Appendix	Lab	Lab ID	Sample Date	Description	CAM Form Included	Lab Presumptive Certainty?	QC Performance Standards Met	CAM COMPLIANCE	ESM QAQC doc	Result?
D	GWA	84427	06/01/05	Soil - Test Pits/PT spl	Yes	NO	No	CAM Non-Compliant	Completed	Data Not Compromised - Tank 1 data not utilized other than identification of tank contents.
D	GWA	85632	07/13/05	Soil - Wells	Yes	Yes	No	CAM-Compliant	Completed	Data Not Compromised
D	GWA	87113	08/30/05	Soil Grid Locations/TCLP	Yes	Yes	No	CAM-Compliant	Completed	Data Not Compromised
D	GWA	87813	08/31/05	Soil Grid Locations	Yes	Yes	Yes	CAM-Compliant	Completed	Data Not Compromised
D	GWA	96205	06/21/06	Asbestos	No	No	N/A	NON-CAM	Completed	Data Not Compromised
Е	RC	10061	03/23/06	Packer Testing	Yes	Yes	No	CAM-Compliant	Completed	Data Not Compromised
Е	RC	10068	03/23/06	Packer Testing	Yes	Yes	Yes	CAM-Compliant	Completed	Data Not Compromised
Е	RC	10070	03/24/06	Packer Testing	Yes	Yes	Yes	CAM-Compliant	Completed	Data Not Compromised
Е	RC	10079	03/27/06	Packer Testing	Yes	Yes	No	CAM-Compliant	Completed	Data Not Compromised
Е	RC	10088	03/28/06	Packer Testing	Yes	Yes	Yes	CAM-Compliant	Completed	Data Not Compromised
Е	RC	10094	03/29/06	Packer Testing	Yes	Yes	Yes	CAM-Compliant	Completed	Data Not Compromised
Е	RC	10103	03/30/06	Packer Testing	Yes	Yes	No	CAM-Compliant	Completed	Data Not Compromised
Е	RC	10105	03/31/06	Packer Testing	Yes	Yes	Yes	CAM-Compliant	Completed	Data Not Compromised
Е	RC	10154	04/06/06	GW - wells	Yes	Yes	No	CAM-Compliant	Completed	Data Not Compromised
Е	RC	10170	04/10/06	GW - PZ-1 - PZ-3	Yes	Yes	No	CAM-Compliant	Completed	Data Not Compromised
Е	RC	10171	04/10/06	GW - wells	Yes	Yes	No	CAM-Compliant	Completed	Data Not Compromised
Е	RC	11371	11/15/06	PZ-4 - PZ-7	Yes	Yes	No	CAM-Compliant	Completed	Data Not Compromised
F	RC	10426	05/30/06	SW / Sed	Yes	Yes	No	CAM-Compliant	Completed	Data Not Compromised
G	ALPHA	L0604251	03/29/06	Soil Gas	No	No	N/A	NON-CAM	Completed	Data Not Compromised

Site:	DND Lewis Chemical		
Lab:	Groundwater Analytical	Lab ID:	84427
Job #:	2004-301	Sample Collection Date:	6/1/2005
	npling and analytical methods requi	rements met?	
Correct co	ntainers used?	Yes	
	on requirements met?	Yes	
	ime requirements met?	Yes*	
		that extraction must be done within 7 days, this has be	
		dupes, trip blanks (based on number of samples	(1)?
_	None used		
,	(s) vs. Environmental Sample:	RPD <51%?	
**	*RPD Calc: 100*(diff btwn sample & dup)/(av	rerage of sample & dup)	
Were the	following analytical precision and	accuracy requirements met?	
Detection	Limits	Yes	
Reporting	Limits	Yes	
Action Lin	nits	Yes*	
*RLs are hig	gher than action limits on 4 analytes with very	low action limits: Vinyl chloride, 1,1-dichloroethene,	, 1,2-dichloroethane, 1,1,2,2-tetrachloroethane.
	ab QC reports and project narrative.		
	-	resumptive certainty has not been met. Th	ne project narrative explained all non-conformances, see
	pelow:		
Describe	Non-Conformances		
	pased on the MassDEP CAM's requirements.	ents for presumptive certainty. The data reported	report that the identification of analytes detected is tentative d is not bad, it however does not meet presumptive certainty
3	nigher dilution and results are reported was. Also note, PCBs are analyzed on a description of the contract o	vith all analytes within calibration. lual column gas chromatograph so we will alwa	ded the calibration curve so the sample was re-analyzed at a sys see the results of both columns, the higher being the
	his batch; therefore if this analyte was properties to it is not an issue.	resent in field samples it may be reported high.	d recovery limits in a laboratory control sample used with There was no detection of this analyte in any field samples
5 r			rix interference. The sample was re-analyzed and the low and during analysis for PCBs, EPH range analytes, VOCs

Observations?

(TCE), and lead.

All notes were reviewed and do not indicate compromised data.

Site:	DND Lewis Chemical		
Lab:	Groundwater Analytical	Lab ID	8 5632
Job #:	2004-301	Sample Collection Date	: 7/14/2005
Were s	ampling and analytical methods requ	uirements met?	
Correct	containers used?	Yes	_
Preserv	ation requirements met?	Yes	
Holding	g time requirements met?	Yes	
Correct	# of dupes, matrix spikes and matrix spik	e dupes, trip blanks (based on num	iber of samples)?
	Yes (1 trip blank and 1 Field Dup - 8	260 only)	
Field D	up(s) vs. Environmental Sample:	RPD <51%?	Yes
	**RPD Calc: 100*(diff btwn sample & dup)/(a	average of sample & dup)	
Were t	he following analytical precision and	l accuracy requirements met?	
Detecti	on Limits	Yes	
Reporti	ng Limits	Yes	-
Action	Limits	Yes	-
Reviev	v lab QC reports and project narrativ	e.	
	Lab Data Certification indicates that	presumptive certainty has been	n met. The project narrative explained all non-conformances, see
	below:		
Descri	be Non-Conformances		
	that surrogate recovery was not measure notations are both saying the same thing measure them., because we were not ab	able due to required sample dilutions, they are just using slightly differentle to measure the surrogates we did	f recommended limits due to required sample dilution. Results page notes on. Email sent to Karyn Raymond for explanation. Response stated "Those ent language. The surrogates were diluted out so we were not able to d not meet the required 30-150% recovery." commended limits for QC batch. This indicates that the lab machinery may this analyte in field samples.
Observ	vations?		
	All notes were reviewed and do not	indicate compromised data.	

Site:	DND Lewis Chemical					
Lab:	Groundwater Analytical	Lab ID:	87113			
Job #:	2004-301	Sample Collection Date:	08/30/05 - 09/01/05			
Were s	ampling and analytical methods requi	rements met?				
Correct	containers used?	Yes				
Preserv	ation requirements met?	Yes				
Holding	time requirements met?	Yes				
Correct	# of dupes, matrix spikes and matrix spike Yes. Matrix spike and Matrix spike d		,			
Field D	up(s) vs. Environmental Sample:	RPD <51%?	Sample I B 05 D and its dup hits were above 51%; however, well			
	**RPD Calc: 100*(diff btwn sample & dup)/(av	rerage of sample & dup)	below s1 standards so it is not considered an issue.			
Were tl	he following analytical precision and a	accuracy requirements met?				
Detectio	on Limits	Yes				
Reporti	ng Limits	Yes				
Action 1	Limits	Yes				
Review	v lab QC reports and project narrative. Lab Data Certification indicates that p below:		net. The project narrative explained all non-conformances, see			
Descril	be Non-Conformances					
	 PCB analysis IA03S, IA03M,IB05M, IIA analysis IB05S, IIA01S – surrogate recover QC batch vm2-2773-s above limits for 2 	ries outside limits due to necessary				
	3. QC batch vm1-1659-e above limits for 3	1,2-dichloroethane above limits.				
Observ	vations?					
	All notes were reviewed and do not in	ndicate compromised data.				

Site:	DND Lewis Chemical					
Lab:	Groundwater Analytical	Lab ID:	87813			
Job #:	2004-301	Sample Collection Date:	8/31/2005			
Were samp	oling and analytical methods requ	irements met?				
Correct cont	tainers used?	Yes	_			
Preservation	ı requirements met?	Yes				
Holding tim	e requirements met?	Yes	- -			
	dupes, matrix spikes and matrix spike		• •			
Ye	s. Matrix spike and Matrix spike o	luplicate analysis came back wi	thin acceptable range.			
Field Dup(s) vs. Environmental Sample:		RPD <51%?	RPD = 2%			
**R	PD Calc: 100*(diff btwn sample & dup)/(a	verage of sample & dup)				
Were the fo	ollowing analytical precision and	accuracy requirements met?				
Detection Li	imits	Yes				
Reporting L	imits	Yes	-			
Action Limi	ts	Yes	- -			
	QC reports and project narrative					
		presumptive certainty has been	met. All QC performances standards and recommendations for			
	e methods were achieved.					
Describe N	Ion-Conformances					
No	method modifications, non-conforma	nces or analytical issues were note	d.			
Observatio	ons?					
Al	l notes were reviewed and do not i	ndicate compromised data.				

Site:	DND Lewis Chemical		
Lab:	Groundwater Analytical	Lab ID:	96205
Job #:	2006-056	Sample Collection Date:	6/21/2006
Were samp	oling and analytical methods requ	irements met?	
Correct cont	tainers used?	n/a	
Preservation	ı requirements met?	n/a	
Holding tim	e requirements met?	n/a	
Correct # of n/		dupes, trip blanks (based on number of	samples)?
) vs. Environmental Sample:	RPD <51%?	
,	PD Calc: 100*(diff btwn sample & dup)/(a		
Were the fo	ollowing analytical precision and	accuracy requirements met?	
Detection Li	imits	n/a	
Reporting L	imits	n/a	
Action Limi	ts	n/a	
Review lab	QC reports and project narrative		
	1 2		rence (Method for the Determination of Asbestos in Bulk
	ilding Materials, US EPA, EPA-600)/R-93-116 (1993).	
Describe N	Ion-Conformances		
No	method modifications, non-conforma	nces or analytical issues were noted.	
Observatio	ons?		



ANALTICAL

Groundwater Analytical, Inc. P.O. Box 1200 228 Main Street Buzzards Bay, MA 02532

Telephone (508) 759-4441 FAX (508) 759-4475 www.groundwateranalytical.com

Mr. Joe Callahan Environmental Strategies & Management, Inc. 184 West Main Street Norton, MA 02766

LABORATORY REPORT

Project:

Lewis Chemical/2004-301

Lab ID:

June 17, 2005

84427

Received:

06-03-05

Dear Joe:

Enclosed are the analytical results for the above referenced project. The project was processed for Standard turnaround.

This letter authorizes the release of the analytical results, and should be considered a part of this report. This report contains a sample receipt report detailing the samples received, a project narrative indicating project changes and non-conformances, a quality control report, and a statement of our state certifications.

The analytical results contained in this report meet all applicable NELAC standards, except as may be specifically noted, or described in the project narrative. This report may only be used or reproduced in its entirety.

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

Should you have any questions concerning this report, please do not hesitate to contact me.

Sincerely,

Eric H. Jensen
Operations Magager

EHJ/smd

Enclosures



Sample Receipt Report

Project: Lewis Chemical/2004-301

Delivery: GWA Courier

Temperature: 2.0'C

Client: Environr

Environmental Strategies & Management, Inc. Airbill: n/a

Chain of Custody: Present

Lab ID: 84427

Lab Receipt: 06-03-05

Custody Seal(s): -n/a

Lab ID			Matrix	Simpled	Method	1 11 11 11 11 11 11 11 11 11 11 11 11 1		Notes Notes
84427-1	TP-4		Soil	6/1/05 13:30	EPA 8260B V	olatile Organics	with Oxyger	genates
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	
C581873	40 mL VOA Vial	Proline	BX16287	Methanol	R-4361T	04-21-05	n/a	
C673006	40 mL VOA Vial	Proline	BX16329	NaH\$O4	R-4159A	04-29-05	n/a	
C673016	40 mL VOA Vial	Proline	BX16329	NaHSO4	R-4159A	04-29-05	n/a	
C612977	40 mL VOA Vial	Proline	BX16329	NaHSO4	R-4159A	04-2 9-0 5	n/a	

Latin	FIEID	**************************************	Matrix	Sampled	Method	17 A 1 A 1 A 1 A 1 A 1 A 1 A 1 A 1 A 1 A		
84427-2	TP-2	Soil	6/1/05 11:20	EPA 8260B Volatile Organics with Oxygenates				
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	
C599066	40 mL VOA Vial	Proline	BX15768	NaHSO4	R-4159A	04-29-05	n/a	
C599054	40 mL VOA Vial	Proline	BX15768	NaHSO4	R-4159A	04-29-05	n/a	
C599053	40 mL VOA Vial	Proline	BX15768	NaHSO4	R-4159A	04-29-05	n/a	
C581849	40 mL VOA Vial	Proline	BX16287	Methanol	R-4361T	04-21-05	n/a	

LabiD	Field ID		Matrix	Sampled	Method	100 100 100 100 100 100 100 100 100 100	MACCONTRACTOR	And The Control of th		
84427-3	TP-1B		Soil	6/1/05 10:20 EPA 8260B Volatile Organics with Oxygenates						
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship			
C599041	40 mL VOA Vial	Proline	BX15768	NaH5O4	R-4159A	04-29-05	n/a			
C599040	40 mL VOA Vial	Proline	BX15768	NaHSO4	R-4159A	04-29-05	n/a			
C599039	40 mL VOA Vial	Proline	BX15768	NaHSQ4	R-4159A	04-29-05	n/a			
C632433	40 mL VOA Vial	Proline	BX16319	Methanol	R-4367F	04-27-05	05-13-05			

Labid	Field ID	And the second of the second o	Matrix	Sampled	Rethol	Mary 1 and 1	WY A A STREET AND	Notes		
84427-4	TP-3		Soil	6/1/05 12:15	6/1/05 12:15 EPA 8260B Volatile Organics with Oxygenates					
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship			
C581867	40 mL VOA Vial	Proline	BX16287	Methanol	R-4361T	04-21-05	r/a			
C673026	40 mL VOA Vîal	Proline	BX16329	NaHSQ4	R-4159A	04-29-05	n/a			
C673025	40 mt VOA Vial	Proline	BX16329	NaH5O4	R-4159A	04-29-05	n/a			
C612991	40 mL VOA Vial	Proline	BX16329	NaH\$O4	R-4159A	04-29-05	n/a			

Lab ID	Field (D)	191191111111111111111111111111111111111	Matrix	Sampled	Method	And the second of the second o	Tage 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		A STATE OF THE STA
84427-5	TP-6		Soil	6/2/05 10:10	EPA 8260B V	olatile Organics	with Oxygen	nates	
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship		
C581847	40 mL VOA Vial	Proline	BX16287	Methanol	R-4361T	04-21-05	n/a		
C673002	40 mL VOA Vial	Proline	BX16329	NaHSO4	R-4159A	04-29-05	n/a		
C673011	40 mL VOA Vial	Proline	BX16329	NaHSO4	R-4159A	04-29-05	n/a		
C673010	40 mL VOA Vial	Proline	BX16329	NaH5O4	R-4159A	04-29-05	n/a		

lab (D	Field ID		Matrix	Sampled	Method	7 / 1 / 1 / 1 / 1 / 1 / 1 / 1 / 1 / 1 /	And the state of t	Notes:
84427-6	TP-4			6/1/05 13:30	MA DEP VPH	with Targets		
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	
C632443	40 mL VOA Vial	Proline	BX16319	Methanol	R-4367F	04-27-05	05-13-05	

Lab #D	Field ID		Matrix	Sampled	Method			Notes
84427-7	TP-2		Soil	6/1/05 11:20	MA DEP VPH	with Targets		
Con 1D	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	
C632434	40 mL VOA Vial	Proline	BX16319	Methanol	R-4367F	04-27-05	05-13-05	



Sample Receipt Report (Continued)

Lewis Chemical/2004-301 Project:

Delivery: GWA Courier

Temperature: 2.0'C

Client: Environmental Strategies & Management, Inc. Airbill: n/a

Chain of Custody: Present

Lab ID: 84427

Lab Receipt: 06-03-05

Custody Seal(s): n/a

-LAW	Aur Aur au		Matrix	Sampled	E. E. E.	The second secon	A Print Town Water Name () () () () () () () () () (Minimized P1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	The second state of the se
84427-8	TP-1B		Soil	6/1/05 10:20	MA DEP VPH	l with Targets			
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship		
C581858	40 ml VOA Vial	Proline	8X16287	Methanol	R-4361T	04-21-05	0/2		

lab ID	Fed/IO	A CONTRACT OF THE PROPERTY OF	Matrix	Sampled	Method	A construction of the cons	Tally and the second se	 Notes	Mar- VI
84427-9	TP-3		Soil	6/1/05 12:15	MA DEP VPH	l with Targets			
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship		
C632432	40 mL VOA Vial	Proline	BX16319	Methanoi	R-4367F	04-27-05	05-13-05	 	

	Lab ID	Field (D		Matrix	Sampled	Method	**************************************		AND	NOS AND
	84427-10	TP-6		Soil	6/2/05 10:10	MA DEP VPH	with Targets			
Ĺ	Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	-	
	C632444	40 mL VOA Vial	Proline	BX16319	Methanol	R-4367F	04-27-05	05-13-05		

Lab (D	Field ID	1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	Mahis	- Simpled	Method	(1) A.	The second secon		Notes	**************************************	And the state of t
84427-11	Tank 1		Oil	6/1/05 9:57	EPA 6010B A	s Cd Ba Cr Pb	Se Ag Total				
;					EPA 7471A H	g					
					EPA 8021B V	olatile Aromat	ics and Halocarbon	s			
					EPA 8082 PC	3s					
					ASTM D3328	-00 Mod TPH	by GC - ID Only				
					EPA 1010 Mo	d Ignitability					
					EPA 9045C						
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship				
C620621	250 mL Glass	Proline	BX16666	None	n/a	n/a	05-13-05				

LAID	FEMIL		Matrix	Sämpled	Method	dell'interes de la constante de l'acceptante de la constante d		An institute of the second sec	A regular property of the control of
84427-12	TP-4		Soil	6/1/05 13:30	EPA 6010B P	b Total			
					EPA 8082 PC	Bs			
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship		
C620583	250 mL Glass	Proline	BX16663	None	n/a	n/a	05-13-05		

150	- FAB	Program of the control of the contro	Matrix		Mehod	A programme and the second sec		and the part of th	Notes
84427-13	TP-2		Soil	6/1/05 11:20	EPA 6010B P	b Total			
					EPA 8082 PCE	Bs			
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship		
C620612	250 mt. Glass	Proline	BX16666	None	n/a	n/a	05-13-05		

LabiD	Red ID		Matrix	Sampled	Method	AA		year or an analysis of the second	Notes : 2 and 1 an	2//
84427-14	TP-1B		Soil	6/1/05 10:20	EPA 6010B PI	Total				
			1		EPA 8082 PCE	is .				
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship			-
C620616	250 mL Glass	Proline	BX16666	None	n/a	n/a	05-13-05			

lab ID	Field ID		Matrix	Sampled	Method	12 5 / 127	The second secon	A CONTRACTOR OF THE CONTRACTOR	Notes	(Ar 14-1 1-14-1	
84427-15	TP-3		Soil	6/1/05 12:15	EPA 6010B PI	b Total			1		
;					EPA 8082 PCE	Bs			!		
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship				-
C620587	250 mL Glass	Profine	BX16663	None	n/a	n/a	05-13-05			·	



Sample Receipt Report (Continued)

Lewis Chemical/2004-301

Delivery: GWA Courier

Temperature: 2.0'C

Environmental Strategies & Management, Inc.

