



STL Denver
4955 Yarrow Street
Arvada, CO 80002

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www.stl-inc.com

ANALYTICAL REPORT

SSFL / Boeing Group 8

Lot D7B150349

Elizabeth Wessling
MECX, LLC
12269 East Vassar Drive
Aurora, CO 80014

Severn Trent Laboratories, Inc. / STL Denver

Michael P. Phillips
Project Manager

March 16, 2007

Case Narrative

Enclosed is the report for two samples received at STL Denver on February 15, 2007 and February 16, 2007. The results included in this report have been reviewed for compliance with STL's Laboratory Quality Manual. The test results shown in this report meet all requirements of NELAC and any exceptions are noted below.

This report may include reporting limits (RLs) less than STL Denver's standard reporting limit. The reported sample results and associated reporting limits are being used specifically to meet the needs of this project. Note that data are not normally reported to these levels without qualification because they are inherently less reliable and potentially less defensible than required by the latest industry standards.

Dilution factors and footnotes have been provided to assist in the interpretation of the results. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at concentrations above the linear calibration curve, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

STL utilizes USEPA approved methods in all analytical work. The samples presented in this report were analyzed for the parameters listed on the analytical methods summary page in accordance with the methods indicated. A summary of quality control parameters is provided below.

This report shall not be reproduced except in full, without the written approval of the laboratory.

Quality Control Summary for Lot D7B150349

Sample Receiving

The cooler temperature for the sample received on February 15, 2007 at the STL Denver laboratory was 3.8°C. The cooler temperature for the second of sample received on February 16, 2007 at the STL Denver laboratory was 6.0°C. There were no custody seals on the coolers for either set of samples

All sample containers were received in acceptable condition.

GC/MS Semivolatile Organics – SW846 8270C-SIM

Low levels of Fluoranthene and Naphthalene are present in the method blank associated with QC batch 7051144. Because the concentrations in the method blank are not present at levels greater than the reporting limits, corrective action is deemed unnecessary.

The LCS associated with QC batch 7051144 exhibited a percent recovery outside the QC control limits for Acenaphthylene, biased high. This is an indicator that data may be biased high. As no detectable concentration of Acenaphthylene is present in the associated sample, corrective action is deemed unnecessary.

No other anomalies were encountered.

TPH – SW846 8015B

No anomalies were encountered.

D7B150349

PCBs – SW846 8082

No anomalies were encountered.

Dioxins/Furans – EPA 1613B

In some cases, due to the analyte concentrations present, several compounds are estimated at the maximum possible concentration. Associated results in the analytical report have been flagged with a "Q".

Low levels of OCDD are present in the method blank associated with QC batch 7051334. Because the concentration in the method blank is not present at a level greater than the reporting limit, corrective action is deemed unnecessary. Associated results have been flagged with a "B".

The MS/MSD performed on sample BHBS0005S01SP exhibited a percent recovery and RPD data outside the QC control limits for OCDD. The acceptable LCS analysis data indicated that the analytical system was operating within control; therefore, corrective action is deemed unnecessary.

No other anomalies were encountered.

Total Metals – SW846 6010B/6020/7471A

The serial dilution performed on sample BHBS0005S01SP in analytical batch 7052575 indicates that physical and chemical interferences are present for Arsenic, Chromium, Cobalt, Copper, Nickel and Zinc. Results in the analytical report have been flagged with an "L".

Low levels of Chromium and Zinc are present in the method blank associated with QC batch 7052575. Because the concentrations in the method blank are not present at levels greater than the reporting limits, corrective action is deemed unnecessary.

The MS/MSD associated with QC batch 7050153 exhibited a percent recovery outside the QC control limits for Mercury. Method precision and accuracy have been verified by the acceptable LCS/LCSD analysis data; therefore, corrective action is deemed unnecessary.

The MS/MSD performed on sample BHBS0005S01SP exhibited percent recoveries outside the QC control limits for Antimony, Molybdenum and Nickel. In addition, percent recoveries and RPD data could not be calculated for Aluminum, Barium, Chromium, Vanadium and Zinc, due to the sample concentrations reading greater than four times the spike amounts. The acceptable LCS analysis data indicated that the analytical systems were operating within control; therefore, corrective action is deemed unnecessary.

The Post Digestion Spike (PDS) performed on sample BHBS0005S01SP exhibited a percent recovery outside the QC control limits for Zinc. The acceptable LCS analysis data indicated that the analytical system was operating within control; therefore, corrective action is deemed unnecessary.

No other anomalies were encountered.

Total Solids and pH – MCAWW 160.3 MOD and SW846 9045C

No anomalies were encountered.

PROJECT NARRATIVE

Lot Number: D7B150349

Method(s): EPA 1613B

Dioxin Analysis

All QC criteria were met with the following exceptions:

The percent recovery for OCDD was 223% on BHBS0005S01SP Matrix Spike. The upper acceptance criterion is 144%. The recovery in the laboratory control sample met its acceptance criterion. Heterogeneity in the distribution of the analyte in the original sample is the suspected cause. The relative percent difference (RPD) for OCDD was 31%, which is outside the method suggested 25%.

The following flags are used to qualify results for chlorinated dioxin and furan results:

J – The reported result is an estimate. The amount reported is below the Minimum Level (ML). The qualitative definition of the ML is “the lowest level at which the analytical system must give a reliable signal and an acceptable calibration point”. The ML was introduced in EPA Methods 1624 and 1625 in 1980 and was promulgated in these methods in 1984 at 40 CFR Part 136, Appendix A. For the purposes of this report the ML is qualitatively defined as described above, and quantitatively defined as follows: **Minimum Level:** The concentration or mass of analyte in the sample that corresponds to the lowest calibration level in the initial calibration. It represents a concentration (in the sample extract) equivalent to that of the lowest calibration standard, after corrections for method-specified sample weights, volumes and cleanup procedures has been employed.

Example: The lowest calibration level for TCDD in the initial calibration is 0.5 pg/uL. A mass of 10 pg of 2,3,7,8-TCDD in the sample would result in a concentration of 0.5 pg/uL in the sample extract (at a final volume of 20 uL). Since the concentration in the sample extract corresponds to the concentration in the lowest calibration standard, the 10 pg mass in the sample components is the ML. If the sample extract is further diluted, the ML will increase by the dilution factor.

Example: A 1/10 dilution is performed on the sample extract described above. The ML for 2,3,7,8-TCDD becomes 100 pg rather than the default of 10 pg.

E – The reported result is an estimate. The amount reported is above the UCL described below.

The E qualifier is applied on the basis of the **Upper Calibration Level (UCL)**. The quantitative definition of the UCL is listed below:

Upper Calibration Level: The concentration or mass of analyte in the sample that corresponds to the highest calibration level in the initial calibration. It is equivalent to the concentration of the highest calibration standard, assuming that all method-specified sample weights, volumes, and cleanup procedures have been employed.

Example:

The maximum calibration level for TCDD in the initial calibration is 200 pg/uL. A mass of 4000 pg of 2,3,7,8-TCDD in the sampling components would result in a concentration of 200 pg/uL in the sample extract (at a final volume of 20 uL). Since the concentration in the sample extract corresponds to the concentration in the highest calibration standard, the 4000 pg mass in the sample components is the UCL. If the sample extract is further diluted, the ML will increase by the dilution factor.

Example:

A 1/10 dilution is performed on the sample extract described above. The UCL for 2,3,7,8-TCDD becomes 40,000 pg rather than the default of 4000 pg. In this examples all positive 2,3,7,8-TCDD results above 40,000 pg are flagged with an E.

B – The analyte is present in the associated method blank at a reportable level. For this analysis, there is no method specified reporting level, other than the qualitative criterion that peaks must exhibit a signal-to-noise ratio of 2.5-to-1. Therefore, the presence of any amount of the analyte present in the blank will result a B qualifier on all associated samples. If the blank has analytes present above the ML (described above) the need for corrective action beyond qualifying the associated data is evaluated. The determination is made whether the amount in the blank is less than 5% of the lowest amount in associated client samples or regulatory limit. If this is the case, sample processing may continue with the qualification of the data. If the amount in the blank is greater than 5% of the lowest amount in associated client samples or regulatory limit, corrective action must be taken. The corrective actions may include extracting a second aliquot of sample if available, or notifying the client to assess the impact on the project objectives. Note: Some laboratories do not report contamination in the blank unless it is above their lower calibration limit, or an established percentage of the level in the samples, or an established percentage of the regulatory limit. Likewise, some laboratories set a reporting limit at one half the lower calibration limit.

Q – Estimated maximum possible concentration. This qualifier is used when the result is generated from chromatographic data that does not meet all the qualitative criteria for a positive identification given in the method. The criteria include the following areas:

- Ion abundance ratios must be within specified limits (+/-15% of theoretical ion abundance ratio.)

- Retention time criteria (relative to the method-specified isotope labeled retention time standard).
- Co-maximization criterion. The two quantitation ion peaks must reach their maxima within 2 seconds of each other.
- Polychlorinated dibenzofuran purity. No peak can be identified as a polychlorinated dibenzofuran if a polychlorinated diphenyl ether peak maximizes within +/- 2 seconds of the furan candidate.

S – Ion suppression evident. The trace indicating the signal from the lock mass of the calibration compound shows a deflection at the retention time of the analyte. This may indicate a temporary suppression of the instrument sensitivity, due to a matrix-borne interference.

C – Coeluting Isomer. The isomer is known to coelute with another member of its homologue group, or the peak shape is shouldered, indicating the likelihood of a coeluting isomer

X – Other. See explanation in narrative.

Table Of Contents

Standard Deliverables with Supporting Documentation

Report Contents

Number of Pages

Standard Deliverables

(The Cover Letter and the Report Cover page are considered integral parts of this Standard Deliverable package. This report is incomplete unless all pages indicated in this Table of Contents are included.)

- Table of Contents
- Case Narrative
- Executive Summary – Detection Highlights
- Methods Summary
- Method/Analyst Summary
- Lot Sample Summary
- Analytical Results
- QC Data Association Summary
- QC Evaluation and/or Data Reports
- Chain-of-Custody

Supporting Documentation

(Note: A one-page "Description of Supporting Documentation" is provided at the beginning of this section.)

Check below when supporting documentation is present.

- Volatile GC/MS
- Semivolatile GC/MS
- Volatile GC
- Semivolatile GC
- LC/MS or HPLC
- Metals
- General Chemistry
- Radiochemistry
- Subcontracted Data



3.8
2/15/07
IR2

CHAIN OF CUSTODY RECORD

COC #:

MWHSV20070213_02

Page: 1 of 1

Customer Information		Project Information		Project Information		Requested Analyses		Instructions/TAT
Site:	SSFL	Client Name:	DOE	Collector:	Shelby Valenzuela	Boeing PM:		Legend: Numerical values for analyses equal to turn around time in days H - Hold EH - Extract, Hold
Company:	MWH	Sampling Event:	Group 8 Data Gaps-Soil	Contact #:				
Report to:	Lisa Tucker	Project Number:	1891284	Requested Analyses				
Address:	9444 Farnham Street Suite 300 San Diego CA 92123	Project Manager:	Diana Buchanan					
		PM Phone #:	(626) 568-6897					
		Field Contact:						
		Field Contact #:						
		Lab Name:	STL-Denver					
		Lab Contact:	Michael Phillips					
		Lab Address:	4955 Yarrow Arvada, CO 80002					
		Lab Phone:	(303) 738-0100					
Sample Name		Matrix						Comments
BHS0005S01SP	Soil		2/13/2007 14:30	No. of Containers	2			
				% Solids - Soil	10			
				Dioxin by 1613B - Soil	10			
				Metals 6010B/6020 Soil Group 8	10			
				Metals 7471A Soil Mercury	10			
				pH by SW9045C - Soil	10			

1. Relinquished by:	Date:	2/14/2007	2. Received by:	Date:	2/15/07	3. Relinquished by:	Date:	4. Received by:	Date:
<i>[Signature]</i>			<i>[Signature]</i>						
Company:	Time:	1000	Company:	Time:	1000	Company:	Time:	Company:	Time:
MWH			STL-DENVER						
Comments: <input type="checkbox"/> Geotracker EDF <input checked="" type="checkbox"/> Data Validation Package <input type="checkbox"/> Level IV									



6.02
2.16.07
122

CHAIN OF CUSTODY RECORD

COC #:

MWHSV20070212_02

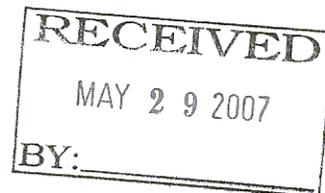
Customer Information		Project Information		Project Information		Project Information		Requested Analyses		Instructions/TAT			
Site:	SSFL	Client Name:	DOE	Collector:	Shelby Valenzuela	Boeing PM:				Legend: Numerical values for analyses equate to turn around time in days H - Hold EH - Extract, Hold			
Company:	MWH	Sampling Event:	Group 8 Data Gaps-Soil	Contact #:									
Report to:	Lisa Tucker	Project Number:	1891284										
Address:	9444 Farnham Street	Project Manager:	Diana Buchanan										
	Suite 300	PM Phone #:	(626) 568-8897										
	San Diego	Field Contact:											
	CA	Field Contact #:											
92123	Lab Name:	STL-Denver											
Email:	boelngedms@ch2m.com	Lab Contact:	Michael Phillips										
	Lisa Tucker@mwhglobal.com	Lab Address:	4955 Yarrow										
		Lab Phone:	Arvada, CO 80002										
			(303) 736-0100										
Sample Name		Matrix		Date	Time	No. of Containers					Comments		
BLBS00365019P	Soil		2/12/2007	11:20	2								
		% Solids - Soil	10										
		Metals 60108/6020 Soil Group 8	10										
		Metals 7471A Soil Mercury	10										
		PCB by SW8082 - Soil	10										
		pH by SW9045C - Soil	10										
		SVOCs by SW8270C SIM - Soil	10										
		TPH by SW8015BM - Soil	10										

1. Relinquished by:	Date:	2. Received by:	Date:	3. Relinquished by:	Date:	4. Received by:	Date:
<i>Edward Sanchez</i>	2-13-07	<i>Anna B. Smith</i>	2/16/07				
Company:	Time:	Company:	Time:	Company:	Time:	Company:	Time:
MWH	0800	STL	0930				
Comments: <input type="checkbox"/> Geotracker EDF <input checked="" type="checkbox"/> Data Validation Package <input type="checkbox"/> Level IV							



May 23, 2007

Ms. Elizabeth Wessling, MECx
MECx, LLC
12269 East Vassar Drive
Aurora, Colorado 80014



Re: DOE
Project Number: 1891307-B056
Project Name: Group 8 May 2007
Work Order: 186359 and 186361
SDG: 186359S and 186359W

Dear Ms. Elizabeth Wessling,

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on May 18, 2007. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4475.

Sincerely,

Martha Harrison
Project Manager

Purchase Order: Task Order 002
Chain of Custody: MW!ISV20070517_02
Enclosures

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Sample Data	1009
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Quality Control Data	1263
Miscellaneous Data	1276
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Miscellaneous Data	1450
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Raw Data	1541
Miscellaneous	2099
Metals Analysis	2150
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Raw Data	2204
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Case Narrative

Case Narrative
for
Boeing - Santa Susanna Field Laboratory
Work Order: 186359 and 186361
SDG: 186359S and 186359W

May 23, 2007

Laboratory Identification:

GEL Laboratories LLC
2040 Savage Road
Charleston, South Carolina 29407
(843) 556-8171

Summary:

Sample Receipt

The samples arrived at GEL Laboratories LLC, Charleston, South Carolina on May 18, 2007 for analysis.

The laboratory received the following samples:

<u>Laboratory Identification</u>	<u>Sample Description</u>
186359001	BLBS0062D01
186359002	BLBS0062S01
186359003	BLBS0063S01
186359004	BLBS0056S01
186359005	BLBS0056S02
186359006	BLBS0051S01
186359007	BLBS0049S01
186359008	BLBS0050D01
186359009	BLBS0050S01
186361001	BLQW0019E01
186361002	BLQW0019T02

Items of Note

N/A

Case Narrative

Sample analyses were conducted using methodology as outlined in GEL Laboratories, LLC (GEL) Standard Operating Procedures. Any technical or administrative problems during analysis, data review, and reduction are contained in the analytical case narratives in the enclosed data package.

Data Package:

The enclosed data package contains the following sections: Case Narrative, Chain of Custody, Cooler Receipt Checklist, Data Package Qualifier Definitions and data from the following fractions: FID Flame Ionization Detector, General Chemistry, Metals, PCB, Radiochemistry, Semi-Volatile and Volatile.

I certify that this data package is in compliance with the terms and conditions of the subcontract and task order, both technically and for the completeness, for other than the conditions detailed in the attached case narratives.



Martha Harrison

Project Manager



SAMPLE RECEIPT & REVIEW FORM

PM use only

Client: <u>SSFL</u>	SDG/ARCO/Work Order: <u>186359</u>
Date Received: <u>5-18-07</u>	PM(A) Review (ensure non-conforming items are resolved prior to signing):
Received By: <u>[Signature]</u>	<u>MMA</u>

Sample Receipt Criteria	Yes	NA	No	Comments/Qualifiers (Required for Non-Conforming Items)
1 Shipping containers received intact and sealed?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: seals broken damaged container leaking container other (describe)
2 Samples requiring cold preservation within (4 +/- 2 C)? Record preservation method.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Circle Coolant # ice bags blue ice dry ice none other describe <u>6°C/5°C</u>
3 Chain of custody documents included with shipment?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4 Sample containers intact and sealed?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: seals broken damaged container leaking container other (describe)
5 Samples requiring chemical preservation at proper pH?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Sample ID's, containers affected and observed pH:
6 VOA vials free of headspace (defined as < 6mm bubble)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Sample ID's and containers affected: <u>small 1mm bubble</u>
7 Are Encore containers present? (If yes, immediately deliver to VOA laboratory)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
8 Samples received within holding time?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Id's and tests affected:
9 Sample ID's on COC match ID's on bottles?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Sample ID's and containers affected:
10 Date & time on COC match date & time on bottles?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Sample ID's affected:
11 Number of containers received match number indicated on COC?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Sample ID's affected:
12 COC form is properly signed in relinquished/received sections?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

14 Air Bill ,Tracking #'s, & Additional Comments	<u>Fed OK:</u>	<u>8612 6056 8380-6°C</u>	<u>8531 6248 6735-5°C</u>
--------------------------------------------------	----------------	---------------------------	---------------------------

Suspected Hazard Information	Non-Regulated	Regulated	High Level	RSO RAD Receipt # _____ *If > x2 area background is observed on samples identified as "non-regulated/non-radioactive", contact the Radiation Safety group for further investigation.
A Radiological Classification?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Maximum Counts Observed*: <u>80 cpm</u>
B PCB Regulated?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C Shipped as DOT Hazardous Material? If yes, contact Waste Manager or ESH Manager.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Hazard Class Shipped: UN#:
D Regulated as a Foreign Soil?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

PM (or PMA) review of Hazard classification: 7 MMA Initials 05/18/07 Date:

Laboratory Certifications

List of current GEL Certifications as of 23 May 2007

State	Certification
Alaska	UST-062
Arizona	AZ0668
Arkansas	88-0651
CLIA	42D0904046
California	01151CA
Colorado	GenEngLabs
Connecticut	PH-0169
Dept. of Navy	NFESC 413
EPA	WG-15J
Florida/NELAP	E87156
Georgia	E87156 (FL/NELAP)
Hawaii	N/A
Idaho	N/A
Illinois	200029
Indiana	C-SC-01
Kansas	E-10332
Kentucky	90129
Louisiana	03046
Maryland	270
Massachusetts	M-SC012
Michigan	9903
Nevada	SC12
New Jersey	SC002
New Mexico	FL NELAP E87156
New York	11501
North Carolina	233
North Carolina Drinking W	45709
North Dakota	R-158
Oklahoma	9904
Pennsylvania	68-00485
South Carolina	10120001/10585001/10120002
Tennessee	02934
Texas NBLAP	T104704235-06-TX
U.S. Dept. of Agriculture	S-52597
US Army Corps of Engineer	N/A
Utah	8037697376 GBL
Vermont	VT87156
Virginia	00151
Washington	C1641

**Chain of Custody and
Supporting
Documentation**

186359

COC #

CHAIN OF CUSTODY RECORD

Customer Information		Project Information		Project Information		Requested Analyses		Instructions/TAT		Comments	
Site:	SSFL	Client Name:	DOE	Collector:	Shelby Valenzuela						
Company:	MWH	Sampling Event:	Group 8 May, 2007	Contact #:							
Report to:	Lisa Tucker	Project Number:	1891307-B056								
Address:	9444 Farnham Street	Project Manager:									
	Suite 300	PM Phone #:									
	San Diego	Field Contact:									
	CA	Field Contact #:									
	92123	Lab Name:	GEL Laboratories, LLC								
Email:	lisa.tucker@mwhglobal.com	Lab Contact:	Martha Harrison								
	boelingsdms@chl2m.com	Lab Address:	2040 Savage Road								
		Lab Phone:	Charleston, SC 29407								
			(843) 556-8171								
Sample Name	Water	Matrix	Water	Date	5/17/2007	Time	15:15	No. of Containers	3		
	BLOW0019T02										
				Requested Analyses							
				Fluoride by 300 - Water							
				Fluoride by 300 - Soil							
				% Solids - Soil							
				Metals 6010B/6020 Water Group 8							
				Metals 6010B/6020 Soil Group 8							
				PCB by SW8082 - Water							
				PCB by SW8082 - Soil							
				Metals 7471A Soil Mercury							
				SVOCs by SW8270C SIM - Soil							
				SVOC 8270C Water Full w/TICs							
				SVOC 8270C Soil Full w/TICs							
				TPH 8015B Water Terphenyls							
				TPH 8015B Soil Terphenyls							
				TPH by SW8015BM - Water							
				TPH by SW8015BM - Soil							
				VOC by SW8260B - Water							
				VOC by SW8260B - Soil							
				EH							

Legend:
Numerical values for analyses
equated to turn around time in days
H - Hold
EH - Extract & Hold

1. Relinquished by:		2. Received by:		3. Relinquished by:		4. Received by:	
Date:	5-17-07	Date:	5-18-07	Date:		Date:	
Time:	15:45	Time:	10:30	Time:		Time:	
Company:	MWH	Company:		Company:		Company:	
Comments:		Comments:		Comments:		Comments:	

GeoTracker EDF
Data Validation Package Level IV

6

Case Narrative

Case Narrative
for
Boeing - Santa Susanna Field Laboratory
Work Order: 186235 and 186237
SDG: 186235S and 186235W

May 22, 2007

Laboratory Identification:

GEL Laboratories LLC
2040 Savage Road
Charleston, South Carolina 29407
(843) 556-8171

Summary:

Sample Receipt

The samples arrived at GEL Laboratories LLC, Charleston, South Carolina on May 17, 2007 for analysis.

The laboratory received the following samples:

<u>Laboratory Identification</u>	<u>Sample Description</u>
186235001	BLBS0061S01
186235002	BLBS0058S01
186235003	BLBS0052S01
186235004	BLBS0057S01
186235005	BLBS0060S01
186235006	BLBS0053S01
186237001	BLQW0019F01
186237002	BLQW0019T01

Items of Note

Boeing - Santa Susanna Field Laboratory Technical Representative was contacted seeking resolution to any analytical and/or receipt issues. Please see the enclosed e-mails.

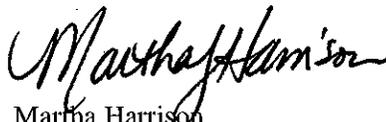
Case Narrative

Sample analyses were conducted using methodology as outlined in GEL Laboratories, LLC (GEL) Standard Operating Procedures. Any technical or administrative problems during analysis, data review, and reduction are contained in the analytical case narratives in the enclosed data package.

Data Package:

The enclosed data package contains the following sections: Case Narrative, Chain of Custody, Cooler Receipt Checklist, Data Package Qualifier Definitions and data from the following fractions: FID Flame Ionization Detector, General Chemistry, Metals, PCB, Project Management, Radiochemistry, Semi-Volatile, Volatile, and Dioxins/ Furans.

I certify that this data package is in compliance with the terms and conditions of the subcontract and task order, both technically and for the completeness, for other than the conditions detailed in the attached case narratives.



Martha Harrison

Project Manager

Subject: RE: SSFL Group 8, SDG 186235S Full SVOCs

From: "Elizabeth Wessling" <elizabeth.wessling@mecx.net>

Date: Wed, 23 May 2007 09:39:17 -0500

To: "Martha Harrison" <Martha.Harrison@gel.com>

CC: "Nancy Mattern" <nancy.mattern@gel.com>, "Ben Finley" <ben01223@gel.com>, "Christy Keenan" <christy.keenan@gel.com>, "Lisa Tucker" <Lisa.J.Tucker@us.mwhglobal.com>

Please report this data. Include at least one reextraction so we can see the deficiencies over time to help establish the matrix effect. We will choose what we believe to be the best data for the project for this sample.

Thanks for bringing this to our attention.

Elizabeth A. Wessling
Senior Environmental Chemist

Phone: 720.535.5502

Cell: 303.881.6816

Fax: 720.535.7555

elizabeth.wessling@mecx.net

MECX, LLC

12269 East Vassar Drive

Aurora, Colorado 80014

www.mecx.net

A Service-Disabled Veteran-Owned Small Business

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-----Original Message-----

From: Martha Harrison [<mailto:Martha.Harrison@gel.com>]

Sent: Wednesday, May 23, 2007 8:40 AM

To: Elizabeth Wessling

Cc: Nancy Mattern; Ben Finley; Christy Keenan; Lisa Tucker

Subject: SSFL Group 8, SDG 186235S Full SVOCs

Elizabeth,

Please see the following request to report data for Semi-Volatiles. The data package for SDG 186235 needs to ship today so your quick response

is appreciated. The request is regarding sample BLBS0057S01 (186235004). If we can report the data today, would you like all three extractions reported?

Thanks,
Martha

~~~~~  
Martha Harrison  
Federal Project Manager  
GEL Laboratories, LLC  
2040 Savage Road  
Charleston, SC 29407  
(843) 769-7376 x4475  
(843) 769-7384 Direct Line  
(843) 766-1178 Fax  
[Martha.Harrison@gel.com](mailto:Martha.Harrison@gel.com)

----- Original Message -----

Subject: SSFL 186235S  
Date: Wed, 23 May 2007 09:33:21 -0400  
From: Cameron Bearden <[jcb@gel.com](mailto:jcb@gel.com)>  
Reply-To: [cameron.bearden@gel.com](mailto:cameron.bearden@gel.com)  
To: Martha Harrison <[Martha.Harrison@gel.com](mailto:Martha.Harrison@gel.com)>  
CC: Nancy Mattern <[nancy.mattern@mail.gel.com](mailto:nancy.mattern@mail.gel.com)>

Martha,

Please ask Elizabeth for direction on the following. This SDG (BNA) has been extracted three times for LCS failures. The third extraction is in holding and the LCS passes. However, one sample, 186235004, fails surrogate recovery whereas it passed the previous two times. Phenol-d5 recovered at 43.79%. The limits are 45-95%. The sample was reanalyzed and the failure confirmed. The only detect in the sample is bis-2-ethylhexylphthalate at 475 ug/kg. The sample is still in holding. We would normally re-extract this sample, but the package is due to ship

today.

Thanks,  
Cameron

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**Subject:** Re: SSFL 186235, Sample Receipt

**From:** Benjamin Finley <Benjamin.Finley@gel.com>

**Date:** Thu, 17 May 2007 14:56:14 -0400

**To:** Elizabeth Wessling <elizabeth.wessling@mecx.net>, lisa.j.tucker@us.mwhglobal.com, boeingdms@ch2m.com, Sarah E VonRaesfeld <Sarah.E.VonRaesfeld@us.mwhglobal.com>, kim.schultz@mecx.net

**CC:** Martha Harrison <Martha.Harrison@gel.com>, Nancy Mattern <nan00774@gel.com>

Elizabeth,

I made a mistake with the SDG on my previous email (SSFL 186235S, Sample Receipt). The sample was a water and not a solid.

Also, sample BLQW0019T01 had 1) 40 mL vial broken within the shipping container. There was no sample left in this container to analysis.

Thanks,  
Ben Finley

--  
Benjamin Finley  
Project Manager Assistant  
GEL Laboratories, LLC  
2040 Savage Road  
PO Box 30712  
Charleston, SC 29417  
(843) 556-8171 ext.4292  
(843) 766-1178 fax  
[Benjamin.Finley@gel.com](mailto:Benjamin.Finley@gel.com)

Benjamin Finley wrote:

Elizabeth,

For sample BLQW0019F01, I noticed that 1) 1L amber glass bottle was received broken inside the shipping container. There was no sample left to salvage.

Thanks,  
Ben Finley

--  
Benjamin Finley  
Project Manager Assistant  
GEL Laboratories, LLC  
2040 Savage Road  
PO Box 30712  
Charleston, SC 29417  
(843) 556-8171 ext.4292  
(843) 766-1178 fax  
[Benjamin.Finley@gel.com](mailto:Benjamin.Finley@gel.com)

**Subject:** SSFL SDG 186235W (WO 186237) 1613 - RUSH

**From:** Martha Harrison <Martha.Harrison@gel.com>

**Date:** Thu, 17 May 2007 14:55:33 -0400

**To:** "Cornwell, Chris ckc (Wilmington)" <Chris.Cornwell@sgs.com>

**CC:** Ben Finley <ben01223@gel.com>, Christy Keenan <christy.keenan@gel.com>, Nancy Mattern <nancy.mattern@gel.com>

Chris,

You should have received one sample for dioxin analysis today from Boeing on COC MWHSV20070516\_00. This sample has a 5 working day TAT. The package and EDD are due to Boeing on Thursday, May 24th. We'll need the PDF and EDD data no later than Tuesday, May 22nd.

The GEL Sample ID is 186237001 (BLQW0019F01).

Thanks,  
Martha

~~~~~  
Martha Harrison
Federal Project Manager
GEL Laboratories, LLC
2040 Savage Road
Charleston, SC 29407
(843) 769-7376 x4475
(843) 769-7384 Direct Line
(843) 766-1178 Fax
Martha.Harrison@gel.com

MWHSV20070516_00.pdf



SAMPLE RECEIPT & REVIEW FORM

PM use only

Client: <u>SSFL</u>	SDG/ARCO/Work Order: <u>186237</u>
Date Received: <u>5/17/07</u>	PM(A) Review (ensure non-conforming items are resolved prior to signing):
Received By: <u>Bentley</u>	<u>MJH</u>

Sample Receipt Criteria	Yes	NA	No	Comments/Qualifiers (Required for Non-Conforming Items)
1 Shipping containers received intact and sealed?	<input checked="" type="checkbox"/>			Circle Applicable: seals broken damaged container leaking container other (describe)
2 Samples requiring cold preservation within (4 +/- 2 C)? Record preservation method.	<input checked="" type="checkbox"/>			Circle Coolant # <u>ice bags</u> blue ice dry ice none other describe <u>5c</u>
3 Chain of custody documents included with shipment?	<input checked="" type="checkbox"/>			
4 Sample containers intact and sealed?			<input checked="" type="checkbox"/>	Circle Applicable: seals broken damaged container leaking container other (describe) <u>11 amber glass - BLQW0019F01 (1 container)</u> <u>40mL vial - LOGW0004702 (1 container)</u>
5 Samples requiring chemical preservation at proper pH?	<input checked="" type="checkbox"/>			Sample ID's, containers affected and observed pH:
6 VOA vials free of headspace (defined as < 6mm bubble)?	<input checked="" type="checkbox"/>			Sample ID's and containers affected:
7 Are Encore containers present? (If yes, immediately deliver to VOA laboratory)			<input checked="" type="checkbox"/>	
8 Samples received within holding time?	<input checked="" type="checkbox"/>			Id's and tests affected:
9 Sample ID's on COC match ID's on bottles?	<input checked="" type="checkbox"/>			Sample ID's and containers affected:
10 Date & time on COC match date & time on bottles?	<input checked="" type="checkbox"/>			Sample ID's affected:
11 Number of containers received match number indicated on COC?			<input checked="" type="checkbox"/>	Sample ID's affected: <u>BLQW0019F01 see comments @ bottom of COC</u> <u>COC indicates 17, we received 16 due to Dioxin container being subbed out. see cont sheet</u>
12 COC form is properly signed in relinquished/received sections?	<input checked="" type="checkbox"/>			<u>COC# MWHSV20070516-02</u> <u>MWHSV20070516-00</u>
14 Air Bill ,Tracking #'s, & Additional Comments				<u>8612 6056 8370 - 5c</u> <u>BLQW0019F01 / LOGW0004702 containers - waters</u>

Suspected Hazard Information	Non-Regulated	Regulated	High Level	RSO RAD Receipt # _____ *If > x2 area background is observed on samples identified as "non-regulated/non-radioactive", contact the Radiation Safety group for further investigation.
A Radiological Classification?	<input checked="" type="checkbox"/>			Maximum Counts Observed*: <u>CPM 40</u>
B PCB Regulated?	<input checked="" type="checkbox"/>			
C Shipped as DOT Hazardous Material? If yes, contact Waste Manager or ESH Manager.	<input checked="" type="checkbox"/>			Hazard Class Shipped: UN#:
D Regulated as a Foreign Soil?	<input checked="" type="checkbox"/>			

PM (or PMA) review of Hazard classification: MJH Initials 05/17/07 Date:

Data Qualifiers Definitions

Data Review Qualifier Definitions

Qualifier	Explanation
*	A quality control analyte recovery is outside of specified acceptance criteria
**	Analyte is a surrogate compound
<	Result is less than value reported
>	Result is greater than value reported
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL
A	The TIC is a suspected aldol-condensation product
B	Target analyte was detected in the associated blank
B	Metals-Either presence of analyte detected in the associated blank, or MDL/IDL < sample value < PQL
BD	Results are either below the MDC or tracer recovery is low
C	Analyte has been confirmed by GC/MS analysis
D	Results are reported from a diluted aliquot of the sample
d	5-day BOD-The 2:1 depletion requirement was not met for this sample
E	Organics-Concentration of the target analyte exceeds the instrument calibration range
E	Metals-%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
H	Analytical holding time was exceeded
h	Preparation or preservation holding time was exceeded
J	Value is estimated
N	Metals-The Matrix spike sample recovery is not within specified control limits
N	Organics-Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A	Spike recovery limits do not apply. Sample concentration exceeds spike concentration by 4X or more
ND	Analyte concentration is not detected above the reporting limit
UI	Gamma Spectroscopy-Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test-Particulates passed through the filter, however no free liquids were observed.

Laboratory Certifications

List of current GEL Certifications as of 22 May 2007

State	Certification
Alaska	UST-062
Arizona	AZ0668
Arkansas	88-0651
CLIA	42D0904046
California	01151CA
Colorado	GenEngLabs
Connecticut	PH-0169
Dept. of Navy	NFESC 413
EPA	WG-15J
Florida/NELAP	E87156
Georgia	E87156 (FL/NELAP)
Hawaii	N/A
Idaho	N/A
Illinois	200029
Indiana	C-SC-01
Kansas	E-10332
Kentucky	90129
Louisiana	03046
Maryland	270
Massachusetts	M-SC012
Michigan	9903
Nevada	SC12
New Jersey	SC002
New Mexico	FL NELAP E87156
New York	11501
North Carolina	233
North Carolina Drinking W	45709
North Dakota	R-158
Oklahoma	9904
Pennsylvania	68-00485
South Carolina	10120001/10585001/10120002
Tennessee	02934
Texas NELAP	T104704235-06-TX
U.S. Dept. of Agriculture	S-52597
US Army Corps of Engineer	N/A
Utah	8037697376 GEL
Vermont	VT87156
Virginia	00151
Washington	C1641

Chain of Custody and Supporting Documentation

186235

CHAIN OF CUSTODY RECORD

COC #:

MWHSV20070516_00

Page: 1 of 1



Customer Information		Project Information		Project Information	
Site:	SSFL	Client Name:	DOE	Collector:	Shelby Valenzuela
Company:	MWH	Sampling Event:	Group 8 Hastings Data Gaps-Sx	Contact #:	
Report to:	Lisa Tucker	Project Number:	1891307-8056	Requested Analyses	
Address:	9444 Farnham Street Suite 300 San Diego CA 92123	Project Manager:	Diana Buchanan (626) 568-6897	Instructions/TAT	
Email:	lisa.tucker@mwglobal.com	Lab Name:	GEL Laboratories, LLC	Legend: Numerical values for analyses equate to tum around time in days H - Hold EH - Extract ,Hold	
	boeingdms@ch2m.com	Lab Contact:	Martha Harrison	Comments	
		Lab Address:	2040 Savage Road Charleston, SC 29407		
		Lab Phone:	(843) 556-8171		
Sample Name	Matrix	Date	Time	No. of Containers	
BLBS0061S01	Soil	5/16/2007	9:05	1	
BLBS0056S01	Soil	5/16/2007	9:45	1	
BLBS0052S01	Soil	5/16/2007	10:05	1	
BLBS0057S01	Soil	5/16/2007	10:25	1	
BLBS0060S01	Soil	5/16/2007	11:00	1	
BLBS0053S01	Soil	5/16/2007	11:45	1	
BLQW0019F01	Water	5/16/2007	13:45	17	
BLQW0019T01	Water	5/16/2007	14:00	3	
		% Solids - Soil	H	5	
		Dioxin by 1613B - Water	EH	5	
		Fluoride by 300 - Soil	EH	5	
		Fluoride by 300 - Water			
		Metals 6010B/6020 Water Group 8			
		PCB by SW8082 - Water	EH	5	
		SVOC 6270C Soil Full w/TICs	EH	5	
		SVOC 8270C Water Full w/TICs			
		TPH 8015B Soil Terphenyls	EH	5	
		TPH 8015B Water Terphenyls			
		TPH by SW8015BM - Water			
		VOC by SW8260B - Water			

1. Relinquished by:	Date: 5/16/2007	2. Received by:	Date: 5/17/07	3. Relinquished by:	Date:	4. Received by:	Date:
<i>Ed Sarcia</i>		<i>Bert Tuley</i>					
Company: MWH	Time: 1:00	Company: CH2	Time: 9:30	Company:	Time:	Company:	Time:
Comments: 2 x 1L poly bottles of BLQW0019F01 for dioxin analysis were shipped directly to SGS Environmental Services.							
				<input type="checkbox"/> Geotracker EDF <input checked="" type="checkbox"/> Data Validation Package <input type="checkbox"/> Level IV			



Laboratories LLC

a member of **The GEL Group** INC



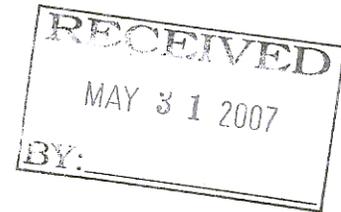
PO Box 30712 Charleston, SC 29417
2040 Savage Road Charleston, SC 29407

P 843.556.8171 F 843.766.1178

www.gel.com

May 29, 2007

Ms. Elizabeth Wessling, MECx
MECx, LLC
12269 East Vassar Drive
Aurora, Colorado 80014



Re: SSFL
Project Number: 1891307-B056
Project Name: Group 8 Hastings Data Gaps-S
Work Order: 186133
SDG: 186133

Dear Ms. Wessling,

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on May 16, 2007. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4475.

Sincerely,

Martha Harrison
Project Manager

Purchase Order: Task Order 002
Chain of Custody: MWHSV20070515_01
Enclosures

problem solved

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Case Narrative

Case Narrative
for
Boeing - Santa Susanna Field Laboratory
Work Order: 186133
SDG: 186133

May 29, 2007

Laboratory Identification:

GEL Laboratories LLC
2040 Savage Road
Charleston, South Carolina 29407
(843) 556-8171

Summary:

Sample Receipt

The samples arrived at GEL Laboratories LLC, Charleston, South Carolina on May 16, 2007 for analysis. The samples were delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage.

The laboratory received the following samples:

<u>Laboratory Identification</u>	<u>Sample Description</u>
186133001	BLBS0030AS01
186133002	BLBS0030AS02
186133003	BLBS0055S01
186133004	BLBS0055S02

Items of Note

Boeing - Santa Susanna Field Laboratory Technical Representative was contacted seeking resolution to any analytical and/or receipt issues. Please see the enclosed e-mails.

Case Narrative

Sample analyses were conducted using methodology as outlined in GEL Laboratories, LLC (GEL) Standard Operating Procedures. Any technical or administrative problems during analysis, data review, and reduction are contained in the analytical case narratives in the enclosed data package.

Data Package:

The enclosed data package contains the following sections: Case Narrative, Chain of Custody, Cooler Receipt Checklist, Data Package Qualifier Definitions and data from the following fractions: FID Flame Ionization Detector, General Chemistry, and Semi-Volatile.

I certify that this data package is in compliance with the terms and conditions of the subcontract and task order, both technically and for the completeness, for other than the conditions detailed in the attached case narratives.

Edith M. Heat for

Martha Harrison

Project Manager

RE: TAT Extension due to Memorial Day Holiday

Subject: RE: TAT Extension due to Memorial Day Holiday

From: "Elizabeth Wessling" <elizabeth.wessling@mecx.net>

Date: Tue, 22 May 2007 11:32:01 -0500

To: "Martha Harrison" <Martha.Harrison@gel.com>, "Sarah E VonRaesfeld" <Sarah.E.VonRaesfeld@us.mwhglobal.com>, "Lisa J Tucker" <Lisa.J.Tucker@us.mwhglobal.com>

Yes, of course

Elizabeth A. Wessling
Senior Environmental Chemist

Phone: 720.535.5502

Cell: 303. 881.6816

Fax: 720.535.7555

elizabeth.wessling@mecx.net

MECX, LLC

12269 East Vassar Drive

Aurora, Colorado 80014

www.mecx.net

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-----Original Message-----

From: Martha Harrison [<mailto:Martha.Harrison@gel.com>]

Sent: Tuesday, May 22, 2007 11:17 AM

To: Elizabeth Wessling; Sarah E VonRaesfeld; Lisa J Tucker

Subject: TAT Extension due to Memorial Day Holiday

Elizabeth, Sarah, and Lisa,

Is it acceptable to extend the due dates one working day for all SDGs due on or after Monday, May 28th?

