Transportation
Land Development
Environmental
Services

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Vanasse Hangen Brustlin, Inc.

May 17, 2004

Ref: 06392.31

Mr. Patrick Van Rossem
Senior Environmental Engineer
KeySpan Corporation
One MetroTech Center
Brooklyn, NY 11201-3850

Re: Former Glenwood Landing Gas Plant Site
Additional Sampling - Area 1B Cover Soils, and Manhole #2 Sediments

Dear Mr. Van Rossem:

This correspondence serves as a summary report detailing the results of the additional soil sampling completed at the former Glenwood Landing Gas Plant site (the site).

The sampling and analytical results described below were requested by NYSDEC in their correspondence to KeySpan dated October 31, 2003.

Manhole #2 Sediment Sampling

Manhole #2 was accessed on March 24, 2004 near low tide and inspected for sediment accumulation behind the weir present in this structure. Wet sediment accumulation was observed (approximately 2-inches in depth) and a sample (designated MH#2) was collected for analysis of semivolatile organic constituents (SVOCs) by EPA Method 8270 at H2M (laboratory). The sample was collected using a thoroughly decontaminated polyethylene dipper sampler. The sediment accumulating in the manhole appeared to be clean sand.

The laboratory analytical results indicate the MH #2 sample was non-detect for SVOCs. The analytical results are attached.

Area-1B Sampling

As discussed in KeySpan's correspondence to NYSDEC dated January 9, 2004, clay "cover soils" in Area-1B were analyzed for polycyclic aromatic hydrocarbons (PAHs) and metals prior to placement. Topsoil placed above the cover soils was not subject to chemical analysis at the time of placement since the material was obtained from a New York State Department of Transportation (NYSDOT) approved source.

Per NYSDEC's request, two discrete samples (designated GLCS-01 (0-6") and GLCS-02 (0-6")) were collected from the topsoil on March 23, 2004 for analysis of PAHs, polychlorinated biphenyls (PCBs),

54 Tuttle Place
Middletown, Connecticut 06457-1847
860.632.1500 ▪ FAX 860.632.7879
email: info@vhb.com
www.vhb.com

and TAL metals at H2M. In addition, samples of the clay cover soils were collected on this day from the same locations (designated GLCS-01 (12-24") and GLCS-02 (6-24")). However, the analysis of these two samples was limited to PCBs since the other analyses (*i.e.*, PAHs and TAL metals) were performed prior to placement of the cover during construction. All of these samples were collected using a stainless steel spade which was decontaminated prior to sample collection and between sample locations.

Analytical results for the topsoil indicated that PCBs are non-detect, and inorganics and SVOCs are consistent with local background concentrations. Analytical results for the "clay" cover soils were non-detect for PCBs.

A clear definition between topsoil and cover soils was noted in the field. The topsoil has a consistent dark, rich, and loose texture which was observed to depths of 8 to 12-inches. Based on field observations the topsoil is supporting the development of a lush vegetative layer. The clay cover soils were identified in the field as dense, well compacted, uniform brown clay soils. The clay cover soils extend a minimum of 2-feet +/- bgs. The geotextile which was placed between the cover soils and native soils was not encountered during sampling.

Three Shelby tube samples were also collected from the clay cover soils on March 24, 2004. The samples were designated GLCS-01 (1-2.5'), GLCS-02 (1-3') and GLCS-03 (6-34") and were submitted to H2M for analysis of hydraulic conductivity (ASTM D5084) by STL Burlington. All three of these Shelby tube sample locations were restored with hydrated bentonite to within six inches of grade followed by replacement of the topsoil removed to accommodate sampling activities.

Hydraulic conductivity analysis on the "clay" cover soils revealed hydraulic conductivities ranging from 6.9×10^{-6} to 3.9×10^{-7} cm/sec. These results are indicative of a soil which is generally characterized as a clay or silty clay, and has a very low permeability. Furthermore, these soils have a lower permeability than the recommended permeability identified in the VCA work plan (1×10^{-6}).

Analytical and geotechnical summaries and reports are attached.

I look forward to discussing your comments regarding this report and proceeding to the next phase of the project.

Very truly yours,

VANASSE HANGEN BRUSTLIN, INC.

Matthew Wawrowski, PE
Senior Project Engineer

Attachments

LABORATORY REPORTS

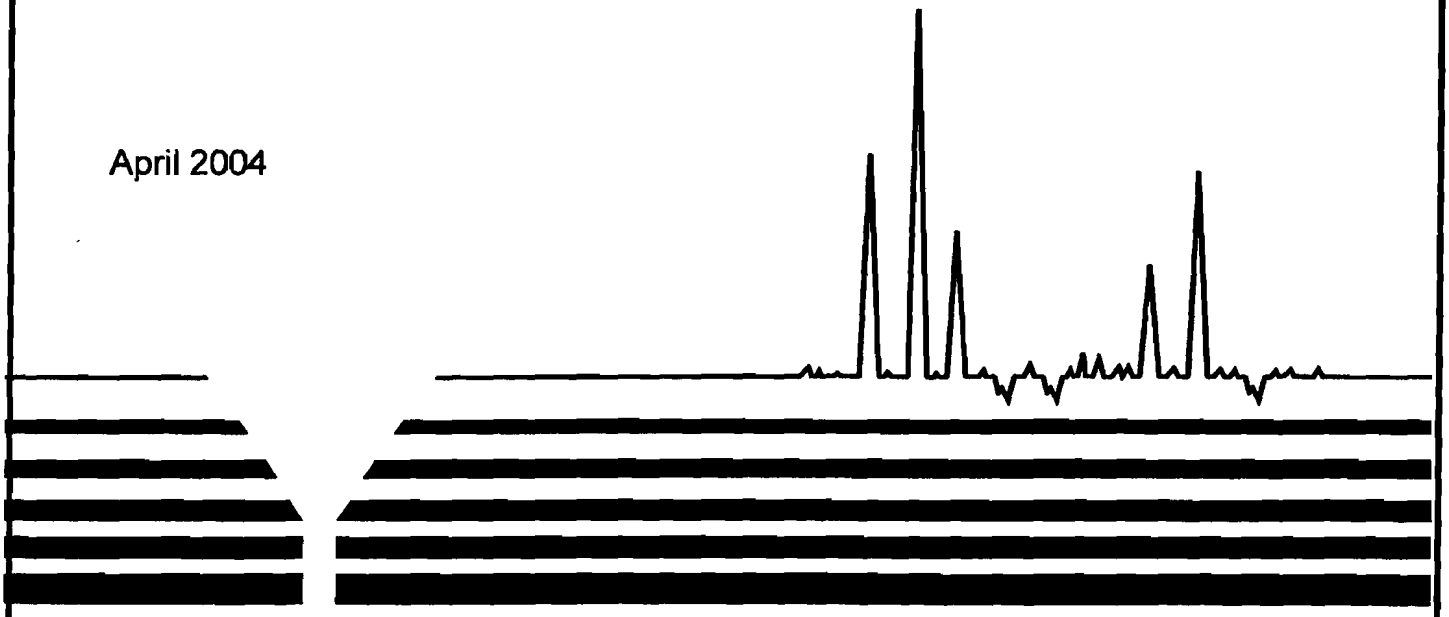
Analytical Data For

KEYSPAN
Glenwood Landing
Site Investigation

SOIL SAMPLES
DATE RECEIVED: March 24, 2004

SAMPLES ANALYZED BY STL BURLINGTON

April 2004



H2M LABS, INC.
Environmental Testing Laboratories
575 Broad Hollow Road, Melville, N.Y. 11747

SEVERN TRENT STL

STL Burlington
208 South Park Drive, Suite 1
Colchester, VT 05446

Tel: 802 655 1203 Fax: 802 655 1248
www.stl-inc.com

April 8, 2004

Ms. Sarah Benventuo
H2M Labs, Inc.
575 Broad Hollow Road
Melville, NY 11747

Re: Laboratory Project No. 24000
Case 24000; ETR: 99266

Dear Ms. Benventuo:

Enclosed are the analytical results for samples received by STL Burlington on March 26, 2004. This report is sequentially numbered starting with page 0001 and ending with page 0008.

Laboratory numbers have been assigned and designated as follows:

Lab ID	Client Sample ID	Sample Date	Sample Matrix
	Received: 03/26/04 ETR No: 99266		
564959	0403876-001A	03/24/04	Soil
564960	0403876-002A	03/24/04	Soil
564961	0403876-003A	03/24/04	Soil

ASTM D5084, Hydraulic Conductivity:
No anomalies were noted during the hydraulic conductivity testing of the samples listed above.

The analytical results presented in this data report were generated under a quality system that adheres to the requirements specified in the NELAC standard. This report shall not be reproduced, except in full, without the written approval of the laboratory. The release of the data in this report is authorized by the Laboratory Director or his designee, as verified by the following signature.

If there are any questions regarding this submittal, please contact Chris Anderson at (802) 655-1203.

Sincerely,

Michael F. Wheeler, Ph.D.
Laboratory Director

Enclosure

H2M LABS, INC.
575 Broad Hollow Road
Melville, NY 11747-5076
(631) 694-3040

CHAIN-OF-CUSTODY RECORD

Subcontractor:
STL Burlington
208 South Park Drive
Suite 1
Colchester, Vermont 05446

TEL: (802) 655-1203
FAX: (802) 655-1248
Acct #:

H2M Client : KEY-VHB

24-Mar-04

Sample ID	Matrix	Collection Date	Bottle Type	Requested Tests						
0403876-001A	Soil	3/24/2004 12:20:00 PM	Refrigerate	1						
0403876-002A	Soil	3/24/2004 11:20:00 AM	"	1						
0403876-003A	Soil	3/24/2004 12:45:00 PM	"	1						

8000

Comments: PLEASE ANALYZE FOR VERTICAL PERMEABILITY ANALYSIS. PO#L8829 QUOTE #2564

		Date/Time			Date/Time
Relinquished by:	[signature]	3/24/04 1800	**Received by:**	[signature]	3/26/04 0900
Relinquished by:			**Received by:**		

GEOTECHNICAL / GENERAL CHEMISTRY

Sample Report Summary

Client Sample No.
0403876-001A

Lab Name: STL BURLINGTON | Contract: L8829 | SDG No.: 99266

Lab Code: STLVT | Case No.: | Lab Sample ID: 564959

Matrix: SOIL | Client: H2MLAB | Date Received: 03/26/04

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
D5084	Hydraulic Conductivity	04/01/04	N/A	cm/s	1.0	0.0	6.9E-06	

Printed on: 04/13/04 02:22 PM

GEOTECHNICAL / GENERAL CHEMISTRY

Sample Report Summary

Client Sample No.
0403876-002A

Lab Name: STL BURLINGTON | Contract: L8829 | SDG No.: 99266

Lab Code: STLVT | Case No.: | Lab Sample ID: 564960

Matrix: SOIL | Client: H2MLAB | Date Received: 03/26/04

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
D5084	Hydraulic Conductivity	04/01/04	N/A	cm/s	1.0	0.0	3.9E-07	

Printed on: 04/13/04 02:22 PM

GEOTECHNICAL / GENERAL CHEMISTRY

Sample Report Summary

Client Sample No.

0403876-003A

Lab Name: STL BURLINGTON | Contract: L8829 | SDG No.: 99266

Lab Code: STLVT | Case No.: | Lab Sample ID: 564961

Matrix: SOIL | Client: H2MLAB | Date Received: 03/26/04

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
D5084	Hydraulic Conductivity	04/01/04	N/A	cm/s	1.0	0.0	8.5E-06	

Printed on: 04/13/04 02:22 PM

Hydraulic Conductivity of Saturated Soils

ASTM Method D 5084

Client:	[redacted]	ETR(s):	[redacted]
Client Code:	[redacted]	SDG(s):	[redacted]
Project:	[redacted]	Analyst(s):	[redacted]
Case:	[redacted]	Start Date:	[redacted]
Date Received:	[redacted]	End Date:	[redacted]

Lab ID:	[redacted]	Sample ID:	[redacted]

Consolidation Stress, Max:	10.6 psi	Area of Burette:	0.906 cm2
Min:	8.7 psi	Sample Length:	[redacted] cm
Moisture:	[redacted] %	Sample Diameter:	7.3 cm
Permeant Used:	RO Water	Sample Area:	41.85 cm2

Test 1

	Cell		Upper		Lower		Time		
	Burette, mL	Pressure, psi	Burette, mL	Pressure, psi	Burette, mL	Pressure, psi	Hours	Minutes	Seconds
Initial Reading	[redacted]								
Final Reading	[redacted]								
					Total Run Time		1	-22	-43
							Elapsed Time, sec		2237
							Flow Rate, cm/sec		6.97E-06

Test 2

	Cell		Upper		Lower		Time		
	Burette, mL	Pressure, psi	Burette, mL	Pressure, psi	Burette, mL	Pressure, psi	Hours	Minutes	Seconds
Initial Reading	[redacted]								
Final Reading	[redacted]								
					Total Run Time		1	30	25
							Elapsed Time, sec		5425
							Flow Rate, cm/sec		6.96E-06

Test 3

	Cell		Upper		Lower		Time		
	Burette, mL	Pressure, psi	Burette, mL	Pressure, psi	Burette, mL	Pressure, psi	Hours	Minutes	Seconds
Initial Reading	[redacted]								
Final Reading	[redacted]								
					Total Run Time		2	27	34
							Elapsed Time, sec		8854
							Flow Rate, cm/sec		6.91E-06

Hydraulic Conductivity, cm/s	6.9E-06

Hydraulic Conductivity of Saturated Soils

ASTM Method D 5084

Client:	[redacted]	**ETR(s):**	[redacted]
Client Code:	[redacted]	**SDG(s):**	[redacted]
Project:	[redacted]	**Analyst(s):**	[redacted]
Case:	[redacted]	**Start Date:**	[redacted]
Date Received:	[redacted]	**End Date:**	[redacted]

Lab ID: [redacted] **Sample ID:** [redacted]

Consolidation Stress, Max:	8.5 psi	Area of Burette:	0.906 cm2
Min:	5.5 psi	Sample Length:	[redacted] cm
Moisture:	[redacted] %	Sample Diameter:	7.3 cm
Permeant Used:	RO Water	Sample Area:	41.85 cm2

Test 1

	Cell		Upper		Lower		Time		
	Burette, mL	Pressure, psi	Burette, mL	Pressure, psi	Burette, mL	Pressure, psi	Hours	Minutes	Seconds
Initial Reading	[redacted]								
Final Reading	[redacted]								
					Total Run Time		3	15	20
							Elapsed Time, sec		11720
							Flow Rate, cm/sec		3.98E-07

Test 2

	Cell		Upper		Lower		Time		
	Burette, mL	Pressure, psi	Burette, mL	Pressure, psi	Burette, mL	Pressure, psi	Hours	Minutes	Seconds
Initial Reading	[redacted]								
Final Reading	[redacted]								
					Total Run Time		9	1	32
							Elapsed Time, sec		32492
							Flow Rate, cm/sec		3.95E-07

Test 3

	Cell		Upper		Lower		Time		
	Burette, mL	Pressure, psi	Burette, mL	Pressure, psi	Burette, mL	Pressure, psi	Hours	Minutes	Seconds
Initial Reading	[redacted]								
Final Reading	[redacted]								
					Total Run Time		7	-4	-15
							Elapsed Time, sec		24945
							Flow Rate, cm/sec		3.87E-07

Hydraulic Conductivity, cm/s	3.9E-07

Hydraulic Conductivity of Saturated Soils

ASTM Method D 5084

Client:	[redacted]	ETR(s):	[redacted]
Client Code:	[redacted]	SDG(s):	[redacted]
Project:	[redacted]	Analyst(s):	[redacted]
Case:	[redacted]	Start Date:	[redacted]
Date Received:	[redacted]	End Date:	[redacted]

Lab ID:	[redacted]	Sample ID:	[redacted]