Airbill: n/a

Chain of Custody: Present

Lab ID: 84427

Lab Receipt: 06-03-05

Custody Seal(s): n/a

Lab.HD	Feld ID	- 11/2 -	Matrix	Sampled	Method	The second secon	200 /	 A STATE OF THE PARTY OF THE PAR	A CONTROL OF THE PROPERTY OF T
84427-16	TP-6		Soil	6/2/05 10:20	EPA 6010B F	b Total			7.00
					EPA 8082 PC	Bs			
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship		
C620579	250 mL Glass	Proline	BX16663	None	n/a	n/a	05-13-05		

EDID .	- Feld ID	PART PART PART PART PART PART PART PART	Marix	Sampled	Welled			g ryst, Str. Jr. Ja., ost, p. s.	Notes
84427-17	TP-4		Soil	6/1/05 13:30	MA DEP EPH	with PAHs			
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship		
C621337	120 ml. Amber Glass	Proline	BX16633	None	n/a	n/a	05-13-05		

LAJD.	field ID	Dag Land	Matrix	Saupled	-Method.	COLUMN COLUMN COLUMN		THE PART OF THE PARTY.	Nos.
84427-18	TP-2		Soil	6/1/05 11:20		with PAHs			
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship		
C621341	120 ml. Amber Glass	Proline	BX16633	None	n/a	n/a	05-13-05		

lab ID	Feed D	AND THE PROPERTY OF THE PROPER	Matrix	Sampled	Mestod	WAS TO THE RESERVE OF THE PARTY	The second secon		A supple services of the servi
84427-19	TP-1B		Soil	6/1/05 10:20	MA DÉP EPH	with PAHs			
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship		
C621345	120 mL Amber Glass	Proline	BX16633	None	n/a	n/a	05-13-05	-	

LabAD	- 669.0 0		Matrix	Sampled	Method	Annual Control of the	The second secon	Notes
84427-20	TP-3		Soil	6/1/05 12:15	MA DEP EPH	with PAHs		Some professional and the second seco
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	
C621353	120 mL Amber Glass	Proline	BX16633	None	n/a	n/a	05-13-05	

LábID	Field (D	The state of the s	Matrix	Sampled	Method	A CONTROL OF THE CONT	Allega Anna and Anna Anna Anna Anna Anna Anna	 Notes
84427-21	TP-6		Soil	6/2/05 10:10	MA DEP EPH	with PAHs		
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	
C621338	120 mL Amber Glass	Proline	BX16633	None	n/a	n/a	05-13-05	



Data Certification

Project:

Lewis Chemical/2004-301

Lab ID:

84427

Client:

Environmental Strategies & Management, Inc.

Received:

06-03-05 19:30

*************************	CHAILOURING	ital Strategies &	Management, Inc.			Received:		06-03-05 19:30
		- CANDONES IN THE	MA DEP Compeni	dium of Analyt	cal Metho	S Towns of the Control of the Contro		CONTRACTOR OF STREET
Proje	ect Location:	n/a				MA DEP RTN:		n/a
This	Form provides ce	rtifications for th	e following data set:	2-11110				
FΡΑ	8260B:	84427-01,-02,-0	03 -04 - 05					
	8082:	84427-11,-12,-1						
	8021B:	84427-11	.5,, .5, .0					
	DEP VPH:	84427-06,-07,-0	080910					
	DEP EPH:	84427-17,-18,-1						
	6010B:	84427-11,-12,-1						
EPA	7470A/1A:	84427-11						
Sam	ple Matrices:	Groundwater	() Soil/Sediment	(X) Drinkin	g Water () Other	(X)	Organic Liquid
MCF	SW 846	8260B	(X) 8151A	()) 6010B		7470A/1A (X)
Met	nods Used	8270C				X) 6020		9012A ² ()
	scified in MA DEP	8082	(X) 8021B		EPH (X) 7000 S	' ()	Other ()
Comp Metho	endium of Analytical		ing Number (RTN), if know		Washington Was	9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9		
	- 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1		9012A (Equivalent to 9014)	22 (500 0 0 0000 00000 1 0		ble Cyanide (PAC) M	ethod	Sendan Se
	k all that apply)		ods 7000 Series. List individ			C-+-:	///	
	An affirmative res	ponse to questio	ons A, B, C and D is r	required for "Pr	esumptive	Certainty statu	5.	
Α.			the laboratory in a conf-Custody document					Yes
C.	discuss in a r standards or	narrative QC data guidelines?	ed, including the req a that did not meet a uded in this report me	ppropriate perfe	ormance			Yes
C.	for "Presump document C	tive Certainty," a AM VII A, Qualit	as described in Section As described in Section As Assurance and Quarting of Analytical Date	on 2.0 of the M. ality Control G	A DEP			No
D.			Was the VPH or EP specified in Section 1		without			Yes
	A response to que	estions E and F b	elow is required for '	Presumptive C	ertainty" st	atus.		
E.		performance sta thods achieved?	indards and recomme	endations for th	e			No
-	specified me	thods achieved? for all analyte-lis	and recommendards and recommendards and recommendards and recompounds/elemendards					No No
E. F.	specified me Were results method(s) re	thods achieved? for all analyte-lisported?		nts for the spec				
F. I, the	were results method(s) re All No answers a e undersigned, a uiry of those res	thods achieved? for all analyte-lisported? re addressed in the attest under the ponsible for ob-	st compounds/eleme	nts for the spec Narrative. es of perjury tation, the mat	ified that, base erial cont	ained in this	sonal	
F. I, th inqu	were results method(s) re All No answers a e undersigned, a uiry of those res	thods achieved? for all analyte-lisported? re addressed in the attest under the ponsible for ob-	st compounds/element the attached Project e pains and penalti taining the informa	nts for the spec Narrative. es of perjury tation, the mat	ified that, base erial cont te and co	ained in this		



Field ID:

TP-4

Matrix: Soil

Project:

Lewis Chemical/2004-301

Container:

40 mL VOA Vial

Client:

Environmental Strategies & Management

Preservation:

Methanol / Cool

Laboratory ID: Sampled:

84427-01 06-01-05 13:30

QC Batch ID: Instrument ID: VM1-1591-E

Received:

06-03-05 19:30 06-08-05 11:31

Sample Weight:

MS-1 HP 5890

Analyzed:

Final Volume:

10 g 15 mL

86

Analyst: **LMG** % Solids: Dilution Factors

		Dilution Factor:	4	Page: 1 of 2
- CAS Number	Analyte	Concentration Notes	Units :	Tepathy this
75-71-8	Dichlorodifluoromethane	BRL	ug/Kg	3,500
74-87-3	Chloromethane	BRL	ug/Kg	3,500
75-01-4	Vinyl Chloride	BRL	ug/Kg	3,500
74-83-9	Bromomethane	BRL	ug/Kg	3,500
75-00-3	Chforoethane	BRL	ug/Kg	3,500
75-6 9-4	Trichlorofluoromethane	BRL	ug/Kg	3,500
60-29-7	Diethyl Ether	BRL	ug/Kg	3,500
75-35-4	1,1-Dichloroethene	BRL	ug/Kg	1,800
76-13-1	1,1,2-Trichlorotrifluoroethane	BRL	ug/Kg	18,000
67-64-1	Acetone	BRL	ug/Kg	18,000
<i>75</i> -15-0	Carbon Disulfide	BRL	ug/Kg	18,000
75-09-2	Methylene Chloride	BRL	ug/Kg	7,100
156-60-5	trans- 1,2-Dichloroethene	BRL	ug/Kg	1,800
1634-04-4	Methyl tert-butyl Ether (MTBE)	BRL	ug/Kg	1,800
75-34-3	1,1-Dichloroethane	40,000	ug/Kg	1,800
594-20-7	2,2-Dichloropropane	BRL	ug/Kg	1,800
156-59-2	cis-1,2-Dichloroethene	63,000	ug/Kg	1,800
78-93-3	2-Butanone (MEK)	BRL	ug/Kg	18,000
74-97-5	Bromochloromethane	BRL	ug/Kg	1,800
109-99-9	Tetrahydrofuran (THF)	BRL	ug/Kg	18,000
67-66-3	Chloroform	BRL	ug/Kg	1,800
71-55-6	1,1,1-Trichloroethane	15,000	ug/Kg	1,800
56-23-5	Carbon Tetrachloride	BRL	ug/Kg	1,800
563-58-6	1,1-Dichloropropene	BRL	ug/Kg	1,800
71-43-2	Benzene	BRL	ug/Kg	1,800
107-06-2	1,2-Dichloroethane	BRL	ug/Kg	1,800
79-01-6	Trichloroethene	39,000	ug/Kg	1,800
78-87-5	1,2-Dichloropropane	BRL	ug/Kg	1,800
74-95-3	Dibromomethane	BRL	ug/Kg	1,800
75-27-4	Bromodichloromethane	BRL	ug/Kg	1,800
123-91-1	1,4-Dioxane	BRL	ug/Kg	1,800,000
10061-01-5	cis-1,3-Dichloropropene	BRL	ug/Kg	1,800
108-10-1	4-Methyl-2-Pentanone (MIBK)	BRL	ug/Kg	18,000
108-88-3	Toluene	BRL	ug/Kg	1,800
10061-02-6	trans-1,3-Dichloropropene	BRL	ug/Kg	1,800
79-00-5	1,1,2-Trichloroethane	BRL	ug/Kg	1,800
127-18-4	Tetrachloroethene	11,000	ug/Kg	1,800
142-28-9	1,3-Dichloropropane	BRL	ug/Kg	1,800
591-78-6	2-Hexanone	BRL	ug/Kg	18,000
124-48-1	Dibromochloromethane	BRL	ug/Kg	1,800
106-93-4	1,2-Dibromoethane (EDB)	BRL	ug/Kg	1,800
108-90-7	Chlorobenzene	BRL	ug/Kg	1,800
630-20-6	1,1,1,2-Tetrachloroethane	BRL	ug/Kg	1,800
100-41-4	Ethylbenzene	BRL	ug/Kg	1,800
08-38-3/106-42-3	meta-Xylene and para-Xylene	BRL	ug/Kg	1,800
95-47-6	ortho- Xylene	BRL	ug/Kg	1,800



Field 1D: TP-4

Project: Lewis Chemical/2004-301

Environmental Strategies & Management Client:

Laboratory ID: 84427-01

Sampled: 06-01-05 13:30 06-03-05 19:30 Received: 06-08-05 11:31 Analyzed:

LMG Analyst:

Matrix: Soil

40 mt VOA Vial Container: Preservation: Methanol / Cool

QC Batch ID:

VM1-1591-E

Instrument ID:

MS-1 HP 5890

Sample Weight:

10 g

Final Volume: % Solids:

15 mL 86

•		Dilution Factor:	4	Page: 2 of 2
CAS Number		Concentration Notes	Units:	Reputing Unit
100-42-5	Styrene	BRL	ug/Kg	1,800
75-25-2	Bromoform	BRL	ug/Kg	1,800
98-82-8	Isopropylbenzene	BRL	ug/Kg	1,800
108-86-1	Bromobenzene	BRL	ug/Kg	1,800
79-34-5	1,1,2,2-Tetrachloroethane	BRL	ug/Kg	1,800
96-18-4	1,2,3-Trichloropropane	BRL	ug/Kg	1,800
103-65-1	n-Propylbenzene	BRL	ug/Kg	1,800
95-49-8	2-Chlorotoluene	BRL	ug/Kg	1,800
108-67-8	1,3,5-Trimethylbenzene	BRL	ug/Kg	1,800
106-43-4	4-Chlorotoluene	BRL	ug/Kg	1,800
98-06-6	tert-Butylbenzene	BRL	ug/Kg	1,800
95-63-6	1,2,4-Trimethylbenzene	BRL	ug/Kg	1,800
135-98-8	sec-Butylbenzene	BRL	ug/Kg	1,800
541-73-1	1,3-Dichlorobenzene	BRL	ug/Kg	1,800
99-87-6	4-Isopropyltoluene	BRL	ug/Kg	1,800
106-46-7	1,4-Dichlorobenzene	BRL	ug/Kg	1,800
95-50-1	1,2-Dichlorobenzene	BRL	ug/Kg	1,800
104-51-8	n-Butylbenzene	BRL	ug/Kg	1,800
96-12-8	1,2-Dibromo-3-chloropropane	BRL	ug/Kg	1,800
120-82-1	1,2,4-Trichlorobenzene	BRL	ug/Kg	1,800
87-68-3	Hexachlorobutadiene	BRL	ug/Kg	1,800
91-20-3	Naphthalene	BRL	ug/Kg	1,800
87-61-6	1,2,3-Trichlorobenzene	BRL	ug/Kg	1,800
75-65-0	tert -Butyl Alcohol (TBA)	BRL	ug/Kg	71,000
108-20-3	Di-isopropyl Ether (DIPE)	BRL	ug/Kg	1,800
637-92-3	Ethyl tert-butyl Ether (ETBE)	BRL	ug/Kg	1,800
994-05-8	tert -Amyl Methyl Ether (TAME)	BRL	ug/Kg	1,800

QC Surrogate Compound	Spiked	Measured	Recovery	QC Limits
Dibromofluoromethane	2,500	2,200	88 %	70 - 130 %
1,2-Dichloroethane-d ₄	2,500	2,100	85 %	70 - 130 %
Toluene-d ₈	2,500	2,600	105 %	70 - 130 %
4-Bromofluorobenzene	2,500	2,800	112 %	70 - 130 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample preparation performed by EPA Method 5035A and EPA Method 5030B. Results are reported on a dry weight basis.

Report Notations:

Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.



Field ID:

TP-2

Matrix:

Soil

85

1

Project:

Lewis Chemical/2004-301

Container: Preservation:

40 mL VOA Vial NaHSO4 / Cool

Client:

Environmental Strategies & Management

QC Batch ID:

Laboratory ID:

Sampled:

84427-02

Instrument ID:

VM1-1592-S

Received:

95-47-6

ortho-Xylene

06-01-05 11:20 06-03-05 19:30

Sample Weight:

MS-1 HP 5890 6.5 g

Analyzed:

06-09-05 15:43

% Solids: Dilution Factor:

Analyst:

LMG

CAS Number	A second	Concentration Notes	Units	Reporting Limit
<i>75-71-</i> 8	Dichlorodifluoromethane	BRL	ug/Kg	10
74-87-3	Chloromethane	BRL	ug/Kg	10
75-01-4	Vinyt Chloride	BRL	ug/Kg	10
74-83-9	Bromomethane	BRL	ug/Kg	10
75-00-3	Chloroethane	BRL	ug/Kg	10
75-69-4	Trichlorofluoromethane	BRL	ug/Kg	10
60-29-7	Diethyl Ether	BRL	ug/Kg	10
75-35-4	1,1-Dichloroethene	BRL	ug/Kg	5
76-13-1	1,1,2-Trichlorotrifluoroethane	BRL	ug/Kg	50
67-64-1	Acetone	BRL	ug/Kg	200
75-15-0	Carbon Disulfide	BRL	ug/Kg	50
75-09-2	Methylene Chloride	BRL	ug/Kg	50
156-60-5	trans-1,2-Dichloroethene	BRL	ug/Kg	5
1634-04-4	Methyl tert-butyl Ether (MTBE)	BRL	ug/Kg	5
75-34-3	1,1-Dichloroethane	BRL	ug/Kg	5
594-20-7	2,2-Dichloropropane	BRL	ug/Kg	5
156-59-2	cis-1,2-Dichloroethene	BRL	ug/Kg	5
78-93-3	2-Butanone (MEK)	BRL	ug/Kg	50
74-97-5	Bromochloromethane	BRL	ug/Kg	5
109-99-9	Tetrahydrofuran (THF)	BRL	ug/Kg	50
67-66-3	Chloroform	BRL	ug/Kg	5
71-55-6	1.1.1-Trichloroethane	BRL	ug/Kg	5
56-23-5	Carbon Tetrachloride	BRL	ug/Kg	5
563-58-6	1,1-Dichloropropene	BRL	ug/Kg	5
71-43-2	Benzene	BRL	ug/Kg	5
107-06-2	1,2-Dichloroethane	BRL	ug/Kg	5
79-01-6	Trichloroethene	21	ug/Kg	5
78-87-5	1,2-Dichloropropane	BRL	ug/Kg	5
74-95-3	Dibromomethane	BRL	ug/Kg	5
75-27-4	Bromodichloromethane	BRL	ug/Kg	5
123-91-1	1,4-Dioxane	BRL	ug/Kg	5000
10061-01-5	cis-1,3-Dichloropropene	BRL	ug/Kg	5
108-10-1	4-Methyl-2-Pentanone (MIBK)	BRL	ug/Kg	50
108-88-3	Toluene	BRL	ug/Kg	5
10061-02-6	trans-1,3-Dichloropropene	BRL	ug/Kg	. 5
79-00-5	1.1.2-Trichloroethane	BRL	ug/Kg	5
127-18-4	Tetrachloroethene	11	ug/Kg	5
142-28-9	1.3-Dichloropropane	BRL	ug/Kg	5
591-78-6	2-Hexanone	BRL	ug/Kg	50
124-48-1	Dibromochloromethane	BRL	ug/Kg	5
106-93-4	1,2-Dibromoethane (EDB)	BRL	ug/Kg	5
108-90-7	Chlorobenzene	BRL	ug/Kg	5
630-20-6	1,1,1,2-Tetrachloroethane	BRL	ug/Kg	5
100-41-4	Ethylbenzene	BRL	ug/Kg	5
108-38-3/106-42-3	meta-Xylene and para-Xylene	BRL	ug/Kg	5
100-30-3/100-42-3	meta-Aylene and para-Aylene	DNE	ug/Va	<u> </u>

5

ug/Kg

BRL



EPA Method 8260B (Continued) Volatile Organics by GC/MS

Field ID: Project:

Laboratory ID:

TP-2

84427-02

06-01-05 11:20

06-03-05 19:30

06-09-05 15:43

Lewis Chemical/2004-301 **Environmental Strategies & Management**

Matrix:

Soil

Container: Preservation:

40 mL VOA Via NaHSO4 / Cool

QC Batch ID: Instrument ID: VM1-1592-S MS-1 HP 5890

Sample Weight:

6.5 g

% Solids:

85

Analyzed: Analyst:

Sampled:

Received:

Client:

LMG

Dilution Factor:

Page: 2 of 2

CAS Number	Analyte	Concentration Notes	Units	Reporting Limit
100-42-5	Styrene	BRL	ug/Kg	5
75-25-2	Bromoform	BRL	ug/Kg	5
98-82-8	Isopropylbenzene	BRL	ug/Kg	5
108-86-1	Bromobenzene	BRL	ug/Kg	5
79-34-5	1,1,2,2-Tetrachloroethane	BRL	ug/Kg	5
96-18-4	1,2,3-Trichloropropane	BRL	ug/Kg	5
103-65-1	n -Propylbenzene	BRL	ug/Kg_	5
95-49-8	2-Chlorotoluene	BRL	ug/Kg	5
108-67-8	1,3,5-Trimethylbenzene	BRL	ug/Kg	5
106-43-4	4-Chlorotoluene	BRL	ug/Kg	5
98-06-6	tert-Butylbenzene	BRL	ug/Kg	5
95-63-6	1,2,4-Trimethylbenzene	BRL	ug/Kg	5
135-98-8	sec-Butylbenzene	BRL	ug/Kg	5
541 <i>-</i> 73-1	1,3-Dichlorobenzene	BRL	ug/Kg	5
99-87-6	4-Isopropyltoluene	BRL	ug/Kg	5
106-46-7	1,4-Dichlorobenzene	BRL	ug/Kg	5
95-50-1	1,2-Dichlorobenzene	BRL	ug/Kg	5
104-51-8	n -Butylbenzene	BRI.	ug/Kg	5
96-12-8	1,2-Dibromo-3-chloropropane	BRL	ug/Kg	5
120-82-1	1,2,4-Trichlorobenzene	BRL	ug/Kg	5
87-68-3	Hexachlorobutadiene	BRI.	ug/Kg	5
91-20-3	Naphthalene	BRL	ug/Kg	5
87-61-6	1,2,3-Trichlorobenzene	BRL	ug/Kg	5
75-65-0	tert-Butyl Alcohol (TBA)	BRL	ug/Kg	200
108-20-3	Di-isopropyl Ether (DIPE)	BRL	ug/Kg	5
637-92-3	Ethyl tert-butyl Ether (ETBE)	BRL	ug/Kg	5
994-05-8	tert -Amyl Methyl Ether (TAME)	BRL	ug/Kg	5

QC Surrogate Compound	Spiked	Measured	Recovery	QC Limits
Dibromofluoromethane	50	49	98 %	70 - 130 %
1,2-Dichloroethane-d ₄	50	48	95 %	70 - 130 %
Toluene-d ₈	50	52	104 %	<i>7</i> 0 - 130 %
4-Bromofluorobenzene	50	58	116 %	70 - 130 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996). Sample preparation performed by EPA Method 5035A. Results are reported on a dry weight basis.