Thanks,
Martha

~~~~~  
Martha Harrison  
Federal Project Manager  
GEL Laboratories, LLC  
2040 Savage Road  
Charleston, SC 29407  
(843) 769-7376 x4475  
(843) 769-7384 Direct Line  
(843) 766-1178 Fax  
[Martha.Harrison@gel.com](mailto:Martha.Harrison@gel.com)

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RE: TAT Extension due to Memorial Day Holiday

and destroy  
the contents that do not pertain to your business with The GEL Group,  
INC.

Re: TAT Extension due to Memorial Day Holiday

**Subject:** Re: TAT Extension due to Memorial Day Holiday  
**From:** Lisa J Tucker <Lisa.J.Tucker@us.mwhglobal.com>  
**Date:** Tue, 22 May 2007 09:36:45 -0700  
**To:** Martha Harrison <Martha.Harrison@gel.com>  
**CC:** Elizabeth Wessling <elizabeth.wessling@mecx.net>, Sarah E VonRaesfeld <Sarah.E.VonRaesfeld@us.mwhglobal.com>

As long as Liz is fine with the schedule I'm good too.

**Martha Harrison**  
<Martha.Harrison@gel.com>

05/22/2007 09:16 AM

**To:** Elizabeth Wessling <elizabeth.wessling@mecx.net>, Sarah E VonRaesfeld <Sarah.E.VonRaesfeld@us.mwhglobal.com>, Lisa J Tucker <Lisa.J.Tucker@us.mwhglobal.com>  
**cc:**  
**Subject:** TAT Extension due to Memorial Day Holiday

Elizabeth, Sarah, and Lisa,

Is it acceptable to extend the due dates one working day for all SDGs due on or after Monday, May 28th?

Thanks,  
Martha

-----  
Martha Harrison  
Federal Project Manager  
GEL Laboratories, LLC  
2040 Savage Road  
Charleston, SC 29407  
(843) 769-7376 x4475  
(843) 769-7384 Direct Line  
(843) 766-1178 Fax  
Martha.Harrison@gel.com

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Re: TAT Extension due to Memorial Day Holiday

**Subject:** Re: TAT Extension due to Memorial Day Holiday  
**From:** Sarah E VonRaesfeld <Sarah.E.VonRaesfeld@us.mwhglobal.com>  
**Date:** Tue, 22 May 2007 09:22:03 -0700  
**To:** Martha Harrison <Martha.Harrison@gel.com>  
**CC:** Elizabeth Wessling <elizabeth.wessling@mecx.net>, Lisa J Tucker <Lisa.J.Tucker@us.mwhglobal.com>

It is fine for my data.



**Martha Harrison** <Martha.Harrison@gel.com>

05/22/2007 09:16 AM

To Elizabeth Wessling <elizabeth.wessling@mecx.net>, Sarah E VonRaesfeld <Sarah.E.VonRaesfeld@us.mwhglobal.com>, Lisa J Tucker <Lisa.J.Tucker@us.mwhglobal.com>

cc

Subject TAT Extension due to Memorial Day Holiday

Elizabeth, Sarah, and Lisa,

Is it acceptable to extend the due dates one working day for all SDGs due on or after Monday, May 28th?

Thanks,  
Martha

~~~~~  
Martha Harrison
Federal Project Manager
GEL Laboratories, LLC
2040 Savage Road
Charleston, SC 29407
(843) 769-7376 x4475
(843) 769-7384 Direct Line
(843) 766-1178 Fax
Martha.Harrison@gel.com

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SAMPLE RECEIPT & REVIEW FORM

PM use only

Client: <u>SSFL</u>	SDG/ARCO/Work Order: <u>186133</u>
Date Received: <u>5/16/07</u>	PM(A) Review (ensure non-conforming items are resolved prior to signing): <u>MWT</u>
Received By: <u>Ben Fuley</u>	

Sample Receipt Criteria	Yes	NA	No	Comments/Qualifiers (Required for Non-Conforming Items)
1 Shipping containers received intact and sealed?	<input checked="" type="checkbox"/>			Circle Applicable: seals broken damaged container leaking container other (describe)
2 Samples requiring cold preservation within (4 +/- 2 C)? Record preservation method.	<input checked="" type="checkbox"/>			Circle Coolant # <u>ice bags</u> <u>blue ice</u> dry ice none other describe <u>3°C</u>
3 Chain of custody documents included with shipment?	<input checked="" type="checkbox"/>			
4 Sample containers intact and sealed?	<input checked="" type="checkbox"/>			Circle Applicable: seals broken damaged container leaking container other (describe)
5 Samples requiring chemical preservation at proper pH?	<input checked="" type="checkbox"/>			Sample ID's, containers affected and observed pH:
6 VOA vials free of headspace (defined as < 6mm bubble)?	<input checked="" type="checkbox"/>			Sample ID's and containers affected:
7 Are Encore containers present? (If yes, immediately deliver to VOA laboratory)	<input checked="" type="checkbox"/>			<u>Encores set to freezer immediately after receipt. 4/5/16/07</u>
8 Samples received within holding time?	<input checked="" type="checkbox"/>			ID's and tests affected:
9 Sample ID's on COC match ID's on bottles?	<input checked="" type="checkbox"/>			Sample ID's and containers affected:
10 Date & time on COC match date & time on bottles?	<input checked="" type="checkbox"/>			Sample ID's affected:
11 Number of containers received match number indicated on COC?	<input checked="" type="checkbox"/>			Sample ID's affected:
12 COC form is properly signed in relinquished/received sections?				
14 Air Bill Tracking #'s, & Additional Comments				<u>Fed Ex # 8612 6056 8314</u>

Suspected Hazard Information	Non-Regulated	Regulated	High Level	RSO RAD Receipt # _____ *If > x2 area background is observed on samples identified as "non-regulated/non-radioactive", contact the Radiation Safety group for further investigation.
A Radiological Classification?	<input checked="" type="checkbox"/>			Maximum Counts Observed*: <u>CPM 60</u>
B PCB Regulated?	<input checked="" type="checkbox"/>			
C Shipped as DOT Hazardous Material? If yes, contact Waste Manager or ESH Manager.	<input checked="" type="checkbox"/>			Hazard Class Shipped: UN#:
D Regulated as a Foreign Soil?	<input checked="" type="checkbox"/>			
PM (or PMA) review of Hazard classification: <u>MWT</u> Initials <u>05/16/07</u> Date:				

LABORATORY TASK ORDER (LTO) FORM

INSTRUCTIONS: To be completed by Environmental Contractor & Emailed to Laboratory Project Manager, CH2M HILL (boeingdms@ch2m.com) & the Data Validator at Least 48 hrs prior to need for sample containers. Project Analytical Laboratory will confirm receipt via E-Mail.

Event Name: Group 8 May 2007

Start: 5/14/2007 End: _____

LTO DATE:

LTO NUMBER:

Consultant Name: MWH
 Address: 9444 Farnham Suite 300
San Diego, CA 92123

Contract Laboratory: GEL
 Address: 2040 Savage Rd.
Charleston, SC 29407

Contact Name: Lisa Tucker
 Phone Number: 858-751-1240
 Fax Number: 858-751-1204
 E-mail Address: Lisa.Tucker@mwhglobal.com

Lab Contact Name: Martha Harrison
 Phone Number: 843-769-7384
 Fax Number: 843-766-1178
 E-mail Address: Martha.Harrison@gel.com

SAMPLE CONTAINER ORDER FORM

Date Required: _____

Requested Analyses: (Specify # of Samples)

Date Sample Pickup: NA

Ship Containers To:
 Project Site _____ (enter "X")
 Consultant Office _____ (enter "X")
 Other Location (specify in comments) _____ (enter "X")

	Water	Soil	Contingent
EPA 8015M (GRO)			
EPA 8015M (DRO)			
EPA 8015M (JET FUEL)			
EPA 8015M (CC)	3	17	14
EPA 8260B (VOC)	5	9	13
EPA 8270C SIM (SVOC)	1	17	22
EPA 8310 (PAH)			
EPA 8082 (PCB)	3	21	25
EPA TO-15 VOCs (Scan)			
EPA TO-15 VOCs (SIM)			
CCR Title 22 Metals	4	16	29
Total Chromium			
EPA 7196A (Hexavalent Chromium)	0	0	10
Total Lead			
Wet Chemistry (pH, etc.)			
General Minerals			
Fish Bioassay			
EPA TO-14 (VOCs)			

Container Information:
 Trip Blank (VOA only) No (Yes/No)
 Temp Blank (VOA Only) No (Yes/No)
 DI Water Required? No (Yes/No)
 MS/MSD Extra Bottles? No (Yes/No)

Sample Matrix:
 Soil X (select all applicable)
 Water X (select all applicable)
 Vapor _____ (select all applicable)

Est. Total # of Samples: 115 Est. Total # of EDDs 15

LABORATORY REPORTING REQUIREMENTS

Project TAT:
 Normal: X (10 Business days)
 RUSH: 5 day (Specify- 24 / 48 / 72HRS)
 Other : _____ (Specify # of Days)
 Report Due Date: _____

Laboratory Results/Reports Deliverables:
 Draft Results Fax?: _____ (Yes/No)
 Draft Results E-mail?: Yes (Yes/No)
 Specify Fax/E-mail Contact Name, #, E-mail Address: Lisa.Tucker@mwhglobal.com
 Send Original Reports To:
 Project Site _____ (enter "X")
 Consultant Office _____ (enter "X")
 Other Location (specify in comments) X (enter "X")
 # of Copies Reports Req.: 1

Special Reporting Requirements:
 Contingent Analysis? Yes (Yes/No)
 TIC (VOC) Required? Yes (Yes/No)
 TIC (SVOC) Required? Yes (Yes/No)
 Data Validation Pckge.: Tier III (Boeing Tier I, II or III)

SPECIAL INSTRUCTIONS/LTO NOTES

1. Contingent samples for SVOCs, PCBs, and TPH will be extracted and then placed on hold. Encores will be extruded and then frozen.
2. Hardcopy data will be sent to Patti Meeks at MECX 12269 East Vassar Dr. Aurora. CO 80014
3. Hardcopy result and EDDs on 10 day TAT unless specified otherwise

CONFIRMATION OF TRANSMITTAL & RECEIPT

LTO Sent By:
 Name: Lisa Tucker
 Date: 05/14/07

LTO Received By-
 Name: _____
 Date: _____

LABORATORY TASK ORDER (LTO) FORM (PAGE 2)

ADDITIONAL REQUIRED ANALYSES

LTO DATE:

LTO NUMBER:

Consultant Name: MWH
Address: 9444 Farnham Suite 300
San Diego, CA 92123

Contract Laboratory: GEL
Address: 2040 Savage Rd.
Charleston, SC 29407

Contact Name: Lisa Tucker
Phone Number: 858-751-1240
Fax Number: 858-751-1204
E-mail Address: Lisa.Tucker@mwhglobal.com

Lab Contact Name: Martha Harrison
Phone Number: 843-769-7384
Fax Number: 843-766-1178
E-mail Address: Martha.Harrison@gel.com

SAMPLE CONTAINER ORDER FORM (CONTINUED)

Requested Analyses: (Specify # of Samples)

	Water	Soil	Contingent
1613B (Dioxins)	3	5	16
% Solids (160.3)	0	71	28
Fluoride (300.0)	4	49	24
SVOCs w. TICs (8270C)	3	35	17
Aluminum (6010B)	1	12	0
Boron (6010B)	1	8	6
Mercury (7470A/7471A)	2	16	30
Sodium (6010B)	1	12	0
Zirconium (6010B)	0	14	0
Perchlorate (314.0 DI WET)	0	0	8
Terphenyls (8015B)	4	47	24

12

Data Qualifiers Definitions

Data Review Qualifier Definitions

Qualifier	Explanation
*	A quality control analyte recovery is outside of specified acceptance criteria
**	Analyte is a surrogate compound
<	Result is less than value reported
>	Result is greater than value reported
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL
A	The TIC is a suspected aldol-condensation product
B	Target analyte was detected in the associated blank
B	Metals-Either presence of analyte detected in the associated blank, or MDL/IDL < sample value < PQL
BD	Results are either below the MDC or tracer recovery is low
C	Analyte has been confirmed by GC/MS analysis
D	Results are reported from a diluted aliquot of the sample
d	5-day BOD-The 2:1 depletion requirement was not met for this sample
E	Organics-Concentration of the target analyte exceeds the instrument calibration range
E	Metals-%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
H	Analytical holding time was exceeded
h	Preparation or preservation holding time was exceeded
J	Value is estimated
N	Metals-The Matrix spike sample recovery is not within specified control limits
N	Organics-Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A	Spike recovery limits do not apply. Sample concentration exceeds spike concentration by 4X or more
ND	Analyte concentration is not detected above the reporting limit
UI	Gamma Spectroscopy-Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test-Particulates passed through the filter, however no free liquids were observed.

Laboratory Certifications

List of current GEL Certifications as of 23 May 2007

State	Certification
Alaska	UST-062
Arizona	AZ0668
Arkansas	88-0651
CLIA	42D0911-46
California	N/A
Colorado	GenEngLabs
Connecticut	PH-0169
Dept. of Navy	NFESC 413
EPA	WG-15J
Florida/NELAP	E87156
Georgia	E87156 (FL/NELAP)
Hawaii	N/A
Idaho	N/A
Illinois	200029
Indiana	C-SC-01
Kansas	E-10332
Kentucky	90129
Louisiana	03046
Maryland	270
Massachusetts	M-SC012
Michigan	9903
Nevada	SC12
New Jersey	SC002
New Mexico	FL NELAP E87156
New York	11501
North Carolina	233
North Carolina Drinking W	45709
North Dakota	R-158
Oklahoma	9904
Pennsylvania	68-00485
South Carolina	10120001/10585001/10120002
Tennessee	02934
Texas NELAP	T104704235-06-TX
U.S. Dept. of Agriculture	S-52597
US Army Corps of Engineer	N/A
Utah	8037697376 GEL
Vermont	VT87156
Virginia	00151
Washington	C1641

Chain of Custody and Supporting Documentation

186153



Customer Information		Project Information				Project Information		Project Information	
Site:	SSFL	Client Name:	DOE	Collector:	Shelby Valenzuela	Boeing PM:			
Company:	MWH	Sampling Event:	Group 8 Hastings Data Gaps-Sc	Contact #:					
Report to:	Lisa Tucker	Project Number:	1891307-B056	Requested Analyses		Instructions/TAT			
Address:	9444 Farham Street Suite 300 San Diego CA 92123	Project Manager:							
Email:	lisa.tucker@mwhglobal.com	PM Phone #:							
	boeingdms@ch2m.com	Field Contact:							
		Field Contact #:							
		Lab Name:	GEL Laboratories, LLC						
		Lab Contact:	Martha Harrison						
		Lab Address:	2040 Savage Road Charleston, SC 29407						
		Lab Phone:	(843) 556-8171						
Sample Name	Matrix	Date	Time	No. of Containers					Comments
BLBS0030AS01	Soil	5/15/2007	9:40	1					
BLBS0030AS02	Soil	5/15/2007	9:50	1					
BLBS0055S01	Soil	5/15/2007	10:30	1					
BLBS0055S02	Soil	5/15/2007	10:45	1					
					% Solids - Soil	5	5	5	
					Fluoride by 300 - Soil	5	5	5	
					SVOC 8270C Soil Full w/TICs	5	5	5	
					TPH 8015B Soil Terphenyls	5	5	5	

Legend:
Numerical values for analyses equate to turn around time in days
H - Hold
EH - Extract_Hold

1. Relinquished by:	Date:	2. Received by:	Date:	3. Relinquished by:	Date:	4. Received by:	Date:
<i>CS/ Farao</i>	5/15/2007	<i>Bentley</i>	5/16/07				
Company:	Time:	Company:	Time:	Company:	Time:	Company:	Time:
MWH	10:30	GEL	9:30				
Comments:	<input type="checkbox"/> Geotracker EDF <input checked="" type="checkbox"/> Data Validation Package Level IV						

9

Case Narrative

**Case Narrative
for
Boeing - Santa Susanna Field Laboratory
Work Order: 183627 and 183629**

April 13, 2007

Laboratory Identification:

GEL Laboratories LLC
2040 Savage Road
Charleston, South Carolina 29407
(843) 556-8171

Summary:

Sample Receipt

The samples arrived at GEL Laboratories LLC, Charleston, South Carolina on April 04, 2007 for analysis. The samples were delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage.

The laboratory received the following samples:

<u>Laboratory Identification</u>	<u>Sample Description</u>
183627001	BHBS0007D01
183627002	BHBS0007S01
183627003	BHBS0008S01
183627004	BHBS0006S01
183627005	BLBS0040S01
183627006	BLBS0048S01
183627007	BLBS0047S01
183627008	BLBS0041S01
183627009	BLBS0039S01
183627010	FSBS0079S01
183627011	FSBS0079S02
183627012	FSBS0081S01
183627013	FSBS0080S01
183627014	FSBS0072D01
183627015	FSBS0072S01
183629001	FSQW0003F01
183629002	FSQW0003E01
183629003	FSBS0021AS01
183629004	FSBS0026AD01
183629005	FSBS0026AS01

Items of Note

There are no items to note.

Case Narrative

Sample analyses were conducted using methodology as outlined in GEL Laboratories, LLC (GEL) Standard Operating Procedures. Any technical or administrative problems during analysis, data review, and reduction are contained in the analytical case narratives in the enclosed data package.

Data Package:

The enclosed data package contains the following sections: Case Narrative, Chain of Custody, Cooler Receipt Checklist, Data Package Qualifier Definitions and data from the following fractions: General Chemistry, Metals, and Project Management.

I certify that this data package is in compliance with the terms and conditions of the subcontract and task order, both technically and for the completeness, for other than the conditions detailed in the attached case narratives.



Martha Harrison

Project Manager

Subject: RE: [Fwd: MWH samples for Dioxin analysis]
From: "Elizabeth Wessling" <elizabeth.wessling@mecx.net>
Date: Tue, 3 Apr 2007 13:58:16 -0500
To: "Martha Harrison" <Martha.Harrison@gel.com>
CC: "Nancy Mattern" <nancy.mattern@gel.com>, "Ben Finley" <ben01223@gel.com>

The Group 8 samples can be performed under the Group 8 Supplemental SOW. The organics, for which we originally looked to GEL for support has been delayed a bit. That is the Group 4 Step-outs. The LTO accurately reflects the scoped work except for the contingency samples which are unlikely to be sampled.

Elizabeth A. Wessling
Senior Environmental Chemist

Phone: 720.535.5502

Cell: 303. 881.6816

Fax: 720.535.7555

elizabeth.wessling@mecx.net

MECX, LLC

12269 East Vassar Drive

Aurora, Colorado 80014

www.mecx.net

A Service-Disabled Veteran-Owned Small Business

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-----Original Message-----

From: Martha Harrison [<mailto:Martha.Harrison@gel.com>]
Sent: Tuesday, April 03, 2007 12:59 PM
To: Elizabeth Wessling
Cc: Nancy Mattern; Ben Finley
Subject: [Fwd: MWH samples for Dioxin analysis]

Elizabeth,

I noticed on the LTO and the attached chain of custody forms that the requested Organics tests are missing. Should we expect samples to be collected for PCBs, PAHs, and DRO?

Also, is the supplemental SOW for Group 8 applicable to these samples or is there a separate SOW?

Thanks,
Martha

~~~~~  
Martha Harrison  
Federal Project Manager  
GEL Laboratories, LLC  
2040 Savage Road  
Charleston, SC 29407  
(843) 763-7376 x4475  
(843) 769-7384 Direct Line  
(843) 766-1178 Fax  
[Martha.Harrison@gel.com](mailto:Martha.Harrison@gel.com)

----- Original Message -----

Subject: MWH samples for Dioxin analysis  
Date: Tue, 3 Apr 2007 08:59:53 -0800  
From: Edmund M Sarao <Edmund.M.Sarao@us.mwhglobal.com>  
To: Chris.cornwell@egs.com  
CC: [Merissa.Harrison@gel.com](mailto:Merissa.Harrison@gel.com), [Lisa.Tucker@mwhglobal.com](mailto:Lisa.Tucker@mwhglobal.com),  
[elisabeth.wessling@mecc.net](mailto:elisabeth.wessling@mecc.net)

Hi Chris,

I have attached pdf copy of the "Chain of Custody" (COC) for our samples that are enroute to your lab via Fedex (Tracking # 853162486632). The packaged coolers shipped today, 04/03/07, contained only the samples in the COC with requested dioxin analysis.

Please let me know if there are any questions.

Thanks,  
--ed

The information contained in this message is confidential and is intended only for the use of the individual or firm of record. If you are not the intended recipient and have received this message in error, you are asked not to copy or distribute any of the pages that follow. Please notify the sender immediately by telephone or email if you have received this communication in error and destroy the contents that do not pertain to your business with The GEL Group, INC.

**Subject:** SSFL Sample Receipt  
**From:** Martha Harrison <Martha.Harrison@gel.com>  
**Date:** Wed, 04 Apr 2007 15:00:56 -0400  
**To:** Elizabeth Wessling <elizabeth.wessling@mecx.net>  
**CC:** Ben Finley <ben01223@gel.com>, Nancy Mattern <nancy.mattern@gel.com>

Elizabeth,

The Dioxin samples were shipped directly to SGS/Paradigm. The number of containers on COC# MWHSV20070402\_01 and MWHSV20070402\_00 have not been updated to show the bottles that were sent to the subcontract lab. The lab did not receive containers for the following soil sample IDs:  
BHBS0007D01 (% Solids, Dioxin)  
BHBS0007S01 (% Solids, Dioxin)  
BHBS0008S01 (% Solids, Dioxin)  
BHBS0006S01 (% Solids, Dioxin)  
FSBS00079S01 (% Solids, Dioxin)  
FSBS00079S02 (% Solids, Dioxin; Comment states "Hold all analysis. Dioxin to be subbed out.")

The lab received two containers for the following water sample IDs:  
FSQW0003F01  
FSQW0003E01

Thanks,  
Martha

~~~~~  
Martha Harrison
Federal Project Manager
GEL Laboratories, LLC
2040 Savage Road
Charleston, SC 29407
(843) 763-7376 x4475
(843) 769-7384 Direct Line
(843) 766-1178 Fax
Martha.Harrison@gel.com

Chain of Custody and Supporting Documentation

1836275

CHAIN OF CUSTODY RECORD

COC #: MWHSV20070402_01
Page: 1 of 1



Customer Information			Project Information			Project Information			
Site:	SSFL	Client Name:	DOE	Collector:	Shelby Valenzuela	Boeing PM:			
Company:	MWH	Sampling Event:	Group 8 Step-out	Contact #:					
Report to:	Lisa Tucker	Project Number:	1891264	Requested Analyses					Instructions/TAT
Address:	9444 Farnham Street Suite 300 San Diego CA 92123	Project Manager:	Diana Buchanan (626) 568-6897						
Email:	boeingdms@ch2m.com	Field Contact:							
	Lisa.Tucker@mwhglobal.com	Field Contact #:							
		Lab Name:	GEL Laboratories, LLC						
		Lab Contact:	Martha Harrison						
		Lab Address:	PO Box 30712						
		Lab Phone:	Charleston, SC 29407						
			(843) 556-8171						
Sample Name	Matrix	Date	Time	No. of Containers				Comments	
BHBS0007D01	Soil	4/2/2007	9:40	1				Dioxin to be subbed-out.	
BHBS0007S01	Soil	4/2/2007	9:40	1				Dioxin to be subbed-out.	
BHBS0008S01	Soil	4/2/2007	10:10	1				Dioxin to be subbed-out.	
BHBS0006S01	Soil	4/2/2007	11:00	1				Dioxin to be subbed-out.	
BLBS0040S01	Soil	4/2/2007	12:35	1					
BLBS0048S01	Soil	4/2/2007	13:20	1					
BLBS0047S01	Soil	4/2/2007	13:30	1					
BLBS0041S01	Soil	4/2/2007	14:25	1					
BLBS0039S01	Soil	4/2/2007	14:45	1					
					% Solids - Soil	10	10		
					Dioxin by 1613B - Soil	10	10		
					Metals 6010B Soil Sodium	10	10		
					pH by SW9045C - Soil	10	10		

1. Relinquished by:	Date:	4-3-07	2. Received by:	Date:	4-4-07	3. Relinquished by:	Date:		4. Received by:	Date:	
<i>[Signature]</i>			<i>Twe Sk</i>								
Company:	Time:	0900	Company:	Time:	10:00	Company:	Time:		Company:	Time:	
MWH			GEL								

Comments: All requested Dioxin are to be analyzed at SGS Environmental Services, Inc. Geotracker EDF Data Validation Package Level IV

[Handwritten mark]

1836275
183627W
MWH SV20070402_00
Page: 1 of 2

CHAIN OF CUSTODY RECORD

COC #:



Customer Information			Project Information			Project Information			
Site:	SSFL	Client Name:	DOE	Collector:	Shelby Valenzuela	Boeing PM:			
Company:	MWH	Sampling Event:	Group 8 Step-out	Contact #:					
Report to:	Lisa Tucker	Project Number:	1891264	Requested Analyses					Instructions/TAT
Address:	9444 Farnham Street Suite 300 San Diego CA 92123	Project Manager:	Diana Buchanan (626) 568-8897						Legend: Numerical values for analyses equate to turn around time in days H - Hold EH - Extract, Hold
Email:	boeingdms@ch2m.com	PM Phone #:							
	Lisa.Tucker@mwhglobal.com	Field Contact:							
		Field Contact #:							
		Lab Name:	GEL Laboratories, LLC						
		Lab Contact:	Martha Harrison						
		Lab Address:	PO Box 30712						
		Lab Phone:	Charleston, SC 29407						
			(843) 556-8171						
Sample Name	Matrix	Date	Time	No. of Containers				Comments	
FSBS0079S01	Soil	4/2/2007	10:18	1				Dioxin to be subbed-out.	
FSBS0079S02	Soil	4/2/2007	10:58	1				Hold all analysis. Dioxin to be subbed-out.	
FSBS0081S01	Soil	4/2/2007	12:06	1	10				
FSBS0080S01	Soil	4/2/2007	12:21	1	10				
FSBS0072D01	Soil	4/2/2007	13:16	1	10				
FSBS0072S01	Soil	4/2/2007	13:16	1	10				
FSBS0021AS01	Soil	4/2/2007	14:03	1	10				
FSBS0026AD01	Soil	4/2/2007	14:12	1	10				
FSBS0026AS01	Soil	4/2/2007	14:12	1	10				
FSQM0003F01	Water	4/2/2007	15:02	4	10	10	10	Dioxin to be subbed-out.	
1. Relinquished by:		Date:	2. Received by:		Date:	3. Relinquished by:		Date:	
Ej Sarau		4-03-07	Tom Soto		4-4-07				
Company:	MWH	Time:	0900	Company:	GEL	Time:	10:00	Company:	
4. Received by:		Date:	Company:		Time:				

Geotracker EDF
Data Validation Package Level IV

Comments: All requested Dioxin are to be analyzed at SGS Environmental Services, Inc.



Centrum Analytical Laboratories, Inc.

CERTIFIED HAZARDOUS WASTE TESTING LABORATORY • CHEMICAL AND BIOLOGICAL ANALYSES

Client: Ogden
5510 Morehouse Drive
San Diego, CA 92121

Date Sampled: 09/28/99
Date Received: 09/29/99
Job Number: 15471

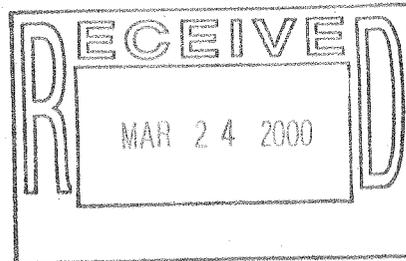
Project: Rocketdyne

CASE NARRATIVE

The following information applies to samples which were received on 09/29/99 :

The samples were received at the laboratory chilled. The sample containers and sample cooler custody seal were intact.

Unless otherwise noted below, the Quality Control acceptance criteria were met for all samples for every analysis requested.



Report approved by:

Robert R. Clark, Ph.D.
Laboratory Director

ELAP # 1184

- DL : Detection Limit -- The lowest level at which the compound can reliably be detected under normal laboratory conditions.
- ND : Not Detected -- The compound was analyzed for but was not found to be present at or above the detection limit.
- NA : Not Analyzed -- Per client request, this analyte was not on the list of compounds to be analyzed for.

CEIMIC
CORPORATION

(Formerly Analytical Technologies, Inc. - San Diego)

T200MT4

Ceimic I.D.: 605179

June 04, 1996

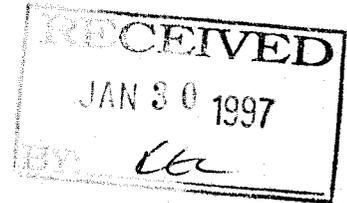
OGDEN ENVIRONMENTAL SERVICES
630 NORTH FLORENCE
BURBANK, CA 91505

Project Name: ROCKETDYNE
Project # : 313150002

Attention: DIXIE HAMBRICK

Ceimic Corporation has received the following sample(s):

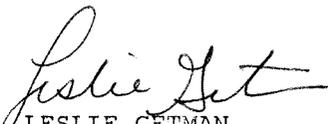
<u>Date Received</u>	<u>Quantity</u>	<u>Matrix</u>
May 23, 1996	20	SOIL



The sample(s) were analyzed with EPA methodology or equivalent methods as specified in the enclosed analytical schedule. The symbol for "less than" indicates a value below the reportable detection limit. If any flags appear next to the analytical data in this report, please see the attached list of flag definitions.

The results of these analyses and the quality control data are enclosed. Please note that the Sample Condition Upon Receipt Checklist is included at the end of this report.

Electronic Data Deliverables (EDDs) for the SPLP extracts reported metals results in ug/L due to limitations of our software producing the agency standard deliverables. The hard copy results are in mg/L.


LESLIE GETMAN
SENIOR PROJECT MANAGER


MIGUEL MUZZIO
LABORATORY MANAGER

cc: Don Barrie
Ogden Environmental and Energy Services
5510 Morehouse Drive
San Diego CA 92121

PROJECT MANAGER: Dixie Hambrick
COMPANY: Ogden
ADDRESS: 5510 Morehouse Dr
San Diego, CA 92121
BILL TO: Same as Above
COMPANY:
ADDRESS:
SAMPLERS: (Signature) Scott Hambrick (619) 458-9144
 PHONE NUMBER

SAMPLE ID	SAMPLE DATE	TIME	MATRIX	LAB ID
APSS03501 ✓	05/16/01	18:10	Soil	01
BASS03501 ✓	05/16/01	08:50		02
BGSS03501 ✓		08:55		03
BGSS03502 ✓		09:05		04
ELSS01501 ✓		09:10		05
CFSS01501 ✓		09:15		06
BGSS04501 ✓		10:35		07
SNSS01501 ✓		11:45		08
PASS03501 ✓		12:40		09

Recommended Quantity and Preservative (Provide triple volume on QC Samples)

Sample Type	Volume	Preservative	Number of Containers
Petroleum Hydrocarbons 418.1	1L (H ₂ SO ₄)/100g		
Oil and Grease 413.2	1L (H ₂ SO ₄)/100g		
Gasoline (MOD 8015/DOHS)	4 oz (HCl)/50g		
Diesel (MOD 8015/DOHS)	4 oz (HCl)/50g		
Gasoline/BTEX (MOD 8015/8020)	2X40ml (HCl)/50g		
Gasoline: 2ppm (water), 50ppm (Soil)			
MOD 8015 (Unknown)	4 oz (HCl)/50g		
BTEX (8020)	2X40ml (HCl)/50g		
Chlorinated Hydrocarbons (8010)	2X40ml (HCl)/50g		
Aromatic Hydrocarbons (8020)	2X40ml (HCl)/50g		
Chlorinated/Aromatic Hydrocarbons (8010/8020)	2X40ml (HCl)/50g		
Organic Pb	500ml/50g		
Pesticides/PCB (8080)	1L/50g		
Base/NEU/Acid Cmpds G/C/MS (8270)	1L/100g		
Volatile Cmpds G/C/MS (8240)	2X40ml (HCl)/100g		
Polynuclear Aromatic (8310)	1L/100g		
CCR Metals	500ml/100g		
Priority Pollutant Metals	500ml/100g		

PROJECT INFORMATION

PROJECT NUMBER: 31315002
PROJECT NAME:
PURCHASE ORDER NUMBER:
VIA: Boat
TAT: 24HR 48HRS 1WK 2WK
SAMPLE DISPOSAL INSTRUCTIONS
 Disposal @ \$5.00 each Return Pickup

SAMPLE RECEIPT

TOTAL NUMBER OF CONTAINERS: 09
CHAIN OF CUSTODY SEALS Y/N/A: N/A
SEALS INTACT? Y/N/A: N/A
RECEIVED GOOD COND./COLD: YES
LAB NUMBER: 60979

Comments: TEMP. 6.8°C

RELINQUISHED BY: 1.
 Signature: _____ Time: _____
 Printed Name: _____ Date: _____
 Company: _____

RELINQUISHED BY: 2.
 Signature: _____ Time: _____
 Printed Name: _____ Date: _____
 Company: _____

RELINQUISHED BY: 3.
 Signature: _____ Time: _____
 Printed Name: _____ Date: _____
 Company: _____

PROJECT MANAGER: Dixie Hrabick
COMPANY: Oaden
ADDRESS: 5510 Morehouse Dr
San Diego, CA 92121
BILL TO: Same as Above
COMPANY:
ADDRESS:
SAMPLERS: (Signature) Carolee Pleasants (619) 458-9094
 PHONE NUMBER _____

Recommended Quantity and Preservative (Provide triple volume on QC Samples)		Number of Containers
1L (H ₂ SO ₄)/100g	Petroleum Hydrocarbons 418.1	
1L (H ₂ SO ₄)/100g	Oil and Grease 413.2	
4 oz (HCl)/50g	Gasoline (MOD 8015/DOHS)	
4 oz (HCl)/50g	Diesel (MOD 8015/DOHS)	
2X40ml (HCl)/50g	Gasoline/BTXE (MOD 8015/8020) Maximum Contamination Level of Gasoline: 2ppm (water), 50ppm (Soil)	
4 oz (HCl)/50g	MOD 8015 (Unknown)	
2X40ml (HCl)/50g	BTXE (8020)	
2X40ml (HCl)/50g	Chlorinated Hydrocarbons (8010)	
2X40ml (HCl)/50g	Aromatic Hydrocarbons (8020)	
2X40ml (HCl)/50g	Chlorinated/Aromatic Hydrocarbons (8010/8020)	
500ml/50g	Organic Pb	
1L/50g	Pesticides/PCB (8080)	
1L/100g	Base/NEU/Acid Cmpds GC/MS (8270)	
2X40ml (HCl)/100g	Volatile Cmpds GC/MS (8240)	
1L/100g	Polynuclear Aromatic (8310)	
500ml/100g	CCR Metals	
500ml/100g	Priority Pollutant Metals	

SAMPLE ID	SAMPLE DATE	TIME	MATRIX	LAB ID
BASS02S02 ✓	5/17/06	13:00	Soil	10
RASS01S01 ✓	5/17/06	13:40		11
ECSS01S01 ✓	5/17/06	14:10		12
ECSS01S02 ✓	5/17/06	14:25		13
ECSS02S01 ✓	5/17/06	14:40		14
ECSS02S01 ✓	5/17/06	14:50		15
ECSS02S02 ✓	5/17/06	15:10		16
ECSS01S01 ✓	5/17/06	16:25		17
ECSS01S02 ✓	5/17/06	16:35		18

PROJECT INFORMATION

PROJECT NUMBER: 33150002
 PROJECT NAME: Rocketdune
 PURCHASE ORDER NUMBER:
 VIA: Bulk
 TAT: 24HR 48HRS 72HRS 1WK 2WK
SAMPLE DISPOSAL INSTRUCTIONS
 Disposal @ \$5.00 each Return Pickup
 Comments: *Time on jar is incorrect!!
 MW. 2.80

RELINQUISHED BY:	1.	2.	3.
Signature:	Signature:	Signature:	Signature:
Printed Name:	Printed Name:	Printed Name:	Printed Name:
Company:	Company:	Company:	Company:
Time:	Time:	Time:	Time:
Date:	Date:	Date:	Date:

PROJECT MANAGER: Dixie Hambrick
COMPANY: Odeco
ADDRESS: 5510 Morehouse Dr
San Diego, CA 92121
BILL TO: Same As Above
COMPANY:
ADDRESS:

SAMPLERS: (Signature) _____
PHONE NUMBER (619) 458-9004

SAMPLE ID	SAMPLE DATE	TIME	MATRIX	LAB ID
B65505501	02/16/03	17:05	Sol	19
B65506501	02/16/03	17:35	↓	20

Recommended Quantity and Preservative (Provide triple volume on QC Samples)		Number of Containers
1L (H ₂ SO ₄)/100g	Petroleum Hydrocarbons 418.1	
1L (H ₂ SO ₄)/100g	Oil and Grease 413.2	
4 oz (HCl)/50g	Gasoline (MOD 8015/DHHS)	
4 oz (HCl)/50g	Diesel (MOD 8015/DHHS)	
2X40ml (HCl)/50g	Gasoline/BTEX (MOD 8015/8020)	
2X40ml (HCl)/50g	Maximum Contamination Level of Gasoline: 2ppm (water), 50ppm (Soil)	
4 oz (HCl)/50g	MOD 8015 (Unknown)	
2X40ml (HCl)/50g	BTEX (8020)	
2X40ml (HCl)/50g	Chlorinated Hydrocarbons (8010)	
2X40ml (HCl)/50g	Aromatic Hydrocarbons (8020)	
2X40ml (HCl)/50g	Chlorinated/Aromatic Hydrocarbons (8010/8020)	
500ml/50g	Organic Pb	
1L/50g	Pesticides/PCB (8080)	
1L/100g	Base/NEU/Acid Cmpds G/MS (8270)	
2X40ml (HCl)/100g	Volatile Cmpds G/MS (8240)	
1L/100g	Polynuclear Aromatic (8310)	
500ml/100g	CCR Metals	
500ml/100g	Priority Pollutant Metals	

PROJECT INFORMATION	SAMPLE RECEIPT
PROJECT NUMBER: 3117-5003	TOTAL NUMBER OF CONTAINERS: 02
PROJECT NAME: Bactel-dyne	CHAIN OF CUSTODY SEALS Y/N/A: N
PURCHASE ORDER NUMBER:	SEALS INTACT? Y/N/A: N/A
VIA: <input checked="" type="checkbox"/> 24HR <input type="checkbox"/> 48HRS <input type="checkbox"/> 72HRS <input type="checkbox"/> 1WK <input type="checkbox"/> 2WK	RECEIVED GOOD COND./COLD: YES
LAB NUMBER: 605179	
SAMPLE DISPOSAL INSTRUCTIONS	
<input checked="" type="checkbox"/> Disposal @ \$5.00 each <input type="checkbox"/> Return <input type="checkbox"/> Pickup	
Comments:	
TEMP. 28C	

RELINQUISHED BY: 1.	RELINQUISHED BY: 2.	RELINQUISHED BY: 3.
Signature: _____	Signature: _____	Signature: _____
Printed Name: _____	Printed Name: _____	Printed Name: _____
Date: _____	Date: _____	Date: _____
Company: _____	Company: _____	Company: _____
RECEIVED BY: 1.	RECEIVED BY: 2.	RECEIVED BY: 3.
Signature: _____	Signature: _____	Signature: _____
Printed Name: _____	Printed Name: _____	Printed Name: _____
Date: _____	Date: _____	Date: _____
Company: _____	Company: _____	Company: _____

PROJECT MANAGER: Dixie Hambrick
COMPANY: Ogden
ADDRESS: 5510 Morehouse Dr
San Diego, CA 92121
BILL TO: Same as Above
COMPANY:
ADDRESS:

Concepcion Magallon
 SAMPLE # (Signature) 614 148-9044
 PHONE NUMBER

SAMPLE ID	SAMPLE DATE	TIME	MATRIX	LAB ID
PPSS03S01	05/12/06	08:10	Soil	01
BGSS03S01	05/13/06	08:50		02
BGSS03D01		08:55		03
BGSS03S02		09:05		04
ELSS01S01		09:20		05
CFSS01S01		09:55		06
BGSS04S01		10:35		07
SNSS01S01		11:45		08
BASS03S01		12:40		09

Recommended Quantity and Preservative (Provide triple volume on QC Samples)

Sample ID	Parameter	Quantity	Preservative
PPSS03S01	Petroleum Hydrocarbons 418.1	1L (H ₂ SO ₄)/100g	
PPSS03S01	Oil and Grease 413.2	1L (H ₂ SO ₄)/100g	
PPSS03S01	Gasoline (MOD 8015/DHHS)	4 oz (HCl)/50g	
PPSS03S01	Diesel (MOD 8015/DHHS)	4 oz (HCl)/50g	
PPSS03S01	Gasoline/BTEX (MOD 8015/8020)	2X40ml (HCl)/50g	
PPSS03S01	Maximum Contamination Level of Gasoline: 2ppm (water), 50ppm (Soil)		
PPSS03S01	MOD 8015 (Unknown)	4 oz (HCl)/50g	
PPSS03S01	BTEX (8020)	2X40ml (HCl)/50g	
PPSS03S01	Chlorinated Hydrocarbons (8010)	2X40ml (HCl)/50g	
PPSS03S01	Aromatic Hydrocarbons (8020)	2X40ml (HCl)/50g	
PPSS03S01	Chlorinated/Aromatic Hydrocarbons (8010/8020)	2X40ml (HCl)/50g	
PPSS03S01	Organic Pb	500ml/50g	
PPSS03S01	Pesticides/PCB (8080)	1L/50g	
PPSS03S01	Base/NEU/Acid Cmpds GCMs (8270)	1L/100g	
PPSS03S01	Volatile Cmpds GCMs (8240)	2X40ml (HCl)/100g	
PPSS03S01	Polynuclear Aromatic (8310)	1L/100g	
PPSS03S01	CCR Metals	500ml/100g	
PPSS03S01	Priority Pollutant Metals	500ml/100g	
PPSS03S01	Number of Containers	1	

PROJECT INFORMATION

PROJECT NUMBER: 313150002
 PROJECT NAME:
 PURCHASE ORDER NUMBER:
 VIA: Belt
 TAT: 24HR 48HRS 72HRS 1WK 2WK

SAMPLE RECEIPT

TOTAL NUMBER OF CONTAINERS: 09
 CHAIN OF CUSTODY SEALS Y/N/A: N
 SEALS INTACT? Y/N/A: N/A
 RECEIVED GOOD COND./COLD: YES
 LAB NUMBER: 60979

SAMPLE DISPOSAL INSTRUCTIONS

Disposal @ \$5.00 each Return Pickup

Comments: TEMP. 2.80C

RELINQUISHED BY: 1.

Signature: *[Signature]* Time: 11:00
 Printed Name: *[Name]* Date: 5/12/06
 Company: *[Company]*

RECEIVED BY: 1.

Signature: *[Signature]* Time: 11:00
 Printed Name: *[Name]* Date: 5/12/06
 Company: *[Company]*

RELINQUISHED BY: 2.

Signature: *[Signature]* Time: 11:00
 Printed Name: *[Name]* Date: 5/12/06
 Company: *[Company]*

RECEIVED BY: 2.

Signature: *[Signature]* Time: 11:00
 Printed Name: *[Name]* Date: 5/12/06
 Company: *[Company]*

RELINQUISHED BY: 3.

Signature: *[Signature]* Time: 11:00
 Printed Name: *[Name]* Date: 5/12/06
 Company: *[Company]*

RECEIVED BY: 3.

