Lot # D0F210154

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ANALYTICAL REPORT

Johnson Controls
Fowerville, MI

Lot # D0F210154

Mike Wagner

URS Dames & Moore

STL DENVER

Daniel J. Moore
Project Manager

July 11, 2000

STL Denver is a part of Severn Trent Laboratories, Inc.

Project Narrative
(D0F210154)

On June 21, 2000, the STL Denver laboratory received eight samples from URS Dames and Moore. This report presents the analytical results as well as supporting information to aid in the evaluation and interpretation of the data.

Analytical instructions were provided by the client, the verbal request included samples: SO-TCE-9-7-8, SO-TCE-3-9-10 and SO-TCE-6-7-8.

With the exception of the below mentioned anomalies, standard analytical protocols were followed in the analysis of the samples. All laboratory QC samples analyzed in conjunction with the samples in this project were within established control limits.

GC/MS Volatiles, Method SW846 8260B

Samples D0F210154-004, 006 and 007 were analyzed diluted due to the concentration of target analytes present in the samples.

An LCSD was not analyzed with the samples in QC batch 0174475. A LCS, MS and MSD were analyzed and demonstrated acceptable recoveries.

The LCSD analyzed with QC batch 0181344 demonstrated a recovery for the analyte 1,1-dichloroethene seven percent below QC limits. The LCS and MS/MSD demonstrated acceptable recoveries for this analyte.

EXECUTIVE SUMMARY - Detection Highlights

D0F210154

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
SO-TCE9-7-8 06/20/00 09:15 002				
2-Butanone (MEK)	410 J	1100	ug/kg	SW846 8260B
cis-1,2-Dichloroethene	190	140	ug/kg	SW846 8260B
1,2-Dichloroethene (total)	190 J	270	ug/kg	SW846 8260B
Methylene chloride	130 J	270	ug/kg	SW846 8260B
Trichloroethene	890	270	ug/kg	SW846 8260B
Percent Moisture	9.0	0.10	%	MCAWW 160.3 MOD
SO-TCE3-9-10 06/20/00 16:00 004				
cis-1,2-Dichloroethene	3200	280	ug/kg	SW846 8260B
trans-1,2-Dichloroethene	54 J	280	ug/kg	SW846 8260B
1,2-Dichloroethene (total)	3200	550	ug/kg	SW846 8260B
Methylene chloride	110 J	550	ug/kg	SW846 8260B
Trichloroethene	17000	550	ug/kg	SW846 8260B
Percent Moisture	9.5	0.10	%	MCAWW 160.3 MOD
SO-TCE6-7-8 06/20/00 16:30 005				
Acetone	7.7 J	22	ug/kg	SW846 8260B
cis-1,2-Dichloroethene	5.4	2.8	ug/kg	SW846 8260B
1,2-Dichloroethene (total)	5.4 J	5.5	ug/kg	SW846 8260B
Methylene chloride	1.6 J	5.5	ug/kg	SW846 8260B
Trichloroethene	11	5.5	ug/kg	SW846 8260B
Percent Moisture	9.6	0.10	%	MCAWW 160.3 MOD
GW-TCE3-13-15 06/20/00 13:30 006				
cis-1,2-Dichloroethene	140	100	ug/L	SW846 8260B
1,2-Dichloroethene (total)	140	100	ug/L	SW846 8260B
Trichloroethene	1400	100	ug/L	SW846 8260B
GW-TCE6 06/20/00 17:00 007				
cis-1,2-Dichloroethene	260	40	ug/L	SW846 8260B
trans-1,2-Dichloroethene	23	20	ug/L	SW846 8260B
1,2-Dichloroethene (total)	280	40	ug/L	SW846 8260B
Trichloroethene	990	40	ug/L	SW846 8260B

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EXECUTIVE SUMMARY - Detection Highlights

D0F210154

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
TRIP BLANK 06/20/00 008				
Acetone	2.8 J	10	ug/L	SW846 8260B
Methylene chloride	1.6	1.0	ug/L	SW846 8260B

METHODS SUMMARY

D0F210154

PARAMETER	ANALYTICAL METHOD	PREPARATION METHOD
Percent Moisture	MCAWW 160.3 MOD	MCAWW 160.3 MOD
Volatile Organics by GC/MS	SW846 8260B	SW846 5030
Volatile Organics by GC/MS	SW846 8260B	SW846 5030B/826
Volatile Organics by GC/MS	SW846 8260B	SW846 5035

References:

MCAWW "Methods for Chemical Analysis of Water and Wastes", EPA-600/4-79-020, March 1983 and subsequent revisions.

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

METHOD / ANALYST SUMMARY

D0F210154

ANALYTICAL METHOD	ANALYST	ANALYST ID
MCAWW 160.3 MOD	Matt Conner	007131
SW846 8260B	Dan Appelhans	001008
SW846 8260B	Karen Kaiser	008909
SW846 8260B	Mike G. Hoffman	001880

References:

MCAWW "Methods for Chemical Analysis of Water and Wastes", EPA-600/4-79-020, March 1983 and subsequent revisions.

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

SAMPLE SUMMARY

D0F210154

WO #	SAMPLE#	CLIENT SAMPLE ID	DATE	TIME
DF2G6	002	SO-TCE9-7-8	06/20/00	09:15
DF2GC	004	SO-TCE3-9-10	06/20/00	16:00
DF2GE	005	SO-TCE6-7-8	06/20/00	16:30
DF2GG	006	GW-TCE3-13-15	06/20/00	13:30
DF2GK	007	GW-TCE6	06/20/00	17:00
DF2GW	008	TRIP BLANK	06/20/00	

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

DAMES & MOORE

Client Sample ID: SO-TCE9-7-8

GC/MS Volatiles

Lot-Sample #...: D0F210154-002 Work Order #...: DF2G6102 Matrix.....: SOLID
Date Sampled...: 06/20/00 09:15 Date Received..: 06/21/00
Prep Date.....: 06/21/00 Analysis Date..: 06/28/00
Prep Batch #...: 0181344 Analysis Time..: 15:43
Dilution Factor: 1

Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acetone	ND	1100	ug/kg	280
Acrolein	ND	5500	ug/kg	240
Acrylonitrile	ND	5500	ug/kg	400
Benzene	ND	270	ug/kg	26
Bromodichloromethane	ND	270	ug/kg	22
Bromoform	ND	270	ug/kg	46
Bromomethane	ND	550	ug/kg	47
2-Butanone (MEK)	**410 J**	**1100**	**ug/kg**	**330**
Carbon disulfide	ND	270	ug/kg	22
Carbon tetrachloride	ND	270	ug/kg	26
Chlorobenzene	ND	270	ug/kg	38
Chloroethane	ND	550	ug/kg	24
Chloroform	ND	550	ug/kg	22
Chloromethane	ND	550	ug/kg	44
Dibromochloromethane	ND	270	ug/kg	36
Dibromomethane	ND	270	ug/kg	56
1,2-Dibromoethane (EDB)	ND	270	ug/kg	42
1,2-Dichlorobenzene	ND	270	ug/kg	22
1,3-Dichlorobenzene	ND	270	ug/kg	22
1,2-Dichloroethane	ND	270	ug/kg	23
1,1-Dichloroethene	ND	270	ug/kg	23
cis-1,3-Dichloropropene	ND	270	ug/kg	35
trans-1,3-Dichloropropene	ND	270	ug/kg	45
1,4-Dichlorobenzene	ND	270	ug/kg	26
Dichlorodifluoromethane	ND	550	ug/kg	43
1,1-Dichloroethane	ND	270	ug/kg	28
cis-1,2-Dichloroethene	**190**	**140**	**ug/kg**	**36**
trans-1,2-Dichloroethene	ND	140	ug/kg	22
1,2-Dichloroethene (total)	**190 J**	**270**	**ug/kg**	**61**
1,2-Dichloropropane	ND	270	ug/kg	26
trans-1,4-Dichloro-2-butene	ND	270	ug/kg	110
1,4-Dioxane	ND	27000	ug/kg	1400
Ethanol	ND	27000	ug/kg	6700
Ethylbenzene	ND	270	ug/kg	46
Ethyl methacrylate	ND	270	ug/kg	31
Hexane	ND	270	ug/kg	33

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DAMES & MOORE

Client Sample ID: SO-TCE9-7-8

GC/MS Volatiles

Lot-Sample #...: D0F210154-002 **Work Order #...:** DF2G6102 **Matrix.....:** SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
2-Hexanone	ND	1100	ug/kg	140
Iodomethane	ND	270	ug/kg	26
Methylene chloride	**130 J**	**270**	**ug/kg**	**48**
4-Methyl-2-pentanone	ND	1100	ug/kg	77
Methyl tert-butyl ether	ND	1100	ug/kg	32
Styrene	ND	270	ug/kg	41
1,1,2,2-Tetrachloroethane	ND	270	ug/kg	51
tert-Butyl alcohol	ND	11000	ug/kg	
Toluene	ND	270	ug/kg	39
1,1,2-Trichloroethane	ND	270	ug/kg	59
Tetrachloroethene	ND	270	ug/kg	47
Tetrahydrofuran	ND	1100	ug/kg	74
1,1,1-Trichloroethane	ND	270	ug/kg	22
Trichloroethene	**890**	**270**	**ug/kg**	**28**
Trichlorofluoromethane	ND	550	ug/kg	57
1,2,3-Trichloropropane	ND	270	ug/kg	100
Trichlorotrifluoroethane	ND	1100	ug/kg	33
Vinyl acetate	ND	550	ug/kg	50
Vinyl chloride	ND	550	ug/kg	32
Xylenes (total)	ND	270	ug/kg	77
Dichlorofluoromethane	ND	550	ug/kg	22
Ethyl ether	ND	550	ug/kg	23
Allyl chloride	ND	550	ug/kg	23
Acetonitrile	ND	5500	ug/kg	850
Chloroprene	ND	270	ug/kg	30
Isopropyl ether	ND	2700	ug/kg	110
Propionitrile	ND	550	ug/kg	320
Ethyl acetate	ND	550	ug/kg	160
Methacrylonitrile	ND	270	ug/kg	69
Isobutyl alcohol	ND	11000	ug/kg	3100
n-Butanol	ND	11000	ug/kg	2300
2-Nitropropane	ND	550	ug/kg	100
Methyl methacrylate	ND	270	ug/kg	69
1,1,1,2-Tetrachloroethane	ND	270	ug/kg	35
Cyclohexanone	ND	14000	ug/kg	2600
Isopropylbenzene	ND	270	ug/kg	41
1,2-Dibromo-3-chloropropane (DBCP)	ND	550	ug/kg	35