Report Notations:

Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.



Field ID:

TP-1B

Lewis Chemical/2004-301

Project: Client:

Environmental Strategies & Management

Laboratory iD:

Sampled: Received:

06-01-05 10:20 06-03-05 19:30 06-08-05 12:06 Analyzed:

84427-03

Analyst:

LMG

Matrix:

Soil

13 g

Container: Preservation:

40 mL VOA Vial Methanol / Cool

QC Batch ID:

Instrument ID:

VM1-1591-E MS-1 HP 5890

Sample Weight: Final Volume:

15 mL % Solids: 86

viaiyst:	LMG	Dilution Factor	20	Page: 1 of 2
CAS Number	Analyte communication (Section) (section)	Concentration Notes	"Units	Reporting their
75-71-8	Dichlorodifluoromethane	BRL	ug/Kg	14,000
74-87-3	Chloromethane	BRL	ug/Kg	14,000
75-01-4	Vinyl Chloride	BRL	ug/Kg	14,000
74-83-9	Bromomethane	BRL	ug/Kg	14,000
75-00-3	Chloroethane	BRI.	ug/Kg	14,000
75-69-4	Trichlorofluoromethane	BRL	ug/Kg	14,000
60-29-7	Diethyl Ether	BRL	ug/Kg	14,000
75-35-4	1,1-Dichloroethene	BRL	ug/Kg	6,800
76-13-1	1,1,2-Trichlorotrifluoroethane	BRL	ug/Kg	68,000
67-64-1	Acetone	BRL	ug/Kg	68,000
<i>7</i> 5-15-0	Carbon Disulfide	BRL	ug/Kg	68,000
75-09-2	Methylene Chloride	BRL	ug/Kg	27,000
156-60-5	trans- 1,2-Dichloroethene	BRI.	ug/Kg	6,800
1634-04-4	Methyl tert-butyl Ether (MTBE)	BRL	ug/Kg	6,800
75-34-3	1,1-Dichloroethane	BRL	ug/Kg	6,800
594-20-7	2,2-Dichloropropane	BRL	ug/Kg	6,800
156-59-2	cis- 1.2-Dichloroethene	BRL	ug/Kg	6,800
78-93-3	2-Butanone (MEK)	BRL	ug/Kg	68,000
74-97-5	Bromochloromethane	BRL	ug/Kg	6,800
109-99-9	Tetrahydrofuran (THF)	BRL	ug/Kg	68,000
67-66-3	Chloroform	BRL	ug/Kg	6,800
71-55-6	1,1,1-Trichloroethane	BRL	ug/Kg	6,800
56-23-5	Carbon Tetrachloride	BRL	ug/Kg	6,800
563-58-6	1,1-Dichloropropene	BRL	ug/Kg	6,800
71-43-2	Benzene	BRL	ug/Kg	6,800
107-06-2	1,2-Dichloroethane	BRL	ug/Kg	6,800
79-01-6	Trichloroethene	23,000	ug/Kg	6,800
78-87-5	1,2-Dichloropropane	23,000 BRL	ug/Kg	6,800
	_ ·			
74-95-3	Dibromomethane	BRL	ug/Kg	6,800
75-27-4	Bromodichloromethane	BRL	ug/Kg	
123-91-1	1,4-Dioxane	BRL	ug/Kg	6,800,00
10061-01-5	cis-1,3-Dichloropropene	BRL	ug/Kg	6,800
108-10-1	4-Methyl-2-Pentanone (MIBK)	BRL	ug/Kg	68,000
108-88-3	Toluene	BRL	ug/Kg	6,800
10061-02-6	trans-1,3-Dichloropropene	BRL	ug/Kg	6,800
79-00-5	1,1,2-Trichloroethane	BRL	ug/Kg	6,800
127-18-4	Tetrachloroethene	73,000	ug/Kg	6,800
142-28-9	1,3-Dichloropropane	BRL	ug/Kg	6,800
591-78-6	2-Hexanone	BRL	ug/Kg	68,000
124-48-1	Dibromochloromethane	BRL	ug/Kg	6,800
106-93-4	1,2-Dibromoethane (EDB)	BRL	ug/Kg	6,800
108-90-7	Chlorobenzene	BRL	ug/Kg	6,800
630-20-6	1,1,1,2-Tetrachloroethane	BRL	ug/Kg	6,800
100-41-4	Ethylbenzene	BRL	ug/Kg	6,800
08-38-3/106-42-3	meta-Xylene and para-Xylene	BRL	ug/Kg	6,800
95-47-6	ortho-Xylene	BRL	ug/Kg	6,800

GROUNDWATER

EPA Method 8260B Volatile Organics by GC/MS

Project: Client:

Laboratory ID:

Field ID:

Sampled:

Received:

Analyzed:

Analyst:

TP-1B

84427-03

LMG

06-01-05 10:20

06-03-05 19:30

06-08-05 12:06

Lewis Chemical/2004-301

Environmental Strategies & Management

Matrix: Container: Soil

Preservation:-

40 mL VOA Vial -Methanol / Cool

QC Batch ID: Instrument ID:

VM1-1591-E MS-1 HP 5890

Sample Weight: Final Volume:

13 g

% Solids:

15 mL 86

20

Dilution Factor:

Page: 2 of 2

CAS Number	l Analys	Concentration Notes	Units	Réplating 1 and
100-42-5	Styrene	BRL	ug/Kg	6,800
75-25-2	Bromoform	BRL	ug/Kg	6,800
98-82-8	Isopropylbenzene	BRL	ug/Kg	6,800
108-86-1	Bromobenzene	BRL	ug/Kg	6,800
79-34-5	1,1,2,2-Tetrachloroethane	BRL	ug/Kg	6,800
96-18-4	1,2,3-Trichloropropane	BRL	ug/Kg	6,800
103-65-1	n -Propylbenzene	BRL	ug/Kg	6,800
95-49-8	2-Chlorotoluene	BRL	ug/Kg	6,800
108-67-8	1,3,5-Trimethylbenzene	BRL	ug/Kg	6,800
106-43-4	4-Chlorotoluene	BRL	ug/Kg	6,800
98-06-6	tert-Butylbenzene	BRL	ug/Kg	6,800
95-63-6	1,2,4-Trimethylbenzene	BRL	ug/Kg	6,800
135-98-8	sec-Butylbenzene	BRL	ug/Kg	6,800
541-73-1	1,3-Dichlorobenzene	BRL	ug/Kg	6,800
99-87-6	4-Isopropyltoluene	BRL	ug/Kg	6,800
106-46-7	1,4-Dichlorobenzene	BRL	ug/Kg	6,800
95-50-1	1,2-Dichlorobenzene	BRL	ug/Kg	6,800
104-51-8	n-Butylbenzene	BRL	ug/Kg	6,800
96-12-8	1,2-Dibromo-3-chloropropane	BRL	ug/Kg	6,800
120-82-1	1,2,4-Trichlorobenzene	BRL	ug/Kg	6,800
87-68-3	Hexachlorobutadiene	BRL	ug/Kg	6,800
91-20-3	Naphthalene	BRL	ug/Kg	6,800
87-61-6	1,2,3-Trichlorobenzene	BRL	ug/Kg	6,800
75-65-0	tert-Butyl Alcohol (TBA)	BRL	ug/Kg	270,000
108-20-3	Di-isopropyl Ether (DIPE)	BRL	ug/Kg	6,800
637-92-3	Ethyl tert-butyl Ether (ETBE)	BRL	ug/Kg	6,800
994-05-8	tert -Amyl Methyl Ether (TAME)	BRL	ug/Kg	6,800

QC Surrogate Compound	And the second s	Measured	Variable Variable	QC limits
Dibromofluoromethane	2,500	2,300	93 %	70 - 130 %
1,2-Dichloroethane-d4	2,500	2,300	90 %	70 - 130 %
Toluene-d ₈	2,500	2,700	110 %	70 - 130 %
4-Bromofluorobenzene	2,500	2,900	116 %	70 - 130 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample preparation performed by EPA Method 5035A and EPA Method 5030B. Results are reported on a dry weight basis.

Report Notations:

Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.



Field 1D:

TP-3

Matrix:

Soil

Project: Client:

Lewis Chemical/2004-301

Container: Preservation: 40 mL VOA Vial Methanol / Cool

Environmental Strategies & Management

QC Batch ID:

VM1-1591-E

Laboratory ID: Sampled:

84427-04 06-01-05 12:15

Instrument ID:

Received:

06-03-05 19:30

MS-1 HP 5890

Analyzed:

Sample Weight:

06-08-05 12:42

Final Volume:

14 g 15 mL

Analyst:

% Solids:

92

LMG

Dilution Eact

		Dilution Factor:	1	Page: 1 of 2
CAS Number	Analyse	Concentration Notes	- this	Reporting Lan
75-71-8	Dichlorodifluoromethane	BRL	ug/Kg	580
74-87-3	Chloromethane	BRL	ug/Kg	580
75-01-4	Vinyl Chloride	BRL	ug/Kg	580
74-83-9	Bromomethane	BRL	ug/Kg	580
75-00-3	Chloroethane	BRL	ug/Kg	580
75-69-4	Trichlorofluoromethane	BRL	ug/Kg	580
60-29-7	Diethyl Ether	BRL	ug/Kg	580
75-35-4	1,1-Dichloroethene	BRL	ug/Kg	290
76-13-1	1,1,2-Trichlorotrifluoroethane	BRL	ug/Kg	2,900
67-64-1	Acetone	BRL	ug/Kg	2,900
75-15-0	Carbon Disulfide	BRL	ug/Kg	2,900
75-09-2	Methylene Chloride	BRL	ug/Kg	1,200
156-60-5	trans-1,2-Dichloroethene	BRL	ug/Kg	290
1634-04-4	Methyl tert-butyl Ether (MTBE)	BRL	ug/Kg	290
75-34-3	1,1-Dichloroethane	BRL	ug/Kg	290
594-20-7	2,2-Dichloropropane	BRL	ug/Kg	290
156-59-2	cis-1,2-Dichloroethene	590	ug/Kg	290
78-93-3	2-Butanone (MEK)	BRL	ug/Kg	2,900
74-97-5	Bromochloromethane	BRL	ug/Kg	290
109-99-9	Tetrahydrofuran (THF)	BRL	ug/Kg	2,900
67-66-3	Chloroform	BRL	ug/Kg	290
71-55-6	1,1,1-Trichloroethane	BRL	ug/Kg	290
56-23-5	Carbon Tetrachloride	BRL	ug/Kg	290
563-58-6	1,1-Dichloropropene	BRL	ug/Kg	290
71-43-2	Benzene	BRL	ug/Kg	290
107-06-2	1,2-Dichloroethane	BRL	ug/Kg	290
79-01-6	Trichloroethene	1,500	ug/Kg	290
78-87-5	1,2-Dichloropropane	BRL	ug/Kg	290
74-95-3	Dibromomethane	BRL	ug/Kg	290
75-27-4	Bromodichloromethane	BRL	ug/Kg	290
123-91-1	1,4-Dioxane	BRL	ug/Kg	290,000
10061-01-5	cis-1,3-Dichloropropene	BRL	ug/Kg	290
108-10-1	4-Methyl-2-Pentanone (MIBK)	BRL	ug/Kg	2,900
108-88-3	Toluene	BRL	ug/Kg	290
10061-02-6	trans-1,3-Dichloropropene	BRL	ug/Kg	290
79-00-5	1,1,2-Trichloroethane	BRL	ug/Kg	290
127-18-4	Tetrachloroethene	460	ug/Kg	290
142-28-9	1,3-Dichloropropane	BRL	ug/Kg	290
591-78-6	2-Hexanone	BRL	ug/Kg	2,900
124-48-1	Dibromochloromethane	BRL	ug/Kg	290
	1,2-Dibromoethane (EDB)	BRL	ug/Kg	290
108-90-7	Chlorobenzene	BRL	ug/Kg	290
630-20-6	1,1,1,2-Tetrachloroethane	BRL	ug/Kg	290
100-41-4	Ethylbenzene	BRL	ug/Kg	290
08-38-3/106-42-3	meta- Xylene and para- Xylene	BRL	ug/Kg	290
95-47-6	ortho-Xylene	BRL	ug/Kg	290



Field ID:

TP-3

Matrix:

Soil

Project: Client:

Lewis Chemical/2004-301 **Environmental Strategies & Management**

Container: Preservation: 40 mt VOA Vial Methanol / Cool

Laboratory ID:

84427-04

QC Batch ID:

VM1-1591-E

Sampled:

06-01-05 12:15

Instrument ID:

MS-1 HP 5890

Received: Analyzed: 06-03-05 19:30

Sample Weight:

Analyst:

06-08-05 12:42 **LMG**

Final Volume:

14 g 15 mL

% Solids:

92 1

Dilution Factor:

Page: 2 of 2

CAS Number	Analyle	Concentration Notes	Dilits	Reporting Limit
100-42-5	Styrene	BRL	ug/Kg	290
75-25-2	Bromoform	BRL	ug/Kg	290
98-82-8	Isopropyibenzene	BRL	ug/Kg	290
108-86-1	Bromobenzene	BRL	ug/Kg	290
79-34-5	1,1,2,2-Tetrachforoethane	BRL	ug/Kg	290
96-18 -4	1,2,3-Trichloropropane	BRL	ug/Kg	290
103-65-1	n-Propylbenzene	BRL	ug/Kg	290
95-49-8	2-Chlorotoluene	BRL	ug/Kg	290
108-67-8	1,3,5-Trimethylbenzene	BRL	ug/Kg	290
106-43-4	4-Chlorotoluene	BRL	ug/Kg	290
98-06-6	tert-Butylbenzene	BRL	ug/Kg	290
95-63-6	1,2,4-Trimethylbenzene	BRL	ug/Kg	290
135-98-8	sec-Butylbenzene	BRL	ug/Kg	290
541-73-1	1,3-Dichlorobenzene	BRL	ug/Kg	290
99-87-6	4-Isopropyltoluene	BRL	ug/Kg	290
106-46-7	1,4-Dichlorobenzene	BRL	ug/Kg	290
9 5-50-1	1,2-Dichlorobenzene	BRL	ug/Kg	290
104-51-8	n-Butylbenzene	BRL	ug/Kg	290
96-12-8	1,2-Dibromo-3-chloropropane	BRL	ug/Kg	290
120-82-1	1,2,4-Trichlorobenzene	BRL	ug/Kg	290
87-68-3	Hexachlorobutadiene	BRL	ug/Kg	290
91-20-3	Naphthalene	BRL	ug/Kg	290
87-61-6	1,2,3-Trichlorobenzene	BRL	ug/Kg	290
75-65-0	tert -Butyl Alcohol (TBA)	BRL	ug/Kg	12,000
108-20-3	Di-isopropyl Ether (DIPE)	BRL	ug/Kg	290
637-92-3	Ethyl tert-butyl Ether (ETBE)	BRL	ug/Kg	290
994-05-8	tert - Amyl Methyl Ether (TAME)	BRL	ug/Kg	290

QC Surrogate Compound	Spiked	Measured	Recovery	QC limits
Dibromofluoromethane	2,500	2,100	84 %	70 - 130 %
1,2-Dichloroethane-d ₄	2,500	2,100	85 %	70 - 130 %
Toluene-d ₈	2,500	2,600	103 %	70 - 130 %
4-Bromofluorobenzene	2,500	2,800	111 %	70 - 130 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample preparation performed by EPA Method 5035A and EPA Method 5030B. Results are reported on a dry weight basis.

Report Notations:

Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.



Field ID: Project:

TP-6

Lewis Chemical/2004-301

Client:

Environmental Strategies & Management

Laboratory ID:

Sampled: Received: 06-02-05 10:10 06-03-05 19:30 06-08-05 13:19

84427-05

Analyzed: Analyst:

LMG

Matrix:

Soil

Container: Preservation: 40 mL VOA Vial Methanol / Cool

QC Batch ID: Instrument ID: VM1-1591-E MS-1 HP 5890

Sample Weight:

11 g

Final Volume: % Solids:

15 mL 84

Dilution Factor:

100

Page 1 of 2

CAS Number	Analyte	Concentration Notes	Units	Reporting Limit
75-71-8	Dichlorodifluoromethane	BRL	ug/Kg	76,000
74-87-3	Chloromethane	BRL	ug/Kg	76,000
75-01-4	Vinyl Chloride	BRL	ug/Kg	76,000
74-83-9	Bromomethane	BRL	ug/Kg	76,000
75-00-3	Chloroethane	BRL	ug/Kg	76,000
75-69-4	Trichlorofluoromethane	BRt.	ug/Kg	76,000
60-29-7	Diethyl Ether	BRL	ug/Kg	76,000
75-35-4	1,1-Dichloroethene	BRL	ug/Kg	38,000
76-13-1	1,1,2-Trichlorotrifluoroethane	BRL	ug/Kg	380,000
67-64-1	Acetone	BRL	ug/Kg	380,000
75-15-0	Carbon Disulfide	BRL	ug/Kg	380,000
75-09-2	Methylene Chloride	BRL	ug/Kg	150,000
156-60-5	trans-1,2-Dichloroethene	BRL	ug/Kg	38,000
1634-04-4	Methyl tert-butyl Ether (MTBE)	BRL	ug/Kg	38,000
75-34-3	1,1-Dichloroethane	· BRL	ug/Kg	38,000
594-20-7	2,2-Dichloropropane	BRL	ug/Kg	38,000
156-59-2	cis-1,2-Dichloroethene	BRL	ug/Kg	38,000
78-93-3	2-Butanone (MEK)	BRL	ug/Kg	380,000
74-97-5	Bromochloromethane	BRL	ug/Kg	38,000
109-99-9	Tetrahydrofuran (THF)	BRL	ug/Kg	380,000
67-66-3	Chloroform	BRL	ug/Kg	38,000
<i>7</i> 1-55-6	1,1,1-Trichloroethane	BRL	ug/Kg	38,000
56-23-5	Carbon Tetrachloride	BRL	ug/Kg	38,000
563-58-6	1,1-Dichloropropene	BRL	ug/Kg	38,000
71-43-2	Benzene	BRL	ug/Kg	38,000
107-06-2	1,2-Dichloroethane	BRL	ug/Kg	38,000
79-01-6	Trichloroethene	BRL	ug/Kg	38,000
78-87- 5	1,2-Dichloropropane	BRL	ug/Kg	38,000
74-95-3	Dibromomethane	BRL	ug/Kg	38,000
75-27-4	Bromodichloromethane	BRL	ug/Kg	38,000
123-91-1	1.4-Dioxane	BRL	ug/Kg	38,000,000
10061-01-5	cis-1,3-Dichloropropene	BRL	ug/Kg	38,000
108-10-1	4-Methyl-2-Pentanone (MIBK)	BRL	ug/Kg	380,000
108-88-3	Toluene	BRL	ug/Kg	38,000
10061-02-6	trans-1,3-Dichloropropene	BRL	ug/Kg	38,000
79-00-5	1,1,2-Trichloroethane	BRL	ug/Kg	38,000
127-18-4	Tetrachloroethene	360.000	ug/Kg	38,000
142-28-9	1,3-Dichloropropane	BRL	ug/Kg	38,000
591-78-6	2-Hexanone	BRL	ug/Kg	380,000
124-48-1	Dibromochloromethane	BRL	ug/Kg	38,000
106-93-4	1,2-Dibromoethane (EDB)	BRL	ug/Kg	38,000
108-90-7	Chlorobenzene	BRL	ug/Kg	38,000
630-20-6	1,1,1,2-Tetrachloroethane	BRL	ug/Kg	38,000
100-41-4	Ethylbenzene	BRL	ug/Kg	38,000
08-38-3/106-42-3	meta- Xylene and para- Xylene	BRL	ug/Kg	38,000
95-47-6	ortho-Xylene	BRL	ug/Kg	38,000



