RECEIVED AUGUST 03, 2009

0083864

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WSCF Analytical Lab
P.O. Box 1000
Richland, Washington 99352
Telephone 373-7495
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FLUOR®

M4W41-SLF-09-219

July 31, 2009

Mr. M. A. Neely, Manager
Analytical Services
CH2M HILL Plateau Remediation Contract
PO Box 1600 MSIN R3-60
Richland, WA 99352

Dear Mike:

FINAL RESULTS FOR SAMPLE DELIVERY GROUP WSCF20090639 – SAF NUMBER F09-040

Reference: (1) Statement of Work (SOW), Modification No. 2 to Agreement 36587, Release 3, 'FH WSCF ANALYTICAL SERVICES FOR GROUNDWATER'

(2) HNF-SD-CD-QAPP-017, Rev. 9, Waste Sampling & Characterization Facility Quality Assurance Plan

This letter contains the following attachments for sample delivery group WSCF20090639:

- Cover Sheet (Attachment 1)
- Narrative (Attachment 2)
- Analytical Results (Attachment 3)
- Sample Receipt Information (Attachment 4)

Very truly yours,

S. L. Fitzgerald
WSCF Analytical Lab

SLF/cmj

Attachments 4

cc: w/Attachments

A. J. Kopriva	S3-30
H. K. Meznarich	S3-30
J. E. Trechter	S3-30
S. J. Trent	R3-50
File/LB	

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ATTACHMENT 1

COVER SHEET

Consisting of 2 pages
Including cover page

WSCF SAF NUMBER CROSS REFERENCE

Group#: WSCF20090639
Data Deliverable Date: 30-jul-2009
Data Deliverable: Cover Sheet

SAF#	Sample ID	WSCF#	Matrix
F09-040	B212H1	W09GR00465	GASEOUS
	B212H2	W09GR00466	GASEOUS
	B212H3	W09GR00467	GASEOUS
	B212H4	W09GR00468	GASEOUS
	B212H5	W09GR00469	GASEOUS
	B212H6	W09GR00470	GASEOUS

M4W41-SLF-09-219

ATTACHMENT 2

NARRATIVE

Consisting of 2 pages
Including cover page

Introduction

Six (6) S&GRP samples were received at the WSCF Laboratory on July 1, 2009. Samples were analyzed for the analytes indicated on the attached copy of the chain of custody (COC) form in accordance with the *Statement of Work (SOW), Modification No. 2 to Agreement 36587, Release 3, "FH WSCF ANALYTICAL SERVICES FOR GROUNDWATER."*

The narrative (Attachment 2) will address sample characteristics, analyses requested and general information in performance of the analytical methods. A Data Summary Report (Attachment 3) includes analytical results, a comment report detailing method abnormalities, tentatively identified peaks if applicable, method references, and Laboratory QC information as applicable. Copies of the chain of custody and sample receipt documentation are included as Attachment 4.

The following generic data qualifiers (i.e., B, D, and J) may be applicable to this report, as appropriate

- **B** – Sample results with a concentration greater than the MDL but less than the PQL are B flagged (applies to inorganic and wetchem analyses), as appropriate.
- **D** – Sample results are D flagged if dilution(s) were required, as appropriate.
- **J** – Sample results with a concentration greater than the MDL but less than the PQL are J flagged (applies to organic analyses), as appropriate.

Analytical Methodology for Requested Analyses

Refer to *WSCF Method References Report,* page 9, for a complete listing of approved analytical methods.

Organic Comments

VOA – The hold time requirement for this analysis was met. A Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group. See pages 23-30 QC details. Analytical Note(s):

- LCS/LCSD: N-Butanol did not meet the lower laboratory established limit of 70% at 57% and 55% respectively
- LQO: Methanol did not meet the upper laboratory established requirement of 150% at 169%.
- Calibration: Methanol did not meet the 25% RSD at 32%.

All other QC controls are within the established limits.

Scot L. Fitzgerald
WSCF Analytical Laboratory Manager

Andrew J. Kopriva
WSCF Client Services

M4W41-SLF-09-219

ATTACHMENT 3

ANALYTICAL RESULTS

Consisting of 26 pages
Including cover page

WSCF
ANALYTICAL RESULTS REPORT

for

Groundwater Remediation Program

Richland, WA 99354

Attention: Steve Trent

Analytical: S. Fitzgerald 7-31-09

Client Services: A. Kopriva 7-30-09

All results are reported on an "as received" basis unless otherwise noted in the comment section.

This information is intended for the use of the addressee only. If the reader of this report is not the intended recipient or is not authorized by the recipient to receive the report, you are hereby notified that any dissemination, distribution or copying of this report is strictly prohibited. If you have received this report in error, please notify WSCF Laboratory immediately by telephone at (509) 373-7020 or (509) 531-8004. Information designation of this report is the responsibility of the customer.

Contract#: MOA-FH-CHPRC-2008
Report#: WSCF20090639
Report Date: 28-jul-2009
Report WGPP/ver. 5.2

w13qlog v4.2 28-jul-2009 10:56:33

Department: Organic

W13q Worklist/Batch/QC Report for Group# WSCF20090639

WL#	S#	Batch	QC#	Tray Type	Sample#	Test
39751	1	40175	44784	BLANK		Headspace Analysis
39751	2	40175	44784	LCS		Headspace Analysis
39751	3	40175	44784	LCS-DUP		Headspace Analysis
39751	3	40175	44784	LCS-RPD		Headspace Analysis
39751	4	40175	44784	LOQ		Headspace Analysis
39751	5	40175	44784	SAMPLE	W09GR00465	Headspace Analysis
39751	6	40175	44784	SAMPLE	W09GR00466	Headspace Analysis
39751	7	40175	44784	SAMPLE	W09GR00467	Headspace Analysis
39751	8	40175	44784	SAMPLE	W09GR00468	Headspace Analysis
39751	9	40175	44784	SAMPLE	W09GR00469	Headspace Analysis
39751	10	40175	44784	SAMPLE	W09GR00470	Headspace Analysis

WSCF
METHOD REFERENCES REPORT

Department: Organic

The results provided in this report were generated using the following WSCF Laboratory procedures. For your convenience, this table provides a listing of the regulatory or industry methods that are referenced by each of these WSCF procedures. Please note that the most recent version of the regulatory or industry method is listed here even though the WSCF procedure may reference an older version of the method. Also, a reference to a regulatory or industry method here does not necessarily indicate a verbatim implementation of that method.

LA-523-449 LA-523-449: DETERMINATION OF VOLATILE ORGANIC COMPOUNDS FOR INDUSTIAL HYGIENE

EPA TO Methods TO-15 mod. Determination Of Volatile Organic Compounds (VOCs) In Ambient Air -Modified-

HEIS TO-15_VOA_GAS VOA TO-15

Note: A complete list of WSCF analytical procedures and referenced regulatory or industry methods is available online at http://www2.rl.gov/phmc/as-dol.

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent
SAF Number: F09-040
Sample # W09GR00465
Client ID: B212H1 GPP WSCF

Matrix: GASEOUS

Group #: WSCF20090639
Department: Organic
Sampled: 07/01/09
Received: 07/01/09

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Headspace Analysis											
Propane	74-98-6	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
Chloromethane	74-87-3	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
Vinyl chloride	75-01-4	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
Butane	106-97-8	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
1,3-Butadiene	106-99-0	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
Methanol	67-56-1	LA-523-449		< 50	PPB(V/V)			2.00	50		07/20/09
Pentane	109-66-0	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
Ethanol	64-17-5	LA-523-449		< 50	PPB(V/V)			2.00	50		07/20/09
Furan	110-00-9	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
1,1-Dichloroethene	75-35-4	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
Acetone	67-64-1	LA-523-449		< 25	PPB(V/V)			2.00	25		07/20/09
2-Propanol	67-63-0	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
Acetonitrile	75-05-8	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
Carbon disulfide	75-15-0	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
Methylenechloride	75-09-2	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
Hexane	110-54-3	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
1-Propanol	71-23-8	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
Butanal	123-72-8	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
2-Butanone	78-93-3	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
Ethyl cyanide	107-12-0	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
Chloroform	67-66-3	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
Tetrahydrofuran	109-99-9	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
1,1,1-Trichloroethane	71-55-6	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
Carbon tetrachloride	56-23-5	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor

* - Indicates results that have NOT been validated; + - Indicates more than six qualifier symbols

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent
SAF Number: F09-040
Sample # W09GR00465
Client ID: B212H1 GPP WSCF

Matrix: GASEOUS

Group #: WSCF20090639
Department: Organic
Sampled: 07/01/09
Received: 07/01/09

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
1,2-Dichloroethane	107-06-2	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
Benzene	71-43-2	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
Heptane	142-82-5	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
1-Butanol	71-36-3	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
Trichloroethene	79-01-6	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
Butanenitrile	109-74-0	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
1,4-Dioxane	123-91-1	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
4-Methyl-2-Pentanone	108-10-1	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
Toluene	108-88-3	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
3-Hexanone	589-38-8	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
2-Hexanone	591-78-6	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
Tetrachloroethene	127-18-4	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
Valeronitrile	110-59-8	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
Chlorobenzene	108-90-7	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
Ethylbenzene	100-41-4	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
m/p-xylene	179601-23-1	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
Styrene	100-42-5	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
o-Xylene	95-47-6	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
Hexanenitrile	628-73-9	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
1,1,2,2-Tetrachloroethane	79-34-5	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
Decane	124-18-5	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
* - Indicates results that have NOT been validated; + - Indicates more than six qualifier symbols

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent
SAF Number: F09-040
Sample # W09GR00466
Client ID: B212H2 GPP WSCF