Consolidation Stress, Max:	6.5 psi	Area of Burette:	0.906 cm2
Min:	5 psi	Sample Length:	[redacted] cm
Moisture:	[redacted] %	Sample Diameter:	7.3 cm
Permeant Used:	RO Water	Sample Area:	41.85 cm2

Test 1

	Cell		Upper		Lower		Time		
	Burette, mL	Pressure, psi	Burette, mL	Pressure, psi	Burette, mL	Pressure, psi	Hours	Minutes	Seconds
Initial Reading	[redacted]								
Final Reading	[redacted]								
					Total Run Time		0	14	-25
							Elapsed Time, sec		815
							Flow Rate, cm/sec		8.49E-06

Test 2

	Cell		Upper		Lower		Time		
	Burette, mL	Pressure, psi	Burette, mL	Pressure, psi	Burette, mL	Pressure, psi	Hours	Minutes	Seconds
Initial Reading	[redacted]								
Final Reading	[redacted]								
					Total Run Time		0	6	36
							Elapsed Time, sec		396
							Flow Rate, cm/sec		8.51E-06

Test 3

	Cell		Upper		Lower		Time		
	Burette, mL	Pressure, psi	Burette, mL	Pressure, psi	Burette, mL	Pressure, psi	Hours	Minutes	Seconds
Initial Reading	[redacted]								
Final Reading	[redacted]								
					Total Run Time		1	-3	-28
							Elapsed Time, sec		3392
							Flow Rate, cm/sec		8.50E-06

Hydraulic Conductivity, cm/s	8.5E-06

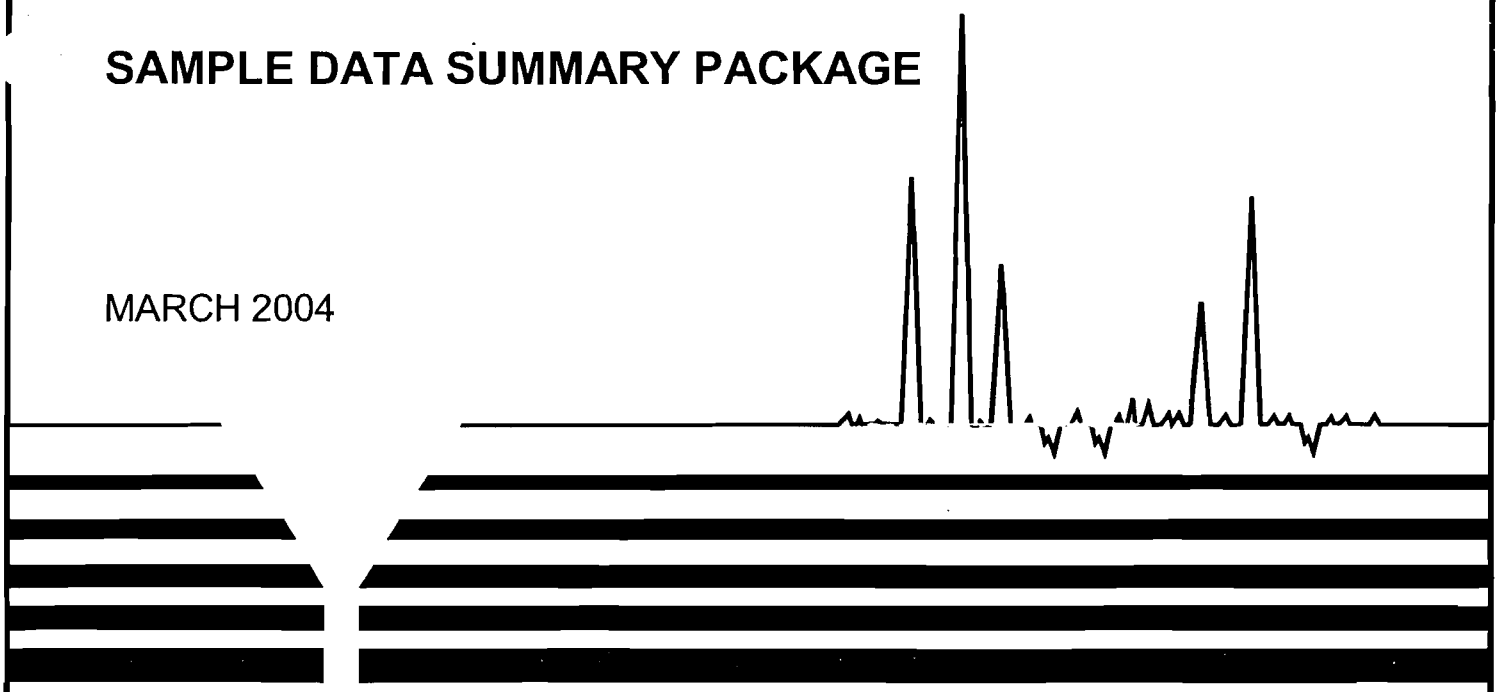
Analytical Data Package For

KEYSPAN
VANASSE HANGEN BRUSTLIN
SDG NO: VHB029

Soil Samples
Received: 3/24/04

SAMPLE DATA SUMMARY PACKAGE

MARCH 2004



H2M LABS, INC.
Environmental Testing Laboratories
575 Broad Hollow Road, Melville, N.Y. 11747

H2M LABS, INC.

SAMPLE DATA SUMMARY PACKAGE

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KEYSPAN
VANASSE HANGEN BRUSTLIN
SOIL SAMPLES
SAMPLES RECEIVED: 3/24/04
SDG NO.: VHB029

1. NYS DEC SUMMARY FORMS

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE IDENTIFICATION AND ANALYTICAL REQUIREMENT SUMMARY

SDG: VHB029 — Analytical Requirements

Customer Sample Code	Laboratory Sample Code	GCSEMI	ME	MSSEMI
GLC5-01 (0-6")	0403874-001	X	X	X
GLC5-01 (12-24")	0403874-002	X		
GLC5-02 (0-6")	0403874-003	X	X	X
GLC5-02 (6-24")	0403874-004	X		
MH#2	0403874-005			X
FB(03-23-04)B	0403874-006	X	X	X

CLP, (Non-CLP) (Please indicate year of protocol) ASP 95 10/95
TCL/TAL, HSL, Priority Pollutant,

VHB029 S3

NEW YORK STATE DEPARTMENT OF ENV. .NMENTAL CONSERVATION

SAMPLE PREPARATION AND ANALYSIS SUMMARY
SEMIVOLATILE (BNA)
ANALYSES

Laboratory Samp ID	EPAsampID	Matrix	Analytical Protocol	Date Collected	DateRecd at Lab	Date Extracted	Date Analyzed	Extraction Method	DF	Level	Aux Cleanup
0403874-001A	GLC5-01 (0-6")	Soil	ASP95-2	23-Mar-04	24-Mar-04	25-Mar-04	03-Apr-04	PFEX	1	LOW	
0403874-003A	GLC5-02 (0-6")	Soil	ASP95-2	23-Mar-04	24-Mar-04	25-Mar-04	05-Apr-04	PFEX	1	LOW	
0403874-003AMS	GLC5-02 (0-6")MS	Soil	ASP95-2	23-Mar-04	24-Mar-04	25-Mar-04	05-Apr-04	PFEX	1	LOW	
0403874-003AMSD	GLC5-02 (0-6")MSD	Soil	ASP95-2	23-Mar-04	24-Mar-04	25-Mar-04	05-Apr-04	PFEX	1	LOW	
0403874-005A	MH#2	Soil	ASP95-2	23-Mar-04	24-Mar-04	29-Mar-04	03-Apr-04	PFEX	1	LOW	
0403874-006A	FB(03-23-04)B	Aqueous	ASP95-2	23-Mar-04	24-Mar-04	29-Mar-04	03-Apr-04	CONT	1	LOW	

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE PREPARATION AND ANALYSIS SUMMARY
PESTICIDE/PCB/HERB
ANALYSES

Laboratory Samp ID	EPAsampID	Matrix	Analytical Protocol	Date Collected	DateRecd at Lab	Date Extracted	Date Analyzed	Extraction Method	DF	Level	Aux Cleanup
0403874-001B	GLC5-01 (0-6")	Soil	8082	23-Mar-04	24-Mar-04	25-Mar-04	27-Mar-04	PFEX	1	LOW	SLFR H2SO4
0403874-002A	GLC5-01 (12-24")	Soil	8082	23-Mar-04	24-Mar-04	25-Mar-04	27-Mar-04	PFEX	1	LOW	SLFR H2SO4
0403874-003B	GLC5-02 (0-6")	Soil	8082	23-Mar-04	24-Mar-04	25-Mar-04	27-Mar-04	PFEX	1	LOW	SLFR H2SO4
0403874-003BMS	GLC5-02 (0-6")MS	Soil	8082	23-Mar-04	24-Mar-04	25-Mar-04	27-Mar-04	PFEX	1	LOW	SLFR H2SO4
0403874-003BMSD	GLC5-02 (0-6")MSD	Soil	8082	23-Mar-04	24-Mar-04	25-Mar-04	27-Mar-04	PFEX	1	LOW	SLFR H2SO4
0403874-004A	GLC5-02 (6-24")	Soil	8082	23-Mar-04	24-Mar-04	25-Mar-04	27-Mar-04	PFEX	1	LOW	SLFR H2SO4
0403874-006B	FB(03-23-04)B	Aqueous	8082	23-Mar-04	24-Mar-04	29-Mar-04	29-Mar-04	SEPF	1	LOW	H2SO4

NEW YORK STATE DEPARTMENT OF ENV..<ONMENTAL CONSERVATION

SAMPLE PREPARATION AND ANALYSIS SUMMARY
INORGANIC ANALYSIS

SDG : VHB029

Laboratory Samp ID	EPAsampID	Matrix	Metals Requested	DateRecd at Lab	Date Analyzed
0403874-001	GLC5-01 (0-6")	SOIL	AG,AL,AS,BA,BE,CA,CD,CO,CR,CU,FE,HG,K,MG,MN,NA,NI,PB,SB,SE,TL,V,ZN,	24-Mar-04	04/04
0403874-003	GLC5-02 (0-6")	SOIL	AG,AL,AS,BA,BE,CA,CD,CO,CR,CU,FE,HG,K,MG,MN,NA,NI,PB,SB,SE,TL,V,ZN,	24-Mar-04	04/04
0403874-003DUP	GLC5-02 (0-6")D	SOIL	AG,AL,AS,BA,BE,CA,CD,CO,CR,CU,FE,HG,K,MG,MN,NA,NI,PB,SB,SE,TL,V,ZN,	24-Mar-04	04/04
0403874-003MS	GLC5-02 (0-6")S	SOIL	AG,AL,AS,BA,BE,CA,CD,CO,CR,CU,FE,HG,K,MG,MN,NA,NI,PB,SB,SE,TL,V,ZN,	24-Mar-04	04/04
0403874-006	FB(03-23-04)B	WATER	AG,AL,AS,BA,BE,CA,CD,CO,CR,CU,FE,HG,K,MG,MN,NA,NI,PB,SB,SE,TL,V,ZN,	24-Mar-04	04/04

2. CHAIN OF CUSTODY DOCUMENTATION

H2M LABS, INC.

1153

EXTERNAL CHAIN OF CUSTODY

575 Broad Hollow Rd, Melville, NY 11747-5076
Tel: (516) 694-3040 Fax: (516) 420-8436

CLIENT: Key-VHB | **H2M SDG NO:** VHB 029

PROJECT NAME/NUMBER: KeySpan - Glenwood Landing / 06397.31

SAMPLERS: (signature)/Client: Chris P. & Matt W. / VHB

DELIVERABLES: Cat. B

TURNAROUND TIME: Std.

NOTES:

Project Contact: Chris Pace

Phone Number: (860) 632-1500

Sample Container Description: 4oz. jar | 4oz. jar | 8oz. jar | 4oz. jar | 2oz. jar

ANALYSIS REQUESTED

DATE	TIME	MATRIX	FIELD I.D.	Total No. of Containers	ORGANIC: VOA	ORGANIC: BNA/BNA	ORGANIC: Pest/PCB	ORGANIC: TCL SVOC	ORGANIC: TCL Pest/Herb.	INORG.: TAL Metal	INORG.: CN	LAB I.D. NO.	REMARKS:
3-23	16:55	Soil	GLCS-01 (0-6")	4		1	1		1	1		0403874 001	
3-23	17:05	Soil	GLCS-01 (6-24")	1			1					002	
3-23	17:15	Soil	GLCS-02 (0-6")	12		3	3		3	3		003	MS/MSD
3-23	17:20	Soil	GLCS-02 (6-24")	1			1					004	
3-23	17:40	Water	FB(03-23-04)B	6		1	1	1	1	1		006	
3-24	08:15	Mix	MH#7	1				1				005	

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
CBPace	3-24-04	~~09:00~~	S. Weiss	3-24-04	14.05
S. Weiss	3-24-04	14:05		3-24-04	15:30

LABORATORY USE ONLY

Discrepancies Between Sample Labels and COC Record? Y or N

Explain: _____

Samples were:
1. Shipped___ or Hand Delivered___ Airbill# _____
2. Ambient or chilled
3. Received in good condition: Y or N
4. Properly preserved: Y or N
5. Samples returned to lab ___ Hrs from collection.

COC Tape was:
1. Present on outer package: Y or N
2. Unbroken on outer package: Y or N
3. COC record present & complete upon sample receipt: Y or N

VHB029 S8

WHITE COPY - ORIGINAL YELLOW COPY - CLIENT

SDG - VHB029

H2M LABS, INC.

VHB029

Sample Receipt Checklist

Client Name KEY-VHB

Date and Time Receive 3/24/2004 3:30:00 PM

Work Order Numbe 0403874

Received by MJM

Checklist completed b MJM (Signature) 3/24/04 (Date)

Reviewed by SMB (Initials) 3/25/04 (Date)

Matrix

Carrier name Courier

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Applicable ☐
Custody seals intact on shippping container/cooler?	Yes ☑	No ☐	Not Applicable ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Applicable ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐ <6°C	
Water - VOA vials have zero headspace?	No VOA vials submitted ☑	Yes ☐	No ☐
Water - pH acceptable upon receipt?	Yes ☑	No ☐	

Adjusted? _____ Checked b _____

Any No and/or NA (not applicable) response must be detailed in the comments section b

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding _____

Comments: 1 4oz MS/MSD Jar missing (GLC5-02(0-6')). COC states 12 Jars given, only 11 recieved.

Corrective Action _____

VHB029 S9

H2M LABS, INC.

INTERNAL CHAIN OF CUSTODY

CLIENT: KEY-VHB DELIVERABLES: B5 - 7OD TURN AROUND TIME: 21 Days

SDG #: VHB029 CASE #: _____ MATRIX: Soil pH CHECK Y or (N)

REMARKS: FIS# ~~KEY-VHB~~ 026 KEY-VHB

RECEIVED BY: MJM SIGNATURE: [signature] DATE: 3-24-04 TIME: 15:30

CLIENT ID	H2M LAB #	DATE COLLECTED	BOTTLE TYPE	# OF BOTTLES	TESTS REQUESTED
GLC6-01 (0-6")	0403874 001B	3-23-04	B	1	ASPB5-8082-S
GLC5-01 (12-24")	002A			↓	
GLC5-02 (0-6") MS/MSD	003B			3	
GLC5-02 (6-24")	004A			1	
FB(03-23-04)B GLC5	006A		G	2	ASPB8270-MGP-W
"	006B			2	ASPB5-8082-W
"	006D				ASPB5-8270-W
GLC5-01 (0-6")	001A		B	1	ASPB8270-MBP-S
GLC5-02 (0-6")	003A				
MH #2	005A				ASPB5-8270-S
"					
"					
"					
"					
"					
"					
"					
"					

3-24-04

3-25-04

SPECIAL PROCESS

P 0082

VHB029 S10

H2M LABS, INC.