Field ID:

TP-6

Matrix:

Soil

Client:

Lewis Chemical/2004-301

Environmental Strategies & Management

Container: Preservation: 40 mL VOA Vial Methanol / Cool

Laboratory ID:

y ID: 84427-05

QC Batch ID:

VM1-1591-E

Sampled: Received: 06-02-05 10:10 06-03-05 19:30 Instrument ID:

MS-1 HP 5890

Analyzed: 06-08-05 13:19

Sample Weight: Final Volume: 11 g 15 mL

84

100

Analyst:

LMG

% Solids: Dilution Factor:

Page 2 of 2

CAS Number	Analyte	Concentration Notes	17 Vills	in the state of th
100-42-5	Styrene	BRL	ug/Kg	38,000
75-25-2	Bromoform	BRL	ug/Kg	38,000
98-82-8	Isopropylbenzene	BRL	ug/Kg	38,000
108-86-1	Bromobenzene	BRL	ug/Kg	38,000
79-34-5	1,1,2,2-Tetrachloroethane	BRI.	ug/Kg	38,000
96-18-4	1,2,3-Trichloropropane	BRL	ug/Kg	38,000
103-65-1	n-Propylbenzene	BRL	ug/Kg	38,000
95-49-8	2-Chlorotoluene	BRL	ug/Kg	38,000
108-67-8	1,3,5-Trimethylbenzene	BRL	ug/Kg	38,000
106-43-4	4-Chlorotoluene	BRL	ug/Kg	38,000
98-06-6	tert-Butylbenzene	BRL	ug/Kg	38,000
95-63-6	1,2,4-Trimethylbenzene	BRL	ug/Kg	38,000
135-98-8	sec-Butylbenzene	BRL.	ug/Kg	38,000
541-73-1	1,3-Dichlorobenzene	BRL	ug/Kg	38,000
99-87-6	4-isopropyltoluene	BRL	ug/Kg	38,000
106-46-7	1,4-Dichlorobenzene	BRL	ug/Kg	38,000
95-50-1	1,2-Dichlorobenzene	BRL	ug/Kg	38,000
104-51-8	n-Butylbenzene	BRL	ug/Kg	38,000
96-12-8	1,2-Dibromo-3-chloropropane	BRL	ug/Kg	38,000
120-82-1	1,2,4-Trichlorobenzene	BRL	ug/Kg	38,000
87-68-3	Hexachlorobutadiene	BRL	ug/Kg	38,000
91-20-3	Naphthalene	BRL	ug/Kg	38,000
87-61-6	1,2,3-Trichlorobenzene	BRL	ug/Kg	38,000
75-65-0	tert-Butyl Alcohol (TBA)	BRL	ug/Kg	1,500,000
108-20-3	Di-isopropyl Ether (DIPE)	BRL	ug/Kg	38,000
637-92-3	Ethyl tert-butyl Ether (ETBE)	BRL	ug/Kg	38,000
994-05-8	tert -Amyl Methyl Ether (TAME)	BRL	ug/Kg	38,000

QC Surrogate Compound	Spiked	Measured	Recovery	QC Limits
Dibromofluoromethane	2,500	2,300	90 %	70 - 130 %
1,2-Dichloroethane-d₄	2,500	2,200	88 %	70 - 130 %
Toluene-d _B	2,500	2,600	104 %	70 - 130 %
4-Bromofluorobenzene	2,500	3,200	126 %	70 - 130 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample preparation performed by EPA Method 5035A and EPA Method 5030B. Results are reported on a dry weight basis.

Report Notations:

3RL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.



Massachusetts DEP VPH Method Volatile Petroleum Hydrocarbons by GC/PID/FID

Field ID: Matrix: Soil Project Lewis Chemical/2004-301 Container: 40 mt VOA Vial Client: **Environmental Strategies & Management** Preservation: Methanol/Cool Laboratory ID: 84427-06 QC Batch ID: VG3-1735-E Sampled: 06-01-05 13:30 Instrument ID: GC-3 HP 5890 Received: 06-03-05 19:30 Sample Weight: 10 g 06-15-05 10:15 Analyzed: Final Volume: 15 mL Analyst: JDH % Solids: 86 Dilution Factor: 2

	Concentration No	tes Times	Reporting Lim
n-C5 to n-C8 Aliphatic Hydrocarbons 10	81	mg/Kg	3.4
n-C9 to n-C12 Aliphatic Hydrocarbons † ®	7.9	mg/Kg	3.4
n-C9 to n-C10 Aromatic Hydrocarbons [†]	BRL	mg/Kg	3.4
Unadjusted n-C5 to n-C8 Aliphatic Hydrocarbons †	81	mg/Kg	3.4
Unadjusted n-C9 to n-C12 Aliphatic Hydrocarbons †	9.6	mg/Kg	3.4

CAS Number	Analyte	Concentration Notes	Units	Reporting Limit
1634-04-4	Methyl tert-butyl Ether "	BRL	mg/Kg	0.34
71-43-2	Benzene "	BRL	mg/Kg	0.34
108-88-3	Toluene [±]	0.39	mg/Kg	0.34
100-41-4	Ethylbenzene [‡]	BRL	mg/Kg	0.34
108-38-3 and 106-42-3	meta- Xylene and para - Xylene ‡	0.48	mg/Kg	0.34
95-47-6	ortho- Xylene [‡]	BRL	mg/Kg	0.34
91-20-3	Naphthalene	BRL	mg/Kg	1.7

				·
QC Surrogate Compound	Spiked	Measured	Recovery	OC Buils
2,5-Dibromotoluene (PID)	8.6	6.4	74 %	70 - 130 %
2,5-Dibromotoluene (FID)	8.6	7.2	85 %	70 - 130 %

DA/QC Certification

- Were all QA/QC procedures required by the method followed?
- 2. Were all performance/acceptance standards for the required QA/QC procedures achieved?
- 3. Were any significant modifications made to the method, as specified in Section 11.3.2.1?

Method non-conformances indicated above are detailed below on this data report, or in the accompanying project narrative and project quality control report. Release of this data is authorized by the accompanying signed project cover letter. The accompanying cover letter, project narrative and quality control report are considered part of this data report.

Method Reference:

Method for the Determination of Volatile Petroleum Hydrocarbons, MA DEP (Revision 1.1, 2004). Results are reported on a dry weight basis.

Report Notations:

- BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- † Hydrocarbon range data excludes concentrations of any surrogate(s) and/or internal standards eluting in that range.
- n-C5 to n-C8 Aliphatic Hydrocarbons range data excludes the method target analyte concentrations.
- n-C9 to n-C12 Aliphatic Hydrocarbons range data excludes the method target analyte concentrations and the concentration for the n-C9 to n-C10 Aromatic Hydrocarbons range.
- Analyte elutes in the n-C5 to n-C8 Aliphatic Hydrocarbons range.
- Analyte elutes in the n-C9 to n-C12 Aliphatic Hydrocarbons range.

Yes

Yes

No



Massachusetts DEP VPH Method Volatile Petroleum Hydrocarbons by GC/PID/FID

Field ID: TP-2 Matrix: Project: Lewis Chemical/2004-301 Container: 40 mL VOA Vial Client: **Environmental Strategies & Management** Preservation: Methanol / Cool Laboratory ID: 84427-07 QC Batch ID: VG3-1931-E Sampled: 06-01-05 11:20 Instrument ID: GC-3 HP 5890 Received: 06-03-05 19:30 Sample Weight: 16 g Analyzed: 06-13-05 12:28 Final Volume: 15 mL Analyst: IDH

alyst: JDH % Solids: 85
Dilution Factor: 1

VPH Ranges Concentration Notes Units

	Concentration Notes	Units	Reporting Limit
n-C5 to n-C8 Aliphatic Hydrocarbons † 0	BRL	mg/Kg	1.1
n-C9 to n-C12 Aliphatic Hydrocarbons ^{† ®}	BRL	mg/Kg	1.1
n-C9 to n-C10 Aromatic Hydrocarbons [†]	BRL	mg/Kg	1.1
Unadjusted n.C5 to n.C8 Alighatic Hadrocathans †	BDI		

Onautosted 11-C3 to 11-C6 Aliphatic Hydrocarbons	BKL	mg/Kg	1.1
Unadjusted n-C9 to n-C12 Aliphatic Hydrocarbons †	BRL	mg/Kg	1.1
CAS Number Analyte	Concentration Notes	Units	Reporting Licuis

Analyte	Concentration No	tes Units	Reporting Limit
Methyl tert-butyl Ether "	BRL		0.11
Benzene *	BRL		0.11
Toluene [*]	BRL		0.11
Ethylbenzene [‡]	BRL		0.11
meta- Xylene and para -Xylene ‡	BRL		0.11
ortho- Xylene [‡]	BRL		0.11
Naphthalene			0.55
	Methyl tert -butyl Ether ^{**} Benzene ^{**} Toluene ^{**} Ethylbenzene ^{†*} meta- Xylene and para - Xylene ^{‡*} ortho- Xylene ^{‡*}	Methyl tert -butyl Ether ** BRL Benzene ** Toluene ** BRL Ethylbenzene ** BRL meta- Xylene and para - Xylene ** BRL ortho- Xylene ** BRL	Methyl tert -butyl Ether " BRL mg/Kg Benzene " BRL mg/Kg Toluene " BRL mg/Kg Ethylbenzene * BRL mg/Kg meta-Xylene and para-Xylene * BRL mg/Kg ortho- Xylene * BRL mg/Kg

QCSurrogate Companie	Spiked	Measured	SCOPE - A CONTROL OF THE PROPERTY OF THE PROPE	OC inns
2,5-Dibromotoluene (PID)	5.5	4.5	81 %	70 - 130 %
2,5-Dibromotoluene (FID)	5.5	4.5	80 %	70 - 130 %

QA/QC Certification

- 1. Were all QA/QC procedures required by the method followed?
- 2. Were all performance/acceptance standards for the required QA/QC procedures achieved?
- 3. Were any significant modifications made to the method, as specified in Section 11.3.2.1?

Method non-conformances indicated above are detailed below on this data report, or in the accompanying project narrative and project quality control report. Release of this data is authorized by the accompanying signed project cover letter. The accompanying cover letter, project narrative and quality control report are considered part of this data report.

Method Reference:

Method for the Determination of Volatile Petroleum Hydrocarbons, MA DEP (Revision 1.1, 2004). Results are reported on a dry weight basis.

Report Notations:

- BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- + Hydrocarbon range data excludes concentrations of any surrogate(s) and/or internal standards eluting in that range.
- n-C5 to n-C8 Aliphatic Hydrocarbons range data excludes the method target analyte concentrations.
- on-C9 to n-C12 Aliphatic Hydrocarbons range data excludes the method target analyte concentrations and the concentration for the n-C9 to n-C10 Aromatic Hydrocarbons range.
- Analyte elutes in the n-C5 to n-C8 Aliphatic Hydrocarbons range.
- 4 Analyte elutes in the n-C9 to n-C12 Aliphatic Hydrocarbons range.

Yes

Yes

Nο

GROUNDWATER ANALYTICAL

Massachusetts DEP VPH Method Volatile Petroleum Hydrocarbons by GC/PID/FID

Field ID: Project:

TP-1B

Matrix:

Soil

Client:

Lewis Chemical/2004-301 Environmental Strategies & Management

Contamer: Preservation:

40 mL VOA Vial Methanol / Cool

Laboratory ID:

84427-08

QC Batch ID:

VG3-1931-E

Sampled: Received: 06-01-05 10:20 06-03-05 19:30 Instrument ID:

GC-3 HP 5890

Analyzed:

06-13-05 13:09

Sample Weight:

12 g

Analyst:

JDH

Final Volume: % Solids:

15 mL

Dilution Factor:

86 1

VP1 Ranges	Concentration Notes	Units	Reporting Usus
n-C5 to n-C8 Aliphatic Hydrocarbons †	44	mg/Kg	1.4
n-C9 to n-C12 Aliphatic Hydrocarbons †®	21	mg/Kg	1.4
n-C9 to n-C10 Aromatic Hydrocarbons †	42	mg/Kg	1.4

Unadjusted n-C5 to n-C8 Aliphatic Hydrocarbons †	44	mg/Kg	1.4
<u>Unadjusted</u> n-C9 to n-C12 Aliphatic Hydrocarbons [†]	67	mg/Kg	1.4

CAS Number	Analyte	Concentration Notes	Units	Reporting Limit
1634-04-4	Methyl tert-butyl Ether #	BRL	mg/Kg	0.14
71-43-2	Benzene [¤]	BRL	mg/Kg	0.14
108-88-3	Toluene [#]	BRL	mg/Kg	0.14
100-41-4	Ethylbenzene [‡]	0.55	mg/Kg	0.14
108-38-3 and 106-42-3	meta- Xylene and para-Xylene †	0.59	mg/Kg	0.14
95-47-6	ortho- Xylene [‡]	2.3	mg/Kg	0.14
91-20-3	Naphthalene	BRL	mg/Kg	0.71

OC Surrogate Compound	5piked	Measured	Recovery	QC Lonis
2,5-Dibromotoluene (PID)	7.1	5.3	74 %	70 - 130 %
2,5-Dibromotoluene (FID)	<i>7.</i> 1	5.1	72 %	70 - 130 %

QA/QC Certification

- 1. Were all QA/QC procedures required by the method followed?
- 2. Were all performance/acceptance standards for the required QA/QC procedures achieved?

Yes

Yes

3. Were any significant modifications made to the method, as specified in Section 11.3.2.1?

No

Method non-conformances indicated above are detailed below on this data report, or in the accompanying project narrative and project quality control report. Release of this data is authorized by the accompanying signed project cover letter. The accompanying cover letter, project narrative and quality control report are considered part of this data report.

Method Reference:

Method for the Determination of Volatile Petroleum Hydrocarbons, MA DEP (Revision 1.1, 2004). Results are reported on a dry weight basis.

Report Notations:

- BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- Hydrocarbon range data excludes concentrations of any surrogate(s) and/or internal standards eluting in that range.
- ٥ n-C5 to n-C8 Aliphatic Hydrocarbons range data excludes the method target analyte concentrations.
- n-C9 to n-C12 Aliphatic Hydrocarbons range data excludes the method target analyte concentrations and the concentration for the n-C9 to n-C10 Aromatic Hydrocarbons range.
- Analyte elutes in the n-C5 to n-C8 Aliphatic Hydrocarbons range.
- Analyte elutes in the n-C9 to n-C12 Aliphatic Hydrocarbons range.



Massachusetts DEP VPH Method Volatile Petroleum Hydrocarbons by GC/PID/FID

Field ID:	TP-3	Matrix:	Soil
Project:	Lewis Chemical/2004-301	Container:	40 mL VOA Vial
Client:	Environmental Strategies & Management	Preservation:	
Laboratory ID:	84427-09	QC Batch ID:	VG3-1931-E
Sampled:	06-01-05 12:15	Instrument ID:	GC-3 HP 5890
Received:	06-03-05 19:30	Sample Weight:	12 g
Analyzed:	06-13-05 13:50	Final Volume:	15 mL
Analyst:	IDH	% Solids:	92
/ undiry ser	,	Dilution Factor:	1

VPH Ranges		Concentration Notes	Units	Reporting Color
	liphatic Hydrocarbons † 0	4.4	mg/Kg	1.3
n CO to n C12	Aliphatic Hydrocarbons **	BRL	mg/Kg	1.3
n-C9 to n-C10	Aromatic Hydrocarbons †	BRL	mg/Kg	1.3
	5 to n-C8 Aliphatic Hydrocarbons †	4.4	mg/Kg	1.3
Unadjusted n-C	29 to n-C12 Aliphatic Hydrocarbons f	BRL	mg/Kg	1.3
CAS Number		Conceptation Notes	Units	- Ryates Laid
1634-04-4	Methyl tert-butyl Ether #	BRL	mg/Kg	0.13
71-43-2	Benzene "	BRL	mg/Kg	0.13
7		201	malVa	0.12

Anarge		The state of the s	A SALES OF THE SAL
	BRL	mg/Kg	0.13
	BRL	mg/Kg	0.67
	Methyl tert-butyl Ether ** Benzene ** Toluene ** Ethylbenzene ** meta-Xylene and para-Xylene ** ortho- Xylene ** Naphthalene	Methyl tert-butyl Ether ** BRL Benzene ** BRL Toluene ** BRL Ethylbenzene ** BRL meta-Xylene and para-Xylene ** BRL ortho- Xylene ** BRL	Methyl tert-butyl Ether ** Bell mg/Kg Benzene ** Bell mg/Kg mg/Kg Bell mg/Kg meta-Xylene and para-Xylene ** Bell mg/Kg meta-Xylene and para-Xylene ** Bell mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg

Che Surrepeale Composition	Suke	Measured	Recovery-	
2,5-Dibromotoluene (PID)	6.7	4.7	70 %	70 - 130 %
2,5-Dibromotoluene (FID)	6.7	4.7	71 %	70 - 130 %

QA/QC Certification

- 1. Were all QA/QC procedures required by the method followed?
- 2. Were all performance/acceptance standards for the required QA/QC procedures achieved?
- 3. Were any significant modifications made to the method, as specified in Section 11.3.2.1?

Method non-conformances indicated above are detailed below on this data report, or in the accompanying project narrative and project quality control report. Release of this data is authorized by the accompanying signed project cover letter. The accompanying cover letter, project narrative and quality control report are considered part of this data report.

Method Reference:

Method for the Determination of Volatile Petroleum Hydrocarbons, MA DEP (Revision 1.1, 2004). Results are reported on a dry weight basis.

Report Notations:

- BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- † Hydrocarbon range data excludes concentrations of any surrogate(s) and/or internal standards eluting in that range.
- n-C5 to n-C8 Aliphatic Hydrocarbons range data excludes the method target analyte concentrations.
- n-C9 to n-C12 Aliphatic Hydrocarbons range data excludes the method target analyte concentrations and the concentration for the n-C9 to n-C10 Aromatic Hydrocarbons range.
- Analyte elutes in the n-C5 to n-C8 Aliphatic Hydrocarbons range.
- ‡ Analyte elutes in the n-C9 to n-C12 Aliphatic Hydrocarbons range.