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	83	(69 - 121)
1,2-Dichloroethane-d4	81	(60 - 117)
4-Bromofluorobenzene	84	(48 - 129)
Toluene-d8	92	(57 - 138)

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DAMES & MOORE

Client Sample ID: SO-TCE9-7-8

GC/MS Volatiles

Lot-Sample #...: D0F210154-002 Work Order #...: DF2G6102 Matrix.....: SOLID

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

DAMES & MOORE

Client Sample ID: SO-TCE3-9-10

GC/MS Volatiles

Lot-Sample #...: D0F210154-004 **Work Order #...:** DF2GC102 **Matrix.....:** SOLID
Date Sampled...: 06/20/00 16:00 **Date Received..:** 06/21/00
Prep Date.....: 06/21/00 **Analysis Date..:** 06/28/00
Prep Batch #...: 0181344 **Analysis Time..:** 17:34
Dilution Factor: 2
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acrylonitrile	ND	11000	ug/kg	800
Benzene	ND	550	ug/kg	52
Acetone	ND	2200	ug/kg	560
Acrolein	ND	11000	ug/kg	480
Bromodichloromethane	ND	550	ug/kg	44
Bromoform	ND	550	ug/kg	92
Bromomethane	ND	1100	ug/kg	95
2-Butanone (MEK)	ND	2200	ug/kg	670
Carbon disulfide	ND	550	ug/kg	45
Carbon tetrachloride	ND	550	ug/kg	52
Chlorobenzene	ND	550	ug/kg	77
Chloroethane	ND	1100	ug/kg	48
Chloroform	ND	1100	ug/kg	44
Chloromethane	ND	1100	ug/kg	88
Dibromochloromethane	ND	550	ug/kg	72
Dibromomethane	ND	550	ug/kg	110
1,2-Dibromoethane (EDB)	ND	550	ug/kg	85
1,2-Dichlorobenzene	ND	550	ug/kg	44
1,3-Dichlorobenzene	ND	550	ug/kg	44
1,4-Dichlorobenzene	ND	550	ug/kg	52
Dichlorodifluoromethane	ND	1100	ug/kg	86
1,1-Dichloroethane	ND	550	ug/kg	56
1,2-Dichloroethane	ND	550	ug/kg	46
1,1-Dichloroethene	ND	550	ug/kg	46
cis-1,2-Dichloroethene	**3200**	**280**	**ug/kg**	**73**
trans-1,2-Dichloroethene	**54 J**	**280**	**ug/kg**	**44**
1,2-Dichloroethene (total)	**3200**	**550**	**ug/kg**	**120**
1,2-Dichloropropane	ND	550	ug/kg	51
cis-1,3-Dichloropropene	ND	550	ug/kg	70
trans-1,3-Dichloropropene	ND	550	ug/kg	90
trans-1,4-Dichloro-2-butene	ND	550	ug/kg	220
1,4-Dioxane	ND	55000	ug/kg	2800
Ethanol	ND	55000	ug/kg	14000
Ethylbenzene	ND	550	ug/kg	93
Ethyl methacrylate	ND	550	ug/kg	63
Hexane	ND	550	ug/kg	66

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DAMES & MOORE

Client Sample ID: SO-TCE3-9-10

GC/MS Volatiles

Lot-Sample #...: D0F210154-004 **Work Order #...:** DF2GC102 **Matrix.....:** SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
2-Hexanone	ND	2200	ug/kg	270
Iodomethane	ND	550	ug/kg	53
Methylene chloride	**110 J**	**550**	**ug/kg**	**97**
4-Methyl-2-pentanone	ND	2200	ug/kg	150
Methyl tert-butyl ether	ND	2200	ug/kg	65
Styrene	ND	550	ug/kg	82
1,1,2,2-Tetrachloroethane	ND	550	ug/kg	100
tert-Butyl alcohol	ND	22000	ug/kg	
Tetrachloroethene	ND	550	ug/kg	94
Tetrahydrofuran	ND	2200	ug/kg	150
Toluene	ND	550	ug/kg	79
1,1,1-Trichloroethane	ND	550	ug/kg	44
1,1,2-Trichloroethane	ND	550	ug/kg	120
Trichloroethene	**17000**	**550**	**ug/kg**	**57**
Trichlorofluoromethane	ND	1100	ug/kg	110
1,2,3-Trichloropropane	ND	550	ug/kg	210
Trichlorotrifluoroethane	ND	2200	ug/kg	67
Vinyl acetate	ND	1100	ug/kg	100
Vinyl chloride	ND	1100	ug/kg	65
Xylenes (total)	ND	550	ug/kg	150
Dichlorofluoromethane	ND	1100	ug/kg	44
Ethyl ether	ND	1100	ug/kg	45
Acetonitrile	ND	11000	ug/kg	1700
Allyl chloride	ND	1100	ug/kg	47
Chloroprene	ND	550	ug/kg	60
Isopropyl ether	ND	5500	ug/kg	220
Propionitrile	ND	1100	ug/kg	640
Ethyl acetate	ND	1100	ug/kg	310
Methacrylonitrile	ND	550	ug/kg	140
Isobutyl alcohol	ND	22000	ug/kg	6300
Methyl methacrylate	ND	550	ug/kg	140
n-Butanol	ND	22000	ug/kg	4500
2-Nitropropane	ND	1100	ug/kg	210
1,1,1,2-Tetrachloroethane	ND	550	ug/kg	71
Cyclohexanone	ND	28000	ug/kg	5200
Isopropylbenzene	ND	550	ug/kg	83
1,2-Dibromo-3-chloropropane (DBCP)	ND	1100	ug/kg	70

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	85	(69 - 121)
1,2-Dichloroethane-d4	82	(60 - 117)
4-Bromofluorobenzene	84	(48 - 129)
Toluene-d8	94	(57 - 138)

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DAMES & MOORE

Client Sample ID: SO-TCE3-9-10

GC/MS Volatiles

Lot-Sample #...: D0F210154-004 Work Order #...: DF2GC102 Matrix.....: SOLID

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

DAMES & MOORE

Client Sample ID: SO-TCE6-7-8

GC/MS Volatiles

Lot-Sample #...: D0F210154-005
Date Sampled...: 06/20/00 16:30
Prep Date.....: 06/21/00
Prep Batch #...: 0174475
Dilution Factor: 1

Work Order #...: DF2GE102
Date Received..: 06/21/00
Analysis Date..: 06/21/00
Analysis Time..: 22:52

Matrix.....: SOLID

Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acetone	**7.7 J**	**22**	**ug/kg**	**3.0**
Acrolein	ND	110	ug/kg	13
Acrylonitrile	ND	110	ug/kg	11
Bromoform	ND	5.5	ug/kg	0.67
Bromomethane	ND	11	ug/kg	1.3
Benzene	ND	5.5	ug/kg	0.60
Bromodichloromethane	ND	5.5	ug/kg	1.1
2-Butanone (MEK)	ND	22	ug/kg	3.2
Carbon disulfide	ND	5.5	ug/kg	1.2
Carbon tetrachloride	ND	5.5	ug/kg	0.85
Chlorobenzene	ND	5.5	ug/kg	0.93
Chloroethane	ND	11	ug/kg	0.59
Chloroform	ND	11	ug/kg	0.58
Chloromethane	ND	11	ug/kg	1.3
Dibromochloromethane	ND	5.5	ug/kg	0.79
Dibromomethane	ND	5.5	ug/kg	0.82
1,2-Dibromoethane (EDB)	ND	5.5	ug/kg	0.63
1,4-Dichlorobenzene	ND	5.5	ug/kg	1.1
1,2-Dichlorobenzene	ND	5.5	ug/kg	0.94
1,3-Dichlorobenzene	ND	5.5	ug/kg	1.0
Dichlorodifluoromethane	ND	11	ug/kg	2.5
1,1-Dichloroethane	ND	5.5	ug/kg	0.62
1,2-Dichloroethane	ND	5.5	ug/kg	0.55
1,1-Dichloroethene	ND	5.5	ug/kg	0.66
cis-1,2-Dichloroethene	**5.4**	**2.8**	**ug/kg**	**0.82**
trans-1,2-Dichloroethene	ND	2.8	ug/kg	0.70
1,2-Dichloroethene (total)	**5.4 J**	**5.5**	**ug/kg**	**1.4**
1,2-Dichloropropane	ND	5.5	ug/kg	0.55
cis-1,3-Dichloropropene	ND	5.5	ug/kg	0.59
trans-1,3-Dichloropropene	ND	5.5	ug/kg	0.75
trans-1,4-Dichloro-2-butene	ND	5.5	ug/kg	1.6
1,4-Dioxane	ND	550	ug/kg	60
Ethanol	ND	550	ug/kg	120
Ethylbenzene	ND	5.5	ug/kg	0.90
Ethyl methacrylate	ND	5.5	ug/kg	0.95
Hexane	ND	5.5	ug/kg	1.3