CLIENT: KEY-VHB

#: VHB029

INTERNAL CHAIN OF CUSTODY

DATE	TIME	SAMPLE RELINQUISHED BY	SAMPLE RECEIVED BY	BOTTLE TYPE	PURPOSE OF CHANGE OF CUSTODY	INIT
3/24/04	18:30	SIGN	SIGN	B, G	Prep	
3/25/04	14:40	SIGN	SIGN	G	Prep	
3/25/04	15:45	SIGN	SIGN	8082-S	Analysis	
3/26/04	16:30	SIGN	SIGN	8270-S	Analysis	
3/29/04	11:00	SIGN	SIGN	B	PMOIST	
3/29/04	12:15	SIGN	SIGN	↓	~~Analysis~~ Storage	3/30/04
3/29/04	18:0	SIGN	SIGN	8082-W	Analysis	
3/30/04	19:20	SIGN	SIGN	8270-S	Analysis	
		SIGN	SIGN			
		SIGN	SIGN			
		SIGN	SIGN			
		SIGN	SIGN			
		SIGN	SIGN			
		SIGN	SIGN			
		SIGN	SIGN			
		SIGN	SIGN			
		SIGN	SIGN			
		SIGN	SIGN			
		SIGN	SIGN			
		SIGN	SIGN			
		SIGN	SIGN			
		SIGN	SIGN			
		SIGN	SIGN			
		SIGN	SIGN			
		SIGN	SIGN			

SPECIAL PROCESS

VHB029 S11

H2M LABS, INC.

INTERNAL CHAIN OF CUSTODY

CLIENT: KEY-VHB DELIVERABLES: B5 - 70D TURN AROUND TIME: 21 Days

SDG #: VHB029 CASE #: _____ MATRIX: Soil pH CHECK Y or (N)

REMARKS: PIS# ~~KEY-VHB~~ 026 KEY-VHB

RECEIVED BY: MJM SIGNATURE: _____ DATE: 3-24-04 TIME: 15:30

CLIENT ID	H2M LAB #	DATE COLLECTED	BOTTLE TYPE	# OF BOTTLES	TESTS REQUESTED
GLC6-01 (0-6")	C403874 001B	3-23-04	B	1	ASPB5-8082_S
GLC5-01 (12-24")	002A			↓	
GLC5-02 (0-6") MS/MSD	003B			3	
GLC5-02 (6-24")	004A		↓	1	↓
FB(03-23-04)B GLC5	006A		G	2	ASPB8270_MGP_W
↓	006B			2	ASPB5-8082_W
↓	006D	↓	↓	↓	ASPB5-8270_W
GLC5-01 (0-6")	001A		B	1	ASPB8270_MGP_S
GLC5-02 (0-6")	003A				↓
MH #2	005A	↓	↓	↓	ASPB5-8270_S
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					

SPECIAL PROCESS

P 0082

VHB029 S12

H2M LABS, INC.

CLIENT: KEY-VHB

SDG #: VHB029

INTERNAL CHAIN OF CUSTODY

DATE	TIME	SAMPLE RELINQUISHED BY	SAMPLE RECEIVED BY	BOTTLE TYPE	PURPOSE OF CHANGE OF CUSTODY	INIT
3/24/04	18:30	SIGN	SIGN	B, G	Prep	
3/25/04	14:40	SIGN	SIGN	G	Prep	
3/26/04	15:45	SIGN	SIGN	All 8082-S	Analysis	
3/26/04	16-30	SIGN	SIGN	All 8270-S	Analysis	
3/29/04	1100	SIGN	SIGN	B	PMOIST	
3/29/04	1215	SIGN	SIGN	↓	~~Analysis~~ Std Prep	3/29/04
3/29/04	18-0	SIGN	SIGN	8082-W	Analysis	
		SIGN	SIGN			
		SIGN	SIGN			
		SIGN	SIGN			
		SIGN	SIGN			
		SIGN	SIGN			
		SIGN	SIGN			
		SIGN	SIGN			
		SIGN	SIGN			
		SIGN	SIGN			
		SIGN	SIGN			
		SIGN	SIGN			
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		SIGN	SIGN			
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		SIGN	SIGN			
		SIGN	SIGN			
		SIGN	SIGN			
		SIGN	SIGN			

SPECIAL PROCESS

H2M LABS, INC.

INTERNAL CHAIN OF CUSTODY

CLIENT: KEY-VHB DELIVERABLES: B5-70D TURN AROUND TIME: 21 DAYS

SDG #: VHB029 CASE #: _____ MATRIX: soil pH CHECK Y or N

REMARKS: FIS # 026 KEY-VHB

RECEIVED BY: MJM SIGNATURE: [signature] DATE: 3-24-04 TIME: 15:30

CLIENT ID	H2M LAB #	DATE COLLECTED	BOTTLE TYPE	# OF BOTTLES	TESTS REQUESTED
GLCS-01 (0-6")	0403874 001D	3-23-04	A	1	TCLMPKG-S
GLCS-02 (0-6")	003D		↓		↓
FB(03-23-04)B	006C	↓	EN	↓	TCLMPKG-W

3-24-04

METALS

VHB029 S14

H2M LABS, INC.

CLIENT: KEY-VHB

SDG #: VHB029

INTERNAL CHAIN OF CUSTODY

DATE	TIME	SAMPLE RELINQUISHED BY	SAMPLE RECEIVED BY	BOTTLE TYPE	PURPOSE OF CHANGE OF CUSTODY	INIT
3/4/04	18:30	SIGN	SIGN	A, EN	Analysis	
3/5/04	15.30	SIGN	SIGN	A/EN	Analysis	
3/5/04	21.00	SIGN	SIGN	A/EN	Analysis	
3/9/04	13.00	SIGN	SIGN	EN	Hg Prep	
3/9/04	13:30	SIGN	SIGN	EN/BOD	Storage	
3/12/04	7:00	SIGN	SIGN Melissa Romano	A	Hg Prep	
3/12/04	8.00	SIGN Melissa Romano	SIGN	A/BOD	Storage	
3/12/04	10:17	SIGN	SIGN Melissa Romano	BOD	Hg Analysis	
3/12/04	12:10	SIGN Melissa Romano	SIGN	BOD	Storage	
		SIGN	SIGN			
		SIGN	SIGN			
		SIGN	SIGN			
		SIGN	SIGN			
		SIGN	SIGN			
		SIGN	SIGN			
		SIGN	SIGN			
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		SIGN	SIGN			
		SIGN	SIGN			
		SIGN	SIGN			

METALS

3. SDG NARRATIVES

H2M LABS, INC.

SDG NARRATIVE FOR SEMIVOLATILE ORGANICS
SAMPLES RECEIVED:3/24/04
SDG #: VHB029

For Samples:

GLC5-01 (0-6")
GLC5-02 (0-6") MS/MSD
MH#2
FB(03-23-04)B

The above samples were analyzed for a specific list of semivolatiles by method 8270C in accordance with the NYSDEC ASP, Rev. 10/95.

Sample GLC5-02 (0-6") was analyzed as the matrix spike/matrix spike duplicate. A lab fortified blank was analyzed. All percent recoveries were within or above QC limits.

TICs suspected of being due to secondary contamination are flagged with a "Y". TICs suspected or originating from column bleed are flagged with an "X".

The surrogate standard, 2,4,6 tribromophenol had a 127% recovery in the field blank.

Pentachlorophenol had a 37.8% D and a 25.2% D in the continuing calibrations of 4/3 and 4/5 respectively.

All quality control and calibration criteria were met.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Date Reported: April 12, 2004

****
* *
* *
****

Joann M. Slavin
Laboratory Manager

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VHB029 S17 @ 4/20/04

H2M LABS, INC.

SDG NARRATIVE FOR PCB ANALYSES
SAMPLES RECEIVED: 3/24/04
SDG #: VHB029

For Samples:

GLC5-01 (0-6")
GLC5-01 (12-24")
GLC5-02 (0-6") MS/MSD
GLC5-02 (6-24")
FB(03-23-04)B

The above soil samples and field blank were analyzed for PCBs by EPA method 8082.

All QC data and calibrations met the requirements of the method, and no problems were encountered with sample analysis. The following should be noted:

- Sample GLC5-02 (0-6") was analyzed as the matrix spike/matrix spike duplicate.
- All samples were cleaned up with concentrated sulfuric acid and the soil samples were subjected to TBA cleanup to remove sulfur.
- Positives are reported to the practical detection limit of ½ of the reporting limits.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Date Reported: April 6, 2004

****
* *
* *
****
Ursula Middel
Technical Manager

VHB029 518

H2M LABS, INC.

SDG NARRATIVE FOR METALS
SAMPLES RECEIVED: 3/24/04
SDG #: VHB029

For Samples:

GLC5-01 (0-6")
GLC5-02 (0-6") MS/MSD
FB(03-23-04)B

One water sample and two soil samples were received by H2M Labs, Inc. on 3/24/04 for select metals analysis.

Samples were prepared and analyzed using EPA methods 6010B with a TJA61E Trace ICP instrument and method 7470/7471A with a Leeman PS200 mercury analyzer.

Sample GLC5-02 (0-6") was utilized for QC analysis and reporting.

Spike analysis did not recover within 75-125% for iron and lead. Since the sample value exceeded the spike concentration by more than four times, post spikes and data qualifiers were not required. Spike recoveries were not within acceptance ranges for antimony, arsenic, chromium and manganese. The samples were post spiked, reanalyzed and recovered acceptably for antimony, arsenic and manganese. All associated data was reported flagged "N" on Forms 1 and 5A.

Duplicate analysis did not reproduce within acceptance ranges for aluminum, arsenic, chromium, iron, magnesium, manganese, mercury, nickel, potassium, vanadium and zinc. Associated data were reported flagged "*" on Forms 1 and 6.

ICP serial dilution analysis did not reproduce within acceptance ranges for aluminum, barium, chromium, copper, iron, magnesium, manganese, sodium, vanadium and zinc. Associated data were reported flagged "E" on Forms 1 and 9.

No other problems were noted during the analysis of this sample group.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Date Reported: April 19, 2004

****
* *
* OK *
****

Vincent Stancampiano
Vice President

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4/21/04 SIG VHB029

4. SAMPLE REPORTS

H2M LABS, INC.

QUALIFIERS FOR REPORTING ORGANICS DATA

Value - If the result is a value greater than or equal to the quantification limit, report the value.

U - Indicates compound was analyzed for but not detected. The sample quantitation limit must be corrected for dilution and for percent moisture. For example, 10U for phenol in water if the sample final volume is the protocol-specified final volume. If a 1 to 10 dilution of extract is necessary, the reported limit is 100 U. For a soil sample, the value must also be adjusted for percent moisture. For example, if the sample had 24% moisture and a 1 to 10 dilution factor, the sample quantitation limit for phenol (330 U) would be corrected to:

$$\frac{(300\ U)}{D} \times df \text{ where } D = \frac{100\%moisture}{100}$$

and df - dilution factor

For example, at 24% moisture, $D = \frac{100 - 24}{100} = 0.76$

$$\frac{(300\ U)}{.76} \times 10 = 4300\ U$$ rounded to the appropriate number of significant figures

For semivolatile soil samples, the extract must be concentrated to 0.5 mL, and the sensitivity of the analysis is not compromised by the cleanup procedures. Similarly, pesticide samples subjected to GPC are concentrated to 5.0 mL. Therefore, the CRQL values in Exhibit C will apply to all samples, regardless of cleanup. However, if a sample extract cannot be concentrated to the protocol-specified volume (see Exhibit C), this fact must be accounted for in reporting the sample quantitation limit.

J - Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the specified quantification limit but greater than zero. (e.g.: If limit of quantification is 10 ug/L and a concentration of 3 ug/L is calculated, report as 3J.) The sample quantitation limit must be adjusted for dilution as discussed for the U flag.

N - Indicates presumptive evidence of a compound. This flag is only used for tentatively identified compounds, where the identification is based on a mass spectral library search. It is applied to all TIC results. For generic characterization of a TIC, such as chlorinated hydrocarbon, the N code is not used.

P - This flag is used for a pesticide/Aroclor target analyte when there is greater than 25% difference for detected concentrations between the two GC columns (see Form X). The lower of the two values is reported of Form I with a "P".

C - This flag applies to pesticide results when the identification has been confirmed by GC/MS.. If GC/MS confirmation was attempted but was unsuccessful, do not apply this flag, instead use a Laboratory defined flag, discussed below.

B - This flag is used when the analyte is found in the associated blank as well as in the sample. It indicates possible probable blank contamination and warns the data user to take appropriate action. This flag must be used for a TIC as well as for a positively identified target compound.

E - This flag identified compounds whose concentrations exceed the calibration range of the GC/MS instrument for that specific analysis. If one or more compounds have a response greater than full scale, except as noted in Exhibit D, the sample or extract must be diluted and re-analyzed according to the specifications in Exhibit D. All such compounds with a response greater than full scale should have the concentration flagged with an "E" on the Form I for the original analysis. If the dilution of the extract causes any compounds identified in the first analysis to be below the calibration ranges in the second analysis, then the results of both analyses shall be reported on separate copies of Form I. The Form I for the diluted sample shall have the "DL" suffix appended to the sample number. NOTE: For total xylenes, where three isomers are quantified as two peaks, the calibration range of each peak should be considered separately, e.g. a diluted analysis is not required for total xylenes unless the concentration of the peak representing the single isomer exceed 200 ug/L or the peak representing the two coeluting isomers on that GC column exceed 400 ug/L. Similarly, if the two 1,2-Dichloroethene isomers coelute, a diluted analysis is not required unless the concentration exceed 400 ug/L.

D - This flag identifies all compounds identified in an analysis at a secondary dilution factor. If a sample or extract is re-analyzed at a higher dilution factor, as in the "E" flag above, the "DL" suffix is appended to the sample number on the Form I for the diluted sample, and all concentration values reported on that Form I are flagged with the "D" flag. This flag alerts data users that any discrepancies between the concentrations reported may be due to dilution of the sample or extract.

A - This flag indicates that a TIC is a suspected aldol-condensation product.

X - Other specific flags may be required to properly define the results. If used, they must be fully described and such description attached to the Sample Data Summary Package and the SDG narrative. Begin by using "X". If more than one flag is required use "Y" and "Z" as needed. If more than five qualifiers are required for a sample result, used the "X" flag to combine several flags as needed. For instance, the "X" flag might combine "A", "B", and "D" flags for some samples. The laboratory defined flags limited to the letters "X", "Y" and "Z".

The combination of flags "BU" or "UB" is expressly prohibited. Blank contaminants are flagged "B" only when they are detected in the sample.

X- Suspected column bleed. tm 4.8.04

Y- Suspected secondary contamination.

VHB029 S22

H2M LABS, INC.

QUALIFIERS FOR METALS ANALYSIS

Q (Quality Control) Qualifiers

E - The reported value is estimated because of the presence of interference. An explanatory note is included in the SDG narrative.

M - Duplicate injection precision not met.

N - Matrix spike sample recovery not within control limits.

S - The reported value was determined by the Method of Standard Additions (MSA).

+ - Correlation coefficient for the MSA is less than 0.995

W - Post digestion spike for Furnace AA analysis is out of control limits (85-115%), while sample absorbance is less than 50% of spike absorbance.

* - Duplicate analysis is not within control limits.

C (Concentration) Qualifiers

B - Entered if the reported value is less than the Contract Required Detection Limit (CRDL) but greater than the Instrument Detection Limit (IDL).

U - Entered if the analyte was analyzed for but not detected, i.e., less than the IDL.

M (Method) Qualifiers

P - Analyzed by ICP.
M - Analyzed by ICP-MS
A - Analyzed by Flame AA.
F - Analyzed by Furnace AA.
CV - Analyzed by Manual Cold Vapor techniques.
AV - Analyzed by Automated Cold Vapor techniques.
C - Analyzed by Manual Spectrophotometric Method.
CA- Analyzed by Midi-distillation Spectrophotometric Method.
NR - Analyte not Required.

