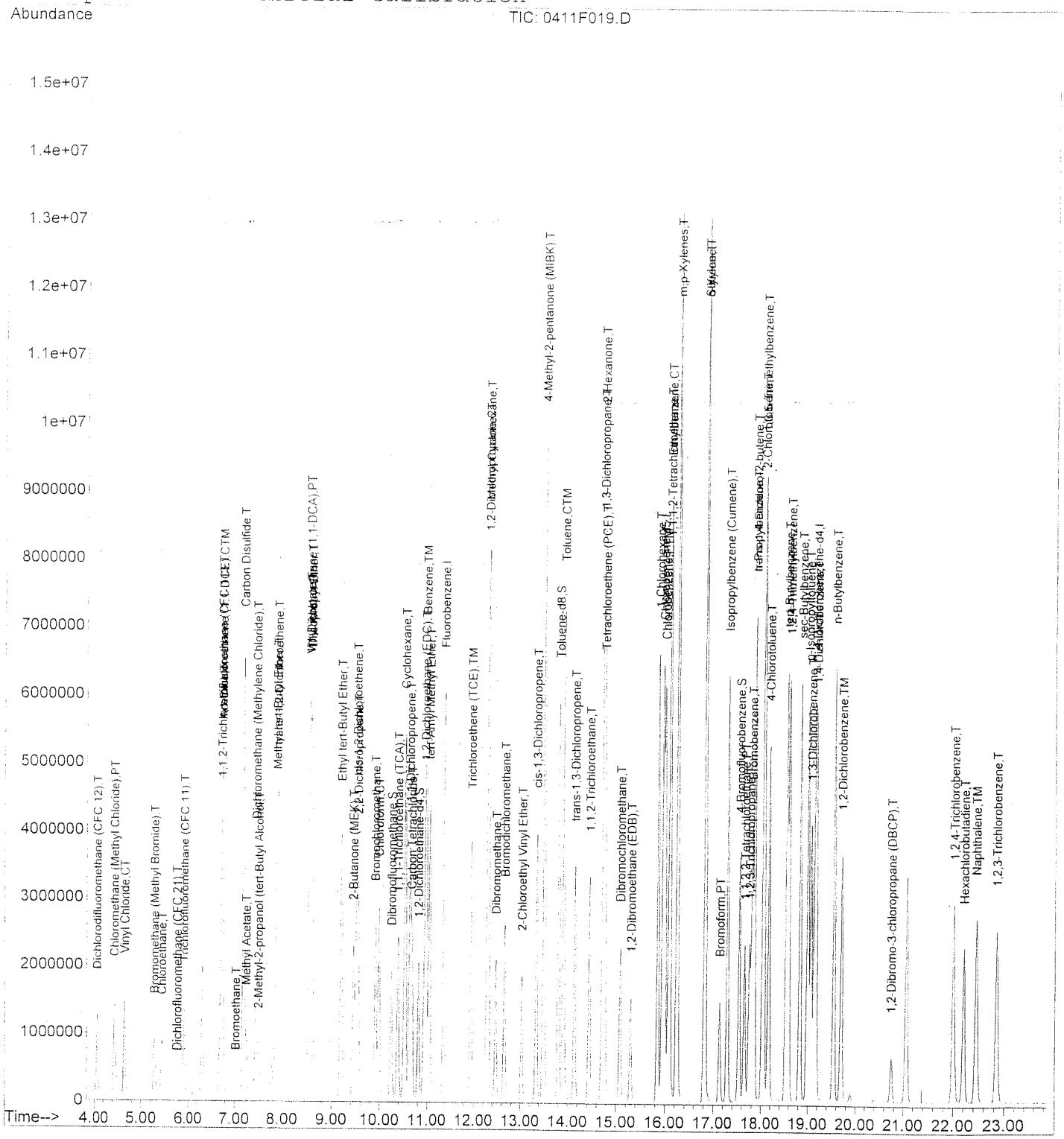
Quantitation Report (QT Reviewed)

Data File : J:\MS04\DATA\041105A\0411F019.D
Acq On : 11 Apr 2005 6:44 pm
Sample : ~~IB~~ ICV
Misc :
MS Integration Params: RTEINT.P
Quant Time: Apr 14 8:21 2005