Signature: *[Signature]* Time: 11:00
 Printed Name: *[Name]* Date: 5/12/06
 Company: *[Company]*

PROJECT MANAGER: Dixie Hambrick
COMPANY: Ogden
ADDRESS: 5510 Morehouse Dr
San Diego, CA 92121
BILL TO: Same as Above
COMPANY:
ADDRESS:

Carolee Meynard
SAMPLERS (Signature) PHONE NUMBER 619 1458-9044

SAMPLE ID	SAMPLE DATE	TIME	MATRIX	LAB ID
BASS02S02	05/23/96	13:00	Soil	10
RASS01S01		13:40*		11
ECSS01S01		14:10		12
ECSS01S02		14:25		13
ECSS02S01		14:40		14
ECSS02D01		14:50		15
ECSS02S02		15:20		16
BLSS01S0101 02		16:25		17
BLSS02S02		16:35		18

Recommended Quantity and Preservative (Provide triple volume on QC Samples)		Number of Containers	
Petroleum Hydrocarbons 418.1	1L (H ₂ SO ₄)/100g		
Oil and Grease 413.2	1L (H ₂ SO ₄)/100g		
Gasoline (MOD 8015/D0HS)	4 oz (HCl)/50g		
Diesel (MOD 8015/D0HS)	4 oz (HCl)/50g		
Gasoline/BTEX (MOD 8015/8020)	2X40ml (HCl)/50g		
Maximum Contamination Level of Gasoline: 2ppm (water), 50ppm (Soil)			
MOD 8015 (Unknown)	4 oz (HCl)/50g		
BTXE (8020)	2X40ml (HCl)/50g		
Chlorinated Hydrocarbons (8010)	2X40ml (HCl)/50g		
Aromatic Hydrocarbons (8020)	2X40ml (HCl)/50g		
Chlorinated/Aromatic Hydrocarbons (8010/8020)	2X40ml (HCl)/50g		
Organic Pb	500ml/50g		
Pesticides/PCB (8080)	1L/50g		
Base/NEU/Acid Cmpds GC/MS (8270)	1L/100g		
Valiite Cmpds GC/MS (8240)	2X40ml (HCl)/100g		
Polynuclear Aromatic (8310)	1L/100g		
CCR Metals	500ml/100g		
Priority Pollutant Metals	500ml/100g		

PROJECT INFORMATION

PROJECT NUMBER: 313150002
PROJECT NAME: Rocketdyne
PURCHASE ORDER NUMBER:
VIA: 24HR 48HRS 1WK 2WK
TAT: 24HR

SAMPLE RECEIPT

TOTAL NUMBER OF CONTAINERS: 9
CHAIN OF CUSTODY SEALS Y/N: N
SEALS INTACT? Y/N: N/A
RECEIVED GOOD COND./COLD: YES

LAB NUMBER: 605179

SAMPLE DISPOSAL INSTRUCTIONS

Disposal @ \$5.00 each Return Pickup

Comments: *Time on jar is incorrect!!

TEMP. 2.8°C

RELINQUISHED BY: 1.

Signature: *[Signature]* Time: 14:00
Printed Name: *[Name]* Date: 05/23/96
Company: *[Company]*

RECEIVED BY: 1.

Signature: *[Signature]* Time: 14:00
Printed Name: *[Name]* Date: 05/23/96
Company: *[Company]*

RELINQUISHED BY: 2.

Signature: *[Signature]* Time: 14:00
Printed Name: *[Name]* Date: 05/23/96
Company: *[Company]*

RECEIVED BY: 2.

Signature: *[Signature]* Time: 14:00
Printed Name: *[Name]* Date: 05/23/96
Company: *[Company]*

RELINQUISHED BY: 3.

Signature: *[Signature]* Time: 14:00
Printed Name: *[Name]* Date: 05/23/96
Company: *[Company]*

RECEIVED BY: 3.

Signature: *[Signature]* Time: 14:00
Printed Name: *[Name]* Date: 05/23/96
Company: *[Company]*

PROJECT MANAGER: Dixie Hambrick
COMPANY: Oader
ADDRESS: 5550 Morehouse Dr
San Diego, CA 92121
BILL TO: Same As Above
COMPANY:
ADDRESS:
Conrad Muepfer
SAMPLERS (Signature) 619 1458-9044
PHONE NUMBER

SAMPLE ID	SAMPLE DATE	TIME	MATRIX	LAB ID
BGSS05501	05/23/96	17:05	Soil	19
BGSS06501	↓	17:35	↓	20
<i>01 02</i> <i>1 1</i> <i>clean 5/23/96</i>				

Recommended Quantity and Preservative (Provide triple volume on QC Samples)

Sample Type	Volume	Preservative	Number of Containers
Petroleum Hydrocarbons 418.1	1L (H ₂ SO ₄)/100g		1
Oil and Grease 413.2	1L (H ₂ SO ₄)/100g		1
Gasoline (MOD 8015/DHS)	4 oz (HCl)/50g		
Diesel (MOD 8015/DHS)	4 oz (HCl)/50g		
Gasoline/BTXE (MOD 8015/8020)	2X40ml (HCl)/50g		
Maximum Contamination Level of Gasoline/BTXE (MOD 8015/8020)	2X40ml (HCl)/50g		
Gasoline: 2ppm (water), 50ppm (Soil)			
MOD 8015 (Unknown)	4 oz (HCl)/50g		
BTXE (8020)	2X40ml (HCl)/50g		
Chlorinated Hydrocarbons (8010)	2X40ml (HCl)/50g		
Aromatic Hydrocarbons (8020)	2X40ml (HCl)/50g		
Chlorinated/Aromatic Hydrocarbons (8010/8020)	2X40ml (HCl)/50g		
Organic Pb	500ml/50g		
Pesticides/PCB (8080)	1L/50g		
Base/NEU/Acid Cmpds GCMS (8270)	1L/100g		
Volatile Cmpds GCMS (8240)	2X40ml (HCl)/100g		
Polynuclear Aromatic (8310)	1L/100g		
CCR Metals	500ml/100g		
Priority Pollutant Metals	500ml/100g		
<i>EPA 1312</i> <i>Total Metals + AL</i>			

PROJECT INFORMATION

PROJECT NUMBER: 313150003
PROJECT NAME: Rocket Lake
PURCHASE ORDER NUMBER:
VIA: Post
TAT: 24HR 48HRS 72HRS 1WK 2WK
SAMPLE DISPOSAL INSTRUCTIONS
 Disposal @ \$5.00 each Return Pickup

Comments:
TEMP. 28C

SAMPLE RECEIPT

TOTAL NUMBER OF CONTAINERS: 02
CHAIN OF CUSTODY SEALS Y/N/A: N
SEALS INTACT? Y/N/A: N/A
RECEIVED GOOD COND./COLD: YES
LAB NUMBER: 605179

RELINQUISHED BY:	RECEIVED BY:
Signature: <i>[Signature]</i> Printed Name: Conrad Muepfer Company: Oader	Signature: <i>[Signature]</i> Printed Name: Dolly Adams Company: CEIMIC Corporation

RELINQUISHED BY: 1. Signature: *[Signature]* Time: *1900*
Printed Name: *[Name]* Date: *5/23/96*
Company: *[Company]*

RECEIVED BY: 1. Signature: *[Signature]* Time: *1900*
Printed Name: *[Name]* Date: *5/23/96*
Company: *[Company]*

SOIL VALIDATION REPORTS



550 South Wadsworth Boulevard, Suite 500, Lakewood, CO 80026
303.935.6505, Fax 303.935.6575

DATA ASSESSMENT FORM

Project Title: Rocketdyne SSFL RFI
Project Manager: D. Hambrick
Analysis/Method: General Minerals by 9045
QC Level: V¹
SDG: IMI0838
Matrix: Soil
No. of Samples: 5
Date Reviewed: January 07, 2004
Reviewer: P. Meeks
Reference: USEPA Contract Laboratory Program National Functional Guidelines For
 Inorganic Data Review (2/94)
Samples Reviewed: MT690, MT691, MT692, MT693, MT694

Data Validation Findings

	Findings	Qualifications
1. <u>Sample Management</u>	Temperatures were within the QC limits of 4°±2°C. The COC accounted for the samples and analyses. No custody seal information was provided by the laboratory. The holding time for pH was met.	No qualifications were required.
3. <u>Method Blanks</u>	Not applicable to the pH analysis.	No qualifications were required.
5. <u>LCS/BS</u>	Not applicable to the pH analysis.	No qualifications were required.
6. <u>Duplicates</u> MT692	The RPD was within the control limits of ±20%.	No qualifications were required.
7. <u>MS/MSDs</u>	Not applicable to the pH analysis.	No qualifications were required.
10. <u>Other</u>	None	No qualifications were required.
11. <u>Field QC Samples</u> Field duplicates: none	No field QC samples for pH.	No qualifications were required.
<u>Comments</u>	None	None

¹ Level V validation consists of cursory review of the summary forms only. The reported values on the summary forms are presumed to be correct and no verification of the values from the raw instrument output is performed.

MWH-San Diego
 1230 Columbia Street, Suite 750
 San Diego, CA 92101
 Attention: Lisa J. Tucker

Project ID Building 56 Landfill
 Boeing SSFL
 Report Number IMI0838

Sampled 09/15/03
 Received 09/15/03

INORGANICS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IMI0838-01 (MT690-Soil) Reporting Units: %									
Percent Solids	EPA160.3MOD	3120057	N/A	0.010	90	1	09/20/03	09/20/03	* <i>Low Qual</i>
Sample ID: IMI0838-01 (MT690-Soil) Reporting Units: pH Units									
pH	EPA9045C	3115096	N/A	NA	9.10	1	09/15/03	09/15/03	
Sample ID: IMI0838-02 (MT691-Soil) Reporting Units: %									
Percent Solids	EPA160.3MOD	3120057	N/A	0.010	92	1	09/20/03	09/20/03	* <i>Low Qual</i>
Sample ID: IMI0838-02 (MT691-Soil) Reporting Units: pH Units									
pH	EPA9045C	3115096	N/A	NA	7.98	1	09/15/03	09/15/03	
Sample ID: IMI0838-03 (MT692-Soil) Reporting Units: %									
Percent Solids	EPA160.3MOD	3121023	N/A	0.010	94	1	09/21/03	09/21/03	* <i>Low Qual</i>
Sample ID: IMI0838-03 (MT692-Soil) Reporting Units: pH Units									
pH	EPA9045C	3115096	N/A	NA	8.04	1	09/15/03	09/15/03	
Sample ID: IMI0838-04 (MT693-Soil) Reporting Units: %									
Percent Solids	EPA160.3MOD	3121023	N/A	0.010	93	1	09/21/03	09/21/03	* <i>Low Qual</i>
Sample ID: IMI0838-04 (MT693-Soil) Reporting Units: pH Units									
pH	EPA9045C	3115096	N/A	NA	8.36	1	09/15/03	09/15/03	
Sample ID: IMI0838-05 (MT694-Soil) Reporting Units: %									
Percent Solids	EPA160.3MOD	3121023	N/A	0.010	97	1	09/21/03	09/21/03	* <i>Low Qual</i>
Sample ID: IMI0838-05 (MT694-Soil) Reporting Units: pH Units									
pH	EPA9045C	3115096	N/A	NA	8.45	1	09/15/03	09/15/03	

* Analysis not validated

AMEC VALIDATED

LEVEL V

Del Mar Analytical, Irvine
 Michele Harper
 Project Manager



550 South Wadsworth Boulevard, Suite 500, Lakewood, CO 80026
303.935.6505, Fax 303.935.6575

DATA ASSESSMENT FORM

Project Title: Rocketdyne SSFL RFI
Project Manager: D. Hambrick
Analysis/Method: General Minerals by 9045
QC Level: V¹
SDG: IMH1169
Matrix: Soil
No. of Samples: 9
Date Reviewed: January 07, 2004
Reviewer: P. Meeks
Reference: USEPA Contract Laboratory Program National Functional Guidelines For Inorganic Data Review (2/94)
Samples Reviewed: MT699, MT700, MT701, MT702, MT703, MT705, MT706, MT707, MT708

Data Validation Findings

	Findings	Qualifications
1. <u>Sample Management</u>	Temperatures were within the QC limits of 4°±2°C. The COC accounted for the samples and analyses. No custody seal information was provided by the laboratory. The holding time for pH was exceeded for all samples in this SDG.	All sample results were qualified as estimated, "J."
3. <u>Method Blanks</u>	Not applicable to the pH analysis.	No qualifications were required.
5. <u>LCS/BS</u>	Not applicable to the pH analysis.	No qualifications were required.
6. <u>Duplicates</u> None	None performed.	No qualifications were required.
7. <u>MS/MSDs</u>	Not applicable to the pH analysis.	No qualifications were required.
10. <u>Other</u>	None	No qualifications were required.
11. <u>Field QC Samples</u> Field duplicates: MT702/MT705	No field QC samples for pH. The field duplicate pair RPD was within the control limit of 50% for soils.	No qualifications were required.
<u>Comments</u>	None	None

¹ Level V validation consists of cursory review of the summary forms only. The reported values on the summary forms are presumed to be correct and no verification of the values from the raw instrument output is performed.

MWH-San Diego
 1230 Columbia Street, Suite 750
 San Diego, CA 92101
 Attention: Lisa J. Tucker

 Project ID Building 56 Landfill
 Boeing SSFL
 Report Number IM1169

 Sampled 09/16/03-09/17/03
 Received 09/17/03

INORGANICS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IM1169-01 (MT699-Soil) Reporting Units: %							Sampled: 09/16/03		Per Qual Code
Percent Solids	EPA160.3MOD	3121023	N/A	0.010	93	1	09/21/03	09/21/03	*
Sample ID: IM1169-01 (MT699-Soil) Reporting Units: pH Units							Sampled: 09/16/03		
pH	EPA9045C	3119101	N/A	NA	6.61	1	09/19/03	09/19/03	J H-1 H
Sample ID: IM1169-02 (MT700-Soil) Reporting Units: %							Sampled: 09/17/03		
Percent Solids	EPA160.3MOD	3121023	N/A	0.010	97	1	09/21/03	09/21/03	*
Sample ID: IM1169-02 (MT700-Soil) Reporting Units: pH Units							Sampled: 09/17/03		
pH	EPA9045C	3119101	N/A	NA	6.15	1	09/19/03	09/19/03	J H-1 H
Sample ID: IM1169-03 (MT701-Soil) Reporting Units: %							Sampled: 09/17/03		
Percent Solids	EPA160.3MOD	3121023	N/A	0.010	97	1	09/21/03	09/21/03	*
Sample ID: IM1169-03 (MT701-Soil) Reporting Units: pH Units							Sampled: 09/17/03		
pH	EPA9045C	3119101	N/A	NA	6.01	1	09/19/03	09/19/03	J H-1 H
Sample ID: IM1169-04 (MT702-Soil) Reporting Units: %							Sampled: 09/17/03		
Percent Solids	EPA160.3MOD	3121024	N/A	0.010	92	1	09/21/03	09/21/03	*
Sample ID: IM1169-04 (MT702-Soil) Reporting Units: pH Units							Sampled: 09/17/03		
pH	EPA9045C	3119101	N/A	NA	8.12	1	09/19/03	09/19/03	J H-1 H
Sample ID: IM1169-05 (MT703-Soil) Reporting Units: %							Sampled: 09/16/03		
Percent Solids	EPA160.3MOD	3121024	N/A	0.010	90	1	09/21/03	09/21/03	*
Sample ID: IM1169-05 (MT703-Soil) Reporting Units: pH Units							Sampled: 09/16/03		
pH	EPA9045C	3119101	N/A	NA	7.27	1	09/19/03	09/19/03	J H-1 H

* Analysis not validated

AMEC VALIDATED
LEVEL V

 Del Mar Analytical, Irvine
 Michele Harper
 Project Manager

MWH-San Diego
 1230 Columbia Street, Suite 750
 San Diego, CA 92101
 Attention: Lisa J. Tucker

 Project ID Building 56 Landfill
 Boeing SSFL
 Report Number IM1169

 Sampled 09/16/03-09/17/03
 Received 09/17/03

INORGANICS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers	Rev Qual	Qual Code
Sample ID: IM1169-06 (MT705-Soil) Reporting Units: %											
Percent Solids	EPA160.3MOD	3121024	N/A	0.010	97	1	09/21/03	09/21/03		*	
Sample ID: IM1169-06 (MT705-Soil) Reporting Units: pH Units											
pH	EPA9045C	3119101	N/A	NA	8.15	1	09/19/03	09/19/03	J H-1		#
Sample ID: IM1169-07 (MT706-Soil) Reporting Units: %											
Percent Solids	EPA160.3MOD	3121024	N/A	0.010	97	1	09/21/03	09/21/03		*	
Sample ID: IM1169-07 (MT706-Soil) Reporting Units: pH Units											
pH	EPA9045C	3119101	N/A	NA	6.75	1	09/19/03	09/19/03	J H-1		#
Sample ID: IM1169-08 (MT707-Soil) Reporting Units: %											
Percent Solids	EPA160.3MOD	3121024	N/A	0.010	95	1	09/21/03	09/21/03		*	
Sample ID: IM1169-08 (MT707-Soil) Reporting Units: pH Units											
pH	EPA9045C	3119101	N/A	NA	7.15	1	09/19/03	09/19/03	J H-1		#
Sample ID: IM1169-09 (MT708-Soil) Reporting Units: %											
Percent Solids	EPA160.3MOD	3121024	N/A	0.010	77	1	09/21/03	09/21/03		*	
Sample ID: IM1169-09 (MT708-Soil) Reporting Units: pH Units											
pH	EPA9045C	3119101	N/A	NA	6.80	1	09/19/03	09/19/03	J H-1		#

* Analysis not validated

AMEC VALIDATED
LEVEL V

 Del Mar Analytical, Irvine
 Michele Harper
 Project Manager



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DATA ASSESSMENT FORM

Project Title: Rocketdyne SSFL RFI
Project Manager: D. Hambrick
Analysis Method: General Minerals by 9045C
QC Level: V¹
SDG: IM 10247
Matrix: Soil
No. of Samples: 7
Date Reviewed: December 12, 2003
Reviewer: P. Meeks
Reference: USEPA Contract Laboratory Program National Functional Guidelines For
 Inorganic Data Review (2/94)
Samples Reviewed: M T534, M T535, M T536, M T537, M T538, M T539, M T540

Data Validation Findings

	Findings	Qualifications
1. <u>Sample Management</u>	The temperature upon receipt was within the QC limits of 4°±2°C. The COC accounted for the samples and analysis presented in this SDG. No custody seals were present on the cooler. The holding time for pH was exceeded.	All pH results were qualified "J."
3. <u>Method Blanks</u>	Not applicable to the pH analysis.	No qualifications were required.
5. <u>LCS/BS</u>	Not applicable to the pH analysis.	No qualifications were required.
6. <u>Duplicates</u>	None performed.	No qualifications were required.
7. <u>MS/SDs</u>	Not applicable to the pH analysis.	No qualifications were required.
10. <u>Other</u>		No qualifications were required.
11. <u>Field QC Samples</u> Field duplicates: none	No field QC samples for pH.	No qualifications were required.
<u>Comments</u>	None	None

¹ Level V validation consists of cursory review of the summary forms only. The reported values on the summary forms are presumed to be correct and no verification of the values from the raw instrument output is performed.

MWH-San Diego
 1230 Columbia Street, Suite 750
 San Diego, CA 92101
 Attention: Lisa J. Tucker

 Project ID: Building 56 Landfill
 Boeing SSFL
 Report Number: IMI0247

 Sampled: 09/04/03
 Received: 09/04/03

INORGANICS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers	
Sample ID: IMI0247-02 (MT534 - Soil)					Sampled: 09/04/03					Qual
Reporting Units: %										Qual
Percent Solids	EPA 160.3 MOD	3I08083	N/A	0.010	94	1	09/08/03	09/08/03	* H	
Sample ID: IMI0247-02 (MT534 - Soil)					Sampled: 09/04/03					
Reporting Units: pH Units										
pH	EPA 9045C	3I05077	N/A	NA	7.02	1	09/05/03	09/05/03	J H	
Sample ID: IMI0247-03 (MT535 - Soil)					Sampled: 09/04/03					
Reporting Units: %										
Percent Solids	EPA 160.3 MOD	3I08083	N/A	0.010	91	1	09/08/03	09/08/03	* H	
Sample ID: IMI0247-03 (MT535 - Soil)					Sampled: 09/04/03					
Reporting Units: pH Units										
pH	EPA 9045C	3I05077	N/A	NA	8.09	1	09/05/03	09/05/03	J H	
Sample ID: IMI0247-04 (MT536 - Soil)					Sampled: 09/04/03					
Reporting Units: %										
Percent Solids	EPA 160.3 MOD	3I08083	N/A	0.010	92	1	09/08/03	09/08/03	* H	
Sample ID: IMI0247-04 (MT536 - Soil)					Sampled: 09/04/03					
Reporting Units: pH Units										
pH	EPA 9045C	3I05077	N/A	NA	6.51	1	09/05/03	09/05/03	J H	
Sample ID: IMI0247-05 (MT537 - Soil)					Sampled: 09/04/03					
Reporting Units: %										
Percent Solids	EPA 160.3 MOD	3I08083	N/A	0.010	89	1	09/08/03	09/08/03	* H	
Sample ID: IMI0247-05 (MT537 - Soil)					Sampled: 09/04/03					
Reporting Units: pH Units										
pH	EPA 9045C	3I05077	N/A	NA	8.00	1	09/05/03	09/05/03	J H	
Sample ID: IMI0247-06 (MT538 - Soil)					Sampled: 09/04/03					
Reporting Units: %										
Percent Solids	EPA 160.3 MOD	3I08083	N/A	0.010	97	1	09/08/03	09/08/03	* H	
Sample ID: IMI0247-06 (MT538 - Soil)					Sampled: 09/04/03					
Reporting Units: pH Units										
pH	EPA 9045C	3I05077	N/A	NA	6.78	1	09/05/03	09/05/03	J H	

AMEC VALIDATED

LEVEL V
 * Analysis not validated

 Del Mar Analytical, Irvine
 Michele Harper
 Project Manager



MWH-San Diego
1230 Columbia Street, Suite 750
San Diego, CA 92101
Attention: Lisa J. Tucker

Project ID: Building 56 Landfill
Boeing SSFL
Report Number: IMI0247

Sampled: 09/04/03
Received: 09/04/03

INORGANICS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers	
Sample ID: IMI0247-07 (MT539 - Soil)					Sampled: 09/04/03					Per Qual
Reporting Units: %										
Percent Solids	EPA 160.3 MOD	3I08083	N/A	0.010	79	1	09/08/03	09/08/03	*	
Sample ID: IMI0247-07 (MT539 - Soil)					Sampled: 09/04/03					Qual Code
Reporting Units: pH Units										
pH	EPA 9045C	3I05077	N/A	NA	6.87	1	09/05/03	09/05/03	J H	
Sample ID: IMI0247-08 (MT540 - Soil)					Sampled: 09/04/03					
Reporting Units: %										
Percent Solids	EPA 160.3 MOD	3I10089	N/A	0.010	89	1	09/10/03	09/10/03	*	
Sample ID: IMI0247-08 (MT540 - Soil)					Sampled: 09/04/03					
Reporting Units: pH Units										
pH	EPA 9045C	3I05077	N/A	NA	6.47	1	09/05/03	09/05/03	J H	

AMEC VALIDATED

LEVEL V

* Analysis not validated

Del Mar Analytical, Irvine
Michele Harper
Project Manager



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DATA ASSESSMENT FORM

Project Title: Rocketdyne SSFL RFI
Project Manager: D. Hambrick
Analysis Method: General Minerals by 9045C
QC Level: V¹
SDG: IMH1307
Matrix: Soil
No. of Samples: 2
Date Reviewed: December 12, 2003
Reviewer: P. Meeks
Reference: USEPA Contract Laboratory Program National Functional Guidelines For Inorganic Data Review (2/94)
Samples Reviewed: MT504, MT505

Data Validation Findings

	Findings	Qualifications
1. <u>Sample Management</u>	The temperature upon receipt was within the QC limits of 4°±2°C. The COC accounted for the samples and analysis presented in this SDG. No custody seals were present on the cooler. The holding time for pH was exceeded.	All pH results were qualified "U."
3. <u>Method Blanks</u>	Not applicable to the pH analysis.	No qualifications were required.
5. <u>LCS/BS</u>	Not applicable to the pH analysis.	No qualifications were required.
6. <u>Duplicates</u>	None performed.	No qualifications were required.
7. <u>MS/SDs</u>	Not applicable to the pH analysis.	No qualifications were required.
10. <u>Other</u>		No qualifications were required.
11. <u>Field QC Samples</u> Field duplicates: none	No field QC samples for pH.	No qualifications were required.
<u>Comments</u>	None	None

¹ Level V validation consists of cursory review of the summary forms only. The reported values on the summary forms are presumed to be correct and no verification of the values from the raw instrument output is performed.

MWH-San Diego
 1230 Columbia Street, Suite 750
 San Diego, CA 92101
 Attention: Lisa J. Tucker

Project ID: Building 56 Landfill
 Boeing SSFL
 Report Number: IMH1307

Sampled: 08/22/03
 Received: 08/22/03

INORGANICS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IMH1307-01 (MT504 - Soil)									
Reporting Units: %									
Percent Solids	EPA 160.3 MOD	3H25082	N/A	0.010	95	1	08/25/03	08/26/03	* Low Qual
Sample ID: IMH1307-01 (MT504 - Soil)									
Reporting Units: pH Units									
pH	EPA 9045C	3H23042	N/A	NA	8.03	1	08/23/03	08/23/03	J H Qual Code
Sample ID: IMH1307-02 (MT505 - Soil)									
Reporting Units: %									
Percent Solids	EPA 160.3 MOD	3H25082	N/A	0.010	91	1	08/25/03	08/26/03	Y
Sample ID: IMH1307-02 (MT505 - Soil)									
Reporting Units: pH Units									
pH	EPA 9045C	3H23042	N/A	NA	7.88	1	08/23/03	08/23/03	J H

AMEC VALIDATED

LEVEL V

* Analysis not validated

Del Mar Analytical, Irvine
 Michele Harper
 Project Manager



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DATA ASSESSMENT FORM

Project Title: Rocketdyne SSFL RFI
Project Manager: D. Hambrick
Analysis Method: General Minerals by 9045C
QC Level: V¹
SDG: IM 0405
Matrix: Soil
No. of Samples: 6
Date Reviewed: December 12, 2003
Reviewer: P. Meeks
Reference: USEPA Contract Laboratory Program National Functional Guidelines For Inorganic Data Review (2/94)
Samples Reviewed: M T541, M T542, M T543, M T544, M T545, M T546

Data Validation Findings

	Findings	Qualifications
1. <u>Sample Management</u>	The temperature upon receipt was within the QC limits of 4°±2°C. The COC accounted for the samples and analysis presented in this SDG. No custody seals were present on the cooler. The holding time for pH was exceeded.	All pH results were qualified "J."
3. <u>Method Blanks</u>	Not applicable to the pH analysis.	No qualifications were required.
5. <u>LCS/BS</u>	Not applicable to the pH analysis.	No qualifications were required.
6. <u>Duplicates</u> M T541	The RPD was less than the control limit of ±20%.	No qualifications were required.
7. <u>MSMSDs</u>	Not applicable to the pH analysis.	No qualifications were required.
10. <u>Other</u>		No qualifications were required.
11. <u>Field QC Samples</u> Field duplicates: M T542/M T545	No field QC samples for pH. The RPD for the field duplicate pair was 0.9%.	No qualifications were required.
<u>Comments</u>	None	None

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MWH-San Diego
1230 Columbia Street, Suite 750
San Diego, CA 92101
Attention: Lisa J. Tucker

Project ID: Building 56 Landfill
Boeing SSFL
Report Number: IMI0405

Sampled: 09/05/03
Received: 09/05/03

INORGANICS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers	Data Qualifiers
									Raw Qual	Qual Code
Sample ID: IMI0405-02 (MT541 - Soil) Reporting Units: %							Sampled: 09/05/03			
Percent Solids	EPA 160.3 MOD	3I10089	N/A	0.010	97	1	09/10/03	09/10/03	*	
Sample ID: IMI0405-02 (MT541 - Soil) Reporting Units: pH Units							Sampled: 09/05/03			
pH	EPA 9045C	3I09100	N/A	NA	7.93	1	09/09/03	09/09/03	J	H
Sample ID: IMI0405-03 (MT542 - Soil) Reporting Units: %							Sampled: 09/05/03			
Percent Solids	EPA 160.3 MOD	3I10089	N/A	0.010	86	1	09/10/03	09/10/03	*	
Sample ID: IMI0405-03 (MT542 - Soil) Reporting Units: pH Units							Sampled: 09/05/03			
pH	EPA 9045C	3I09100	N/A	NA	7.55	1	09/09/03	09/09/03	J	H
Sample ID: IMI0405-04 (MT543 - Soil) Reporting Units: %							Sampled: 09/05/03			
Percent Solids	EPA 160.3 MOD	3I10089	N/A	0.010	93	1	09/10/03	09/10/03	*	
Sample ID: IMI0405-04 (MT543 - Soil) Reporting Units: pH Units							Sampled: 09/05/03			
pH	EPA 9045C	3I09100	N/A	NA	7.71	1	09/09/03	09/09/03	J	H
Sample ID: IMI0405-05 (MT544 - Soil) Reporting Units: %							Sampled: 09/05/03			
Percent Solids	EPA 160.3 MOD	3I10089	N/A	0.010	93	1	09/10/03	09/10/03	*	
Sample ID: IMI0405-05 (MT544 - Soil) Reporting Units: pH Units							Sampled: 09/05/03			
pH	EPA 9045C	3I09100	N/A	NA	7.52	1	09/09/03	09/09/03	J	H
Sample ID: IMI0405-06 (MT545 - Soil) Reporting Units: %							Sampled: 09/05/03			
Percent Solids	EPA 160.3 MOD	3I10089	N/A	0.010	95	1	09/10/03	09/10/03	*	
Sample ID: IMI0405-06 (MT545 - Soil) Reporting Units: pH Units							Sampled: 09/05/03			
pH	EPA 9045C	3I09100	N/A	NA	7.62	1	09/09/03	09/09/03	J	H

ANALYSIS VALIDATED

LEVEL V

* Analysis not validated

Del Mar Analytical, Irvine
Michele Harper
Project Manager



MWH-San Diego
1230 Columbia Street, Suite 750
San Diego, CA 92101
Attention: Lisa J. Tucker

Project ID: Building 56 Landfill
Boeing SSFL
Report Number: IMI0405

Sampled: 09/05/03
Received: 09/05/03

INORGANICS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers		
Sample ID: IMI0405-07 (MT546 - Soil)					Sampled: 09/05/03					Rev Qual	Qual Code
Reporting Units: %											
Percent Solids	EPA 160.3 MOD	3I10089	N/A	0.010	93	1	09/10/03	09/10/03	*		
Sample ID: IMI0405-07 (MT546 - Soil)					Sampled: 09/05/03						
Reporting Units: pH Units											
pH	EPA 9045C	3I09100	N/A	NA	7.71	1	09/09/03	09/09/03	J	H	
Sample ID: IMI0405-08 (MT547 - Soil)					Sampled: 09/05/03						
Reporting Units: %											
Percent Solids	EPA 160.3 MOD	3I10089	N/A	0.010	92	1	09/10/03	09/10/03	*		
Sample ID: IMI0405-09 (MT548 - Soil)					Sampled: 09/05/03						
Reporting Units: %											
Percent Solids	EPA 160.3 MOD	3I10089	N/A	0.010	93	1	09/10/03	09/10/03	J*	H	

pm 01/09/04

ANEC VALIDATED
LEVEL V

* Analysis not validated

Del Mar Analytical, Irvine
Michele Harper
Project Manager



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DATA ASSESSMENT FORM

Project Title: Rocketdyne SSFL RFI
Project Manager: D. Hambrick
Analysis Method: General Minerals by 9045C
QC Level: V¹
SDG: MF003
Matrix: Soil
No. of Samples: 1
Date Reviewed: December 12, 2003
Reviewer: P. Meeks
Reference: USEPA Contract Laboratory Program National Functional Guidelines For Inorganic Data Review (2/94)
Samples Reviewed: MF005

Data Validation Findings

	Findings	Qualifications
1. <u>Sample Management</u>	The temperature upon receipt was within the QC limits of 4°±2°C. The COC accounted for the sample and analysis presented in this SDG. The COC contained uninitialed corrections. No custody seals were present on the cooler. The holding time for pH was exceeded.	The pH result was qualified "U."
3. <u>Method Blanks</u>	Not applicable to the pH analysis.	No qualifications were required.
5. <u>LCS/BS</u>	The laboratory analyzed one pH standard sample as an LCS sample. The result was acceptable.	No qualifications were required.
6. <u>Duplicates</u>	None performed.	No qualifications were required.
7. <u>MS/MSDs</u>	Not applicable to the pH analysis.	No qualifications were required.
10. <u>Other</u>	None.	No qualifications were required.
11. <u>Field QC Samples</u> Field duplicates: none	No field QC samples for pH.	No qualifications were required.
<u>Comments</u>	None	None

¹ Level V validation consists of cursory review of the summary forms only. The reported values on the summary forms are presumed to be correct and no verification of the values from the raw instrument output is performed.

**CEIMIC
Corporation**
"Analytical Chemistry for Environmental Management"

INORGANIC ANALYTES

Client: Montgomery Watson

Client Sample ID: MF005

Date Sampled: 09/17/03

Laboratory ID: 031290-03

Date Sample Received: 9/19/03

Matrix: Soil

Target Analyte	Result	Units	Method Reporting Limit	Date Prep'd	Date Analyzed	Rev Qual	Qual Cod
pH	7.26	pH Units	1.0	09/30/03	09/30/03	J	H

AMEC VALIDATED

LEVEL V

Reported by: SB

Approved by: RCM



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DATA ASSESSMENT FORM

Project Title: Rocketdyne SSFL RFI
Project Manager: D. Hambrick
Analysis/Method: General Minerals by 9045C
QC Level: V¹
SDG: MF001
Matrix: Soil
No. of Samples: 1
Date Reviewed: December 12, 2003
Reviewer: P. Meeks
Reference: USEPA Contract Laboratory Program National Functional Guidelines For
 Inorganic Data Review (2/94)
Samples Reviewed: MF001

Data Validation Findings

	Findings	Qualifications
1. <u>Sample Management</u>	The temperature upon receipt was within the QC limits of 4°±2°C. The COC accounted for the sample and analysis presented in this SDG. No custody seals were present on the cooler. The holding time for pH was exceeded.	The pH result was qualified "J."
3. <u>Method Blanks</u>	Not applicable to the pH analysis.	No qualifications were required.
5. <u>LCS/BS</u>	The laboratory analyzed several pH standard samples as LCS samples. All results were acceptable.	No qualifications were required.
6. <u>Duplicates</u> MF001	The RPD was less than the control limit of ±20%.	No qualifications were required.
7. <u>MS/MSDs</u>	Not applicable to the pH analysis.	No qualifications were required.
10. <u>Other</u>		No qualifications were required.
11. <u>Field QC Samples</u> Field duplicates: none	No field QC samples for pH.	No qualifications were required.
<u>Comments</u>	None	None

¹ Level V validation consists of cursory review of the summary forms only. The reported values on the summary forms are presumed to be correct and no verification of the values from the raw instrument output is performed.

**CEIMIC
Corporation**
"Analytical Chemistry for Environmental Management"

INORGANIC ANALYTES

Client: Montgomery Watson

Client Sample ID: MF001

Date Sampled: 09/05/03

Laboratory ID: 031213-01

Date Sample Received: 9/6/03

Matrix: Soil

Target Analyte	Result	Units	Method Reporting Limit	Date Prep'd	Date Analyzed	Rev Qual	Qual Code
pH	8.77	pH Units	1.0	09/09/03	09/09/03	SB J	H

Reported by: SB

Approved by: HZ



DATA VALIDATION REPORT

Rocketdyne
SSFL RFI Program

ANALYSIS: GENERAL MINERALS
SAMPLE DELIVERY GROUP: MF003

Prepared by

AMEC—Denver Operations
550 South Wadsworth Boulevard, Suite 500
Lakewood, Colorado 80226

1. INTRODUCTION

Task Order Title:	Rocketdyne SSFL RFI Program
Contract Task Order #:	313150010
Sample Delivery Group #:	MF003
Project Manager:	D. Hambrick
Matrix:	Water
Analysis:	General Minerals
QC Level:	Level IV
No. of Samples:	1
Reviewer:	P. Meeks
Date of Review:	November 11, 2003

The samples listed in Table 1 were validated based on the guidelines outlined in the AMEC *Data Validation Procedures SOP II-DVP-S, Rev. 0, USEPA Methods for Chemical Analysis of Water and Wastes Method 300.0, USEPA Methods for Chemical Analysis of Water and Wastes Method 314.0*, validation guidelines outlined in the *USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review (2/94)*. Any deviations from these procedures and guidelines are documented herein. Qualifiers were applied in cases where the data did not meet the required QC criteria or where special consideration by the data user is required. Data qualifiers were placed on Form Is with the associated qualification codes. Analytes that were rejected for any reason are denoted on the Form I as having only the "R" data qualifier and associated qualification code(s) denoting the reason for rejection. Any additional problems with the data that may have resulted in an estimated value were not denoted by a qualification code since the data had already been rejected.

Table 1. Sample identification

EPA ID	Client ID	Laboratory ID	Matrix	COC Method
BLLS38S01	MF003	031290-01	water	perchlorate

2. DATA VALIDATION FINDINGS

2.1 SAMPLE MANAGEMENT

Following are findings associated with sample management:

2.1.1 Sample Preservation, Handling, and Transport

The sample in this SDG was received at Ceimic within the temperature limits of $4^{\circ}\text{C} \pm 2^{\circ}\text{C}$. The analysis did not require preservation, and no preservation was noted in the field. The case narrative noted that the samples were received intact. No qualifications were required.

2.1.2 Chain of Custody

The COC was signed and dated by both field and laboratory personnel. The EPA ID was hand-corrected on the COC but was not initialed or dated. The laboratory noted that there were no custody seals on the cooler. No qualifications were required.

2.1.3 Holding Times

The holding time was assessed by comparing the date of collection with the date of analysis. The 28-day holding time for the perchlorate analysis was met, and no qualifications were required.

2.2 CALIBRATION

The initial calibration correlation coefficient was ≥ 0.995 . The ICV and CCVs were recovered within the control limits of 90-110% and the IPC was recovered within the control limits of 80-120%. No qualifications were required.

2.3 BLANKS

The results reported on the summary forms and in the raw data for the blank analyses associated with the sample were nondetects at the reporting limit. No qualifications were required.

2.4 BLANK SPIKES AND LABORATORY CONTROL SAMPLES

The laboratory control sample %R was within the laboratory-established control limits of 89%-106%. No qualifications were required.

2.5 SURROGATES RECOVERY

Surrogate recovery is not applicable to the perchlorate analysis.

2.6 LABORATORY DUPLICATES

No MS/MSD analyses were performed in association with the sample in this SDG; therefore, no assessment was made with respect to this criterion.

2.7 MATRIX SPIKE/MATRIX SPIKE DUPLICATE

No MS/MSD analyses were performed in association with the sample in this SDG; therefore, no assessment was made with respect to this criterion.

2.8 FURNACE ATOMIC ABSORPTION QC

Furnace atomic absorption was not utilized for the analysis of this sample; therefore, furnace atomic absorption QC is not applicable.

2.9 ICP SERIAL DILUTION

ICP serial dilution is not applicable to the perchlorate analyses presented in this data validation report.

2.10 SAMPLE RESULT VERIFICATION

A Level IV review was performed for all samples in this data package. Calculations were verified, and sample results reported on the Form Is were verified against the raw data. No transcription errors or calculations errors were noted. No qualifications were required.

2.11 FIELD QC SAMPLES

Field QC samples are evaluated, and if necessary, qualified based only on laboratory blanks. Any remaining detects are used to evaluate the associated samples. The following are findings associated with field QC samples:

2.11.1 Field Blanks and Equipment Rinsates

Sample ML088 (SDG IMG1031) was the field blank and sample ML087 (SDG IMG1031) was the equipment rinsate associated with the site samples in this SDG. Perchlorate was not reported in either of the field QC samples and no qualifications were required.

2.11.2 Field Duplicates

There were no field duplicate samples associated with this SDG.

**CEIMIC
Corporation**
"Analytical Chemistry for Environmental Management"

INORGANIC ANALYTES

Client: Montgomery Watson

Client Sample ID: MF003

Date Sampled: 09/17/03

Laboratory ID: 031290-01

Date Sample Received: 9/19/03

Matrix: Water

Target Analyte	Result	Units	Method Reporting Limit	Date Prep'd	Date Analyzed	Raw Qual	Qual Code
Perchlorate	ND	ug/L	1	09/25/03	09/25/03	U	

ND = Not Detected

**AMEC VALIDATED
LEVEL IV**

Reported by: BS

Approved by: TS

CONTRACT COMPLIANCE SCREENING FORM FOR HARDCOPY DATA

AMEC Earth & Environmental
 550 South Wadsworth Boulevard
 Suite 500
 Lakewood, CO 80226

Package ID T707WC7
 Task Order 313150010
 SDG No. MF001

No. of Analyses 1

Laboratory Ceimic
 Reviewer P. Meeks
 Analysis/Method Perchlorate

Date: 11/11/03
 Reviewer's Signature
P. Meeks

ACTION ITEMS^a	
1. Case Narrative	
Deficiencies	
2. Out of Scope	
Analyses	
3. Analyses Not	
Conducted	
4. Missing Hardcopy	
Deliverables	
5. Incorrect Hardcopy	
Deliverables	
6. Deviations from	
Analysis Protocol, e.g.,	
Holding Times	
GC/MS Tune/Inst.	
Performance	
Calibrations	
Blanks	
Surrogates	
Matrix Spike/Dup LCS	
Field QC	
Internal Standard	
Performance	
Compound Identification	
and Quantitation	
System Performance	
COMMENTS^b	Acceptable as reviewed.
^a Subcontracted analytical laboratory is not meeting contract and/or method requirements. ^b Differences in protocol have been adopted by the laboratory but no action against the laboratory is required.	



DATA VALIDATION REPORT

Rocketdyne
SSFL RFI Program

ANALYSIS: GENERAL MINERALS
SAMPLE DELIVERY GROUP: MF001

Prepared by

AMEC—Denver Operations
550 South Wadsworth Boulevard, Suite 500
Lakewood, Colorado 80226

1. INTRODUCTION

Task Order Title: Rocketdyne SSFL RFI Program
Contract Task Order #: 313150010
Sample Delivery Group #: MF001
Project Manager: D. Hambrick
Matrix: Soil
Analysis: General Minerals
QC Level: Level IV
No. of Samples: 1
Reviewer: P. Meeks
Date of Review: November 11, 2003

The samples listed in Table 1 were validated based on the guidelines outlined in the AMEC *Data Validation Procedures SOP II-DVP-S, Rev. 0*, USEPA *Methods for Chemical Analysis of Water and Wastes Method 300.0*, USEPA *Methods for Chemical Analysis of Water and Wastes Method 314.0*, validation guidelines outlined in the USEPA *Contract Laboratory Program National Functional Guidelines for Inorganic Data Review (2/94)*. Any deviations from these procedures and guidelines are documented herein. Qualifiers were applied in cases where the data did not meet the required QC criteria or where special consideration by the data user is required. Data qualifiers were placed on Form Is with the associated qualification codes. Analytes that were rejected for any reason are denoted on the Form I as having only the "R" data qualifier and associated qualification code(s) denoting the reason for rejection. Any additional problems with the data that may have resulted in an estimated value were not denoted by a qualification code since the data had already been rejected.