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

FB(03-23-04)B

Lab Name: H2M LABS, INC. Contract: ____

Lab Code: 10478 Case No.: KEY-VHB SAS No.: _____ SDG No.: VHB029

Matrix: (soil/water) WATER Lab Sample ID: 0403874-006A

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 4A\N6392.D

Level: (low/med) LOW Date Received: 03/24/04

% Moisture: Decanted: (Y/N) N Date Extracted: 03/29/04

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 04/03/04

Injection Volume: 2 (µL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: ____ Extraction: (Type) CONT

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	Bis(2-chloroethyl)ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-di-n-propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	Bis(2-chloroethoxy)methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
99-09-2	3-Nitroaniline	10	U
83-32-9	Acenaphthene	10	U
51-28-5	2,4-Dinitrophenol	25	U
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U

1D

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

FB(03-23-04)B

Lab Name: H2M LABS, INC. Contract: ____

Lab Code: 10478 Case No.: KEY-VHB SAS No.: _____ SDG No.: VHB029

Matrix: (soil/water) WATER Lab Sample ID: 0403874-006A

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 4A\N6392.D

Level: (low/med) LOW Date Received: 03/24/04

% Moisture: Decanted: (Y/N) N Date Extracted: 03/29/04

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 04/03/04

Injection Volume: 2 (µL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: ____ Extraction: (Type) CONT

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-butyl phthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butyl benzyl phthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	Bis(2-ethylhexyl)phthalate	10	U
117-84-0	Di-n-octyl phthalate	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

VHB029 S25

1G

EPA SAMPLE NO.

FB(03-23-04)B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: H2M LABS, INC. Contract: _____

Lab Code: 10478 Case No.: KEY-VHB SAS No.: _____ SDG No.: VHB029

Matrix: (soil/water) WATER Lab Sample ID: 0403874-006A

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 4A\N6392.D

Level: (low/med) LOW Date Received: 03/24/04

% Moisture: Decanted: (Y/N) N Date Extracted: 03/29/04

Concentrated Extract Volume: 1000 (µl) Date Analyzed: 04/03/04

Injection Volume: 2 (µl) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: ____ Extraction: (Type) CONT

CONCENTRATION UNITS:

Number TICs found: 0 (µg/L or µg/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST.CONC.	Q

1E

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

FB(03-23-04)B

Lab Name: H2M LABS, INC. Contract: ____

Lab Code: 10478 Case No.: KEY-VHB SAS No.: ____ SDG No.: VHB029

Matrix: (soil/water) WATER Lab Sample ID: 0403874-006B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: A05278.RAW

% Moisture: Decanted: (Y/N) N Date Received: 03/24/04

Extraction: (Type) SEPF Date Extracted: 03/29/04

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 03/29/04

Injection Volume: 0.5 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
12674-11-2	Aroclor 1016	1.0	U
11104-28-2	Aroclor 1221	2.0	U
11141-16-5	Aroclor 1232	1.0	U
53469-21-9	Aroclor 1242	1.0	U
12672-29-6	Aroclor 1248	1.0	U
11097-69-1	Aroclor 1254	1.0	U
11096-82-5	Aroclor 1260	1.0	U

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO

FB(03-23-04)B

Lab Name: H2M LABS, INC. Contract:

Lab Code: 10478 Case No. SAS No.: SDG No.: VHB029

Matrix (soil/water): WATER Lab Sample ID: 0403874-006

Level (low/med): LOW Date Received: 3/24/04

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	18.9	U		P
7440-36-0	Antimony	2.6	U		P
7440-38-2	Arsenic	2.2	U		P
7440-39-3	Barium	0.40	B		P
7440-41-7	Beryllium	0.24	B		P
7440-43-9	Cadmium	1.0	B		P
7440-70-2	Calcium	13.6	U		P
7440-47-3	Chromium	5.0	U		P
7440-48-4	Cobalt	1.2	U		P
7440-50-8	Copper	1.1	U		P
7439-89-6	Iron	32.8	B		P
7439-92-1	Lead	1.6	U		P
7439-95-4	Magnesium	11.1	U		P
7439-96-5	Manganese	0.71	B		P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	7.7	U		P
7440-09-7	Potassium	108	U		P
7782-49-2	Selenium	2.3	U		P
7440-22-4	Silver	0.40	U		P
7440-23-5	Sodium	12.7	B		P
7440-28-0	Thallium	3.1	B		P
7440-62-2	Vanadium	1.2	U		P
7440-66-6	Zinc	1.1	U		P

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

DATE REPORTED APRIL 15, 2004

VHB029 S28

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

GLC5-01 (0-6")

Lab Name: H2M LABS, INC. Contract: ____

Lab Code: 10478 Case No.: KEY-VHB SAS No.: _____ SDG No.: VHB029

Matrix: (soil/water) SOIL Lab Sample ID: 0403874-001A

Sample wt/vol: 15 (g/mL) G Lab File ID: 4A\N6400.D

Level: (low/med) LOW Date Received: 03/24/04

% Moisture: 15.3 Decanted: (Y/N) N Date Extracted: 03/25/04

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 04/03/04

Injection Volume: 2 (µL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: 7.0 Extraction: (Type) PFEX

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/KG	Q
91-20-3	Naphthalene	390	U
91-57-6	2-Methylnaphthalene	390	U
208-96-8	Acenaphthylene	390	U
83-32-9	Acenaphthene	390	U
86-73-7	Fluorene	390	U
85-01-8	Phenanthrene	330	J
120-12-7	Anthracene	390	U
206-44-0	Fluoranthene	920	
129-00-0	Pyrene	800	
56-55-3	Benzo(a)anthracene	500	
218-01-9	Chrysene	520	
205-99-2	Benzo(b)fluoranthene	800	
207-08-9	Benzo(k)fluoranthene	410	
50-32-8	Benzo(a)pyrene	550	
193-39-5	Indeno(1,2,3-cd)pyrene	210	J
53-70-3	Dibenzo(a,h)anthracene	80	J
191-24-2	Benzo(g,h,i)perylene	240	J

VHB029 S29

1E

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

GLC5-01 (0-6")

Lab Name: H2M LABS, INC. Contract: _____

Lab Code: 10478 Case No.: KEY-VHB SAS No.: _____ SDG No.: VHB029

Matrix: (soil/water) SOIL Lab Sample ID: 0403874-001B

Sample wt/vol: 15 (g/mL) G Lab File ID: A05251.RAW

% Moisture: 15.3 Decanted: (Y/N) N Date Received: 03/24/04

Extraction: (Type) PFEX Date Extracted: 03/25/04

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 03/27/04

Injection Volume: 0.5 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: 7.0 Sulfur Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/KG	Q
12674-11-2	Aroclor 1016	39	U
11104-28-2	Aroclor 1221	79	U
11141-16-5	Aroclor 1232	39	U
53469-21-9	Aroclor 1242	39	U
12672-29-6	Aroclor 1248	39	U
11097-69-1	Aroclor 1254	30	J
11096-82-5	Aroclor 1260	39	U

VHB029 S30

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO

GLC5-01 (0-6")

Lab Name: H2M LABS, INC. Contract:

Lab Code: 10478 Case No. SAS No.: SDG No.: VHB029

Matrix (soil/water): SOIL Lab Sample ID: 0403874-001

Level (low/med): LOW Date Received: 3/24/04

% Solids: 84.7

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	6550		*E	P
7440-36-0	Antimony	0.82	B	N	P
7440-38-2	Arsenic	6.5		N*	P
7440-39-3	Barium	37.2		E	P
7440-41-7	Beryllium	0.21	B		P
7440-43-9	Cadmium	1.6			P
7440-70-2	Calcium	5430			P
7440-47-3	Chromium	16.2		N*E	P
7440-48-4	Cobalt	3.8	B		P
7440-50-8	Copper	24.3		E	P
7439-89-6	Iron	20100		*E	P
7439-92-1	Lead	60.7			P
7439-95-4	Magnesium	1990		*E	P
7439-96-5	Manganese	233		N*E	P
7439-97-6	Mercury	0.097		*	CV
7440-02-0	Nickel	9.3		*	P
7440-09-7	Potassium	516	B	*	P
7782-49-2	Selenium	1.4			P
7440-22-4	Silver	0.047	U		P
7440-23-5	Sodium	69.9	B	E	P
7440-28-0	Thallium	0.28	U		P
7440-62-2	Vanadium	16.3		*E	P
7440-66-6	Zinc	66.8		*E	P

Color Before: BROWN Clarity Before: Texture: FINE

Color After: YELLOW Clarity After: CLEAR Artifacts:

Comments:

DATE REPORTED 4/15/04

VHB029 S31

1E

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

GLC5-01 (12-24")

Lab Name: H2M LABS, INC. Contract: _____

Lab Code: 10478 Case No.: KEY-VHB SAS No.: _____ SDG No.: VHB029

Matrix: (soil/water) SOIL Lab Sample ID: 0403874-002A

Sample wt/vol: 15 (g/mL) G Lab File ID: A05252.RAW

% Moisture: 13.4 Decanted: (Y/N) N Date Received: 03/24/04

Extraction: (Type) PFEX Date Extracted: 03/25/04

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 03/27/04

Injection Volume: 0.5 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: 7.0 Sulfur Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/KG	Q
12674-11-2	Aroclor 1016	38	U
11104-28-2	Aroclor 1221	77	U
11141-16-5	Aroclor 1232	38	U
53469-21-9	Aroclor 1242	38	U
12672-29-6	Aroclor 1248	38	U
11097-69-1	Aroclor 1254	23	J
11096-82-5	Aroclor 1260	38	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

GLC5-02 (0-6")

Lab Name: H2M LABS, INC. Contract: ____

Lab Code: 10478 Case No.: KEY-VHB SAS No.: _____ SDG No.: VHB029

Matrix: (soil/water) SOIL Lab Sample ID: 0403874-003A

Sample wt/vol: 15 (g/mL) G Lab File ID: 4A\N6408.D

Level: (low/med) LOW Date Received: 03/24/04

% Moisture: 13.8 Decanted: (Y/N) N Date Extracted: 03/25/04

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 04/05/04

Injection Volume: 2 (µL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: 7.0 Extraction: (Type) PFEX

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/KG	Q
91-20-3	Naphthalene	380	U
91-57-6	2-Methylnaphthalene	380	U
208-96-8	Acenaphthylene	380	U
83-32-9	Acenaphthene	380	U
86-73-7	Fluorene	380	U
85-01-8	Phenanthrene	620	
120-12-7	Anthracene	120	J
206-44-0	Fluoranthene	1700	
129-00-0	Pyrene	1400	
56-55-3	Benzo(a)anthracene	900	
218-01-9	Chrysene	980	
205-99-2	Benzo(b)fluoranthene	1300	
207-08-9	Benzo(k)fluoranthene	610	
50-32-8	Benzo(a)pyrene	900	
193-39-5	Indeno(1,2,3-cd)pyrene	390	
53-70-3	Dibenzo(a,h)anthracene	130	J
191-24-2	Benzo(g,h,i)perylene	370	J

1E

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

GLC5-02 (0-6")

Lab Name: H2M LABS, INC. Contract: ____

Lab Code: 10478 Case No.: KEY-VHB SAS No.: ____ SDG No.: VHB029

Matrix: (soil/water) SOIL Lab Sample ID: 0403874-003B

Sample wt/vol: 15 (g/mL) G Lab File ID: A05253.RAW

% Moisture: 13.8 Decanted: (Y/N) N Date Received: 03/24/04

Extraction: (Type) PFEX Date Extracted: 03/25/04

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 03/27/04

Injection Volume: 0.5 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: 7.0 Sulfur Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/KG	Q
12674-11-2	Aroclor 1016	38	U
11104-28-2	Aroclor 1221	78	U
11141-16-5	Aroclor 1232	38	U
53469-21-9	Aroclor 1242	38	U
12672-29-6	Aroclor 1248	38	U
11097-69-1	Aroclor 1254	30	J
11096-82-5	Aroclor 1260	38	U

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO

GLC5-02 (0-6")

Lab Name: H2M LABS, INC. Contract:

Lab Code: 10478 Case No. SAS No.: SDG No.: VHB029

Matrix (soil/water): SOIL Lab Sample ID: 0403874-003

Level (low/med): LOW Date Received: 3/24/04

% Solids: 86.2

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	7500		*E	P
7440-36-0	Antimony	0.74	B	N	P
7440-38-2	Arsenic	9.2		N*	P
7440-39-3	Barium	37.3		E	P
7440-41-7	Beryllium	0.19	B		P
7440-43-9	Cadmium	1.1			P
7440-70-2	Calcium	3890			P
7440-47-3	Chromium	31.8		N*E	P
7440-48-4	Cobalt	4.5	B		P
7440-50-8	Copper	20.1		E	P
7439-89-6	Iron	13800		*E	P
7439-92-1	Lead	36.5			P
7439-95-4	Magnesium	2100		*E	P
7439-96-5	Manganese	171		N*E	P
7439-97-6	Mercury	0.14		*	CV
7440-02-0	Nickel	11.1		*	P
7440-09-7	Potassium	599		*	P
7782-49-2	Selenium	1.0			P
7440-22-4	Silver	0.046	U		P
7440-23-5	Sodium	55.8	B	E	P
7440-28-0	Thallium	0.28	U		P
7440-62-2	Vanadium	23.0		*E	P
7440-66-6	Zinc	42.4		*E	P

Color Before: BROWN Clarity Before: Texture: FINE

Color After: YELLOW Clarity After: CLEAR Artifacts:

Comments:

DATE REPORTED 4/15/04

VHB029 S35

1E

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

GLC5-02 (6-24")

Lab Name: H2M LABS, INC. Contract: ____

Lab Code: 10478 Case No.: KEY-VHB SAS No.: ____ SDG No.: VHB029

Matrix: (soil/water) SOIL Lab Sample ID: 0403874-004A

Sample wt/vol: 15 (g/mL) G Lab File ID: A05256.RAW

% Moisture: 10.2 Decanted: (Y/N) N Date Received: 03/24/04

Extraction: (Type) PFEX Date Extracted: 03/25/04

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 03/27/04

Injection Volume: 0.5 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: 8.0 Sulfur Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/KG	Q
12674-11-2	Aroclor 1016	37	U
11104-28-2	Aroclor 1221	75	U
11141-16-5	Aroclor 1232	37	U
53469-21-9	Aroclor 1242	37	U
12672-29-6	Aroclor 1248	37	U
11097-69-1	Aroclor 1254	46	
11096-82-5	Aroclor 1260	37	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MH#2

Lab Name: H2M LABS, INC. Contract: ____

Lab Code: 10478 Case No.: KEY-VHB SAS No.: _____ SDG No.: VHB029

Matrix: (soil/water) SOIL Lab Sample ID: 0403874-005A

Sample wt/vol: 15 (g/mL) G Lab File ID: 4A\N6398.D

Level: (low/med) LOW Date Received: 03/24/04

% Moisture: 86.8 Decanted: (Y/N) N Date Extracted: 03/29/04

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 04/03/04

Injection Volume: 2 (µL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: 8.0 Extraction: (Type) PFEX