Vial: 13
Operator: KR
Inst : MS04
Multiplr: 1.00

Quant Results File: 041105SOILCL

Method : J:\MS04\METHODS\041105SOILCLP4.2.M (RTE Integrator)
Title : MS04 APPX SOIL CAL 3288
Last Update : Thu Apr 14 08:18:35 2005
Response via : Initial Calibration



COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

Client: Battelle Memorial Institute
Project: Novato Ballfields/G486063

Service Request: K2502554
Date Analyzed: 04/13/2005

Continuing Calibration Verification Summary
Volatile Organic Compounds

Calibration Type: Internal Standard
Analysis Method: 8260B

Calibration Date: 04/11/2005
Calibration ID: CAL4367
Analysis Lot: KWG0506050
Units: ppb

File ID: J:\MS04\DATA\041305\0413F003.D

Analyte Name	Expected	Result	Min RF	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Dichlorodifluoromethane	50	39	0.01	0.236	0.184	-22	NA	± 40 %	AverageRF
† Chloromethane	50	44	0.10	0.388	0.340	-12	NA	± 40 %	AverageRF
‡ Vinyl Chloride	50	46	0.01	0.304	0.279	-8	NA	± 20 %	AverageRF
Bromomethane	50	51	0.01	0.131	0.133	2	NA	± 40 %	AverageRF
Chloroethane	50	46	0.01	0.159	0.147	-7	NA	± 40 %	AverageRF
Trichlorofluoromethane	50	47	0.01	0.232	0.218	-6	NA	± 30 %	AverageRF
Trichlorotrifluoroethane	50	48	0.01	0.171	0.165	-4	NA	± 30 %	AverageRF
Acetone	100	100	0.01	0.0779	0.0798	2	NA	± 30 %	AverageRF
‡ 1,1-Dichloroethene	50	47	0.01	0.213	0.202	-5	NA	± 20 %	AverageRF
Methyl Acetate	50	55	0.01	0.239	0.262	9	NA	± 30 %	AverageRF
Carbon Disulfide	50	46	0.01	0.974	0.901	-7	NA	± 30 %	AverageRF
Diisopropyl Ether	50	52	0.01	1.14	1.18	3	NA	± 30 %	AverageRF
Methylene Chloride	50	43	0.01	0.327	0.278	-15	NA	± 30 %	AverageRF
Methyl tert-Butyl Ether	100	100	0.01	0.594	0.621	5	NA	± 30 %	AverageRF
trans-1,2-Dichloroethene	50	48	0.01	0.250	0.239	-4	NA	± 30 %	AverageRF
† 1,1-Dichloroethane	50	48	0.10	0.499	0.483	-3	NA	± 30 %	AverageRF
2-Butanone (MEK)	100	100	0.01	0.0269	0.0281	5	NA	± 30 %	AverageRF
cis-1,2-Dichloroethene	50	48	0.01	0.270	0.260	-4	NA	± 30 %	AverageRF
‡ Chloroform	50	49	0.01	0.426	0.416	-2	NA	± 20 %	AverageRF
1,1,1-Trichloroethane (TCA)	50	49	0.01	0.302	0.295	-2	NA	± 30 %	AverageRF
Cyclohexane	50	58	0.01	0.464	0.540	17	NA	± 30 %	AverageRF
Carbon Tetrachloride	50	49	0.01	0.254	0.247	-3	NA	± 30 %	AverageRF
1,2-Dichloroethane (EDC)	50	50	0.01	0.281	0.281	0	NA	± 30 %	AverageRF
Benzene	50	50	0.01	1.01	1.00	-1	NA	± 30 %	AverageRF
Trichloroethene (TCE)	50	49	0.01	0.250	0.244	-2	NA	± 30 %	AverageRF
‡ 1,2-Dichloropropane	50	49	0.01	0.307	0.304	-1	NA	± 20 %	AverageRF
Bromodichloromethane	50	50	0.01	0.322	0.320	-1	NA	± 30 %	AverageRF
Methylcyclohexane	50	56	0.01	0.402	0.451	12	NA	± 30 %	AverageRF
2-Hexanone	100	110	0.01	0.355	0.379	7	NA	± 30 %	AverageRF
cis-1,3-Dichloropropene	50	51	0.01	0.443	0.452	2	NA	± 30 %	AverageRF
‡ Toluene	50	49	0.01	0.607	0.594	-2	NA	± 20 %	AverageRF
trans-1,3-Dichloropropene	50	52	0.01	0.545	0.569	4	NA	± 30 %	AverageRF
1,1,2-Trichloroethane	50	51	0.01	0.276	0.283	2	NA	± 30 %	AverageRF
4-Methyl-2-pentanone (MIBK)	100	110	0.01	0.330	0.362	10	NA	± 30 %	AverageRF
Tetrachloroethene (PCE)	50	50	0.01	0.275	0.273	0	NA	± 30 %	AverageRF
Dibromochloromethane	50	51	0.01	0.336	0.344	2	NA	± 30 %	AverageRF
1,2-Dibromoethane (EDB)	50	52	0.01	0.319	0.333	4	NA	± 30 %	AverageRF
† Chlorobenzene	50	49	0.30	0.884	0.868	-2	NA	± 30 %	AverageRF