Table 1. Sample identification

EPA ID	Client ID	Laboratory ID	Matrix	COC Method
BLBS22S01	MF001	031213-01	soil	perchlorate

2. DATA VALIDATION FINDINGS

2.1 SAMPLE MANAGEMENT

Following are findings associated with sample management:

2.1.1 Sample Preservation, Handling, and Transport

The sample in this SDG was received at Ceimic within the temperature limits of $4^{\circ}\text{C} \pm 2^{\circ}\text{C}$. The analysis did not require preservation, and no preservation was noted in the field. The case narrative noted that the samples were received intact. No qualifications were required.

2.1.2 Chain of Custody

The COC was signed and dated by both field and laboratory personnel. The COC accounted for the sample and analysis presented in this SDG. The laboratory noted that there were no custody seals on the cooler. No qualifications were required.

2.1.3 Holding Times

The holding time was assessed by comparing the date of collection with the date of analysis. The 28-day holding time for the perchlorate analysis was met, and no qualifications were required.

2.2 CALIBRATION

The initial calibration correlation coefficient was ≥ 0.995 . The ICV and CCVs were recovered within the control limits of 90-110% and the IPC was recovered within the control limits of 80-120%. No qualifications were required.

2.3 BLANKS

The results reported on the summary forms and in the raw data for the blank analyses associated with the sample were nondetects at the reporting limit. No qualifications were required.

2.4 BLANK SPIKES AND LABORATORY CONTROL SAMPLES

The laboratory control sample %R was within the laboratory-established control limits of 75%-125% for soils. No qualifications were required.

2.5 SURROGATES RECOVERY

Surrogate recovery is not applicable to the perchlorate analysis.

2.6 LABORATORY DUPLICATES

No MS/MSD analyses were performed in association with the samples in this SDG; therefore, no assessment was made with respect to this criterion.

2.7 MATRIX SPIKE/MATRIX SPIKE DUPLICATE

No MS/MSD analyses were performed in association with the samples in this SDG; therefore, no assessment was made with respect to this criterion.

2.8 FURNACE ATOMIC ABSORPTION QC

Furnace atomic absorption was not utilized for the analysis of this sample; therefore, furnace atomic absorption QC is not applicable.

2.9 ICP SERIAL DILUTION

ICP serial dilution is not applicable to the perchlorate analyses presented in this data validation report.

2.10 SAMPLE RESULT VERIFICATION

A Level IV review was performed for the sample in this data package. Calculations were verified, and sample results reported on the Form Is were verified against the raw data. No transcription errors or calculations errors were noted. No qualifications were required.

2.11 FIELD QC SAMPLES

Field QC samples are evaluated, and if necessary, qualified based only on laboratory blanks. Any remaining detects are used to evaluate the associated samples. The following are findings associated with field QC samples:

2.11.1 Field Blanks and Equipment Rinsates

Sample ML088 (SDG IMG1031) was the field blank and sample ML087 (SDG IMG1031) was the equipment rinsate associated with the site samples in this SDG. Perchlorate was not reported in either of the field QC samples and no qualifications were required.

2.11.2 Field Duplicates

There were no field duplicate samples associated with this SDG.

CEIMIC Corporation
"Analytical Chemistry for Environmental Management"

INORGANIC ANALYTES

Client: Montgomery Watson

Client Sample ID: MF001

Date Sampled: 09/05/03

Laboratory ID: 031213-01

Date Sample Received: 9/6/03

Percent Solids: 96.4

Matrix: Soil

Target Analyte	Result	Units	Method Reporting Limit	Date Prep'd	Date Analyzed	Per Qual	Qual Code
Perchlorate	ND	ug/Kg+	3.04	09/12/03	09/12/03	U	

ND = Not Detected
 + Dry weight basis.

AMEC VALIDATED

Reported by: BS

Approved by: [Signature]

LEVEL IV

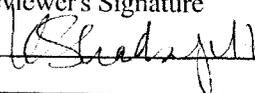
CONTRACT COMPLIANCE SCREENING FORM FOR HARDCOPY DATA

AMEC Earth & Environmental
 550 South Wadsworth Boulevard
 Suite 500
 Lakewood, CO 80226

Package ID T707WC6
 Task Order 313150010
 SDG No. IMI0763

No. of Analyses 19

Laboratory Del Mar Analytical
 Reviewer K. Shadowlight
 Analysis/Method Perchlorate

Date: November 10, 2003
 Reviewer's Signature


ACTION ITEMS^a	
1. Case Narrative Deficiencies	
2. Out of Scope Analyses	
3. Analyses Not Conducted	
4. Missing Hardcopy Deliverables	
5. Incorrect Hardcopy Deliverables	
6. Deviations from Analysis Protocol, e.g.,	Qualifications were assigned for MS/MSD recovery and RPD outliers.
Holding Times	<u>Results for MT678 and MT680 were rejected</u>
GC/MS Tune/Inst. Perform	<u>in favor of LC/MS/MS results</u>
Calibrations	
Blanks	
Surrogates	
Matrix Spike/Dup LCS	
Field QC	
Internal Standard Performance	
Compound Identification and	
Quantitation	
System Performance	
COMMENTS^b	
^a Subcontracted analytical laboratory is not meeting contract and/or method requirements. ^b Differences in protocol have been adopted by the laboratory but no action against the laboratory is required.	

Data Qualifier Reference Table

Qualifier	Organics	Inorganics
U	The analyte was analyzed for, but was not detected above the reported sample quantitation limit.	The material was analyzed for, but was not detected above the level of the associated value. The associated value is either the sample quantitation limit or the sample detection limit.
J	The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.	The associated value is an estimated quantity.
N	The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification."	Not applicable.
NJ	The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.	Not applicable.
UJ	The analyte was not deemed above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.	The material was analyzed for, but was not detected. The associated value is an estimate and may be inaccurate or imprecise.
R	The sample results are rejected due to serious deficiencies in the ability to analyze the sample and to meet quality control criteria. The presence or absence of the analyte cannot be verified.	The data are unusable. (Note: Analyte may or may not be present).

Qualification Code Reference Table

Qualifier	Organics	Inorganics
H	Holding times were exceeded.	Holding times were exceeded.
S	Surrogate recovery was outside QC limits.	The sequence or number of standards used for the calibration was incorrect
C	Calibration %RSD or %D were noncompliant.	Correlation coefficient is <0.995.
R	Calibration RRF was <0.05.	%R for calibration is not within control limits.
B	Presumed contamination from preparation (method) blank.	Presumed contamination from preparation (method) or calibration blank.
L	Laboratory Blank Spike/Blank Spike Duplicate %R was not within control limits.	Laboratory Control Sample %R was not within control limits.
Q	MS/MSD recovery was poor or RPD high.	MS recovery was poor.
E	Not applicable.	Duplicates showed poor agreement.
I	Internal standard performance was unsatisfactory.	ICP ICS results were unsatisfactory.
A	Not applicable.	ICP Serial Dilution %D were not within control limits.
M	Tuning (BFB or DFTPP) was noncompliant.	Not applicable.
T	Presumed contamination from trip blank.	Not applicable.
+	False positive – reported compound was not present. Not applicable.	
-	False negative – compound was present but not reported.	Not applicable.
F	Presumed contamination from FB, or ER.	Presumed contamination from FB or ER.
\$	Reported result or other information was incorrect.	Reported result or other information was incorrect.
?	TIC identity or reported retention time has been changed.	Not applicable.
D	The analysis with this flag should not be used because another more technically sound analysis is available.	The analysis with this flag should not be used because another more technically sound analysis is available.
P	Instrument performance for pesticides was poor.	Post Digestion Spike recovery was not within control limits.
#	Unusual problems found with the data that have been described in Section 1, "Data Validation Findings." The number following the asterisk () will indicate the subsection where a description of the problem can be found.	Unusual problems found with the data that have been described in Section 1, "Data Validation Findings." The number following the asterisk (*) will indicate the subsection where a description of the problem can be found.



DATA VALIDATION REPORT

Rocketdyne
SSFL RFI Program

ANALYSIS: GENERAL MINERALS

SAMPLE DELIVERY GROUP: IMI0763

Prepared by

AMEC—Denver Operations
550 South Wadsworth Boulevard, Suite 500
Lakewood, Colorado 80226

1. INTRODUCTION

Task Order Title:	Rocketdyne SSFL RFI Program
Contract Task Order #:	313150010
Sample Delivery Group #:	IMI0763
Project Manager:	D. Hambrick
Matrix:	Water
Analysis:	General Minerals
QC Level:	Level IV
No. of Samples:	19
Reviewer:	K. Shadowlight
Date of Review:	November 10, 2003

The samples listed in Table 1 were validated based on the guidelines outlined in the AMEC *Data Validation Procedures SOP II-DVP-S, Rev. 0*, USEPA *Methods for Chemical Analysis of Water and Wastes Method 300.0*, USEPA *Methods for Chemical Analysis of Water and Wastes Method 314.0*, validation guidelines outlined in the USEPA *Contract Laboratory Program National Functional Guidelines for Inorganic Data Review (2/94)*. Any deviations from these procedures and guidelines are documented herein. Qualifiers were applied in cases where the data did not meet the required QC criteria or where special consideration by the data user is required. Data qualifiers were placed on Form Is with the associated qualification codes. Analytes that were rejected for any reason are denoted on the Form I as having only the "R" data qualifier and associated qualification code(s) denoting the reason for rejection. Any additional problems with the data that may have resulted in an estimated value were not denoted by a qualification code since the data had already been rejected.

Table 1. Sample identification

Client ID	EPA ID	Laboratory ID	Matrix	COC Method
BLLS08S01	MT664	IMI0763-01	water	perchlorate
BLLS10S01	MT665	IMI0763-02	water	perchlorate
BLLS07S01	MT667	IMI0763-03	water	perchlorate
BLLS04S01	MT668	IMI0763-04	water	perchlorate
BLLS15S01	MT669	IMI0763-05	water	perchlorate
BLLS02S01	MT670	IMI0763-06	water	perchlorate
BLLS09S01	MT671	IMI0763-07	water	perchlorate
BLLS03S01	MT672	IMI0763-08	water	perchlorate
BLLS12S01	MT673	IMI0763-09	water	perchlorate
BLLS14S01	MT674	IMI0763-10	water	perchlorate
BLLS11S01	MT675	IMI0763-11	water	perchlorate
BLLS16S01	MT676	IMI0763-12	water	perchlorate
BLLS06S01	MT677	IMI0763-13	water	perchlorate
BLLS05S01	MT678	IMI0763-14	water	perchlorate
BLLS16D01	MT679	IMI0763-15	water	perchlorate
BLLS01S01	MT680	IMI0763-16	water	perchlorate
BLLS13S01	MT681	IMI0763-17	water	perchlorate
BLLS06S99	MT682	IMI0763-18	water	perchlorate
BLLS01S99	MT683	IMI0763-19	water	perchlorate

2. DATA VALIDATION FINDINGS

2.1 SAMPLE MANAGEMENT

Following are findings associated with sample management:

2.1.1 Sample Preservation, Handling, and Transport

The samples in this SDG were received at Del Mar Analytical laboratory within the temperature limits of $4^{\circ}\text{C} \pm 2^{\circ}\text{C}$. The analysis did not require preservation, and no preservation was noted in the field. The Del Mar Analytical case narrative noted that the samples were received intact. No qualifications were required.

2.1.2 Chain of Custody

The COCs were signed and dated by both field and laboratory personnel. The COCs accounted for the samples and analyses presented in this SDG. The laboratory provided no custody seal information. No qualifications were required.

2.1.3 Holding Times

The holding times were assessed by comparing the date of collection with the dates of analyses. The 28-day holding time for the perchlorate analyses was met, and no qualifications were required.

2.2 CALIBRATION

The initial calibration correlation coefficient was ≥ 0.995 . The ICVs, IPCs, and CCVs were recovered within the control limits of 90-110% and the IPC-MAs were recovered within the control limits of 80-120%. No qualifications were required.

2.3 BLANKS

The results reported on the summary forms and in the raw data for the blank analyses associated with the samples were nondetects at the reporting limit. No qualifications were required.

2.4 BLANK SPIKES AND LABORATORY CONTROL SAMPLES

The laboratory control samples %Rs were within the laboratory-established control limits of 85%-115%. No qualifications were required.

2.5 SURROGATES RECOVERY

Surrogate recovery is not applicable to the perchlorate analysis.

2.6 LABORATORY DUPLICATES

The MS/MSD analyses were performed on samples MT665 and MT680. The RPD for perchlorate in the MS and MSD analyses of sample MT680 exceeded the control limit at 19%. As the result for MT680 was later rejected (see section 2.10), no qualification was required. The remaining RPD was less than the method control limit of $\pm 15\%$. No further qualifications were required.

2.7 MATRIX SPIKE/MATRIX SPIKE DUPLICATE

The MS/MSD analyses were performed on samples MT665 and MT680. The recoveries for the MS and MSD analyses were within the laboratory-established control limits of 80-120% for sample MT665. The recoveries for the MS and MSD analyses of sample MT680 were below the control limits at 63% and 52%, respectively. As the result for MT680 was later rejected (see section 2.10), no qualification was required. Confirmation spikes were performed for samples MT668, MT670, MT671, MT675, MT676, MT678, and MT683. The recoveries exceeded the laboratory-established control limits for samples MT668, MT671, MT675, MT678, and MT683. As perchlorate was not detected in the aforementioned samples no qualifications were required for the elevated recoveries. No further qualifications were required.

2.8 FURNACE ATOMIC ABSORPTION QC

Furnace atomic absorption was not utilized for the analysis of these samples; therefore, furnace atomic absorption QC is not applicable.

2.9 ICP SERIAL DILUTION

ICP serial dilution is not applicable to the perchlorate analyses presented in this data validation report.

2.10 SAMPLE RESULT VERIFICATION

A Level IV review was performed for all samples in this data package. Calculations were verified, and sample results reported on the Form Is were verified against the raw data. No transcription errors or calculations errors were noted.

Samples MT678 and MT680 were analyzed for perchlorate by LC/MS/MS at Severn Trent Laboratory in Denver. As the LC/MS/MS results were considered to be more technically sound, the results for MT678

and MT680 presented in this SDG were rejected, “R,” in favor of those in SDG DJ3160265. No further qualifications were required.

2.11 FIELD QC SAMPLES

Field QC samples are evaluated, and if necessary, qualified based only on laboratory blanks. Any remaining detects are used to evaluate the associated samples. The following are findings associated with field QC samples:

2.11.1 Field Blanks and Equipment Rinsates

Sample ML088 (SDG IMG1031) was the field blank and sample ML087 (SDG IMG1031) was the equipment rinsate associated with the site samples in this SDG. Perchlorate was not reported in either of the field QC samples and no qualifications were required.

2.11.2 Field Duplicates

There were no field duplicate samples associated with this SDG.



2952 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
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 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-8596 FAX (619) 505-9669
 9230 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851
 2520 E. Sunset Rd. #3, Las Vegas, NV 89120 (702) 798-3620 FAX (702) 798-3621

MWH-San Diego
 1230 Columbia Street, Suite 750
 San Diego, CA 92101
 Attention: Lisa J. Tucker

Project ID: Building 56 Landfill
 Boeing SSFL
 Report Number: IMI0763

Sampled: 09/08/03-09/11/03
 Received: 09/12/03

INORGANICS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers	
Sample ID: IMI0763-11 (MT675 - Water)					Sampled: 09/10/03					Res Qual
Reporting Units: ug/l										Qual lod
Perchlorate	EPA 314.0	3I21022	0.80	4.0	ND	1	09/21/03	09/23/03	U	
Sample ID: IMI0763-12 (MT676 - Water)					Sampled: 09/10/03					
Reporting Units: ug/l										
Perchlorate	EPA 314.0	3I21022	0.80	4.0	ND	1	09/21/03	09/22/03	U	
Sample ID: IMI0763-13 (MT677 - Water)					Sampled: 09/10/03					
Reporting Units: ug/l										
Perchlorate	EPA 314.0	3I21022	0.80	4.0	ND	1	09/21/03	09/22/03	U	
Sample ID: IMI0763-14 (MT678 - Water)					Sampled: 09/10/03					
Reporting Units: ug/l										
Perchlorate	EPA 314.0	3I23052	0.80	4.0	ND	1	09/23/03	09/24/03	RX D	
Sample ID: IMI0763-15 (MT679 - Water)					Sampled: 09/10/03					
Reporting Units: ug/l										
Perchlorate	EPA 314.0	3I21022	0.80	4.0	ND	1	09/21/03	09/22/03	U	
Sample ID: IMI0763-16 (MT680 - Water)					Sampled: 09/08/03					
Reporting Units: ug/l										
Perchlorate	EPA 314.0	3I23052	1.6	8.0	28	2	09/23/03	09/23/03	RX MD	
Sample ID: IMI0763-17 (MT681 - Water)					Sampled: 09/10/03					
Reporting Units: ug/l										
Perchlorate	EPA 314.0	3I21022	0.80	4.0	ND	1	09/21/03	09/22/03	U	
Sample ID: IMI0763-18 (MT682 - Water)					Sampled: 09/10/03					
Reporting Units: ug/l										
Perchlorate	EPA 314.0	3I21022	0.80	4.0	ND	1	09/21/03	09/22/03	U	
Sample ID: IMI0763-19 (MT683 - Water)					Sampled: 09/08/03					
Reporting Units: ug/l										
Perchlorate	EPA 314.0	3I21022	0.80	4.0	ND	1	09/21/03	09/23/03	U	

PM 11/15/03

AMEC VALIDATED

LEVEL IV

Del Mar Analytical, Irvine
 Fred Haley For Michele Harper
 Project Manager



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 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-3043 FAX (480) 785-3851
 2520 E. Sunset Rd. #3 Las Vegas, NV 89120 (702) 798-3620 FAX (702) 798-3821

MWH-San Diego
 1230 Columbia Street, Suite 750
 San Diego, CA 92101
 Attention: Lisa J. Tucker

Project ID: Building 56 Landfill
 Boeing SSFL
 Report Number: IMI0763

Sampled: 09/08/03-09/11/03
 Received: 09/12/03

INORGANICS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers	
Sample ID: IMI0763-01 (MT664 - Water)					Sampled: 09/10/03					Res Qual
Reporting Units: ug/l										Qual Lo
Perchlorate	EPA 314.0	3I21022	0.80	4.0	ND	1	09/21/03	09/22/03	U	
Sample ID: IMI0763-02 (MT665 - Water)					Sampled: 09/10/03					
Reporting Units: ug/l										
Perchlorate	EPA 314.0	3I21022	0.80	4.0	ND	1	09/21/03	09/22/03	U	
Sample ID: IMI0763-03 (MT667 - Water)					Sampled: 09/10/03					
Reporting Units: ug/l										
Perchlorate	EPA 314.0	3I21022	0.80	4.0	ND	1	09/21/03	09/22/03	U	
Sample ID: IMI0763-04 (MT668 - Water)					Sampled: 09/10/03					
Reporting Units: ug/l										
Perchlorate	EPA 314.0	3I23052	0.80	4.0	ND	1	09/23/03	09/24/03	U	
Sample ID: IMI0763-05 (MT669 - Water)					Sampled: 09/10/03					
Reporting Units: ug/l										
Perchlorate	EPA 314.0	3I21022	0.80	4.0	ND	1	09/21/03	09/22/03	U	
Sample ID: IMI0763-06 (MT670 - Water)					Sampled: 09/08/03					
Reporting Units: ug/l										
Perchlorate	EPA 314.0	3I23052	0.80	4.0	ND	1	09/23/03	09/24/03	U	
Sample ID: IMI0763-07 (MT671 - Water)					Sampled: 09/10/03					
Reporting Units: ug/l										
Perchlorate	EPA 314.0	3I21022	0.80	4.0	ND	1	09/21/03	09/22/03	U	
Sample ID: IMI0763-08 (MT672 - Water)					Sampled: 09/08/03					
Reporting Units: ug/l										
Perchlorate	EPA 314.0	3I22065	0.80	4.0	ND	1	09/22/03	09/22/03	U	
Sample ID: IMI0763-09 (MT673 - Water)					Sampled: 09/10/03					
Reporting Units: ug/l										
Perchlorate	EPA 314.0	3I21022	0.80	4.0	ND	1	09/21/03	09/22/03	U	
Sample ID: IMI0763-10 (MT674 - Water)					Sampled: 09/10/03					
Reporting Units: ug/l										
Perchlorate	EPA 314.0	3I21022	0.80	4.0	ND	1	09/21/03	09/22/03	U	

MEC VALIDATED

LEVEL IV

Del Mar Analytical, Irvine
 Fred Haley For Michele Harper
 Project Manager



550 South Wadsworth Boulevard, Suite 500, Lakewood, CO 80026
303.935.6505, Fax 303.935.6575

DATA ASSESSMENT FORM

Project Title: Rocketdyne SSFL RFI
Project Manager: D. Hambrick
Analysis Method: General Minerals by 9045C
QC Level: V¹
SDG: IM 10126
Matrix: Soil
No. of Samples: 3
Date Reviewed: December 12, 2003
Reviewer: P. Meeks
Reference: USEPA Contract Laboratory Program National Functional Guidelines For Inorganic Data Review (2/94)
Samples Reviewed: M T522, M T523, M T524

Data Validation Findings

	Findings	Qualifications
1. <u>Sample Management</u>	The temperature upon receipt was within the QC limits of 4°±2°C. All samples were received on HOLD. The HOLD status was released per a memo from MWH personnel dated 9/11/03. The COC accounted for the samples and analyses presented in this SDG. No custody seals were present on the cooler. The holding time for pH was exceeded.	All pH results were qualified "J."
3. <u>Method Blanks</u>	Not applicable to the pH analysis.	No qualifications were required.
5. <u>LCS/BS</u>	Not applicable to the pH analysis.	No qualifications were required.
6. <u>Duplicates</u>	None performed.	No qualifications were required.
7. <u>MS/MSDs</u>	Not applicable to the pH analysis.	No qualifications were required.
10. <u>Other</u>	None	No qualifications were required.
11. <u>Field QC Samples</u> Field duplicates: none	No field QC samples for pH.	No qualifications were required.
<u>Comments</u>	None	None

¹ Level V validation consists of cursory review of the summary forms only. The reported values on the summary forms are presumed to be correct and no verification of the values from the raw instrument output is performed.



MWH-San Diego
 1230 Columbia Street, Suite 750
 San Diego, CA 92101
 Attention: Lisa J. Tucker

Project ID: Building 56 Landfill
 Boeing SSFL
 Report Number: IMI0126

Sampled: 09/02/03
 Received: 09/03/03

INORGANICS

Analyte	Method	Batch	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers	
								Rev Qual	Qual Code
Sample ID: IMI0126-01 (MT521 - Soil)				Sampled: 09/02/03					
Reporting Units: %									
Percent Solids	EPA 160.3 MOD	3I15088	0.010	95	1	9/15/2003	9/15/2003	*	
Sample ID: IMI0126-01 (MT521 - Soil)				Sampled: 09/02/03					
Reporting Units: mg/kg dry									
Perchlorate	EPA 314.0 MOD	3I09058	0.042	ND	1	9/9/2003	9/10/2003	*	
Sample ID: IMI0126-02 (MT522 - Soil)				Sampled: 09/02/03					
Reporting Units: %									
Percent Solids	EPA 160.3 MOD	3I15088	0.010	98	1	9/15/2003	9/15/2003	*	
Sample ID: IMI0126-02 (MT522 - Soil)				Sampled: 09/02/03					
Reporting Units: pH Units									
pH	EPA 9045C	3I12001	NA	7.36	1	9/11/2003	9/11/2003	J H1	H
Sample ID: IMI0126-03 (MT523 - Soil)				Sampled: 09/02/03					
Reporting Units: %									
Percent Solids	EPA 160.3 MOD	3I15088	0.010	97	1	9/15/2003	9/15/2003	*	
Sample ID: IMI0126-03 (MT523 - Soil)				Sampled: 09/02/03					
Reporting Units: pH Units									
pH	EPA 9045C	3I12001	NA	7.43	1	9/11/2003	9/11/2003	J H1	H
Sample ID: IMI0126-04 (MT524 - Soil)				Sampled: 09/02/03					
Reporting Units: %									
Percent Solids	EPA 160.3 MOD	3I15088	0.010	94	1	9/15/2003	9/15/2003	*	
Sample ID: IMI0126-04 (MT524 - Soil)				Sampled: 09/02/03					
Reporting Units: pH Units									
pH	EPA 9045C	3I12001	NA	6.88	1	9/11/2003	9/11/2003	J H1	H

ANEC VALIDATED

LEVEL V

Del Mar Analytical, Irvine
 Michele Harper
 Project Manager

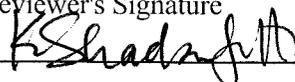
* Analysis not validated

CONTRACT COMPLIANCE SCREENING FORM FOR HARDCOPY DATA

AMEC Earth & Environmental
 550 South Wadsworth Boulevard
 Suite 500
 Lakewood, CO 80226

Package ID T707WC4
 Task Order 313150010
 SDG No. IMI0126
 No. of Analyses 1

Laboratory Del Mar Analytical
 Reviewer K. Shadowlight
 Analysis/Method Perchlorate

Date: November 10, 2003
 Reviewer's Signature


ACTION ITEMS^a	
1. Case Narrative Deficiencies	
2. Out of Scope Analyses	
3. Analyses Not Conducted	
4. Missing Hardcopy Deliverables	
5. Incorrect Hardcopy Deliverables	
6. Deviations from Analysis Protocol, e.g.,	
Holding Times	
GC/MS Tune/Inst. Perform	
Calibrations	
Blanks	
Surrogates	
Matrix Spike/Dup LCS	
Field QC	
Internal Standard Performance	
Compound Identification and Quantitation	
System Performance	
COMMENTS^b	Acceptable as reviewed.
^a Subcontracted analytical laboratory is not meeting contract and/or method requirements. ^b Differences in protocol have been adopted by the laboratory but no action against the laboratory is required.	



DATA VALIDATION REPORT

Rocketdyne
SSFL RFI Program

ANALYSIS: GENERAL MINERALS
SAMPLE DELIVERY GROUP: IMI0126

Prepared by

AMEC—Denver Operations
550 South Wadsworth Boulevard, Suite 500
Lakewood, Colorado 80226

1. INTRODUCTION

Task Order Title: Rocketdyne SSFL RFI Program
Contract Task Order #: 313150010
Sample Delivery Group #: IMI0126
Project Manager: D. Hambrick
Matrix: Soil
Analysis: General Minerals
QC Level: Level IV
No. of Samples: 1
Reviewer: K. Shadowlight
Date of Review: November 10, 2003

The samples listed in Table 1 were validated based on the guidelines outlined in the AMEC *Data Validation Procedures SOP II-DVP-S, Rev. 0, USEPA Methods for Chemical Analysis of Water and Wastes Method 300.0, USEPA Methods for Chemical Analysis of Water and Wastes Method 314.0*, validation guidelines outlined in the *USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review (2/94)*. Any deviations from these procedures and guidelines are documented herein. Qualifiers were applied in cases where the data did not meet the required QC criteria or where special consideration by the data user is required. Data qualifiers were placed on Form Is with the associated qualification codes. Analytes that were rejected for any reason are denoted on the Form I as having only the "R" data qualifier and associated qualification code(s) denoting the reason for rejection. Any additional problems with the data that may have resulted in an estimated value were not denoted by a qualification code since the data had already been rejected.

Table 1. Sample identification

Client ID	EPA ID	Laboratory ID	Matrix	COC Method
BLTS13S01	MT521	IMI1026-01	soil	perchlorate

2. DATA VALIDATION FINDINGS

2.1 SAMPLE MANAGEMENT

Following are findings associated with sample management:

2.1.1 Sample Preservation, Handling, and Transport

The sample in this SDG was received at Del Mar Analytical laboratory within the temperature limits of 4°C ±2°C. The analysis did not require preservation, and no preservation was noted in the field. The Del Mar Analytical case narrative noted that the sample was received intact. No qualifications were required.

2.1.2 Chain of Custody

The COC was signed and dated by both field and laboratory personnel. The COC accounted for the sample and analysis presented in this SDG. The laboratory provided no custody seal information. No qualifications were required.

2.1.3 Holding Times

The holding time was assessed by comparing the date of collection with the date of analysis. The 28-day holding time for the perchlorate analysis was met, and no qualifications were required.

2.2 CALIBRATION

The initial calibration correlation coefficient was ≥ 0.995 . The ICV, IPC, and the CCV were recovered within the control limits of 90-110% and the IPC-MA was recovered within the control limits of 80-120%. No qualifications were required.

2.3 BLANKS

The results reported on the summary forms and in the raw data for the blank analyses associated with the sample were nondetects at the reporting limit. No qualifications were required.

2.4 BLANK SPIKES AND LABORATORY CONTROL SAMPLES

The laboratory control sample %R was within the laboratory-established control limits of 85%-115%. No qualifications were required.

2.5 SURROGATES RECOVERY

Surrogate recovery is not applicable to the perchlorate analysis.

2.6 LABORATORY DUPLICATES

There were no MS/MSD analyses performed in association with the sample in this SDG; therefore, the sample could not be assessed based on this criterion. No qualifications were required.

2.7 MATRIX SPIKE/MATRIX SPIKE DUPLICATE

There were no MS/MSD analyses performed in association with the sample in this SDG; therefore, the sample could not be assessed based on this criterion. No qualifications were required.

2.8 FURNACE ATOMIC ABSORPTION QC

Furnace atomic absorption was not utilized for the analysis of this sample; therefore, furnace atomic absorption QC is not applicable.

2.9 ICP SERIAL DILUTION

ICP serial dilution is not applicable to the perchlorate analysis presented in this data validation report.

2.10 SAMPLE RESULT VERIFICATION

A Level IV review was performed for the sample in this data package. Calculations were verified, and the sample result reported on the Form I was verified against the raw data. No transcription errors or calculations errors were noted. The reporting limit was properly adjusted for percent moisture. No qualifications were required.

2.11 FIELD QC SAMPLES

Field QC samples are evaluated, and if necessary, qualified based only on laboratory blanks. Any remaining detects are used to evaluate the associated samples. The following are findings associated with field QC samples:

2.11.1 Field Blanks and Equipment Rinsates

Sample ML088 (SDG IMG1031) was the field blank and sample ML087 (SDG IMG1031) was the equipment rinsate associated with the site sample in this SDG. Perchlorate was not reported in either of the field QC samples and no qualifications were required.

2.11.2 Field Duplicates

There were no field duplicate samples associated with the sample in this SDG.



MWH-San Diego
 1230 Columbia Street, Suite 750
 San Diego, CA 92101
 Attention: Lisa J. Tucker

Project ID: Building 56 Landfill
 Boeing SSFL
 Report Number: IMI0126

Sampled: 09/02/03
 Received: 09/03/03

INORGANICS

Analyte	Method	Batch	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers	
Sample ID: IMI0126-01 (MT521 - Soil) Reporting Units: %				Sampled: 09/02/03					None
Percent Solids	EPA 160.3 MOD	3I15088	0.010	95	1	9/15/2003	9/15/2003	* <i>New Qual</i>	
Sample ID: IMI0126-01 (MT521 - Soil) Reporting Units: mg/kg dry				Sampled: 09/02/03					None
Perchlorate	EPA 314.0 MOD	3I109058	0.042	ND	1	9/9/2003	9/10/2003	U	
Sample ID: IMI0126-02 (MT522 - Soil) Reporting Units: %				Sampled: 09/02/03					None
Percent Solids	EPA 160.3 MOD	3I15088	0.010	98	1	9/15/2003	9/15/2003	* <i>Qual</i>	
Sample ID: IMI0126-02 (MT522 - Soil) Reporting Units: pH Units				Sampled: 09/02/03					None
pH	EPA 9045C	3I12001	NA	7.36	1	9/11/2003	9/11/2003	* HI	
Sample ID: IMI0126-03 (MT523 - Soil) Reporting Units: %				Sampled: 09/02/03					None
Percent Solids	EPA 160.3 MOD	3I15088	0.010	97	1	9/15/2003	9/15/2003	* <i>Qual</i>	
Sample ID: IMI0126-03 (MT523 - Soil) Reporting Units: pH Units				Sampled: 09/02/03					None
pH	EPA 9045C	3I12001	NA	7.43	1	9/11/2003	9/11/2003	* HI	
Sample ID: IMI0126-04 (MT524 - Soil) Reporting Units: %				Sampled: 09/02/03					None
Percent Solids	EPA 160.3 MOD	3I15088	0.010	94	1	9/15/2003	9/15/2003	* <i>Qual</i>	
Sample ID: IMI0126-04 (MT524 - Soil) Reporting Units: pH Units				Sampled: 09/02/03					None
pH	EPA 9045C	3I12001	NA	6.88	1	9/11/2003	9/11/2003	* HI	

* analysis not validated.

ANIEC VALIDATED
LEVEL IV

Del Mar Analytical, Irvine
 Michele Harper
 Project Manager

CONTRACT COMPLIANCE SCREENING FORM FOR HARDCOPY DATA

AMEC Earth & Environmental
 550 South Wadsworth Boulevard
 Suite 500
 Lakewood, CO 80226

Package ID T707WC3

Task Order 313150010

SDG No. IMI1182

No. of Analyses 16

Laboratory Del Mar Analytical

Date: October 31, 2003

Reviewer K. Shadowlight

Reviewer's Signature _____

Analysis/Method Perchlorate

ACTION ITEMS^a

1. Case Narrative	_____
Deficiencies	_____
2. Out of Scope	_____
Analyses	_____
3. Analyses Not Conducted	_____
4. Missing Hardcopy	_____
Deliverables	_____
5. Incorrect Hardcopy	The initial calibration, dated 09/26/03, and all associated data were incorrectly processed using height values rather than area, as required by the method. The lab submitted reprocessed quantitation reports for all associated data. New data sheets were not provided.
Deliverables	_____
6. Deviations from Analysis Protocol, e.g.,	Qualifications were assigned for an IPC-MA calibration outlier.
Holding Times	_____
GC/MS Tune/Inst. Perform	_____
Calibrations	_____
Blanks	_____
Surrogates	_____
Matrix Spike/Dup LCS	_____
Field QC	_____
Internal Standard Performance	_____
Compound Identification and	_____
Quantitation	_____
System Performance	_____

COMMENTS^b

^a Subcontracted analytical laboratory is not meeting contract and/or method requirements.
^b Differences in protocol have been adopted by the laboratory but no action against the laboratory is required.



DATA VALIDATION REPORT

Rocketdyne
SSFL RFI Program

ANALYSIS: GENERAL MINERALS
SAMPLE DELIVERY GROUP: IMI1182

Prepared by

AMEC—Denver Operations
550 South Wadsworth Boulevard, Suite 500
Lakewood, Colorado 80226

1. INTRODUCTION

Task Order Title: Rocketdyne SSFL RFI Program
Contract Task Order #: 313150010
Sample Delivery Group #: IMI1182
Project Manager: D. Hambrick
Matrix: Water
Analysis: General Minerals
QC Level: Level IV
No. of Samples: 16
Reviewer: K. Shadowlight
Date of Review: October 31, 2003

The samples listed in Table 1 were validated based on the guidelines outlined in the AMEC *Data Validation Procedures SOP II-DVP-S, Rev. 0, USEPA Methods for Chemical Analysis of Water and Wastes Method 300.0, USEPA Methods for Chemical Analysis of Water and Wastes Method 314.0*, validation guidelines outlined in the *USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review (2/94)*. Any deviations from these procedures and guidelines are documented herein. Qualifiers were applied in cases where the data did not meet the required QC criteria or where special consideration by the data user is required. Data qualifiers were placed on Form Is with the associated qualification codes. Analytes that were rejected for any reason are denoted on the Form I as having only the "R" data qualifier and associated qualification code(s) denoting the reason for rejection. Any additional problems with the data that may have resulted in an estimated value were not denoted by a qualification code since the data had already been rejected.

Table 1. Sample identification

Client ID	EPA ID	Laboratory ID	Matrix	COC Method
BLLS19S01	MT713	IMI1182-01	water	perchlorate
BLLS27S01	MT714	IMI1182-02	water	perchlorate
BLLS22S01	MT715	IMI1182-03	water	perchlorate
BLLS18S01	MT716	IMI1182-04	water	perchlorate
BLLS30S01	MT717	IMI1182-05	water	perchlorate
BLLS28S01	MT718	IMI1182-06	water	perchlorate
BLLS26S01	MT719	IMI1182-07	water	perchlorate
BLLS23S01	MT720	IMI1182-08	water	perchlorate
BLLS17S01	MT721	IMI1182-09	water	perchlorate
BLLS31S01	MT722	IMI1182-10	water	perchlorate
BLLS25S01	MT723	IMI1182-11	water	perchlorate
BLLS29D01	MT724	IMI1182-12	water	perchlorate
BLLS29S01	MT725	IMI1182-13	water	perchlorate
BLLS24S01	MT726	IMI1182-14	water	perchlorate
BLLS21S01	MT727	IMI1182-15	water	perchlorate
BLLS20S01	MT728	IMI1182-16	water	perchlorate

2. DATA VALIDATION FINDINGS

2.1 SAMPLE MANAGEMENT

Following are findings associated with sample management:

2.1.1 Sample Preservation, Handling, and Transport

The samples in this SDG were received at Del Mar Analytical laboratory within the temperature limits of $4^{\circ}\text{C} \pm 2^{\circ}\text{C}$. The analysis did not require preservation, and no preservation was noted in the field. The Del Mar Analytical case narrative noted that the samples were received intact. No qualifications were required.

2.1.2 Chain of Custody

The COCs were signed and dated by both field and laboratory personnel. Hydrazine analysis was requested on the COC in error for several samples in this SDG. In a memo dated 09/19/03 from Montgomery Watson personnel the request for hydrazine analysis was changed to perchlorate analysis. The COCs accounted for the samples and remaining perchlorate analyses presented in this SDG. The laboratory provided no custody seal information. No qualifications were required.

2.1.3 Holding Times

The holding times were assessed by comparing the date of collection with the dates of analysis. The 28-day holding time for the perchlorate analysis was met, and no qualifications were required.

2.2 CALIBRATION

The initial calibration correlation coefficients were ≥ 0.995 . The CCVs analyzed on 09/26/03 (11:00 a.m. and 8:18 p.m.) and 09/27/03 (4:53 a.m.) were recovered above the control limits at 112%, 113%, and 113%, respectively. As perchlorate was not reported in any of the associated samples no qualifications were required for the elevated recoveries. The IPC-MA analyzed on 09/27/03 was recovered below control limits at 78%; therefore, the nondetect results for perchlorate were qualified as estimated, "UJ" in associated samples MT714, MT715, MT718, MT720, MT722, and MT724. The ICVs, IPCs, and the remaining CCVs were recovered within the control limits of 90-110% and the remaining IPC-MA was recovered within the control limits of 80-120%. No further qualifications were required.

2.3 BLANKS

The results reported on the summary forms and in the raw data for the blank analyses associated with the samples were nondetects at the reporting limit. No qualifications were required.

2.4 BLANK SPIKES AND LABORATORY CONTROL SAMPLES

The laboratory control samples %Rs were within the laboratory-established control limits of 85%-115%. No qualifications were required.

2.5 SURROGATES RECOVERY

Surrogate recovery is not applicable to the perchlorate analysis.

2.6 LABORATORY DUPLICATES

The MS/MSD analyses were performed on samples MT725 and MT726. The RPDs were less than the method control limit of $\pm 15\%$. No qualifications were required.

2.7 MATRIX SPIKE/MATRIX SPIKE DUPLICATE

The MS/MSD analyses were performed on samples MT725 and MT726. The recoveries for the MS and MSD analyses were within the laboratory-established control limits of 80-120%. No qualifications were required.

2.8 FURNACE ATOMIC ABSORPTION QC

Furnace atomic absorption was not utilized for the analysis of these samples; therefore, furnace atomic absorption QC is not applicable.

2.9 ICP SERIAL DILUTION

ICP serial dilution is not applicable to the perchlorate analyses presented in this data validation report.

2.10 SAMPLE RESULT VERIFICATION

A Level IV review was performed for all samples in this data package. Calculations were verified, and sample results reported on the Form Is were verified against the raw data. No transcription errors or calculations errors were noted. One of the initial calibrations for perchlorate associated with this SDG, dated 09/26/03, was originally processed using the height of the standard peaks rather than the area, as required by Method 314.0. The laboratory submitted reprocessed quantitation reports for the samples and all associated calibration data; however, corrected data sheets were not provided. As perchlorate was not reported in this SDG, edits to the data sheet were not required. Samples MT714, MT715, MT718, MT722, and MT724 were each analyzed at a 5 \times dilution for matrix interference. The reporting limits were properly adjusted for the dilutions. No qualifications were required.

2.11 FIELD QC SAMPLES

Field QC samples are evaluated, and if necessary, qualified based only on laboratory blanks. Any remaining detects are used to evaluate the associated samples. The following are findings associated with field QC samples:

2.11.1 Field Blanks and Equipment Rinsates

Sample ML088 (SDG IMG1031) was the field blank and sample ML087 (SDG IMG1031) was the equipment rinsate associated with the site samples in this SDG. Perchlorate was not reported in either of the field QC samples and no qualifications were required.

2.11.2 Field Duplicates

Samples MT724 and MT725 were the field duplicate samples associated with this SDG. Qualifications are not routinely assigned based on field duplicate results; however, RPDs are calculated for results reported in the field duplicate samples. Perchlorate was not detected in either field duplicate sample.