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DAMES & MOORE

Client Sample ID: SO-TCE6-7-8

GC/MS Volatiles

Lot-Sample #...: D0F210154-005 Work Order #...: DF2GE102 Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
2-Hexanone	ND	22	ug/kg	2.4
Iodomethane	ND	5.5	ug/kg	0.55
Methylene chloride	**1.6 J**	**5.5**	**ug/kg**	**0.55**
4-Methyl-2-pentanone	ND	22	ug/kg	1.7
Methyl tert-butyl ether	ND	22	ug/kg	0.94
Styrene	ND	5.5	ug/kg	0.86
1,1,2,2-Tetrachloroethane	ND	5.5	ug/kg	0.58
tert-Butyl alcohol	ND	220	ug/kg	29
Tetrachloroethene	ND	5.5	ug/kg	0.86
Tetrahydrofuran	ND	22	ug/kg	1.1
Toluene	ND	5.5	ug/kg	0.72
1,1,1-Trichloroethane	ND	5.5	ug/kg	0.55
1,1,2-Trichloroethane	ND	5.5	ug/kg	0.80
Trichloroethene	**11**	**5.5**	**ug/kg**	**0.66**
Trichlorofluoromethane	ND	11	ug/kg	0.95
1,2,3-Trichloropropane	ND	5.5	ug/kg	1.1
Trichlorotrifluoroethane	ND	22	ug/kg	1.1
Vinyl acetate	ND	11	ug/kg	1.1
Vinyl chloride	ND	11	ug/kg	0.55
Xylenes (total)	ND	5.5	ug/kg	2.7
Dichlorofluoromethane	ND	11	ug/kg	1.1
Ethyl ether	ND	11	ug/kg	1.3
Acetonitrile	ND	110	ug/kg	23
Isopropyl ether	ND	55	ug/kg	2.8
Propionitrile	ND	11	ug/kg	7.5
Allyl chloride	ND	11	ug/kg	1.0
Chloroprene	ND	5.5	ug/kg	0.65
Ethyl acetate	ND	11	ug/kg	1.6
Methacrylonitrile	ND	5.5	ug/kg	1.5
Isobutyl alcohol	ND	220	ug/kg	45
Methyl methacrylate	ND	5.5	ug/kg	1.3
2-Nitropropane	ND	11	ug/kg	1.6
1,1,1,2-Tetrachloroethane	ND	5.5	ug/kg	0.83
Cyclohexanone	ND	280	ug/kg	11
n-Butanol	ND	220	ug/kg	38
Isopropylbenzene	ND	5.5	ug/kg	0.94
1,2-Dibromo-3-chloropropane (DBCP)	ND	11	ug/kg	1.2

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	101	(80 - 120)
1,2-Dichloroethane-d4	103	(71 - 121)
4-Bromofluorobenzene	115	(80 - 122)
Toluene-d8	103	(84 - 117)

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DAMES & MOORE

Client Sample ID: SO-TCE6-7-8

GC/MS Volatiles

Lot-Sample #...: D0F210154-005 Work Order #...: DF2GE102 Matrix.....: SOLID

NOTE(S):

J Estimated result. Result is less than RL.

Results and reporting limits have been adjusted for dry weight.

DAMES & MOORE

Client Sample ID: GW-TCE3-13-15

GC/MS Volatiles

Lot-Sample #...: D0F210154-006 Work Order #...: DF2GG101 Matrix.....: WATER
Date Sampled...: 06/20/00 13:30 Date Received..: 06/21/00
Prep Date.....: 06/29/00 Analysis Date..: 06/29/00
Prep Batch #...: 0185130 Analysis Time..: 15:26
Dilution Factor: 100

Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acetone	ND	1000	ug/L	190
Acrolein	ND	2000	ug/L	470
Acrylonitrile	ND	2000	ug/L	240
Benzene	ND	100	ug/L	21
Bromodichloromethane	ND	100	ug/L	22
Bromoform	ND	100	ug/L	32
Bromomethane	ND	200	ug/L	30
2-Butanone (MEK)	ND	500	ug/L	93
Carbon disulfide	ND	100	ug/L	19
Carbon tetrachloride	ND	100	ug/L	19
Chlorobenzene	ND	100	ug/L	30
Chloroethane	ND	200	ug/L	25
2-Chloroethyl vinyl ether	ND	200	ug/L	13
Chloroform	ND	100	ug/L	23
Chloromethane	ND	200	ug/L	30
Dibromochloromethane	ND	100	ug/L	38
Dibromomethane	ND	100	ug/L	44
1,2-Dibromoethane (EDB)	ND	100	ug/L	36
1,2-Dichlorobenzene	ND	100	ug/L	24
1,3-Dichlorobenzene	ND	100	ug/L	26
1,4-Dichlorobenzene	ND	100	ug/L	24
Dichlorodifluoromethane	ND	200	ug/L	23
1,1-Dichloroethane	ND	100	ug/L	17
1,2-Dichloroethane	ND	100	ug/L	28
1,1-Dichloroethene	ND	100	ug/L	20
cis-1,2-Dichloroethene	**140**	**100**	**ug/L**	**26**
trans-1,2-Dichloroethene	ND	50	ug/L	27
1,2-Dichloroethene (total)	**140**	**100**	**ug/L**	**53**
1,2-Dichloropropane	ND	100	ug/L	21
cis-1,3-Dichloropropene	ND	100	ug/L	28
trans-1,3-Dichloropropene	ND	100	ug/L	42
trans-1,4-Dichloro-2-butene	ND	100	ug/L	60
1,4-Dioxane	ND	20000	ug/L	1700
Ethanol	ND	20000	ug/L	7200
Ethylbenzene	ND	100	ug/L	28
Ethyl methacrylate	ND	100	ug/L	25

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DAMES & MOORE

Client Sample ID: GW-TCE3-13-15

GC/MS Volatiles

Lot-Sample #...: D0F210154-006 **Work Order #...:** DF2GG101 **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Hexane	ND	100	ug/L	25
2-Hexanone	ND	500	ug/L	70
Iodomethane	ND	100	ug/L	23
Methylene chloride	ND	100	ug/L	89
4-Methyl-2-pentanone	ND	500	ug/L	79
Methyl tert-butyl ether	ND	500	ug/L	21
Styrene	ND	100	ug/L	27
1,1,2,2-Tetrachloroethane	ND	100	ug/L	31
tert-Butyl alcohol	ND	5000	ug/L	630
Tetrachloroethene	ND	100	ug/L	36
Tetrahydrofuran	ND	500	ug/L	32
Toluene	ND	100	ug/L	29
1,1,1-Trichloroethane	ND	100	ug/L	26
1,1,2-Trichloroethane	ND	100	ug/L	39
Trichloroethene	**1400**	**100**	**ug/L**	**22**
Trichlorofluoromethane	ND	200	ug/L	28
1,2,3-Trichloropropane	ND	100	ug/L	29
Trichlorotrifluoroethane	ND	100	ug/L	21
Vinyl acetate	ND	200	ug/L	31
Vinyl chloride	ND	100	ug/L	95
Xylenes (total)	ND	200	ug/L	95
Dichlorofluoromethane	ND	200	ug/L	12
Ethyl ether	ND	200	ug/L	24
Acetonitrile	ND	2000	ug/L	260
Allyl chloride	ND	200	ug/L	20
Chloroprene	ND	100	ug/L	22
Isopropyl ether	ND	1000	ug/L	91
Propionitrile	ND	500	ug/L	220
Ethyl acetate	ND	500	ug/L	25
Methacrylonitrile	ND	1000	ug/L	160
Isobutyl alcohol	ND	5000	ug/L	1100
Methyl methacrylate	ND	100	ug/L	30
n-Butanol	ND	5000	ug/L	770
2-Nitropropane	ND	200	ug/L	51
1,1,1,2-Tetrachloroethane	ND	100	ug/L	22
Cyclohexanone	ND	2000	ug/L	1200
Isopropylbenzene	ND	100	ug/L	31
1,2-Dibromo-3-chloropropane (DBCP)	ND	200	ug/L	25

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	104	(82 - 122)
1,2-Dichloroethane-d4	100	(78 - 123)
4-Bromofluorobenzene	96	(80 - 120)
Toluene-d8	95	(82 - 122)

DAMES & MOORE

Client Sample ID: GW-TCE6

GC/MS Volatiles

Lot-Sample #...: D0F210154-007 Work Order #...: DF2GK101 Matrix.....: WATER
Date Sampled...: 06/20/00 17:00 Date Received..: 06/21/00
Prep Date.....: 06/29/00 Analysis Date..: 06/29/00
Prep Batch #...: 0185130 Analysis Time..: 15:49
Dilution Factor: 40

Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acetone	ND	400	ug/L	75
Acrolein	ND	800	ug/L	190
Acrylonitrile	ND	800	ug/L	96
Benzene	ND	40	ug/L	8.4
Bromodichloromethane	ND	40	ug/L	8.8
Bromoform	ND	40	ug/L	13
Bromomethane	ND	80	ug/L	12
2-Butanone (MEK)	ND	200	ug/L	37
Carbon disulfide	ND	40	ug/L	7.6
Carbon tetrachloride	ND	40	ug/L	7.6
Chlorobenzene	ND	40	ug/L	12
Chloroethane	ND	80	ug/L	10
2-Chloroethyl vinyl ether	ND	80	ug/L	5.2
Chloroform	ND	40	ug/L	9.2
Chloromethane	ND	80	ug/L	12
Dibromochloromethane	ND	40	ug/L	15
Dibromomethane	ND	40	ug/L	18
1,2-Dibromoethane (EDB)	ND	40	ug/L	14
1,2-Dichlorobenzene	ND	40	ug/L	9.6
1,3-Dichlorobenzene	ND	40	ug/L	10
1,4-Dichlorobenzene	ND	40	ug/L	9.6
Dichlorodifluoromethane	ND	80	ug/L	9.2
1,1-Dichloroethane	ND	40	ug/L	6.8
1,2-Dichloroethane	ND	40	ug/L	11
1,1-Dichloroethene	ND	40	ug/L	8.0
cis-1,2-Dichloroethene	**260**	**40**	**ug/L**	**10**
trans-1,2-Dichloroethene	**23**	**20**	**ug/L**	**11**
1,2-Dichloroethene (total)	**280**	**40**	**ug/L**	**21**
1,2-Dichloropropane	ND	40	ug/L	8.4
cis-1,3-Dichloropropene	ND	40	ug/L	11
trans-1,3-Dichloropropene	ND	40	ug/L	17
trans-1,4-Dichloro-2-butene	ND	40	ug/L	24
1,4-Dioxane	ND	8000	ug/L	670
Ethanol	ND	8000	ug/L	2900
Ethylbenzene	ND	40	ug/L	11
Ethyl methacrylate	ND	40	ug/L	10