Matrix: GASEOUS

Group #: WSCF20090639
Department: Organic
Sampled: 07/01/09
Received: 07/01/09

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Headspace Analysis											
Propane	74-98-6	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
Chloromethane	74-87-3	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
Vinyl chloride	75-01-4	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
Butane	106-97-8	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
1,3-Butadiene	106-99-0	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
Methanol	67-56-1	LA-523-449		< 50	PPB(V/V)			2.00	50		07/20/09
Pentane	109-66-0	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
Ethanol	64-17-5	LA-523-449		< 50	PPB(V/V)			2.00	50		07/20/09
Furan	110-00-9	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
1,1-Dichloroethene	75-35-4	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
Acetone	67-64-1	LA-523-449		< 25	PPB(V/V)			2.00	25		07/20/09
2-Propanol	67-63-0	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
Acetonitrile	75-05-8	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
Carbon disulfide	75-15-0	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
Methylenechloride	75-09-2	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
Hexane	110-54-3	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
1-Propanol	71-23-8	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
Butanal	123-72-8	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
2-Butanone	78-93-3	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
Ethyl cyanide	107-12-0	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
Chloroform	67-66-3	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
Tetrahydrofuran	109-99-9	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
1,1,1-Trichloroethane	71-55-6	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
Carbon tetrachloride	56-23-5	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor

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WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent
SAF Number: F09-040
Sample # W09GR00466
Client ID: B212H2 GPP WSCF

Matrix: GASEOUS

Group #: WSCF20090639
Department: Organic
Sampled: 07/01/09
Received: 07/01/09

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
1,2-Dichloroethane	107-06-2	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
Benzene	71-43-2	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
Heptane	142-82-5	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
1-Butanol	71-36-3	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
Trichloroethene	79-01-6	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
Butanenitrile	109-74-0	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
1,4-Dioxane	123-91-1	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
4-Methyl-2-Pentanone	108-10-1	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
Toluene	108-88-3	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
3-Hexanone	589-38-8	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
2-Hexanone	591-78-6	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
Tetrachloroethene	127-18-4	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
Valeronitrile	110-59-8	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
Chlorobenzene	108-90-7	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
Ethylbenzene	100-41-4	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
m/p-xylene	179601-23-1	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
Styrene	100-42-5	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
o-Xylene	95-47-6	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
Hexanenitrile	628-73-9	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
1,1,2,2-Tetrachloroethane	79-34-5	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
Decane	124-18-5	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor

- Indicates results that have NOT been validated; + - Indicates more than six qualifier symbols

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent
SAF Number: F09-040
Sample # W09GR00467
Client ID: B212H3 GPP WSCF

Matrix: GASEOUS

Group #: WSCF20090639
Department: Organic
Sampled: 07/01/09
Received: 07/01/09

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Headspace Analysis											
Propane	74-98-6	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
Chloromethane	74-87-3	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
Vinyl chloride	75-01-4	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
Butane	106-97-8	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
1,3-Butadiene	106-99-0	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
Methanol	67-56-1	LA-523-449		< 50	PPB(V/V)			2.00	50		07/20/09
Pentane	109-66-0	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
Ethanol	64-17-5	LA-523-449		< 50	PPB(V/V)			2.00	50		07/20/09
Furan	110-00-9	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
1,1-Dichloroethene	75-35-4	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
Acetone	67-64-1	LA-523-449		< 25	PPB(V/V)			2.00	25		07/20/09
2-Propanol	67-63-0	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
Acetonitrile	75-05-8	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
Carbon disulfide	75-15-0	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
Methylenechloride	75-09-2	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
Hexane	110-54-3	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
1-Propanol	71-23-8	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
Butanal	123-72-8	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
2-Butanone	78-93-3	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
Ethyl cyanide	107-12-0	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
Chloroform	67-66-3	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
Tetrahydrofuran	109-99-9	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
1,1,1-Trichloroethane	71-55-6	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
Carbon tetrachloride	56-23-5	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
* - Indicates results that have NOT been validated; + - Indicates more than six qualifier symbols

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent
SAF Number: F09-040
Sample # W09GR00467
Client ID: B212H3 GPP WSCF

Matrix: GASEOUS

Group #: WSCF20090639
Department: Organic
Sampled: 07/01/09
Received: 07/01/09

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
1,2-Dichloroethane	107-06-2	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
Benzene	71-43-2	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
Heptane	142-82-5	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
1-Butanol	71-36-3	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
Trichloroethene	79-01-6	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
Butanenitrile	109-74-0	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
1,4-Dioxane	123-91-1	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
4-Methyl-2-Pentanone	108-10-1	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
Toluene	108-88-3	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
3-Hexanone	589-38-8	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
2-Hexanone	591-78-6	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
Tetrachloroethene	127-18-4	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
Valeronitrile	110-59-8	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
Chlorobenzene	108-90-7	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
Ethylbenzene	100-41-4	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
m/p-xylene	179601-23-1	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
Styrene	100-42-5	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
o-Xylene	95-47-6	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
Hexanenitrile	628-73-9	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
1,1,2,2-Tetrachloroethane	79-34-5	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
Decane	124-18-5	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor

* - Indicates results that have NOT been validated; + - Indicates more than six qualifier symbols

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent
SAF Number: F09-040
Sample # W09GR00468
Client ID: B212H4 GPP WSCF

Matrix: GASEOUS

Group #: WSCF20090639
Department: Organic
Sampled: 07/01/09
Received: 07/01/09

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Headspace Analysis											
Propane	74-98-6	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
Chloromethane	74-87-3	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
Vinyl chloride	75-01-4	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
Butane	106-97-8	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
1,3-Butadiene	106-99-0	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
Methanol	67-56-1	LA-523-449		< 50	PPB(V/V)			2.00	50		07/20/09
Pentane	109-66-0	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
Ethanol	64-17-5	LA-523-449		< 50	PPB(V/V)			2.00	50		07/20/09
Furan	110-00-9	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
1,1-Dichloroethene	75-35-4	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
Acetone	67-64-1	LA-523-449		< 25	PPB(V/V)			2.00	25		07/20/09
2-Propanol	67-63-0	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
Acetonitrile	75-05-8	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
Carbon disulfide	75-15-0	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
Methylenechloride	75-09-2	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
Hexane	110-54-3	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
1-Propanol	71-23-8	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
Butanal	123-72-8	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
2-Butanone	78-93-3	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
Ethyl cyanide	107-12-0	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
Chloroform	67-66-3	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
Tetrahydrofuran	109-99-9	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
1,1,1-Trichloroethane	71-55-6	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
Carbon tetrachloride	56-23-5	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor

* - Indicates results that have NOT been validated; + - Indicates more than six qualifier symbols

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent
SAF Number: F09-040
Sample # W09GR00468
Client ID: B212H4 GPP WSCF

Matrix: GASEOUS

Group #: WSCF20090639
Department: Organic
Sampled: 07/01/09
Received: 07/01/09

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
1,2-Dichloroethane	107-06-2	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
Benzene	71-43-2	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
Heptane	142-82-5	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
1-Butanol	71-36-3	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
Trichloroethene	79-01-6	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
Butanenitrile	109-74-0	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
1,4-Dioxane	123-91-1	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
4-Methyl-2-Pentanone	108-10-1	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
Toluene	108-88-3	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
3-Hexanone	589-38-8	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
2-Hexanone	591-78-6	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
Tetrachloroethene	127-18-4	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
Valeronitrile	110-59-8	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
Chlorobenzene	108-90-7	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
Ethylbenzene	100-41-4	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
m/p-xylene	179601-23-1	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
Styrene	100-42-5	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
o-Xylene	95-47-6	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
Hexanenitrile	628-73-9	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
1,1,2,2-Tetrachloroethane	79-34-5	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
Decane	124-18-5	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
* - Indicates results that have NOT been validated; + - Indicates more than six qualifier symbols

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent
SAF Number: F09-040
Sample # W09GR00469
Client ID: B212H5 GPP WSCF

Matrix: GASEOUS

Group #: WSCF20090639
Department: Organic
Sampled: 07/01/09
Received: 07/01/09

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Headspace Analysis											
Propane	74-98-6	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
Chloromethane	74-87-3	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
Vinyl chloride	75-01-4	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
Butane	106-97-8	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
1,3-Butadiene	106-99-0	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
Methanol	67-56-1	LA-523-449		< 50	PPB(V/V)			2.00	50		07/20/09
Pentane	109-66-0	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
Ethanol	64-17-5	LA-523-449		< 50	PPB(V/V)			2.00	50		07/20/09
Furan	110-00-9	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
1,1-Dichloroethene	75-35-4	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
Acetone	67-64-1	LA-523-449		< 25	PPB(V/V)			2.00	25		07/20/09
2-Propanol	67-63-0	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
Acetonitrile	75-05-8	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
Carbon disulfide	75-15-0	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
Methylenechloride	75-09-2	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
Hexene	110-54-3	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
1-Propanol	71-23-8	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
Butanal	123-72-8	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
2-Butanone	78-93-3	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
Ethyl cyanide	107-12-0	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
Chloroform	67-66-3	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
Tetrahydrofuran	109-99-9	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
1,1,1-Trichloroethane	71-55-6	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
Carbon tetrachloride	56-23-5	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09

MDL=Minimum Detection Limit
RQ=Result Qualifier
TP Err=Total Propagated Error
DF=Dilution Factor

* - Indicates results that have NOT been validated; + - Indicates more than six qualifier symbols

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent
SAF Number: F09-040
Sample # W09GR00469
Client ID: B212H5 GPP WSCF

Matrix: GASEOUS

Group #: WSCF20090639
Department: Organic
Sampled: 07/01/09
Received: 07/01/09

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
1,2-Dichloroethane	107-06-2	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
Benzene	71-43-2	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
Heptane	142-82-5	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
1-Butanol	71-36-3	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
Trichloroethene	79-01-6	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
Butanenitrile	109-74-0	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
1,4-Dioxane	123-91-1	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
4-Methyl-2-Pentanone	108-10-1	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
Toluene	108-88-3	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
3-Hexanone	589-38-8	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
2-Hexanone	591-78-6	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
Tetrachloroethene	127-18-4	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
Valeronitrile	110-59-8	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
Chlorobenzene	108-90-7	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
Ethylbenzene	100-41-4	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
m/p-xylene	179601-23-1	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
Styrene	100-42-5	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
o-Xylene	95-47-6	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
Hexanenitrile	628-73-9	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
1,1,2,2-Tetrachloroethane	79-34-5	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
Decane	124-18-5	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor

* - Indicates results that have NOT been validated; + - Indicates more than six qualifier symbols

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent
SAF Number: F09-040
Sample # W09GR00470
Client ID: B212H6 GPP WSCF

Matrix: GASEOUS

Group #: WSCF20090639
Department: Organic
Sampled: 07/01/09
Received: 07/01/09

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Headspace Analysis											
Propane	74-98-6	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
Chloromethane	74-87-3	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
Vinyl chloride	75-01-4	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
Butane	106-97-8	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
1,3-Butadiene	106-99-0	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
Methanol	67-56-1	LA-523-449		< 50	PPB(V/V)			2.00	50		07/20/09
Pentane	109-66-0	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
Ethanol	64-17-5	LA-523-449		< 50	PPB(V/V)			2.00	50		07/20/09
Furan	110-00-9	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
1,1-Dichloroethene	75-35-4	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
Acetone	67-64-1	LA-523-449		< 25	PPB(V/V)			2.00	25		07/20/09
2-Propanol	67-63-0	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
Acetonitrile	75-05-8	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
Carbon disulfide	75-15-0	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
Methylenechloride	75-09-2	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
Hexane	110-54-3	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
1-Propanol	71-23-8	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
Butanal	123-72-8	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
2-Butanone	78-93-3	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
Ethyl cyanide	107-12-0	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
Chloroform	67-66-3	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
Tetrahydrofuran	109-99-9	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
1,1,1-Trichloroethane	71-55-6	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
Carbon tetrachloride	56-23-5	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor

- Indicates results that have NOT been validated; + - Indicates more than six qualifier symbols

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent
SAF Number: F09-040
Sample # W09GR00470
Client ID: B212H6 GPP WSCF

Matrix: GASEOUS

Group #: WSCF20090639
Department: Organic
Sampled: 07/01/09
Received: 07/01/09

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
1,2-Dichloroethane	107-06-2	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
Benzene	71-43-2	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
Heptane	142-82-5	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
1-Butanol	71-36-3	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
Trichloroethene	79-01-6	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
Butanenitrile	109-74-0	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
1,4-Dioxane	123-91-1	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
4-Methyl-2-Pentanone	108-10-1	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
Toluene	108-88-3	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
3-Hexanone	589-38-8	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
2-Hexanone	591-78-6	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
Tetrachloroethene	127-18-4	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
Valeronitrile	110-59-8	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
Chlorobenzene	108-90-7	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
Ethylbenzene	100-41-4	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
m/p-xylene	179601-23-1	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
Styrene	100-42-5	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
o-Xylene	95-47-6	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
Hexanenitrile	628-73-9	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
1,1,2,2-Tetrachloroethane	79-34-5	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09
Decane	124-18-5	LA-523-449		< 10	PPB(V/V)			2.00	10		07/20/09

MDL=Minimum Detection Limit
RQ=Result Qualifier
TP Err=Total Propagated Error
DF=Dilution Factor
- Indicates results that have NOT been validated; + - Indicates more than six qualifier symbols

WSCF
TENTATIVELY IDENTIFIED PEAK REPORT

Attention: Steve Trent
Project Number F09-040 :F09-040

Group #: WSCF20090639
Department: Organic

Sample #	Client ID		Test Name	Peak Name	CAS#	RT	RQ	Result	Units
W09GR00467	B212H3	GPP	Headspace Analysis	2-Methyl-1-propene	115-11-7	8.43		13	ppbv
W09GR00468	B212H4	GPP	Headspace Analysis	2-Methyl-1-propene	115-11-7	8.45		21	ppbv
W09GR00470	B212H6	GPP	Headspace Analysis	2-Methyl-1-propene	115-11-7	8.45		26	ppbv

RQ=Result Qualifier

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WSCF ANALYTICAL LABORATORY QC REPORT

Department: Organic

SDG Number: WSCF20090639
Matrix: VAPOR
Test: Headspace Analysis

Sample Date:
Receive Date:

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
BATCH QC											
BLANK	1-Butanol	71-36-3	< 5	n/a	% Recov	70.000	130.000			U	07/20/09
BLANK	1-Propanol	71-23-8	< 5	n/a	% Recov	70.000	130.000			U	07/20/09
BLANK	1,1,1-Trichloroethane	71-55-6	< 5	n/a	% Recov	70.000	130.000			U	07/20/09
BLANK	1,1,2,2-Tetrachloroethane	79-34-5	< 5	n/a	% Recov	70.000	130.000			U	07/20/09
BLANK	1,1-Dichloroethene	75-35-4	< 5	n/a	% Recov	70.000	130.000			U	07/20/09
BLANK	1,2-Dichloroethane	107-06-2	< 5	n/a	% Recov	70.000	130.000			U	07/20/09
BLANK	1,3-Butadiene	106-99-0	< 5	n/a	% Recov	70.000	130.000			U	07/20/09
BLANK	2-Propanol	67-63-0	< 5	n/a	% Recov	70.000	130.000			U	07/20/09
BLANK	2-Hexanone	591-78-6	< 5	n/a	% Recov	70.000	130.000			U	07/20/09
BLANK	Acetone	67-64-1	< 20	n/a	% Recov	70.000	130.000			U	07/20/09
BLANK	Acetonitrile	75-05-8	< 5	n/a	% Recov	70.000	130.000			U	07/20/09
BLANK	Benzene	71-43-2	< 5	n/a	% Recov	70.000	130.000			U	07/20/09
BLANK	Butanal	123-72-8	< 5	n/a	% Recov	70.000	130.000			U	07/20/09
BLANK	Butanenitrile	109-74-0	< 5	n/a	% Recov	70.000	130.000			U	07/20/09
BLANK	Carbon disulfide	75-15-0	< 5	n/a	% Recov	70.000	130.000			U	07/20/09
BLANK	Carbon tetrachloride	56-23-5	< 5	n/a	% Recov	70.000	130.000			U	07/20/09
BLANK	Chloroform	67-66-3	< 5	n/a	% Recov	70.000	130.000			U	07/20/09
BLANK	Chlorobenzene	108-90-7	< 5	n/a	% Recov	70.000	130.000			U	07/20/09
BLANK	Decane	124-18-5	< 5	n/a	% Recov	70.000	130.000			U	07/20/09
BLANK	Methylenechloride	75-09-2	< 5	n/a	% Recov	70.000	130.000			U	07/20/09
BLANK	1,4-Dioxane	123-91-1	< 5	n/a	% Recov	70.000	130.000			U	07/20/09
BLANK	Ethylbenzene	100-41-4	< 5	n/a	% Recov	70.000	130.000			U	07/20/09
BLANK	Ethanol	64-17-5	< 30	n/a	% Recov	70.000	130.000			U	07/20/09
BLANK	Furan	110-00-9	< 5	n/a	% Recov	70.000	130.000			U	07/20/09
BLANK	3-Hexanone	589-38-8	< 5	n/a	% Recov	70.000	130.000			U	07/20/09
BLANK	Hexanenitrile	628-73-9	< 5	n/a	% Recov	70.000	130.000			U	07/20/09
BLANK	Methanol	67-56-1	< 30	n/a	% Recov	70.000	130.000			U	07/20/09

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Organic

SDG Number: WSCF20090639
Matrix: VAPOR
Test: Headspace Analysis

Sample Date:
Receive Date:

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
BLANK	Chloromethane	74-87-3	< 5	n/a	% Recov	70.000	130.000			U	07/20/09
BLANK	2-Butanone	78-93-3	< 5	n/a	% Recov	70.000	130.000			U	07/20/09
BLANK	4-Methyl-2-Pentanone	108-10-1	< 5	n/a	% Recov	70.000	130.000			U	07/20/09
BLANK	m/p-xylene	179601-23-1	< 5	n/a	% Recov	70.000	130.000			U	07/20/09
BLANK	Butane	106-97-8	< 5	n/a	% Recov	70.000	130.000			U	07/20/09
BLANK	Hexane	110-54-3	< 5	n/a	% Recov	70.000	130.000			U	07/20/09
BLANK	Pentane	109-66-0	< 5	n/a	% Recov	70.000	130.000			U	07/20/09
BLANK	Propane	74-98-6	< 5	n/a	% Recov	70.000	130.000			U	07/20/09
BLANK	Heptane	142-82-5	< 5	n/a	% Recov	70.000	130.000			U	07/20/09
BLANK	o-Xylene	95-47-6	< 5	n/a	% Recov	70.000	130.000			U	07/20/09
BLANK	Ethyl cyanide	107-12-0	< 5	n/a	% Recov	70.000	130.000			U	07/20/09
BLANK	Styrene	100-42-5	< 5	n/a	% Recov	70.000	130.000			U	07/20/09
BLANK	Tetrachloroethene	127-18-4	< 5	n/a	% Recov	70.000	130.000			U	07/20/09
BLANK	Tetrahydrofuran	109-99-9	< 5	n/a	% Recov	70.000	130.000			U	07/20/09
BLANK	Toluene	108-88-3	< 5	n/a	% Recov	70.000	130.000			U	07/20/09
BLANK	Trichloroethene	79-01-6	< 5	n/a	% Recov	70.000	130.000			U	07/20/09
BLANK	Valeronitrile	110-59-8	< 5	n/a	% Recov	70.000	130.000			U	07/20/09
BLANK	Vinyl chloride	75-01-4	< 5	n/a	% Recov	70.000	130.000			U	07/20/09
LCS	1-Butanol	71-36-3	24	57.143	% Recov	70.000	130.000				07/20/09
LCS	1-Propanol	71-23-8	35	83.333	% Recov	70.000	130.000				07/20/09
LCS	1,1,1-Trichloroethane	71-55-6	41	100.000	% Recov	70.000	130.000				07/20/09
LCS	1,1,2,2-Tetrachloroethane	79-34-5	40	100.000	% Recov	70.000	130.000				07/20/09
LCS	1,1-Dichloroethene	75-35-4	42	105.000	% Recov	70.000	130.000				07/20/09
LCS	1,2-Dichloroethane	107-06-2	43	104.878	% Recov	70.000	130.000				07/20/09
LCS	1,3-Butadiene	106-99-0	38	95.000	% Recov	70.000	130.000				07/20/09
LCS	2-Propanol	67-63-0	44	104.762	% Recov	70.000	130.000				07/20/09
LCS	2-Hexanone	591-78-6	41	97.619	% Recov	70.000	130.000				07/20/09
LCS	Acetone	67-64-1	100	100.000	% Recov	70.000	130.000				07/20/09
LCS	Acetonitrile	75-05-8	43	100.000	% Recov	70.000	130.000				07/20/09
LCS	Benzene	71-43-2	44	107.317	% Recov	70.000	130.000				07/20/09