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/KG	Q
108-95-2	Phenol	2500	U
111-44-4	Bis(2-chloroethyl)ether	2500	U
95-57-8	2-Chlorophenol	2500	U
541-73-1	1,3-Dichlorobenzene	2500	U
106-46-7	1,4-Dichlorobenzene	2500	U
95-50-1	1,2-Dichlorobenzene	2500	U
95-48-7	2-Methylphenol	2500	U
108-60-1	2,2'-oxybis(1-chloropropane)	2500	U
106-44-5	4-Methylphenol	2500	U
621-64-7	N-Nitroso-di-n-propylamine	2500	U
67-72-1	Hexachloroethane	2500	U
98-95-3	Nitrobenzene	2500	U
78-59-1	Isophorone	2500	U
88-75-5	2-Nitrophenol	2500	U
105-67-9	2,4-Dimethylphenol	2500	U
111-91-1	Bis(2-chloroethoxy)methane	2500	U
120-83-2	2,4-Dichlorophenol	2500	U
120-82-1	1,2,4-Trichlorobenzene	2500	U
91-20-3	Naphthalene	2500	U
106-47-8	4-Chloroaniline	2500	U
87-68-3	Hexachlorobutadiene	2500	U
59-50-7	4-Chloro-3-methylphenol	2500	U
91-57-6	2-Methylnaphthalene	2500	U
77-47-4	Hexachlorocyclopentadiene	2500	U
88-06-2	2,4,6-Trichlorophenol	2500	U
95-95-4	2,4,5-Trichlorophenol	6300	U
91-58-7	2-Chloronaphthalene	2500	U
88-74-4	2-Nitroaniline	6300	U
131-11-3	Dimethylphthalate	2500	U
208-96-8	Acenaphthylene	2500	U
606-20-2	2,6-Dinitrotoluene	2500	U
99-09-2	3-Nitroaniline	6300	U
83-32-9	Acenaphthene	2500	U
51-28-5	2,4-Dinitrophenol	6300	U
100-02-7	4-Nitrophenol	6300	U
132-64-9	Dibenzofuran	2500	U

1D

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

MH#2

Lab Name: H2M LABS, INC. Contract: ____

Lab Code: 10478 Case No.: KEY-VHB SAS No.: _____ SDG No.: VHB029

Matrix: (soil/water) SOIL Lab Sample ID: 0403874-005A

Sample wt/vol: 15 (g/mL) G Lab File ID: 4A\N6398.D

Level: (low/med) LOW Date Received: 03/24/04

% Moisture: 86.8 Decanted: (Y/N) N Date Extracted: 03/29/04

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 04/03/04

Injection Volume: 2 (µL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: 8.0 Extraction: (Type) PFEX

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/KG	Q
121-14-2	2,4-Dinitrotoluene	2500	U
84-66-2	Diethylphthalate	2500	U
7005-72-3	4-Chlorophenyl-phenylether	2500	U
86-73-7	Fluorene	2500	U
100-01-6	4-Nitroaniline	6300	U
534-52-1	4,6-Dinitro-2-methylphenol	6300	U
86-30-6	N-Nitrosodiphenylamine	2500	U
101-55-3	4-Bromophenyl-phenylether	2500	U
118-74-1	Hexachlorobenzene	2500	U
87-86-5	Pentachlorophenol	6300	U
85-01-8	Phenanthrene	2500	U
120-12-7	Anthracene	2500	U
86-74-8	Carbazole	2500	U
84-74-2	Di-n-butyl phthalate	2500	U
206-44-0	Fluoranthene	2500	U
129-00-0	Pyrene	2500	U
85-68-7	Butyl benzyl phthalate	2500	U
91-94-1	3,3'-Dichlorobenzidine	2500	U
56-55-3	Benzo(a)anthracene	2500	U
218-01-9	Chrysene	2500	U
117-81-7	Bis(2-ethylhexyl)phthalate	880	J
117-84-0	Di-n-octyl phthalate	2500	U
205-99-2	Benzo(b)fluoranthene	2500	U
207-08-9	Benzo(k)fluoranthene	2500	U
50-32-8	Benzo(a)pyrene	2500	U
193-39-5	Indeno(1,2,3-cd)pyrene	2500	U
53-70-3	Dibenzo(a,h)anthracene	2500	U
191-24-2	Benzo(g,h,i)perylene	2500	U

1G

EPA SAMPLE NO.

MH#2

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

b Name: H2M LABS, INC. Contract: _____

Lab Code: 10478 Case No.: KEY-VHB SAS No.: _____ SDG No.: VHB029

Matrix: (soil/water) SOIL Lab Sample ID: 0403874-005A

Sample wt/vol: 15 (g/mL) G Lab File ID: 4A\N6398.D

Level: (low/med) LOW Date Received: 03/24/04

% Moisture: 86.8 Decanted: (Y/N) N Date Extracted: 03/29/04

Concentrated Extract Volume: 1000 (µl) Date Analyzed: 04/03/04

Injection Volume: 2 (µl) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: 8.0 Extraction: (Type) PFEX

CONCENTRATION UNITS:

Number TICs found: 22 (µg/L or µg/Kg) UG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST.CONC.	Q
1.	000141-79-7	3-Penten-2-one, 4-methyl-	4.15	4700	NJA
2.	000123-42-2	2-Pentanone, 4-hydroxy-4-methyl-	4.48	65000	NJA
3.	000556-67-2	Cyclotetrasiloxane, octamethyl-	5.45	5500	BNJX
4.		(DEL) Alkane: Straight-Chain (15.2)	15.20	4300	JY
5.		(DEL) Alkane: Straight-Chain (15.51)	15.51	14000	JY
6.		(DEL) Alkane: Straight-Chain (15.79)	15.79	29000	JY
7.		(DEL) Alkane: Straight-Chain (16.08)	16.08	38000	JY
8.		(DEL) Alkane: Straight-Chain (16.37)	16.37	43000	JY
9.		(DEL) Alkane: Straight-Chain (16.66)	16.66	41000	JY
10.		(DEL) Alkane: Straight-Chain (16.86)	16.86	3000	J
11.		(DEL) Alkane: Straight-Chain (16.99)	16.99	38000	JY
12.		(DEL) Alkane: Straight-Chain (17.2)	17.20	4700	J
13.		(DEL) Alkane: Straight-Chain (17.24)	17.24	3200	J
14.		(DEL) Alkane: Straight-Chain (17.34)	17.34	62000	JY
15.		(DEL) Alkane: Straight-Chain (17.58)	17.58	4300	J
16.		(DEL) Alkane: Straight-Chain (17.74)	17.74	49000	JY
17.		(DEL) Alkane: Straight-Chain (18.01)	18.01	3300	J
18.		(DEL) Alkane: Straight-Chain (18.19)	18.19	36000	JY
19.		(DEL) Alkane: Straight-Chain (18.72)	18.72	22000	JY
20.		(DEL) Alkane: Straight-Chain (19.33)	19.33	12000	JY
21.		(DEL) Alkane: Straight-Chain (20.05)	20.05	6200	JY
22.		(DEL) Alkane: Straight-Chain (20.91)	20.91	2900	JY

VHB029 S39

5. SURROGATE SPIKE ANALYSIS RESULTS

5.1 SEMIVOLATILES

5.2 PCBs

2C

WATER SEMIVOLATILE SURROGATE RECOVERY

Name: H2M LABS, INC. Contract: _____

Lab Code: 10478 Case No.: KEY-VHB SAS No.: _____ SDG No.: VHB029

	EPA SAMPLE NO.	S1 2FP #	S2 PD5 #	S3 2CP #	S4 DCB #	S5 NBZ #	S6 FBP #	S7 TBP #	S8 TPH #	TOT OUT
01	MB-9906	61	67	71	64	68	71	51	75	0
02	FB(03-23-04)B	83	88	95	85	90	97	127 *	98	1

			QC LIMITS	
S1	2FP	= 2-Fluorophenol	(21-110)	
S2	PD5	= Phenol-d5	(10-110)	
S3	2CP	= 2-Chlorophenol-d4	(33-110)	
S4	DCB	= 1,2-Dichlorobenzene-d4	(16-110)	
S5	NBZ	= Nitrobenzene-d5	(35-114)	
S6	FBP	= 2-Fluorobiphenyl	(43-116)	
S7	TBP	= 2,4,6-Tribromophenol	(10-123)	(advisory)
S8	TPH	= 4-Terphenyl-d14	(33-141)	(advisory)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D Surrogate diluted out

2D

SOIL SEMIVOLATILE SURROGATE RECOVERY

Name: H2M LABS, INC. Contract: _____

Lab Code: 10478 Case No.: KEY-VHB SAS No.: _____ SDG No.: VHB029

Level: (low/med) LOW

	EPA SAMPLE NO.	S1 2FP #	S2 PD5 #	S3 2CP #	S4 DCB #	S5 NBZ #	S6 FBP #	S7 TBP #	S8 TPH #	TOT OUT
01	MB-9920	99	99	104	97	93	97	89	90	0
02	LFB-9920	86	88	94	87	87	90	95	80	0
03	MB-9876	93	97	103	96	90	95	59	84	0
04	LFB-9876	93	95	101	93	92	97	104	88	0
05	LCS-9876	92	95	100	94	88	96	73	84	0
06	MH#2	88	94	97	63	86	90	88	77	0
07	GLC5-02 (0-6")MS	78	86	88	64	80	89	92	86	0
08	GLC5-02 (0-6")MSD	81	89	91	66	81	89	97	91	0

			QC LIMITS	
S1	2FP	= 2-Fluorophenol	(25-121)	
S2	PD5	= Phenol-d5	(24-113)	
S3	2CP	= 2-Chlorophenol-d4	(20-130)	
S4	DCB	= 1,2-Dichlorobenzene-d4	(20-130)	
S5	NBZ	= Nitrobenzene-d5	(23-120)	
S6	FBP	= 2-Fluorobiphenyl	(30-115)	
S7	TBP	= 2,4,6-Tribromophenol	(19-122)	(advisory)
S8	TPH	= 4-Terphenyl-d14	(18-137)	(advisory)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D Surrogate diluted out

2D

SOIL SEMIVOLATILE SURROGATE RECOVERY

Name: H2M LABS, INC. Contract: _____

Lab Code: 10478 Case No.: KEY-VHB SAS No.: _____ SDG No.: VHB029

Level: (low/med) LOW

	EPA SAMPLE NO.	S1 DCB #	S2 NBZ #	S3 FBP #	S4 TPH #					TOT OUT
01	GLC5-01 (0-6")	56	69	88	89					0
02	GLC5-02 (0-6")	63	79	91	88					0

QC LIMITS

S1	DCB	= 1,2-Dichlorobenzene-d4	(20-130)
S2	NBZ	= Nitrobenzene-d5	(23-120)
S3	FBP	= 2-Fluorobiphenyl	(30-115)
S4	TPH	= 4-Terphenyl-d14	(18-137)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D Surrogate diluted out

VHB029 S43

2E

WATER PESTICIDE SURROGATE RECOVERY

Lab Name: H2M LABS, INC. Contract: _____

Lab Code: 10478 Case No.: KEY-VHB SAS No.: _____ SDG No.: VHB029

GC Column(1): CLP ID: .32 (mm) GC Column(2): CLP2 ID: .32 (mm)

	EPA SAMPLE NO.	TCX 1 %REC #	TCX 2 %REC #	DCB 1 %REC #	DCB 2 %REC #	Other (1)	Other (2)	TOT OUT
01	MB-9909	83	91	60	64			0
02	LFB-9909	90	93	61	65			0
03	FB(03-23-04)B	82	91	62	66			0

		QC Limits
TCX	= Tetrachloro-m-xylene	(30-150)
DCB	= Decachlorobiphenyl	(30-150)

Column to be used to flag recovery values

* Values outside of QC limits

D Surrogate diluted out

2F

SOIL PESTICIDE SURROGATE RECOVERY

Lab Name: H2M LABS, INC. Contract: _____

Lab Code: 10478 Case No.: KEY-VHB SAS No.: _____ SDG No.: VHB029

GC Column(1): CLP ID: .32 (mm) GC Column(2): CLP2 ID: .32 (mm)

	EPA SAMPLE NO.	TCX 1 %REC #	TCX 2 %REC #	DCB 1 %REC #	DCB 2 %REC #	Other (1)	Other (2)	TOT OUT
01	MB-9877	84	84	64	63			0
02	LFB-9877	88	86	65	63			0
03	GLC5-01 (0-6")	77	78	62	79			0
04	GLC5-01 (12-24")	80	80	65	84			0
05	GLC5-02 (0-6")	79	80	64	79			0
06	GLC5-02 (0-6")MS	78	83	63	79			0
07	GLC5-02 (0-6")MSD	77	81	60	73			0
08	GLC5-02 (6-24")	66	67	63	88			0

QC Limits

TCX = Tetrachloro-m-xylene (30-150)

DCB = Decachlorobiphenyl (30-150)

Column to be used to flag recovery values

* Values outside of QC limits

D Surrogate diluted out

VHB029 S45

6. MATRIX SPIKE / MATRIX SPIKE DUPLICATE SUMMARY

3D

SOIL SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: H2M LABS, INC. Contract: _____

Lab Code: 10478 Case No.: KEY-V SAS No.: _____ SDG No.: VHB029

Matrix Spike - EPA Sample No.: GLC5-02 (0-6") Level: (low/med) LOW

COMPOUND	SPIKE ADDED (µg/Kg)	SAMPLE CONCENTRATION (µg/Kg)	MS CONCENTRATION (µg/Kg)	MS % REC #	QC. LIMITS REC.
Phenol	2900	0	2200	76	26-90
2-Chlorophenol	2900	0	2100	71	25-102
1,4-Dichlorobenzene	1900	0	1100	54	28-104
N-Nitroso-di-n-propylamine	1900	0	1600	84	41-126
1,2,4-Trichlorobenzene	1900	0	1300	66	38-107
4-Chloro-3-methylphenol	2900	0	2400	83	26-103
Acenaphthene	1900	0	1500	77	31-137
4-Nitrophenol	2900	0	1900	67	11-114
2,4-Dinitrotoluene	1900	0	1600	81	28-89
Pentachlorophenol	2900	0	2000	69	17-109
Pyrene	1900	1400	2100	37	35-142

COMPOUND	SPIKE ADDED (µg/Kg)	MSD CONCENTRATION (µg/Kg)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Phenol	2900	2500	86	12	35	26-90
2-Chlorophenol	2900	2300	80	12	50	25-102
1,4-Dichlorobenzene	1900	1200	61	12	27	28-104
N-Nitroso-di-n-propylamine	1900	1900	96	13	38	41-126
1,2,4-Trichlorobenzene	1900	1400	73	10	23	38-107
4-Chloro-3-methylphenol	2900	2800	96	15	33	26-103
Acenaphthene	1900	1700	86	11	19	31-137
4-Nitrophenol	2900	2200	74	10	50	11-114
2,4-Dinitrotoluene	1900	1800	93*	14	47	28-89
Pentachlorophenol	2900	2100	73	6	47	17-109
Pyrene	1900	2300	46	22	36	35-142

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 11 outside limits

Spike Recovery: 1 out of 22 outside limits

COMMENTS: _____

VHB029 S47

3A
SYSTEM MONITORING SPIKE RECOVERY

Lab Name: H2M LABS, INC. Contract: _____

Lab Code: 10478 Case No.: KEY-V SAS No.: _____ SDG No.: VHB029

Sample ID LCS-9876 Level: (low/med) LOW

COMPOUND	SPIKE ADDED (µg/Kg)	SAMPLE CONCENTRATION (µg/Kg)	SPIKE CONCENTRATION (µg/Kg)	SPIKE % REC #	QC. LIMITS REC.
Phenol	2500	0	2400	97	12-110
2-Chlorophenol	2500	0	2300	92	27-123
1,4-Dichlorobenzene	1700	0	1500	91	36-97
N-Nitroso-di-n-propylamine	1700	0	1700	102	41-116
1,2,4-Trichlorobenzene	1700	0	1500	89	39-98
4-Chloro-3-methylphenol	2500	0	2500	100*	23-97 (1)
Acenaphthene	1700	0	1500	89	46-118
4-Nitrophenol	2500	0	1800	72	10-80
2,4-Dinitrotoluene	1700	0	1500	91	24-96
Pentachlorophenol	2500	0	870	35	9-103
Pyrene	1700	0	1600	96	26-127

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

Spike Recovery: 1 out of 11 outside limits

COMMENTS: (1) Within in-house QC limits mn 4.7.04

FORM III SW8270B

VHB029 S48

3A

SYSTEM MONITORING SPIKE RECOVERY

Lab Name: H2M LABS, INC. Contract:

Lab Code: 10478 Case No.: KEY-V SAS No.: SDG No.: VHB029

Sample ID LFB-9876 Level: (low/med) LOW

COMPOUND	SPIKE ADDED (µg/Kg)	SAMPLE CONCENTRATION (µg/Kg)	SPIKE CONCENTRATION (µg/Kg)	SPIKE % REC #	QC. LIMITS REC.
Phenol	1700	0	1500	90	25-131
Bis(2-chloroethyl)ether	1700	0	1500	89	39-111
2-Chlorophenol	1700	0	1400	86	48-116
1,3-Dichlorobenzene	1700	0	1400	85	39-111
1,4-Dichlorobenzene	1700	0	1400	87	25-123
1,2-Dichlorobenzene	1700	0	1400	86	28-116
2-Methylphenol	1700	0	1400	82	41-131
2,2'-oxybis(1-chloropropane)	1700	0	1400	87	28-146
4-Methylphenol	1700	0	1500	91	37-137
N-Nitroso-di-n-propylamine	1700	0	1400	86	40-124
Hexachloroethane	1700	0	1400	82	48-126
Nitrobenzene	1700	0	1400	86	48-126
Isophorone	1700	0	1300	77	33-131
2-Nitrophenol	1700	0	1400	82	39-135
2,4-Dimethylphenol	1700	0	1400	85	39-135
Bis(2-chloroethoxy)methane	1700	0	1600	95	20-148
2,4-Dichlorophenol	1700	0	1400	85	46-130
1,2,4-Trichlorobenzene	1700	0	1400	84	25-129
Naphthalene	1700	0	1500	88	47-117
4-Chloroaniline	1700	0	1500	88	25-133
Hexachlorobutadiene	1700	0	1400	87	11-135
4-Chloro-3-methylphenol	1700	0	1600	93	45-135
2-Methylnaphthalene	1700	0	1500	88	13-151
Hexachlorocyclopentadiene	1700	0	830	50	13-119
2,4,6-Trichlorophenol	1700	0	1400	82	53-131
2,4,5-Trichlorophenol	1700	0	1400	84	48-132
2-Chloronaphthalene	1700	0	1400	84	47-123
2-Nitroaniline	1700	0	1400	85	41-131
Dimethylphthalate	1700	0	1500	93	10-162
Acenaphthylene	1700	0	1400	84	36-132

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

Spike Recovery: 1 out of 64 outside limits

COMMENTS:

VHB029 S49

3A

SYSTEM MONITORING SPIKE RECOVERY

Lab Name: H2M LABS, INC. Contract: _____

Lab Code: 10478 Case No.: KEY-V SAS No.: _____ SDG No.: VHB029

Sample ID LFB-9876 Level: (low/med) LOW

2,6-Dinitrotoluene	1700	0	1400	86	48-136
3-Nitroaniline	1700	0	1400	86	11-167
Acenaphthene	1700	0	1400	85	51-133
2,4-Dinitrophenol	1700	0	300	19	11-101
4-Nitrophenol	1700	0	1300	78	22-156
Dibenzofuran	1700	0	1400	85	45-131
2,4-Dinitrotoluene	1700	0	1400	85	48-134
Diethylphthalate	1700	0	1500	92	24-156
4-Chlorophenyl-phenylether	1700	0	1500	88	50-130
Fluorene	1700	0	1500	87	55-129
4-Nitroaniline	1700	0	1400	85	14-136
4,6-Dinitro-2-methylphenol	1700	0	1000	60	47-107
N-Nitrosodiphenylamine	1700	0	1400	81	27-135
4-Bromophenyl-phenylether	1700	0	1600	95	50-142
Hexachlorobenzene	1700	0	1500	91	56-154
Pentachlorophenol	1700	0	1200	70	12-161
Phenanthrene	1700	0	1600	95	57-154
Anthracene	1700	0	1500	90	61-135
Carbazole	1700	0	1500	91	47-143
Di-n-butyl phthalate	1700	0	1800	107	44-144
Fluoranthene	1700	0	1600	94	61-135
Pyrene	1700	0	1600	94	58-136
Butyl benzyl phthalate	1700	0	1900	116	49-135
3,3'-Dichlorobenzidine	1700	0	1500	92	20-132
Benzo(a)anthracene	1700	0	1500	92	56-136
Chrysene	1700	0	1500	87	38-170
Bis(2-ethylhexyl)phthalate	1700	0	2500	152	33-193
Di-n-octyl phthalate	1700	0	3200	190*	45-155
Benzo(b)fluoranthene	1700	0	1700	100	43-147
Benzo(k)fluoranthene	1700	0	1500	93	53-159
Benzo(a)pyrene	1700	0	1500	92	47-141
Indeno(1,2,3-cd)pyrene	1700	0	1200	71	26-156
Dibenzo(a,h)anthracene	1700	0	1300	78	15-185

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

Spike Recovery: 1 out of 64 outside limits

COMMENTS: _____

VHB029 S50

3A

SYSTEM MONITORING SPIKE RECOVERY

Lab Name: H2M LABS, INC. Contract:

Lab Code: 10478 Case No.: KEY-V SAS No.: SDG No.: VHB029

Sample ID LFB-9876 Level:(low/med) LOW

Benzo(g,h,i)perylene	1700	0	1000	62	25-153

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

Spike Recovery: 1 out of 64 outside limits

COMMENTS:

3A

SYSTEM MONITORING SPIKE RECOVERY

Lab Name: H2M LABS, INC. Contract: _____

Lab Code: 10478 Case No.: KEY-V SAS No.: _____ SDG No.: VHB029

Sample ID LFB-9920 Level: (low/med) LOW

COMPOUND	SPIKE ADDED (µg/Kg)	SAMPLE CONCENTRATION (µg/Kg)	SPIKE CONCENTRATION (µg/Kg)	SPIKE % REC #	QC. LIMITS REC.
Phenol	1700	0	1300	78	25-131
Bis(2-chloroethyl)ether	1700	0	1300	79	39-111
2-Chlorophenol	1700	0	1300	76	48-116
1,3-Dichlorobenzene	1700	0	1200	74	39-111
1,4-Dichlorobenzene	1700	0	1300	76	25-123
1,2-Dichlorobenzene	1700	0	1200	75	28-116
2-Methylphenol	1700	0	1200	72	41-131
2,2'-oxybis(1-chloropropane)	1700	0	1300	76	28-146
4-Methylphenol	1700	0	1300	80	37-137
N-Nitroso-di-n-propylamine	1700	0	1200	74	40-124
Hexachloroethane	1700	0	1200	73	48-126
Nitrobenzene	1700	0	1300	75	48-126
Isophorone	1700	0	1100	65	33-131
2-Nitrophenol	1700	0	1200	73	39-135
2,4-Dimethylphenol	1700	0	1200	73	39-135
Bis(2-chloroethoxy)methane	1700	0	1400	81	20-148
2,4-Dichlorophenol	1700	0	1300	77	46-130
1,2,4-Trichlorobenzene	1700	0	1200	75	25-129
Naphthalene	1700	0	1300	78	47-117
4-Chloroaniline	1700	0	1300	76	25-133
Hexachlorobutadiene	1700	0	1300	76	11-135
4-Chloro-3-methylphenol	1700	0	1400	83	45-135
2-Methylnaphthalene	1700	0	1300	77	13-151
Hexachlorocyclopentadiene	1700	0	1100	63	13-119
2,4,6-Trichlorophenol	1700	0	1200	75	53-131
2,4,5-Trichlorophenol	1700	0	1300	76	48-132
2-Chloronaphthalene	1700	0	1200	73	47-123
2-Nitroaniline	1700	0	1300	77	41-131
Dimethylphthalate	1700	0	1400	81	10-162
Acenaphthylene	1700	0	1200	74	36-132

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

Spike Recovery: 0 out of 64 outside limits

COMMENTS: _____

3A

SYSTEM MONITORING SPIKE RECOVERY

Lab Name: H2M LABS, INC. Contract:

Lab Code: 10478 Case No.: KEY-V SAS No.: SDG No.: VHB029

Sample ID LFB-9920 Level: (low/med) LOW

2,6-Dinitrotoluene	1700	0	1300	77	48-136
3-Nitroaniline	1700	0	1300	77	11-167
Acenaphthene	1700	0	1300	76	51-133
2,4-Dinitrophenol	1700	0	600	34	11-101
4-Nitrophenol	1700	0	1200	73	22-156
Dibenzofuran	1700	0	1300	77	45-131
2,4-Dinitrotoluene	1700	0	1300	78	48-134
Diethylphthalate	1700	0	1300	79	24-156
4-Chlorophenyl-phenylether	1700	0	1300	78	50-130
Fluorene	1700	0	1300	79	55-129
4-Nitroaniline	1700	0	1300	78	14-136
4,6-Dinitro-2-methylphenol	1700	0	1200	71	47-107
N-Nitrosodiphenylamine	1700	0	1200	70	27-135
4-Bromophenyl-phenylether	1700	0	1400	84	50-142
Hexachlorobenzene	1700	0	1300	81	56-154
Pentachlorophenol	1700	0	1200	70	12-161
Phenanthrene	1700	0	1400	84	57-154
Anthracene	1700	0	1300	80	61-135
Carbazole	1700	0	1300	78	47-143
Di-n-butyl phthalate	1700	0	1400	85	44-144
Fluoranthene	1700	0	1300	81	61-135
Pyrene	1700	0	1400	82	58-136
Butyl benzyl phthalate	1700	0	1300	80	49-135
3,3'-Dichlorobenzidine	1700	0	1300	77	20-132
Benzo(a)anthracene	1700	0	1400	83	56-136
Chrysene	1700	0	1300	79	38-170
Bis(2-ethylhexyl)phthalate	1700	0	1300	81	33-193
Di-n-octyl phthalate	1700	0	1300	77	45-155
Benzo(b)fluoranthene	1700	0	1300	79	43-147
Benzo(k)fluoranthene	1700	0	1300	78	53-159
Benzo(a)pyrene	1700	0	1300	79	47-141
Indeno(1,2,3-cd)pyrene	1700	0	1400	81	26-156
Dibenzo(a,h)anthracene	1700	0	1400	83	15-185

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

Spike Recovery: 0 out of 64 outside limits

COMMENTS:

3A

SYSTEM MONITORING SPIKE RECOVERY

Lab Name: H2M LABS, INC. Contract: _____

Lab Code: 10478 Case No.: KEY-V SAS No.: _____ SDG No.: VHB029

Sample ID LFB-9920 Level:(low/med) LOW

Benzo(g,h,i)perylene	1700	0	1300	78	25-153

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

Spike Recovery: 0 out of 64 outside limits

COMMENTS: _____

3A

SYSTEM MONITORING SPIKE RECOVERY

Lab Name: H2M LABS, INC. Contract: _____

Lab Code: 10478 Case No.: KEY-V SAS No.: _____ SDG No.: VHB029

Sample ID LFB-9877 Level: (low/med) LOW

COMPOUND	SPIKE ADDED (µg/Kg)	SAMPLE CONCENTRATION (µg/Kg)	SPIKE CONCENTRATION (µg/Kg)	SPIKE % REC #	QC. LIMITS REC.
Aroclor 1016	170	0	150	88	52-124
Aroclor 1260	170	0	160	94	62-118

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

Spike Recovery: 0 out of 2 outside limits

COMMENTS: _____

FORM III SW8081

VHB029 S55

3A

SYSTEM MONITORING SPIKE RECOVERY

Lab Name: H2M LABS, INC. Contract:

Lab Code: 10478 Case No.: KEY-V SAS No.: SDG No.: VHB029

Sample ID LFB-9909 Level: (low/med) LOW

COMPOUND	SPIKE ADDED (µg/L)	SAMPLE CONCENTRATION (µg/L)	SPIKE CONCENTRATION (µg/L)	SPIKE % REC #	QC. LIMITS REC.
Aroclor 1016	5	0	4.6	93	42-134
Aroclor 1260	5	0	4.4	87	34-146

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

Spike Recovery: 0 out of 2 outside limits

COMMENTS:

3F

SOIL PESTICIDE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: H2M LABS, INC. Contract: _____

Lab Code: 10478 Case No.: KEY-V SAS No.: _____ SDG No.: VHB029

Matrix Spike - EPA Sample No.: GLC5-02 (0-6")

COMPOUND	SPIKE ADDED (µg/Kg)	SAMPLE CONCENTRATION (µg/Kg)	MS CONCENTRATION (µg/Kg)	MS % REC #	QC. LIMITS REC.
Aroclor 1016	190	0	170	90	52-124
Aroclor 1260	190	0	200	102	62-118

COMPOUND	SPIKE ADDED (µg/Kg)	MSD CONCENTRATION (µg/Kg)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Aroclor 1016	190	170	86	5	40	52-124
Aroclor 1260	190	190	101	1	40	62-118

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 2 outside limits

Spike Recovery: 0 out of 4 outside limits

COMMENTS: _____

7. DUPLICATE SUMMARY RESULTS

7.1 METALS

U.S. EPA - CLP

6
DUPLICATES

EPA SAMPLE NO
GLC5-02 (0-6")

Lab Name: H2M LABS, INC. Contract:

Lab Code: 10478 Case No. SAS No.: SDG No.: VHB029

Matrix (soil/water): SOIL Level (low/med): LOW

% Solids for Sample: 86.2 % Solids for Duplicate: 86.2

Concentration Units (ug/L or mg/kg dry weight): MG/KG

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
Aluminum		7499.3875		11406.7436		41.3	*	P
Antimony	6.9606	0.7443	B	0.4746	B	44.3		P
Arsenic		9.1736		6.9719		27.3	*	P
Barium	23.2019	37.3469		47.3376		23.6		P
Beryllium	0.5800	0.1868	B	0.1682	B	10.5		P
Cadmium	0.5800	1.1381		1.3005		13.3		P
Calcium		3893.4675		3903.3272		0.3		P
Chromium		31.8016		20.8817		41.5	*	P
Cobalt	5.8005	4.4675	B	7.7599		53.9		P
Copper		20.1473		17.2297		15.6		P
Iron		13765.2645		18623.1706		30.0	*	P
Lead		36.4739		38.5470		5.5		P
Magnesium	580.0464	2095.4780		4936.6346		80.8	*	P
Manganese		171.1323		285.8921		50.2	*	P
Mercury	0.0387	0.1369		0.1767		25.4	*	CV
Nickel	4.6404	11.1172		18.6995		50.9	*	P
Potassium	580.0464	598.9176		2341.8828		118.5	*	P
Selenium	0.5800	1.0478		1.3016		21.6		P
Silver		0.0464	U	0.0464	U			P
Sodium	580.0464	55.8353	B	111.0754	B	66.2		P
Thallium		0.2784	U	0.2784	U			P
Vanadium	5.8005	23.0290		30.0696		26.5	*	P
Zinc		42.3886		58.1090		31.3	*	P

8. SPIKE SAMPLE RESULTS

8.1 METALS

U.S. EPA - CLP

5A
SPIKE SAMPLE RECOVERY

EPA SAMPLE NO
GLC5-02 (0-6")S

Lab Name: H2M LABS, INC. Contract:

Lab Code: 10478 Case No. SAS No.: SDG No.: VHB029

Matrix (soil/water): SOIL Level (low/med): LOW

% Solids for Sample: 86.2

Concentration Units (ug/L or mg/kg dry weight): MG/KG

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Antimony	75-125	37.9196		0.7443	B	58.00	64.1	N	P
Arsenic	75-125	9.6876		9.1736		4.64	11.1	N	P
Barium	75-125	259.2367		37.3469		232.02	95.6		P
Beryllium	75-125	5.8561		0.1868	B	5.80	97.7		P
Cadmium	75-125	6.9350		1.1381		5.80	99.9		P
Chromium	75-125	36.5812		31.8016		23.20	20.6	N	P
Cobalt	75-125	60.5209		4.4675	B	58.00	96.6		P
Copper	75-125	44.9084		20.1473		29.00	85.4		P
Iron		10935.2970		13765.2645		116.01	-2439.4		P
Lead		40.4265		36.4739		2.32	170.4		P
Manganese	75-125	210.4930		171.1323		58.00	67.9	N	P
Mercury	75-125	0.3364		0.1369		0.19	103.2		CV
Nickel	75-125	65.4397		11.1172		58.00	93.7		P
Selenium	75-125	1.9320		1.0478		1.16	76.2		P
Silver	75-125	5.4878		0.0464	U	5.80	94.6		P
Thallium	75-125	5.4447		0.2784	U	5.80	93.9		P
Vanadium	75-125	72.7355		23.0290		58.00	85.7		P
Zinc	75-125	99.1195		42.3886		58.00	97.8		P

Comments:

VHB029 S61

U.S. EPA - CLP

5B
POST DIGEST SPIKE SAMPLE RECOVERY

EPA SAMPLE NO
GLC5-02 (0-6")A

Lab Name: H2M LABS, INC. Contract:

Lab Code: 10478 Case No. SAS No.: SDG No.: VHB029

Matrix (soil/water): SOIL Level (low/med): LOW

Concentration Units: ug/L

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Antimony		176.60		6.42	B	120.0	141.8		P
Arsenic		279.95		79.08		160.0	125.5		P
Chromium		733.40		274.13		540.0	85.1		P
Manganese		4534.30		1475.16		2800.0	109.3		P

Comments:

VHB029 S62

9. BLANK SUMMARY DATA AND RESULTS

9.1 SEMIVOLATILES
9.2 PCBs
9.3 METALS

4B

EPA SAMPLE NO.