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DAMES & MOORE

Client Sample ID: GW-TCE6

GC/MS Volatiles

Lot-Sample #...: D0F210154-007 Work Order #...: DF2GK101 Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Hexane	ND	40	ug/L	10
2-Hexanone	ND	200	ug/L	28
Iodomethane	ND	40	ug/L	9.2
Methylene chloride	ND	40	ug/L	36
4-Methyl-2-pentanone	ND	200	ug/L	32
Methyl tert-butyl ether	ND	200	ug/L	8.4
Styrene	ND	40	ug/L	11
1,1,2,2-Tetrachloroethane	ND	40	ug/L	12
tert-Butyl alcohol	ND	2000	ug/L	250
Tetrachloroethene	ND	40	ug/L	14
Tetrahydrofuran	ND	200	ug/L	13
Toluene	ND	40	ug/L	12
1,1,1-Trichloroethane	ND	40	ug/L	10
1,1,2-Trichloroethane	ND	40	ug/L	16
Trichloroethene	**990**	**40**	**ug/L**	**8.8**
Trichlorofluoromethane	ND	80	ug/L	11
1,2,3-Trichloropropane	ND	40	ug/L	12
Trichlorotrifluoroethane	ND	40	ug/L	8.4
Vinyl acetate	ND	80	ug/L	12
Vinyl chloride	ND	40	ug/L	38
Xylenes (total)	ND	80	ug/L	38
Dichlorofluoromethane	ND	80	ug/L	4.8
Ethyl ether	ND	80	ug/L	9.6
Acetonitrile	ND	800	ug/L	100
Allyl chloride	ND	80	ug/L	8.0
Chloroprene	ND	40	ug/L	8.8
Isopropyl ether	ND	400	ug/L	36
Propionitrile	ND	200	ug/L	89
Ethyl acetate	ND	200	ug/L	10
Methacrylonitrile	ND	400	ug/L	64
Isobutyl alcohol	ND	2000	ug/L	440
Methyl methacrylate	ND	40	ug/L	12
n-Butanol	ND	2000	ug/L	310
2-Nitropropane	ND	80	ug/L	20
1,1,1,2-Tetrachloroethane	ND	40	ug/L	8.8
Cyclohexanone	ND	800	ug/L	470
Isopropylbenzene	ND	40	ug/L	12
1,2-Dibromo-3-chloropropane (DBCP)	ND	80	ug/L	10

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	105	(82 - 122)
1,2-Dichloroethane-d4	105	(78 - 123)
4-Bromofluorobenzene	97	(80 - 120)
Toluene-d8	93	(82 - 122)

DAMES & MOORE

Client Sample ID: TRIP BLANK

GC/MS Volatiles

Lot-Sample #...: D0F210154-008
Date Sampled...: 06/20/00
Prep Date.....: 06/29/00
Prep Batch #...: 0185130
Dilution Factor: 1

Work Order #...: DF2GW101
Date Received..: 06/21/00
Analysis Date..: 06/29/00
Analysis Time..: 16:13

Matrix.....: WATER

Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acetone	**2.8 J**	**10**	**ug/L**	**1.9**
Acrolein	ND	20	ug/L	4.7
Acrylonitrile	ND	20	ug/L	2.4
Benzene	ND	1.0	ug/L	0.21
Bromodichloromethane	ND	1.0	ug/L	0.22
Bromoform	ND	1.0	ug/L	0.32
Bromomethane	ND	2.0	ug/L	0.30
2-Butanone (MEK)	ND	5.0	ug/L	0.93
Carbon disulfide	ND	1.0	ug/L	0.19
Carbon tetrachloride	ND	1.0	ug/L	0.19
Chlorobenzene	ND	1.0	ug/L	0.30
Chloroethane	ND	2.0	ug/L	0.25
2-Chloroethyl vinyl ether	ND	2.0	ug/L	0.13
Chloroform	ND	1.0	ug/L	0.23
Chloromethane	ND	2.0	ug/L	0.30
Dibromochloromethane	ND	1.0	ug/L	0.38
Dibromomethane	ND	1.0	ug/L	0.44
1,2-Dibromoethane (EDB)	ND	1.0	ug/L	0.36
1,2-Dichlorobenzene	ND	1.0	ug/L	0.24
1,3-Dichlorobenzene	ND	1.0	ug/L	0.26
1,4-Dichlorobenzene	ND	1.0	ug/L	0.24
Dichlorodifluoromethane	ND	2.0	ug/L	0.23
1,1-Dichloroethane	ND	1.0	ug/L	0.17
1,2-Dichloroethane	ND	1.0	ug/L	0.28
1,1-Dichloroethene	ND	1.0	ug/L	0.20
cis-1,2-Dichloroethene	ND	1.0	ug/L	0.26
trans-1,2-Dichloroethene	ND	0.50	ug/L	0.27
1,2-Dichloroethene (total)	ND	1.0	ug/L	0.53
1,2-Dichloropropane	ND	1.0	ug/L	0.21
cis-1,3-Dichloropropene	ND	1.0	ug/L	0.28
trans-1,3-Dichloropropene	ND	1.0	ug/L	0.42
trans-1,4-Dichloro-2-butene	ND	1.0	ug/L	0.60
1,4-Dioxane	ND	200	ug/L	17
Ethanol	ND	200	ug/L	72
Ethylbenzene	ND	1.0	ug/L	0.28
Ethyl methacrylate	ND	1.0	ug/L	0.25

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DAMES & MOORE

Client Sample ID: TRIP BLANK

GC/MS Volatiles

Lot-Sample #...: D0F210154-008 **Work Order #...:** DF2GW101 **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Hexane	ND	1.0	ug/L	0.25
2-Hexanone	ND	5.0	ug/L	0.70
Iodomethane	ND	1.0	ug/L	0.23
Methylene chloride	**1.6**	**1.0**	**ug/L**	**0.89**
4-Methyl-2-pentanone	ND	5.0	ug/L	0.79
Methyl tert-butyl ether	ND	5.0	ug/L	0.21
Styrene	ND	1.0	ug/L	0.27
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	0.31
tert-Butyl alcohol	ND	50	ug/L	6.3
Tetrachloroethene	ND	1.0	ug/L	0.36
Tetrahydrofuran	ND	5.0	ug/L	0.32
Toluene	ND	1.0	ug/L	0.29
1,1,1-Trichloroethane	ND	1.0	ug/L	0.26
1,1,2-Trichloroethane	ND	1.0	ug/L	0.39
Trichloroethene	ND	1.0	ug/L	0.22
Trichlorofluoromethane	ND	2.0	ug/L	0.28
1,2,3-Trichloropropane	ND	1.0	ug/L	0.29
Trichlorotrifluoroethane	ND	1.0	ug/L	0.21
Vinyl acetate	ND	2.0	ug/L	0.31
Vinyl chloride	ND	1.0	ug/L	0.95
Xylenes (total)	ND	2.0	ug/L	0.95
Dichlorofluoromethane	ND	2.0	ug/L	0.12
Ethyl ether	ND	2.0	ug/L	0.24
Acetonitrile	ND	20	ug/L	2.6
Allyl chloride	ND	2.0	ug/L	0.20
Chloroprene	ND	1.0	ug/L	0.22
Isopropyl ether	ND	10	ug/L	0.91
Propionitrile	ND	5.0	ug/L	2.2
Ethyl acetate	ND	5.0	ug/L	0.25
Methacrylonitrile	ND	10	ug/L	1.6
Isobutyl alcohol	ND	50	ug/L	11
Methyl methacrylate	ND	1.0	ug/L	0.30
n-Butanol	ND	50	ug/L	7.7
2-Nitropropane	ND	2.0	ug/L	0.51
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	0.22
Cyclohexanone	ND	20	ug/L	12
Isopropylbenzene	ND	1.0	ug/L	0.31
1,2-Dibromo-3-chloropropane (DBCP)	ND	2.0	ug/L	0.25

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	106	(82 - 122)
1,2-Dichloroethane-d4	103	(78 - 123)
4-Bromofluorobenzene	97	(80 - 120)
Toluene-d8	94	(82 - 122)

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DAMES & MOORE

Client Sample ID: TRIP BLANK

GC/MS Volatiles

Lot-Sample #...: D0F210154-008 Work Order #...: DF2GW101 Matrix.....: WATER

NOTE(S):

J Estimated result. Result is less than RL.

DAMES & MOORE

Client Sample ID: SO-TCE9-7-8

General Chemistry

Lot-Sample #...: D0F210154-002 Work Order #...: DF2G6 Matrix.....: SOLID
Date Sampled...: 06/20/00 09:15 Date Received..: 06/21/00

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Percent Moisture	9.0	0.10	%	MCAWW 160.3 MOD	07/06/00	0192353

Dilution Factor: 1 Analysis Time..: 10:15 MDL.....:

DAMES & MOORE

Client Sample ID: SO-TCE3-9-10

General Chemistry

Lot-Sample #...: D0F210154-004 Work Order #...: DF2GC Matrix.....: SOLID
Date Sampled...: 06/20/00 16:00 Date Received..: 06/21/00

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Percent Moisture	9.5	0.10	%	MCAWW 160.3 MOD	07/06/00	0192353

Dilution Factor: 1 Analysis Time..: 10:16 MDL.....:

DAMES & MOORE

Client Sample ID: SO-TCE6-7-8

General Chemistry

Lot-Sample #...: D0F210154-005 Work Order #...: DF2GE Matrix.....: SOLID
Date Sampled...: 06/20/00 16:30 Date Received..: 06/21/00

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Percent Moisture	9.6	0.10	%	MCAWW 160.3 MOD	07/06/00	0192353

Dilution Factor: 1 Analysis Time..: 10:11 MDL.....:

QC DATA ASSOCIATION SUMMARY

D0F210154

Sample Preparation and Analysis Control Numbers

SAMPLE#	MATRIX	ANALYTICAL METHOD	LEACH BATCH #	PREP BATCH #	MS RUN#
002	SOLID	SW846 8260B		0181344	
	SOLID	MCAWW 160.3 MOD		0192353	0192173
004	SOLID	SW846 8260B		0181344	
	SOLID	MCAWW 160.3 MOD		0192353	0192173
005	SOLID	SW846 8260B		0174475	0174237
	SOLID	MCAWW 160.3 MOD		0192353	0192173
006	WATER	SW846 8260B		0185130	0185029
007	WATER	SW846 8260B		0185130	0185029
008	WATER	SW846 8260B		0185130	0185029