MWH-San Diego
1230 Columbia Street, Suite 750
San Diego, CA 92101
Attention: Lisa J. Tucker

Project ID: Building 56 Landfill
Boeing SSFL
Report Number: IMI1182

Sampled: 09/15/03-09/17/03
Received: 09/18/03

INORGANICS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IMI1182-01 (MT713 - Water)					Sampled: 09/17/03		Rev Qual Qual Cd		
Reporting Units: ug/l									
Perchlorate	EPA 314.0	3I25115	0.80	4.0	ND	1	09/25/03	09/26/03	U
Sample ID: IMI1182-02 (MT714 - Water)					Sampled: 09/16/03				
Reporting Units: ug/l									
Perchlorate	EPA 314.0	3I27037	4.0	20	ND	5	09/27/03	09/27/03	UJ RL-1 R
Sample ID: IMI1182-03 (MT715 - Water)					Sampled: 09/16/03				
Reporting Units: ug/l									
Perchlorate	EPA 314.0	3I27037	4.0	20	ND	5	09/27/03	09/27/03	UJ RL-1 R
Sample ID: IMI1182-04 (MT716 - Water)					Sampled: 09/16/03				
Reporting Units: ug/l									
Perchlorate	EPA 314.0	3I25115	0.80	4.0	ND	1	09/25/03	09/26/03	U
Sample ID: IMI1182-05 (MT717 - Water)					Sampled: 09/16/03				
Reporting Units: ug/l									
Perchlorate	EPA 314.0	3I25115	0.80	4.0	ND	1	09/25/03	09/27/03	U
Sample ID: IMI1182-06 (MT718 - Water)					Sampled: 09/16/03				
Reporting Units: ug/l									
Perchlorate	EPA 314.0	3I27037	4.0	20	ND	5	09/27/03	09/27/03	UJ RL-1 R
Sample ID: IMI1182-07 (MT719 - Water)					Sampled: 09/16/03				
Reporting Units: ug/l									
Perchlorate	EPA 314.0	3I25115	0.80	4.0	ND	1	09/25/03	09/26/03	U
Sample ID: IMI1182-08 (MT720 - Water)					Sampled: 09/16/03				
Reporting Units: ug/l									
Perchlorate	EPA 314.0	3I27037	0.80	4.0	ND	1	09/27/03	09/27/03	UJ R
Sample ID: IMI1182-09 (MT721 - Water)					Sampled: 09/15/03				
Reporting Units: ug/l									
Perchlorate	EPA 314.0	3I25115	0.80	4.0	ND	1	09/25/03	09/26/03	U
Sample ID: IMI1182-10 (MT722 - Water)					Sampled: 09/16/03				
Reporting Units: ug/l									
Perchlorate	EPA 314.0	3I27037	4.0	20	ND	5	09/27/03	09/27/03	UJ RL-1 R

ANISO VALIDATED

LEVEL IV

Del Mar Analytical, Irvine
Michele Harper
Project Manager



MWH-San Diego
1230 Columbia Street, Suite 750
San Diego, CA 92101
Attention: Lisa J. Tucker

Project ID: Building 56 Landfill
Boeing SSFL
Report Number: IMI1182

Sampled: 09/15/03-09/17/03
Received: 09/18/03

INORGANICS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IMI1182-11 (MT723 - Water) Reporting Units: ug/l					Sampled: 09/16/03			Rev Qual	Qual
Perchlorate	EPA 314.0	3I25115	0.80	4.0	ND	1	09/25/03	09/26/03	U
Sample ID: IMI1182-12 (MT724 - Water) Reporting Units: ug/l					Sampled: 09/16/03				
Perchlorate	EPA 314.0	3I27037	4.0	20	ND	5	09/27/03	09/27/03	UJ RL-1 R
Sample ID: IMI1182-13 (MT725 - Water) Reporting Units: ug/l					Sampled: 09/15/03				
Perchlorate	EPA 314.0	3I25115	0.80	4.0	ND	1	09/25/03	09/26/03	U MI
Sample ID: IMI1182-14 (MT726 - Water) Reporting Units: ug/l					Sampled: 09/16/03				
Perchlorate	EPA 314.0	3J01057	0.80	4.0	ND	1	10/01/03	10/01/03	U
Sample ID: IMI1182-15 (MT727 - Water) Reporting Units: ug/l					Sampled: 09/15/03				
Perchlorate	EPA 314.0	3I25115	0.80	4.0	ND	1	09/25/03	09/26/03	U
Sample ID: IMI1182-16 (MT728 - Water) Reporting Units: ug/l					Sampled: 09/15/03				
Perchlorate	EPA 314.0	3I25115	0.80	4.0	ND	1	09/25/03	09/26/03	U

ANALYTIC VALIDATED

Del Mar Analytical, Irvine
Michele Harper
Project Manager

LEVEL IV



550 South Wadsworth Boulevard, Suite 500, Lakewood, CO 80026
303.935.6505, Fax 303.935.6575

DATA ASSESSMENT FORM

Project Title: Rocketdyne SSFL RFI
Project Manager: D. Hambrick
Analysis Method: General Minerals by 9045C
QC Level: V¹
SDG: IM 10125
Matrix: Soil
No. of Samples: 6
Date Reviewed: December 12, 2003
Reviewer: P. Meeks
Reference: USEPA Contract Laboratory Program National Functional Guidelines For Inorganic Data Review (2/94)
Samples Reviewed: MT526, MT527, MT528, MT529, MT530, MT531

Data Validation Findings

	Findings	Qualifications
1. <u>Sample Management</u>	The temperature upon receipt was within the QC limits of 4°±2°C. All samples were received on HOLD. The HOLD status was released per memo from MWH personnel dated 9/11/03. The COC accounted for the samples and analyses presented in this SDG. No custody seals were present on the cooler. The holding time for pH was exceeded.	All pH results were qualified "J."
3. <u>Method Blanks</u>	Not applicable to the pH analysis.	No qualifications were required.
5. <u>LCS/BS</u>	Not applicable to the pH analysis.	No qualifications were required.
6. <u>Duplicates</u>	None performed.	No qualifications were required.
7. <u>MS/MSDs</u>	Not applicable to the pH analysis.	No qualifications were required.
10. <u>Other</u>	None	No qualifications were required.
11. <u>Field QC Samples</u> Field duplicates: none	No field QC samples for pH.	No qualifications were required.
<u>Comments</u>	None	None

¹ Level V validation consists of cursory review of the summary forms only. The reported values on the summary forms are presumed to be correct and no verification of the values from the raw instrument output is performed.



MWH-San Diego
 1230 Columbia Street, Suite 750
 San Diego, CA 92101
 Attention: Lisa J. Tucker

Project ID: Building 56 Landfill
 Being SSFL
 Report Number: IMI0125

Sampled: 09/03/03
 Received: 09/03/03

INORGANICS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers	Rev Qual	Qual Code
Sample ID: IMI0125-02 (MT526 - Soil)					Sampled: 09/03/03						
Reporting Units: %											
Percent Solids	EPA 160.3 MOD	3115088	N/A	0.010	96	1	09/15/03	09/15/03	*		
Sample ID: IMI0125-02 (MT526 - Soil)					Sampled: 09/03/03						
Reporting Units: pH Units dry											
pH	EPA 9045C	3112002	N/A	NA	8.30	1	09/11/03	09/12/03	J H1		H
Sample ID: IMI0125-03 (MT527 - Soil)					Sampled: 09/03/03						
Reporting Units: %											
Percent Solids	EPA 160.3 MOD	3115088	N/A	0.010	95	1	09/15/03	09/15/03	*		
Sample ID: IMI0125-03 (MT527 - Soil)					Sampled: 09/03/03						
Reporting Units: pH Units dry											
pH	EPA 9045C	3112002	N/A	NA	7.91	1	09/11/03	09/12/03	J H1		H
Sample ID: IMI0125-04 (MT528 - Soil)					Sampled: 09/03/03						
Reporting Units: %											
Percent Solids	EPA 160.3 MOD	3115088	N/A	0.010	97	1	09/15/03	09/15/03	*		
Sample ID: IMI0125-04 (MT528 - Soil)					Sampled: 09/03/03						
Reporting Units: pH Units dry											
pH	EPA 9045C	3112002	N/A	NA	8.36	1	09/11/03	09/12/03	J H1		H
Sample ID: IMI0125-05 (MT529 - Soil)					Sampled: 09/03/03						
Reporting Units: %											
Percent Solids	EPA 160.3 MOD	3115088	N/A	0.010	95	1	09/15/03	09/15/03	*		
Sample ID: IMI0125-05 (MT529 - Soil)					Sampled: 09/03/03						
Reporting Units: pH Units dry											
pH	EPA 9045C	3112002	N/A	NA	8.51	1	09/11/03	09/12/03	J H1		H
Sample ID: IMI0125-06 (MT530 - Soil)					Sampled: 09/03/03						
Reporting Units: %											
Percent Solids	EPA 160.3 MOD	3115088	N/A	0.010	90	1	09/15/03	09/15/03	*		
Sample ID: IMI0125-06 (MT530 - Soil)					Sampled: 09/03/03						
Reporting Units: pH Units dry											
pH	EPA 9045C	3112002	N/A	NA	8.08	1	09/11/03	09/12/03	J H1		H

pm 12/12/03

AMEC VALIDATED

LEVEL V

* Analysis not validated

Del Mar Analytical, Irvine
 Michele Harper
 Project Manager



MWH-San Diego
1230 Columbia Street, Suite 750
San Diego, CA 92101
Attention: Lisa J. Tucker

Project ID: Building 56 Landfill
Being SSFL
Report Number: IM10125

Sampled: 09/03/03
Received: 09/03/03

INORGANICS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IMI0125-07 (MT531 - Soil)					Sampled: 09/03/03				
Reporting Units: %									
Percent Solids	EPA 160.3 MOD	3115088	N/A	0.010	93	1	09/15/03	09/15/03	* Per Qual
Sample ID: IMI0125-07 (MT531 - Soil)					Sampled: 09/03/03				
Reporting Units: pH Units dry									
pH	EPA 9045C	3112002	N/A	NA	8.11	1	09/11/03	09/12/03	J H1 H

ANALYSIS VALIDATED

LEVEL V

* Analysis not validated

Del Mar Analytical, Irvine
Michele Harper
Project Manager



DATA VALIDATION REPORT

Rocketdyne
SSFL RFI Program

ANALYSIS: GENERAL MINERALS
SAMPLE DELIVERY GROUP: IMI1185

Prepared by

AMEC—Denver Operations
550 South Wadsworth Boulevard, Suite 500
Lakewood, Colorado 80226

1. INTRODUCTION

Task Order Title: Rocketdyne SSFL RFI Program
Contract Task Order #: 313150010
Sample Delivery Group #: IMI1185
Project Manager: D. Hambrick
Matrix: Water
Analysis: General Minerals
QC Level: Level IV
No. of Samples: 12
Reviewer: K. Shadowlight
Date of Review: October 29, 2003

The samples listed in Table 1 were validated based on the guidelines outlined in the AMEC *Data Validation Procedures SOP II-DVP-S, Rev. 0*, *USEPA Methods for Chemical Analysis of Water and Wastes Method 300.0*, *USEPA Methods for Chemical Analysis of Water and Wastes Method 314.0*, validation guidelines outlined in the *USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review (2/94)*. Any deviations from these procedures and guidelines are documented herein. Qualifiers were applied in cases where the data did not meet the required QC criteria or where special consideration by the data user is required. Data qualifiers were placed on Form Is with the associated qualification codes. Analytes that were rejected for any reason are denoted on the Form I as having only the "R" data qualifier and associated qualification code(s) denoting the reason for rejection. Any additional problems with the data that may have resulted in an estimated value were not denoted by a qualification code since the data had already been rejected.

Table 1. Sample identification

Client ID	EPA ID	Laboratory ID	Matrix	COC Method
BLLS41S01	MT729	IMI1185-01	water	perchlorate
BLLS42S01	MT730	IMI1185-02	water	perchlorate
BLLS37S01	MT731	IMI1185-03	water	perchlorate
BLLS35D01	MT732	IMI1185-04	water	perchlorate
BLLS35S01	MT733	IMI1185-05	water	perchlorate
BLLS38S01	MT734	IMI1185-06	water	perchlorate
BLLS36S01	MT735	IMI1185-07	water	perchlorate
BLLS32S01	MT736	IMI1185-08	water	perchlorate
BLLS34S01	MT737	IMI1185-09	water	perchlorate
BLLS40S01	MT738	IMI1185-10	water	perchlorate
BLLS39S01	MT739	IMI1185-11	water	perchlorate
BLLS33S01	MT740	IMI1185-12	water	perchlorate

2. DATA VALIDATION FINDINGS

2.1 SAMPLE MANAGEMENT

Following are findings associated with sample management:

2.1.1 Sample Preservation, Handling, and Transport

The samples in this SDG were received at Del Mar Analytical laboratory within the temperature limits of $4^{\circ}\text{C} \pm 2^{\circ}\text{C}$. The analysis did not require preservation, and no preservation was noted in the field. The Del Mar Analytical case narrative noted that the samples were received intact. No qualifications were required.

2.1.2 Chain of Custody

The COCs were signed and dated by both field and laboratory personnel. The COCs accounted for the samples and analyses presented in this SDG. The laboratory provided no custody seal information. No qualifications were required.

2.1.3 Holding Times

The holding times were assessed by comparing the date of collection with the dates of analysis. The 28-day holding time for the perchlorate analysis was met, and no qualifications were required.

2.2 CALIBRATION

The initial calibration correlation coefficients were ≥ 0.995 . The CCV analyzed on 10/01/03 (7:11 p.m.) was recovered above the control limits at 113%. As perchlorate was not reported in any of the associated samples no qualifications were required for the elevated recovery. The IPC-MA analyzed on 09/27/03 was recovered below control limits at 78%; therefore, the nondetect results for perchlorate were qualified as estimated, "UJ" in associated samples MT731, MT735, MT737, MT738, and MT740. The ICVs, IPCs, and the remaining CCVs were recovered within the control limits of 90-110% and the remaining IPC-MA was recovered within the control limits of 80-120%. No further qualifications were required.

2.3 BLANKS

The results reported on the summary forms and in the raw data for the blank analyses associated with the samples were nondetects at the reporting limit. No qualifications were required.

2.4 BLANK SPIKES AND LABORATORY CONTROL SAMPLES

The laboratory control samples %Rs were within the laboratory-established control limits of 85%-115%. No qualifications were required.

2.5 SURROGATES RECOVERY

Surrogate recovery is not applicable to the perchlorate analysis.

2.6 LABORATORY DUPLICATES

There were no MS/MSD analyses performed in association with the samples in this SDG; therefore, the samples could not be assessed based on this criterion. No qualifications were required.

2.7 MATRIX SPIKE/MATRIX SPIKE DUPLICATE

There were no MS/MSD analyses performed in association with the samples in this SDG; therefore, the samples could not be assessed based on this criterion. No qualifications were required.

2.8 FURNACE ATOMIC ABSORPTION QC

Furnace atomic absorption was not utilized for the analysis of these samples; therefore, furnace atomic absorption QC is not applicable.

2.9 ICP SERIAL DILUTION

ICP serial dilution is not applicable to the perchlorate analyses presented in this data validation report.

2.10 SAMPLE RESULT VERIFICATION

A Level IV review was performed for all samples in this data package. Calculations were verified, and sample results reported on the Form Is were verified against the raw data. No transcription errors or calculations errors were noted. One of the initial calibrations for perchlorate associated with this SDG, dated 09/26/03, was originally processed using the height of the standard peaks rather than the area, as required by Method 314.0. The laboratory submitted reprocessed quantitation reports for the samples and all associated calibration data; however, corrected data sheets were not provided. As perchlorate was not reported in this SDG, edits to the data sheet were not required. No qualifications were required.

2.11 FIELD QC SAMPLES

Field QC samples are evaluated, and if necessary, qualified based only on laboratory blanks. Any remaining detects are used to evaluate the associated samples. The following are findings associated with field QC samples:

2.11.1 Field Blanks and Equipment Rinsates

Sample ML088 (SDG IMG1031) was the field blank and sample ML087 (SDG IMG1031) was the equipment rinsate associated with the site samples in this SDG. Perchlorate was not reported in either of the field QC samples and no qualifications were required.

2.11.2 Field Duplicates

Samples MT732 and MT733 were the field duplicate samples associated with this SDG. Qualifications are not routinely assigned based on field duplicate results; however, RPDs are calculated for results reported in the field duplicate samples. Perchlorate was not detected in either field duplicate sample.



MWH-San Diego
 1230 Columbia Street, Suite 750
 San Diego, CA 92101
 Attention: Lisa J. Tucker

Project ID: Building 56 Landfill
 Boeing SSFL
 Report Number: IMI1185

Sampled: 09/17/03
 Received: 09/18/03

INORGANICS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IMI1185-01 (MT729 - Water) Reporting Units: ug/l									
Perchlorate	EPA 314.0	3I25115	0.80	4.0	ND	1	09/25/03	09/26/03	U
Sample ID: IMI1185-02 (MT730 - Water) Reporting Units: ug/l									
Perchlorate	EPA 314.0	3J01057	0.80	4.0	ND	1	10/01/03	10/01/03	U
Sample ID: IMI1185-03 (MT731 - Water) Reporting Units: ug/l									
Perchlorate	EPA 314.0	3I27037	0.80	4.0	ND	1	09/27/03	09/27/03	UJ R
Sample ID: IMI1185-04 (MT732 - Water) Reporting Units: ug/l									
Perchlorate	EPA 314.0	3I25115	0.80	4.0	ND	1	09/25/03	09/26/03	U
Sample ID: IMI1185-05 (MT733 - Water) Reporting Units: ug/l									
Perchlorate	EPA 314.0	3I27037	0.80	4.0	ND	1	09/27/03	09/27/03	UJ R
Sample ID: IMI1185-06 (MT734 - Water) Reporting Units: ug/l									
Perchlorate	EPA 314.0	3I25115	0.80	4.0	ND	1	09/25/03	09/26/03	U
Sample ID: IMI1185-07 (MT735 - Water) Reporting Units: ug/l									
Perchlorate	EPA 314.0	3I27037	0.80	4.0	ND	1	09/27/03	09/27/03	UJ R
Sample ID: IMI1185-08 (MT736 - Water) Reporting Units: ug/l									
Perchlorate	EPA 314.0	3J01057	0.80	4.0	ND	1	10/01/03	10/01/03	U
Sample ID: IMI1185-09 (MT737 - Water) Reporting Units: ug/l									
Perchlorate	EPA 314.0	3I27037	0.80	4.0	ND	1	09/27/03	09/27/03	UJ R
Sample ID: IMI1185-10 (MT738 - Water) Reporting Units: ug/l									
Perchlorate	EPA 314.0	3I27037	0.80	4.0	ND	1	09/27/03	09/27/03	UJ R

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LEVEL IV

Del Mar Analytical, Irvine
 Michele Harper
 Project Manager

MWH-San Diego
 1230 Columbia Street, Suite 750
 San Diego, CA 92101
 Attention: Lisa J. Tucker

Project ID: Building 56 Landfill
 Boeing SSFL
 Report Number: IM11185

Sampled: 09/17/03
 Received: 09/18/03

INORGANICS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IM11185-11 (MT739 - Water)									
Reporting Units: ug/l									
Perchlorate	EPA 314.0	3I25115	0.80	4.0	ND	1	09/25/03	09/26/03	U
Sample ID: IM11185-12 (MT740 - Water)									
Reporting Units: ug/l									
Perchlorate	EPA 314.0	3I27037	0.80	4.0	ND	1	09/27/03	09/28/03	U R

ANALYSIS VALIDATED
LEVEL IV

Del Mar Analytical, Irvine
 Michele Harper
 Project Manager



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DATA ASSESSMENT FORM

Project Title: Rocketdyne, SSFL RFI Program
Project Manager: D. Hambrick
Analysis/Method: Volatiles by Method 8260B
QC Level: V¹
SDG: IMH1614
Matrix: Soil/Water
No. of Samples: 4
No. of Reanalyses/Dilutions: 0
Date Reviewed: January 16, 2004
Reviewer: P. Meeks
Reference: National Functional Guidelines for Organic Data Review (2/94)
Samples Reviewed: MT517, MT518, MT519, MT532

Data Validation Findings

	Findings	Qualifications
1. <u>Sample Management</u>	<p>The COC was signed by field and laboratory personnel. The EPA ID of the sample listed on the COC as MT520 was changed to MT532 per a memo from MWH personnel dated 9/04/03. The laboratory's sample receiving checklist noted that the samples were received intact, with a cooler temperature within the limits of 4°C ± 2°C. No custody seal information was provided.</p> <p>The analyses of the samples were performed within 14 days of sample collection.</p>	No qualifications were required.
4. <u>Method Blanks</u>	Two method blanks were analyzed with this SDG. No target compounds were reported in either of the method blanks.	No qualifications were required.
5. <u>LCS/BS</u>	One LCS and one LCS/LCSD pair were analyzed with this SDG. All spiked compounds were recovered within the QC limits and all RPD were within the QC limit.	No qualifications were required.
6. <u>Surrogates</u>	All surrogate recoveries were within the laboratory-established QC limits.	No qualifications were required.

	Findings	Qualifications
7. <u>MS/MSDs</u>	None performed.	No qualifications were required.
8. <u>Field QC Samples</u> ER: MT696 (SDG IMI0935) and MT710 (SDG IMI1005) TB: MT532 FB: MT967 (SDG IMI0935) and MT711 (SDG IMI1005) FD: None	Acetone was reported in several field QC samples, but was not reported in any site samples in this SDG.	No qualifications were required.
9. <u>Other</u>	The laboratory did not calibrate for 2-chloro-1,1,1-trifluoroethane or chlorotrifluoroethene for all samples. The laboratory performed only a TIC search for these compounds. 2-Chloroethyl vinyl ether was reported as a target compound for the soil site samples and was calibrated but not reported for water sample MT532. Additionally, the laboratory did not list reporting limits for 1,1,1-trifluoroethane or chlorotrifluoroethene in sample MT532. Per a telephone conversation with the Del Mar Analytical Project Manager, M. Harper, the correct reporting limit for both compounds was 50 µg/L. Soil samples were reported on a dry-weight basis.	The nondetect results for 2-chloro-1,1,1-trifluoroethane and chlorotrifluoroethene were qualified as estimated, "UJ," in the site samples. The reviewer hand-corrected the Form I to reflect the correct reporting limits for 1,1,1-trifluoroethane and chlorotrifluoroethene in sample MT532.
<u>Comments</u>	None.	None.

¹ Level V Validation consists of cursory review of the summary forms only. The reported values on the summary forms are presumed to be correct and no verification of the values from the raw instrument output is performed.

MWH-San Diego
 1230 Columbia Street, Suite 750
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 Attention: Lisa J. Tucker

Project ID: Building 56 Landfill
 Boeing SSFL
 Report Number: IMH1614

Sampled: 08/26/03-08/28/03
 Received: 08/28/03

VOLATILE ORGANICS by GC/MS (EPA 5035/8260B)

Analyte	Method	Batch	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers	
								Per Qual	Qual Code
Sample ID: IMH1614-01 (MT517 - Soil)				Sampled: 08/26/03					
Reporting Units: ug/kg dry									
2-Chloroethyl vinyl ether	EPA 8260B	3H29028	6.1	ND	1.16	8/29/2003	8/29/2003	U	
Trichlorotrifluoroethane (Freon 113)	EPA 8260B	3H29028	12	ND	1.16	8/29/2003	8/29/2003		
Acetone	EPA 8260B	3H29028	12	ND	1.16	8/29/2003	8/29/2003		
Benzene	EPA 8260B	3H29028	2.4	ND	1.16	8/29/2003	8/29/2003		
Bromobenzene	EPA 8260B	3H29028	6.1	ND	1.16	8/29/2003	8/29/2003		
Bromochloromethane	EPA 8260B	3H29028	6.1	ND	1.16	8/29/2003	8/29/2003		
Bromodichloromethane	EPA 8260B	3H29028	2.4	ND	1.16	8/29/2003	8/29/2003		
Bromoform	EPA 8260B	3H29028	6.1	ND	1.16	8/29/2003	8/29/2003		
Bromomethane	EPA 8260B	3H29028	6.1	ND	1.16	8/29/2003	8/29/2003		
2-Butanone (MEK)	EPA 8260B	3H29028	12	ND	1.16	8/29/2003	8/29/2003		
n-Butylbenzene	EPA 8260B	3H29028	6.1	ND	1.16	8/29/2003	8/29/2003		
sec-Butylbenzene	EPA 8260B	3H29028	6.1	ND	1.16	8/29/2003	8/29/2003		
tert-Butylbenzene	EPA 8260B	3H29028	6.1	ND	1.16	8/29/2003	8/29/2003		
Carbon tetrachloride	EPA 8260B	3H29028	6.1	ND	1.16	8/29/2003	8/29/2003		
Chlorobenzene	EPA 8260B	3H29028	2.4	ND	1.16	8/29/2003	8/29/2003		
Chloroethane	EPA 8260B	3H29028	6.1	ND	1.16	8/29/2003	8/29/2003		
Chloroform	EPA 8260B	3H29028	2.4	ND	1.16	8/29/2003	8/29/2003		
Chloromethane	EPA 8260B	3H29028	6.1	ND	1.16	8/29/2003	8/29/2003		
2-Chlorotoluene	EPA 8260B	3H29028	6.1	ND	1.16	8/29/2003	8/29/2003		
4-Chlorotoluene	EPA 8260B	3H29028	6.1	ND	1.16	8/29/2003	8/29/2003		
Dibromochloromethane	EPA 8260B	3H29028	2.4	ND	1.16	8/29/2003	8/29/2003		
1,2-Dibromo-3-chloropropane	EPA 8260B	3H29028	6.1	ND	1.16	8/29/2003	8/29/2003		
1,2-Dibromoethane (EDB)	EPA 8260B	3H29028	2.4	ND	1.16	8/29/2003	8/29/2003		
Dibromomethane	EPA 8260B	3H29028	2.4	ND	1.16	8/29/2003	8/29/2003		
1,2-Dichlorobenzene	EPA 8260B	3H29028	2.4	ND	1.16	8/29/2003	8/29/2003		
1,3-Dichlorobenzene	EPA 8260B	3H29028	2.4	ND	1.16	8/29/2003	8/29/2003		
1,4-Dichlorobenzene	EPA 8260B	3H29028	2.4	ND	1.16	8/29/2003	8/29/2003		
Dichlorodifluoromethane	EPA 8260B	3H29028	6.1	ND	1.16	8/29/2003	8/29/2003		
1,1-Dichloroethane	EPA 8260B	3H29028	2.4	ND	1.16	8/29/2003	8/29/2003		
1,2-Dichloroethane	EPA 8260B	3H29028	2.4	ND	1.16	8/29/2003	8/29/2003		
1,1-Dichloroethene	EPA 8260B	3H29028	6.1	ND	1.16	8/29/2003	8/29/2003		
cis-1,2-Dichloroethene	EPA 8260B	3H29028	2.4	ND	1.16	8/29/2003	8/29/2003		
trans-1,2-Dichloroethene	EPA 8260B	3H29028	2.4	ND	1.16	8/29/2003	8/29/2003		
1,2-Dichloropropane	EPA 8260B	3H29028	2.4	ND	1.16	8/29/2003	8/29/2003		
1,3-Dichloropropane	EPA 8260B	3H29028	2.4	ND	1.16	8/29/2003	8/29/2003		
2,2-Dichloropropane	EPA 8260B	3H29028	2.4	ND	1.16	8/29/2003	8/29/2003		
1,1-Dichloropropene	EPA 8260B	3H29028	2.4	ND	1.16	8/29/2003	8/29/2003		
cis-1,3-Dichloropropene	EPA 8260B	3H29028	2.4	ND	1.16	8/29/2003	8/29/2003		
trans-1,3-Dichloropropene	EPA 8260B	3H29028	2.4	ND	1.16	8/29/2003	8/29/2003		
Ethylbenzene	EPA 8260B	3H29028	2.4	ND	1.16	8/29/2003	8/29/2003		

Del Mar Analytical, Irvine
 Michele Harper
 Project Manager

AMEC VALIDATED

LEVEL V

The results pertain only to the samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

MWH-San Diego
 1230 Columbia Street, Suite 750
 San Diego, CA 92101
 Attention: Lisa J. Tucker

Project ID: Building 56 Landfill
 Boeing SSFL
 Report Number: IMH1614

Sampled: 08/26/03-08/28/03
 Received: 08/28/03

VOLATILE ORGANICS by GC/MS (EPA 5035/8260B)

Analyte	Method	Batch	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers	
Sample ID: IMH1614-01 (MT517 - Soil) - cont.				Sampled: 08/26/03					
Reporting Units: ug/kg dry								Key Qual	
Hexachlorobutadiene	EPA 8260B	3H29028	6.1	ND	1.16	8/29/2003	8/29/2003	U	
2-Hexanone	EPA 8260B	3H29028	12	ND	1.16	8/29/2003	8/29/2003		
Isopropylbenzene	EPA 8260B	3H29028	2.4	ND	1.16	8/29/2003	8/29/2003		
p-Isopropyltoluene	EPA 8260B	3H29028	2.4	ND	1.16	8/29/2003	8/29/2003		
Methylene chloride	EPA 8260B	3H29028	24	ND	1.16	8/29/2003	8/29/2003		
4-Methyl-2-pentanone (MIBK)	EPA 8260B	3H29028	6.1	ND	1.16	8/29/2003	8/29/2003		
Naphthalene	EPA 8260B	3H29028	6.1	ND	1.16	8/29/2003	8/29/2003		
n-Propylbenzene	EPA 8260B	3H29028	2.4	ND	1.16	8/29/2003	8/29/2003		
Styrene	EPA 8260B	3H29028	2.4	ND	1.16	8/29/2003	8/29/2003		
1,1,1,2-Tetrachloroethane	EPA 8260B	3H29028	6.1	ND	1.16	8/29/2003	8/29/2003		
1,1,2,2-Tetrachloroethane	EPA 8260B	3H29028	2.4	ND	1.16	8/29/2003	8/29/2003		
Tetrachloroethene	EPA 8260B	3H29028	2.4	ND	1.16	8/29/2003	8/29/2003		
Toluene	EPA 8260B	3H29028	2.4	ND	1.16	8/29/2003	8/29/2003		
1,2,3-Trichlorobenzene	EPA 8260B	3H29028	6.1	ND	1.16	8/29/2003	8/29/2003		
1,2,4-Trichlorobenzene	EPA 8260B	3H29028	6.1	ND	1.16	8/29/2003	8/29/2003		
1,1,1-Trichloroethane	EPA 8260B	3H29028	2.4	ND	1.16	8/29/2003	8/29/2003		
1,1,2-Trichloroethane	EPA 8260B	3H29028	2.4	ND	1.16	8/29/2003	8/29/2003		
Trichloroethene	EPA 8260B	3H29028	2.4	ND	1.16	8/29/2003	8/29/2003		
Trichlorofluoromethane	EPA 8260B	3H29028	6.1	ND	1.16	8/29/2003	8/29/2003		
1,2,3-Trichloropropane	EPA 8260B	3H29028	12	ND	1.16	8/29/2003	8/29/2003		
1,2,4-Trimethylbenzene	EPA 8260B	3H29028	2.4	ND	1.16	8/29/2003	8/29/2003		
1,3,5-Trimethylbenzene	EPA 8260B	3H29028	2.4	ND	1.16	8/29/2003	8/29/2003		
Vinyl chloride	EPA 8260B	3H29028	6.1	ND	1.16	8/29/2003	8/29/2003		
o-Xylene	EPA 8260B	3H29028	2.4	ND	1.16	8/29/2003	8/29/2003		
m,p-Xylenes	EPA 8260B	3H29028	2.4	ND	1.16	8/29/2003	8/29/2003		
Surrogate: Dibromofluoromethane (80-125%)				108 %					
Surrogate: Toluene-d8 (80-120%)				100 %					
Surrogate: 4-Bromofluorobenzene (80-120%)				98 %					

Del Mar Analytical, Irvine
 Michele Harper
 Project Manager

AMEC VALIDATED

MWH-San Diego
 1230 Columbia Street, Suite 750
 San Diego, CA 92101
 Attention: Lisa J. Tucker

Project ID: Building 56 Landfill
 Boeing SSFL
 Report Number: IMH1614

Sampled: 08/26/03-08/28/03
 Received: 08/28/03

VOLATILE ORGANICS by GC/MS (EPA 5035/8260B)

Analyte	Method	Batch	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers	
								Raw Qual	Qual Code
Sample ID: IMH1614-02 (MT518 - Soil)				Sampled: 08/26/03					
Reporting Units: ug/kg dry									
2-Chloroethyl vinyl ether	EPA 8260B	3H29028	5.3	ND	1.01	8/29/2003	8/29/2003	U	
Trichlorotrifluoroethane (Freon 113)	EPA 8260B	3H29028	11	ND	1.01	8/29/2003	8/29/2003		
Acetone	EPA 8260B	3H29028	11	ND	1.01	8/29/2003	8/29/2003		
Benzene	EPA 8260B	3H29028	2.1	ND	1.01	8/29/2003	8/29/2003		
Bromobenzene	EPA 8260B	3H29028	5.3	ND	1.01	8/29/2003	8/29/2003		
Bromochloromethane	EPA 8260B	3H29028	5.3	ND	1.01	8/29/2003	8/29/2003		
Bromodichloromethane	EPA 8260B	3H29028	2.1	ND	1.01	8/29/2003	8/29/2003		
Bromoform	EPA 8260B	3H29028	5.3	ND	1.01	8/29/2003	8/29/2003		
Bromomethane	EPA 8260B	3H29028	5.3	ND	1.01	8/29/2003	8/29/2003		
2-Butanone (MEK)	EPA 8260B	3H29028	11	ND	1.01	8/29/2003	8/29/2003		
n-Butylbenzene	EPA 8260B	3H29028	5.3	ND	1.01	8/29/2003	8/29/2003		
sec-Butylbenzene	EPA 8260B	3H29028	5.3	ND	1.01	8/29/2003	8/29/2003		
tert-Butylbenzene	EPA 8260B	3H29028	5.3	ND	1.01	8/29/2003	8/29/2003		
Carbon tetrachloride	EPA 8260B	3H29028	5.3	ND	1.01	8/29/2003	8/29/2003		
Chlorobenzene	EPA 8260B	3H29028	2.1	ND	1.01	8/29/2003	8/29/2003		
Chloroethane	EPA 8260B	3H29028	5.3	ND	1.01	8/29/2003	8/29/2003		
Chloroform	EPA 8260B	3H29028	2.1	ND	1.01	8/29/2003	8/29/2003		
Chloromethane	EPA 8260B	3H29028	5.3	ND	1.01	8/29/2003	8/29/2003		
2-Chlorotoluene	EPA 8260B	3H29028	5.3	ND	1.01	8/29/2003	8/29/2003		
4-Chlorotoluene	EPA 8260B	3H29028	5.3	ND	1.01	8/29/2003	8/29/2003		
Dibromochloromethane	EPA 8260B	3H29028	2.1	ND	1.01	8/29/2003	8/29/2003		
1,2-Dibromo-3-chloropropane	EPA 8260B	3H29028	5.3	ND	1.01	8/29/2003	8/29/2003		
1,2-Dibromoethane (EDB)	EPA 8260B	3H29028	2.1	ND	1.01	8/29/2003	8/29/2003		
Dibromomethane	EPA 8260B	3H29028	2.1	ND	1.01	8/29/2003	8/29/2003		
1,2-Dichlorobenzene	EPA 8260B	3H29028	2.1	ND	1.01	8/29/2003	8/29/2003		
1,3-Dichlorobenzene	EPA 8260B	3H29028	2.1	ND	1.01	8/29/2003	8/29/2003		
1,4-Dichlorobenzene	EPA 8260B	3H29028	2.1	ND	1.01	8/29/2003	8/29/2003		
Dichlorodifluoromethane	EPA 8260B	3H29028	5.3	ND	1.01	8/29/2003	8/29/2003		
1,1-Dichloroethane	EPA 8260B	3H29028	2.1	ND	1.01	8/29/2003	8/29/2003		
1,2-Dichloroethane	EPA 8260B	3H29028	2.1	ND	1.01	8/29/2003	8/29/2003		
1,1-Dichloroethene	EPA 8260B	3H29028	5.3	ND	1.01	8/29/2003	8/29/2003		
cis-1,2-Dichloroethene	EPA 8260B	3H29028	2.1	ND	1.01	8/29/2003	8/29/2003		
trans-1,2-Dichloroethene	EPA 8260B	3H29028	2.1	ND	1.01	8/29/2003	8/29/2003		
1,2-Dichloropropane	EPA 8260B	3H29028	2.1	ND	1.01	8/29/2003	8/29/2003		
1,3-Dichloropropane	EPA 8260B	3H29028	2.1	ND	1.01	8/29/2003	8/29/2003		
2,2-Dichloropropane	EPA 8260B	3H29028	2.1	ND	1.01	8/29/2003	8/29/2003		
1,1-Dichloropropene	EPA 8260B	3H29028	2.1	ND	1.01	8/29/2003	8/29/2003		
cis-1,3-Dichloropropene	EPA 8260B	3H29028	2.1	ND	1.01	8/29/2003	8/29/2003		
trans-1,3-Dichloropropene	EPA 8260B	3H29028	2.1	ND	1.01	8/29/2003	8/29/2003		
Ethylbenzene	EPA 8260B	3H29028	2.1	ND	1.01	8/29/2003	8/29/2003		

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 Received: 08/28/03

VOLATILE ORGANICS by GC/MS (EPA 5035/8260B)

Analyte	Method	Batch	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers	
								Raw Qual	Qual Code
Sample ID: IMH1614-02 (MT518 - Soil) - cont.				Sampled: 08/26/03					
Reporting Units: ug/kg dry									
Hexachlorobutadiene	EPA 8260B	3H29028	5.3	ND	1.01	8/29/2003	8/29/2003	U	
2-Hexanone	EPA 8260B	3H29028	11	ND	1.01	8/29/2003	8/29/2003		
Isopropylbenzene	EPA 8260B	3H29028	2.1	ND	1.01	8/29/2003	8/29/2003		
p-Isopropyltoluene	EPA 8260B	3H29028	2.1	ND	1.01	8/29/2003	8/29/2003		
Methylene chloride	EPA 8260B	3H29028	21	ND	1.01	8/29/2003	8/29/2003		
4-Methyl-2-pentanone (MIBK)	EPA 8260B	3H29028	5.3	ND	1.01	8/29/2003	8/29/2003		
Naphthalene	EPA 8260B	3H29028	5.3	ND	1.01	8/29/2003	8/29/2003		
n-Propylbenzene	EPA 8260B	3H29028	2.1	ND	1.01	8/29/2003	8/29/2003		
Styrene	EPA 8260B	3H29028	2.1	ND	1.01	8/29/2003	8/29/2003		
1,1,1,2-Tetrachloroethane	EPA 8260B	3H29028	5.3	ND	1.01	8/29/2003	8/29/2003		
1,1,2,2-Tetrachloroethane	EPA 8260B	3H29028	2.1	ND	1.01	8/29/2003	8/29/2003		
Tetrachloroethene	EPA 8260B	3H29028	2.1	ND	1.01	8/29/2003	8/29/2003		
Toluene	EPA 8260B	3H29028	2.1	ND	1.01	8/29/2003	8/29/2003		
1,2,3-Trichlorobenzene	EPA 8260B	3H29028	5.3	ND	1.01	8/29/2003	8/29/2003		
1,2,4-Trichlorobenzene	EPA 8260B	3H29028	5.3	ND	1.01	8/29/2003	8/29/2003		
1,1,1-Trichloroethane	EPA 8260B	3H29028	2.1	ND	1.01	8/29/2003	8/29/2003		
1,1,2-Trichloroethane	EPA 8260B	3H29028	2.1	ND	1.01	8/29/2003	8/29/2003		
Trichloroethene	EPA 8260B	3H29028	2.1	ND	1.01	8/29/2003	8/29/2003		
Trichlorofluoromethane	EPA 8260B	3H29028	5.3	ND	1.01	8/29/2003	8/29/2003		
1,2,3-Trichloropropane	EPA 8260B	3H29028	11	ND	1.01	8/29/2003	8/29/2003		
1,2,4-Trimethylbenzene	EPA 8260B	3H29028	2.1	ND	1.01	8/29/2003	8/29/2003		
1,3,5-Trimethylbenzene	EPA 8260B	3H29028	2.1	ND	1.01	8/29/2003	8/29/2003		
Vinyl chloride	EPA 8260B	3H29028	5.3	ND	1.01	8/29/2003	8/29/2003		
o-Xylene	EPA 8260B	3H29028	2.1	ND	1.01	8/29/2003	8/29/2003		
m,p-Xylenes	EPA 8260B	3H29028	2.1	ND	1.01	8/29/2003	8/29/2003		
Surrogate: Dibromofluoromethane (80-125%)									108 %
Surrogate: Toluene-d8 (80-120%)									101 %
Surrogate: 4-Bromofluorobenzene (80-120%)									100 %

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 Boeing SSFL
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Sampled: 08/26/03-08/28/03
 Received: 08/28/03

VOLATILE ORGANICS by GC/MS (EPA 5035/8260B)

Analyte	Method	Batch	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers	
								Raw Qual	Qual Code
Sample ID: IMH1614-03 (MT519 - Soil)				Sampled: 08/26/03					
Reporting Units: ug/kg dry									
2-Chloroethyl vinyl ether	EPA 8260B	3H29028	5.5	ND	0.926	8/29/2003	8/29/2003	U	
Trichlorotrifluoroethane (Freon 113)	EPA 8260B	3H29028	11	ND	0.926	8/29/2003	8/29/2003		
Acetone	EPA 8260B	3H29028	11	ND	0.926	8/29/2003	8/29/2003		
Benzene	EPA 8260B	3H29028	2.2	ND	0.926	8/29/2003	8/29/2003		
Bromobenzene	EPA 8260B	3H29028	5.5	ND	0.926	8/29/2003	8/29/2003		
Bromochloromethane	EPA 8260B	3H29028	5.5	ND	0.926	8/29/2003	8/29/2003		
Bromodichloromethane	EPA 8260B	3H29028	2.2	ND	0.926	8/29/2003	8/29/2003		
Bromoform	EPA 8260B	3H29028	5.5	ND	0.926	8/29/2003	8/29/2003		
Bromomethane	EPA 8260B	3H29028	5.5	ND	0.926	8/29/2003	8/29/2003		
2-Butanone (MEK)	EPA 8260B	3H29028	11	ND	0.926	8/29/2003	8/29/2003		
n-Butylbenzene	EPA 8260B	3H29028	5.5	ND	0.926	8/29/2003	8/29/2003		
sec-Butylbenzene	EPA 8260B	3H29028	5.5	ND	0.926	8/29/2003	8/29/2003		
tert-Butylbenzene	EPA 8260B	3H29028	5.5	ND	0.926	8/29/2003	8/29/2003		
Carbon tetrachloride	EPA 8260B	3H29028	5.5	ND	0.926	8/29/2003	8/29/2003		
Chlorobenzene	EPA 8260B	3H29028	2.2	ND	0.926	8/29/2003	8/29/2003		
Chloroethane	EPA 8260B	3H29028	5.5	ND	0.926	8/29/2003	8/29/2003		
Chloroform	EPA 8260B	3H29028	2.2	ND	0.926	8/29/2003	8/29/2003		
Chloromethane	EPA 8260B	3H29028	5.5	ND	0.926	8/29/2003	8/29/2003		
2-Chlorotoluene	EPA 8260B	3H29028	5.5	ND	0.926	8/29/2003	8/29/2003		
4-Chlorotoluene	EPA 8260B	3H29028	5.5	ND	0.926	8/29/2003	8/29/2003		
Dibromochloromethane	EPA 8260B	3H29028	2.2	ND	0.926	8/29/2003	8/29/2003		
1,2-Dibromo-3-chloropropane	EPA 8260B	3H29028	5.5	ND	0.926	8/29/2003	8/29/2003		
1,2-Dibromoethane (EDB)	EPA 8260B	3H29028	2.2	ND	0.926	8/29/2003	8/29/2003		
Dibromomethane	EPA 8260B	3H29028	2.2	ND	0.926	8/29/2003	8/29/2003		
1,2-Dichlorobenzene	EPA 8260B	3H29028	2.2	ND	0.926	8/29/2003	8/29/2003		
1,3-Dichlorobenzene	EPA 8260B	3H29028	2.2	ND	0.926	8/29/2003	8/29/2003		
1,4-Dichlorobenzene	EPA 8260B	3H29028	2.2	ND	0.926	8/29/2003	8/29/2003		
Dichlorodifluoromethane	EPA 8260B	3H29028	5.5	ND	0.926	8/29/2003	8/29/2003		
1,1-Dichloroethane	EPA 8260B	3H29028	2.2	ND	0.926	8/29/2003	8/29/2003		
1,2-Dichloroethane	EPA 8260B	3H29028	2.2	ND	0.926	8/29/2003	8/29/2003		
1,1-Dichloroethene	EPA 8260B	3H29028	5.5	ND	0.926	8/29/2003	8/29/2003		
cis-1,2-Dichloroethene	EPA 8260B	3H29028	2.2	ND	0.926	8/29/2003	8/29/2003		
trans-1,2-Dichloroethene	EPA 8260B	3H29028	2.2	ND	0.926	8/29/2003	8/29/2003		
1,2-Dichloropropane	EPA 8260B	3H29028	2.2	ND	0.926	8/29/2003	8/29/2003		
1,3-Dichloropropane	EPA 8260B	3H29028	2.2	ND	0.926	8/29/2003	8/29/2003		
2,2-Dichloropropane	EPA 8260B	3H29028	2.2	ND	0.926	8/29/2003	8/29/2003		
1,1-Dichloropropene	EPA 8260B	3H29028	2.2	ND	0.926	8/29/2003	8/29/2003		
cis-1,3-Dichloropropene	EPA 8260B	3H29028	2.2	ND	0.926	8/29/2003	8/29/2003		
trans-1,3-Dichloropropene	EPA 8260B	3H29028	2.2	ND	0.926	8/29/2003	8/29/2003		
Ethylbenzene	EPA 8260B	3H29028	2.2	ND	0.926	8/29/2003	8/29/2003		