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Organic

SDG Number: WSCF20090639
Matrix: VAPOR
Test: Headspace Analysis

Sample Date:
Receive Date:

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
LCS	Butanal	123-72-8	48	114.286	% Recov	70.000	130.000				07/20/09
LCS	Butanenitrile	109-74-0	42	100.000	% Recov	70.000	130.000				07/20/09
LCS	Carbon disulfide	75-15-0	40	97.561	% Recov	70.000	130.000				07/20/09
LCS	Carbon tetrachloride	56-23-5	42	102.439	% Recov	70.000	130.000				07/20/09
LCS	Chloroform	67-66-3	40	100.000	% Recov	70.000	130.000				07/20/09
LCS	Chlorobenzene	108-90-7	40	95.238	% Recov	70.000	130.000				07/20/09
LCS	Decane	124-18-5	41	100.000	% Recov	70.000	130.000				07/20/09
LCS	Methylenechloride	75-09-2	43	102.381	% Recov	70.000	130.000				07/20/09
LCS	1,4-Dioxane	123-91-1	40	95.238	% Recov	70.000	130.000				07/20/09
LCS	Ethylbenzene	100-41-4	42	102.439	% Recov	70.000	130.000				07/20/09
LCS	Ethanol	64-17-5	200	95.238	% Recov	70.000	130.000				07/20/09
LCS	Furan	110-00-9	46	109.524	% Recov	70.000	130.000				07/20/09
LCS	3-Hexanone	589-38-8	45	107.143	% Recov	70.000	130.000				07/20/09
LCS	Hexanenitrile	628-73-9	31	73.810	% Recov	70.000	130.000				07/20/09
LCS	Methanol	67-56-1	170	80.952	% Recov	70.000	130.000				07/20/09
LCS	Chloromethane	74-87-3	38	95.000	% Recov	70.000	130.000				07/20/09
LCS	2-Butanone	78-93-3	43	102.381	% Recov	70.000	130.000				07/20/09
LCS	4-Methyl-2-Pentanone	108-10-1	45	107.143	% Recov	70.000	130.000				07/20/09
LCS	m/p-xylene	179601-23-1	43	102.381	% Recov	70.000	130.000				07/20/09
LCS	Butane	106-97-8	38	95.000	% Recov	70.000	130.000				07/20/09
LCS	Hexane	110-54-3	43	104.878	% Recov	70.000	130.000				07/20/09
LCS	Pentane	109-66-0	39	97.500	% Recov	70.000	130.000				07/20/09
LCS	Propane	74-98-6	39	97.500	% Recov	70.000	130.000				07/20/09
LCS	Heptane	142-82-5	44	104.762	% Recov	70.000	130.000				07/20/09
LCS	o-Xylene	95-47-6	43	104.878	% Recov	70.000	130.000				07/20/09
LCS	Ethyl cyanide	107-12-0	42	97.674	% Recov	70.000	130.000				07/20/09
LCS	Styrene	100-42-5	42	105.000	% Recov	70.000	130.000				07/20/09
LCS	Tetrachloroethene	127-18-4	41	97.619	% Recov	70.000	130.000				07/20/09
LCS	Tetrahydrofuran	109-99-9	44	102.326	% Recov	70.000	130.000				07/20/09
LCS	Toluene	108-88-3	44	104.762	% Recov	70.000	130.000				07/20/09

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Organic

SDG Number: WSCF20090639
Matrix: VAPOR
Test: Headspace Analysis

Sample Date:
Receive Date:

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
LCS	Trichloroethene	79-01-6	43	102.381	% Recov	70.000	130.000				07/20/09
LCS	Valeronitrile	110-59-8	40	93.023	% Recov	70.000	130.000				07/20/09
LCS	Vinyl chloride	75-01-4	38	95.000	% Recov	70.000	130.000				07/20/09
LCS-DUP	1-Butanol	71-36-3	23	54.762	% Recov	70.000	130.000				07/20/09
LCS-DUP	1-Propanol	71-23-8	33	78.571	% Recov	70.000	130.000				07/20/09
LCS-DUP	1,1,1-Trichloroethane	71-55-6	36	87.805	% Recov	70.000	130.000				07/20/09
LCS-DUP	1,1,2,2-Tetrachloroethane	79-34-5	41	102.500	% Recov	70.000	130.000				07/20/09
LCS-DUP	1,1-Dichloroethene	75-35-4	37	92.500	% Recov	70.000	130.000				07/20/09
LCS-DUP	1,2-Dichloroethane	107-06-2	43	104.878	% Recov	70.000	130.000				07/20/09
LCS-DUP	1,3-Butadiene	106-99-0	37	92.500	% Recov	70.000	130.000				07/20/09
LCS-DUP	2-Propanol	67-63-0	41	97.619	% Recov	70.000	130.000				07/20/09
LCS-DUP	2-Hexanone	591-78-6	41	97.619	% Recov	70.000	130.000				07/20/09
LCS-DUP	Acetone	67-64-1	100	100.000	% Recov	70.000	130.000				07/20/09
LCS-DUP	Acetonitrile	75-05-8	40	93.023	% Recov	70.000	130.000				07/20/09
LCS-DUP	Benzene	71-43-2	42	102.439	% Recov	70.000	130.000				07/20/09
LCS-DUP	Butanal	123-72-8	49	116.667	% Recov	70.000	130.000				07/20/09
LCS-DUP	Butanenitrile	109-74-0	44	104.762	% Recov	70.000	130.000				07/20/09
LCS-DUP	Carbon disulfide	75-15-0	37	90.244	% Recov	70.000	130.000				07/20/09
LCS-DUP	Carbon tetrachloride	56-23-5	38	92.683	% Recov	70.000	130.000				07/20/09
LCS-DUP	Chloroform	67-66-3	35	87.500	% Recov	70.000	130.000				07/20/09
LCS-DUP	Chlorobenzene	108-90-7	43	102.381	% Recov	70.000	130.000				07/20/09
LCS-DUP	Decane	124-18-5	42	102.439	% Recov	70.000	130.000				07/20/09
LCS-DUP	Methylenechloride	75-09-2	34	80.952	% Recov	70.000	130.000				07/20/09
LCS-DUP	1,4-Dioxane	123-91-1	41	97.619	% Recov	70.000	130.000				07/20/09
LCS-DUP	Ethylbenzene	100-41-4	46	112.195	% Recov	70.000	130.000				07/20/09
LCS-DUP	Ethanol	64-17-5	190	90.476	% Recov	70.000	130.000				07/20/09
LCS-DUP	Furan	110-00-9	37	88.095	% Recov	70.000	130.000				07/20/09
LCS-DUP	3-Hexanone	589-38-8	45	107.143	% Recov	70.000	130.000				07/20/09
LCS-DUP	Hexanenitrile	628-73-9	31	73.810	% Recov	70.000	130.000				07/20/09
LCS-DUP	Methanol	67-56-1	180	85.714	% Recov	70.000	130.000				07/20/09

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Organic

SDG Number: WSCF20090639
Matrix: VAPOR
Test: Headspace Analysis

Sample Date:
Receive Date:

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
LCS-DUP	Chloromethane	74-87-3	38	95.000	% Recov	70.000	130.000				07/20/09
LCS-DUP	2-Butanone	78-93-3	46	109.524	% Recov	70.000	130.000				07/20/09
LCS-DUP	4-Methyl-2-Pentanone	108-10-1	45	107.143	% Recov	70.000	130.000				07/20/09
LCS-DUP	m/p-xylene	179601-23-1	47	111.905	% Recov	70.000	130.000				07/20/09
LCS-DUP	Butane	106-97-8	37	92.500	% Recov	70.000	130.000				07/20/09
LCS-DUP	Hexane	110-54-3	36	87.805	% Recov	70.000	130.000				07/20/09
LCS-DUP	Pentane	109-66-0	36	90.000	% Recov	70.000	130.000				07/20/09
LCS-DUP	Propane	74-98-6	43	107.500	% Recov	70.000	130.000				07/20/09
LCS-DUP	Heptane	142-82-5	39	92.857	% Recov	70.000	130.000				07/20/09
LCS-DUP	o-Xylene	95-47-6	46	112.195	% Recov	70.000	130.000				07/20/09
LCS-DUP	Ethyl cyanide	107-12-0	44	102.326	% Recov	70.000	130.000				07/20/09
LCS-DUP	Styrene	100-42-5	45	112.500	% Recov	70.000	130.000				07/20/09
LCS-DUP	Tetrachloroethene	127-18-4	38	90.476	% Recov	70.000	130.000				07/20/09
LCS-DUP	Tetrahydrofuran	109-99-9	43	97.727	% Recov	70.000	130.000				07/20/09
LCS-DUP	Toluene	108-88-3	48	114.286	% Recov	70.000	130.000				07/20/09
LCS-DUP	Trichloroethene	79-01-6	38	90.476	% Recov	70.000	130.000				07/20/09
LCS-DUP	Valeronitrile	110-59-8	41	95.349	% Recov	70.000	130.000				07/20/09
LCS-DUP	Vinyl chloride	75-01-4	36	90.000	% Recov	70.000	130.000				07/20/09
LCS-RPD	1-Butanol	71-36-3	54.762		RPD			4.255	25.000		07/20/09
LCS-RPD	1-Propanol	71-23-8	78.571		RPD			5.882	25.000		07/20/09
LCS-RPD	1,1,1-Trichloroethane	71-55-6	87.805		RPD			12.987	25.000		07/20/09
LCS-RPD	1,1,2,2-Tetrachloroethane	79-34-5	102.500		RPD			2.469	25.000		07/20/09
LCS-RPD	1,1-Dichloroethene	75-35-4	92.500		RPD			12.658	25.000		07/20/09
LCS-RPD	1,2-Dichloroethane	107-06-2	104.878		RPD			0.000	25.000		07/20/09
LCS-RPD	1,3-Butadiene	106-99-0	92.500		RPD			2.667	25.000		07/20/09
LCS-RPD	2-Propanol	67-63-0	97.619		RPD			7.059	25.000		07/20/09
LCS-RPD	2-Hexanone	591-78-6	97.619		RPD			0.000	25.000		07/20/09
LCS-RPD	Acetone	67-64-1	100.000		RPD			0.000	25.000		07/20/09
LCS-RPD	Acetonitrile	75-05-8	93.023		RPD			7.229	25.000		07/20/09
LCS-RPD	Benzene	71-43-2	102.439		RPD			4.651	25.000		07/20/09