Yes

Yes

No



Massachusetts DEP VPH Method Volatile Petroleum Hydrocarbons by GC/PID/FID

Field ID:	TP-6	Matrix:	Soil
Project:	Lewis Chemical/2004-301	Container:	40 mL VOA Vial
Client:	Environmental Strategies & Management	Preservation:	Methanol / Cool
Laboratory ID:	84427-10	QC Batch ID:	VG3-1931-E
Sampled:	06-02-05 10:10	Instrument ID:	GC-3 HP 5890
Received:	06-03-05 19:30	Sample Weight:	13 g
Analyzed:	06-13-05 14:31	Final Volume:	15 mL
Analyst:	JDH	% Solids:	84
•	-	Dilution Factor:	1

n-C5 to n-C8 Aliphatic Hydrocarbons † 0	110	mg/Kg	1.3
n-C9 to n-C12 Aliphatic Hydrocarbons **	2.0	mg/Kg	1.3
n-C9 to n-C10 Aromatic Hydrocarbons †	BRL	mg/Kg	1.3
Unadjusted n-C5 to n-C8 Aliphatic Hydrocarbons †	110	mg/Kg	1.3
Unadjusted n-C9 to n-C12 Aliphatic Hydrocarbons †	3.3	mg/Kg	1.3
CX Number Analyse	Concentration Not	es Units	Kepases Int.
1634-04-4 Methyl tert-butyl Ether ¹¹	BRL	mg/Kg	0.13
71 42 2 Parrong ^H	BRI	mg/Kg	0.13

Concentration

Analyte	Concentration Notes	Lant	
Methyl tert-butyl Ether	BRL	mg/Kg	0.13
	BRL	mg/Kg	0.13
	BRL	mg/Kg	0.13
	0.18	mg/Kg	0.13
	0.33	mg/Kg	0.13
	0.21	mg/Kg	0.13
	BRL	mg/Kg	0.67
	Analyfe Methyl tert -butyl Ether ** Benzene ** Toluene ** Ethylbenzene ** meta-Xylene and para-Xylene ** ortho- Xylene ** Naphthalene	Methyl tert-butyl Ether BRL Benzene BRL Toluene BRL Ethylbenzene O.18 meta-Xylene and para-Xylene ortho- Xylene BRL 0.18 0.33	Methyl tert-butyl Ether ** BRL mg/Kg Benzene ** BRL mg/Kg Toluene ** BRL mg/Kg Toluene ** BRL mg/Kg mg/Kg Methylbenzene ** 0.18 mg/Kg meta-Xylene and para-Xylene ** 0.33 mg/Kg ortho- Xylene ** 0.21 mg/Kg

46)C-Surrogale Coppound	Spiked	Measured	Recovery	The Average Constants
2,5-Dibromotoluene (PID)	6.7	3.5	53 % m	70 - 130 %
2,5-Dibromotoluene (FID)	6.7	3.6	53 % m	70 - 130 %

QA/QC Certification

- 1. Were all QA/QC procedures required by the method followed?
- 2. Were all performance/acceptance standards for the required QA/QC procedures achieved?
- Were any significant modifications made to the method, as specified in Section 11.3.2.1?

Method non-conformances indicated above are detailed below on this data report, or in the accompanying project narrative and project quality control report. Release of this data is authorized by the accompanying signed project cover letter. The accompanying cover letter, project narrative and quality control report are considered part of this data report.

Method Reference:

Method for the Determination of Volatile Petroleum Hydrocarbons, MA DEP (Revision 1.1, 2004). Results are reported on a dry weight basis.

Report Notations:

- BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- † Hydrocarbon range data excludes concentrations of any surrogate(s) and/or internal standards eluting in that range.
- on-C5 to n-C8 Aliphatic Hydrocarbons range data excludes the method target analyte concentrations.
- n-C9 to n-C12 Aliphatic Hydrocarbons range data excludes the method target analyte concentrations and the concentration for the n-C9 to n-C10 Aromatic Hydrocarbons range.
- Analyte elutes in the n-C5 to n-C8 Aliphatic Hydrocarbons range.
- # Analyte elutes in the n-C9 to n-C12 Aliphatic Hydrocarbons range.
- m Surrogate recovery outside recommended limits due to sample matrix interference.

Yes

No

No



TP-6

Massachusetts DEP VPH Method Volatile Petroleum Hydrocarbons by GC/PID/FID

Project: Client:

Field ID:

Lewis Chemical/2004-301

Environmental Strategies & Management, Inc.

84427-10RA1 Laboratory ID: 06-02-05 10:10 Sampled: 06-03-05 19:30 Received: 06-15-05 10:56 Analyzed:

IDH Analyst:

Soil Matrix:

40 mL VOA Viai Container: Preservation: Methanol/Cool

QC Batch ID: Instrument ID: Sample Weight:

VG3-1735-E GC-3 HP 5890

13 g Final Volume: 15 mL % Solids: 84 Dilution Factor: 1

VPH Ranges	Concentration Notes	Linis	Reporting Links
n-C5 to n-C8 Aliphatic Hydrocarbons † °	120	mg/Kg	1.3
n-C9 to n-C12 Aliphatic Hydrocarbons ^{†®}	BRL	mg/Kg	1.3
n-C9 to n-C10 Aromatic Hydrocarbons †	BRL	mg/Kg	1.3
All divided of the CO Alighetic Linderschape †	120	mg/Kg	1.3

Unadjusted n-C5 to n-C8 Aliphatic Hydrocarbons †	120	mg/Kg	1.3			
Unadjusted n-C9 to n-C12 Aliphatic Hydrocarbons †	2.6	mg/Kg	1.3			

CAS Number	Analyle	Concentration Note	S. Units	Reporting Land
1634-04-4	Methyl tert-butyl Ether "	BRL	mg/Kg	0.13
71-43-2	Benzene "	BRL	mg/Kg	0.13
108-88-3	Toluene [¤]	BRL	mg/Kg	0.13
100-41-4	Ethylbenzene [‡]	0.23	mg/Kg	0.13
108-38-3 and 106-42-3	meta- Xylene and para-Xylene †	0.43	mg/Kg	0.13
95-47-6	ortho- Xylene ‡	0.23	mg/Kg	0.13
91-20-3	Naphthalene	BRL	mg/Kg	0.67

QC Surrogate Compound	Spiked	Measured	Benjar	Constitution to the state of th
2,5-Dibromotoluene (PID)	6.7	3.4	51 % m	70 - 130 %
2,5-Dibromotoluene (FID)	6.7	3.5	52 % m	70 - 130 %

QA/QC Certification

- 1. Were all QA/QC procedures required by the method followed?
- 2. Were all performance/acceptance standards for the required QA/QC procedures achieved?

3. Were any significant modifications made to the method, as specified in Section 11.3.2.1?

No

Yes

No

Method non-conformances indicated above are detailed below on this data report, or in the accompanying project narrative and project quality control report. Release of this data is authorized by the accompanying signed project cover letter. The accompanying cover letter, project narrative and quality control report are considered part of this data report.

Method Reference:

Method for the Determination of Volatile Petroleum Hydrocarbons, MA DEP (Revision 1.1, 2004). Results are reported on a dry weight basis.

Report Notations:

- Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- Hydrocarbon range data excludes concentrations of any surrogate(s) and/or internal standards eluting in that range.
- n-C5 to n-C8 Aliphatic Hydrocarbons range data excludes the method target analyte concentrations. ٥
- n-C9 to n-C12 Aliphatic Hydrocarbons range data excludes the method target analyte concentrations and Ø the concentration for the n-C9 to n-C10 Aromatic Hydrocarbons range.
- Analyte elutes in the n-C5 to n-C8 Aliphatic Hydrocarbons range. Ħ
- Analyte elutes in the n-C9 to n-C12 Aliphatic Hydrocarbons range. #
- Surrogate recovery outside recommended limits due to sample matrix interference.



EPA Method 8021B

Aromatic and Halogenated Volatile Organics by GC/PID/ELCD

Field ID: Tank 1

Project: Lewis Chemical/2004-301

Client:

Environmental Strategies & Management, Inc.

Laboratory ID:

84427-11

Sampled: Received: 06-01-05 09:57 06-03-05 19:30 06-09-05 22:27

Analyzed: Analyst:

JH

Matrix: Container: Organic Liquid 250 mL Glass

Preservation:

Cool

QC Batch ID: Instrument ID: VG2-2871-S

Sample Weight:

GC-2 HP 5890 0.1 g

Final Volume: % Solids:

10 mL

% Solids: n/a
Dilution Factor: 4

CAS Number	A CONTROL OF THE PROPERTY OF T	Concentration Notes	Units	Units Reporting Limit		
75-71-8	Dichlorodifluoromethane	BRL	ug/Kg	100,000		
74-87-3	Chloromethane	BRL	ug/Kg	100,000		
75-01-4	Vinyl Chloride	BRL	ug/Kg	40,000		
74-83-9	Bromomethane	BRL	ug/Kg	100,000		
75-00-3	Chloroethane	BRL	ug/Kg	100,000		
75-69-4	Trichlorofluoromethane	BRL	ug/Kg	20,000		
75-35 -4	1,1-Dichloroethene	BRL	ug/Kg	20,000		
75-09-2	Methylene Chloride	BRL	ug/Kg	50,000		
156-60-5	trans -1,2-Dichloroethene	BRL	ug/Kg	20,000		
1634-04-4	Methyl tert-butyl Ether (MTBE)	BRL	ug/Kg	20,000		
75-34-3	1,1-Dichloroethane	BRL	ug/Kg	20,000		
156-59-2	cis-1,2-Dichloroethene	BRL	ug/Kg	20,000		
67-66-3	Chloroform	BRL	ug/Kg	20,000		
107-06-2	1,2-Dichloroethane	BRL	ug/Kg	20,000		
71-55-6	1,1,1-Trichloroethane	BRL	ug/Kg	20,000		
56-23-5	Carbon Tetrachloride	BRL	ug/Kg	20,000		
71-43-2	Benzene	BRL	ug/Kg	20,000		
78-87-5	1,2-Dichloropropane	BRL	ug/Kg	20,000		
79-01-6	Trichloroethene	BRL	ug/Kg	20,000		
75-27-4	Bromodichloromethane	BRL	ug/Kg	20,000		
110-75-8	2-Chloroethyl Vinyl Ether	BRL	ug/Kg	100,000		
10061-01-5	cis-1,3-Dichloropropene	BRL	ug/Kg	20,000		
10061-02-6	trans -1,3-Dichloropropene	BRL	ug/Kg	20,000		
79-00-5	1,1,2-Trichloroethane	BRL	ug/Kg	20,000		
108-88-3	Toluene	BRL	ug/Kg	20,000		
124-48-1	Dibromochloromethane	BRL	ug/Kg	20,000		
127-18-4	Tetrachloroethene	BRL	ug/Kg	20,000		
108-90-7	Chlorobenzene	BRL	ug/Kg	20,000		
100-41-4	Ethylbenzene	BRL	ug/Kg	20,000		
108-38-3 / 106-42-3	meta- Xylene and para- Xylene	36,000	ug/Kg	20,000		
75-25-2	Bromoform	BRL	ug/Kg	20,000		
95-47-6	ortho-Xylene	BRL	ug/Kg	20,000		
<i>79</i> -34-5	1,1,2,2-Tetrachloroethane	BRL	ug/Kg	20,000		
541-73-1	1,3-Dichlorobenzene	BRL	ug/Kg	20,000		
106-46-7	1,4-Dichlorobenzene	BRL	ug/Kg	20,000		
95-50-1	1,2-Dichlorobenzene	BRL	ug/Kg	20,000		
91-20-3	Naphthalene	160,000	ug/Kg	100,000		
			9.75			

QC Surrogate Compound	Spiked	Measured	Recovery	QC Limits
a,a,a-Trifluorotoluene	500	510	101 %	70 - 130 %
1,2-Dichloroethane-d4	500	490	98 %	70 - 130 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996). Sample preparation performed by EPA Method 5035A and EPA Method 5030B.

Report Notations:

RL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.



ASTM Method D3328-00 (Modified) Hydrocarbon Fingerprint by GC/FID

Field ID:

Tank 1

Lewis Chemical/2004-301 Environmental Strategies & Management, Inc.

Laboratory ID:

Sampled: Received:

Project

84427-11 06-01-05 09:57 06-03-05 19:30 06-09-05 00:00

Extracted: Analyzed:

06-09-05 00:00

Analyst:

MJB

Matrix:

Organic Liquid

250 mL Glass

Container: Preservation:-

Cool

QC Batch ID: Instrument ID:

HF-0380-M GC-4 HP 6890

Sample Weight:

2 g

Dilution Factor:

100

Qualitative Identification

This sample has GC/FID characteristics that are similar to:

- 1. Fuel Oil No. 2/Diesel Fuel
- Based on the distribution of isoprenoid hydrocarbons to the n-C Alkanes, the Fuel Oil #2 appears to be mildly weathered.

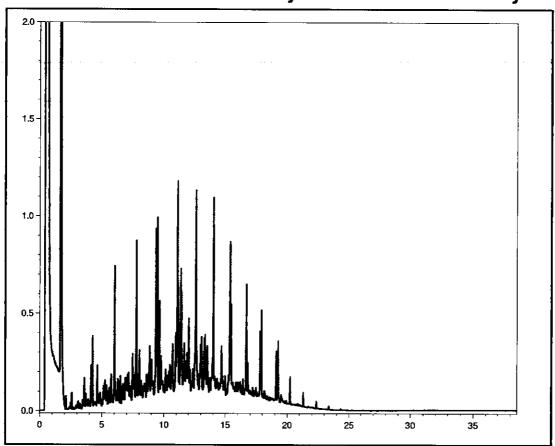
Method Reference:

Comparison of Waterborne Petroleum Oils by Gas Chromatography, Annual Book of ASTM Standards, Volume 11.02, American Society for Testing and Materials (2000). Sample extraction performed by solvent dilution.



ASTM METHOD D3328-00 (Modified) Hydrocarbon Fingerprinting by GC/FID





Retention Time (Minutes)



Inorganic Chemistry

Field ID: Tank 1

Project: Lewis Chemical/2004-301

Matrix:

Organic Liquid

Received: 06-03-05-19:30

Client:

Environmental Strategies & Management, Inc.

Preservation:	
QC Batch Method	Inst Analys

Lab ID: 84427-11 5	Sampled:	06-01-05 09:57					250 mL Glass		Preservation:		
The state of the s	- Marie - Mari	Result	Units	RL	DF	Weight	Analyzed =	QC Batch	Method	Inst	Analyst
Corrosivity (as pH)		6.1	рH	NA	1	20 g	06-09-05 10:00	PH-0612-5	EPA 9040B	1	JBW
Ignitability (as Flashpoint))	> 165	۰F	70	1	100 g	06-09-05 10:00	FP-0612-S	EPA 1010 Mod	2	JBW

Method Reference:

Methods for Chemical Analysis of Water and Wastes, US EPA, EPA-600/4-790-020 (Revised 1983), and Methods for the Determination of Inorganic Substances in Environmental Samples, LJS EPA, EPA/600/R-93/100 (1993), and Standard Methods for the Examination of Water and Wastewater, APHA, Twentieth Edition (1998), and Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996). Results are reported on a dry weight basis.

Report Notations:

Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

R1. Reporting Limit.

Dilution Factor.

Instrument ID: Accumet AR50 1

Instrument ID: Boekel 152800 Flash Point Tester



Field 1D:	Tank 1	Matrix:	Organic Liquid
Project:	Lewis Chemical/2004-301	Container:	250 mL Glass
- Client:	Environmental Strategies & Management, Inc.	Preservation:	Cool -
Laboratory ID:	84427-11	QC Batch ID:	PB-0449-W
Sampled:	06-01-05 09:57	Instrument ID:	GC-6 HP 5890
Received:	06-03-05 19:30	Sample Weight:	0.99 g
Extracted:	06-07-05 13:00	Final Volume:	1 mL
Cleaned Up:	06-08-05 08:00	Percent Solids:	n/a
Analyzed:	06-09-05 19:06	Dilution Factor:	1
Analyst:	CRL		

CAS Number	Analyse and analyse analyse and analyse analyse analyse analyse and analyse analyse and analyse analyse analyse and analyse analyse analyse analyse and analyse analyse analyse analyse analyse analyse analyse an	Concentration Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL	mg/Kg	1.7
11104-28-2	Aroclor 1221	BRL	mg/Kg	1.7
11141-16-5	Aroclor 1232	BRL	mg/Kg	1.7
53469-21-9	Aroclor 1242	BRL	mg/Kg	1.7
12672-29-6	Aroclor 1248	BRL	mg/Kg	1.7
11097-69-1	Aroclor 1254	BRL	mg/Kg	1.7
11096-82-5	Aroclor 1260	BRL	mg/Kg	1.7
37324-23-5	Aroclor 1262	BRL	mg/Kg	1. <i>7</i>
11100-14-4	Aroclor 1268	BRL	mg/Kg	1.7

QC Surrogate Co	Manual Agency and Agen	Spiked	Measured	Recovery	QCLimits
First	Tetrachloro-m -xylene	0.20	0.19	95 %	30 - 150 %
Column	Decachlorobiphenyl	0.20	0.23	116 %	30 - 150 %
Second	Tetrachloro-m-xylene	0.20	0.16	80 %	30 - 150 %
Column	Decachlorobiphenyl	0.20	0.18	90 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3580A. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Results are reported on a wet weight basis.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.



Field ID:	TP-4	Matrix:	Soil
Project:	Lewis Chemical/2004-301	Container:	250 ml. Glass
Client:	Environmental Strategies & Management	Preservation:	
Laboratory ID:	84427-12	QC Batch ID:	PB-2179-P
Sampled:	06-01-05 13:30	Instrument ID:	GC-6 HP 5890
Received:	06-03-05 19:30	Sample Weight:	15 g
Extracted:	06-08-05 13:00	Final Volume:	1 mL
Cleaned Up:	06-13-05 10:00	Percent Solids:	86
Analyzed:	06-15-05 12:35	Dilution Factor:	1
Analyst:	CRL		

CAS Number	Analyte	Concentration Notes	Units	Reputing Limit
12674-11-2	Aroclor 1016	BRL	ug/Kg	93
11104-28-2	Aroclor 1221	BRL	ug/Kg	93
11141-16-5	Aroclor 1232	BRL	ug/Kg	93
53469-21-9	Aroclor 1242	BRL	ug/Kg	93
12672-29-6	Aroclor 1248	4,400 e 1C (4,200)*	ug/Kg	93
11097-69-1	Aroclor 1254	BRL	ug/Kg	93
11096-82-5	Aroclor 1260	BRL	ug/Kg	93
37324-23-5	Aroclor 1262	BRL	ug/Kg	93
11100-14-4	Aroclor 1268 [†]	BRL	ug/Kg	93

QC Surrogate	Compound	Spiked	Measured	Recovery William	QC Limits
First	Tetrachloro-m -xylene	15	12	77 %	30 - 150 %
Column	Decachlorobiphenyl	15	15	98 %	30 - 150 %
Second	Tetrachloro-m-xylene	15	11	70 %	30 - 150 %
Column	Decachlorobiphenyl	15	13	87 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3545. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Results are reported on a dry weight basis.

Report Notations:

- BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- † Non-target analyte. Result is based on a single mid-range calibration standard.
- Confirmatory column quantification.
- 1C Concentration reported from first column.
- e Indicates concentration exceeded calibration range for the analyte.