Results flagged with an asterisk (*) indicate values outside control criteria.

† SPCC Compound **‡ CCC Compound**

Client: Battelle Memorial Institute
Project: Novato Ballfields/G486063

Service Request: K2502554
Date Analyzed: 04/13/2005

Continuing Calibration Verification Summary
Volatile Organic Compounds

Calibration Type: Internal Standard
Analysis Method: 8260B

Calibration Date: 04/11/2005
Calibration ID: CAL4367
Analysis Lot: KWG0506050
Units: ppb

Analyte Name	Expected	Result	Min RF	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
‡ Ethylbenzene	50	49	0.01	0.451	0.442	-2	NA	± 20 %	AverageRF
m,p-Xylenes	100	98	0.01	0.567	0.556	-2	NA	± 30 %	AverageRF
o-Xylene	50	49	0.01	0.547	0.534	-2	NA	± 30 %	AverageRF
Styrene	50	50	0.01	0.957	0.958	0	NA	± 30 %	AverageRF
† Bromoform	50	52	0.10	0.207	0.214	3	NA	± 30 %	AverageRF
Isopropylbenzene	50	49	0.01	1.45	1.44	-1	NA	± 30 %	AverageRF
† 1,1,2,2-Tetrachloroethane	50	51	0.30	0.996	1.02	2	NA	± 30 %	AverageRF
1,3-Dichlorobenzene	50	49	0.01	1.38	1.36	-1	NA	± 30 %	AverageRF
1,4-Dichlorobenzene	50	49	0.01	1.39	1.37	-1	NA	± 30 %	AverageRF
1,2-Dichlorobenzene	50	49	0.01	1.28	1.26	-2	NA	± 30 %	AverageRF
1,2-Dibromo-3-chloropropane	50	51	0.01	0.157	0.161	3	NA	± 30 %	AverageRF
1,2,4-Trichlorobenzene	50	51	0.01	0.841	0.854	2	NA	± 30 %	AverageRF
Naphthalene	50	52	0.01	1.95	2.03	4	NA	± 30 %	AverageRF
Bromochloromethane	50	49	0.01	0.130	0.128	-1	NA	± 30 %	AverageRF
1,2,3-Trichlorobenzene	50	51	0.01	0.775	0.793	2	NA	± 30 %	AverageRF
Dibromofluoromethane	50	53	0.01	0.245	0.258	5	NA	± 30 %	AverageRF
Toluene-d8	50	54	0.01	0.878	0.942	7	NA	± 30 %	AverageRF
4-Bromofluorobenzene	50	53	0.01	0.459	0.487	6	NA	± 30 %	AverageRF

Results flagged with an asterisk (*) indicate values outside control criteria.