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 Received: 08/28/03

VOLATILE ORGANICS by GC/MS (EPA 5035/8260B)

Analyte	Method	Batch	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers	
Sample ID: IMH1614-03 (MT519 - Soil) - cont.				Sampled: 08/26/03					Rev Qual
Reporting Units: ug/kg dry								Qual Code	
Hexachlorobutadiene	EPA 8260B	3H29028	5.5	ND	0.926	8/29/2003	8/29/2003	U	
2-Hexanone	EPA 8260B	3H29028	11	ND	0.926	8/29/2003	8/29/2003		
Isopropylbenzene	EPA 8260B	3H29028	2.2	ND	0.926	8/29/2003	8/29/2003		
p-Isopropyltoluene	EPA 8260B	3H29028	2.2	ND	0.926	8/29/2003	8/29/2003		
Methylene chloride	EPA 8260B	3H29028	22	ND	0.926	8/29/2003	8/29/2003		
4-Methyl-2-pentanone (MIBK)	EPA 8260B	3H29028	5.5	ND	0.926	8/29/2003	8/29/2003		
Naphthalene	EPA 8260B	3H29028	5.5	ND	0.926	8/29/2003	8/29/2003		
n-Propylbenzene	EPA 8260B	3H29028	2.2	ND	0.926	8/29/2003	8/29/2003		
Styrene	EPA 8260B	3H29028	2.2	ND	0.926	8/29/2003	8/29/2003		
1,1,1,2-Tetrachloroethane	EPA 8260B	3H29028	5.5	ND	0.926	8/29/2003	8/29/2003		
1,1,2,2-Tetrachloroethane	EPA 8260B	3H29028	2.2	ND	0.926	8/29/2003	8/29/2003		
Tetrachloroethene	EPA 8260B	3H29028	2.2	ND	0.926	8/29/2003	8/29/2003		
Toluene	EPA 8260B	3H29028	2.2	ND	0.926	8/29/2003	8/29/2003		
1,2,3-Trichlorobenzene	EPA 8260B	3H29028	5.5	ND	0.926	8/29/2003	8/29/2003		
1,2,4-Trichlorobenzene	EPA 8260B	3H29028	5.5	ND	0.926	8/29/2003	8/29/2003		
1,1,1-Trichloroethane	EPA 8260B	3H29028	2.2	ND	0.926	8/29/2003	8/29/2003		
1,1,2-Trichloroethane	EPA 8260B	3H29028	2.2	ND	0.926	8/29/2003	8/29/2003		
Trichloroethene	EPA 8260B	3H29028	2.2	ND	0.926	8/29/2003	8/29/2003		
Trichlorofluoromethane	EPA 8260B	3H29028	5.5	ND	0.926	8/29/2003	8/29/2003		
1,2,3-Trichloropropane	EPA 8260B	3H29028	11	ND	0.926	8/29/2003	8/29/2003		
1,2,4-Trimethylbenzene	EPA 8260B	3H29028	2.2	ND	0.926	8/29/2003	8/29/2003		
1,3,5-Trimethylbenzene	EPA 8260B	3H29028	2.2	ND	0.926	8/29/2003	8/29/2003		
Vinyl chloride	EPA 8260B	3H29028	5.5	ND	0.926	8/29/2003	8/29/2003		
o-Xylene	EPA 8260B	3H29028	2.2	ND	0.926	8/29/2003	8/29/2003		
m,p-Xylenes	EPA 8260B	3H29028	2.2	ND	0.926	8/29/2003	8/29/2003		
Surrogate: Dibromofluoromethane (80-125%)								109 %	
Surrogate: Toluene-d8 (80-120%)								101 %	
Surrogate: 4-Bromofluorobenzene (80-120%)								101 %	

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 Received: 08/28/03

VOLATILE ORGANICS with KETONES by GC/MS (EPA 5030B/8260B)

Analyte	Method	Batch	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers	
Sample ID: IMH1614-04 (MT532 - Water)				Sampled: 08/28/03					
Reporting Units: ug/l								Raw Qual Qual Code	
Acetone	EPA 8260B	3I08009	10	ND	1	9/8/2003	9/8/2003	U	
Benzene	EPA 8260B	3I08009	2.0	ND	1	9/8/2003	9/8/2003		
Bromobenzene	EPA 8260B	3I08009	5.0	ND	1	9/8/2003	9/8/2003		
Bromochloromethane	EPA 8260B	3I08009	5.0	ND	1	9/8/2003	9/8/2003		
Bromodichloromethane	EPA 8260B	3I08009	2.0	ND	1	9/8/2003	9/8/2003		
Bromoform	EPA 8260B	3I08009	5.0	ND	1	9/8/2003	9/8/2003		
Bromomethane	EPA 8260B	3I08009	5.0	ND	1	9/8/2003	9/8/2003		
2-Butanone (MEK)	EPA 8260B	3I08009	10	ND	1	9/8/2003	9/8/2003		
n-Butylbenzene	EPA 8260B	3I08009	5.0	ND	1	9/8/2003	9/8/2003		
sec-Butylbenzene	EPA 8260B	3I08009	5.0	ND	1	9/8/2003	9/8/2003		
tert-Butylbenzene	EPA 8260B	3I08009	5.0	ND	1	9/8/2003	9/8/2003		
Carbon tetrachloride	EPA 8260B	3I08009	5.0	ND	1	9/8/2003	9/8/2003		
Chlorobenzene	EPA 8260B	3I08009	2.0	ND	1	9/8/2003	9/8/2003		
Chloroethane	EPA 8260B	3I08009	5.0	ND	1	9/8/2003	9/8/2003		
Chloroform	EPA 8260B	3I08009	2.0	ND	1	9/8/2003	9/8/2003		
Chloromethane	EPA 8260B	3I08009	5.0	ND	1	9/8/2003	9/8/2003		
2-Chlorotoluene	EPA 8260B	3I08009	5.0	ND	1	9/8/2003	9/8/2003		
4-Chlorotoluene	EPA 8260B	3I08009	5.0	ND	1	9/8/2003	9/8/2003		
Dibromochloromethane	EPA 8260B	3I08009	2.0	ND	1	9/8/2003	9/8/2003		
1,2-Dibromo-3-chloropropane	EPA 8260B	3I08009	5.0	ND	1	9/8/2003	9/8/2003		
1,2-Dibromoethane (EDB)	EPA 8260B	3I08009	2.0	ND	1	9/8/2003	9/8/2003		
Dibromomethane	EPA 8260B	3I08009	2.0	ND	1	9/8/2003	9/8/2003		
1,2-Dichlorobenzene	EPA 8260B	3I08009	2.0	ND	1	9/8/2003	9/8/2003		
1,3-Dichlorobenzene	EPA 8260B	3I08009	2.0	ND	1	9/8/2003	9/8/2003		
1,4-Dichlorobenzene	EPA 8260B	3I08009	2.0	ND	1	9/8/2003	9/8/2003		
Dichlorodifluoromethane	EPA 8260B	3I08009	5.0	ND	1	9/8/2003	9/8/2003		
1,1-Dichloroethane	EPA 8260B	3I08009	2.0	ND	1	9/8/2003	9/8/2003		
1,2-Dichloroethane	EPA 8260B	3I08009	2.0	ND	1	9/8/2003	9/8/2003		
1,1-Dichloroethene	EPA 8260B	3I08009	5.0	ND	1	9/8/2003	9/8/2003		
cis-1,2-Dichloroethene	EPA 8260B	3I08009	2.0	ND	1	9/8/2003	9/8/2003		
trans-1,2-Dichloroethene	EPA 8260B	3I08009	2.0	ND	1	9/8/2003	9/8/2003		
1,2-Dichloropropane	EPA 8260B	3I08009	2.0	ND	1	9/8/2003	9/8/2003		
1,3-Dichloropropane	EPA 8260B	3I08009	2.0	ND	1	9/8/2003	9/8/2003		
2,2-Dichloropropane	EPA 8260B	3I08009	2.0	ND	1	9/8/2003	9/8/2003		
1,1-Dichloropropene	EPA 8260B	3I08009	2.0	ND	1	9/8/2003	9/8/2003		
cis-1,3-Dichloropropene	EPA 8260B	3I08009	2.0	ND	1	9/8/2003	9/8/2003		
trans-1,3-Dichloropropene	EPA 8260B	3I08009	2.0	ND	1	9/8/2003	9/8/2003		
Ethylbenzene	EPA 8260B	3I08009	2.0	ND	1	9/8/2003	9/8/2003		
Hexachlorobutadiene	EPA 8260B	3I08009	5.0	ND	1	9/8/2003	9/8/2003		
2-Hexanone	EPA 8260B	3I08009	10	ND	1	9/8/2003	9/8/2003		

 Del Mar Analytical, Irvine
 Michele Harper
 Project Manager

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MWH-San Diego
 1230 Columbia Street, Suite 750
 San Diego, CA 92101
 Attention: Lisa J. Tucker

 Project ID: Building 56 Landfill
 Boeing SSFL
 Report Number: IMH1614

 Sampled: 08/26/03-08/28/03
 Received: 08/28/03

VOLATILE ORGANICS with KETONES by GC/MS (EPA 5030B/8260B)

Analyte	Method	Batch	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers	
Sample ID: IMH1614-04 (MT532 - Water) - cont.				Sampled: 08/28/03					
Reporting Units: ug/l								Rev Qual Qual Code	
Isopropylbenzene	EPA 8260B	3I08009	2.0	ND	1	9/8/2003	9/8/2003	U	
p-Isopropyltoluene	EPA 8260B	3I08009	2.0	ND	1	9/8/2003	9/8/2003		
Methylene chloride	EPA 8260B	3I08009	5.0	ND	1	9/8/2003	9/8/2003		
4-Methyl-2-pentanone (MIBK)	EPA 8260B	3I08009	10	ND	1	9/8/2003	9/8/2003		
Naphthalene	EPA 8260B	3I08009	5.0	ND	1	9/8/2003	9/8/2003		
n-Propylbenzene	EPA 8260B	3I08009	2.0	ND	1	9/8/2003	9/8/2003		
Styrene	EPA 8260B	3I08009	2.0	ND	1	9/8/2003	9/8/2003		
1,1,1,2-Tetrachloroethane	EPA 8260B	3I08009	5.0	ND	1	9/8/2003	9/8/2003		
1,1,2,2-Tetrachloroethane	EPA 8260B	3I08009	2.0	ND	1	9/8/2003	9/8/2003		
Tetrachloroethene	EPA 8260B	3I08009	2.0	ND	1	9/8/2003	9/8/2003		
Toluene	EPA 8260B	3I08009	2.0	ND	1	9/8/2003	9/8/2003		
1,2,3-Trichlorobenzene	EPA 8260B	3I08009	5.0	ND	1	9/8/2003	9/8/2003		
1,2,4-Trichlorobenzene	EPA 8260B	3I08009	5.0	ND	1	9/8/2003	9/8/2003		
1,1,1-Trichloroethane	EPA 8260B	3I08009	2.0	ND	1	9/8/2003	9/8/2003		
1,1,2-Trichloroethane	EPA 8260B	3I08009	2.0	ND	1	9/8/2003	9/8/2003		
Trichloroethene	EPA 8260B	3I08009	2.0	ND	1	9/8/2003	9/8/2003		
Trichlorofluoromethane	EPA 8260B	3I08009	5.0	ND	1	9/8/2003	9/8/2003		
1,2,3-Trichloropropane	EPA 8260B	3I08009	10	ND	1	9/8/2003	9/8/2003		
1,2,4-Trimethylbenzene	EPA 8260B	3I08009	2.0	ND	1	9/8/2003	9/8/2003		
1,3,5-Trimethylbenzene	EPA 8260B	3I08009	2.0	ND	1	9/8/2003	9/8/2003		
Vinyl chloride	EPA 8260B	3I08009	5.0	ND	1	9/8/2003	9/8/2003		
o-Xylene	EPA 8260B	3I08009	2.0	ND	1	9/8/2003	9/8/2003		
m,p-Xylenes	EPA 8260B	3I08009	2.0	ND	1	9/8/2003	9/8/2003		
Trichlorotrifluoroethane (Freon 113)	EPA 8260B	3I08009	5.0	ND	1	9/8/2003	9/8/2003		
Surrogate: Dibromofluoromethane (80-120%)				105 %					
Surrogate: Toluene-d8 (80-120%)				108 %					
Surrogate: 4-Bromofluorobenzene (80-120%)				102 %					

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MWH-San Diego
 1230 Columbia Street, Suite 750
 San Diego, CA 92101
 Attention: Lisa J. Tucker

Project ID: Building 56 Landfill
 Boeing SSFL
 Report Number: IMH1614

Sampled: 08/26/03-08/28/03
 Received: 08/28/03

PURGEABLES BY GC/MS, TENTATIVELY IDENTIFIED COMPOUNDS

Analyte	Method	Batch	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers	
								Rev Qual	Qual Code
Sample ID: IMH1614-01 (MT517 - Soil)				Sampled: 08/26/03					
Reporting Units: ug/kg dry									
2-Chloro-1,1,1-trifluoroethane	EPA 8260B	3H29028	240	ND	1.16	8/29/2003	8/29/2003	UJ	*11
Chlorotrifluoroethene	EPA 8260B	3H29028	240	ND	1.16	8/29/2003	8/29/2003		
Sample ID: IMH1614-02 (MT518 - Soil)				Sampled: 08/26/03					
Reporting Units: ug/kg dry									
2-Chloro-1,1,1-trifluoroethane	EPA 8260B	3H29028	210	ND	1.01	8/29/2003	8/29/2003		
Chlorotrifluoroethene	EPA 8260B	3H29028	210	ND	1.01	8/29/2003	8/29/2003		
Sample ID: IMH1614-03 (MT519 - Soil)				Sampled: 08/26/03					
Reporting Units: ug/kg dry									
2-Chloro-1,1,1-trifluoroethane	EPA 8260B	3H29028	220	ND	0.926	8/29/2003	8/29/2003		
Chlorotrifluoroethene	EPA 8260B	3H29028	220	ND	0.926	8/29/2003	8/29/2003		
Sample ID: IMH1614-04 (MT532 - Water)				Sampled: 08/28/03					
Reporting Units: ug/l									
2-chloro-1,1,1-trifluoroethane	EPA 8260B	3I08009	NA 50	ND	1	9/8/2003	9/8/2003	UJ	
Chlorotrifluoroethene	EPA 8260B	3I08009	NA 50	ND	1	9/8/2003	9/8/2003	UJ	

← 8/16/04

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Del Mar Analytical, Irvine
 Michele Harper
 Project Manager



550 South Wadsworth Boulevard, Suite 500, Lakewood, CO 80026
303.935.6505, Fax 303.935.6575

DATA ASSESSMENT FORM

Project Title: Rocketdyne, SSFL RFI Program
Project Manager: D. Hambrick
Analysis/Method: Volatiles by Method 8260B
QC Level: V¹
SDG: IMI0487
Matrix: Soil/Water
No. of Samples: 12
No. of Reanalyses/Dilutions: 0
Date Reviewed: January 15, 2004
Reviewer: P. Meeks
Reference: National Functional Guidelines for Organic Data Review (2/94)
Samples Reviewed: MT552, MT553, MT554, MT555, MT556, MT557, MT558, MT559, MT560, MT561, MT563,

Data Validation Findings

	Findings	Qualifications
1. <u>Sample Management</u>	<p>The COC was signed by field and laboratory personnel. Two samples, one soil and one water, were listed as MT558 on the COC. The EPA ID of the soil sample was changed to MT563 per a memo from MWH personnel dated 9/09/03. The laboratory's sample receiving checklist noted that the samples were received intact, with a cooler temperature within the limits of $4^{\circ}\text{C} \pm 2^{\circ}\text{C}$. No custody seal information was provided.</p> <p>The analyses of the samples were performed within 14 days of sample collection.</p>	No qualifications were required.
4. <u>Method Blanks</u>	Six method blanks were analyzed with this SDG. No target compounds were reported in any of the method blanks.	No qualifications were required.
5. <u>LCS/BS</u>	Six LCSs were analyzed with this SDG. All spike compounds were recovered within the QC limits.	No qualifications were required.
6. <u>Surrogates</u>	All surrogate recoveries were within the laboratory-established QC limits.	No qualifications were required.

	Findings	Qualifications
7. <u>MS/MSDs</u>	None performed.	No qualifications were required.
8. <u>Field QC Samples</u> ER: MT696 (SDG IMI0935) and MT710 (SDG IMI1005) TB: MT558 FB: MT967 (SDG IMI0935) and MT711 (SDG IMI1005) FD: MT553/MT557	Acetone was reported in several field QC samples. No target compounds were reported in either field duplicate sample and the pair was considered to be in good agreement.	The result for acetone in site sample MT554 was qualified as estimated, "J."
9. <u>Other</u>	The laboratory did not calibrate for 2-chloro-1,1,1-trifluoroethane or chlorotrifluoroethene for all samples. The laboratory performed only a TIC search for these compounds. Although the laboratory was calibrated for 2-chloroethyl-vinyl ether it was not reported at a target compound in sample MT588. 2-Chloroethyl vinyl ether was calibrated for and reported as a target compound in the remaining samples. Soil samples were reported on a dry-weight basis.	The nondetect results for 2-chloro-1,1,1-trifluoroethane and trichloro-tri-fluoroethane (Freon 113) were qualified as estimated, "UJ," in the site samples.
<u>Comments</u>	None.	None.

¹ Level V Validation consists of cursory review of the summary forms only. The reported values on the summary forms are presumed to be correct and no verification of the values from the raw instrument output is performed.



MWH-San Diego
1230 Columbia Street, Suite 750
San Diego, CA 92101
Attention: Lisa J. Tucker

Project ID: Building 56 Landfill
Boeing SSFL
Report Number: IMI0487

Sampled: 09/05/03-09/09/03
Received: 09/09/03

VOLATILE ORGANICS with KETONES by GC/MS (EPA 5030B/8260B)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers	
Sample ID: IMI0487-03 (MT552 - Soil)					Sampled: 09/08/03					REV QUAL
Reporting Units: ug/kg dry										QUAL CODE
Acetone	EPA 8260B	3I15024	N/A	11	ND	1	09/15/03	09/15/03	U	
Benzene	EPA 8260B	3I15024	N/A	2.1	ND	1	09/15/03	09/15/03		
Bromobenzene	EPA 8260B	3I15024	N/A	5.3	ND	1	09/15/03	09/15/03		
Bromochloromethane	EPA 8260B	3I15024	N/A	5.3	ND	1	09/15/03	09/15/03		
Bromodichloromethane	EPA 8260B	3I15024	N/A	2.1	ND	1	09/15/03	09/15/03		
Bromoform	EPA 8260B	3I15024	N/A	5.3	ND	1	09/15/03	09/15/03		
Bromomethane	EPA 8260B	3I15024	N/A	5.3	ND	1	09/15/03	09/15/03		
2-Butanone (MEK)	EPA 8260B	3I15024	N/A	11	ND	1	09/15/03	09/15/03		
n-Butylbenzene	EPA 8260B	3I15024	N/A	5.3	ND	1	09/15/03	09/15/03		
sec-Butylbenzene	EPA 8260B	3I15024	N/A	5.3	ND	1	09/15/03	09/15/03		
tert-Butylbenzene	EPA 8260B	3I15024	N/A	5.3	ND	1	09/15/03	09/15/03		
Carbon tetrachloride	EPA 8260B	3I15024	N/A	5.3	ND	1	09/15/03	09/15/03		
Chlorobenzene	EPA 8260B	3I15024	N/A	2.1	ND	1	09/15/03	09/15/03		
Chloroethane	EPA 8260B	3I15024	N/A	5.3	ND	1	09/15/03	09/15/03		
Chloroform	EPA 8260B	3I15024	N/A	2.1	ND	1	09/15/03	09/15/03		
Chloromethane	EPA 8260B	3I15024	N/A	5.3	ND	1	09/15/03	09/15/03		
2-Chlorotoluene	EPA 8260B	3I15024	N/A	5.3	ND	1	09/15/03	09/15/03		
4-Chlorotoluene	EPA 8260B	3I15024	N/A	5.3	ND	1	09/15/03	09/15/03		
Dibromochloromethane	EPA 8260B	3I15024	N/A	2.1	ND	1	09/15/03	09/15/03		
1,2-Dibromo-3-chloropropane	EPA 8260B	3I15024	N/A	5.3	ND	1	09/15/03	09/15/03		
1,2-Dibromoethane (EDB)	EPA 8260B	3I15024	N/A	2.1	ND	1	09/15/03	09/15/03		
Dibromomethane	EPA 8260B	3I15024	N/A	2.1	ND	1	09/15/03	09/15/03		
1,2-Dichlorobenzene	EPA 8260B	3I15024	N/A	2.1	ND	1	09/15/03	09/15/03		
1,3-Dichlorobenzene	EPA 8260B	3I15024	N/A	2.1	ND	1	09/15/03	09/15/03		
1,4-Dichlorobenzene	EPA 8260B	3I15024	N/A	2.1	ND	1	09/15/03	09/15/03		
Dichlorodifluoromethane	EPA 8260B	3I15024	N/A	5.3	ND	1	09/15/03	09/15/03		
1,1-Dichloroethane	EPA 8260B	3I15024	N/A	2.1	ND	1	09/15/03	09/15/03		
1,2-Dichloroethane	EPA 8260B	3I15024	N/A	2.1	ND	1	09/15/03	09/15/03		
1,1-Dichloroethene	EPA 8260B	3I15024	N/A	5.3	ND	1	09/15/03	09/15/03		
cis-1,2-Dichloroethene	EPA 8260B	3I15024	N/A	2.1	ND	1	09/15/03	09/15/03		
trans-1,2-Dichloroethene	EPA 8260B	3I15024	N/A	2.1	ND	1	09/15/03	09/15/03		
1,2-Dichloropropane	EPA 8260B	3I15024	N/A	2.1	ND	1	09/15/03	09/15/03		
1,3-Dichloropropane	EPA 8260B	3I15024	N/A	2.1	ND	1	09/15/03	09/15/03		
2,2-Dichloropropane	EPA 8260B	3I15024	N/A	2.1	ND	1	09/15/03	09/15/03		
1,1-Dichloropropene	EPA 8260B	3I15024	N/A	2.1	ND	1	09/15/03	09/15/03		
cis-1,3-Dichloropropene	EPA 8260B	3I15024	N/A	2.1	ND	1	09/15/03	09/15/03		
trans-1,3-Dichloropropene	EPA 8260B	3I15024	N/A	2.1	ND	1	09/15/03	09/15/03		
Ethylbenzene	EPA 8260B	3I15024	N/A	2.1	ND	1	09/15/03	09/15/03		
Hexachlorobutadiene	EPA 8260B	3I15024	N/A	5.3	ND	1	09/15/03	09/15/03		
2-Hexanone	EPA 8260B	3I15024	N/A	11	ND	1	09/15/03	09/15/03		

Del Mar Analytical, Irvine
Michele Harper
Project Manager

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LEVEL V

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MWH-San Diego
 1230 Columbia Street, Suite 750
 San Diego, CA 92101
 Attention: Lisa J. Tucker

 Project ID: Building 56 Landfill
 Boeing SSFL
 Report Number: IMI0487

 Sampled: 09/05/03-09/09/03
 Received: 09/09/03

VOLATILE ORGANICS with KETONES by GC/MS (EPA 5030B/8260B)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers	
Sample ID: IMI0487-03 (MT552 - Soil) - cont.					Sampled: 09/08/03					REV QUAL
Reporting Units: ug/kg dry										QUAL CODE
Isopropylbenzene	EPA 8260B	3I15024	N/A	2.1	ND	1	09/15/03	09/15/03	U	
p-Isopropyltoluene	EPA 8260B	3I15024	N/A	2.1	ND	1	09/15/03	09/15/03	U	
Methylene chloride	EPA 8260B	3I15024	N/A	21	23	1	09/15/03	09/15/03	U	
4-Methyl-2-pentanone (MIBK)	EPA 8260B	3I15024	N/A	5.3	ND	1	09/15/03	09/15/03	U	
Naphthalene	EPA 8260B	3I15024	N/A	5.3	ND	1	09/15/03	09/15/03	U	
n-Propylbenzene	EPA 8260B	3I15024	N/A	2.1	ND	1	09/15/03	09/15/03	U	
Styrene	EPA 8260B	3I15024	N/A	2.1	ND	1	09/15/03	09/15/03	U	
1,1,1,2-Tetrachloroethane	EPA 8260B	3I15024	N/A	5.3	ND	1	09/15/03	09/15/03	U	
1,1,2,2-Tetrachloroethane	EPA 8260B	3I15024	N/A	2.1	ND	1	09/15/03	09/15/03	U	
Tetrachloroethene	EPA 8260B	3I15024	N/A	2.1	ND	1	09/15/03	09/15/03	U	
Toluene	EPA 8260B	3I15024	N/A	2.1	ND	1	09/15/03	09/15/03	U	
1,2,3-Trichlorobenzene	EPA 8260B	3I15024	N/A	5.3	ND	1	09/15/03	09/15/03	U	
1,2,4-Trichlorobenzene	EPA 8260B	3I15024	N/A	5.3	ND	1	09/15/03	09/15/03	U	
1,1,1-Trichloroethane	EPA 8260B	3I15024	N/A	2.1	ND	1	09/15/03	09/15/03	U	
1,1,2-Trichloroethane	EPA 8260B	3I15024	N/A	2.1	ND	1	09/15/03	09/15/03	U	
Trichloroethene	EPA 8260B	3I15024	N/A	2.1	ND	1	09/15/03	09/15/03	U	
Trichlorofluoromethane	EPA 8260B	3I15024	N/A	5.3	ND	1	09/15/03	09/15/03	U	
1,2,3-Trichloropropane	EPA 8260B	3I15024	N/A	11	ND	1	09/15/03	09/15/03	U	
1,2,4-Trimethylbenzene	EPA 8260B	3I15024	N/A	2.1	ND	1	09/15/03	09/15/03	U	
1,3,5-Trimethylbenzene	EPA 8260B	3I15024	N/A	2.1	ND	1	09/15/03	09/15/03	U	
Vinyl chloride	EPA 8260B	3I15024	N/A	5.3	ND	1	09/15/03	09/15/03	U	
o-Xylene	EPA 8260B	3I15024	N/A	2.1	ND	1	09/15/03	09/15/03	U	
m,p-Xylenes	EPA 8260B	3I15024	N/A	2.1	ND	1	09/15/03	09/15/03	U	
Trichlorotrifluoroethane (Freon 113)	EPA 8260B	3I15024	N/A	11	ND	1	09/15/03	09/15/03	U	
Surrogate: Dibromofluoromethane (80-125%)					112 %					
Surrogate: Toluene-d8 (80-120%)					99 %					
Surrogate: 4-Bromofluorobenzene (80-120%)					90 %					

 Del Mar Analytical, Irvine
 Michele Harper
 Project Manager

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IMI0487 <Page 17 of 94>

MWH-San Diego
 1230 Columbia Street, Suite 750
 San Diego, CA 92101
 Attention: Lisa J. Tucker

 Project ID: Building 56 Landfill
 Boeing SSFL
 Report Number: IMI0487

 Sampled: 09/05/03-09/09/03
 Received: 09/09/03

VOLATILE ORGANICS by GC/MS (EPA 5035/8260B)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers	
Sample ID: IMI0487-04 (MT553 - Soil)					Sampled: 09/08/03					REV QUAL
Reporting Units: ug/kg dry										QUAL CODE
2-Chloroethyl vinyl ether	EPA 8260B	3I13025	N/A	5.2	ND	1.03	09/13/03	09/13/03	U	
Trichlorotrifluoroethane (Freon 113)	EPA 8260B	3I13025	N/A	10	ND	1.03	09/13/03	09/13/03		
Acetone	EPA 8260B	3I13025	N/A	10	ND	1.03	09/13/03	09/13/03		
Benzene	EPA 8260B	3I13025	N/A	2.1	ND	1.03	09/13/03	09/13/03		
Bromobenzene	EPA 8260B	3I13025	N/A	5.2	ND	1.03	09/13/03	09/13/03		
Bromochloromethane	EPA 8260B	3I13025	N/A	5.2	ND	1.03	09/13/03	09/13/03		
Bromodichloromethane	EPA 8260B	3I13025	N/A	2.1	ND	1.03	09/13/03	09/13/03		
Bromoform	EPA 8260B	3I13025	N/A	5.2	ND	1.03	09/13/03	09/13/03		
Bromomethane	EPA 8260B	3I13025	N/A	5.2	ND	1.03	09/13/03	09/13/03		
2-Butanone (MEK)	EPA 8260B	3I13025	N/A	10	ND	1.03	09/13/03	09/13/03		
n-Butylbenzene	EPA 8260B	3I13025	N/A	5.2	ND	1.03	09/13/03	09/13/03		
sec-Butylbenzene	EPA 8260B	3I13025	N/A	5.2	ND	1.03	09/13/03	09/13/03		
tert-Butylbenzene	EPA 8260B	3I13025	N/A	5.2	ND	1.03	09/13/03	09/13/03		
Carbon tetrachloride	EPA 8260B	3I13025	N/A	5.2	ND	1.03	09/13/03	09/13/03		
Chlorobenzene	EPA 8260B	3I13025	N/A	2.1	ND	1.03	09/13/03	09/13/03		
Chloroethane	EPA 8260B	3I13025	N/A	5.2	ND	1.03	09/13/03	09/13/03		
Chloroform	EPA 8260B	3I13025	N/A	2.1	ND	1.03	09/13/03	09/13/03		
Chloromethane	EPA 8260B	3I13025	N/A	5.2	ND	1.03	09/13/03	09/13/03		
2-Chlorotoluene	EPA 8260B	3I13025	N/A	5.2	ND	1.03	09/13/03	09/13/03		
4-Chlorotoluene	EPA 8260B	3I13025	N/A	5.2	ND	1.03	09/13/03	09/13/03		
Dibromochloromethane	EPA 8260B	3I13025	N/A	2.1	ND	1.03	09/13/03	09/13/03		
1,2-Dibromo-3-chloropropane	EPA 8260B	3I13025	N/A	5.2	ND	1.03	09/13/03	09/13/03		
1,2-Dibromoethane (EDB)	EPA 8260B	3I13025	N/A	2.1	ND	1.03	09/13/03	09/13/03		
Dibromomethane	EPA 8260B	3I13025	N/A	2.1	ND	1.03	09/13/03	09/13/03		
1,2-Dichlorobenzene	EPA 8260B	3I13025	N/A	2.1	ND	1.03	09/13/03	09/13/03		
1,3-Dichlorobenzene	EPA 8260B	3I13025	N/A	2.1	ND	1.03	09/13/03	09/13/03		
1,4-Dichlorobenzene	EPA 8260B	3I13025	N/A	2.1	ND	1.03	09/13/03	09/13/03		
Dichlorodifluoromethane	EPA 8260B	3I13025	N/A	5.2	ND	1.03	09/13/03	09/13/03		
1,1-Dichloroethane	EPA 8260B	3I13025	N/A	2.1	ND	1.03	09/13/03	09/13/03		
1,2-Dichloroethane	EPA 8260B	3I13025	N/A	2.1	ND	1.03	09/13/03	09/13/03		
1,1-Dichloroethene	EPA 8260B	3I13025	N/A	5.2	ND	1.03	09/13/03	09/13/03		
cis-1,2-Dichloroethene	EPA 8260B	3I13025	N/A	2.1	ND	1.03	09/13/03	09/13/03		
trans-1,2-Dichloroethene	EPA 8260B	3I13025	N/A	2.1	ND	1.03	09/13/03	09/13/03		
1,2-Dichloropropane	EPA 8260B	3I13025	N/A	2.1	ND	1.03	09/13/03	09/13/03		
1,3-Dichloropropane	EPA 8260B	3I13025	N/A	2.1	ND	1.03	09/13/03	09/13/03		
2,2-Dichloropropane	EPA 8260B	3I13025	N/A	2.1	ND	1.03	09/13/03	09/13/03		
1,1-Dichloropropene	EPA 8260B	3I13025	N/A	2.1	ND	1.03	09/13/03	09/13/03		
cis-1,3-Dichloropropene	EPA 8260B	3I13025	N/A	2.1	ND	1.03	09/13/03	09/13/03		
trans-1,3-Dichloropropene	EPA 8260B	3I13025	N/A	2.1	ND	1.03	09/13/03	09/13/03		
Ethylbenzene	EPA 8260B	3I13025	N/A	2.1	ND	1.03	09/13/03	09/13/03		

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 Project Manager

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MWH-San Diego
 1230 Columbia Street, Suite 750
 San Diego, CA 92101
 Attention: Lisa J. Tucker

Project ID: Building 56 Landfill
 Boeing SSFL
 Report Number: IMI0487

Sampled: 09/05/03-09/09/03
 Received: 09/09/03

VOLATILE ORGANICS by GC/MS (EPA 5035/8260B)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IMI0487-04 (MT553 - Soil) - cont.					Sampled: 09/08/03				
Reporting Units: ug/kg dry									REV QUAL
Hexachlorobutadiene	EPA 8260B	3I13025	N/A	5.2	ND	1.03	09/13/03	09/13/03	U
2-Hexanone	EPA 8260B	3I13025	N/A	10	ND	1.03	09/13/03	09/13/03	
Isopropylbenzene	EPA 8260B	3I13025	N/A	2.1	ND	1.03	09/13/03	09/13/03	
p-Isopropyltoluene	EPA 8260B	3I13025	N/A	2.1	ND	1.03	09/13/03	09/13/03	
Methylene chloride	EPA 8260B	3I13025	N/A	21	ND	1.03	09/13/03	09/13/03	
4-Methyl-2-pentanone (MIBK)	EPA 8260B	3I13025	N/A	5.2	ND	1.03	09/13/03	09/13/03	
Naphthalene	EPA 8260B	3I13025	N/A	5.2	ND	1.03	09/13/03	09/13/03	
n-Propylbenzene	EPA 8260B	3I13025	N/A	2.1	ND	1.03	09/13/03	09/13/03	
Styrene	EPA 8260B	3I13025	N/A	2.1	ND	1.03	09/13/03	09/13/03	
1,1,1,2-Tetrachloroethane	EPA 8260B	3I13025	N/A	5.2	ND	1.03	09/13/03	09/13/03	
1,1,2,2-Tetrachloroethane	EPA 8260B	3I13025	N/A	2.1	ND	1.03	09/13/03	09/13/03	
Tetrachloroethene	EPA 8260B	3I13025	N/A	2.1	ND	1.03	09/13/03	09/13/03	
Toluene	EPA 8260B	3I13025	N/A	2.1	ND	1.03	09/13/03	09/13/03	
1,2,3-Trichlorobenzene	EPA 8260B	3I13025	N/A	5.2	ND	1.03	09/13/03	09/13/03	
1,2,4-Trichlorobenzene	EPA 8260B	3I13025	N/A	5.2	ND	1.03	09/13/03	09/13/03	
1,1,1-Trichloroethane	EPA 8260B	3I13025	N/A	2.1	ND	1.03	09/13/03	09/13/03	
1,1,2-Trichloroethane	EPA 8260B	3I13025	N/A	2.1	ND	1.03	09/13/03	09/13/03	
Trichloroethene	EPA 8260B	3I13025	N/A	2.1	ND	1.03	09/13/03	09/13/03	
Trichlorofluoromethane	EPA 8260B	3I13025	N/A	5.2	ND	1.03	09/13/03	09/13/03	
1,2,3-Trichloropropane	EPA 8260B	3I13025	N/A	10	ND	1.03	09/13/03	09/13/03	
1,2,4-Trimethylbenzene	EPA 8260B	3I13025	N/A	2.1	ND	1.03	09/13/03	09/13/03	
1,3,5-Trimethylbenzene	EPA 8260B	3I13025	N/A	2.1	ND	1.03	09/13/03	09/13/03	
Vinyl chloride	EPA 8260B	3I13025	N/A	5.2	ND	1.03	09/13/03	09/13/03	
o-Xylene	EPA 8260B	3I13025	N/A	2.1	ND	1.03	09/13/03	09/13/03	
m,p-Xylenes	EPA 8260B	3I13025	N/A	2.1	ND	1.03	09/13/03	09/13/03	
Surrogate: Dibromofluoromethane (80-125%)					104 %				
Surrogate: Toluene-d8 (80-120%)					101 %				
Surrogate: 4-Bromofluorobenzene (80-120%)					93 %				

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 Project Manager

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MWH-San Diego
 1230 Columbia Street, Suite 750
 San Diego, CA 92101
 Attention: Lisa J. Tucker

Project ID: Building 56 Landfill
 Boeing SSFL
 Report Number: IMI0487

Sampled: 09/05/03-09/09/03
 Received: 09/09/03

VOLATILE ORGANICS by GC/MS (EPA 5035/8260B)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers	
Sample ID: IMI0487-05 (MT554 - Soil)					Sampled: 09/08/03					REF QUAL
Reporting Units: ug/kg dry										QUAL CODE
2-Chloroethyl vinyl ether	EPA 8260B	3I12027	N/A	5.3	ND	0.943	09/12/03	09/13/03	U	
Trichlorotrifluoroethane (Freon 113)	EPA 8260B	3I12027	N/A	11	ND	0.943	09/12/03	09/13/03	U	
Acetone	EPA 8260B	3I12027	N/A	11	41	0.943	09/12/03	09/13/03	J U F	
Benzene	EPA 8260B	3I12027	N/A	2.1	ND	0.943	09/12/03	09/13/03	U	
Bromobenzene	EPA 8260B	3I12027	N/A	5.3	ND	0.943	09/12/03	09/13/03		
Bromochloromethane	EPA 8260B	3I12027	N/A	5.3	ND	0.943	09/12/03	09/13/03		
Bromodichloromethane	EPA 8260B	3I12027	N/A	2.1	ND	0.943	09/12/03	09/13/03		
Bromoform	EPA 8260B	3I12027	N/A	5.3	ND	0.943	09/12/03	09/13/03		
Bromomethane	EPA 8260B	3I12027	N/A	5.3	ND	0.943	09/12/03	09/13/03		
2-Butanone (MEK)	EPA 8260B	3I12027	N/A	11	ND	0.943	09/12/03	09/13/03		
n-Butylbenzene	EPA 8260B	3I12027	N/A	5.3	ND	0.943	09/12/03	09/13/03		
sec-Butylbenzene	EPA 8260B	3I12027	N/A	5.3	ND	0.943	09/12/03	09/13/03		
tert-Butylbenzene	EPA 8260B	3I12027	N/A	5.3	ND	0.943	09/12/03	09/13/03		
Carbon tetrachloride	EPA 8260B	3I12027	N/A	5.3	ND	0.943	09/12/03	09/13/03		
Chlorobenzene	EPA 8260B	3I12027	N/A	2.1	ND	0.943	09/12/03	09/13/03		
Chloroethane	EPA 8260B	3I12027	N/A	5.3	ND	0.943	09/12/03	09/13/03		
Chloroform	EPA 8260B	3I12027	N/A	2.1	ND	0.943	09/12/03	09/13/03		
Chloromethane	EPA 8260B	3I12027	N/A	5.3	ND	0.943	09/12/03	09/13/03		
2-Chlorotoluene	EPA 8260B	3I12027	N/A	5.3	ND	0.943	09/12/03	09/13/03		
4-Chlorotoluene	EPA 8260B	3I12027	N/A	5.3	ND	0.943	09/12/03	09/13/03		
Dibromochloromethane	EPA 8260B	3I12027	N/A	2.1	ND	0.943	09/12/03	09/13/03		
1,2-Dibromo-3-chloropropane	EPA 8260B	3I12027	N/A	5.3	ND	0.943	09/12/03	09/13/03		
1,2-Dibromoethane (EDB)	EPA 8260B	3I12027	N/A	2.1	ND	0.943	09/12/03	09/13/03		
Dibromomethane	EPA 8260B	3I12027	N/A	2.1	ND	0.943	09/12/03	09/13/03		
1,2-Dichlorobenzene	EPA 8260B	3I12027	N/A	2.1	ND	0.943	09/12/03	09/13/03		
1,3-Dichlorobenzene	EPA 8260B	3I12027	N/A	2.1	ND	0.943	09/12/03	09/13/03		
1,4-Dichlorobenzene	EPA 8260B	3I12027	N/A	2.1	ND	0.943	09/12/03	09/13/03		
Dichlorodifluoromethane	EPA 8260B	3I12027	N/A	5.3	ND	0.943	09/12/03	09/13/03		
1,1-Dichloroethane	EPA 8260B	3I12027	N/A	2.1	ND	0.943	09/12/03	09/13/03		
1,2-Dichloroethane	EPA 8260B	3I12027	N/A	2.1	ND	0.943	09/12/03	09/13/03		
1,1-Dichloroethene	EPA 8260B	3I12027	N/A	5.3	ND	0.943	09/12/03	09/13/03		
cis-1,2-Dichloroethene	EPA 8260B	3I12027	N/A	2.1	ND	0.943	09/12/03	09/13/03		
trans-1,2-Dichloroethene	EPA 8260B	3I12027	N/A	2.1	ND	0.943	09/12/03	09/13/03		
1,2-Dichloropropane	EPA 8260B	3I12027	N/A	2.1	ND	0.943	09/12/03	09/13/03		
1,3-Dichloropropane	EPA 8260B	3I12027	N/A	2.1	ND	0.943	09/12/03	09/13/03		
2,2-Dichloropropane	EPA 8260B	3I12027	N/A	2.1	ND	0.943	09/12/03	09/13/03		
1,1-Dichloropropene	EPA 8260B	3I12027	N/A	2.1	ND	0.943	09/12/03	09/13/03		
cis-1,3-Dichloropropene	EPA 8260B	3I12027	N/A	2.1	ND	0.943	09/12/03	09/13/03		
trans-1,3-Dichloropropene	EPA 8260B	3I12027	N/A	2.1	ND	0.943	09/12/03	09/13/03		
Ethylbenzene	EPA 8260B	3I12027	N/A	2.1	ND	0.943	09/12/03	09/13/03		