Field ID:	TP-4	Matrix:	Soil
Project:	Lewis Chemical/2004-301	Container:	250 ml. Glass
Client:	Environmental Strategies & Management	Preservation:	Cool
Laboratory ID: Sampled: Received: Extracted:	84427-12RA1 06-01-05 13:30 06-03-05 19:30 06-08-05 13:00	QC Batch ID: Instrument ID: Sample Weight: Final Volume: Percent Solids:	PB-2179-P GC-6 HP 5890 15 g 1 mL 86
Cleaned Up: Analyzed: Analyst:	06-13-05 10:00 06-15-05 20:23 CRL	Dilution Factor:	5

	Annual of Articles of Control of	Concentration Notes	Units	Reporting Limit
7 mm 4- 1 mm / 4 1	Aroclor 1016	BRL	ug/Kg	460
12674-11-2	Aroclor 1221	BRL	ug/Kg	460
11104-28-2 11141-16-5	Aroclor 1232	BRL	ug/Kg	460
53469-21-9	Aroclor 1242	BRL	ug/Kg	460
12672-29-6	Aroclor 1248	5,400 1C (5,000)*	ug/Kg	460
11097-69-1	Aroclor 1254	BRL	ug/Kg	460
11096-82-5	Aroclor 1260	BRL	ug/Kg	460
37324-23-5	Aroclor 1262	BRL	ug/Kg	460
11100-14-4	Aroclor 1268	BRL	ug/Kg	460

				The second secon	
QC Surrogate C	ompound	Spiked	Measured	Becovery	QC Limits
First	Tetrachloro-m-xylene	15	12	76 %	30 - 150 %
	Decachlorobiphenyl	15	14	94 %	30 - 150 %
Column	Tetrachloro-m-xylene	15	12	81 %	30 - 150 %
Second		15	15	100 %	30 - 150 %
Column	Decachlorobionenyl	1.0	1.0	100 %	

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3545. Cleanup performed by EPA Method 3660B and EPA Method 3665A. Results are reported on a dry weight basis.

Report Notations:

- Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- Non-target analyte. Result is based on a single mid-range calibration standard.
- Confirmatory column quantification.
- Concentration reported from first column.



Field ID:	TP-2	Matrix:	Soil
Project:	Lewis Chemical/2004-301	Container:	250 mL Glass
Client:	Environmental Strategies & Management	Preservation:	Cool
Laboratory ID: Sampled:	84427-13 06-01-05 11:20	QC Batch ID: Instrument ID:	PB-2179-P GC-6 HP 5890 15 g
Received: Extracted:	06-03-05 19:30 06-08-05 13:00	Sample Weight: Final Volume: Percent Solids:	1 mL 85
Cleaned Up: Analyzed:	06-13-05 10:00 06-15-05 13:10	Dilution Factor:	1
Analyst:	CRL		

nalyst:	CRL		1 Indis	Reporting Lim
CAS Number	Anable	Concentration Notes	****	93
12674-11-2	Aroclor 1016	BRL	ug/Kg	
11104-28-2	Aroclor 1221	BRL	ug/Kg	93
	Aroclor 1232	BRL	ug/Kg	93
11141-16-5		BRL	ug/Kg	93
53469-21-9	Aroclor 1242	BRL	ug/Kg	93
12672-2 9- 6	Aroclor 1248		ug/Kg	93
11097-69-1	Aroclor 1254	BRL		93
11096-82-5	Aroclor 1260	BRL	ид/Кд	
37324-23-5	Aroclor 1262	BRL	ug/Kg	93
11100-14-4	Aroclor 1268 [†]	BRL	ug/Kg	93

		Called	Measured	Recovery	QC Limits
QC Surrogate C				78 %	30 - 150 %
First	Tetrachloro-m -xylene	15	12		30 - 150 %
Column	Decachlorobiphenyl	15	15	100 %	
Second	Tetrachloro-m-xylene	15	11	73 %	30 - 150 %
Column	Decachlorobiphenyl	15	14	88 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).
Sample extraction performed by EPA Method 3545. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Results are reported on a dry weight basis.

Report Notations:

Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

† Non-target analyte. Result is based on a single mid-range calibration standard.



endan.	TP-18	Matrix:	Soil
Field ID: Project: Client:	Lewis Chemical/2004-301 Environmental Strategies & Management	Container: Preservation:	250 mL Glass Cool
Laboratory ID: Sampled: Received: Extracted: Cleaned Up: Analyzed: Analyst:	84427-14 06-01-05 10:20 06-03-05 19:30 06-08-05 13:00 06-13-05 10:00 06-15-05 13:45 CRL	QC Batch ID: Instrument ID: Sample Weight: Final Volume: Percent Solids: Dilution Factor:	PB-2179-P GC-6 HP 5890 15 g 1 mi 86

Conce	entration	- 10 table	Note	5	Units	Reporting Limit
	1					
		BRL			ug/Kg	90
		DDI			ug/Kg	90
oclor 1221						90
oclor 1232		RKL				
oclor 1242		BRL			ug/Kg	90
	1,400	e	2C	(1,300)*	ug/Kg	90
		RDI			ug/Kg	90
oclor 1254						90
oclor 1260		RKL		- -		
	•	BRL			ug/Kg	90
		BRL.			ug/Kg	90
	oclor 1242 oclor 1248 oclor 1254	polor 1221 polor 1232 polor 1242 polor 1248 polor 1254 polor 1260 polor 1262 polor 1262	poctor 1232 BRL poctor 1242 BRL poctor 1248 1,400 e poctor 1254 BRL BRL poctor 1260 BRL BRL poctor 1262 [†] BRL BRL	BRL BRL	BRL BRL	BRL

				The same of the sa	AAADA AAAA AAAA AAAAA AAAAA AAAAA AAAAA AAAA
QC Surrogate	Compound	Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m-xylene	15	14	95 %	30 - 150 %
Column	Decachlorobiphenyl	15	17	113 %	30 - 150 %
	Tetrachloro-m-xylene	15	13	84 %	30 - 150 %
Second		15	15	100 %	30 - 150 %
⊥ Column	Decachlorobiphenyl	10_	13	100 A	

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3545. Cleanup performed by EPA Method 3660B and EPA Method 3665A. Results are reported on a dry weight basis.

Report Notations:

- Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- Non-target analyte. Result is based on a single mid-range calibration standard.
- Confirmatory column quantification.
- Concentration reported from second column. 2C
- Indicates concentration exceeded calibration range for the analyte.



erald in	TP-1B	Matrix:	Soil
Field ID: Project:	Lewis Chemical/2004-301	Container:	250 mL Glass
Client:	Environmental Strategies & Management	Preservation:	Cool
Laboratory ID: Sampled: Received: Extracted: Cleaned Up: Analyzed: Analyst:	84427-14RA1 06-01-05 10:20 06-03-05 19:30 06-08-05 13:00 06-13-05 10:00 06-15-05 20:58 CRL	QC Batch ID: Instrument ID: Sample Weight: Final Volume: Percent Solids: Dilution Factor:	PB-2179-P GC-6 HP 5890 15 g 1 mL 86 2

Analyst:	CRL	and the second s		Reporting Limit
CAS Number	Analyte	Concentration Notes	Units	180
12674-11-2	Aroclor 1016	BRL	ug/Kg	180
11104-28-2	Aroclor 1221	BRL	ug/Kg	
11141-16-5	Aroclor 1232	BRL	ug/Kg_	180
53469-21-9	Aroclor 1242	BRL	ug/Kg	180
12672-29-6	Aroclor 1248	1,500 2C (1,400)*	ug/Kg	180
	Aroclor 1254	BRL	ug/Kg	_180_
11097-69-1		BRL	ug/Kg	180
11096-82-5	Aroclor 1260	BRL	ug/Kg	180
37324-23-5	Aroclor 1262 T	BRL	ug/Kg	180
11100-14-4	Aroclor 1268			

				And the same of th	- OCLIMIS
QC Surrogate Co	mpound	Spiked	Measured	Recovery	
First	Tetrachloro-m -xylene	15	14	92 %	30 - 150 %
Column	Decachlorobiphenyl	15	16	105 %	30 - 150 %
Second	Tetrachioro-m-xylene	15	13	86 %	30 - 150 %
Column	Decachlorobiphenyl	15	15	97 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3545. Cleanup performed by EPA Method 3660B and EPA Method 3665A. Results are reported on a dry weight basis.

- BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- † Non-target analyte. Result is based on a single mid-range calibration standard.
- Confirmatory column quantification.
- 2C Concentration reported from second column.



oil
50 mL Glass
Cool
B-2179-P GC-6 HP 5890 5 g mL
22
5 r

nalyst:	CRL			Reporting I fin
CAS Number	Analyte	Concentration Holes	Units	84
12674-11-2	Aroclor 1016	BRL	ug/Kg	
11104-28-2	Aroclor 1221	BRL	ug/Kg	84
	Aroclor 1232	BRL	ug/Kg	<u>84</u>
11141-16-5		BRL	ug/Kg	84
53469-21-9	Aroclor 1242	BRL	ug/Kg	84
12672-29-6_	Aroclor 1248		ug/Kg	84
11097-69-1	Aroclor 1254	BRL	_	84
11096-82-5	Aroclor 1260	BRL	ug/Kg	
37324-23-5	Aroclor 1262 [†]	BRL	ug/Kg	84
11100-14-4	Aroclor 1268	BRL	ug/Kg	84

			Measured	Kerney	(A)C Limits
QC Surrogate Co	suprema	Singer	mcasuc,	and the second s	30 - 150 %
First	Tetrachloro-m-xylene	14	13	75 %	30 - 150 %
Column	Decachlorobiphenyl	14	13	92 %	
Second	Tetrachloro-m-xylene	14	9	67 %	30 - 150 %
Column	Decachlorobiphenyl	14	11	77 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3545. Cleanup performed by EPA Method 3660B and EPA Method 3665A. Results are reported on a dry weight basis.

- BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- † Non-target analyte. Result is based on a single mid-range calibration standard.



e: 1110	IP-6	Matrix:	Soil
Field ID: Project:	Lewis Chemical/2004-301 Environmental Strategies & Management	Container: Preservation:	250 mL Glass Cool
Client: Laboratory ID: Sampled: Received: Extracted: Cleaned Up: Analyzed:	84427-16 06-02-05 10:20 06-03-05 19:30 06-08-05 13:00 06-13-05 10:00 06-15-05 14:55	QC Batch ID: Instrument ID: Sample Weight: Final Volume: Percent Solids: Dilution Factor:	PB-2179-P GC-6 HP 5890 15 g 1 mL 84
Analyst:	CRL		

nalyst:	CRL		-Unis	Reporting Land
CAS Number	Analyse		ug/Kg	95
12674-11-2	Aroctor 1016	BRL		95
11104-28-2	Aroclor 1221	BRL	ug/Kg ug/Kg	95
11141-16-5	Aroclor 1232	BRL	ug/Kg	95
53469-21-9	Aroclor 1242	920 e 2C (850)*	ug/Kg	95
12672-29-6	Aroclor 1248	920 e 2C (850)* BRL	ug/Kg	95
11097-69-1	Aroclor 1254	BRL	ug/Kg	95
11096-82-5	Aroclor 1260	BRL	ug/Kg	95
37324-23-5	Aroclor 1262 T	BRL	ug/Kg	95
11100-14-4	Aroclor 1268	DRL		

		Spiked		Respect	GC Limits
QC Surrogate Co	ompound	Spiken :	RICASUICO		30 - 150 %
First	Tetrachloro-m-xylene	16	14	91 %	
1	Decachlorobiphenyl	16	15	94 %	30 - 150 %
Column		16	12	81 %	30 - 150 %
Second	Tetrachloro-m-xylene	16	1.3		30 - 150 %
Column	Decachlorobiphenyl	16	14	87_%	30 130 13

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3545. Cleanup performed by EPA Method 3660B and EPA Method 3665A. Results are reported on a dry weight basis.

- BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- + Non-target analyte. Result is based on a single mid-range calibration standard.
- Confirmatory column quantification.
- 2C Concentration reported from second column.
- e Indicates concentration exceeded calibration range for the analyte.



Field ID:	TP-6	Matrix:	Soil
Project:	Lewis Chemical/2004-301	Container:	250 mL Glass
Client:	Environmental Strategies & Management	Preservation:	Cool
Laboratory ID: Sampled: Received: Extracted: Cleaned Up: Analyzed: Analyst:	84427-16RA1 06-02-05 10:20 06-03-05 19:30 06-08-05 13:00 06-13-05 10:00 06-15-05 21:33 CRL	QC Batch ID: Instrument ID: Sample Weight: Final Volume: Percent Solids: Dilution Factor:	PB-2179-P GC-6 HP 5890 15 g 1 mL 84 2

	waye	Concentration Notes	Units	Republication
CAS Number	Aroclor 1016	BRL	ug/Kg	190
12674-11-2 11104-28-2	Aroclor 1221	BRL	ug/Kg	190
11141-16-5	Aroclor 1221	BRL	ug/Kg	190
53469-21-9	Aroclor 1242	BRL	ug/Kg	190
12672-29-6	Aroclor 1248	990 2C (900)*	ug/Kg	190
11097-69-1	Aroclor 1254	BRL	ug/Kg	190
11096-82-5	Aroclor 1260	BRL	ug/Kg	190
37324-23-5	Aroclor 1262	BRL	ug/Kg	190
11100-14-4	Aroclor 1268	BRL	ug/Kg	190

QC Surrogate C	programed Exp.	Spiked	Measured	Kearle,	QC limits
First	Tetrachloro-m -xylene	16	13	86 %	30 - 150 %
Column	Decachlorobiphenyl	16	15	98 %	30 - 150 %
Second	Tetrachloro-m-xylene	16	13	83 %	30 - 150 %
Column	Decachlorobiphenyl	16	14	90 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3545. Cleanup performed by EPA Method 3660B and EPA Method 3665A. Results are reported on a dry weight basis.

- BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- † Non-target analyte. Result is based on a single mid-range calibration standard.
- Confirmatory column quantification.
- 2C Concentration reported from second column.



		Matrix:	Soil
Field ID:	TP-4	Container:	120 mL Amber Glass
Project:	Lewis Chemical/2004-301 Environmental Strategies & Management, Inc.	Preservation:	Cool
Client: Laboratory ID: Sampled: Received: Extracted: Analyzed (AL): Analyzed (AR): Analyst:	84427-17 06-01-05 13:30 06-03-05 19:30 06-09-05 07:00 06-15-05 14:26 06-15-05 15:10	Sample Weight: Final Volume: % Solids: Aliphatic Dilution Factor: Aromatic Dilution Factor:	

Analyst:	MM			
EPH Range		Concentration	Notes - Units	Reporting Limit
	8 Aliphatic Hydrocarbons †	78	mg/Kg	34
n-C19 to n-C	36 Aliphatic Hydrocarbons †	280	mg/Kg mg/Kg	34
n-C11 to n-C	22 Aromatic Hydrocarbons ^{† ◊}	320	IIIg/Kg	
	n-C11 to n-C22 Aromatic Hydrocarbons †	340	mg/Kg	34
Unadjusted		100	N. S	Reporting Limit

	1 to n-C22 Aromatic Hydrocarbons	The state of the s	s Units	Reporting Limit
CAS Number	The state of the s	BRL	mg/Kg	0.57
91-20-3	Naphthalene	0.66	mg/Kg	0.57
91-57-6	2-Methylnaphthalene	2.6	mg/Kg	0.57
85-01-8	Phenanthrene		mg/Kg	0.57
83-32-9	Acenaphthene	1.1	mg/Kg	0.57
208-96-8	Acenaphthylene	BRL	mg/Kg	0.57
86-73-7	Fluorene	BRL	mg/Kg	0.57
120-12-7	Anthracene	BRL	mg/Kg	0.57
206-44-0	Fluoranthene	2.2		0.57
129-00-0	Pyrene	2.1	mg/Kg	0.57
56-55-3	Benzo[a]anthracene	1.2	mg/Kg	
218-01-9	Chrysene	2.1	mg/Kg	0.57
205-99-2	Benzo[b]fluoranthene	1.5	mg/Kg	0.57
207-08-9	Benzo[k]fluoranthene	1.1	mg/Kg	0.57
	Benzo[a]pyrene	1.4	mg/Kg_	0.57
50-32-8	Indeno[1,2,3-c,d]pyrene	0.64	mg/Kg	0.57
193-39-5		BRL	mg/Kg	0.57
<u>53-70-3</u>	Dibenzo[a,h]anthracene	1.2	mg/Kg	0.57
191 -24 -2	Benzo[g,h,i]perylene			

	A The second sec	Spiked	Measured	Recover	QC Limits
QC Surrogate Co Fractionation:	2-Fluorobiphenyl	3.0	1.9	62 %	40 - 140 %
	2-Bromonaphthalene	3.0	2.1	71 %	40 - 140 % 40 - 140 %
Extraction:	Chloro-octadecane	3.0	1.8	60 %	40 - 140 %
	ortho-Terphenyl	3.0	2.6	87 %	40 - 140 W

Ī	QA/QC Certification
Ī	1. Were all QA/QC procedures required by the method followed? 2. Were all performance/acceptance standards for the required QA/QC procedures achieved? 3. Were all performance/acceptance standards for the required QA/QC procedures achieved? 4. Supplies a procedure of the method as specified in Section 11.3.1.1?

3. Were any significant modifications made to the method, as specified in Section 11.3.1.1?

Method non-conformances indicated above are detailed below on this data report, or in the accompanying project narrative and project quality control report. Release of this data is authorized by the accompanying signed project cover letter. The accompanying cover letter, project narrative and quality control report are considered part of this data report.

Method Reference:

Method for the Determination of Extractable Petroleum Hydrocarbons, MA DEP (Revision 1.1, 2004).

Sample extraction performed by microwave accelerated solvent extraction technique. Results are reported on a dry weight basis.

Report Notations:

- BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- Hydrocarbon range data excludes concentrations of any surrogate(s) and/or internal standards eluting in that range.
- n-C11 to n-C22 Aromatic Hydrocarbons range data excludes the method target analyte concentrations.

Yes

Yes



E: LUD	IP-2	Matrix:	Soil
Field ID: Project:	Lewis Chemical/2004-301	Container:	120 mt Amber Glass
Client:	Environmental Strategies & Management, Inc.	Preservation:	Cool
Laboratory ID: Sampled:	84427-18 06-01-05 11:20 06-03-05 19:30	QC Batch ID: Instrument ID: Sample Weight:	EP-2072-M GC-9 Agilent 6890 15 g
Received: Extracted: Analyzed (AL): Analyzed (AR):	06-09-05 07:00 06-16-05 21:23 06-16-05 22:08 MM	Final Volume: % Solids: Aliphatic Dilution Factor: Aromatic Dilution Factor:	
Analyst:	MM		

Analysi.	IAMAR			
IPE Rang	many and the second sec	uncolration No	tes Units	Reporting Limit
and the second s	W-1	BRL	mg/Kg	35
n-C9 to n-C	18 Aliphatic Hydrocarbons †	BRL	mg/Kg	35
n-C19 to n-C	236 Aliphatic Hydrocarbons † C22 Aromatic Hydrocarbons † O	BRL	mg/Kg	35
			mg/Kg	35
Unadjusted	n-C11 to n-C22 Aromatic Hydrocarbons †	BRL	Ing/kg	

CAS Number	The control of the	Concentration Notes	Units	Reporting Limit
WARREN TO A MARKET THE PARTY OF	Naphthalene	BRL	mg/Kg	0.59
91-20-3		BRL	mg/Kg	0.59
91-57-6	2-Methylnaphthalene	BRL	mg/Kg	0.59
<u>85-01-8</u>	Phenanthrene	BRL	mg/Kg	0.59
83-32-9	Acenaphthene	BRL	mg/Kg	0.59
208-96-8	Acenaphthylene	BRL	mg/Kg	0.59
86-73-7	Fluorene		mg/Kg	0.59
120-12-7	Anthracene	BRL	mg/Kg	0.59
206-44-0	Fluoranthene	BRL		0.59
129-00-0	Pyrene	BRL	mg/Kg	0.59
56-55-3	Benzo[a]anthracene	BRL	mg/Kg	
218-01-9	Chrysene	BRL	mg/Kg	0.59
205-99-2	Benzo[b]fluoranthene	BRL	mg/Kg	0.59
207-08-9	Benzo[k]fluoranthene	BRL	mg/Kg_	0.59
50-32-8	Benzo[a]pyrene	BRL	mg/Kg	0.59
193-39-5	Indeno[1,2,3-c,d]pyrene	BRL	mg/Kg	0.59
	Dibenzo[a,h]anthracene	BRL	mg/Kg	0.59
53-70-3 191-24-2	Benzo[g,h,i]perylene	BRL	mg/Kg	0.59

10121					
QC Surrogate G	VVIII 17 17 19 17 17 18 18 18 18 18 18 18 18 18 18 18 18 18	Spiked	Measured	A CONTROL OF THE CONT	Control of the limits
Fractionation:	2-Fluorobiphenyl	3.1	2.6	82 %	40 - 140 %
T I I I I I I I I I I I I I I I I I I I	2-Bromonaphthalene	3.1	2.8	88 %	40 - 140 %
Extraction:	Chioro-octadecane	3.1	1.9	60 %	40 - 140 %
Extraction	ortho-Terphenyl	3.1	2.2	69 %	40 - 140 %

QA/QC Certification

- 1. Were all QA/QC procedures required by the method followed?
- Were all performance/acceptance standards for the required QA/QC procedures achieved?
- 3. Were any significant modifications made to the method, as specified in Section 11.3.1.1?