† SPCC Compound **‡ CCC Compound**

Exception Report

Data File: J:\MS04\DATA\041305\0413F003.D
Lab ID: KWG0506050-2
RunType: CCV
Matrix: SOIL

Date Acquired: 04/13/2005 09:14
Date Quantitated: 04/13/2005 09:49
Batch ID: KWG0506050
Analysis Method: 8260B
MethodJoinID: MJ120

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Tune Window	NA	NA	NA	x	
ICAL Pass/Fail	NA	NA	NA	x	
ICAL Average RSD	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA	x	
Initial Calibration SPCC/CCC	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA		x
Internal Standards	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Second Source ICAL Verification	trans-1,4-Dichloro-2-butene	-90.4	NA	30	NC
	1-Chlorohexane	101.4	NA	30	

Primary Review: [illegible]

Secondary Review: [illegible]

Quantitation Report

Bottle ID:		**Tier:**		**Matrix:**	SOIL
Prod Code:	8260	**Collect Date:**		**Receive Date:**	04/14/2005

Analysis Lot:	KWG0506050	**Prep Lot:**		**Report Group:**	
Analysis Method:	8260B	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\MS04\METHODS\041105SOILCL	**Calibration ID:**	CAL4367
Title:			
Tune Ref:	J:\MS04\DATA\041305\0413F002.D	**Method ID:**	MJ120
MB Ref:		**Quant based on Method**	

Data File:	J:\MS04\DATA\041305\0413F003.D			**Instrument:**	MS04
Acqu Date:	04/13/2005 09:14	**Quant Date:**	04/13/2005 09:49	**Vial:**	4
Run Type:	CCV			**Dilution:**	1.0
Lab ID:	KWG0506050-2			**Soln Conc. Units:**	ppb

Internal Standard Compounds

IS Ref	Parameter Name	RT	RT Dev	Quant Mass	Response	Solution Conc	Area Criteria
1	Fluorobenzene	11.35	0.01	96	7370956	50.00	OK
2	Chlorobenzene-d5	15.94	0.00	117	5088337	50.00	OK
3	1,4-Dichlorobenzene-d4	19.13	0.00	152	2169733	50.00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits	Rpt?
1	Dibromofluoromethane	10.23			113	1902262	52.65		70-119	NA
1	1,2-Dichloroethane-d4	10.80			65	1818543	51.85		61-123	NA
1	Toluene-d8	13.80			98	6940405	53.63		72-121	NA
2	4-Bromofluorobenzene	17.53			95	2478596	53.10		66-122	NA

Target Compounds

Final Conc. Units:

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Dichlorodifluoromethane	4.06			85	1359261	39.12			
1	Chloromethane	4.44			50	2503051	43.79			
1	Vinyl Chloride	4.65			62	2056985	45.97			
1	Bromomethane	5.28			94	982533	51.04			
1	Chloroethane	5.45			64	1084823	46.39			
1	Trichlorofluoromethane	5.88			101	1605146	47.02			
1	Trichlorotrifluoroethane	6.70			151	1214284	48.07			
1	1,1-Dichloroethene	6.74			96	1491781	47.42			
1	Acetone	6.74			43	1175906	102.40			
1	Carbon Disulfide	7.18			76	6644199	46.29			
1	Methyl Acetate	7.24			43	1927759	54.67			
1	Methylene Chloride	7.46			84	2049729	42.54			
1	tert-Butyl Alcohol	7.51			59	994053	263.00			
1	Methyl tert-Butyl Ether	7.87			73	9155190	104.59			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File:	J:\MS04\DATA\041305\0413F003.D			**Instrument:**	MS04
Acqu Date:	04/13/2005 09:14	**Quant Date:**	04/13/2005 09:49	**Vial:**	4
Run Type:	CCV			**Dilution:**	1.0
Lab ID:	KWG0506050-2			**Soln Conc. Units:**	ppb