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: D0F210154 **Work Order #...:** DFH6K101 **Matrix.....:** SOLID
MB Lot-Sample #: D0F290000-344

Prep Date.....: 06/21/00 **Analysis Time..:** 12:48
Analysis Date..: 06/28/00 **Prep Batch #...:** 0181344
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Acetone	ND	1000	ug/kg	SW846 8260B
Acetonitrile	ND	5000	ug/kg	SW846 8260B
Acrolein	ND	5000	ug/kg	SW846 8260B
Acrylonitrile	ND	5000	ug/kg	SW846 8260B
Benzene	ND	250	ug/kg	SW846 8260B
Bromodichloromethane	ND	250	ug/kg	SW846 8260B
Bromoform	ND	250	ug/kg	SW846 8260B
Bromomethane	ND	500	ug/kg	SW846 8260B
Carbon disulfide	ND	250	ug/kg	SW846 8260B
Carbon tetrachloride	ND	250	ug/kg	SW846 8260B
Chlorobenzene	ND	250	ug/kg	SW846 8260B
Chloroprene	ND	250	ug/kg	SW846 8260B
Dibromochloromethane	ND	250	ug/kg	SW846 8260B
Chloroethane	ND	500	ug/kg	SW846 8260B
Chloroform	ND	500	ug/kg	SW846 8260B
Chloromethane	ND	500	ug/kg	SW846 8260B
Allyl chloride	ND	500	ug/kg	SW846 8260B
Cyclohexanone	ND	12000	ug/kg	SW846 8260B
Dibromomethane	ND	250	ug/kg	SW846 8260B
1,2-Dichlorobenzene	ND	250	ug/kg	SW846 8260B
1,3-Dichlorobenzene	ND	250	ug/kg	SW846 8260B
1,4-Dichlorobenzene	ND	250	ug/kg	SW846 8260B
trans-1,4-Dichloro-2-butene	ND	250	ug/kg	SW846 8260B
Dichlorodifluoromethane	ND	500	ug/kg	SW846 8260B
1,1-Dichloroethane	ND	250	ug/kg	SW846 8260B
1,2-Dichloroethane	ND	250	ug/kg	SW846 8260B
1,1-Dichloroethene	ND	250	ug/kg	SW846 8260B
cis-1,2-Dichloroethene	ND	120	ug/kg	SW846 8260B
trans-1,2-Dichloroethene	ND	120	ug/kg	SW846 8260B
1,2-Dichloroethene (total)	ND	250	ug/kg	SW846 8260B
Dichlorofluoromethane	ND	500	ug/kg	SW846 8260B
1,2-Dichloropropane	ND	250	ug/kg	SW846 8260B
cis-1,3-Dichloropropene	ND	250	ug/kg	SW846 8260B
trans-1,3-Dichloropropene	ND	250	ug/kg	SW846 8260B
1,4-Dioxane	ND	25000	ug/kg	SW846 8260B
Ethanol	ND	25000	ug/kg	SW846 8260B
Ethyl acetate	ND	500	ug/kg	SW846 8260B
Ethylbenzene	ND	250	ug/kg	SW846 8260B
Ethyl ether	ND	500	ug/kg	SW846 8260B

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METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: D0F210154 **Work Order #...:** DFH6K101 **Matrix.....:** SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Ethyl methacrylate	ND	250	ug/kg	SW846 8260B
Trichlorofluoromethane	ND	500	ug/kg	SW846 8260B
2-Hexanone	ND	1000	ug/kg	SW846 8260B
Iodomethane	ND	250	ug/kg	SW846 8260B
Isobutyl alcohol	ND	10000	ug/kg	SW846 8260B
Isopropylbenzene	ND	250	ug/kg	SW846 8260B
Isopropyl ether	ND	2500	ug/kg	SW846 8260B
Methacrylonitrile	ND	250	ug/kg	SW846 8260B
tert-Butyl alcohol	ND	10000	ug/kg	SW846 8260B
Methylene chloride	**59 J**	**250**	**ug/kg**	**SW846 8260B**
Methyl methacrylate	ND	250	ug/kg	SW846 8260B
4-Methyl-2-pentanone	ND	1000	ug/kg	SW846 8260B
2-Nitropropane	ND	500	ug/kg	SW846 8260B
Propionitrile	ND	500	ug/kg	SW846 8260B
Styrene	ND	250	ug/kg	SW846 8260B
1,1,1,2-Tetrachloroethane	ND	250	ug/kg	SW846 8260B
1,1,2,2-Tetrachloroethane	ND	250	ug/kg	SW846 8260B
Tetrachloroethene	ND	250	ug/kg	SW846 8260B
Tetrahydrofuran	ND	1000	ug/kg	SW846 8260B
Toluene	ND	250	ug/kg	SW846 8260B
1,1,1-Trichloroethane	ND	250	ug/kg	SW846 8260B
1,1,2-Trichloroethane	ND	250	ug/kg	SW846 8260B
Trichloroethene	ND	250	ug/kg	SW846 8260B
1,2,3-Trichloropropane	ND	250	ug/kg	SW846 8260B
Vinyl acetate	ND	500	ug/kg	SW846 8260B
Vinyl chloride	ND	500	ug/kg	SW846 8260B
Xylenes (total)	ND	250	ug/kg	SW846 8260B
n-Butanol	ND	10000	ug/kg	SW846 8260B
Trichlorotrifluoroethane	ND	1000	ug/kg	SW846 8260B
Methyl tert-butyl ether	ND	1000	ug/kg	SW846 8260B
1,2-Dibromo-3-chloropropane (DBCP)	ND	500	ug/kg	SW846 8260B
1,2-Dibromoethane (EDB)	ND	250	ug/kg	SW846 8260B
2-Butanone (MEK)	**570 J**	**1000**	**ug/kg**	**SW846 8260B**
Hexane	ND	250	ug/kg	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	88	(69 - 121)
1,2-Dichloroethane-d4	87	(60 - 117)
4-Bromofluorobenzene	90	(48 - 129)
Toluene-d8	102	(57 - 138)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

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METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: D0F210154 Work Order #...: DFH6K101 Matrix.....: SOLID

NOTE(S):

J Estimated result. Result is less than RL.

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: D0F210154 **Work Order #...:** DFNFW101 **Matrix.....:** WATER
MB Lot-Sample #: D0G030000-130

Prep Date.....: 06/29/00 **Analysis Time..:** 14:35
Analysis Date..: 06/29/00 **Prep Batch #...:** 0185130
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Acetone	ND	10	ug/L	SW846 8260B
Acrolein	ND	20	ug/L	SW846 8260B
Acrylonitrile	ND	20	ug/L	SW846 8260B
Benzene	ND	1.0	ug/L	SW846 8260B
Bromodichloromethane	ND	1.0	ug/L	SW846 8260B
Bromoform	ND	1.0	ug/L	SW846 8260B
Bromomethane	ND	2.0	ug/L	SW846 8260B
2-Butanone (MEK)	ND	5.0	ug/L	SW846 8260B
Carbon disulfide	ND	1.0	ug/L	SW846 8260B
Carbon tetrachloride	ND	1.0	ug/L	SW846 8260B
Chlorobenzene	ND	1.0	ug/L	SW846 8260B
Chloroethane	ND	2.0	ug/L	SW846 8260B
2-Chloroethyl vinyl ether	ND	2.0	ug/L	SW846 8260B
Chloroform	ND	1.0	ug/L	SW846 8260B
Chloromethane	ND	2.0	ug/L	SW846 8260B
Dibromochloromethane	ND	1.0	ug/L	SW846 8260B
Dibromomethane	ND	1.0	ug/L	SW846 8260B
1,2-Dibromoethane (EDB)	ND	1.0	ug/L	SW846 8260B
1,2-Dichlorobenzene	ND	1.0	ug/L	SW846 8260B
1,3-Dichlorobenzene	ND	1.0	ug/L	SW846 8260B
1,4-Dichlorobenzene	ND	1.0	ug/L	SW846 8260B
Dichlorodifluoromethane	ND	2.0	ug/L	SW846 8260B
1,1-Dichloroethane	ND	1.0	ug/L	SW846 8260B
1,2-Dichloroethane	ND	1.0	ug/L	SW846 8260B
1,1-Dichloroethene	ND	1.0	ug/L	SW846 8260B
cis-1,2-Dichloroethene	ND	1.0	ug/L	SW846 8260B
trans-1,2-Dichloroethene	ND	0.50	ug/L	SW846 8260B
1,2-Dichloroethene (total)	ND	1.0	ug/L	SW846 8260B
1,2-Dichloropropane	ND	1.0	ug/L	SW846 8260B
cis-1,3-Dichloropropene	ND	1.0	ug/L	SW846 8260B
trans-1,3-Dichloropropene	ND	1.0	ug/L	SW846 8260B
trans-1,4-Dichloro-2-butene	ND	1.0	ug/L	SW846 8260B
1,4-Dioxane	ND	200	ug/L	SW846 8260B
Ethanol	ND	200	ug/L	SW846 8260B
Ethylbenzene	ND	1.0	ug/L	SW846 8260B
Ethyl methacrylate	ND	1.0	ug/L	SW846 8260B
Hexane	ND	1.0	ug/L	SW846 8260B
2-Hexanone	ND	5.0	ug/L	SW846 8260B
Iodomethane	ND	1.0	ug/L	SW846 8260B