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MWH-San Diego
 1230 Columbia Street, Suite 750
 San Diego, CA 92101
 Attention: Lisa J. Tucker

 Project ID: Building 56 Landfill
 Boeing SSFL
 Report Number: IMI0487

 Sampled: 09/05/03-09/09/03
 Received: 09/09/03

VOLATILE ORGANICS by GC/MS (EPA 5035/8260B)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers		
									REV QUAL	QUAL CODE	
Sample ID: IMI0487-05 (MT554 - Soil) - cont.					Sampled: 09/08/03						
Reporting Units: ug/kg dry											
Hexachlorobutadiene	EPA 8260B	3I12027	N/A	5.3	ND	0.943	09/12/03	09/13/03	U		
2-Hexanone	EPA 8260B	3I12027	N/A	11	ND	0.943	09/12/03	09/13/03			
Isopropylbenzene	EPA 8260B	3I12027	N/A	2.1	ND	0.943	09/12/03	09/13/03			
p-Isopropyltoluene	EPA 8260B	3I12027	N/A	2.1	ND	0.943	09/12/03	09/13/03			
Methylene chloride	EPA 8260B	3I12027	N/A	21	ND	0.943	09/12/03	09/13/03			
4-Methyl-2-pentanone (MIBK)	EPA 8260B	3I12027	N/A	5.3	ND	0.943	09/12/03	09/13/03			
Naphthalene	EPA 8260B	3I12027	N/A	5.3	ND	0.943	09/12/03	09/13/03			
n-Propylbenzene	EPA 8260B	3I12027	N/A	2.1	ND	0.943	09/12/03	09/13/03			
Styrene	EPA 8260B	3I12027	N/A	2.1	ND	0.943	09/12/03	09/13/03			
1,1,1,2-Tetrachloroethane	EPA 8260B	3I12027	N/A	5.3	ND	0.943	09/12/03	09/13/03			
1,1,1,2,2-Tetrachloroethane	EPA 8260B	3I12027	N/A	2.1	ND	0.943	09/12/03	09/13/03			
Tetrachloroethene	EPA 8260B	3I12027	N/A	2.1	ND	0.943	09/12/03	09/13/03			
Toluene	EPA 8260B	3I12027	N/A	2.1	ND	0.943	09/12/03	09/13/03			
1,2,3-Trichlorobenzene	EPA 8260B	3I12027	N/A	5.3	ND	0.943	09/12/03	09/13/03			
1,2,4-Trichlorobenzene	EPA 8260B	3I12027	N/A	5.3	ND	0.943	09/12/03	09/13/03			
1,1,1-Trichloroethane	EPA 8260B	3I12027	N/A	2.1	ND	0.943	09/12/03	09/13/03			
1,1,2-Trichloroethane	EPA 8260B	3I12027	N/A	2.1	ND	0.943	09/12/03	09/13/03			
Trichloroethene	EPA 8260B	3I12027	N/A	2.1	ND	0.943	09/12/03	09/13/03			
Trichlorofluoromethane	EPA 8260B	3I12027	N/A	5.3	ND	0.943	09/12/03	09/13/03			
1,2,3-Trichloropropane	EPA 8260B	3I12027	N/A	11	ND	0.943	09/12/03	09/13/03			
1,2,4-Trimethylbenzene	EPA 8260B	3I12027	N/A	2.1	ND	0.943	09/12/03	09/13/03			
1,3,5-Trimethylbenzene	EPA 8260B	3I12027	N/A	2.1	ND	0.943	09/12/03	09/13/03			
Vinyl chloride	EPA 8260B	3I12027	N/A	5.3	ND	0.943	09/12/03	09/13/03			
o-Xylene	EPA 8260B	3I12027	N/A	2.1	ND	0.943	09/12/03	09/13/03			
m,p-Xylenes	EPA 8260B	3I12027	N/A	2.1	ND	0.943	09/12/03	09/13/03			
Surrogate: Dibromofluoromethane (80-125%)					110 %						
Surrogate: Toluene-d8 (80-120%)					103 %						
Surrogate: 4-Bromofluorobenzene (80-120%)					86 %						

 Del Mar Analytical, Irvine
 Michele Harper
 Project Manager

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MWH-San Diego
 1230 Columbia Street, Suite 750
 San Diego, CA 92101
 Attention: Lisa J. Tucker

 Project ID: Building 56 Landfill
 Boeing SSFL
 Report Number: IMI0487

 Sampled: 09/05/03-09/09/03
 Received: 09/09/03

VOLATILE ORGANICS by GC/MS (EPA 5035/8260B)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IMI0487-06 (MT555 - Soil)					Sampled: 09/08/03				
Reporting Units: ug/kg dry									REV QUAL
2-Chloroethyl vinyl ether	EPA 8260B	3I12027	N/A	4.6	ND	0.867	09/12/03	09/13/03	U
Trichlorotrifluoroethane (Freon 113)	EPA 8260B	3I12027	N/A	9.2	ND	0.867	09/12/03	09/13/03	
Acetone	EPA 8260B	3I12027	N/A	9.2	ND	0.867	09/12/03	09/13/03	
Benzene	EPA 8260B	3I12027	N/A	1.8	ND	0.867	09/12/03	09/13/03	
Bromobenzene	EPA 8260B	3I12027	N/A	4.6	ND	0.867	09/12/03	09/13/03	
Bromochloromethane	EPA 8260B	3I12027	N/A	4.6	ND	0.867	09/12/03	09/13/03	
Bromodichloromethane	EPA 8260B	3I12027	N/A	1.8	ND	0.867	09/12/03	09/13/03	
Bromoform	EPA 8260B	3I12027	N/A	4.6	ND	0.867	09/12/03	09/13/03	
Bromomethane	EPA 8260B	3I12027	N/A	4.6	ND	0.867	09/12/03	09/13/03	
2-Butanone (MEK)	EPA 8260B	3I12027	N/A	9.2	ND	0.867	09/12/03	09/13/03	
n-Butylbenzene	EPA 8260B	3I12027	N/A	4.6	ND	0.867	09/12/03	09/13/03	
sec-Butylbenzene	EPA 8260B	3I12027	N/A	4.6	ND	0.867	09/12/03	09/13/03	
tert-Butylbenzene	EPA 8260B	3I12027	N/A	4.6	ND	0.867	09/12/03	09/13/03	
Carbon tetrachloride	EPA 8260B	3I12027	N/A	4.6	ND	0.867	09/12/03	09/13/03	
Chlorobenzene	EPA 8260B	3I12027	N/A	1.8	ND	0.867	09/12/03	09/13/03	
Chloroethane	EPA 8260B	3I12027	N/A	4.6	ND	0.867	09/12/03	09/13/03	
Chloroform	EPA 8260B	3I12027	N/A	1.8	ND	0.867	09/12/03	09/13/03	
Chloromethane	EPA 8260B	3I12027	N/A	4.6	ND	0.867	09/12/03	09/13/03	
2-Chlorotoluene	EPA 8260B	3I12027	N/A	4.6	ND	0.867	09/12/03	09/13/03	
4-Chlorotoluene	EPA 8260B	3I12027	N/A	4.6	ND	0.867	09/12/03	09/13/03	
Dibromochloromethane	EPA 8260B	3I12027	N/A	1.8	ND	0.867	09/12/03	09/13/03	
1,2-Dibromo-3-chloropropane	EPA 8260B	3I12027	N/A	4.6	ND	0.867	09/12/03	09/13/03	
1,2-Dibromoethane (EDB)	EPA 8260B	3I12027	N/A	1.8	ND	0.867	09/12/03	09/13/03	
Dibromomethane	EPA 8260B	3I12027	N/A	1.8	ND	0.867	09/12/03	09/13/03	
1,2-Dichlorobenzene	EPA 8260B	3I12027	N/A	1.8	ND	0.867	09/12/03	09/13/03	
1,3-Dichlorobenzene	EPA 8260B	3I12027	N/A	1.8	ND	0.867	09/12/03	09/13/03	
1,4-Dichlorobenzene	EPA 8260B	3I12027	N/A	1.8	ND	0.867	09/12/03	09/13/03	
Dichlorodifluoromethane	EPA 8260B	3I12027	N/A	4.6	ND	0.867	09/12/03	09/13/03	
1,1-Dichloroethane	EPA 8260B	3I12027	N/A	1.8	ND	0.867	09/12/03	09/13/03	
1,2-Dichloroethane	EPA 8260B	3I12027	N/A	1.8	ND	0.867	09/12/03	09/13/03	
1,1-Dichloroethene	EPA 8260B	3I12027	N/A	4.6	ND	0.867	09/12/03	09/13/03	
cis-1,2-Dichloroethene	EPA 8260B	3I12027	N/A	1.8	ND	0.867	09/12/03	09/13/03	
trans-1,2-Dichloroethene	EPA 8260B	3I12027	N/A	1.8	ND	0.867	09/12/03	09/13/03	
1,2-Dichloropropane	EPA 8260B	3I12027	N/A	1.8	ND	0.867	09/12/03	09/13/03	
1,3-Dichloropropane	EPA 8260B	3I12027	N/A	1.8	ND	0.867	09/12/03	09/13/03	
2,2-Dichloropropane	EPA 8260B	3I12027	N/A	1.8	ND	0.867	09/12/03	09/13/03	
1,1-Dichloropropene	EPA 8260B	3I12027	N/A	1.8	ND	0.867	09/12/03	09/13/03	
cis-1,3-Dichloropropene	EPA 8260B	3I12027	N/A	1.8	ND	0.867	09/12/03	09/13/03	
trans-1,3-Dichloropropene	EPA 8260B	3I12027	N/A	1.8	ND	0.867	09/12/03	09/13/03	
Ethylbenzene	EPA 8260B	3I12027	N/A	1.8	ND	0.867	09/12/03	09/13/03	

 Del Mar Analytical, Irvine
 Michele Harper
 Project Manager

AMEC VALIDATED METHOD V

MWH-San Diego
 1230 Columbia Street, Suite 750
 San Diego, CA 92101
 Attention: Lisa J. Tucker

Project ID: Building 56 Landfill
 Boeing SSFL
 Report Number: IMI0487

Sampled: 09/05/03-09/09/03
 Received: 09/09/03

VOLATILE ORGANICS by GC/MS (EPA 5035/8260B)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers	
Sample ID: IMI0487-06 (MT555 - Soil) - cont.					Sampled: 09/08/03					REV QUAL
Reporting Units: ug/kg dry										QUAL CODE
Hexachlorobutadiene	EPA 8260B	3I12027	N/A	4.6	ND	0.867	09/12/03	09/13/03	U	
2-Hexanone	EPA 8260B	3I12027	N/A	9.2	ND	0.867	09/12/03	09/13/03		
Isopropylbenzene	EPA 8260B	3I12027	N/A	1.8	ND	0.867	09/12/03	09/13/03		
p-Isopropyltoluene	EPA 8260B	3I12027	N/A	1.8	ND	0.867	09/12/03	09/13/03		
Methylene chloride	EPA 8260B	3I12027	N/A	18	ND	0.867	09/12/03	09/13/03		
4-Methyl-2-pentanone (MIBK)	EPA 8260B	3I12027	N/A	4.6	ND	0.867	09/12/03	09/13/03		
Naphthalene	EPA 8260B	3I12027	N/A	4.6	ND	0.867	09/12/03	09/13/03		
n-Propylbenzene	EPA 8260B	3I12027	N/A	1.8	ND	0.867	09/12/03	09/13/03		
Styrene	EPA 8260B	3I12027	N/A	1.8	ND	0.867	09/12/03	09/13/03		
1,1,1,2-Tetrachloroethane	EPA 8260B	3I12027	N/A	4.6	ND	0.867	09/12/03	09/13/03		
1,1,2,2-Tetrachloroethane	EPA 8260B	3I12027	N/A	1.8	ND	0.867	09/12/03	09/13/03		
Tetrachloroethene	EPA 8260B	3I12027	N/A	1.8	ND	0.867	09/12/03	09/13/03		
Toluene	EPA 8260B	3I12027	N/A	1.8	ND	0.867	09/12/03	09/13/03		
1,2,3-Trichlorobenzene	EPA 8260B	3I12027	N/A	4.6	ND	0.867	09/12/03	09/13/03		
1,2,4-Trichlorobenzene	EPA 8260B	3I12027	N/A	4.6	ND	0.867	09/12/03	09/13/03		
1,1,1-Trichloroethane	EPA 8260B	3I12027	N/A	1.8	ND	0.867	09/12/03	09/13/03		
1,1,2-Trichloroethane	EPA 8260B	3I12027	N/A	1.8	ND	0.867	09/12/03	09/13/03		
Trichloroethene	EPA 8260B	3I12027	N/A	1.8	ND	0.867	09/12/03	09/13/03		
Trichlorofluoromethane	EPA 8260B	3I12027	N/A	4.6	ND	0.867	09/12/03	09/13/03		
1,2,3-Trichloropropane	EPA 8260B	3I12027	N/A	9.2	ND	0.867	09/12/03	09/13/03		
1,2,4-Trimethylbenzene	EPA 8260B	3I12027	N/A	1.8	ND	0.867	09/12/03	09/13/03		
1,3,5-Trimethylbenzene	EPA 8260B	3I12027	N/A	1.8	ND	0.867	09/12/03	09/13/03		
Vinyl chloride	EPA 8260B	3I12027	N/A	4.6	ND	0.867	09/12/03	09/13/03		
o-Xylene	EPA 8260B	3I12027	N/A	1.8	ND	0.867	09/12/03	09/13/03		
m,p-Xylenes	EPA 8260B	3I12027	N/A	1.8	ND	0.867	09/12/03	09/13/03		
Surrogate: Dibromofluoromethane (80-125%)					109 %					
Surrogate: Toluene-d8 (80-120%)					103 %					
Surrogate: 4-Bromofluorobenzene (80-120%)					88 %					

Del Mar Analytical, Irvine
 Michele Harper
 Project Manager

MEC VALIDATED

MWH-San Diego
 1230 Columbia Street, Suite 750
 San Diego, CA 92101
 Attention: Lisa J. Tucker

 Project ID: Building 56 Landfill
 Boeing SSFL
 Report Number: IMI0487

 Sampled: 09/05/03-09/09/03
 Received: 09/09/03

VOLATILE ORGANICS by GC/MS (EPA 5035/8260B)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers	
Sample ID: IMI0487-07 (MT556 - Soil)					Sampled: 09/08/03					REV QUAL
Reporting Units: ug/kg dry										QUAL CODE
2-Chloroethyl vinyl ether	EPA 8260B	3I13025	N/A	6.0	ND	1.04	09/13/03	09/13/03	U	
Trichlorotrifluoroethane (Freon 113)	EPA 8260B	3I13025	N/A	12	ND	1.04	09/13/03	09/13/03		
Acetone	EPA 8260B	3I13025	N/A	12	ND	1.04	09/13/03	09/13/03		
Benzene	EPA 8260B	3I13025	N/A	2.4	ND	1.04	09/13/03	09/13/03		
Bromobenzene	EPA 8260B	3I13025	N/A	6.0	ND	1.04	09/13/03	09/13/03		
Bromochloromethane	EPA 8260B	3I13025	N/A	6.0	ND	1.04	09/13/03	09/13/03		
Bromodichloromethane	EPA 8260B	3I13025	N/A	2.4	ND	1.04	09/13/03	09/13/03		
Bromoform	EPA 8260B	3I13025	N/A	6.0	ND	1.04	09/13/03	09/13/03		
Bromomethane	EPA 8260B	3I13025	N/A	6.0	ND	1.04	09/13/03	09/13/03		
2-Butanone (MEK)	EPA 8260B	3I13025	N/A	12	ND	1.04	09/13/03	09/13/03		
n-Butylbenzene	EPA 8260B	3I13025	N/A	6.0	ND	1.04	09/13/03	09/13/03		
sec-Butylbenzene	EPA 8260B	3I13025	N/A	6.0	ND	1.04	09/13/03	09/13/03		
tert-Butylbenzene	EPA 8260B	3I13025	N/A	6.0	ND	1.04	09/13/03	09/13/03		
Carbon tetrachloride	EPA 8260B	3I13025	N/A	6.0	ND	1.04	09/13/03	09/13/03		
Chlorobenzene	EPA 8260B	3I13025	N/A	2.4	ND	1.04	09/13/03	09/13/03		
Chloroethane	EPA 8260B	3I13025	N/A	6.0	ND	1.04	09/13/03	09/13/03		
Chloroform	EPA 8260B	3I13025	N/A	2.4	ND	1.04	09/13/03	09/13/03		
Chloromethane	EPA 8260B	3I13025	N/A	6.0	ND	1.04	09/13/03	09/13/03		
2-Chlorotoluene	EPA 8260B	3I13025	N/A	6.0	ND	1.04	09/13/03	09/13/03		
4-Chlorotoluene	EPA 8260B	3I13025	N/A	6.0	ND	1.04	09/13/03	09/13/03		
Dibromochloromethane	EPA 8260B	3I13025	N/A	2.4	ND	1.04	09/13/03	09/13/03		
1,2-Dibromo-3-chloropropane	EPA 8260B	3I13025	N/A	6.0	ND	1.04	09/13/03	09/13/03		
1,2-Dibromoethane (EDB)	EPA 8260B	3I13025	N/A	2.4	ND	1.04	09/13/03	09/13/03		
Dibromomethane	EPA 8260B	3I13025	N/A	2.4	ND	1.04	09/13/03	09/13/03		
1,2-Dichlorobenzene	EPA 8260B	3I13025	N/A	2.4	ND	1.04	09/13/03	09/13/03		
1,3-Dichlorobenzene	EPA 8260B	3I13025	N/A	2.4	ND	1.04	09/13/03	09/13/03		
1,4-Dichlorobenzene	EPA 8260B	3I13025	N/A	2.4	ND	1.04	09/13/03	09/13/03		
Dichlorodifluoromethane	EPA 8260B	3I13025	N/A	6.0	ND	1.04	09/13/03	09/13/03		
1,1-Dichloroethane	EPA 8260B	3I13025	N/A	2.4	ND	1.04	09/13/03	09/13/03		
1,2-Dichloroethane	EPA 8260B	3I13025	N/A	2.4	ND	1.04	09/13/03	09/13/03		
1,1-Dichloroethene	EPA 8260B	3I13025	N/A	6.0	ND	1.04	09/13/03	09/13/03		
cis-1,2-Dichloroethene	EPA 8260B	3I13025	N/A	2.4	ND	1.04	09/13/03	09/13/03		
trans-1,2-Dichloroethene	EPA 8260B	3I13025	N/A	2.4	ND	1.04	09/13/03	09/13/03		
1,2-Dichloropropane	EPA 8260B	3I13025	N/A	2.4	ND	1.04	09/13/03	09/13/03		
1,3-Dichloropropane	EPA 8260B	3I13025	N/A	2.4	ND	1.04	09/13/03	09/13/03		
2,2-Dichloropropane	EPA 8260B	3I13025	N/A	2.4	ND	1.04	09/13/03	09/13/03		
1,1-Dichloropropene	EPA 8260B	3I13025	N/A	2.4	ND	1.04	09/13/03	09/13/03		
cis-1,3-Dichloropropene	EPA 8260B	3I13025	N/A	2.4	ND	1.04	09/13/03	09/13/03		
trans-1,3-Dichloropropene	EPA 8260B	3I13025	N/A	2.4	ND	1.04	09/13/03	09/13/03		
Ethylbenzene	EPA 8260B	3I13025	N/A	2.4	ND	1.04	09/13/03	09/13/03		

 Del Mar Analytical, Irvine
 Michele Harper
 Project Manager

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MWH-San Diego
 1230 Columbia Street, Suite 750
 San Diego, CA 92101
 Attention: Lisa J. Tucker

 Project ID: Building 56 Landfill
 Boeing SSFL
 Report Number: IMI0487

 Sampled: 09/05/03-09/09/03
 Received: 09/09/03

VOLATILE ORGANICS by GC/MS (EPA 5035/8260B)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers		
									REV QUAL	QUAL CODE	
Sample ID: IMI0487-07 (MT556 - Soil) - cont.					Sampled: 09/08/03						
Reporting Units: ug/kg dry											
Hexachlorobutadiene	EPA 8260B	3I13025	N/A	6.0	ND	1.04	09/13/03	09/13/03	U		
2-Hexanone	EPA 8260B	3I13025	N/A	12	ND	1.04	09/13/03	09/13/03			
Isopropylbenzene	EPA 8260B	3I13025	N/A	2.4	ND	1.04	09/13/03	09/13/03			
p-Isopropyltoluene	EPA 8260B	3I13025	N/A	2.4	ND	1.04	09/13/03	09/13/03			
Methylene chloride	EPA 8260B	3I13025	N/A	24	ND	1.04	09/13/03	09/13/03			
4-Methyl-2-pentanone (MIBK)	EPA 8260B	3I13025	N/A	6.0	ND	1.04	09/13/03	09/13/03			
Naphthalene	EPA 8260B	3I13025	N/A	6.0	ND	1.04	09/13/03	09/13/03			
n-Propylbenzene	EPA 8260B	3I13025	N/A	2.4	ND	1.04	09/13/03	09/13/03			
Styrene	EPA 8260B	3I13025	N/A	2.4	ND	1.04	09/13/03	09/13/03			
1,1,1,2-Tetrachloroethane	EPA 8260B	3I13025	N/A	6.0	ND	1.04	09/13/03	09/13/03			
1,1,2,2-Tetrachloroethane	EPA 8260B	3I13025	N/A	2.4	ND	1.04	09/13/03	09/13/03			
Tetrachloroethene	EPA 8260B	3I13025	N/A	2.4	ND	1.04	09/13/03	09/13/03			
Toluene	EPA 8260B	3I13025	N/A	2.4	ND	1.04	09/13/03	09/13/03			
1,2,3-Trichlorobenzene	EPA 8260B	3I13025	N/A	6.0	ND	1.04	09/13/03	09/13/03			
1,2,4-Trichlorobenzene	EPA 8260B	3I13025	N/A	6.0	ND	1.04	09/13/03	09/13/03			
1,1,1-Trichloroethane	EPA 8260B	3I13025	N/A	2.4	ND	1.04	09/13/03	09/13/03			
1,1,2-Trichloroethane	EPA 8260B	3I13025	N/A	2.4	ND	1.04	09/13/03	09/13/03			
Trichloroethene	EPA 8260B	3I13025	N/A	2.4	ND	1.04	09/13/03	09/13/03			
Trichlorofluoromethane	EPA 8260B	3I13025	N/A	6.0	ND	1.04	09/13/03	09/13/03			
1,2,3-Trichloropropane	EPA 8260B	3I13025	N/A	12	ND	1.04	09/13/03	09/13/03			
1,2,4-Trimethylbenzene	EPA 8260B	3I13025	N/A	2.4	ND	1.04	09/13/03	09/13/03			
1,3,5-Trimethylbenzene	EPA 8260B	3I13025	N/A	2.4	ND	1.04	09/13/03	09/13/03			
Vinyl chloride	EPA 8260B	3I13025	N/A	6.0	ND	1.04	09/13/03	09/13/03			
o-Xylene	EPA 8260B	3I13025	N/A	2.4	ND	1.04	09/13/03	09/13/03			
m,p-Xylenes	EPA 8260B	3I13025	N/A	2.4	ND	1.04	09/13/03	09/13/03			
Surrogate: Dibromofluoromethane (80-125%)					105 %						
Surrogate: Toluene-d8 (80-120%)					100 %						
Surrogate: 4-Bromofluorobenzene (80-120%)					98 %						

 Del Mar Analytical, Irvine
 Michele Harper
 Project Manager

AMEC VALIDATED

MWH-San Diego
 1230 Columbia Street, Suite 750
 San Diego, CA 92101
 Attention: Lisa J. Tucker

Project ID: Building 56 Landfill
 Boeing SSFL
 Report Number: IMI0487

Sampled: 09/05/03-09/09/03
 Received: 09/09/03

VOLATILE ORGANICS by GC/MS (EPA 5035/8260B)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers	
Sample ID: IMI0487-08 (MT557 - Soil)					Sampled: 09/08/03					REV QUAL
Reporting Units: ug/kg dry										QUAL CODE
2-Chloroethyl vinyl ether	EPA 8260B	3I13025	N/A	5.2	ND	1.02	09/13/03	09/13/03	U	
Trichlorotrifluoroethane (Freon 113)	EPA 8260B	3I13025	N/A	10	ND	1.02	09/13/03	09/13/03		
Acetone	EPA 8260B	3I13025	N/A	10	ND	1.02	09/13/03	09/13/03		
Benzene	EPA 8260B	3I13025	N/A	2.1	ND	1.02	09/13/03	09/13/03		
Bromobenzene	EPA 8260B	3I13025	N/A	5.2	ND	1.02	09/13/03	09/13/03		
Bromochloromethane	EPA 8260B	3I13025	N/A	5.2	ND	1.02	09/13/03	09/13/03		
Bromodichloromethane	EPA 8260B	3I13025	N/A	2.1	ND	1.02	09/13/03	09/13/03		
Bromoform	EPA 8260B	3I13025	N/A	5.2	ND	1.02	09/13/03	09/13/03		
Bromomethane	EPA 8260B	3I13025	N/A	5.2	ND	1.02	09/13/03	09/13/03		
2-Butanone (MEK)	EPA 8260B	3I13025	N/A	10	ND	1.02	09/13/03	09/13/03		
n-Butylbenzene	EPA 8260B	3I13025	N/A	5.2	ND	1.02	09/13/03	09/13/03		
sec-Butylbenzene	EPA 8260B	3I13025	N/A	5.2	ND	1.02	09/13/03	09/13/03		
tert-Butylbenzene	EPA 8260B	3I13025	N/A	5.2	ND	1.02	09/13/03	09/13/03		
Carbon tetrachloride	EPA 8260B	3I13025	N/A	5.2	ND	1.02	09/13/03	09/13/03		
Chlorobenzene	EPA 8260B	3I13025	N/A	2.1	ND	1.02	09/13/03	09/13/03		
Chloroethane	EPA 8260B	3I13025	N/A	5.2	ND	1.02	09/13/03	09/13/03		
Chloroform	EPA 8260B	3I13025	N/A	2.1	ND	1.02	09/13/03	09/13/03		
Chloromethane	EPA 8260B	3I13025	N/A	5.2	ND	1.02	09/13/03	09/13/03		
2-Chlorotoluene	EPA 8260B	3I13025	N/A	5.2	ND	1.02	09/13/03	09/13/03		
4-Chlorotoluene	EPA 8260B	3I13025	N/A	5.2	ND	1.02	09/13/03	09/13/03		
Dibromochloromethane	EPA 8260B	3I13025	N/A	2.1	ND	1.02	09/13/03	09/13/03		
1,2-Dibromo-3-chloropropane	EPA 8260B	3I13025	N/A	5.2	ND	1.02	09/13/03	09/13/03		
1,2-Dibromoethane (EDB)	EPA 8260B	3I13025	N/A	2.1	ND	1.02	09/13/03	09/13/03		
Dibromomethane	EPA 8260B	3I13025	N/A	2.1	ND	1.02	09/13/03	09/13/03		
1,2-Dichlorobenzene	EPA 8260B	3I13025	N/A	2.1	ND	1.02	09/13/03	09/13/03		
1,3-Dichlorobenzene	EPA 8260B	3I13025	N/A	2.1	ND	1.02	09/13/03	09/13/03		
1,4-Dichlorobenzene	EPA 8260B	3I13025	N/A	2.1	ND	1.02	09/13/03	09/13/03		
Dichlorodifluoromethane	EPA 8260B	3I13025	N/A	5.2	ND	1.02	09/13/03	09/13/03		
1,1-Dichloroethane	EPA 8260B	3I13025	N/A	2.1	ND	1.02	09/13/03	09/13/03		
1,2-Dichloroethane	EPA 8260B	3I13025	N/A	2.1	ND	1.02	09/13/03	09/13/03		
1,1-Dichloroethene	EPA 8260B	3I13025	N/A	5.2	ND	1.02	09/13/03	09/13/03		
cis-1,2-Dichloroethene	EPA 8260B	3I13025	N/A	2.1	ND	1.02	09/13/03	09/13/03		
trans-1,2-Dichloroethene	EPA 8260B	3I13025	N/A	2.1	ND	1.02	09/13/03	09/13/03		
1,2-Dichloropropane	EPA 8260B	3I13025	N/A	2.1	ND	1.02	09/13/03	09/13/03		
1,3-Dichloropropane	EPA 8260B	3I13025	N/A	2.1	ND	1.02	09/13/03	09/13/03		
2,2-Dichloropropane	EPA 8260B	3I13025	N/A	2.1	ND	1.02	09/13/03	09/13/03		
1,1-Dichloropropene	EPA 8260B	3I13025	N/A	2.1	ND	1.02	09/13/03	09/13/03		
cis-1,3-Dichloropropene	EPA 8260B	3I13025	N/A	2.1	ND	1.02	09/13/03	09/13/03		
trans-1,3-Dichloropropene	EPA 8260B	3I13025	N/A	2.1	ND	1.02	09/13/03	09/13/03		
Ethylbenzene	EPA 8260B	3I13025	N/A	2.1	ND	1.02	09/13/03	09/13/03		

Del Mar Analytical, Irvine
 Michele Harper
 Project Manager

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MWH-San Diego 1230 Columbia Street, Suite 750 San Diego, CA 92101 Attention: Lisa J. Tucker	Project ID: Building 56 Landfill Boeing SSFL Report Number: IMI0487	Sampled: 09/05/03-09/09/03 Received: 09/09/03
------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------	--------------------------------------------------

VOLATILE ORGANICS by GC/MS (EPA 5035/8260B)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers		
									REV	QUAL	
Sample ID: IMI0487-08 (MT557 - Soil) - cont.					Sampled: 09/08/03					REV	QUAL
Reporting Units: ug/kg dry										QUAL	CODE
Hexachlorobutadiene	EPA 8260B	3I13025	N/A	5.2	ND	1.02	09/13/03	09/13/03	U		
2-Hexanone	EPA 8260B	3I13025	N/A	10	ND	1.02	09/13/03	09/13/03			
Isopropylbenzene	EPA 8260B	3I13025	N/A	2.1	ND	1.02	09/13/03	09/13/03			
p-Isopropyltoluene	EPA 8260B	3I13025	N/A	2.1	ND	1.02	09/13/03	09/13/03			
Methylene chloride	EPA 8260B	3I13025	N/A	21	ND	1.02	09/13/03	09/13/03			
4-Methyl-2-pentanone (MIBK)	EPA 8260B	3I13025	N/A	5.2	ND	1.02	09/13/03	09/13/03			
Naphthalene	EPA 8260B	3I13025	N/A	5.2	ND	1.02	09/13/03	09/13/03			
n-Propylbenzene	EPA 8260B	3I13025	N/A	2.1	ND	1.02	09/13/03	09/13/03			
Styrene	EPA 8260B	3I13025	N/A	2.1	ND	1.02	09/13/03	09/13/03			
1,1,1,2-Tetrachloroethane	EPA 8260B	3I13025	N/A	5.2	ND	1.02	09/13/03	09/13/03			
1,1,2,2-Tetrachloroethane	EPA 8260B	3I13025	N/A	2.1	ND	1.02	09/13/03	09/13/03			
Tetrachloroethene	EPA 8260B	3I13025	N/A	2.1	ND	1.02	09/13/03	09/13/03			
Toluene	EPA 8260B	3I13025	N/A	2.1	ND	1.02	09/13/03	09/13/03			
1,2,3-Trichlorobenzene	EPA 8260B	3I13025	N/A	5.2	ND	1.02	09/13/03	09/13/03			
1,2,4-Trichlorobenzene	EPA 8260B	3I13025	N/A	5.2	ND	1.02	09/13/03	09/13/03			
1,1,1-Trichloroethane	EPA 8260B	3I13025	N/A	2.1	ND	1.02	09/13/03	09/13/03			
1,1,2-Trichloroethane	EPA 8260B	3I13025	N/A	2.1	ND	1.02	09/13/03	09/13/03			
Trichloroethene	EPA 8260B	3I13025	N/A	2.1	ND	1.02	09/13/03	09/13/03			
Trichlorofluoromethane	EPA 8260B	3I13025	N/A	5.2	ND	1.02	09/13/03	09/13/03			
1,2,3-Trichloropropane	EPA 8260B	3I13025	N/A	10	ND	1.02	09/13/03	09/13/03			
1,2,4-Trimethylbenzene	EPA 8260B	3I13025	N/A	2.1	ND	1.02	09/13/03	09/13/03			
1,3,5-Trimethylbenzene	EPA 8260B	3I13025	N/A	2.1	ND	1.02	09/13/03	09/13/03			
Vinyl chloride	EPA 8260B	3I13025	N/A	5.2	ND	1.02	09/13/03	09/13/03			
o-Xylene	EPA 8260B	3I13025	N/A	2.1	ND	1.02	09/13/03	09/13/03			
m,p-Xylenes	EPA 8260B	3I13025	N/A	2.1	ND	1.02	09/13/03	09/13/03			
Surrogate: Dibromofluoromethane (80-125%)					106 %						
Surrogate: Toluene-d8 (80-120%)					99 %						
Surrogate: 4-Bromofluorobenzene (80-120%)					95 %						

Del Mar Analytical, Irvine
 Michele Harper
 Project Manager

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MWH-San Diego
1230 Columbia Street, Suite 750
San Diego, CA 92101
Attention: Lisa J. Tucker

Project ID: Building 56 Landfill
Boeing SSFL
Report Number: IMI0487

Sampled: 09/05/03-09/09/03
Received: 09/09/03

VOLATILE ORGANICS with KETONES by GC/MS (EPA 5030B/8260B)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers	
Sample ID: IMI0487-09 (MT558 - Water) (L)					Sampled: 09/08/03					REV QUAL
Reporting Units: ug/l										QUAL CODE
Acetone	EPA 8260B	3I17030	N/A	10	ND	1	09/17/03	09/17/03	U	
Benzene	EPA 8260B	3I17030	N/A	2.0	ND	1	09/17/03	09/17/03		
Bromobenzene	EPA 8260B	3I17030	N/A	5.0	ND	1	09/17/03	09/17/03		
Bromochloromethane	EPA 8260B	3I17030	N/A	5.0	ND	1	09/17/03	09/17/03		
Bromodichloromethane	EPA 8260B	3I17030	N/A	2.0	ND	1	09/17/03	09/17/03		
Bromoform	EPA 8260B	3I17030	N/A	5.0	ND	1	09/17/03	09/17/03		
Bromomethane	EPA 8260B	3I17030	N/A	5.0	ND	1	09/17/03	09/17/03		
2-Butanone (MEK)	EPA 8260B	3I17030	N/A	10	ND	1	09/17/03	09/17/03		
n-Butylbenzene	EPA 8260B	3I17030	N/A	5.0	ND	1	09/17/03	09/17/03		
sec-Butylbenzene	EPA 8260B	3I17030	N/A	5.0	ND	1	09/17/03	09/17/03		
tert-Butylbenzene	EPA 8260B	3I17030	N/A	5.0	ND	1	09/17/03	09/17/03		
Carbon tetrachloride	EPA 8260B	3I17030	N/A	5.0	ND	1	09/17/03	09/17/03		
Chlorobenzene	EPA 8260B	3I17030	N/A	2.0	ND	1	09/17/03	09/17/03		
Chloroethane	EPA 8260B	3I17030	N/A	5.0	ND	1	09/17/03	09/17/03		
Chloroform	EPA 8260B	3I17030	N/A	2.0	ND	1	09/17/03	09/17/03		
Chloromethane	EPA 8260B	3I17030	N/A	5.0	ND	1	09/17/03	09/17/03		
2-Chlorotoluene	EPA 8260B	3I17030	N/A	5.0	ND	1	09/17/03	09/17/03		
4-Chlorotoluene	EPA 8260B	3I17030	N/A	5.0	ND	1	09/17/03	09/17/03		
Dibromochloromethane	EPA 8260B	3I17030	N/A	2.0	ND	1	09/17/03	09/17/03		
1,2-Dibromo-3-chloropropane	EPA 8260B	3I17030	N/A	5.0	ND	1	09/17/03	09/17/03		
1,2-Dibromoethane (EDB)	EPA 8260B	3I17030	N/A	2.0	ND	1	09/17/03	09/17/03		
Dibromomethane	EPA 8260B	3I17030	N/A	2.0	ND	1	09/17/03	09/17/03		
1,2-Dichlorobenzene	EPA 8260B	3I17030	N/A	2.0	ND	1	09/17/03	09/17/03		
1,3-Dichlorobenzene	EPA 8260B	3I17030	N/A	2.0	ND	1	09/17/03	09/17/03		
1,4-Dichlorobenzene	EPA 8260B	3I17030	N/A	2.0	ND	1	09/17/03	09/17/03		
Dichlorodifluoromethane	EPA 8260B	3I17030	N/A	5.0	ND	1	09/17/03	09/17/03		
1,1-Dichloroethane	EPA 8260B	3I17030	N/A	2.0	ND	1	09/17/03	09/17/03		
1,2-Dichloroethane	EPA 8260B	3I17030	N/A	2.0	ND	1	09/17/03	09/17/03		
1,1-Dichloroethene	EPA 8260B	3I17030	N/A	5.0	ND	1	09/17/03	09/17/03		
cis-1,2-Dichloroethene	EPA 8260B	3I17030	N/A	2.0	ND	1	09/17/03	09/17/03		
trans-1,2-Dichloroethene	EPA 8260B	3I17030	N/A	2.0	ND	1	09/17/03	09/17/03		
1,2-Dichloropropane	EPA 8260B	3I17030	N/A	2.0	ND	1	09/17/03	09/17/03		
1,3-Dichloropropane	EPA 8260B	3I17030	N/A	2.0	ND	1	09/17/03	09/17/03		
2,2-Dichloropropane	EPA 8260B	3I17030	N/A	2.0	ND	1	09/17/03	09/17/03		
1,1-Dichloropropene	EPA 8260B	3I17030	N/A	2.0	ND	1	09/17/03	09/17/03		
cis-1,3-Dichloropropene	EPA 8260B	3I17030	N/A	2.0	ND	1	09/17/03	09/17/03		
trans-1,3-Dichloropropene	EPA 8260B	3I17030	N/A	2.0	ND	1	09/17/03	09/17/03		
Ethylbenzene	EPA 8260B	3I17030	N/A	2.0	ND	1	09/17/03	09/17/03		
Hexachlorobutadiene	EPA 8260B	3I17030	N/A	5.0	ND	1	09/17/03	09/17/03		
2-Hexanone	EPA 8260B	3I17030	N/A	10	ND	1	09/17/03	09/17/03		

Del Mar Analytical, Irvine
Michele Harper
Project Manager

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MWH-San Diego
 1230 Columbia Street, Suite 750
 San Diego, CA 92101
 Attention: Lisa J. Tucker

Project ID: Building 56 Landfill
 Boeing SSFL
 Report Number: IMI0487

Sampled: 09/05/03-09/09/03
 Received: 09/09/03

VOLATILE ORGANICS with KETONES by GC/MS (EPA 5030B/8260B)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers	
Sample ID: IMI0487-09 (MT558 - Water) - cont.					Sampled: 09/08/03					REV QUAL
Reporting Units: ug/l										QUAL CODE
Isopropylbenzene	EPA 8260B	3I17030	N/A	2.0	ND	1	09/17/03	09/17/03	U	
p-Isopropyltoluene	EPA 8260B	3I17030	N/A	2.0	ND	1	09/17/03	09/17/03		
Methylene chloride	EPA 8260B	3I17030	N/A	5.0	ND	1	09/17/03	09/17/03		
4-Methyl-2-pentanone (MIBK)	EPA 8260B	3I17030	N/A	10	ND	1	09/17/03	09/17/03		
Naphthalene	EPA 8260B	3I17030	N/A	5.0	ND	1	09/17/03	09/17/03		
n-Propylbenzene	EPA 8260B	3I17030	N/A	2.0	ND	1	09/17/03	09/17/03		
Styrene	EPA 8260B	3I17030	N/A	2.0	ND	1	09/17/03	09/17/03		
1,1,1,2-Tetrachloroethane	EPA 8260B	3I17030	N/A	5.0	ND	1	09/17/03	09/17/03		
1,1,2,2-Tetrachloroethane	EPA 8260B	3I17030	N/A	2.0	ND	1	09/17/03	09/17/03		
Tetrachloroethene	EPA 8260B	3I17030	N/A	2.0	ND	1	09/17/03	09/17/03		
Toluene	EPA 8260B	3I17030	N/A	2.0	ND	1	09/17/03	09/17/03		
1,2,3-Trichlorobenzene	EPA 8260B	3I17030	N/A	5.0	ND	1	09/17/03	09/17/03		
1,2,4-Trichlorobenzene	EPA 8260B	3I17030	N/A	5.0	ND	1	09/17/03	09/17/03		
1,1,1-Trichloroethane	EPA 8260B	3I17030	N/A	2.0	ND	1	09/17/03	09/17/03		
1,1,2-Trichloroethane	EPA 8260B	3I17030	N/A	2.0	ND	1	09/17/03	09/17/03		
Trichloroethene	EPA 8260B	3I17030	N/A	2.0	ND	1	09/17/03	09/17/03		
Trichlorofluoromethane	EPA 8260B	3I17030	N/A	5.0	ND	1	09/17/03	09/17/03		
1,2,3-Trichloropropane	EPA 8260B	3I17030	N/A	10	ND	1	09/17/03	09/17/03		
1,2,4-Trimethylbenzene	EPA 8260B	3I17030	N/A	2.0	ND	1	09/17/03	09/17/03		
1,3,5-Trimethylbenzene	EPA 8260B	3I17030	N/A	2.0	ND	1	09/17/03	09/17/03		
Vinyl chloride	EPA 8260B	3I17030	N/A	5.0	ND	1	09/17/03	09/17/03		
o-Xylene	EPA 8260B	3I17030	N/A	2.0	ND	1	09/17/03	09/17/03		
m,p-Xylenes	EPA 8260B	3I17030	N/A	2.0	ND	1	09/17/03	09/17/03		
Trichlorotrifluoroethane (Freon 113)	EPA 8260B	3I17030	N/A	5.0	ND	1	09/17/03	09/17/03		
Surrogate: Dibromofluoromethane (80-120%)					108 %					
Surrogate: Toluene-d8 (80-120%)					110 %					
Surrogate: 4-Bromofluorobenzene (80-120%)					106 %					

Del Mar Analytical, Irvine
 Michele Harper
 Project Manager

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MWH-San Diego
1230 Columbia Street, Suite 750
San Diego, CA 92101
Attention: Lisa J. Tucker

Project ID: Building 56 Landfill
Boeing SSFL
Report Number: IMI0487

Sampled: 09/05/03-09/09/03
Received: 09/09/03

VOLATILE ORGANICS with KETONES by GC/MS (EPA 5030B/8260B)

Table with columns: Analyte, Method, Batch, MDL Limit, Reporting Limit, Sample Result, Dilution Factor, Date Extracted, Date Analyzed, Data Qualifiers. Includes sample ID IMI0487-11 (MT559 - Soil) and reporting units ug/kg dry. Lists various organic compounds like Acetone, Benzene, etc.