Method non-conformances indicated above are detailed below on this data report, or in the accompanying project narrative and project quality control report. Release of this data is authorized by the accompanying signed project cover letter. The accompanying cover letter, project narrative and quality control report are considered part of this data report.

Method Reference:

Method for the Determination of Extractable Petroleum Hydrocarbons, MA DEP (Revision 1.1, 2004).

Sample extraction performed by microwave accelerated solvent extraction technique. Results are reported on a dry weight basis.

Report Notations:

- BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- † Hydrocarbon range data excludes concentrations of any surrogate(s) and/or internal standards eluting in that range.
- n-C11 to n-C22 Aromatic Hydrocarbons range data excludes the method target analyte concentrations.

Yes

Yes



1118	TO 40	Matrix:	Soil
Field ID:	Lewis Chemical/2004-301	Container:	120 mL Amber Glass
Project: Client:	Environmental Strategies & Management, Inc.	Preservation:	Cool
Laboratory ID: Sampled:	84427-19 06-01-05 10:20		EP-2072-M GC-9 Agilent 6890
Received: Extracted:	06-03-05 19:30 06-09-05 07:00 06-15-05 17:24	Sample Weight: Final Volume: % Solids:	16 g 1 mL 86
Analyzed (AL): Analyzed (AR): Analyst:	06-15-05 17:24 06-15-05 18:08 MM	Aliphatic Dilution Factor: Aromatic Dilution Factor:	

		Concentration Moles	Units	Reputing Use
EHL ves		150	mg/Kg	33
n-C9 to n-C18	Aliphatic Hydrocarbons †	410	mg/Kg	33
n-C19 to n-C3	6 Aliphatic Hydrocarbons †	230	mg/Kg	33
	2 Aromatic Hydrocarbons † \$	260	mg/Kg	33
Unadjusted n	C11 to n-C22 Aromatic Hydrocarbons †		Units	Reporting Land
CAS Numbe	Audye		**************************************	0.55
91-20-3	Naphthalene	BRL	mg/Kg	
91-57-6	2-Methylnaphthalene	BRL	mg/Kg_	0.55
31-37-0	27700777777777	3.6	mg/Kg	0.55

	Analyte	Concensation Notes	- Units	rebuting and
CAS Number	1000	BRL	mg/Kg	0.55
91-20-3	Naphthalene	BRL	mg/Kg	0.55
91-57-6	2-Methylnaphthalene		mg/Kg	0.55
85-01-8	Phenanthrene	3.6	mg/Kg	0.55
83-32-9	Acenaphthene	BRL		0.55
208-96-8	Acenaphthylene	BRL	mg/Kg	0.55
86-73-7	Fluorene	BRL	mg/Kg	
120-12-7	Anthracene	0.82	mg/Kg	0.55
	Fluoranthene	5.5	mg/Kg	0.55
206-44-0		4.8	mg/Kg	0.55
129-00-0	Pyrene	2.9	mg/Kg	0.55
56-55-3	Benzo[a]anthracene	3.4	mg/Kg	0.55
218-01-9	Chrysene		mg/Kg	0.55
205-99-2	Benzo[b]fluoranthene	3.4	mg/Kg	0.55
207-08-9	Benzo[k]fluoranthene	3.4		0.55
50-32-8	Benzo[a]pyrene	3.6	mg/Kg	
193-39-5	Indeno[1,2,3-c,d]pyrene	2.5	mg/Kg	0.55
	Dibenzo[a,h]anthracene	0.72	mg/Kg	0.55
53-70-3	Benzo[g,h,i]perylene	2.7	mg/Kg	0.55
191-24-2	Benzolg,n,ijperytene			

191-24-2	Denzo[5/11/1]perytene				
		Spiked	Mersured	Remer	OCI inits
QC Surrogate G	2-Fluorobiphenyl	2.9	1.7	59 %	40 - 140 %
Fractionation:	2-Bromonaphthalene	2.9	1.8	61 %	40 - 140 %
Extraction:	Chloro-octadecane	2.9	1.6	56 %	40 - 140 %
LAURCHOII.	ortho-Terphenyl	2.9	2.7	91 %	40 - 140 %

QA/QC Certification

Were all QA/QC procedures required by the method followed?
 Were all performance/acceptance standards for the required QA/QC procedures achieved?
 Were any significant modifications made to the method, as specified in Section 11.3.1.1?

Yes Yes No

Method non-conformances indicated above are detailed below on this data report, or in the accompanying project narrative and project quality control report. Release of this data is authorized by the accompanying signed project cover letter. The accompanying cover letter, project narrative and quality control report are considered part of this data report.

Method Reference:

Method for the Determination of Extractable Petroleum Hydrocarbons, MA DEP (Revision 1.1, 2004).

Sample extraction performed by microwave accelerated solvent extraction technique. Results are reported on a dry weight basis.

- RL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- † Hydrocarbon range data excludes concentrations of any surrogate(s) and/or internal standards eluting in that range.
- n-C11 to n-C22 Aromatic Hydrocarbons range data excludes the method target analyte concentrations.



		Matrix:	Soil
Field ID:	TP-3 Lewis Chemical/2004-301		120 ml. Amber Glass
Project:	Environmental Strategies & Management, Inc.	Preservation:	Cool
Laboratory ID: Sampled: Received: Extracted: Analyzed (AL): Analyzed (AR):	84427-20 06-01-05 12:15 06-03-05 19:30 06-09-05 07:00 06-15-05 18:52 06-15-05 19:36	QC Batch ID: Instrument ID: Sample Weight: Final Volume: % Solids: Aliphatic Dilution Factor: Aromatic Dilution Factor:	
Analyst:	MM		

Analyst:	MUM			
		Concentration Note	es Units to	porting Limit
- Regulation		BRL	mg/Kg	32
n-C9 to n-C1	3 Aliphatic Hydrocarbons 1	64	mg/Kg	32
n-C19 to n-C	36 Aliphatic Hydrocarbons †	62	mg/Kg	32
n-C11 to n-C	22 Aromatic Hydrocarbons † °			
	-C11 to n-C22 Aromatic Hydrocarbons †	83	mg/Kg	
Unadjusted r			The second secon	contint limit

	1 to n-C22 Aromatic Tryarocarsons	Concentration Notes	Units	Reporting Limit
CAS Number	Analyte	BRL	mg/Kg	0.54
91-20-3	Naphthalene	BRL	mg/Kg	0.54
91-57-6	2-Methylnaphthalene		mg/Kg	0.54
85-01-8	Phenanthrene	2.7	mg/Kg	0.54
83-32-9	Acenaphthene	BRL	mg/Kg	0.54
208-96-8	Acenaphthylene	BRL	mg/Kg	0.54
86-73-7	Fluorene	BRL	mg/Kg	0.54
120-12-7	Anthracene	0.60	mg/Kg	0.54
206-44-0	Fluoranthene	3.6	mg/Kg	0.54
129-00-0	Pyrene	3.0		0.54
56-55-3	Benzo[a]anthracene	1.6	mg/Kg_	0.54
218-01-9	Chrysene	1.9	mg/Kg	0.54
205-99-2	Benzo[b]fluoranthene	1.6	mg/Kg	0.54
207-08-9	Benzo[k]fluoranthene	1.3	mg/Kg_	0.54
50-32-8	Benzo[a]pyrene	1.7	mg/Kg	
193-39-5	Indeno[1,2,3-c,d]pyrene	0.97	mg/Kg	0.54
53-70-3	Dibenzo[a,h]anthracene	BRL	mg/Kg	0.54
191-24-2	Benzo[g,h,i]perylene	1.2	mg/Kg	0.54

191-2-12		Sole	METER	Recovery	OC Limits
QC Surrogate G Fractionation:	2-Fluorobiphenyl	2.9	2.1	73 %	40 - 140 %
Fractionation:	2-Bromonaphthalene	2.9	2.2	76 %	40 - 140 % 40 - 140 %
Extraction:	Chloro-octadecane	2.9	1.7	58 %	40 - 140 %
2,11,12,13	ortho-Terphenyl	2.9	2.3_	81 %	40 - 140 %

The second secon	 QA/QC	Cectobcati
Company Compan	 	

- 1. Were all QA/QC procedures required by the method followed?
- 2. Were all performance/acceptance standards for the required QA/QC procedures achieved?

3. Were any significant modifications made to the method, as specified in Section 11.3.1.1?

Method non-conformances indicated above are detailed below on this data report, or in the accompanying project narrative and project quality control report. Release of this data is authorized by the accompanying signed project cover letter. The accompanying cover letter, project narrative and quality control report are considered part of this data report.

Method Reference:

Method for the Determination of Extractable Petroleum Hydrocarbons, MA DEP (Revision 1.1, 2004). Sample extraction performed by microwave accelerated solvent extraction technique. Results are reported on a dry weight basis.

Report Notations:

- Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- Hydrocarbon range data excludes concentrations of any surrogate(s) and/or internal standards eluting in that range.
- n-C11 to n-C22 Aromatic Hydrocarbons range data excludes the method target analyte concentrations.

Yes

Yes



Field ID:	TP-6	Matrix:	Soil
Project:	Lewis Chemical/2004-301	Container:	120 mL Amber Glass
Client:	Environmental Strategies & Management, Inc.	Preservation:	Cool
Laboratory ID:	84427-21	QC Batch ID:	EP-2080-M
Sampled:	06-02-05 10:10	Instrument ID:	GC-7 HP 5890
Received:	06-03-05 19:30	Sample Weight	: 16 g
Extracted:	06-16-05 07:00	Final Volume:	1 mL
	06-21-05 22:35	% Solids:	84
Analyzed (AL):	06-21-05 23:19	Aliphatic Dilution Fa	ector: 1
Analyzed (AR):	MM	Aromatic Dilution Fa	actor: 1

CH larges	Concentration No	des Linits	Reputing limit
n-C9 to n-C18 Aliphatic Hydrocarbons †	BRL	mg/Kg	34
n-C19 to n-C36 Aliphatic Hydrocarbons †	86	mg/Kg	34
n-C11 to n-C22 Aromatic Hydrocarbons † 0	110	mg/Kg	34
Unadjusted n-C11 to n-C22 Aromatic Hydrocarbons †	140	mg/Kg	34
Unadjusted n-CTT to n-C22 Atomatic Trydrocarbons			

CAS Number	APINO	Concentration Notes		Reporting Limit
Mary Control of the C	Naphthalene	BRL	mg/Kg	0.56
91-20-3	2-Methylnaphthalene	BRL	mg/Kg	0.56
91-57-6		2.1	mg/Kg	0.56
85-01-8	Phenanthrene	BRL	mg/Kg	0.56
83-32-9	Acenaphthene	BRL	mg/Kg	0.56
208-96-8	Acenaphthylene	BRL	mg/Kg	0.56
86-73-7	Fluorene			0.56
120-12-7	Anthracene	BRL	mg/Kg	
206-44-0	Fluoranthene	4.6	mg/Kg	0.56
129-00-0	Pyrene	3.8	mg/Kg	0.56
56-55-3	Benzo[a]anthracene	2.9	mg/Kg_	0.56
218-01-9	Chrysene	2.7	mg/Kg	0.56
205-99-2	Benzo[b]fluoranthene	3.6	mg/Kg	0.56
207-08-9	Benzo[k]fluoranthene	2.5	mg/Kg	0.56
50-32-8	Benzo[a]pyrene	3.3	mg/Kg	0.56
193-39-5	Indeno[1,2,3-c,d]pyrene	2.5	mg/Kg	0.56
53-70-3	Dibenzo[a,h]anthracene	0.58	mg/Kg	0.56
191-24-2	Benzo[g,h,i]perylene	2.2	mg/Kg	0.56

QC Surrogate Ci	ompound " " " " " " " " " " " " " " " " " " "	Spiked	Measured	Recovery	QCLIBITS
Fractionation:	2-Fluorobiphenyl	3.0	1.9	64 %	<u>40 - 140 %</u>
/ Indeposit of the second	2-Bromonaphthalene	3.0	1.9	62 %	40 - 140 %
Extraction:	Chloro-octadecane	3.0	1.8	59 %	40 - 140 %
Extraction	ortho-Terphenyl	3.0	2.1	71 %	40 - 140 %

QA/QC Certification

- 1. Were all QA/QC procedures required by the method followed?
- 2. Were all performance/acceptance standards for the required QA/QC procedures achieved?
- 3. Were any significant modifications made to the method, as specified in Section 11.3.1.1?

Method non-conformances indicated above are detailed below on this data report, or in the accompanying project narrative and project quality control report. Release of this data is authorized by the accompanying signed project cover letter. The accompanying cover letter, project narrative and quality control report are considered part of this data report.

Method Reference:

Method for the Determination of Extractable Petroleum Hydrocarbons, MA DEP (Revision 1.1, 2004).

Sample extraction performed by microwave accelerated solvent extraction technique. Results are reported on a dry weight basis.

Report Notations:

- BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- t Hydrocarbon range data excludes concentrations of any surrogate(s) and/or internal standards eluting in that range.
- n-C11 to n-C22 Aromatic Hydrocarbons range data excludes the method target analyte concentrations.

Yes

Yes No



Field ID:

Tank 1

1ewis Chemical/2004-301

Matrix:

Organic Liquid

Project:

Container:

250 mL Glass

Client:

Environmental Strategies & Management, Inc.

Preservation:

Coot

Laboratory ID:

84427-11

Sampled: Received: 06-01-05 09:57 06-03-05 19:30 Percent Solids:

n/a

Analysis Method EPA 6010B1 EPA 7471²

OC Batch ID MB-0634-5

MP-1796-5

Prep Method EPA 3050B EPA 7471A

<u>Prepared</u> 06-08-05 09:46 06-08-05 09:00 Sample Weight 0.5 g 0.6 g

Instrument ID ICP-1 PE 3000 CVAA-1 PE FIMS

<u>Analyst</u> EΒ EB

CAS Number	Analyte	Concentration Notes	Units	Reporting Limit	DE	Analyzed	Method
The state of the s	Arsenic, Total	BRL	mg/Kg	1.1	1	06-09-05 14:31	EPA 6010B1
7440-38-2	Barium, Total	BRL	mg/Kg	23	1	06-09-05 14:31	EPA 6010B1
7440-39-3	·	BRL	mg/Kg	0.57	1	06-09-05 14:31	EPA 6010B
7440-43-9	Cadmium, Total	BRL	mg/Kg	11	1	06-09-05 14:31	EPA 6010B1
7440-47-3	Chromium, Total	BRL	mg/Kg	11	1	06-09-05 14:31	EPA 6010B1
7439-92-1	Lead, Total	BRL	mg/Kg	0.046	 	06-08-05 15:25	EPA 7471 ²
7439-97-6	Mercury, Total	BRL	mg/Kg	11	1	06-09-05 14:31	EPA 6010B1
7782-49-2	Selenium, Total	BRL	mg/Kg	5.7	1	06-09-05 14:31	EPA 6010B1
7440-22-4	Silver, Total	DKL	mg/Ng		1		1

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Report Notations:

Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.



Field ID:

TP-4

Matrix:

Soil

Project:

Lewis Chemical/2004-301

Container:

250 mL Glass

Client:

Preservation:

Cool

Laboratory ID:

Environmental Strategies & Management, Inc.

Percent Solids:

86

Sampled: Received: 84427-12

06-01-05 13:30

06-03-05 19:30

Prepared

Sample Weight

Instrument ID

<u>Analyst</u>

Analysis Method

OC Batch ID

Prep Method

EPA 6010B1

MB-0634-S

Lead, Total

EPA 3050B

06-08-05 09:46

0.5 g

ICP-1 PE 3000

ĒΒ

CAS Number 7439-92-1

Concentration Analyte 280

mg/Kg

Analyzed Reporting Limit DF 06-09-05 13:53

Method EPA 6010B¹

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Results are reported on a dry weight basis.

Report Notations:

Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

Units



Field ID:

Matrix:

Soil

85

Project:

Lewis Chemical/2004-301

Container:

Percent Solids:

250 mL Glass

Client:

Environmental Strategies & Management, Inc.

Preservation: Cool

Laboratory ID:

84427-13

Sampled:

06-01-05 11:20

Received:

06-03-05 19:30

Analyte

Analysis Method

OC Batch ID

Prep Method

Sample Weight

Instrument ID

<u>Analyst</u>

EPA 6010B1

Prepared

MB-0634-S

EPA 3050B Concentration 06-08-05 09:46

Notes

0.5 g

Reporting Liant DF

ICP-1 PE 3000

Analyzed

06-09-05 14:01

ΕB Method

EPA 6010B

CAS Number 7439-92-1

11 mg/Kg Lead, Total Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Report Notations:

Method Reference:

Results are reported on a dry weight basis. Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

Units



Field ID:

TP-1B

Matrix:

Soil

Project:

Lewis Chemical/2004-301

Container:

250 mL Glass

Client:

Environmental Strategies & Management, Inc.

Preservation:

Coot

Laboratory ID:

84427-14

06-01-05 10:20

Percent Solids:

86

Sampled: Received:

06-03-05 19:30

Lead, Total

Analysis Method

QC Batch ID

Prep Method

<u>Prepared</u>

Sample Weight

11

Instrument ID

<u>Analyst</u>

EPA 6010B1

MB-0634-S

EPA 3050B

06-08-05 09:46

0.5 g

ICP-1 PE 3000

ΕB

EPA 6010B1

CAS Number 7439-92-1

Concentration Analyte

Notes Units Reporting Limit DE

Analyzed

06-09-05 14:04

Method

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Results are reported on a dry weight basis.

Report Notations:

Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

mg/Kg



Field ID:

TP-3

Matrix:

Soil

Project:

Lewis Chemical/2004-301

Container:

250 mL Glass

Client:

Environmental Strategies & Management, Inc.

Preservation:

Percent Solids:

Cool

92

Laboratory ID:

84427-15

Sampled: Received: 06-01-05 12:15 06-03-05 19:30

Lead, Total

Analysis Method

OC Batch ID

Prep Method

Prepared

Sample Weight

Instrument ID

Analyzed

06-09-05 14:07

<u>Analyst</u>

EPA 6010B1

MB-0634-S

EPA 3050B

06-08-05 09:46

CAS Number 7439-92-1

Concentration

Notes Units

0.5 g Reporting Limit

11

ICP-1 PE 3000

ΕB Method

EPA 6010B

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

4,800

Results are reported on a dry weight basis.

Report Notations:

Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

mg/Kg



Field ID:

TP-6

Matrix:

Soil

Project:

Lewis Chemical/2004-301

Container:

250 mL Glass

Client:

Environmental Strategies & Management, Inc.

Preservation:

Cool

Laboratory ID:

Percent Solids:

84

Sampled:

84427-16

06-02-05 10:20 06-03-05 19:30

Lead, Total

Received: **Analysis Method**

OC Batch ID

Prep Method

<u>Prepared</u>

Sample Weight

Instrument ID

<u>Analyst</u>

EPA 6010B1

ICP-1 P£ 3000

CAS Number

MB-0634-S

EPA 3050B

06-08-05 09:46

0.5 g

EΒ

7439-92-1

Concentration Analyte

Units Notes mg/Kg Reporting Limit DF 12

Analyzed 06-09-05 14:10

Method EPA 6010B1

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Results are reported on a dry weight basis.