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METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: D0F210154 **Work Order #...:** DFNFW101 **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Methylene chloride	ND	1.0	ug/L	SW846 8260B
4-Methyl-2-pentanone	ND	5.0	ug/L	SW846 8260B
Methyl tert-butyl ether	ND	5.0	ug/L	SW846 8260B
Styrene	ND	1.0	ug/L	SW846 8260B
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	SW846 8260B
tert-Butyl alcohol	ND	50	ug/L	SW846 8260B
Tetrachloroethene	ND	1.0	ug/L	SW846 8260B
Tetrahydrofuran	ND	5.0	ug/L	SW846 8260B
Toluene	ND	1.0	ug/L	SW846 8260B
1,1,1-Trichloroethane	ND	1.0	ug/L	SW846 8260B
1,1,2-Trichloroethane	ND	1.0	ug/L	SW846 8260B
Trichloroethene	ND	1.0	ug/L	SW846 8260B
Trichlorofluoromethane	ND	2.0	ug/L	SW846 8260B
1,2,3-Trichloropropane	ND	1.0	ug/L	SW846 8260B
Trichlorotrifluoroethane	ND	1.0	ug/L	SW846 8260B
Vinyl acetate	ND	2.0	ug/L	SW846 8260B
Vinyl chloride	ND	1.0	ug/L	SW846 8260B
Xylenes (total)	ND	2.0	ug/L	SW846 8260B
Dichlorofluoromethane	ND	2.0	ug/L	SW846 8260B
Ethyl ether	ND	2.0	ug/L	SW846 8260B
Acetonitrile	ND	20	ug/L	SW846 8260B
Allyl chloride	ND	2.0	ug/L	SW846 8260B
Chloroprene	ND	1.0	ug/L	SW846 8260B
Isopropyl ether	ND	10	ug/L	SW846 8260B
Propionitrile	ND	5.0	ug/L	SW846 8260B
Ethyl acetate	ND	5.0	ug/L	SW846 8260B
Methacrylonitrile	ND	10	ug/L	SW846 8260B
Isobutyl alcohol	ND	50	ug/L	SW846 8260B
Methyl methacrylate	ND	1.0	ug/L	SW846 8260B
n-Butanol	ND	50	ug/L	SW846 8260B
2-Nitropropane	ND	2.0	ug/L	SW846 8260B
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	SW846 8260B
Cyclohexanone	ND	20	ug/L	SW846 8260B
Isopropylbenzene	ND	1.0	ug/L	SW846 8260B
1,2-Dibromo-3-chloropropane (DBCP)	ND	2.0	ug/L	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	108	(82 - 122)
1,2-Dichloroethane-d4	102	(78 - 123)
4-Bromofluorobenzene	94	(80 - 120)
Toluene-d8	95	(82 - 122)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: D0F210154
MB Lot-Sample #: D0F220000-475
Work Order #...: DF6G6101
Matrix.....: SOLID
Prep Date.....: 06/21/00
Analysis Time..: 15:46
Analysis Date..: 06/21/00
Prep Batch #...: 0174475
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Acetone	ND	20	ug/kg	SW846 8260B
Acrylonitrile	ND	100	ug/kg	SW846 8260B
Benzene	ND	5.0	ug/kg	SW846 8260B
Bromodichloromethane	ND	5.0	ug/kg	SW846 8260B
Carbon disulfide	ND	5.0	ug/kg	SW846 8260B
Chlorobenzene	ND	5.0	ug/kg	SW846 8260B
Dibromochloromethane	ND	5.0	ug/kg	SW846 8260B
Chloroethane	ND	10	ug/kg	SW846 8260B
Chloroform	ND	10	ug/kg	SW846 8260B
Chloromethane	ND	10	ug/kg	SW846 8260B
Dibromomethane	ND	5.0	ug/kg	SW846 8260B
trans-1,4-Dichloro-2-butene	ND	5.0	ug/kg	SW846 8260B
1,1-Dichloroethane	ND	5.0	ug/kg	SW846 8260B
1,2-Dichloroethane	ND	5.0	ug/kg	SW846 8260B
1,1-Dichloroethene	ND	5.0	ug/kg	SW846 8260B
1,2-Dichloroethene (total)	ND	5.0	ug/kg	SW846 8260B
1,2-Dichloropropane	ND	5.0	ug/kg	SW846 8260B
1,4-Dioxane	ND	500	ug/kg	SW846 8260B
Ethanol	ND	500	ug/kg	SW846 8260B
Ethylbenzene	ND	5.0	ug/kg	SW846 8260B
Trichlorofluoromethane	ND	10	ug/kg	SW846 8260B
2-Hexanone	ND	20	ug/kg	SW846 8260B
Isopropylbenzene	ND	5.0	ug/kg	SW846 8260B
Methylene chloride	**1.2 J**	**5.0**	**ug/kg**	**SW846 8260B**
4-Methyl-2-pentanone	ND	20	ug/kg	SW846 8260B
Styrene	ND	5.0	ug/kg	SW846 8260B
1,1,2,2-Tetrachloroethane	ND	5.0	ug/kg	SW846 8260B
Tetrachloroethene	ND	5.0	ug/kg	SW846 8260B
Toluene	ND	5.0	ug/kg	SW846 8260B
1,1,1-Trichloroethane	ND	5.0	ug/kg	SW846 8260B
Trichloroethene	ND	5.0	ug/kg	SW846 8260B
Vinyl acetate	ND	10	ug/kg	SW846 8260B
Vinyl chloride	ND	10	ug/kg	SW846 8260B
Xylenes (total)	ND	5.0	ug/kg	SW846 8260B
Methyl tert-butyl ether	ND	20	ug/kg	SW846 8260B
1,2-Dibromoethane (EDB)	ND	5.0	ug/kg	SW846 8260B
2-Butanone (MEK)	ND	20	ug/kg	SW846 8260B
Acetonitrile	ND	100	ug/kg	SW846 8260B
Acrolein	ND	100	ug/kg	SW846 8260B

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METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: D0F210154 Work Order #...: DF6G6101 Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Bromoform	ND	5.0	ug/kg	SW846 8260B
Bromomethane	ND	10	ug/kg	SW846 8260B
Carbon tetrachloride	ND	5.0	ug/kg	SW846 8260B
Chloroprene	ND	5.0	ug/kg	SW846 8260B
Allyl chloride	ND	10	ug/kg	SW846 8260B
Cyclohexanone	ND	250	ug/kg	SW846 8260B
1,2-Dichlorobenzene	ND	5.0	ug/kg	SW846 8260B
1,3-Dichlorobenzene	ND	5.0	ug/kg	SW846 8260B
1,4-Dichlorobenzene	ND	5.0	ug/kg	SW846 8260B
Dichlorodifluoromethane	ND	10	ug/kg	SW846 8260B
cis-1,2-Dichloroethene	ND	2.5	ug/kg	SW846 8260B
trans-1,2-Dichloroethene	ND	2.5	ug/kg	SW846 8260B
Dichlorofluoromethane	ND	10	ug/kg	SW846 8260B
cis-1,3-Dichloropropene	ND	5.0	ug/kg	SW846 8260B
trans-1,3-Dichloropropene	ND	5.0	ug/kg	SW846 8260B
Ethyl acetate	ND	10	ug/kg	SW846 8260B
Ethyl ether	ND	10	ug/kg	SW846 8260B
Ethyl methacrylate	ND	5.0	ug/kg	SW846 8260B
Iodomethane	ND	5.0	ug/kg	SW846 8260B
Isobutyl alcohol	ND	200	ug/kg	SW846 8260B
Isopropyl ether	ND	50	ug/kg	SW846 8260B
Methacrylonitrile	ND	5.0	ug/kg	SW846 8260B
tert-Butyl alcohol	ND	200	ug/kg	SW846 8260B
Methyl methacrylate	ND	5.0	ug/kg	SW846 8260B
1,2,3-Trichloropropane	ND	5.0	ug/kg	SW846 8260B
n-Butanol	ND	200	ug/kg	SW846 8260B
2-Nitropropane	ND	10	ug/kg	SW846 8260B
Propionitrile	ND	10	ug/kg	SW846 8260B
1,1,1,2-Tetrachloroethane	ND	5.0	ug/kg	SW846 8260B
Tetrahydrofuran	ND	20	ug/kg	SW846 8260B
1,1,2-Trichloroethane	ND	5.0	ug/kg	SW846 8260B
Trichlorotrifluoroethane	ND	20	ug/kg	SW846 8260B
1,2-Dibromo-3-chloropropane (DBCP)	ND	10	ug/kg	SW846 8260B
Hexane	**3.9 J**	**5.0**	**ug/kg**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	101	(80 - 120)
1,2-Dichloroethane-d4	99	(71 - 121)
4-Bromofluorobenzene	95	(80 - 122)
Toluene-d8	99	(84 - 117)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

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METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: D0F210154 Work Order #...: DF6G6101 Matrix.....: SOLID

NOTE(S):

J Estimated result. Result is less than RL.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: D0F210154
LCS Lot-Sample#: D0F290000-344
Prep Date.....: 06/21/00
Prep Batch #...: 0181344
Dilution Factor: 1

Work Order #...: DFH6K102-LCS
DFH6K103-LCSD
Analysis Date..: 06/28/00
Analysis Time..: 12:04

Matrix.....: SOLID

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,1-Dichloroethene	81	(68 - 119)			SW846 8260B
	61 a	(68 - 119)	27	(0-30)	SW846 8260B
Benzene	100	(79 - 119)			SW846 8260B
	89	(79 - 119)	12	(0-30)	SW846 8260B
Chlorobenzene	98	(78 - 118)			SW846 8260B
	92	(78 - 118)	5.5	(0-30)	SW846 8260B
Trichloroethene	101	(84 - 124)			SW846 8260B
	91	(84 - 124)	10	(0-30)	SW846 8260B
Toluene	105	(77 - 116)			SW846 8260B
	97	(77 - 116)	8.4	(0-30)	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	100	(69 - 121)
	90	(69 - 121)
1,2-Dichloroethane-d4	98	(60 - 117)
	87	(60 - 117)
4-Bromofluorobenzene	97	(48 - 129)
	91	(48 - 129)
Toluene-d8	109	(57 - 138)
	100	(57 - 138)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

a Spiked analyte recovery is outside stated control limits.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: D0F210154 **Work Order #...:** DFNFW102-LCS **Matrix.....:** WATER
LCS Lot-Sample#: D0G030000-130 DFNFW103-LCSD
Prep Date.....: 06/29/00 **Analysis Date..:** 06/29/00
Prep Batch #...: 0185130 **Analysis Time..:** 13:24
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Benzene	**96**	**(80 - 120)**			**SW846 8260B**
	100	**(80 - 120)**	**3.7**	**(0-20)**	**SW846 8260B**
Chlorobenzene	**92**	**(80 - 120)**			**SW846 8260B**
	95	**(80 - 120)**	**3.0**	**(0-20)**	**SW846 8260B**
1,1-Dichloroethene	**96**	**(80 - 123)**			**SW846 8260B**
	102	**(80 - 123)**	**6.0**	**(0-20)**	**SW846 8260B**
Toluene	**91**	**(77 - 117)**			**SW846 8260B**
	95	**(77 - 117)**	**4.3**	**(0-20)**	**SW846 8260B**
Trichloroethene	**97**	**(84 - 124)**			**SW846 8260B**
	100	**(84 - 124)**	**2.8**	**(0-20)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	105	(82 - 122)
	105	(82 - 122)
1,2-Dichloroethane-d4	100	(78 - 123)
	102	(78 - 123)
4-Bromofluorobenzene	96	(80 - 120)
	96	(80 - 120)
Toluene-d8	94	(82 - 122)
	94	(82 - 122)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: D0F210154
LCS Lot-Sample#: D0F220000-475
Prep Date.....: 06/21/00
Prep Batch #...: 0174475
Dilution Factor: 1