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Organic

SDG Number: WSCF20090639
Matrix: VAPOR
Test: Headspace Analysis

Sample Date:
Receive Date:

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
LCS-RPD	Butanal	123-72-8	116.667		RPD			2.062	25.000		07/20/09
LCS-RPD	Butanenitrile	109-74-0	104.762		RPD			4.651	25.000		07/20/09
LCS-RPD	Carbon disulfide	75-15-0	90.244		RPD			7.792	25.000		07/20/09
LCS-RPD	Carbon tetrachloride	56-23-5	92.683		RPD			10.000	25.000		07/20/09
LCS-RPD	Chloroform	67-66-3	87.500		RPD			13.333	25.000		07/20/09
LCS-RPD	Chlorobenzene	108-90-7	102.381		RPD			7.229	25.000		07/20/09
LCS-RPD	Decane	124-18-5	102.439		RPD			2.410	25.000		07/20/09
LCS-RPD	Methylenechloride	75-09-2	80.952		RPD			23.377	25.000		07/20/09
LCS-RPD	1,4-Dioxane	123-91-1	97.619		RPD			2.469	25.000		07/20/09
LCS-RPD	Ethylbenzene	100-41-4	112.195		RPD			9.091	25.000		07/20/09
LCS-RPD	Ethanol	64-17-5	90.476		RPD			5.128	25.000		07/20/09
LCS-RPD	Furan	110-00-9	88.095		RPD			21.687	25.000		07/20/09
LCS-RPD	3-Hexanone	589-38-8	107.143		RPD			0.000	25.000		07/20/09
LCS-RPD	Hexanenitrile	628-73-9	73.810		RPD			0.000	25.000		07/20/09
LCS-RPD	Methanol	67-56-1	85.714		RPD			5.714	25.000		07/20/09
LCS-RPD	Chloromethane	74-87-3	95.000		RPD			0.000	25.000		07/20/09
LCS-RPD	2-Butanone	78-93-3	109.524		RPD			6.742	25.000		07/20/09
LCS-RPD	4-Methyl-2-Pentanone	108-10-1	107.143		RPD			0.000	25.000		07/20/09
LCS-RPD	m/p-xylene	179601-23-1	111.905		RPD			8.889	25.000		07/20/09
LCS-RPD	Butane	106-97-8	92.500		RPD			2.667	25.000		07/20/09
LCS-RPD	Hexane	110-54-3	87.805		RPD			17.721	25.000		07/20/09
LCS-RPD	Pentane	109-66-0	90.000		RPD			8.000	25.000		07/20/09
LCS-RPD	Propane	74-98-6	107.500		RPD			9.756	25.000		07/20/09
LCS-RPD	Heptane	142-82-5	92.857		RPD			12.048	25.000		07/20/09
LCS-RPD	o-Xylene	95-47-6	112.195		RPD			6.742	25.000		07/20/09
LCS-RPD	Ethyl cyanide	107-12-0	102.326		RPD			4.652	25.000		07/20/09
LCS-RPD	Styrene	100-42-5	112.500		RPD			6.897	25.000		07/20/09
LCS-RPD	Tetrachloroethene	127-18-4	90.476		RPD			7.595	25.000		07/20/09
LCS-RPD	Tetrahydrofuran	109-99-9	97.727		RPD			4.598	25.000		07/20/09
LCS-RPD	Toluene	108-88-3	114.286		RPD			8.696	25.000		07/20/09

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Organic

SDG Number: WSCF20090639
Matrix: VAPOR
Test: Headspace Analysis

Sample Date:
Receive Date:

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
LCS-RPD	Trichloroethene	79-01-6	90.476		RPD			12.346	25.000		07/20/09
LCS-RPD	Valeronitrile	110-59-8	95.349		RPD			2.470	25.000		07/20/09
LCS-RPD	Vinyl chloride	75-01-4	90.000		RPD			5.405	25.000		07/20/09
LOQ	1-Butanol	71-36-3	2.7	50.943	% Recov	50.000	150.000				07/20/09
LOQ	1-Propanol	71-23-8	3.7	69.811	% Recov	50.000	150.000				07/20/09
LOQ	1,1,1-Trichloroethane	71-55-6	6.2	119.231	% Recov	50.000	150.000				07/20/09
LOQ	1,1,2,2-Tetrachloroethane	79-34-5	6.5	130.000	% Recov	50.000	150.000				07/20/09
LOQ	1,1-Dichloroethene	75-35-4	4.8	96.000	% Recov	50.000	150.000				07/20/09
LOQ	1,2-Dichloroethane	107-06-2	6.1	119.608	% Recov	50.000	150.000				07/20/09
LOQ	1,3-Butadiene	106-99-0	6.1	119.608	% Recov	50.000	150.000				07/20/09
LOQ	2-Propanol	67-63-0	5.0	94.340	% Recov	50.000	150.000				07/20/09
LOQ	2-Hexanone	591-78-6	5.4	103.846	% Recov	50.000	150.000				07/20/09
LOQ	Acetone	67-64-1	15	115.385	% Recov	50.000	150.000				07/20/09
LOQ	Acetonitrile	75-05-8	5.4	100.000	% Recov	50.000	150.000				07/20/09
LOQ	Benzene	71-43-2	5.5	105.769	% Recov	50.000	150.000				07/20/09
LOQ	Butanal	123-72-8	4.2	79.245	% Recov	50.000	150.000				07/20/09
LOQ	Butanenitrile	109-74-0	5.6	105.660	% Recov	50.000	150.000				07/20/09
LOQ	Carbon disulfide	75-15-0	5.4	105.882	% Recov	50.000	150.000				07/20/09
LOQ	Carbon tetrachloride	56-23-5	6.4	123.077	% Recov	50.000	150.000				07/20/09
LOQ	Chloroform	67-66-3	5.9	118.000	% Recov	50.000	150.000				07/20/09
LOQ	Chlorobenzene	108-90-7	7.0	134.615	% Recov	50.000	150.000				07/20/09
LOQ	Decane	124-18-5	6.0	117.647	% Recov	50.000	150.000				07/20/09
LOQ	Methylenechloride	75-09-2	5.9	111.321	% Recov	50.000	150.000				07/20/09
LOQ	1,4-Dioxane	123-91-1	5.0	94.340	% Recov	50.000	150.000				07/20/09
LOQ	Ethylbenzene	100-41-4	6.0	115.385	% Recov	50.000	150.000				07/20/09
LOQ	Ethanol	64-17-5	30	115.385	% Recov	50.000	150.000				07/20/09
LOQ	Furan	110-00-9	4.4	83.019	% Recov	50.000	150.000				07/20/09
LOQ	3-Hexanone	589-38-8	5.3	100.000	% Recov	50.000	150.000				07/20/09
LOQ	Hexanenitrile	628-73-9	3.8	71.698	% Recov	50.000	150.000				07/20/09
LOQ	Methanol	67-56-1	44	169.231	% Recov	50.000	150.000				07/20/09

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Organic

SDG Number: WSCF20090639
Matrix: VAPOR
Test: Headspace Analysis

Sample Date:
Receive Date:

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
LOQ	Chloromethane	74-87-3	5.8	116.000	% Recov	50.000	150.000				07/20/09
LOQ	2-Butanone	78-93-3	6.0	113.208	% Recov	50.000	150.000				07/20/09
LOQ	4-Methyl-2-Pentanone	108-10-1	5.8	109.434	% Recov	50.000	150.000				07/20/09
LOQ	m/p-xylene	179601-23-1	5.8	111.538	% Recov	50.000	150.000				07/20/09
LOQ	Butane	106-97-8	5.8	116.000	% Recov	50.000	150.000				07/20/09
LOQ	Hexane	110-54-3	4.8	92.308	% Recov	50.000	150.000				07/20/09
LOQ	Pentane	109-66-0	4.8	90.566	% Recov	50.000	150.000				07/20/09
LOQ	Propane	74-98-6	5.3	106.000	% Recov	50.000	150.000				07/20/09
LOQ	Heptane	142-82-5	5.0	96.154	% Recov	50.000	150.000				07/20/09
LOQ	o-Xylene	95-47-6	5.7	111.765	% Recov	50.000	150.000				07/20/09
LOQ	Ethyl cyanide	107-12-0	5.9	109.259	% Recov	50.000	150.000				07/20/09
LOQ	Styrene	100-42-5	5.3	106.000	% Recov	50.000	150.000				07/20/09
LOQ	Tetrachloroethene	127-18-4	6.1	117.308	% Recov	50.000	150.000				07/20/09
LOQ	Tetrahydrofuran	109-99-9	4.5	84.906	% Recov	50.000	150.000				07/20/09
LOQ	Toluene	108-88-3	5.2	98.113	% Recov	50.000	150.000				07/20/09
LOQ	Trichloroethene	79-01-6	5.3	101.923	% Recov	50.000	150.000				07/20/09
LOQ	Valeronitrile	110-59-8	5.4	100.000	% Recov	50.000	150.000				07/20/09
LOQ	Vinyl chloride	75-01-4	5.7	114.000	% Recov	50.000	150.000				07/20/09