SEMIVOLATILE METHOD BLANK SUMMARY

MB-9876

Lab Name: H2M LABS, INC. Contract: _____

Lab Code: 10478 Case No.: KEY-VHB SAS No. _____ SDG No.: VHB029

Lab File ID: 4A\N6395.D Lab Sample ID: MB-9876

Instrument ID: HP5973N Date Extracted: 03/25/04

Matrix: (soil/water) SOIL Date Analyzed: 04/03/04

Level: (low/med) LOW Time Analyzed: 15:21

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS, AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
1	LFB-9876	LFB-9876	4A\N6396.D	4/3/04
2	LCS-9876	LCS-9876	4A\N6397.D	4/3/04
3	GLC5-01 (0-6")	0403874-001A	4A\N6400.D	4/3/04
4	GLC5-02 (0-6")	0403874-003A	4A\N6408.D	4/5/04
5	GLC5-02 (0-6")MS	0403874-003AMS	4A\N6409.D	4/5/04
6	GLC5-02 (0-6")MSD	0403874-003AMSD	4A\N6410.D	4/5/04

fm 4.7.04

COMMENTS: _____

1C

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

MB-9876

Lab Name: H2M LABS, INC. Contract: ____

Lab Code: 10478 Case No.: KEY-VHB SAS No.: _____ SDG No.: VHB029

Matrix: (soil/water) SOIL Lab Sample ID: MB-9876

Sample wt/vol: 15 (g/mL) G Lab File ID: 4A\N6395.D

Level: (low/med) LOW Date Received:

% Moisture: Decanted: (Y/N) N Date Extracted: 03/25/04

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 04/03/04

Injection Volume: 2 (µL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: Extraction: (Type) PFEX

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/KG	Q
108-95-2	Phenol	330	U
111-44-4	Bis(2-chloroethyl)ether	330	U
95-57-8	2-Chlorophenol	330	U
541-73-1	1,3-Dichlorobenzene	330	U
106-46-7	1,4-Dichlorobenzene	330	U
95-50-1	1,2-Dichlorobenzene	330	U
95-48-7	2-Methylphenol	330	U
108-60-1	2,2'-oxybis(1-chloropropane)	330	U
106-44-5	4-Methylphenol	330	U
621-64-7	N-Nitroso-di-n-propylamine	330	U
67-72-1	Hexachloroethane	330	U
98-95-3	Nitrobenzene	330	U
78-59-1	Isophorone	330	U
88-75-5	2-Nitrophenol	330	U
105-67-9	2,4-Dimethylphenol	330	U
111-91-1	Bis(2-chloroethoxy)methane	330	U
120-83-2	2,4-Dichlorophenol	330	U
120-82-1	1,2,4-Trichlorobenzene	330	U
91-20-3	Naphthalene	330	U
106-47-8	4-Chloroaniline	330	U
87-68-3	Hexachlorobutadiene	330	U
59-50-7	4-Chloro-3-methylphenol	330	U
91-57-6	2-Methylnaphthalene	330	U
77-47-4	Hexachlorocyclopentadiene	330	U
88-06-2	2,4,6-Trichlorophenol	330	U
95-95-4	2,4,5-Trichlorophenol	830	U
91-58-7	2-Chloronaphthalene	330	U
88-74-4	2-Nitroaniline	830	U
131-11-3	Dimethylphthalate	330	U
208-96-8	Acenaphthylene	330	U
606-20-2	2,6-Dinitrotoluene	330	U
99-09-2	3-Nitroaniline	830	U
83-32-9	Acenaphthene	330	U
51-28-5	2,4-Dinitrophenol	830	U
100-02-7	4-Nitrophenol	830	U
132-64-9	Dibenzofuran	330	U

1D

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

MB-9876

Lab Name: H2M LABS, INC. Contract: ____

Lab Code: 10478 Case No.: KEY-VHB SAS No.: _____ SDG No.: VHB029

Matrix: (soil/water) SOIL Lab Sample ID: MB-9876

Sample wt/vol: 15 (g/mL) G Lab File ID: 4A\N6395.D

Level: (low/med) LOW Date Received:

% Moisture: Decanted: (Y/N) N Date Extracted: 03/25/04

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 04/03/04

Injection Volume: 2 (µL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: Extraction: (Type) PFEX

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/KG	Q
121-14-2	2,4-Dinitrotoluene	330	U
84-66-2	Diethylphthalate	330	U
7005-72-3	4-Chlorophenyl-phenylether	330	U
86-73-7	Fluorene	330	U
100-01-6	4-Nitroaniline	830	U
534-52-1	4,6-Dinitro-2-methylphenol	830	U
86-30-6	N-Nitrosodiphenylamine	330	U
101-55-3	4-Bromophenyl-phenylether	330	U
118-74-1	Hexachlorobenzene	330	U
87-86-5	Pentachlorophenol	830	U
85-01-8	Phenanthrene	330	U
120-12-7	Anthracene	330	U
86-74-8	Carbazole	330	U
84-74-2	Di-n-butyl phthalate	330	U
206-44-0	Fluoranthene	330	U
129-00-0	Pyrene	330	U
85-68-7	Butyl benzyl phthalate	330	U
91-94-1	3,3'-Dichlorobenzidine	330	U
56-55-3	Benzo(a)anthracene	330	U
218-01-9	Chrysene	330	U
117-81-7	Bis(2-ethylhexyl)phthalate	330	U
117-84-0	Di-n-octyl phthalate	330	U
205-99-2	Benzo(b)fluoranthene	330	U
207-08-9	Benzo(k)fluoranthene	330	U
50-32-8	Benzo(a)pyrene	330	U
193-39-5	Indeno(1,2,3-cd)pyrene	330	U
53-70-3	Dibenzo(a,h)anthracene	330	U
191-24-2	Benzo(g,h,i)perylene	330	U

1G

EPA SAMPLE NO.

MB-9876

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: H2M LABS, INC. Contract: _____

Lab Code: 10478 Case No.: KEY-VHB SAS No.: _____ SDG No.: VHB029

Matrix: (soil/water) SOIL Lab Sample ID: MB-9876

Sample wt/vol: 15 (g/mL) G Lab File ID: 4A\N6395.D

Level: (low/med) LOW Date Received:

% Moisture: Decanted: (Y/N) N Date Extracted: 03/25/04

Concentrated Extract Volume: 1000 (µl) Date Analyzed: 04/03/04

Injection Volume: 2 (µl) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: Extraction: (Type) PFEX

CONCENTRATION UNITS:

Number TICs found: 0 (µg/L or µg/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST.CONC.	Q

VHB029 S67

4B

EPA SAMPLE NO.

SEMIVOLATILE METHOD BLANK SUMMARY

MB-9906

Lab Name: H2M LABS, INC. Contract: _____

Lab Code: 10478 Case No.: KEY-VHB SAS No. _____ SDG No.: VHB029

Lab File ID: 4A\N6391.D Lab Sample ID: MB-9906

Instrument ID: HP5973N Date Extracted: 03/29/04

Matrix: (soil/water) WATER Date Analyzed: 04/03/04

Level: (low/med) LOW Time Analyzed: 13:11

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS, AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
1	FB(03-23-04)B	0403874-006A	4A\N6392.D	4/3/04

COMMENTS: _____

page 1 of 1

FORM IV SV OLM04.2

VHB029 S68

1C

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

MB-9906

Lab Name: H2M LABS, INC. Contract: ____

Lab Code: 10478 Case No.: KEY-VHB SAS No.: _____ SDG No.: VHB029

Matrix: (soil/water) WATER Lab Sample ID: MB-9906

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 4A\N6391.D

Level: (low/med) LOW Date Received:

% Moisture: Decanted: (Y/N) N Date Extracted: 03/29/04

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 04/03/04

Injection Volume: 2 (µL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: ____ Extraction: (Type) CONT

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	Bis(2-chloroethyl)ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-di-n-propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	Bis(2-chloroethoxy)methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
99-09-2	3-Nitroaniline	10	U
83-32-9	Acenaphthene	10	U
51-28-5	2,4-Dinitrophenol	25	U
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U

VHB029 S69

1D

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

MB-9906

Lab Name: H2M LABS, INC. Contract: ____

Lab Code: 10478 Case No.: KEY-VHB SAS No.: _____ SDG No.: VHB029

Matrix: (soil/water) WATER Lab Sample ID: MB-9906

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 4A\N6391.D

Level: (low/med) LOW Date Received:

% Moisture: Decanted: (Y/N) N Date Extracted: 03/29/04

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 04/03/04

Injection Volume: 2 (µL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: ____ Extraction: (Type) CONT

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-butyl phthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butyl benzyl phthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	Bis(2-ethylhexyl)phthalate	10	U
117-84-0	Di-n-octyl phthalate	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

VHB029 S70

1G

EPA SAMPLE NO.

MB-9906

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Name: H2M LABS, INC. Contract: _____

Lab Code: 10478 Case No.: KEY-VHB SAS No.: _____ SDG No.: VHB029

Matrix: (soil/water) WATER Lab Sample ID: MB-9906

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 4A\N6391.D

Level: (low/med) LOW Date Received:

% Moisture: Decanted: (Y/N) N Date Extracted: 03/29/04

Concentrated Extract Volume: 1000 (µl) Date Analyzed: 04/03/04

Injection Volume: 2 (µl) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: ____ Extraction: (Type) CONT

CONCENTRATION UNITS:

Number TICs found: 2 (µg/L or µg/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST.CONC.	Q
1.		unknown	4.54	2	J
2.	000556-67-2	Cyclotetrasiloxane, octamethyl-	5.46	5	NJX

4B

SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

MB-9920

Lab Name: H2M LABS, INC. Contract: _____

Lab Code: 10478 Case No.: KEY-VHB SAS No. _____ SDG No.: VHB029

Lab File ID: 4A\N6371.D Lab Sample ID: MB-9920

Instrument ID: HP5973N Date Extracted: 03/29/04

Matrix: (soil/water) SOIL Date Analyzed: 04/02/04

Level: (low/med) LOW Time Analyzed: 16:20

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS, AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
1	LFB-9920	LFB-9920	4A\N6386.D	4/3/04
2	MH#2	0403874-005A	4A\N6398.D	4/3/04

COMMENTS: _____

VHB029 S72

1C

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

MB-9920

Lab Name: H2M LABS, INC. Contract: ____

Lab Code: 10478 Case No.: KEY-VHB SAS No.: _____ SDG No.: VHB029

Matrix: (soil/water) SOIL Lab Sample ID: MB-9920

Sample wt/vol: 15 (g/mL) G Lab File ID: 4A\N6371.D

Level: (low/med) LOW Date Received:

% Moisture: Decanted: (Y/N) N Date Extracted: 03/29/04

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 04/02/04

Injection Volume: 2 (µL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: Extraction: (Type) PFEX

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/KG	Q
108-95-2	Phenol	330	U
111-44-4	Bis(2-chloroethyl)ether	330	U
95-57-8	2-Chlorophenol	330	U
541-73-1	1,3-Dichlorobenzene	330	U
106-46-7	1,4-Dichlorobenzene	330	U
95-50-1	1,2-Dichlorobenzene	330	U
95-48-7	2-Methylphenol	330	U
108-60-1	2,2'-oxybis(1-chloropropane)	330	U
106-44-5	4-Methylphenol	330	U
621-64-7	N-Nitroso-di-n-propylamine	330	U
67-72-1	Hexachloroethane	330	U
98-95-3	Nitrobenzene	330	U
78-59-1	Isophorone	330	U
88-75-5	2-Nitrophenol	330	U
105-67-9	2,4-Dimethylphenol	330	U
111-91-1	Bis(2-chloroethoxy)methane	330	U
120-83-2	2,4-Dichlorophenol	330	U
120-82-1	1,2,4-Trichlorobenzene	330	U
91-20-3	Naphthalene	330	U
106-47-8	4-Chloroaniline	330	U
87-68-3	Hexachlorobutadiene	330	U
59-50-7	4-Chloro-3-methylphenol	330	U
91-57-6	2-Methylnaphthalene	330	U
77-47-4	Hexachlorocyclopentadiene	330	U
88-06-2	2,4,6-Trichlorophenol	330	U
95-95-4	2,4,5-Trichlorophenol	830	U
91-58-7	2-Chloronaphthalene	330	U
88-74-4	2-Nitroaniline	830	U
131-11-3	Dimethylphthalate	330	U
208-96-8	Acenaphthylene	330	U
606-20-2	2,6-Dinitrotoluene	330	U
99-09-2	3-Nitroaniline	830	U
83-32-9	Acenaphthene	330	U
51-28-5	2,4-Dinitrophenol	830	U
100-02-7	4-Nitrophenol	830	U
132-64-9	Dibenzofuran	330	U

EPA SAMPLE NO.

MB-9920

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: H2M LABS, INC. Contract: ____

Lab Code: 10478 Case No.: KEY-VHB SAS No.: _____ SDG No.: VHB029

Matrix: (soil/water) SOIL Lab Sample ID: MB-9920

Sample wt/vol: 15 (g/mL) G Lab File ID: 4A\N6371.D

Level: (low/med) LOW Date Received:

% Moisture: Decanted: (Y/N) N Date Extracted: 03/29/04

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 04/02/04

Injection Volume: 2 (µL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: Extraction: (Type) PFEX

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/KG	Q
121-14-2	2,4-Dinitrotoluene	330	U
84-66-2	Diethylphthalate	330	U
7005-72-3	4-Chlorophenyl-phenylether	330	U
86-73-7	Fluorene	330	U
100-01-6	4-Nitroaniline	830	U
534-52-1	4,6-Dinitro-2-methylphenol	830	U
86-30-6	N-Nitrosodiphenylamine	330	U
101-55-3	4-Bromophenyl-phenylether	330	U
118-74-1	Hexachlorobenzene	330	U
87-86-5	Pentachlorophenol	830	U
85-01-8	Phenanthrene	330	U
120-12-7	Anthracene	330	U
86-74-8	Carbazole	330	U
84-74-2	Di-n-butyl phthalate	330	U
206-44-0	Fluoranthene	330	U
129-00-0	Pyrene	330	U
85-68-7	Butyl benzyl phthalate	330	U
91-94-1	3,3'-Dichlorobenzidine	330	U
56-55-3	Benzo(a)anthracene	330	U
218-01-9	Chrysene	330	U
117-81-7	Bis(2-ethylhexyl)phthalate	330	U
117-84-0	Di-n-octyl phthalate	330	U
205-99-2	Benzo(b)fluoranthene	330	U
207-08-9	Benzo(k)fluoranthene	330	U
50-32-8	Benzo(a)pyrene	330	U
193-39-5	Indeno(1,2,3-cd)pyrene	330	U
53-70-3	Dibenzo(a,h)anthracene	330	U
191-24-2	Benzo(g,h,i)perylene	330	U

1G

EPA SAMPLE NO.