Work Order #...: DF6G6102
Analysis Date..: 06/21/00
Analysis Time..: 15:21

Matrix.....: SOLID

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD
1,1-Dichloroethene	**105**	**(72 - 130)**	**SW846 8260B**
Benzene	**106**	**(85 - 116)**	**SW846 8260B**
Chlorobenzene	**97**	**(76 - 127)**	**SW846 8260B**
Toluene	**99**	**(85 - 115)**	**SW846 8260B**
Trichloroethene	**109**	**(85 - 115)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	101	(80 - 120)
1,2-Dichloroethane-d4	99	(71 - 121)
4-Bromofluorobenzene	96	(80 - 122)
Toluene-d8	94	(84 - 117)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...: D0F210154 **Work Order #...:** DFH6K102-LCS **Matrix.....:** SOLID
LCS Lot-Sample#: D0F290000-344 DFH6K103-LCSD
Prep Date.....: 06/21/00 **Analysis Date..:** 06/28/00
Prep Batch #...: 0181344 **Analysis Time..:** 12:04
Dilution Factor: 1

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	RPD	METHOD
1,1-Dichloroethene	**2000**	**1610**	**ug/kg**	**81**		**SW846 8260B**
	1950	**1200 a**	**ug/kg**	**61**	**27**	**SW846 8260B**
Benzene	**2000**	**2000**	**ug/kg**	**100**		**SW846 8260B**
	1950	**1730**	**ug/kg**	**89**	**12**	**SW846 8260B**
Chlorobenzene	**2000**	**1950**	**ug/kg**	**98**		**SW846 8260B**
	1950	**1800**	**ug/kg**	**92**	**5.5**	**SW846 8260B**
Trichloroethene	**2000**	**2020**	**ug/kg**	**101**		**SW846 8260B**
	1950	**1780**	**ug/kg**	**91**	**10**	**SW846 8260B**
Toluene	**2000**	**2100**	**ug/kg**	**105**		**SW846 8260B**
	1950	**1890**	**ug/kg**	**97**	**8.4**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	100	(69 - 121)
	90	(69 - 121)
1,2-Dichloroethane-d4	98	(60 - 117)
	87	(60 - 117)
4-Bromofluorobenzene	97	(48 - 129)
	91	(48 - 129)
Toluene-d8	109	(57 - 138)
	100	(57 - 138)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

a Spiked analyte recovery is outside stated control limits.

LABORATORY CONTROL SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...: D0F210154
LCS Lot-Sample#: D0G030000-130
Prep Date.....: 06/29/00
Prep Batch #...: 0185130
Dilution Factor: 1

Work Order #...: DFNFW102-LCS
DFNFW103-LCSD
Analysis Date..: 06/29/00
Analysis Time..: 13:24

Matrix.....: WATER

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	RPD	METHOD
Benzene	10.0	9.65	ug/L	96		SW846 8260B
	10.0	10.0	ug/L	100	3.7	SW846 8260B
Chlorobenzene	10.0	9.24	ug/L	92		SW846 8260B
	10.0	9.52	ug/L	95	3.0	SW846 8260B
1,1-Dichloroethene	10.0	9.65	ug/L	96		SW846 8260B
	10.0	10.2	ug/L	102	6.0	SW846 8260B
Toluene	10.0	9.11	ug/L	91		SW846 8260B
	10.0	9.52	ug/L	95	4.3	SW846 8260B
Trichloroethene	10.0	9.72	ug/L	97		SW846 8260B
	10.0	10.0	ug/L	100	2.8	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	105	(82 - 122)
	105	(82 - 122)
1,2-Dichloroethane-d4	100	(78 - 123)
	102	(78 - 123)
4-Bromofluorobenzene	96	(80 - 120)
	96	(80 - 120)
Toluene-d8	94	(82 - 122)
	94	(82 - 122)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...: D0F210154
LCS Lot-Sample#: D0F220000-475
Prep Date.....: 06/21/00
Prep Batch #...: 0174475
Dilution Factor: 1

Work Order #...: DF6G6102

Analysis Date..: 06/21/00
Analysis Time..: 15:21

Matrix.....: SOLID

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	METHOD
1,1-Dichloroethene	50.0	52.7	ug/kg	105	SW846 8260B
Benzene	50.0	53.1	ug/kg	106	SW846 8260B
Chlorobenzene	50.0	48.3	ug/kg	97	SW846 8260B
Toluene	50.0	49.7	ug/kg	99	SW846 8260B
Trichloroethene	50.0	54.3	ug/kg	109	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	101	(80 - 120)
1,2-Dichloroethane-d4	99	(71 - 121)
4-Bromofluorobenzene	96	(80 - 122)
Toluene-d8	94	(84 - 117)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: D0F210154
MS Lot-Sample #: D0F150173-002
Date Sampled...: 06/14/00 11:50
Prep Date.....: 06/21/00
Prep Batch #...: 0174475
Dilution Factor: 1

Work Order #...: DEPQ8125-MS
DEPQ8126-MSD
Date Received..: 06/15/00
Analysis Date..: 06/21/00
Analysis Time..: 16:48

Matrix.....: SOLID

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,1-Dichloroethene	**101**	**(72 - 130)**			**SW846 8260B**
	97	**(72 - 130)**	**3.6**	**(0-20)**	**SW846 8260B**
Benzene	**101**	**(85 - 116)**			**SW846 8260B**
	99	**(85 - 116)**	**2.9**	**(0-20)**	**SW846 8260B**
Chlorobenzene	**86**	**(76 - 127)**			**SW846 8260B**
	84	**(76 - 127)**	**1.6**	**(0-20)**	**SW846 8260B**
Toluene	**91**	**(85 - 115)**			**SW846 8260B**
	90	**(85 - 115)**	**1.2**	**(0-20)**	**SW846 8260B**
Trichloroethene	**100**	**(85 - 115)**			**SW846 8260B**
	95	**(85 - 115)**	**5.0**	**(0-20)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	99	(80 - 120)
	99	(80 - 120)
1,2-Dichloroethane-d4	99	(71 - 121)
	100	(71 - 121)
4-Bromofluorobenzene	94	(80 - 122)
	97	(80 - 122)
Toluene-d8	92	(84 - 117)
	95	(84 - 117)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

Results and reporting limits have been adjusted for dry weight.

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: D0F210154 **Work Order #...:** DF4H3102-MS **Matrix.....:** WATER
MS Lot-Sample #: D0F220128-015 DF4H3103-MSD
Date Sampled...: 06/21/00 11:32 **Date Received..:** 06/22/00
Prep Date.....: 06/29/00 **Analysis Date..:** 06/29/00
Prep Batch #...: 0185130 **Analysis Time..:** 18:44
Dilution Factor: 2

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Benzene	**92**	**(80 - 120)**			**SW846 8260B**
	94	**(80 - 120)**	**1.5**	**(0-20)**	**SW846 8260B**
Chlorobenzene	**88**	**(80 - 120)**			**SW846 8260B**
	91	**(80 - 120)**	**2.8**	**(0-20)**	**SW846 8260B**
1,1-Dichloroethene	**93**	**(80 - 123)**			**SW846 8260B**
	95	**(80 - 123)**	**1.8**	**(0-20)**	**SW846 8260B**
Toluene	**87**	**(77 - 117)**			**SW846 8260B**
	89	**(77 - 117)**	**3.1**	**(0-20)**	**SW846 8260B**
Trichloroethene	**92**	**(84 - 124)**			**SW846 8260B**
	85	**(84 - 124)**	**2.0**	**(0-20)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	105	(82 - 122)
	105	(82 - 122)
1,2-Dichloroethane-d4	102	(78 - 123)
	102	(78 - 123)
4-Bromofluorobenzene	96	(80 - 120)
	97	(80 - 120)
Toluene-d8	94	(82 - 122)
	95	(82 - 122)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...: D0F210154 **Work Order #...:** DEPQ8125-MS **Matrix.....:** SOLID
MS Lot-Sample #: D0F150173-002 DEPQ8126-MSD
Date Sampled...: 06/14/00 11:50 **Date Received..:** 06/15/00
Prep Date.....: 06/21/00 **Analysis Date..:** 06/21/00
Prep Batch #...: 0174475 **Analysis Time..:** 16:48
Dilution Factor: 1

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCENT RECOVERY	RPD	METHOD
1,1-Dichloroethene	**ND**	**52.3**	**52.8**	**ug/kg**	**101**		**SW846 8260B**
	ND	**52.3**	**50.9**	**ug/kg**	**97**	**3.6**	**SW846 8260B**
Benzene	**ND**	**52.3**	**53.1**	**ug/kg**	**101**		**SW846 8260B**
	ND	**52.3**	**51.6**	**ug/kg**	**99**	**2.9**	**SW846 8260B**
Chlorobenzene	**ND**	**52.3**	**44.8**	**ug/kg**	**86**		**SW846 8260B**
	ND	**52.3**	**44.1**	**ug/kg**	**84**	**1.6**	**SW846 8260B**
Toluene	**ND**	**52.3**	**47.6**	**ug/kg**	**91**		**SW846 8260B**
	ND	**52.3**	**47.0**	**ug/kg**	**90**	**1.2**	**SW846 8260B**
Trichloroethene	**ND**	**52.3**	**52.1**	**ug/kg**	**100**		**SW846 8260B**
	ND	**52.3**	**49.6**	**ug/kg**	**95**	**5.0**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	99	(80 - 120)
	99	(80 - 120)
1,2-Dichloroethane-d4	99	(71 - 121)
	100	(71 - 121)
4-Bromofluorobenzene	94	(80 - 122)
	97	(80 - 122)
Toluene-d8	92	(84 - 117)
	95	(84 - 117)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

Results and reporting limits have been adjusted for dry weight.