Target Compounds **Final Conc. Units:**

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
1	trans-1,2-Dichloroethene	7.90			96	1761459	47.80			
1	Diisopropyl Ether	8.59			45	8671067	51.72			
1	Vinyl Acetate	8.54			86	294953	52.54			
1	1,1-Dichloroethane	8.55			63	3561567	48.42			
1	tert-Butyl Ethyl Ether	9.20			59	6096496	52.46			
1	2,2-Dichloropropane	9.54			77	2388355	49.40			
1	2-Butanone (MEK)	9.45			72	414385	104.62			
1	cis-1,2-Dichloroethene	9.51			96	1917719	48.16			
1	Bromochloromethane	9.91			128	942530	49.36			
1	Chloroform	9.97			83	3066508	48.82			
1	1,1,1-Trichloroethane (TCA)	10.37			97	2174816	48.85			
1	Cyclohexane	10.51			56	3982105	58.28			
1	Carbon Tetrachloride	10.67			117	1819421	48.66			
1	1,1-Dichloropropene	10.61			75	2623430	48.57			
1	tert-Amyl Methyl Ether	11.04			87	1043715	52.48			
1	Benzene	10.96			78	7387917	49.73			
1	1,2-Dichloroethane (EDC)	10.93			62	2072868	49.97			
1	Trichloroethene (TCE)	11.93			95	1800437	48.85			
1	1,2-Dichloropropane	12.27			63	2239299	49.41			
1	Methylcyclohexane	12.30			83	3325030	56.13			
1	Dibromomethane	12.46			93	1200658	50.15			
1	Bromodichloromethane	12.65			83	2356279	49.60			
1	2-Chloroethyl Vinyl Ether	13.02			63	1144412	53.94			
1	cis-1,3-Dichloropropene	13.33			75	3333821	51.05			
1	4-Methyl-2-pentanone (MIBK)	13.49			43	5341585	109.67			
1	Toluene	13.90			92	4376283	48.89			
2	trans-1,3-Dichloropropene	14.14			75	2893670	52.13			
2	1,1,2-Trichloroethane	14.44			83	1437908	51.15			
2	Tetrachloroethene (PCE)	14.76			164	1391259	49.78			
2	2-Hexanone	14.73			43	3855716	106.59			
2	1,3-Dichloropropane	14.70			76	3092031	50.98			
2	Dibromochloromethane	15.07			129	1749644	51.22			
2	1,2-Dibromoethane (EDB)	15.29			107	1692263	52.08			
2	1-Chlorohexane	15.84			91	1443237	48.96			
2	Chlorobenzene	15.99			112	4418278	49.12			
2	Ethylbenzene	16.09			106	2246826	48.99			
2	1,1,1,2-Tetrachloroethane	16.06			131	1584083	49.74			
2	m,p-Xylenes	16.24			106	5657203	98.09			
2	o-Xylene	16.81			106	2714823	48.77			
2	Styrene	16.81			104	4875643	50.04			
2	Bromoform	17.13			173	1090018	51.66			
2	Isopropylbenzene	17.29			105	7326693	49.49			
3	1,1,2,2-Tetrachloroethane	17.64			83	2210466	51.16			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File:	J:\MS04\DATA\041305\0413F003.D			**Instrument:**	MS04
Acqu Date:	04/13/2005 09:14	**Quant Date:**	04/13/2005 09:49	**Vial:**	4
Run Type:	CCV			**Dilution:**	1.0
Lab ID:	KWG0506050-2			**Soln Conc. Units:**	ppb

Target Compounds **Final Conc. Units:**

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
3	Bromobenzene	17.79			156	1724940	50.85			
3	n-Propylbenzene	17.84			91	9587313	51.49			
3	trans-1,4-Dichloro-2-butene	17.70			53	602013	53.88			
3	1,2,3-Trichloropropane	17.74			110	563477	52.02			
3	2-Chlorotoluene	18.02			91	6036394	50.90			
3	1,3,5-Trimethylbenzene	18.05			105	5776863	50.81			
3	4-Chlorotoluene	18.16			91	5606467	50.83			
3	tert-Butylbenzene	18.53			119	5516658	49.37			
3	1,2,4-Trimethylbenzene	18.58			105	5747808	49.76			
3	sec-Butylbenzene	18.82			105	7407738	50.18			
3	4-Isopropyltoluene	18.98			119	6175070	50.05			
3	1,3-Dichlorobenzene	19.05			146	2956953	49.26			
3	1,4-Dichlorobenzene	19.16			146	2968710	49.39			
3	n-Butylbenzene	19.53			91	6503627	50.81			
3	1,2-Dichlorobenzene	19.69			146	2732312	49.20			
3	1,2-Dibromo-3-chloropropane	20.74			157	349258	51.32			
3	1,2,4-Trichlorobenzene	22.00			180	1852072	50.76			
3	Hexachlorobutadiene	22.20			225	904222	48.38			
3	Naphthalene	22.45			128	4393863	51.84			
3	1,2,3-Trichlorobenzene	22.85			180	1719752	51.13			