WSCF
ANALYTICAL COMMENT REPORT

Attention: Steve Trent
Project Number F09-040

Group #: WSCF20090639
Department: Organic

Sample #	Client ID		Lab Area	Test	Comment
			VALGROUP		TARGET RECOVERY OUTSIDE QA LIMIT
W09GR00465	B212H1	GPP	VALTEST	Headspace Analysis	Validation Comments: All QC requirements were met with the following exceptions: Calibration: Methanol was above the 25 % RSD requirement with 32 %. LCS/LCSD: Butanol recovery was low in the LCS (57 %) and LCSD (55 %). LOQ: Methanol recovery was outside the 50 - 150 % limit with 169 %. MS 7/28/2009

Lab Areas: VALGROUP - Group Validation
LOGSAMP - Login for Sample
VALTEST - Test Validation
LOGTEST - Login for Tests
TESTDATA - Test Data Entry

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M4W41-SLF-09-219

ATTACHMENT 4

SAMPLE RECEIPT INFORMATION

Consisting of 14 pages
Including cover page

Waste Sampling and Characterization Facility
P.O. BOX 1970 S3-30, Richland, WA 99352
PHONE: (509) 373-7004/FAX: (509) 373-7134

File
07/30/09

ACKNOWLEDGMENT OF SAMPLES RECEIVED

Groundwater Remediation Program
Richland, WA 99354
Attn: Steve Trent

Customer Code: GPP
PO#: 301405/ES10
Group#: 20090639
Project#: F09-040
Proj Mgr: Steve Trent
Phone: 373-5869

The following samples were received from you on 07/01/09. They have been scheduled for the tests listed beside each sample. If this information is incorrect, please contact your service representative. Thank you for using Waste Sampling and Characterization Facility.

Sample#	Sample Id	Tests Scheduled	Matrix	Sample Date
W09GR00465	B212H1	GPP @IHVAP3	Drum Head Space Vapor	07/01/09
W09GR00466	B212H2	GPP @IHVAP3	Drum Head Space Vapor	07/01/09
W09GR00467	B212H3	GPP @IHVAP3	Drum Head Space Vapor	07/01/09
W09GR00468	B212H4	GPP @IHVAP3	Drum Head Space Vapor	07/01/09
W09GR00469	B212H5	GPP @IHVAP3	Drum Head Space Vapor	07/01/09
W09GR00470	B212H6	GPP @IHVAP3	Drum Head Space Vapor	07/01/09

Test Acronym Description

Test Acronym	Description
@IHVAP3	Headspace Analysis

CH2MHill Plateau Remediation Company 07/30/09

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F09-040-001

COLLECTOR: Fulton, Webb	COMPANY CONTACT: DYEKMAN, DL	TELEPHONE NO.: 373-2530	PROJECT COORDINATOR: DYEKMAN, DL	PRICE CODE: 9H	DATA TURNAROUND: 30 Days / 30 Days
SAMPLING LOCATION: 200-BC-1 DVZ Soil Desiccation; VAPOR - 30 MIN	PROJECT DESIGNATION: 200-BC-1 DVZ Soil Desiccation Pilot Test - Characterization Phase (Vapor)		SAF NO.: F09-040	AIR QUALITY: ☐	
ICE CHEST NO.: —	FIELD LOGBOOK NO.: HNF-N-595-3	ACTUAL SAMPLE DEPTH: —	COA: 301405ES10	METHOD OF SHIPMENT: GOVERNMENT VEHICLE	
SHIPPED TO: Waste Sampling & Characterization 20090639	OFFSITE PROPERTY NO.: N/A		BILL OF LADING/AIR BILL NO.: N/A		

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegetation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS: Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993). DP 6/29/09

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	None
TYPE OF CONTAINER	Summa Canister
NO. OF CONTAINER(S)	1
VOLUME	6L
SAMPLE ANALYSIS	VOA - TO-15;

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME									
B212H1 W09G00465	GASEOUS	7-1-09	0845	✓								

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM: C Fulton	DATE/TIME: 7-1-09 1510	RECEIVED BY/STORED IN: GKC K Foster	DATE/TIME: 7/1/09 1510
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.

LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

A-6003-618(01/06)

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F09-040-002

COLLECTOR: Fulton, Webb	COMPANY CONTACT: DYEKMAN, DL	TELEPHONE NO.: 373-2530	PROJECT COORDINATOR: DYEKMAN, DL	PRICE CODE: 9H	DATA TURNAROUND: 30 Days / 30 Days
SAMPLING LOCATION: 200-BC-1 DVZ Soil Desiccation; VAPOR - 1 HR	PROJECT DESIGNATION: 200-BC-1 DVZ Soil Desiccation Pilot Test - Characterization Phase (Vapor)		SAF NO.: F09-040	AIR QUALITY: ☐	
ICE CHEST NO.: —	FIELD LOGBOOK NO.: HNF-N-595-3	ACTUAL SAMPLE DEPTH: —	COA: 301405E510	METHOD OF SHIPMENT: GOVERNMENT VEHICLE	
SHIPPED TO: Waste Sampling & Characterization	OFFSITE PROPERTY NO.: N/A		BILL OF LADING/AIR BILL NO.: N/A		

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegetation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS: Contains Radioactive Material at concentrations that ~~may or may not~~ be regulated for transportation ~~per 49 CFR / IATA Dangerous Goods Regulations but are not~~ releasable per DOE Order 5400.5 (1990/1993). DYD 6/29/09

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	None
TYPE OF CONTAINER	Summa Canister
NO. OF CONTAINER(S)	1
VOLUME	6L
SAMPLE ANALYSIS	VOA - TO-15;

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B212H2 466	GASEOUS	7-1-09	0915	✓

CHAIN OF POSSESSION	DATE/TIME	SIGN/ PRINT NAMES	DATE/TIME
RELINQUISHED BY/REMOVED FROM: CFulton/	7-1-09 1510	RECEIVED BY/STORED IN:	7/1/09 1510
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.

LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

35 of 45

A-6003-618(01/06)

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F09-040-003

COLLECTOR Fulton, Webb	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL
PRICE CODE 9H	**DATA TURNAROUND** 30 Days / 30 Days	**AIR QUALITY** ☐	
SAMPLING LOCATION 200-BC-1 DVZ Soil Desiccation; VAPOR - 2 HR	**PROJECT DESIGNATION** 200-BC-1 DVZ Soil Desiccation Pilot Test - Characterization Phase (Vapor)	**SAF NO.** F09-040	
ICE CHEST NO. —	**FIELD LOGBOOK NO.** HNF-N 595-3	**ACTUAL SAMPLE DEPTH** —	**COA** 301405ES10
METHOD OF SHIPMENT GOVERNMENT VEHICLE			
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegetation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS
Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

DJE 6/29/09

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	None
TYPE OF CONTAINER	Summa Canister
NO. OF CONTAINER(S)	1
VOLUME	6L
SAMPLE ANALYSIS	VOA - TO-15;

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME
B212H3 467	GASEOUS	7-1-09	1015

CHAIN OF POSSESSION / SIGN/ PRINT NAMES

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
C Fulton/Webb	7-1-09 1510	[illegible]	7/1/09 1510

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.

LABORATORY SECTION	**RECEIVED BY**	**TITLE**	**DATE/TIME**
FINAL SAMPLE DISPOSITION	**DISPOSAL METHOD**	**DISPOSED BY**	**DATE/TIME**

A-6003-618(01/06)

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F09-040-004

COLLECTOR: Fulton, Webb	COMPANY CONTACT: DYEKMAN, DL	TELEPHONE NO.: 373-2530	PROJECT COORDINATOR: DYEKMAN, DL	PRICE CODE: 9H	DATA TURNAROUND: 30 Days / 30 Days
SAMPLING LOCATION: 200-BC-1 DVZ Soil Desiccation; VAPOR - 4 HR	PROJECT DESIGNATION: 200-BC-1 DVZ Soil Desiccation Pilot Test - Characterization Phase (Vapor)		SAF NO.: F09-040	AIR QUALITY: ☐	
ICE CHEST NO.: —	FIELD LOGBOOK NO.: HNF-N-585-3	ACTUAL SAMPLE DEPTH: —	COA: 301405ES10	METHOD OF SHIPMENT: GOVERNMENT VEHICLE	
SHIPPED TO: Waste Sampling & Characterization	OFFSITE PROPERTY NO.: N/A		BILL OF LADING/AIR BILL NO.: N/A		

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegetation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS: ~~Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)~~ DJB 6/29/09

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	None
TYPE OF CONTAINER	Summa Canister
NO. OF CONTAINER(S)	1
VOLUME	6L
SAMPLE ANALYSIS	VOA - T0-15;

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B212H4 468	GASEOUS	7-1-09	1215	✓

CHAIN OF POSSESSION / SIGN/ PRINT NAMES

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
CFulton / [signature]	7-1-09 1510	[signature]	7/1/09 1510

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.

LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

A-6003-618(01/06)

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F09-040-005 PAGE 1 OF 1

COLLECTOR: Fulton, Webb	COMPANY CONTACT: DYEKMAN, DL	TELEPHONE NO.: 373-2530	PROJECT COORDINATOR: DYEKMAN, DL	PRICE CODE: 9H	DATA TURNAROUND: 30 Days / 30 Days
SAMPLING LOCATION: 200-BC-1 DVZ Soil Desiccation; VAPOR - 4HR D	PROJECT DESIGNATION: 200-BC-1 DVZ Soil Desiccation Pilot Test - Characterization Phase (Vapor)		SAF NO.: F09-040	AIR QUALITY: ☐	
ICE CHEST NO.: —	FIELD LOGBOOK NO.: HNF-N-585-3	ACTUAL SAMPLE DEPTH: —	COA: 301405ES10	METHOD OF SHIPMENT: GOVERNMENT VEHICLE	
SHIPPED TO: Waste Sampling & Characterization	OFFSITE PROPERTY NO.: N/A		BILL OF LADING/AIR BILL NO.: N/A		

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegetation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS: Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993). 6/29/09

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	None
TYPE OF CONTAINER	Summa Canister
NO. OF CONTAINER(S)	1
VOLUME	6L
SAMPLE ANALYSIS	VOA - TO-15;

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B212H5 469	GASEOUS	7-1-09	1215	✓

CHAIN OF POSSESSION / SIGN/ PRINT NAMES

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
C Fulton	7-1-09 1510	[illegible]	7/1/09 1510

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.

LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

A-6003-618(01/06)

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F09-040-006

COLLECTOR: Fulton, Neff	COMPANY CONTACT: DYEKMAN, DL	TELEPHONE NO.: 373-2530	PROJECT COORDINATOR: DYEKMAN, DL	PRICE CODE: 9H	DATA TURNAROUND: 30 Days / 30 Days
SAMPLING LOCATION: 200-BC-1 DVZ Soil Desiccation; VAPOR - 6 HR	PROJECT DESIGNATION: 200-BC-1 DVZ Soil Desiccation Pilot Test - Characterization Phase (Vapor)		SAF NO.: F09-040	AIR QUALITY: ☐	
ICE CHEST NO.: —	FIELD LOGBOOK NO.: HNF-N-585-3	ACTUAL SAMPLE DEPTH: —	COA: 301405ES10	METHOD OF SHIPMENT: GOVERNMENT VEHICLE	
SHIPPED TO: Waste Sampling & Characterization	OFFSITE PROPERTY NO.: N/A		BILL OF LADING/AIR BILL NO.: N/A		

MATRIX*
A=Air
DL=Drum
Liquids
DS=Drum
Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegetation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS: Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

DPD 6/29/09

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	None
TYPE OF CONTAINER	Summa Canister
NO. OF CONTAINER(S)	1
VOLUME	6L
SAMPLE ANALYSIS	VOA - TO-15;

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME									
B212H6 470	GASEOUS	7-1-09	1415	✓								

CHAIN OF POSSESSION / SIGN/ PRINT NAMES

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
CFulton/[illegible]	7-1-09 1510	[illegible] / [illegible]	7/1/09 1510
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.

LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

A-6003-618(01/06)

SAMPLE INQUIRY by GROUP

Company Name: Groundwater Remediation Program
Project Code: F09-040
Group # : 20090639

Parameter	Rep Result	Unit	Date	Analyst
Sample #: W09GR00465	Sample ID: B212H1	GPP		
Propane	0	PPBV/V		xxx
Chloromethane	0	PPBV/V		xxx
Vinyl Chloride	0	PPBV/V		xxx
Butane	0	PPBV/V		xxx
1,3-Butadiene	0	PPBV/V		xxx
Methanol	0	PPBV/V		xxx
Pentane	0	PPBV/V		xxx
Ethanol	0	PPBV/V		xxx
Furan	0	PPBV/V		xxx
1,1-Dichloroethylene	0	PPBV/V		xxx
Acetone	0	PPBV/V		xxx
2-Propanol	0	PPBV/V		xxx
Acetonitrile	0	PPBV/V		xxx
Carbon disulfide	0	PPBV/V		xxx
Methylene Chloride	0	PPBV/V		xxx
Hexane	0	PPBV/V		xxx
1-Propanol	0	PPBV/V		xxx
Butanal	0	PPBV/V		xxx
2-Butanone	0	PPBV/V		xxx
Propanenitrile	0	PPBV/V		xxx
Chloroform	0	PPBV/V		xxx
Tetrahydrofuran	0	PPBV/V		xxx
1,1,1-trichloroethane	0	PPBV/V		xxx
Carbon Tetrachloride	0	PPBV/V		xxx
1,2-dichloroethane	0	PPBV/V		xxx
Benzene	0	PPBV/V		xxx
Heptane	0	PPBV/V		xxx
1-Butanol	0	PPBV/V		xxx
Trichloroethylene	0	PPBV/V		xxx
Butanenitrile	0	PPBV/V		xxx
1,4-Dioxane	0	PPBV/V		xxx
Methyl isobutyl ketone	0	PPBV/V		xxx
Toluene	0	PPBV/V		xxx
3-Hexanone	0	PPBV/V		xxx
2-Hexanone	0	PPBV/V		xxx
Tetrachloroethylene	0	PPBV/V		xxx
Valeronitrile	0	PPBV/V		xxx
Chlorobenzene	0	PPBV/V		xxx
Ethyl Benzene	0	PPBV/V		xxx
m/p-xylene	0	PPBV/V		xxx
Styrene	0	PPBV/V		xxx
o-Xylene	0	PPBV/V		xxx
Hexanenitrile	0	PPBV/V		xxx
1,1,2,2-Tetrachloroethane	0	PPBV/V		xxx
Decane	0	PPBV/V		xxx
Sample #: W09GR00466	Sample ID: B212H2	GPP		
Propane	0	PPBV/V		xxx

SAMPLE INQUIRY by GROUP

Company Name: Groundwater Remediation Program

Project Code: F09-040
Group # : 20090639

Parameter	Rep Result	Unit	Date	Analyst
Sample #: W09GR00466	Sample ID: B212H2	GPP [Continued]		
Chloromethane	0	PPBV/V		xxx
Vinyl Chloride	0	PPBV/V		xxx
Butane	0	PPBV/V		xxx
1,3-Butadiene	0	PPBV/V		xxx
Methanol	0	PPBV/V		xxx
Pentane	0	PPBV/V		xxx
Ethanol	0	PPBV/V		xxx
Furan	0	PPBV/V		xxx
1,1-Dichloroethylene	0	PPBV/V		xxx
Acetone	0	PPBV/V		xxx
2-Propanol	0	PPBV/V		xxx
Acetonitrile	0	PPBV/V		xxx
Carbon disulfide	0	PPBV/V		xxx
Methylene Chloride	0	PPBV/V		xxx
Hexane	0	PPBV/V		xxx
1-Propanol	0	PPBV/V		xxx
Butanal	0	PPBV/V		xxx
2-Butanone	0	PPBV/V		xxx
Propanenitrile	0	PPBV/V		xxx
Chloroform	0	PPBV/V		xxx
Tetrahydrofuran	0	PPBV/V		xxx
1,1,1-trichloroethane	0	PPBV/V		xxx
Carbon Tetrachloride	0	PPBV/V		xxx
1,2-dichloroethane	0	PPBV/V		xxx
Benzene	0	PPBV/V		xxx
Heptane	0	PPBV/V		xxx
1-Butanol	0	PPBV/V		xxx
Trichloroethylene	0	PPBV/V		xxx
Butanenitrile	0	PPBV/V		xxx
1,4-Dioxane	0	PPBV/V		xxx
Methyl isobutyl ketone	0	PPBV/V		xxx
Toluene	0	PPBV/V		xxx
3-Hexanone	0	PPBV/V		xxx
2-Hexanone	0	PPBV/V		xxx
Tetrachloroethylene	0	PPBV/V		xxx
Valeronitrile	0	PPBV/V		xxx
Chlorobenzene	0	PPBV/V		xxx
Ethyl Benzene	0	PPBV/V		xxx
m/p-xylene	0	PPBV/V		xxx
Styrene	0	PPBV/V		xxx
o-Xylene	0	PPBV/V		xxx
Hexanenitrile	0	PPBV/V		xxx
1,1,2,2-Tetrachloroethane	0	PPBV/V		xxx
Decane	0	PPBV/V		xxx
Sample #: W09GR00467	Sample ID: B212H3	GPP		
Propane	0	PPBV/V		xxx
Chloromethane	0	PPBV/V		xxx
Vinyl Chloride	0	PPBV/V		xxx

SAMPLE INQUIRY by GROUP

Company Name: Groundwater Remediation Program
Project Code: F09-040
Group # : 20090639

Parameter	Rep Result	Unit	Date	Analyst
Sample #: W09GR00467	Sample ID: B212H3	GPP [Continued]		
Butane	0	PPBV/V		xxx
1,3-Butadiene	0	PPBV/V		xxx
Methanol	0	PPBV/V		xxx
Pentane	0	PPBV/V		xxx
Ethanol	0	PPBV/V		xxx
Furan	0	PPBV/V		xxx
1,1-Dichloroethylene	0	PPBV/V		xxx
Acetone	0	PPBV/V		xxx
2-Propanol	0	PPBV/V		xxx
Acetonitrile	0	PPBV/V		xxx
Carbon disulfide	0	PPBV/V		xxx
Methylene Chloride	0	PPBV/V		xxx
Hexane	0	PPBV/V		xxx
1-Propanol	0	PPBV/V		xxx
Butanal	0	PPBV/V		xxx
2-Butanone	0	PPBV/V		xxx
Propanenitrile	0	PPBV/V		xxx
Chloroform	0	PPBV/V		xxx
Tetrahydrofuran	0	PPBV/V		xxx
1,1,1-trichloroethane	0	PPBV/V		xxx
Carbon Tetrachloride	0	PPBV/V		xxx
1,2-dichloroethane	0	PPBV/V		xxx
Benzene	0	PPBV/V		xxx
Heptane	0	PPBV/V		xxx
1-Butanol	0	PPBV/V		xxx
Trichloroethylene	0	PPBV/V		xxx
Butanenitrile	0	PPBV/V		xxx
1,4-Dioxane	0	PPBV/V		xxx
Methyl isobutyl ketone	0	PPBV/V		xxx
Toluene	0	PPBV/V		xxx
3-Hexanone	0	PPBV/V		xxx
2-Hexanone	0	PPBV/V		xxx
Tetrachloroethylene	0	PPBV/V		xxx
Valeronitrile	0	PPBV/V		xxx
Chlorobenzene	0	PPBV/V		xxx
Ethyl Benzene	0	PPBV/V		xxx
m/p-xylene	0	PPBV/V		xxx
Styrene	0	PPBV/V		xxx
o-Xylene	0	PPBV/V		xxx
Hexanenitrile	0	PPBV/V		xxx
1,1,2,2-Tetrachloroethane	0	PPBV/V		xxx
Decane	0	PPBV/V		xxx
Sample #: W09GR00468	Sample ID: B212H4	GPP		
Propane	0	PPBV/V		xxx
Chloromethane	0	PPBV/V		xxx
Vinyl Chloride	0	PPBV/V		xxx
Butane	0	PPBV/V		xxx
1,3-Butadiene	0	PPBV/V		xxx