MB-9920

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Name: H2M LABS, INC. Contract: _____

Lab Code: 10478 Case No.: KEY-VHB SAS No.: _____ SDG No.: VHB029

Matrix: (soil/water) SOIL Lab Sample ID: MB-9920

Sample wt/vol: 15 (g/mL) G Lab File ID: 4A\N6371.D

Level: (low/med) LOW Date Received:

% Moisture: Decanted: (Y/N) N Date Extracted: 03/29/04

Concentrated Extract Volume: 1000 (µl) Date Analyzed: 04/02/04

Injection Volume: 2 (µl) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: Extraction: (Type) PFEX

CONCENTRATION UNITS:

Number TICs found: 1 (µg/L or µg/Kg) UG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST.CONC.	Q
1.	000556-67-2	Cyclotetrasiloxane, octamethyl-	5.49	660	NJX

EPA SAMPLE NO.

MB-9877

Lab Name: H2M LABS, INC. Contract: _____

Lab Code: 10478 Case No.: KEY-VHB SAS No. _____ SDG No.: VHB029

Lab Sample ID: MB-9877 Lab File ID: A05249.RAW

Matrix: (soil/water) S Extraction: (SepF/Cont/Sonc) PFEX

Sulfur Cleanup: (Y/N) Y Date Extracted: 03/25/04

Date Analyzed (1): 03/27/04 Date Analyzed (2): 03/27/04

Time Analyzed (1): 10:26 Time Analyzed (2): 10:26

Instrument ID (1): HP6890-3 Instrument ID (2): HP6890-3

GC Column (1): CLP ID: .32 (mm) GC Column (2): CLP2 ID: .32 (mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS, AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
1	LFB-9877	LFB-9877	03/27/04	03/27/04
2	GLC5-01 (0-6")	0403874-001B	03/27/04	03/27/04
3	GLC5-01 (12-24")	0403874-002A	03/27/04	03/27/04
4	GLC5-02 (0-6")	0403874-003B	03/27/04	03/27/04
5	LC5-02 (0-6")M	0403874-003BMS	03/27/04	03/27/04
6	LC5-02 (0-6")MS	0403874-003BMSD	03/27/04	03/27/04
7	GLC5-02 (6-24")	0403874-004A	03/27/04	03/27/04

COMMENTS: _____

1E

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MB-9877

Lab Name: H2M LABS, INC. Contract: _____

Lab Code: 10478 Case No.: KEY-VHB SAS No.: _____ SDG No.: VHB029

Matrix: (soil/water) SOIL Lab Sample ID: MB-9877

Sample wt/vol: 15 (g/mL) G Lab File ID: A05249.RAW

% Moisture: Decanted: (Y/N) N Date Received:

Extraction: (Type) PFEX Date Extracted: 03/25/04

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 03/27/04

Injection Volume: 0.5 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: Sulfur Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/KG	Q
12674-11-2	Aroclor 1016	33	U
11104-28-2	Aroclor 1221	67	U
11141-16-5	Aroclor 1232	33	U
53469-21-9	Aroclor 1242	33	U
12672-29-6	Aroclor 1248	33	U
11097-69-1	Aroclor 1254	33	U
11096-82-5	Aroclor 1260	33	U

4C

EPA SAMPLE NO.

MB-9909

Lab Name: H2M LABS, INC. Contract: _____

Lab Code: 10478 Case No.: KEY-VHB SAS No. _____ SDG No.: VHB029

Lab Sample ID: MB-9909 Lab File ID: A05276.RAW

Matrix: (soil/water) W Extraction: (SepF/Cont/Sonc) SEPF

Sulfur Cleanup: (Y/N) N Date Extracted: 03/29/04

Date Analyzed (1): 03/29/04 Date Analyzed (2): 03/29/04

Time Analyzed (1): 19:29 Time Analyzed (2): 19:29

Instrument ID (1): HP6890-3 Instrument ID (2): HP6890-3

GC Column (1): CLP ID: .32 (mm) GC Column (2): CLP2 ID: .32 (mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS, AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
1	LFB-9909	LFB-9909	03/29/04	03/29/04
2	FB(03-23-04)B	0403874-006B	03/29/04	03/29/04

COMMENTS: _____

1E

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MB-9909

Lab Name: H2M LABS, INC. Contract: _____

Lab Code: 10478 Case No.: KEY-VHB SAS No.: _____ SDG No.: VHB029

Matrix: (soil/water) WATER Lab Sample ID: MB-9909

Sample wt/vol: 1000 (g/mL) ML Lab File ID: A05276.RAW

% Moisture: Decanted: (Y/N) N Date Received:

Extraction: (Type) SEPF Date Extracted: 03/29/04

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 03/29/04

Injection Volume: 0.5 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
12674-11-2	Aroclor 1016	1.0	U
11104-28-2	Aroclor 1221	2.0	U
11141-16-5	Aroclor 1232	1.0	U
53469-21-9	Aroclor 1242	1.0	U
12672-29-6	Aroclor 1248	1.0	U
11097-69-1	Aroclor 1254	1.0	U
11096-82-5	Aroclor 1260	1.0	U

U.S. EPA - CLP

3
BLANKS

Lab Name: H2M LABS, INC. Contract:

Lab Code: 10478 Case No. SAS No.: SDG No.: VHB029

Preparation Blank Matrix (soil/water): SOIL

Preparation Blank Concentration Units (ug/L or mg/kg): MG/KG

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum	18.9	U	18.9	U	18.9	U	18.9	U	1.890	U	P
Antimony	2.6	U	2.6	U	2.6	U	2.6	U	0.482	B	P
Arsenic	2.2	U	2.2	U	2.2	U	2.2	U	-0.420	B	P
Barium	0.3	U	0.3	U	0.3	U	0.3	U	0.030	U	P
Beryllium	0.2	U	0.2	U	0.2	U	0.2	U	0.020	U	P
Cadmium	0.4	B	0.3	B	0.6	B	0.2	B	0.020	U	P
Calcium	13.6	U	13.6	U	72.0	B	43.9	B	-1.760	B	P
Chromium	5.0	U	5.0	U	5.0	U	5.0	U	0.500	U	P
Cobalt	1.2	U	1.2	U	1.2	U	1.2	U	0.120	U	P
Copper	1.1	U	1.1	U	1.6	B	1.1	U	0.110	U	P
Iron	18.1	U	18.1	U	18.1	U	18.1	U	1.810	U	P
Lead	1.6	U	1.6	U	1.6	U	1.6	U	0.160	U	P
Magnesium	11.1	U	11.1	U	11.1	U	11.1	U	1.110	U	P
Manganese	0.7	U	0.7	U	0.7	U	0.7	U	0.070	U	P
Nickel	7.7	U	7.7	U	7.7	U	7.7	U	0.770	U	P
Potassium	107.6	U	107.6	U	107.6	U	107.6	U	10.760	U	P
Selenium	2.3	U	2.3	U	2.3	U	2.3	U	0.230	U	P
Silver	0.4	U	0.4	U	0.4	U	0.4	U	0.040	U	P
Sodium	14.5	B	11.0	B	81.7	B	43.1	B	0.500	U	P
Thallium	2.4	U	2.4	U	2.4	U	2.4	U	-0.255	B	P
Vanadium	1.2	U	1.2	U	1.2	U	1.2	U	0.120	U	P
Zinc	-2.0	B	-2.0	B	1.7	B	1.1	U	-0.170	B	P

VHB029 S80

3
BLANKS

Lab Name: H2M LABS, INC. Contract:

Lab Code: 10478 Case No. SAS No.: SDG No.: VHB029

Preparation Blank Matrix (soil/water): SOIL

Preparation Blank Concentration Units (ug/L or mg/kg): MG/KG

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Mercury	0.1	U	0.1	U	0.1	U	0.1	U	0.017	U	CV

U.S. EPA - CLP

3
BLANKS

Lab Name: H2M LABS, INC. Contract:

Lab Code: 10478 Case No. SAS No.: SDG No.: VHB029

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Mercury			0.1	U					0.100	U	CV

10. INTERNAL STANDARD AREA DATA

10.1 SEMIVOLATILES

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: H2M LABS, INC. Contract: _____

Lab Code: 10478 Case No.: KEY-VHB SAS No. _____ SDG No.: VHB029

EPA Sample No.(SSTD050##): SSTD025 Date Analyzed: 04/02/04

Lab File ID (Standard): 4A\N6364.D Time Analyzed: 12:32

Instrument ID: HP5973N GC Column: R-5SIL ID: .25 (mm)

		IS1 DCB AREA #	RT #	IS2 NAP AREA #	RT #	IS3 ACE AREA #	RT #
	12 HOUR STD	526592	6.01	1935755	7.84	963984	11.07
	UPPER LIMIT	1053184	6.51	3871510	8.34	1927968	11.57
	LOWER LIMIT	263296	5.51	967878	7.34	481992	10.57
	EPA SAMPLE NO.						
01	MB-9920	610086	6.01	2326091	7.83	1176021	11.06

IS1 DCB = 1,4-Dichlorobenzene-d4
IS2 NAP = Naphthalene-d8
IS3 ACE = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

VHB029 S84

8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: H2M LABS, INC. Contract: _____

Lab Code: 10478 Case No.: KEY-VHB SAS No. _____ SDG No.: VHB029

EPA Sample No.(SSTD050##): SSTD025 Date Analyzed: 04/02/04

Lab File ID (Standard): 4A\N6364.D Time Analyzed: 12:32

Instrument ID: HP5973N GC Column: R-5SIL ID: .25 (mm)

		IS4 PHN AREA #	RT #	IS5 CHY AREA #	RT #	IS6 PRY AREA #	RT #
	12 HOUR STD	1419748	13.62	1141622	16.35	751959	17.96
	UPPER LIMIT	2839496	14.12	2283244	16.85	1503918	18.46
	LOWER LIMIT	709874	13.12	570811	15.85	375980	17.46
	EPA SAMPLE NO.						
01	MB-9920	1689281	13.62	1244694	16.34	661155	17.96

IS4 PHN = Phenanthrene-d10
IS5 CHY = Chrysene-d12
IS6 PRY = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: H2M LABS, INC. Contract: _____

Lab Code: 10478 Case No.: KEY-VHB SAS No. _____ SDG No.: VHB029

EPA Sample No.(SSTD050##): SSTD025 Date Analyzed: 04/03/04

Lab File ID (Standard): 4A\N6385.D Time Analyzed: 9:56

Instrument ID: HP5973N GC Column: R-5SIL ID: .25 (mm)

		IS1 DCB AREA #	RT #	IS2 NAP AREA #	RT #	IS3 ACE AREA #	RT #
	12 HOUR STD	583867	5.97	2128901	7.80	1092020	11.02
	UPPER LIMIT	1167734	6.47	4257802	8.30	2184040	11.52
	LOWER LIMIT	291934	5.47	1064451	7.30	546010	10.52
	EPA SAMPLE NO.						
01	LFB-9920	743239	5.97	2781045	7.80	1462886	11.02
02	MB-9906	610337	5.97	2283498	7.79	1185194	11.02
03	FB(03-23-04)B	478201	5.96	1781171	7.79	921281	11.02
04	MB-9876	520762	5.97	2036576	7.79	1108531	11.02
05	LFB-9876	578161	5.97	2156426	7.79	1146080	11.02
06	LCS-9876	461519	5.97	1797959	7.79	968508	11.02
07	MH#2	449379	5.97	1740589	7.79	951135	11.02
08	GLC5-01 (0-6")	420428	5.97	1653987	7.79	944228	11.02

IS1 DCB = 1,4-Dichlorobenzene-d4
IS2 NAP = Naphthalene-d8
IS3 ACE = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: H2M LABS, INC. Contract: _____

Lab Code: 10478 Case No.: KEY-VHB SAS No. _____ SDG No.: VHB029

EPA Sample No.(SSTD050##): SSTD025 Date Analyzed: 04/03/04

Lab File ID (Standard): 4A\N6385.D Time Analyzed: 9:56

Instrument ID: HP5973N GC Column: R-5SIL ID: .25 (mm)

		IS4 PHN AREA #	RT #	IS5 CHY AREA #	RT #	IS6 PRY AREA #	RT #
	12 HOUR STD	1686608	13.59	1403463	16.31	831971	17.90
	UPPER LIMIT	3373216	14.09	2806926	16.81	1663942	18.40
	LOWER LIMIT	843304	13.09	701732	15.81	415986	17.40
	EPA SAMPLE NO.						
01	LFB-9920	2248476	13.59	1887282	16.31	1126284	17.89
02	MB-9906	1769651	13.59	1445424	16.29	707764	17.87
03	FB(03-23-04)B	1394964	13.59	1138049	16.28	550413	17.87
04	MB-9876	1744085	13.59	1508799	16.28	711212	17.86
05	LFB-9876	1714268	13.59	1446350	16.28	731202	17.87
06	LCS-9876	1529916	13.59	1285238	16.29	581229	17.87
07	MH#2	1519890	13.59	1372475	16.29	638760	17.87
08	GLC5-01 (0-6")	1518876	13.59	1236124	16.30	436156	17.88

IS4 PHN = Phenanthrene-d10
IS5 CHY = Chrysene-d12
IS6 PRY = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: H2M LABS, INC. Contract: _____

Lab Code: 10478 Case No.: KEY-VHB SAS No. _____ SDG No.: VHB029

EPA Sample No.(SSTD050##): SSTD025 Date Analyzed: 04/05/04

Lab File ID (Standard): 4A\N6407.D Time Analyzed: 13:04

Instrument ID: HP5973N GC Column: R-5SIL ID: .25 (mm)

		IS1 DCB AREA #	RT #	IS2 NAP AREA #	RT #	IS3 ACE AREA #	RT #
	12 HOUR STD	592498	5.94	2246021	7.76	1153525	10.99
	UPPER LIMIT	1184996	6.44	4492042	8.26	2307050	11.49
	LOWER LIMIT	296249	5.44	1123011	7.26	576763	10.49
	EPA SAMPLE NO.						
01	GLC5-02 (0-6")	576251	5.94	2267647	7.76	1269355	10.99
02	GLC5-02 (0-6")MS	661123	5.94	2597870	7.76	1455299	10.99
03	GLC5-02 (0-6")MSD	608824	5.94	2401061	7.76	1358400	10.99

tm4.7.04

IS1 DCB = 1,4-Dichlorobenzene-d4
IS2 NAP = Naphthalene-d8
IS3 ACE = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: H2M LABS, INC. Contract: _____

Lab Code: 10478 Case No.: KEY-VHB SAS No. _____ SDG No.: VHB029

EPA Sample No.(SSTD050##): SSTD025 Date Analyzed: 04/05/04

Lab File ID (Standard): 4A\N6407.D Time Analyzed: 13:04

Instrument ID: HP5973N GC Column: R-5SIL ID: .25 (mm)

		IS4 PHN AREA #	RT #	IS5 CHY AREA #	RT #	IS6 PRY AREA #	RT #
	12 HOUR STD	1727608	13.57	1541028	16.30	1043637	17.88
	UPPER LIMIT	3455216	14.07	3082056	16.80	2087274	18.38
	LOWER LIMIT	863804	13.07	770514	15.80	521819	17.38
	EPA SAMPLE NO.						
01	GLC5-02 (0-6")	2007365	13.57	1769472	16.30	868721	17.89
02	GLC5-02 (0-6")MS	2318549	13.57	1909431	16.30	778137	17.88
03	GLC5-02 (0-6")MSD	2202678	13.57	1788526	16.29	680491	17.88

thu 4.7.04

IS4 PHN = Phenanthrene-d10
IS5 CHY = Chrysene-d12
IS6 PRY = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.