U: Undetected at or above MDL
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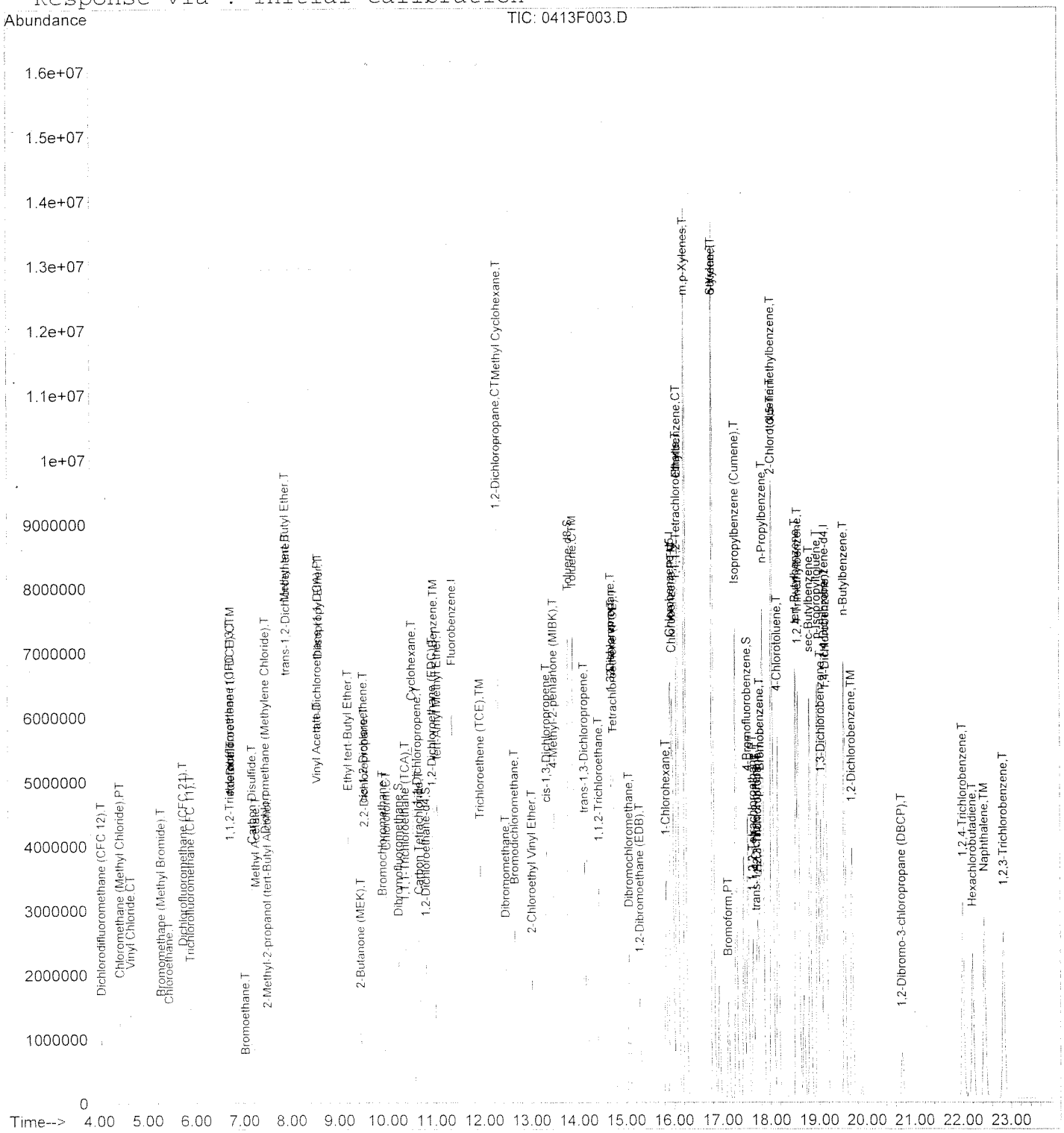
*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report (QT Reviewed)