MATRIX SPIKE SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...: D0F210154 Work Order #...: DF4H3102-MS Matrix.....: WATER
MS Lot-Sample #: D0F220128-015 DF4H3103-MSD
Date Sampled...: 06/21/00 11:32 Date Received..: 06/22/00
Prep Date.....: 06/29/00 Analysis Date..: 06/29/00
Prep Batch #...: 0185130 Analysis Time..: 18:44
Dilution Factor: 2

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCENT RECOVERY	RPD	METHOD
Benzene	**ND**	**20.0**	**18.5**	**ug/L**	**92**		**SW846 8260B**
	ND	**20.0**	**18.8**	**ug/L**	**94**	**1.5**	**SW846 8260B**
Chlorobenzene	**ND**	**20.0**	**17.6**	**ug/L**	**88**		**SW846 8260B**
	ND	**20.0**	**18.1**	**ug/L**	**91**	**2.8**	**SW846 8260B**
1,1-Dichloroethene	**ND**	**20.0**	**18.6**	**ug/L**	**93**		**SW846 8260B**
	ND	**20.0**	**18.9**	**ug/L**	**95**	**1.8**	**SW846 8260B**
Toluene	**ND**	**20.0**	**17.3**	**ug/L**	**87**		**SW846 8260B**
	ND	**20.0**	**17.9**	**ug/L**	**89**	**3.1**	**SW846 8260B**
Trichloroethene	**53**	**20.0**	**71.3**	**ug/L**	**92**		**SW846 8260B**
	53	**20.0**	**69.8**	**ug/L**	**85**	**2.0**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	105	(82 - 122)
	105	(82 - 122)
1,2-Dichloroethane-d4	102	(78 - 123)
	102	(78 - 123)
4-Bromofluorobenzene	96	(80 - 120)
	97	(80 - 120)
Toluene-d8	94	(82 - 122)
	95	(82 - 122)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

SAMPLE DUPLICATE EVALUATION REPORT

General Chemistry

Client Lot #...: D0F210154 **Work Order #...:** DF2GE-SMP DF2GE-DUP **Matrix.....:** SOLID

Date Sampled...: 06/20/00 16:30 **Date Received..:** 06/21/00

PARAM	RESULT	DUPLICATE RESULT	UNITS	RPD	RPD LIMIT	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Percent Moisture						SD Lot-Sample #: D0F210154-005		
	9.6	10.2	%	6.2	(0-0.0)	MCAWW 160.3 MOD	07/06/00	0192353

Dilution Factor: 1

Analysis Time..: 10:11

DCM GROUP
DAMES & MOORE
A DAMES & MOORE GROUP COMPANY
644 Linn Street, Suite 501
Cincinnati, Ohio 45203
(513) 651-3440 Fax (513) 651-3452

36733

5.9°C
MMW
6/21/00

CHAIN-OF-CUSTODY RECORD

PURCHASE ORDER NO.

PROJECT NAME/ NO. JCI - RFI Ph. II / 20209-016 -0402-121

LOCATION Fowlerville, MI

SAMPLERS: Stacey Lane / Chris Seelman (NAME) Stacey Lane (SIGNATURE)

LABORATORY: Quanterra

ADDRESS: 4195 Yarrow St. Arvada, CO 80002

FORWARD RESULTS TO: Bill Eckhoff

	SAMPLE IDENTIFICATION	DATE	TIME	COMP	GRAB	SOIL	WATER	SAMPLE LOCATION	NO. OF CONTAINERS	ANALYTICAL PARAMETERS: VOCs Method SW-846 8260B								REMARKS:
	~~TCE~~	~~6/20~~	—	—	—	—	—											
1	SO-TCE9-2-3	6/20	0900		X	X			4	X								Please preserve & hold until called
2	SO-TCE9-7-8	6/20	0915		X	X			4	X								"
3	SO-TCE3-3-4	6/20	1245		X	X			4	X								"
4	SO-TCE3-9-10	6/20	1600		X	X			4	X								"
5	SO-TCE6-7-8	6/20	1630		X	X			4	X								"
6	GW-TCE3-13-15	6/20	1330		X		X		3	X								HCl preserved
7	GW-TCE6	6/20	1700		X		X		3	X								HCl preserved

RELINQUISHED BY:	COMPANY:	DATE: / TIME:	RECEIVED BY:	COMPANY:	DATE: / TIME:
Stacey Lane (NAME) Stacey Lane (SIGNATURE)	URS D&M	6/20 / 1900	M Heather Ford (NAME) Michelle Weatherford (SIGNATURE)	STL	6/21/00 / 0830
(NAME) (SIGNATURE)			(NAME) (SIGNATURE)		

forms/RECORD

144.2

Severn Trent Laboratories - Denver

Sample Receiving Checklist

Lot #: DOF210154 Date/Time Received: 6/21/00 0830

Company Name & Sampling Site: Dames & Moore SCI-RFI Ph. II

*Cooler #(s): _____

Temperatures: 5.7°C

Unpacking & Labeling Check Points:

N/A	Yes	No		Initials
	☑	☐	1. Cooler seals intact.	MMW
	☑	☐	2. Chain of custody present.	
	☐	☑	3. Bottles broken and/or are leaking, comment if yes.	
			PHOTOGRAPH BROKEN BOTTLES	
	☑	☐	4. Containers labeled, comment if no.	
	☑	☐	5. pH of all samples checked and meet requirements, note exceptions.	
	☑	☐	6. Chain of custody includes "received by" and "relinquished" by signatures, dates, and times.	
	☐	☑	7. Receipt date(s) > 48 hours past the collection date(s)? If yes, notify PA/PM.	
	mw ☐	☑	8. Chain of custody agrees with bottle count, comment if no. Trip Blk not on COC	
	☑	☐	9. Chain of custody agrees with labels, comment if no.	
☐	☑	☐	10. VOA samples filled completely, comment if no.	
☐	☑	☐	11. VOA bottles preserved, check for labels.	
	☐	☑	12. Did samples require preservation with sodium thiosulfate?	
☑	☐	☐	13. If yes to #12, did the samples contain residual chlorine?	
☑	☐	☐	14. Sediment present in "D," dissolved, bottles.	
	☐	☑	15. Are analyses with short holding times requested?	
☐	☐	☑	16. Is extra sample volume provided for MS, MSD or matrix duplicates?	
	☐	☑	17. Multiphase samples present? If yes, comment below.	
	☐	☑	18. Any subsampling for volatiles? If yes, list samples.	
			PHOTOGRAPH MULTIPHASE SAMPLES	
☑	☐	☐	19. Clear picture taken, labeled, and stapled to project folder.	
☑	☐	☐	20. Subcontract COC signed and sent with samples to bottle prep?	
	☑	☐	21. Was sample labeling double checked by a second person?	JM

Document any problems or discrepancies and the actions taken to resolve them on a Condition Upon Receipt Anomaly Report (CUR)

Severn Trent Laboratories - Denver
Condition Upon Receipt Anomaly Report (CUR)

Client: Dames & Moore Date/Time: 6/21/00 1120

Lot No: DOF210154 Initiated by: MMW

Affected Samples COC#

Client ID	Lab ID	Analyses Requested
Trip Blank	-008	8260

CONDITION/ANOMALY/VARIANCE (CHECK ALL THAT APPLY):

☐COOLERS
- ☐Not Received, No Chain of Custody (COC)
- ☐Not Received but COC(s) Available
- ☐Leaking
- ☐Other:

☐ TEMPERATURE (greater than 6° C)
- ☐Cooler Temp
- ☐Temperature Blank

☐CUSTODY SEALS (COOLER(S)/CONTAINER(S)
- ☐None
- ☐ Not Intact
- ☐Other:

☐CHAIN OF CUSTODY (COCs)
- ☐Not relinquished by Client; No date/time Relinq.
- ☐ Incomplete Information
- ☐Other:

☐CONTAINERS
- ☐Leaking
- ☐Broken
- ☐Extra
- ☐Without Labels
- ☐VOA Vials with Headspace _____mm
- ☐Other:

☐ CONTAINER LABELS
- ☐Not the same ID/info as in COC
- ☐ Incomplete
- ☐ID COLLECTION ☐Time ☐Date ☐PRESERVATIVE
- ☐ Markings/Info smeared or illegible
- ☐Torn
- ☐Other:

☑ SAMPLES
- ☐Samples NOT RECEIVED but listed on COC ------ ☐will be noted on COC ☐ Client to send samples with new COC
- ☑Samples received but NOT LISTED on COC
- ☐Logged based on Label Information
- ☐Logged based on info from other samples on COC
- ☐ Logged according to Work Plan
- ☐Logged on HOLD UNTIL FURTHER NOTICE
- ☐ Other:

- ☐ Mislabeled as to tests, preservatives, etc.
- ☐Holding time expired
- ☐ Improper container used
- ☐Not preserved / Improper preservative used
- ☐ Improper pH _____ ☐ Lab to preserve sample
- ☐ Insufficient quantities for analysis

Comments:

Corrective Action:
- ☐ Client Informed: verbally on: _____ By: _____: In writing on: _____ By: _____
- ☑ Sample(s) processed "as is".
- ☐ Sample(s) on hold until: _____ If released, notify: _____

Sample Control Supervisor Review: _____ Date: _____

Project Management Review: _____ Date: 6/22/00

SIGNED ORIGINAL MUST BE RETAINED IN THE PROJECT FILE

N:\QA\Forms\Sample Receiving\ Condition Upon Receipt Report 1/4/99 version