SAMPLE INQUIRY by GROUP

Company Name: Groundwater Remediation Program
Project Code: F09-040
Group # : 20090639

Parameter	Rep Result	Unit	Date	Analyst
Sample #: W09GR00468	Sample ID: B212H4	GPP [Continued]		
Methanol	0	PPBV/V		xxx
Pentane	0	PPBV/V		xxx
Ethanol	0	PPBV/V		xxx
Furan	0	PPBV/V		xxx
1,1-Dichloroethylene	0	PPBV/V		xxx
Acetone	0	PPBV/V		xxx
2-Propanol	0	PPBV/V		xxx
Acetonitrile	0	PPBV/V		xxx
Carbon disulfide	0	PPBV/V		xxx
Methylene Chloride	0	PPBV/V		xxx
Hexane	0	PPBV/V		xxx
1-Propanol	0	PPBV/V		xxx
Butanal	0	PPBV/V		xxx
2-Butanone	0	PPBV/V		xxx
Propanenitrile	0	PPBV/V		xxx
Chloroform	0	PPBV/V		xxx
Tetrahydrofuran	0	PPBV/V		xxx
1,1,1-trichloroethane	0	PPBV/V		xxx
Carbon Tetrachloride	0	PPBV/V		xxx
1,2-dichloroethane	0	PPBV/V		xxx
Benzene	0	PPBV/V		xxx
Heptane	0	PPBV/V		xxx
1-Butanol	0	PPBV/V		xxx
Trichloroethylene	0	PPBV/V		xxx
Butanenitrile	0	PPBV/V		xxx
1,4-Dioxane	0	PPBV/V		xxx
Methyl isobutyl ketone	0	PPBV/V		xxx
Toluene	0	PPBV/V		xxx
3-Hexanone	0	PPBV/V		xxx
2-Hexanone	0	PPBV/V		xxx
Tetrachloroethylene	0	PPBV/V		xxx
Valeronitrile	0	PPBV/V		xxx
Chlorobenzene	0	PPBV/V		xxx
Ethyl Benzene	0	PPBV/V		xxx
m/p-xylene	0	PPBV/V		xxx
Styrene	0	PPBV/V		xxx
o-Xylene	0	PPBV/V		xxx
Hexanenitrile	0	PPBV/V		xxx
1,1,2,2-Tetrachloroethane	0	PPBV/V		xxx
Decane	0	PPBV/V		xxx
Sample #: W09GR00469	Sample ID: B212H5	GPP		
Propane	0	PPBV/V		xxx
Chloromethane	0	PPBV/V		xxx
Vinyl Chloride	0	PPBV/V		xxx
Butane	0	PPBV/V		xxx
1,3-Butadiene	0	PPBV/V		xxx
Methanol	0	PPBV/V		xxx
Pentane	0	PPBV/V		xxx

SAMPLE INQUIRY by GROUP

Company Name: Groundwater Remediation Program

Project Code: F09-040
Group # : 20090639

Parameter	Rep Result	Unit	Date	Analyst
Sample #: W09GR00469	Sample ID: B212H5	GPP [Continued]		
Ethanol	0	PPBV/V		xxx
Furan	0	PPBV/V		xxx
1,1-Dichloroethylene	0	PPBV/V		xxx
Acetone	0	PPBV/V		xxx
2-Propanol	0	PPBV/V		xxx
Acetonitrile	0	PPBV/V		xxx
Carbon disulfide	0	PPBV/V		xxx
Methylene Chloride	0	PPBV/V		xxx
Hexane	0	PPBV/V		xxx
1-Propanol	0	PPBV/V		xxx
Butanal	0	PPBV/V		xxx
2-Butanone	0	PPBV/V		xxx
Propanenitrile	0	PPBV/V		xxx
Chloroform	0	PPBV/V		xxx
Tetrahydrofuran	0	PPBV/V		xxx
1,1,1-trichloroethane	0	PPBV/V		xxx
Carbon Tetrachloride	0	PPBV/V		xxx
1,2-dichloroethane	0	PPBV/V		xxx
Benzene	0	PPBV/V		xxx
Heptane	0	PPBV/V		xxx
1-Butanol	0	PPBV/V		xxx
Trichloroethylene	0	PPBV/V		xxx
Butanenitrile	0	PPBV/V		xxx
1,4-Dioxane	0	PPBV/V		xxx
Methyl isobutyl ketone	0	PPBV/V		xxx
Toluene	0	PPBV/V		xxx
3-Hexanone	0	PPBV/V		xxx
2-Hexanone	0	PPBV/V		xxx
Tetrachloroethylene	0	PPBV/V		xxx
Valeronitrile	0	PPBV/V		xxx
Chlorobenzene	0	PPBV/V		xxx
Ethyl Benzene	0	PPBV/V		xxx
m/p-xylene	0	PPBV/V		xxx
Styrene	0	PPBV/V		xxx
o-Xylene	0	PPBV/V		xxx
Hexanenitrile	0	PPBV/V		xxx
1,1,2,2-Tetrachloroethane	0	PPBV/V		xxx
Decane	0	PPBV/V		xxx
Sample #: W09GR00470	Sample ID: B212H6	GPP		
Propane	0	PPBV/V		xxx
Chloromethane	0	PPBV/V		xxx
Vinyl Chloride	0	PPBV/V		xxx
Butane	0	PPBV/V		xxx
1,3-Butadiene	0	PPBV/V		xxx
Methanol	0	PPBV/V		xxx
Pentane	0	PPBV/V		xxx
Ethanol	0	PPBV/V		xxx
Furan	0	PPBV/V		xxx

SAMPLE INQUIRY by GROUP

Company Name: Groundwater Remediation Program

Project Code: F09-040
Group # : 20090639

Parameter	Rep Result	Unit	Date	Analyst
Sample #: W09GR00470	Sample ID: B212H6	GPP [Continued]		
1,1-Dichloroethylene	0	PPBV/V		xxx
Acetone	0	PPBV/V		xxx
2-Propanol	0	PPBV/V		xxx
Acetonitrile	0	PPBV/V		xxx
Carbon disulfide	0	PPBV/V		xxx
Methylene Chloride	0	PPBV/V		xxx
Hexane	0	PPBV/V		xxx
1-Propanol	0	PPBV/V		xxx
Butanal	0	PPBV/V		xxx
2-Butanone	0	PPBV/V		xxx
Propanenitrile	0	PPBV/V		xxx
Chloroform	0	PPBV/V		xxx
Tetrahydrofuran	0	PPBV/V		xxx
1,1,1-trichloroethane	0	PPBV/V		xxx
Carbon Tetrachloride	0	PPBV/V		xxx
1,2-dichloroethane	0	PPBV/V		xxx
Benzene	0	PPBV/V		xxx
Heptane	0	PPBV/V		xxx
1-Butanol	0	PPBV/V		xxx
Trichloroethylene	0	PPBV/V		xxx
Butanenitrile	0	PPBV/V		xxx
1,4-Dioxane	0	PPBV/V		xxx
Methyl isobutyl ketone	0	PPBV/V		xxx
Toluene	0	PPBV/V		xxx
3-Hexanone	0	PPBV/V		xxx
2-Hexanone	0	PPBV/V		xxx
Tetrachloroethylene	0	PPBV/V		xxx
Valeronitrile	0	PPBV/V		xxx
Chlorobenzene	0	PPBV/V		xxx
Ethyl Benzene	0	PPBV/V		xxx
m/p-xylene	0	PPBV/V		xxx
Styrene	0	PPBV/V		xxx
o-Xylene	0	PPBV/V		xxx
Hexanenitrile	0	PPBV/V		xxx
1,1,2,2-Tetrachloroethane	0	PPBV/V		xxx
Decane	0	PPBV/V		xxx

FOR OFFICE USE ONLY

GROUP	20090639
Date	07/28/09
Project	F09-040
Your Purchase Order No.	301405/ES10

Remit to:
Waste Sampling and Characteriz
P.O. BOX 1970 S3-30
Richland, WA 99352
PHONE:(509) 373-7004
FAX:(509) 373-7134

Ship To
Groundwater Remediation Program

Richland, WA 99354
Attn: Steve Trent
PHONE:(509) 373-5869
FAX:(509) 373-5871

Sold To
Groundwater Remediation Program

Richland, WA 99354
Rep To: Steve Trent
PHONE:(509) 373-5869
FAX:(509) 373-5871

QUANTITY	DESCRIPTION		SAMPLE DATE	UNIT PRICE	TOTAL AMOUNT
6	Headspace Analysis			356.00	2136.00
	ID:B212H1	GPP/#W09GR00465	07/01/09		
	ID:B212H2	GPP/#W09GR00466	07/01/09		
	ID:B212H3	GPP/#W09GR00467	07/01/09		
	ID:B212H4	GPP/#W09GR00468	07/01/09		
	ID:B212H5	GPP/#W09GR00469	07/01/09		
	ID:B212H6	GPP/#W09GR00470	07/01/09		
	ANALYTICAL CHARGES:	$ 2,136.00			
	TOTAL AMOUNT DUE THIS INVOICE:	$ 2,136.00			

TERMS = Terms (Defined by system Admin)

$ 2136.00