Data File : J:\MS04\DATA\041305\0413F003.D
Acq On : 13 Apr 2005 9:14 am
Sample : 8260/CLP SOIL CCV
Misc :
MS Integration Params: RTEINT.P
Quant Time: Apr 13 9:49 2005

Vial: 4
Operator: KR
Inst : MS04
Multiplr: 1.00
Quant Results File: 041105SOILCL

Method : J:\MS04\METHODS\041105SOILCLP.M (RTE Integrator)
Title : MS04 APPX SOIL CAL 3288
Last Update : Mon Apr 11 19:41:27 2005
Response via : Initial Calibration



Organic Analysis:
Volatile Organic Compounds

Validation Package

Sample Prep and Screen Data

COLUMBIA ANALYTICAL SERVICES
VOA DAILY ANALYSIS LOG
GCMS 5971 MS-04

ICAL Date: 4/14/05 Cal 4367

DATE: 4/13/5
OPERATOR Kleasoner

TUNE FILE: BFB Cal 4376 CLP 4.2
NEW TUNE?

SECOND REVIEW [signature] 4/14/05 TORR ____ °C

ICV/LCS STD# 38VOA-100D/101D/102A MISC: STD#
IS/SS STD# 39VOA-1B CCV STD# 38VOA 101A/39VOA-1C MS/D STD#

RUN TIME		SAMPLE NAME	DATA FILE	METHOD	PH	DL	R	COMMENTS
1		Primer	0413F001	524L04M				
2		BFB	2			1 µl → 5 ml		
3		8260 Soil CCV	3			12.5/25 µl → 50 ml		
4		LCS	4					
5		DLCS	5					
6		1B	6					
7		8260 Soil MB	7					
8		K2554-1	8					
9		K2607-~~1~~7 KL 4/22/05	9					
10		1B	10					
11		K2304-8	11					
12		9	12					
13		10	13					
14		11	14					
15		12	15					
16		13	16					
17		K2497-8MS	17					
18		8DMS	18					
19		K2607-7~~1~~MS KL 4/22/05	19					
20		7~~1~~DMS	20					
21		K2304-12MS	21					
22		12DMS	22					
23								
24								
25								

LIMS WORKGROUP # KW60506043 / 6044 - CLP 4.2
KW60506050 / 6051 - 8260

COLUMBIA ANALYTICAL SERVICES, INC.

Service Request No.: K2502304, 2554, 2607 Analysis: 8260

Analyst: Kleasoner Date: 4/13/5

Sample Number	Amount (g)	% Solids	Dry Weight (g)	Vol. of P&T ~~MeOH~~ H2O Added KL (mL) 4/13/5	Vol. of Extract Added to Vial (mL)	Weight of Full VOA Vial (g)	Dilution Weight of VOA Vial (g)
0413-MB	5.00			5ml			
↓ LCS	5.00			↓			
↓ DMS	5.00			↓			
(A) K2304-8	5.05			↓			
↓ 9	5.07			↓			
↓ 10	5.12			↓			
↓ 11	5.12			↓			
↓ 12	5.06			↓			
↓ 13	5.01			↓			
K2554-1	5.28			↓			
K2497-8 MS	5.57			↓			
↓ 8DMS	5.64			↓			
K2607-7	5.09			↓			
K2304-12 MS	5.14			↓			
↓ 12DMS	5.11			↓			
K2607-7MS	5.00			↓			
↓ 7DMS	5.00			↓			

Start Time: — Stop Time: — Surrogate: 8260A 1B Spike: 8260A 100D 50µl ↓ 102A 12.5µl 8260A 1D 25µl

P & T MeOH Lot Number: — Extraction Lot Number: K2005Q0044 4/2 Storage Location: —

Comments: (A) Samples were used by PHC before VOA analysis

$$Dilution\ Wt.\ of\ VOA\ Vial = \frac{(Wt.\ of\ Full\ VOA\ Vial\ (g))}{(Vol.\ of\ Extract\ Added\ (uL))}(Vol.\ of\ P\ \&\ T\ MeOH\ Added\ (mL))$$

99SOL-BCH.DOC