Del Mar Analytical, Irvine
Michele Harper
Project Manager

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MWH-San Diego
 1230 Columbia Street, Suite 750
 San Diego, CA 92101
 Attention: Lisa J. Tucker

Project ID: Building 56 Landfill
 Boeing SSFL
 Report Number: IMI0487

Sampled: 09/05/03-09/09/03
 Received: 09/09/03

VOLATILE ORGANICS with KETONES by GC/MS (EPA 5030B/8260B)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers	
Sample ID: IMI0487-11 (MT559 - Soil) - cont.					Sampled: 09/05/03					REV QUAL
Reporting Units: ug/kg dry										QUAL CODE
Isopropylbenzene	EPA 8260B	3I14005	N/A	2.5	ND	1	09/14/03	09/14/03	U	
p-Isopropyltoluene	EPA 8260B	3I14005	N/A	2.5	ND	1	09/14/03	09/14/03		
Methylene chloride	EPA 8260B	3I14005	N/A	25	ND	1	09/14/03	09/14/03		
4-Methyl-2-pentanone (MIBK)	EPA 8260B	3I14005	N/A	6.3	ND	1	09/14/03	09/14/03		
Naphthalene	EPA 8260B	3I14005	N/A	6.3	ND	1	09/14/03	09/14/03		
n-Propylbenzene	EPA 8260B	3I14005	N/A	2.5	ND	1	09/14/03	09/14/03		
Styrene	EPA 8260B	3I14005	N/A	2.5	ND	1	09/14/03	09/14/03		
1,1,1,2-Tetrachloroethane	EPA 8260B	3I14005	N/A	6.3	ND	1	09/14/03	09/14/03		
1,1,2,2-Tetrachloroethane	EPA 8260B	3I14005	N/A	2.5	ND	1	09/14/03	09/14/03		
Tetrachloroethene	EPA 8260B	3I14005	N/A	2.5	ND	1	09/14/03	09/14/03		
Toluene	EPA 8260B	3I14005	N/A	2.5	ND	1	09/14/03	09/14/03		
1,2,3-Trichlorobenzene	EPA 8260B	3I14005	N/A	6.3	ND	1	09/14/03	09/14/03		
1,2,4-Trichlorobenzene	EPA 8260B	3I14005	N/A	6.3	ND	1	09/14/03	09/14/03		
1,1,1-Trichloroethane	EPA 8260B	3I14005	N/A	2.5	ND	1	09/14/03	09/14/03		
1,1,2-Trichloroethane	EPA 8260B	3I14005	N/A	2.5	ND	1	09/14/03	09/14/03		
Trichloroethene	EPA 8260B	3I14005	N/A	2.5	ND	1	09/14/03	09/14/03		
Trichlorofluoromethane	EPA 8260B	3I14005	N/A	6.3	ND	1	09/14/03	09/14/03		
1,2,3-Trichloropropane	EPA 8260B	3I14005	N/A	13	ND	1	09/14/03	09/14/03		
1,2,4-Trimethylbenzene	EPA 8260B	3I14005	N/A	2.5	ND	1	09/14/03	09/14/03		
1,3,5-Trimethylbenzene	EPA 8260B	3I14005	N/A	2.5	ND	1	09/14/03	09/14/03		
Vinyl chloride	EPA 8260B	3I14005	N/A	6.3	ND	1	09/14/03	09/14/03		
o-Xylene	EPA 8260B	3I14005	N/A	2.5	ND	1	09/14/03	09/14/03		
m,p-Xylenes	EPA 8260B	3I14005	N/A	2.5	ND	1	09/14/03	09/14/03		
Trichlorotrifluoroethane (Freon 113)	EPA 8260B	3I14005	N/A	13	ND	1	09/14/03	09/14/03		
Surrogate: Dibromofluoromethane (80-125%)					107 %					
Surrogate: Toluene-d8 (80-120%)					101 %					
Surrogate: 4-Bromofluorobenzene (80-120%)					90 %					

Del Mar Analytical, Irvine
 Michele Harper
 Project Manager



MWH-San Diego
1230 Columbia Street, Suite 750
San Diego, CA 92101
Attention: Lisa J. Tucker

Project ID: Building 56 Landfill
Boeing SSFL
Report Number: IMI0487

Sampled: 09/05/03-09/09/03
Received: 09/09/03

VOLATILE ORGANICS with KETONES by GC/MS (EPA 5030B/8260B)

Table with columns: Analyte, Method, Batch, MDL Limit, Reporting Limit, Sample Result, Dilution Factor, Date Extracted, Date Analyzed, Data Qualifiers. Includes sample ID IMI0487-12 (MT560 - Soil) and reporting units ug/kg dry. Lists various analytes like Acetone, Benzene, etc., with their respective MDL and reporting limits.

Del Mar Analytical, Irvine
Michele Harper
Project Manager

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MWH-San Diego
 1230 Columbia Street, Suite 750
 San Diego, CA 92101
 Attention: Lisa J. Tucker

Project ID: Building 56 Landfill
 Boeing SSFL
 Report Number: IMI0487

Sampled: 09/05/03-09/09/03
 Received: 09/09/03

VOLATILE ORGANICS with KETONES by GC/MS (EPA 5030B/8260B)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers	
Sample ID: IMI0487-12 (MT560 - Soil) - cont.					Sampled: 09/05/03					REV QUAL
Reporting Units: ug/kg dry										QUAL CODE
Isopropylbenzene	EPA 8260B	3I14005	N/A	2.2	ND	1	09/14/03	09/14/03	U	
p-Isopropyltoluene	EPA 8260B	3I14005	N/A	2.2	ND	1	09/14/03	09/14/03		
Methylene chloride	EPA 8260B	3I14005	N/A	22	ND	1	09/14/03	09/14/03		
4-Methyl-2-pentanone (MIBK)	EPA 8260B	3I14005	N/A	5.4	ND	1	09/14/03	09/14/03		
Naphthalene	EPA 8260B	3I14005	N/A	5.4	ND	1	09/14/03	09/14/03		
n-Propylbenzene	EPA 8260B	3I14005	N/A	2.2	ND	1	09/14/03	09/14/03		
Styrene	EPA 8260B	3I14005	N/A	2.2	ND	1	09/14/03	09/14/03		
1,1,1,2-Tetrachloroethane	EPA 8260B	3I14005	N/A	5.4	ND	1	09/14/03	09/14/03		
1,1,2,2-Tetrachloroethane	EPA 8260B	3I14005	N/A	2.2	ND	1	09/14/03	09/14/03		
Tetrachloroethene	EPA 8260B	3I14005	N/A	2.2	ND	1	09/14/03	09/14/03		
Toluene	EPA 8260B	3I14005	N/A	2.2	ND	1	09/14/03	09/14/03		
1,2,3-Trichlorobenzene	EPA 8260B	3I14005	N/A	5.4	ND	1	09/14/03	09/14/03		
1,2,4-Trichlorobenzene	EPA 8260B	3I14005	N/A	5.4	ND	1	09/14/03	09/14/03		
1,1,1-Trichloroethane	EPA 8260B	3I14005	N/A	2.2	ND	1	09/14/03	09/14/03		
1,1,2-Trichloroethane	EPA 8260B	3I14005	N/A	2.2	ND	1	09/14/03	09/14/03		
Trichloroethene	EPA 8260B	3I14005	N/A	2.2	ND	1	09/14/03	09/14/03		
Trichlorofluoromethane	EPA 8260B	3I14005	N/A	5.4	ND	1	09/14/03	09/14/03		
1,2,3-Trichloropropane	EPA 8260B	3I14005	N/A	11	ND	1	09/14/03	09/14/03		
1,2,4-Trimethylbenzene	EPA 8260B	3I14005	N/A	2.2	ND	1	09/14/03	09/14/03		
1,3,5-Trimethylbenzene	EPA 8260B	3I14005	N/A	2.2	ND	1	09/14/03	09/14/03		
Vinyl chloride	EPA 8260B	3I14005	N/A	5.4	ND	1	09/14/03	09/14/03		
o-Xylene	EPA 8260B	3I14005	N/A	2.2	ND	1	09/14/03	09/14/03		
m,p-Xylenes	EPA 8260B	3I14005	N/A	2.2	ND	1	09/14/03	09/14/03		
Trichlorotrifluoroethane (Freon 113)	EPA 8260B	3I14005	N/A	11	ND	1	09/14/03	09/14/03		
Surrogate: Dibromofluoromethane (80-125%)					103 %					
Surrogate: Toluene-d8 (80-120%)					102 %					
Surrogate: 4-Bromofluorobenzene (80-120%)					89 %					

Del Mar Analytical, Irvine
 Michele Harper
 Project Manager

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MWH-San Diego
 1230 Columbia Street, Suite 750
 San Diego, CA 92101
 Attention: Lisa J. Tucker

 Project ID: Building 56 Landfill
 Boeing SSFL
 Report Number: IMI0487

 Sampled: 09/05/03-09/09/03
 Received: 09/09/03

VOLATILE ORGANICS with KETONES by GC/MS (EPA 5030B/8260B)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers		
									REV	QUAL	QA#
Sample ID: IMI0487-13 (MT561 - Soil)					Sampled: 09/09/03						
Reporting Units: ug/kg dry											
Acetone	EPA 8260B	3I14007	N/A	10	ND	1	09/14/03	09/14/03	U		
Benzene	EPA 8260B	3I14007	N/A	2.0	ND	1	09/14/03	09/14/03			
Bromobenzene	EPA 8260B	3I14007	N/A	5.1	ND	1	09/14/03	09/14/03			
Bromochloromethane	EPA 8260B	3I14007	N/A	5.1	ND	1	09/14/03	09/14/03			
Bromodichloromethane	EPA 8260B	3I14007	N/A	2.0	ND	1	09/14/03	09/14/03			
Bromoform	EPA 8260B	3I14007	N/A	5.1	ND	1	09/14/03	09/14/03			
Bromomethane	EPA 8260B	3I14007	N/A	5.1	ND	1	09/14/03	09/14/03			
2-Butanone (MEK)	EPA 8260B	3I14007	N/A	10	ND	1	09/14/03	09/14/03			
n-Butylbenzene	EPA 8260B	3I14007	N/A	5.1	ND	1	09/14/03	09/14/03			
sec-Butylbenzene	EPA 8260B	3I14007	N/A	5.1	ND	1	09/14/03	09/14/03			
tert-Butylbenzene	EPA 8260B	3I14007	N/A	5.1	ND	1	09/14/03	09/14/03			
Carbon tetrachloride	EPA 8260B	3I14007	N/A	5.1	ND	1	09/14/03	09/14/03			
Chlorobenzene	EPA 8260B	3I14007	N/A	2.0	ND	1	09/14/03	09/14/03			
Chloroethane	EPA 8260B	3I14007	N/A	5.1	ND	1	09/14/03	09/14/03			
Chloroform	EPA 8260B	3I14007	N/A	2.0	ND	1	09/14/03	09/14/03			
Chloromethane	EPA 8260B	3I14007	N/A	5.1	ND	1	09/14/03	09/14/03			
2-Chlorotoluene	EPA 8260B	3I14007	N/A	5.1	ND	1	09/14/03	09/14/03			
4-Chlorotoluene	EPA 8260B	3I14007	N/A	5.1	ND	1	09/14/03	09/14/03			
Dibromochloromethane	EPA 8260B	3I14007	N/A	2.0	ND	1	09/14/03	09/14/03			
1,2-Dibromo-3-chloropropane	EPA 8260B	3I14007	N/A	5.1	ND	1	09/14/03	09/14/03			
1,2-Dibromoethane (EDB)	EPA 8260B	3I14007	N/A	2.0	ND	1	09/14/03	09/14/03			
Dibromomethane	EPA 8260B	3I14007	N/A	2.0	ND	1	09/14/03	09/14/03			
1,2-Dichlorobenzene	EPA 8260B	3I14007	N/A	2.0	ND	1	09/14/03	09/14/03			
1,3-Dichlorobenzene	EPA 8260B	3I14007	N/A	2.0	ND	1	09/14/03	09/14/03			
1,4-Dichlorobenzene	EPA 8260B	3I14007	N/A	2.0	ND	1	09/14/03	09/14/03			
Dichlorodifluoromethane	EPA 8260B	3I14007	N/A	5.1	ND	1	09/14/03	09/14/03			
1,1-Dichloroethane	EPA 8260B	3I14007	N/A	2.0	ND	1	09/14/03	09/14/03			
1,2-Dichloroethane	EPA 8260B	3I14007	N/A	2.0	ND	1	09/14/03	09/14/03			
1,1-Dichloroethene	EPA 8260B	3I14007	N/A	5.1	ND	1	09/14/03	09/14/03			
cis-1,2-Dichloroethene	EPA 8260B	3I14007	N/A	2.0	ND	1	09/14/03	09/14/03			
trans-1,2-Dichloroethene	EPA 8260B	3I14007	N/A	2.0	ND	1	09/14/03	09/14/03			
1,2-Dichloropropane	EPA 8260B	3I14007	N/A	2.0	ND	1	09/14/03	09/14/03			
1,3-Dichloropropane	EPA 8260B	3I14007	N/A	2.0	ND	1	09/14/03	09/14/03			
2,2-Dichloropropane	EPA 8260B	3I14007	N/A	2.0	ND	1	09/14/03	09/14/03			
1,1-Dichloropropene	EPA 8260B	3I14007	N/A	2.0	ND	1	09/14/03	09/14/03			
cis-1,3-Dichloropropene	EPA 8260B	3I14007	N/A	2.0	ND	1	09/14/03	09/14/03			
trans-1,3-Dichloropropene	EPA 8260B	3I14007	N/A	2.0	ND	1	09/14/03	09/14/03			
Ethylbenzene	EPA 8260B	3I14007	N/A	2.0	ND	1	09/14/03	09/14/03			
Hexachlorobutadiene	EPA 8260B	3I14007	N/A	5.1	ND	1	09/14/03	09/14/03			
2-Hexanone	EPA 8260B	3I14007	N/A	10	ND	1	09/14/03	09/14/03			

 Del Mar Analytical, Irvine
 Michele Harper
 Project Manager

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MWH-San Diego
 1230 Columbia Street, Suite 750
 San Diego, CA 92101
 Attention: Lisa J. Tucker

Project ID: Building 56 Landfill
 Boeing SSFL
 Report Number: IMI0487

Sampled: 09/05/03-09/09/03
 Received: 09/09/03

VOLATILE ORGANICS with KETONES by GC/MS (EPA 5030B/8260B)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers	
Sample ID: IMI0487-13 (MT561 - Soil) - cont.					Sampled: 09/09/03					REV QUAL
Reporting Units: ug/kg dry										QA COD
Isopropylbenzene	EPA 8260B	3I14007	N/A	2.0	ND	1	09/14/03	09/14/03	U	
p-Isopropyltoluene	EPA 8260B	3I14007	N/A	2.0	ND	1	09/14/03	09/14/03		
Methylene chloride	EPA 8260B	3I14007	N/A	20	ND	1	09/14/03	09/14/03		
4-Methyl-2-pentanone (MIBK)	EPA 8260B	3I14007	N/A	5.1	ND	1	09/14/03	09/14/03		
Naphthalene	EPA 8260B	3I14007	N/A	5.1	ND	1	09/14/03	09/14/03		
n-Propylbenzene	EPA 8260B	3I14007	N/A	2.0	ND	1	09/14/03	09/14/03		
Styrene	EPA 8260B	3I14007	N/A	2.0	ND	1	09/14/03	09/14/03		
1,1,1,2-Tetrachloroethane	EPA 8260B	3I14007	N/A	5.1	ND	1	09/14/03	09/14/03		
1,1,2,2-Tetrachloroethane	EPA 8260B	3I14007	N/A	2.0	ND	1	09/14/03	09/14/03		
Tetrachloroethene	EPA 8260B	3I14007	N/A	2.0	ND	1	09/14/03	09/14/03		
Toluene	EPA 8260B	3I14007	N/A	2.0	ND	1	09/14/03	09/14/03		
1,2,3-Trichlorobenzene	EPA 8260B	3I14007	N/A	5.1	ND	1	09/14/03	09/14/03		
1,2,4-Trichlorobenzene	EPA 8260B	3I14007	N/A	5.1	ND	1	09/14/03	09/14/03		
1,1,1-Trichloroethane	EPA 8260B	3I14007	N/A	2.0	ND	1	09/14/03	09/14/03		
1,1,2-Trichloroethane	EPA 8260B	3I14007	N/A	2.0	ND	1	09/14/03	09/14/03		
Trichloroethene	EPA 8260B	3I14007	N/A	2.0	ND	1	09/14/03	09/14/03		
Trichlorofluoromethane	EPA 8260B	3I14007	N/A	5.1	ND	1	09/14/03	09/14/03		
1,2,3-Trichloropropane	EPA 8260B	3I14007	N/A	10	ND	1	09/14/03	09/14/03		
1,2,4-Trimethylbenzene	EPA 8260B	3I14007	N/A	2.0	ND	1	09/14/03	09/14/03		
1,3,5-Trimethylbenzene	EPA 8260B	3I14007	N/A	2.0	ND	1	09/14/03	09/14/03		
Vinyl chloride	EPA 8260B	3I14007	N/A	5.1	ND	1	09/14/03	09/14/03		
o-Xylene	EPA 8260B	3I14007	N/A	2.0	ND	1	09/14/03	09/14/03		
m,p-Xylenes	EPA 8260B	3I14007	N/A	2.0	ND	1	09/14/03	09/14/03		
Trichlorotrifluoroethane (Freon 113)	EPA 8260B	3I14007	N/A	10	ND	1	09/14/03	09/14/03		
Surrogate: Dibromofluoromethane (80-125%)					104 %					
Surrogate: Toluene-d8 (80-120%)					101 %					
Surrogate: 4-Bromofluorobenzene (80-120%)					98 %					

Del Mar Analytical, Irvine
 Michele Harper
 Project Manager

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MWH-San Diego
 1230 Columbia Street, Suite 750
 San Diego, CA 92101
 Attention: Lisa J. Tucker

Project ID: Building 56 Landfill
 Boeing SSFL
 Report Number: IMI0487

Sampled: 09/05/03-09/09/03
 Received: 09/09/03

VOLATILE ORGANICS with KETONES by GC/MS (EPA 5030B/8260B)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers	
Sample ID: IMI0487-14 (MT562 - Soil)					Sampled: 09/09/03					REV QUAL
Reporting Units: ug/kg dry										QUAL
Acetone	EPA 8260B	3I14007	N/A	10	ND	1	09/14/03	09/14/03	U	
Benzene	EPA 8260B	3I14007	N/A	2.0	ND	1	09/14/03	09/14/03		
Bromobenzene	EPA 8260B	3I14007	N/A	5.1	ND	1	09/14/03	09/14/03		
Bromochloromethane	EPA 8260B	3I14007	N/A	5.1	ND	1	09/14/03	09/14/03		
Bromodichloromethane	EPA 8260B	3I14007	N/A	2.0	ND	1	09/14/03	09/14/03		
Bromoform	EPA 8260B	3I14007	N/A	5.1	ND	1	09/14/03	09/14/03		
Bromomethane	EPA 8260B	3I14007	N/A	5.1	ND	1	09/14/03	09/14/03		
2-Butanone (MEK)	EPA 8260B	3I14007	N/A	10	ND	1	09/14/03	09/14/03		
n-Butylbenzene	EPA 8260B	3I14007	N/A	5.1	ND	1	09/14/03	09/14/03		
sec-Butylbenzene	EPA 8260B	3I14007	N/A	5.1	ND	1	09/14/03	09/14/03		
tert-Butylbenzene	EPA 8260B	3I14007	N/A	5.1	ND	1	09/14/03	09/14/03		
Carbon tetrachloride	EPA 8260B	3I14007	N/A	5.1	ND	1	09/14/03	09/14/03		
Chlorobenzene	EPA 8260B	3I14007	N/A	2.0	ND	1	09/14/03	09/14/03		
Chloroethane	EPA 8260B	3I14007	N/A	5.1	ND	1	09/14/03	09/14/03		
Chloroform	EPA 8260B	3I14007	N/A	2.0	ND	1	09/14/03	09/14/03		
Chloromethane	EPA 8260B	3I14007	N/A	5.1	ND	1	09/14/03	09/14/03		
2-Chlorotoluene	EPA 8260B	3I14007	N/A	5.1	ND	1	09/14/03	09/14/03		
4-Chlorotoluene	EPA 8260B	3I14007	N/A	5.1	ND	1	09/14/03	09/14/03		
Dibromochloromethane	EPA 8260B	3I14007	N/A	2.0	ND	1	09/14/03	09/14/03		
1,2-Dibromo-3-chloropropane	EPA 8260B	3I14007	N/A	5.1	ND	1	09/14/03	09/14/03		
1,2-Dibromoethane (EDB)	EPA 8260B	3I14007	N/A	2.0	ND	1	09/14/03	09/14/03		
Dibromomethane	EPA 8260B	3I14007	N/A	2.0	ND	1	09/14/03	09/14/03		
1,2-Dichlorobenzene	EPA 8260B	3I14007	N/A	2.0	ND	1	09/14/03	09/14/03		
1,3-Dichlorobenzene	EPA 8260B	3I14007	N/A	2.0	ND	1	09/14/03	09/14/03		
1,4-Dichlorobenzene	EPA 8260B	3I14007	N/A	2.0	ND	1	09/14/03	09/14/03		
Dichlorodifluoromethane	EPA 8260B	3I14007	N/A	5.1	ND	1	09/14/03	09/14/03		
1,1-Dichloroethane	EPA 8260B	3I14007	N/A	2.0	ND	1	09/14/03	09/14/03		
1,2-Dichloroethane	EPA 8260B	3I14007	N/A	2.0	ND	1	09/14/03	09/14/03		
1,1-Dichloroethene	EPA 8260B	3I14007	N/A	5.1	ND	1	09/14/03	09/14/03		
cis-1,2-Dichloroethene	EPA 8260B	3I14007	N/A	2.0	ND	1	09/14/03	09/14/03		
trans-1,2-Dichloroethene	EPA 8260B	3I14007	N/A	2.0	ND	1	09/14/03	09/14/03		
1,2-Dichloropropane	EPA 8260B	3I14007	N/A	2.0	ND	1	09/14/03	09/14/03		
1,3-Dichloropropane	EPA 8260B	3I14007	N/A	2.0	ND	1	09/14/03	09/14/03		
2,2-Dichloropropane	EPA 8260B	3I14007	N/A	2.0	ND	1	09/14/03	09/14/03		
1,1-Dichloropropene	EPA 8260B	3I14007	N/A	2.0	ND	1	09/14/03	09/14/03		
cis-1,3-Dichloropropene	EPA 8260B	3I14007	N/A	2.0	ND	1	09/14/03	09/14/03		
trans-1,3-Dichloropropene	EPA 8260B	3I14007	N/A	2.0	ND	1	09/14/03	09/14/03		
Ethylbenzene	EPA 8260B	3I14007	N/A	2.0	ND	1	09/14/03	09/14/03		
Hexachlorobutadiene	EPA 8260B	3I14007	N/A	5.1	ND	1	09/14/03	09/14/03		
2-Hexanone	EPA 8260B	3I14007	N/A	10	ND	1	09/14/03	09/14/03	✓	

Del Mar Analytical, Irvine
 Michele Harper
 Project Manager

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MWH-San Diego
 1230 Columbia Street, Suite 750
 San Diego, CA 92101
 Attention: Lisa J. Tucker

Project ID: Building 56 Landfill
 Boeing SSFL
 Report Number: IMI0487

Sampled: 09/05/03-09/09/03
 Received: 09/09/03

VOLATILE ORGANICS with KETONES by GC/MS (EPA 5030B/8260B)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers	
Sample ID: IMI0487-14 (MT562 - Soil) - cont.					Sampled: 09/09/03					REV QUAL
Reporting Units: ug/kg dry										QUAL CODE
Isopropylbenzene	EPA 8260B	3I14007	N/A	2.0	ND	1	09/14/03	09/14/03	U	
p-Isopropyltoluene	EPA 8260B	3I14007	N/A	2.0	ND	1	09/14/03	09/14/03		
Methylene chloride	EPA 8260B	3I14007	N/A	20	ND	1	09/14/03	09/14/03		
4-Methyl-2-pentanone (MIBK)	EPA 8260B	3I14007	N/A	5.1	ND	1	09/14/03	09/14/03		
Naphthalene	EPA 8260B	3I14007	N/A	5.1	ND	1	09/14/03	09/14/03		
n-Propylbenzene	EPA 8260B	3I14007	N/A	2.0	ND	1	09/14/03	09/14/03		
Styrene	EPA 8260B	3I14007	N/A	2.0	ND	1	09/14/03	09/14/03		
1,1,1,2-Tetrachloroethane	EPA 8260B	3I14007	N/A	5.1	ND	1	09/14/03	09/14/03		
1,1,2,2-Tetrachloroethane	EPA 8260B	3I14007	N/A	2.0	ND	1	09/14/03	09/14/03		
Tetrachloroethene	EPA 8260B	3I14007	N/A	2.0	ND	1	09/14/03	09/14/03		
Toluene	EPA 8260B	3I14007	N/A	2.0	ND	1	09/14/03	09/14/03		
1,2,3-Trichlorobenzene	EPA 8260B	3I14007	N/A	5.1	ND	1	09/14/03	09/14/03		
1,2,4-Trichlorobenzene	EPA 8260B	3I14007	N/A	5.1	ND	1	09/14/03	09/14/03		
1,1,1-Trichloroethane	EPA 8260B	3I14007	N/A	2.0	ND	1	09/14/03	09/14/03		
1,1,2-Trichloroethane	EPA 8260B	3I14007	N/A	2.0	ND	1	09/14/03	09/14/03		
Trichloroethene	EPA 8260B	3I14007	N/A	2.0	ND	1	09/14/03	09/14/03		
Trichlorofluoromethane	EPA 8260B	3I14007	N/A	5.1	ND	1	09/14/03	09/14/03		
1,2,3-Trichloropropane	EPA 8260B	3I14007	N/A	10	ND	1	09/14/03	09/14/03		
1,2,4-Trimethylbenzene	EPA 8260B	3I14007	N/A	2.0	ND	1	09/14/03	09/14/03		
1,3,5-Trimethylbenzene	EPA 8260B	3I14007	N/A	2.0	ND	1	09/14/03	09/14/03		
Vinyl chloride	EPA 8260B	3I14007	N/A	5.1	ND	1	09/14/03	09/14/03		
o-Xylene	EPA 8260B	3I14007	N/A	2.0	ND	1	09/14/03	09/14/03		
m,p-Xylenes	EPA 8260B	3I14007	N/A	2.0	ND	1	09/14/03	09/14/03		
Trichlorotrifluoroethane (Freon 113)	EPA 8260B	3I14007	N/A	10	ND	1	09/14/03	09/14/03		
Surrogate: Dibromofluoromethane (80-125%)					107 %					
Surrogate: Toluene-d8 (80-120%)					102 %					
Surrogate: 4-Bromofluorobenzene (80-120%)					100 %					

Del Mar Analytical, Irvine
 Michele Harper
 Project Manager

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MWH-San Diego
 1230 Columbia Street, Suite 750
 San Diego, CA 92101
 Attention: Lisa J. Tucker

 Project ID: Building 56 Landfill
 Boeing SSFL
 Report Number: IMI0487

 Sampled: 09/05/03-09/09/03
 Received: 09/09/03

VOLATILE ORGANICS with KETONES by GC/MS (EPA 5030B/8260B)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers	
Sample ID: IMI0487-10 (MT563 - Soil)					Sampled: 09/08/03					REV QUAL
Reporting Units: ug/kg dry										QMA CODE
Acetone	EPA 8260B	3I15024	N/A	10	ND	1	09/15/03	09/15/03	U	
Benzene	EPA 8260B	3I15024	N/A	2.0	ND	1	09/15/03	09/15/03		
Bromobenzene	EPA 8260B	3I15024	N/A	5.1	ND	1	09/15/03	09/15/03		
Bromochloromethane	EPA 8260B	3I15024	N/A	5.1	ND	1	09/15/03	09/15/03		
Bromodichloromethane	EPA 8260B	3I15024	N/A	2.0	ND	1	09/15/03	09/15/03		
Bromoform	EPA 8260B	3I15024	N/A	5.1	ND	1	09/15/03	09/15/03		
Bromomethane	EPA 8260B	3I15024	N/A	5.1	ND	1	09/15/03	09/15/03		
2-Butanone (MEK)	EPA 8260B	3I15024	N/A	10	ND	1	09/15/03	09/15/03		
n-Butylbenzene	EPA 8260B	3I15024	N/A	5.1	ND	1	09/15/03	09/15/03		
sec-Butylbenzene	EPA 8260B	3I15024	N/A	5.1	ND	1	09/15/03	09/15/03		
tert-Butylbenzene	EPA 8260B	3I15024	N/A	5.1	ND	1	09/15/03	09/15/03		
Carbon tetrachloride	EPA 8260B	3I15024	N/A	5.1	ND	1	09/15/03	09/15/03		
Chlorobenzene	EPA 8260B	3I15024	N/A	2.0	ND	1	09/15/03	09/15/03		
Chloroethane	EPA 8260B	3I15024	N/A	5.1	ND	1	09/15/03	09/15/03		
Chloroform	EPA 8260B	3I15024	N/A	2.0	ND	1	09/15/03	09/15/03		
Chloromethane	EPA 8260B	3I15024	N/A	5.1	ND	1	09/15/03	09/15/03		
2-Chlorotoluene	EPA 8260B	3I15024	N/A	5.1	ND	1	09/15/03	09/15/03		
4-Chlorotoluene	EPA 8260B	3I15024	N/A	5.1	ND	1	09/15/03	09/15/03		
Dibromochloromethane	EPA 8260B	3I15024	N/A	2.0	ND	1	09/15/03	09/15/03		
1,2-Dibromo-3-chloropropane	EPA 8260B	3I15024	N/A	5.1	ND	1	09/15/03	09/15/03		
1,2-Dibromoethane (EDB)	EPA 8260B	3I15024	N/A	2.0	ND	1	09/15/03	09/15/03		
Dibromomethane	EPA 8260B	3I15024	N/A	2.0	ND	1	09/15/03	09/15/03		
1,2-Dichlorobenzene	EPA 8260B	3I15024	N/A	2.0	ND	1	09/15/03	09/15/03		
1,3-Dichlorobenzene	EPA 8260B	3I15024	N/A	2.0	ND	1	09/15/03	09/15/03		
1,4-Dichlorobenzene	EPA 8260B	3I15024	N/A	2.0	ND	1	09/15/03	09/15/03		
Dichlorodifluoromethane	EPA 8260B	3I15024	N/A	5.1	ND	1	09/15/03	09/15/03		
1,1-Dichloroethane	EPA 8260B	3I15024	N/A	2.0	ND	1	09/15/03	09/15/03		
1,2-Dichloroethane	EPA 8260B	3I15024	N/A	2.0	ND	1	09/15/03	09/15/03		
1,1-Dichloroethene	EPA 8260B	3I15024	N/A	5.1	ND	1	09/15/03	09/15/03		
cis-1,2-Dichloroethene	EPA 8260B	3I15024	N/A	2.0	ND	1	09/15/03	09/15/03		
trans-1,2-Dichloroethene	EPA 8260B	3I15024	N/A	2.0	ND	1	09/15/03	09/15/03		
1,2-Dichloropropane	EPA 8260B	3I15024	N/A	2.0	ND	1	09/15/03	09/15/03		
1,3-Dichloropropane	EPA 8260B	3I15024	N/A	2.0	ND	1	09/15/03	09/15/03		
2,2-Dichloropropane	EPA 8260B	3I15024	N/A	2.0	ND	1	09/15/03	09/15/03		
1,1-Dichloropropene	EPA 8260B	3I15024	N/A	2.0	ND	1	09/15/03	09/15/03		
cis-1,3-Dichloropropene	EPA 8260B	3I15024	N/A	2.0	ND	1	09/15/03	09/15/03		
trans-1,3-Dichloropropene	EPA 8260B	3I15024	N/A	2.0	ND	1	09/15/03	09/15/03		
Ethylbenzene	EPA 8260B	3I15024	N/A	2.0	ND	1	09/15/03	09/15/03		
Hexachlorobutadiene	EPA 8260B	3I15024	N/A	5.1	ND	1	09/15/03	09/15/03		
2-Hexanone	EPA 8260B	3I15024	N/A	10	ND	1	09/15/03	09/15/03		

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 Project Manager

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MWH-San Diego
1230 Columbia Street, Suite 750
San Diego, CA 92101
Attention: Lisa J. Tucker

Project ID: Building 56 Landfill
Boeing SSFL
Report Number: IMI0487

Sampled: 09/05/03-09/09/03
Received: 09/09/03

VOLATILE ORGANICS with KETONES by GC/MS (EPA 5030B/8260B)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers	
Sample ID: IMI0487-10 (MT563 - Soil) - cont.					Sampled: 09/08/03					REV
Reporting Units: ug/kg dry										QUAL
Isopropylbenzene	EPA 8260B	3I15024	N/A	2.0	ND	1	09/15/03	09/15/03	U	
p-Isopropyltoluene	EPA 8260B	3I15024	N/A	2.0	ND	1	09/15/03	09/15/03		
Methylene chloride	EPA 8260B	3I15024	N/A	20	ND	1	09/15/03	09/15/03		
4-Methyl-2-pentanone (MIBK)	EPA 8260B	3I15024	N/A	5.1	ND	1	09/15/03	09/15/03		
Naphthalene	EPA 8260B	3I15024	N/A	5.1	ND	1	09/15/03	09/15/03		
n-Propylbenzene	EPA 8260B	3I15024	N/A	2.0	ND	1	09/15/03	09/15/03		
Styrene	EPA 8260B	3I15024	N/A	2.0	ND	1	09/15/03	09/15/03		
1,1,1,2-Tetrachloroethane	EPA 8260B	3I15024	N/A	5.1	ND	1	09/15/03	09/15/03		
1,1,2,2-Tetrachloroethane	EPA 8260B	3I15024	N/A	2.0	ND	1	09/15/03	09/15/03		
Tetrachloroethene	EPA 8260B	3I15024	N/A	2.0	ND	1	09/15/03	09/15/03		
Toluene	EPA 8260B	3I15024	N/A	2.0	ND	1	09/15/03	09/15/03		
1,2,3-Trichlorobenzene	EPA 8260B	3I15024	N/A	5.1	ND	1	09/15/03	09/15/03		
1,2,4-Trichlorobenzene	EPA 8260B	3I15024	N/A	5.1	ND	1	09/15/03	09/15/03		
1,1,1-Trichloroethane	EPA 8260B	3I15024	N/A	2.0	ND	1	09/15/03	09/15/03		
1,1,2-Trichloroethane	EPA 8260B	3I15024	N/A	2.0	ND	1	09/15/03	09/15/03		
Trichloroethene	EPA 8260B	3I15024	N/A	2.0	ND	1	09/15/03	09/15/03		
Trichlorofluoromethane	EPA 8260B	3I15024	N/A	5.1	ND	1	09/15/03	09/15/03		
1,2,3-Trichloropropane	EPA 8260B	3I15024	N/A	10	ND	1	09/15/03	09/15/03		
1,2,4-Trimethylbenzene	EPA 8260B	3I15024	N/A	2.0	ND	1	09/15/03	09/15/03		
1,3,5-Trimethylbenzene	EPA 8260B	3I15024	N/A	2.0	ND	1	09/15/03	09/15/03		
Vinyl chloride	EPA 8260B	3I15024	N/A	5.1	ND	1	09/15/03	09/15/03		
o-Xylene	EPA 8260B	3I15024	N/A	2.0	ND	1	09/15/03	09/15/03		
m,p-Xylenes	EPA 8260B	3I15024	N/A	2.0	ND	1	09/15/03	09/15/03		
Trichlorotrifluoroethane (Freon 113)	EPA 8260B	3I15024	N/A	10	ND	1	09/15/03	09/15/03		
Surrogate: Dibromofluoromethane (80-125%)					109 %					
Surrogate: Toluene-d8 (80-120%)					102 %					
Surrogate: 4-Bromofluorobenzene (80-120%)					97 %					

Del Mar Analytical, Irvine
Michele Harper
Project Manager

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MWH-San Diego
 1230 Columbia Street, Suite 750
 San Diego, CA 92101
 Attention: Lisa J. Tucker

Project ID: Building 56 Landfill
 Boeing SSFL
 Report Number: IMI0487

Sampled: 09/05/03-09/09/03
 Received: 09/09/03

VOLATILE ORGANICS by GC/MS (EPA 5030B/8260B)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IMI0487-03 (MT552 - Soil)					Sampled: 09/08/03				
Reporting Units: ug/kg dry									
2-Chloroethyl vinyl ether	EPA 8260B	3I15024	N/A	5.3	ND	1	09/15/03	09/15/03	UJ, All
Surrogate: Dibromofluoromethane (80-125%)					112 %				
Surrogate: Toluene-d8 (80-120%)					99 %				
Surrogate: 4-Bromofluorobenzene (80-120%)					90 %				
Sample ID: IMI0487-10 (MT563 - Soil)					Sampled: 09/08/03				
Reporting Units: ug/kg dry									
2-Chloroethyl vinyl ether	EPA 8260B	3I15024	N/A	5.1	ND	1	09/15/03	09/15/03	
Surrogate: Dibromofluoromethane (80-125%)					109 %				
Surrogate: Toluene-d8 (80-120%)					102 %				
Surrogate: 4-Bromofluorobenzene (80-120%)					97 %				
Sample ID: IMI0487-11 (MT559 - Soil)					Sampled: 09/05/03				
Reporting Units: ug/kg dry									
2-Chloroethyl vinyl ether	EPA 8260B	3I14005	N/A	6.3	ND	1	09/14/03	09/14/03	
Surrogate: Dibromofluoromethane (80-125%)					107 %				
Surrogate: Toluene-d8 (80-120%)					101 %				
Surrogate: 4-Bromofluorobenzene (80-120%)					90 %				
Sample ID: IMI0487-12 (MT560 - Soil)					Sampled: 09/05/03				
Reporting Units: ug/kg dry									
2-Chloroethyl vinyl ether	EPA 8260B	3I14005	N/A	5.4	ND	1	09/14/03	09/14/03	
Surrogate: Dibromofluoromethane (80-125%)					103 %				
Surrogate: Toluene-d8 (80-120%)					102 %				
Surrogate: 4-Bromofluorobenzene (80-120%)					89 %				
Sample ID: IMI0487-13 (MT561 - Soil)					Sampled: 09/09/03				
Reporting Units: ug/kg dry									
2-Chloroethyl vinyl ether	EPA 8260B	3I14007	N/A	5.1	ND	1	09/14/03	09/14/03	
Surrogate: Dibromofluoromethane (80-125%)					104 %				
Surrogate: Toluene-d8 (80-120%)					101 %				
Surrogate: 4-Bromofluorobenzene (80-120%)					98 %				
Sample ID: IMI0487-14 (MT562 - Soil)					Sampled: 09/09/03				
Reporting Units: ug/kg dry									
2-Chloroethyl vinyl ether	EPA 8260B	3I14007	N/A	5.1	ND	1	09/14/03	09/14/03	
Surrogate: Dibromofluoromethane (80-125%)					107 %				
Surrogate: Toluene-d8 (80-120%)					102 %				
Surrogate: 4-Bromofluorobenzene (80-120%)					100 %				

W. Sullivan

Del Mar Analytical, Irvine
 Michele Harper
 Project Manager

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MWH-San Diego
1230 Columbia Street, Suite 750
San Diego, CA 92101
Attention: Lisa J. Tucker

Project ID: Building 56 Landfill
Boeing SSFL
Report Number: IMI0487

Sampled: 09/05/03-09/09/03
Received: 09/09/03

PURGEABLES BY GC/MS, TENTATIVELY IDENTIFIED COMPOUNDS

Table with columns: Analyte, Method, Batch, MDL Limit, Reporting Limit, Sample Result, Dilution Factor, Date Extracted, Date Analyzed, Data Qualifiers. Includes sample IDs IMI0487-03 through IMI0487-10 and various chemical compounds like 2-Chloro-1,1,1-trifluoroethane.

Handwritten date: 01/16/04

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Project Manager

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MWH-San Diego
 1230 Columbia Street, Suite 750
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 Attention: Lisa J. Tucker

Project ID: Building 56 Landfill
 Boeing SSFL
 Report Number: IMI0487

Sampled: 09/05/03-09/09/03
 Received: 09/09/03

PURGEABLES BY GC/MS, TENTATIVELY IDENTIFIED COMPOUNDS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IMI0487-11 (MT559 - Soil)					Sampled: 09/05/03				
Reporting Units: ug/kg dry									
2-chloro-1,1,1-trifluoroethane	EPA 8260B	3I14005	N/A	250	ND	1	09/14/03	09/14/03	UJ *11
Chlorotrifluoroethene	EPA 8260B	3I14005	N/A	250	ND	1	09/14/03	09/14/03	
Sample ID: IMI0487-12 (MT560 - Soil)					Sampled: 09/05/03				
Reporting Units: ug/kg dry									
2-chloro-1,1,1-trifluoroethane	EPA 8260B	3I14005	N/A	220	ND	1	09/14/03	09/14/03	
Chlorotrifluoroethene	EPA 8260B	3I14005	N/A	220	ND	1	09/14/03	09/14/03	
Sample ID: IMI0487-13 (MT561 - Soil)					Sampled: 09/09/03				
Reporting Units: ug/kg dry									
2-Chloro-1,1,1-trifluoroethane	EPA 8260B	3I14007	N/A	200	ND	1	09/14/03	09/14/03	
Chlorotrifluoroethene	EPA 8260B	3I14007	N/A	200	ND	1	09/14/03	09/14/03	
Sample ID: IMI0487-14 (MT562 - Soil)					Sampled: 09/09/03				
Reporting Units: ug/kg dry									
2-Chloro-1,1,1-trifluoroethane	EPA 8260B	3I14007	N/A	200	ND	1	09/14/03	09/14/03	
Chlorotrifluoroethene	EPA 8260B	3I14007	N/A	200	ND	1	09/14/03	09/14/03	

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