Report Notations:

Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.



Project Narrative

Project: Lewis Chemical/2004-301 Lab ID: 84427
Client: Environmental Strategies & Management, Inc. Received: 06-03-05 19:30

A. Documentation and Client Communication

The following documentation discrepancies, and client changes or amendments were noted for this project:

Analysis for BTU was cancelled , per Joe Callahan, 06-09-05.

B. Method Modifications, Non-Conformances and Observations

The sample(s) in this project were analyzed by the references analytical method(s), and no method modifications, non-conformances or analytical issues were noted, except as indicated below:

- 1. EPA 6010B Note: Samples 84427-11,-12,-13,-14,-15,-16. Samples were analyzed for selected target analytes, as requested by client.
- EPA 8021B Non-conformance: Samples 84427-11. Identification of analytes detected is tentative. Confirmation by a secondary column, or GC/MS analysis, was not performed for positive results. Groundwater Analytical recommends utilizing EPA 8260B for definitive identification of any analytes detected.
- 3. EPA 8021B Note: Sample 84427-11. Non-target analyte(s) were present in the sample. Non-target analyte(s) had a peak height greater than 50% of the applicable surrogate.
- 4. EPA 8021B Note: Sample 84427-11. Sample was diluted prior to analysis. Dilution was required to keep all target analytes within calibration.
- 5. EPA 8082 Non-conformance: Samples 84427-12,-14,-16. Reported results for selected analyte exceeded the high standard of the associated calibration curve. Results are estimated. Samples were re-analyzed and reported with all analytes within calibration.
- EPA 8082 Note: Samples 84427-12,-14,-16. Sample were diluted prior to analysis. Dilution was required to keep all target analytes within calibration.
- EPA 8260B Non-conformance: Samples 84427-01, -03, -04, and -05. Laboratory control sample (LCS) analyte 1,4-Dioxane was above recommended recovery limits for QC batch VM1-1591-E.
- 8. MA DEP VPH Non-conformance: Sample 84427-10. Sample had surrogate recovery below recommended limits due to matrix interference. Sample was re-analyzed and reported for confirmation.

	rigirawi s	Inp blanks are also required. If VOA sample obligated		DIVES DINO MCP Data Certification is required. LIVES DINO MCP Drinking Water Sample Required.	MA DEP MCP Data Enhancement Affirmation		BENARKS / SPECIAL INSTRUCTIONS					LUM DIS TO		4105 pz0 179-113	g	953	h-d1 0561 5011	TIME	BAMPLE	Sampling	INSTRUCTIONS: Use separate line for each container (except replicates)	Jae (allaran	Project Manager:	Himee Rhoad	Sampler Name:	7024-301	Project Number:	Lawis Chemical	Project Name:	GROUNDWATER	
	1 -		D)		State	+	UCTIONS											SOIL OTHER	G WATER VATER SOLID ANIC LIGUIT	Matrix Type	each container (except replice	(508) 285 -4960	Telephone:	WHEN MA 02766	City / State / Zip:	184 west main st	Address:	ESTAN	Firm	228 Main Street, P.O. Box 1200 Buzzards Bay, MA 02532 Telephone (508) 759-4441 • FAX (508) 759-4475 www.groundwateranstytical.com	
,	☐ Dredge Material	☐ Wastewater	ter	MWRA	Deliverables W-1/8-1 □ PWS Form	Regulatory Program	DATA Q						5		1 2 4		75 11	#UMARE #Ont. Y	OA Veni oz Glasss oz Ander Glass B oz Glass 16 oz Glass Ander Glass S oz Plastic oz Plastic oz Plastic	Container	1			_ 				3		X (508) 759-4475	
	□ Matrix Spike □ Matrix Spike Duplicate	☐ Sample Duplicate		not project apacific unless prearranged. Project specific VD samples are charged on a per sample basis. Each MSD and Sample Duplicate requires an additional sample aliquo	Many regulatory programs and ErA metricule require project specific QC. Project specific QC includes Sample Duplicates, Laboratory QC Matrix Spikes, and/or Matrix Spike Duplicates, Laboratory QC	Project S	DATA QUALITY OBJECTIVES					ر ا		4 3		7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	-	HCI HMO, H,SO, NaOH		Proservences	GWA Quote:	Third Party Billing:		All LING	☐ Please Email to:	HUSH (HAN- (Rush requires flush Authorization Number)	PRIORITY (5 Business Days)	STANDARD (10 Business Days)	TURNAROUND	CHAIN-OF-CUSTODY RECORD AND WORK ORDER	
		□ Ріевве изе ваптрів:	Selection of QC Sample	rranged. Project specific 40 sample basis. Each MS, MSD se an additional sample aliqu	includes Sample Duplicates, publicates, laboratory OC	Project Specific QC					· 唐子子子	77 13 13 13 13 13 13 13 13 13 13 13 13 13					は、一般に推り、一般に	+6+8	NUMBER ONLY) ROAAZII	Ē	DEM	W7083		SD4	_	<u> </u>	OPTIO		NB	N RECORD	
	Method of Shipment: TGWA Courier		Relinquished by:	<u>ş</u>	<u>.</u>	Relinguished by S								-					908 MH PETE 908 218 Aromatic 218 Halomatic 218	KOLEUM S Soms	□602+ □601 □601/ □625 □625	PAHs only Posticides		525.2 505 🗆 5		0 Ac	is Only N Duly C Search	Volatiles Seminatellites Eliza	ANALYSIS REQUEST		
	□ Express Mair (□		Date	13/05 7:30	B	NOTE: All samples submitted subject to controlled to the submitted subject to the submitted subject to the submitted subject to the submitted subject to controlled submitted subject to submitted submitted subject to submitted submitted subject to submitted subject to submitted subject to submitted su	CITATION	CHAIN-OF-			\(\frac{1}{2}\)	V- -					X	0.6 0.5 0.5 0.5 0.7		e c	Po	Priority			DB/UBCI	Special Specia	nify For er Saropi otal	Will see a s			
	Legonal Appropri		Received by Laboratory:	Necesser by:	_	Received by:	Shoulded Terms and Condit	CHAIN-OF-CUSTODY RECORD						 		\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \			Diesel Range CT ETPH MA DEP EPH Hydrocarbon PH by SCAFI Gasoline Ran MA DEP VPH TCLP :: SPL Corroshify (:	Organic while ter Fingerp D (8015) go Orga H w/all te P 🗇 8 k	ngets (1,60/F) Annt (60/F) B Mood) Or mics (6/F) Ingets (1,12) Indexts (1,12) Personalist	PH Carbon D by ASTM santhative G ME G/ PH Carbon D only D V V M torital	Ranges of 103328-0 holy 10 ranges or 0A Sec	ily ni VOA (Pedici	des 🗇 Hert			Potrales in Hydrogerhan Haz.		
	Number:	Custody Seal	Shipping/Arralli Number:	36	2.er Gracommended 2, Container Count:	Receipt Temperature:	ons on reverse hereof.												MAR Butic Dis Micrate M Dissolved Pi Arrywskin OH & Graces COO TOO BOO TSS Cyanide, Te Colifor Dissol	CTRE CO	Chloride (166 Total Pho TS = 1 anide, Physical Tu	Repride (Sultate	s 1002/00		By (goldabil	ny, Pienci	\dashv	General Chemistry	2 10 0 0 0 0	
					à				Ħ	1	+		Ė	İ	E	ŧ	E		KB:	B7\ ~ <) , P. (RA.	1 - 1				yr	<u></u>	3		



Quality Assurance/Quality Control

A. Program Overview

Groundwater Analytical conducts an active Quality Assurance program to ensure the production of high quality, valid data. This program closely follows the guidance provided by *Interim Guidelines and Specifications for Preparing Quality Assurance Project Plans*, US EPA QAMS-005/80 (1980), and *Test Methods for Evaluating Solid Waste*, US EPA, SW-846, Update III (1996).

Quality Control protocols include written Standard Operating Procedures (SOPs) developed for each analytical method. SOPs are derived from US EPA methodologies and other established references. Standards are prepared from commercially obtained reference materials of certified purity, and documented for traceability.

Quality Assessment protocols for most organic analyses include a minimum of one laboratory control sample, one method blank, one matrix spike sample, and one sample duplicate for each sample preparation batch. All samples, standards, blanks, laboratory control samples, matrix spikes and sample duplicates are spiked with internal standards and surrogate compounds. All instrument sequences begin with an initial calibration verification standard and a blank; and excepting GC/MS sequences, all sequences close with a continuing calibration standard. GC/MS systems are tuned to appropriate ion abundance criteria daily, or for each 12 hour operating period, whichever is more frequent.

Quality Assessment protocols for most inorganic analyses include a minimum of one laboratory control sample, one method blank, one matrix spike sample, and one sample duplicate for each sample preparation batch. Standard curves are derived from one reagent blank and four concentration levels. Curve validity is verified by standard recoveries within plus or minus ten percent of the curve.

B. Definitions

Batches are used as the basic unit for Quality Assessment. A Batch is defined as twenty or fewer samples of the same matrix which are prepared together for the same analysis, using the same lots of reagents and the same techniques or manipulations, all within the same continuum of time, up to but not exceeding 24 hours.

Laboratory Control Samples are used to assess the accuracy of the analytical method. A Laboratory Control Sample consists of reagent water or sodium sulfate spiked with a group of target analytes representative of the method analytes. Accuracy is defined as the degree of agreement of the measured value with the true or expected value. Percent Recoveries for the Laboratory Control Samples are calculated to assess accuracy.

Method Blanks are used to assess the level of contamination present in the analytical system. Method Blanks consist of reagent water or an aliquot of sodium sulfate. Method Blanks are taken through all the appropriate steps of an analytical method. Sample data reported is not corrected for blank contamination.

Surrogate Compounds are used to assess the effectiveness of an analytical method in dealing with each sample matrix. Surrogate Compounds are organic compounds which are similar to the target analytes of interest in chemical behavior, but which are not normally found in environmental samples. Percent Recoveries are calculated for each Surrogate Compound.



LCSD

Category: QC Batch ID: MA DEP VPH

VG3-1735-E

Instrument ID: GC-3 HP 5890 Analyzed:

04-11-05 10:26

Analyzed:

Instrument ID: GC-3 HP 5890

70 - 130 %

Matrix: Units:

Soil mg/Kg Analyst:

JDH

5.0

4.8

96 %

04-11-05 21:43 JDH

Analyst:

CAS Number	Analyte Analyte		· L	Address of the state of the sta			CS Duplicate	The second secon	QC Lim	ids
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	**************************************	Spiked	Measured	Recovery	Spiked	Measured	Recovery	RPD	Snike	RPD
109-66-0	n- Pentane	2.5	3.0	119 %	2.5	2.9	117 %	2 %	70 - 130 %	25%
107-83-5	2-Methylpentane	2.5	2.8	111 %	2.5	2.8	112 %	0 %	70 - 130 %	25%
540-84-1	2,2,4-Trimethylpentane	2.5	2.7	109 %	2.5	2.7	109 %	0 %	70 - 130 %	25%
n/a	Aliphatic Group 1	7.5	8.5	113 %	7.5	8.4	112 %	1 %	70 - 130 %	25%
111-84-2	n- Nonane	2.5	2.5	101 %	2.5	2.4	95 %	5 %	70 - 130 %	25%
124-18-5	n- Decane	2.5	2.9	118 %	2.5	2.4	95 %	21 %	70 - 130 %	25%
1678-93-9	n-Butylcyclohexane	2.5	2.6	106 %	2.5	2.5	100 %	6 %	70 - 130 %	25%
n/a	Aliphatic Group 2	7.5	8.1	108 %	7.5	7.3	97 %	11 %	70 - 130 %	25%
1634-04-4	Methyl tert-butyl Ether	2.5	2.7	110 %	2.5	2.8	113 %	3 %	70 - 130 %	25%
71-43-2	Benzene	2.5	2.6	104 %	2.5	2.6	104 %	0 %	70 - 130 %	25%
108-88-3	Toluene	2.5	2.6	104 %	2.5	2.6	105 %	1 %	70 - 130 %	25%
100-41-4	Ethylbenzene	2.5	2.6	105 %	2.5	2.6	105 %	0 %	70 - 130 %	25%
108-38-3 and 106-42-3	meta-Xylene and para-Xylene	5.0	5.3	106 %	5.0	5.2	104 %	1 %	70 - 130 %	25%
95-47-6	ortho- Xylene	2.5	2.7	107 %	2.5	2.6	105 %	1 %	70 - 130 %	25%
95-63-6	1,2,4-Trimethylbenzene	2.5	2.7	108 %	2.5	2.6	105 %	3 %	70 - 130 %	25%
91-20-3	Naphthalene	2.5	2.8	114 %	2.5	2.3	93 %	20 %	<i>7</i> 0 - 130 %	25%
n/a	Aromatic Group	23	24	107 %	23	24	104 %	2 %	70 - 130 %	25%
OC Surrogate Co	Millound amount and a second an	Spiked	Measured	Recovery	Spiked	Measured	Recovery		QC Lino	Andrew Marie
2.5-Dibromotolu	ene (PID)	5.0	4.9	98 %	5.0	4.7	95 %		70 - 130 %	A STATE OF THE STA

Method Reference:

2,5-Dibromotoluene (FID)

Method for the Determination of Volatile Petroleum Hydrocarbons, MA DEP (Revision 1.1, 2004).

4.9

5.0

Report Notations:

All calculations performed prior to rounding. Quality Control Limits are defined by the methodology, or alternatively based upon the historical average recovery plus or minus three standard deviation units.



Category:

MA DEP VPH

Instrument ID:

GC-3 HP 5890

QC Batch ID:

VG3-1735-E

Analyzed:

04-11-05 11:07

70 - 130 %

Matrix:

Soil

Analyst:

IDH

VPH Ranges	- 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	AAA	Conce	ntration Notes	Units	Reporting Laur
n-C5 to n-C8 Alig	hatic Hydrocarbons ^{† ◊}			BRL	mg/Kg	1.0
	iphatic Hydrocarbons ^{†⊗}			BRL	mg/Kg	1.0
	omatic Hydrocarbons [†]			BRL	mg/Kg	1.0
Unadjusted n-C5	to n-C8 Aliphatic Hydrocart	oons †	1	BRL	mg/Kg	1.0
Unadjusted n-C9	to n-C12 Aliphatic Hydroca	rbons †		BRL	mg/Kg	1.0
CAS Number	Analyse	William Press of the Control of the	Conce	ntration	Lists	Reporting Final
1634-04-4	Methyl tert-butyl Ether *			BRL	mg/Kg	0.10
71-43-2	Benzene [#]			BRL	mg/Kg	0.10
108-88-3	Toluene *			BRL	mg/Kg	0.10
100-41-4	Ethylbenzene ‡			BRL	mg/Kg	0.10
108-38-3 and 106-42-3	meta- Xylene and para -Xy	lene [‡]		BRL	mg/Kg	0.10
95-47-6	ortho- Xylene [‡]			BRL	mg/Kg	0.10
91-20-3	Naphthalene			BRL	mg/Kg	0.50
QC Surrogate Co	AND DOUBLE CONTROL OF THE CONTROL OF	Spiked	Measured	Recovery		C Limits
2,5-Dibromotolu	iene (PID)	5.0	5.1	102 %	70	- 130 %

Method Reference:

2,5-Dibromotoluene (FID)

5.2 Method for the Determination of Volatile Petroleum Hydrocarbons, MA DEP (Revision 1.1, 2004).

Report Notations:

Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

104 %

- + Hydrocarbon range data excludes concentrations of any surrogate(s) and/or internal standards eluting in that range.
- ٥ n-C5 to n-C8 Aliphatic Hydrocarbons range data excludes the method target analyte concentrations.
- 8 n-C9 to n-C12 Aliphatic Hydrocarbons range data excludes the method target analyte concentrations and the concentration for the n-C9 to n-C10 Aromatic Hydrocarbons range.
- Ħ Analyte elutes in the n-C5 to n-C8 Aliphatic Hydrocarbons range.
- Analyte elutes in the n-C9 to n-C12 Aliphatic Hydrocarbons range.



LCS

LCSD

EPA Method 8260B

QC Batch ID: VM1-1591-EL

Instrument ID: MS-1 HP 5890 Analyzed:-06-08-05 06:12

Analyzed:

Instrument ID: MS-1 HP 5890 06-08-05 06:47

Matrix: Soil

Analyst:

LMG

LMG

Analyst:

Units:	ug/Kg								Page:	1 of 2
CAS Number	1		- Te	TANK AVY		= 16	S Duplicate		QC Lin	oits
	Section 1 Sectio	Spiked	Measured	Recovery	Spilled	Measured	Recovery	RPD	Spike	RPD
75-71-8	Dichlorodifluoromethane	2500	2400	96 %	2500	1900	<i>7</i> 5 %	25 %	70 - 130 %	25%
74-87-3	Chloromethane	2500	2700	106 %	2500	2200	87 %	20 %	70 - 130 %	25%
75-01-4	Vinyl Chloride	2500	2900	115 %	2500	2400	96 %	19 %	70 - 130 %	25%
74-83-9	Bromomethane	2500	2600	103 %	2500	2100	84 %	20 %	70 - 130 %	25%
75- 0 0-3	Chloroethane	2500	2700	108 %	2500	2200	87 %	22 %	70 - 130 %	25%
75-69-4	Trichlorofluoromethane	2500	2600	106 %	2500	2200	87 %	19 %	70 - 130 %	25%
60-29-7	Diethyl Ether	5000	5300	106 %	5000	4300	87 %	20 %	70 - 130 %	25%
75-35-4	1,1-Dichloroethene	2500	2900	116 %	2500	2400	98 %	17 %	70 - 130 %	25%
76-13-1	1,1,2-Trichlorotrifluoroethane	5000	5600	113 %	5000	4700	93 %	19 %	70 - 130 %	25%
67 -64- 1	Acetone	5000	4400	87 %	5000	3900	78 %	11 %	70 - 130 %	25%
75-15 - 0	Carbon Disulfide	5000	5000	100 %	5000	4200	84 %	18 %	70 - 130 %	25%
75-09-2	Methylene Chloride	2500	2500	100 %	2500	2100	86 %	15 %	70 - 130 %	25 %
156-60-5	trans-1,2-Dichloroethene	2500	2600	105 %	2500	2200	89 %	16 %	70 - 130 %	25%
1634-04-4	Methyl tert-butyl Ether (MTBE)	2500	2500	98 %	2500	2100	83 %	17 %	70 - 130 %	25%
75-34-3	1,1-Dichloroethane	2500	2500	101 %	2500	2200	87 %	15 %	70 - 130 %	25%
594-20-7	2,2-Dichloropropane	2500	2600	105 %	2500	2300	93 %	12 %	70 - 130 %	25%
156-59-2	cis-1,2-Dichloroethene	2500	2600	103 %	2500	2200	88 %	16 %	70 - 130 %	25%
78-93-3	2-Butanone (MEK)	5000	4200	84 %	5000	3700	73 %	14 %	70 - 130 %	25%
74-97-5	Bromochloromethane	2500	2600	103 %	2500	2200	87 %	17 %	70 - 130 %	25%
109-99-9	Tetrahydrofuran (THF)	5000	4400	89 %	5000	3800	75 %	16 %	70 - 130 %	25%
67-66-3	Chloroform	2500	2400	96 %	2500	2000	82 %	16 %	70 - 130 %	25%
71-55 -6	1,1,1-Trichloroethane	2500	2400	97 %	2500	2100	83 %	15 %	70 - 130 %	25%
56-23-5	Carbon Tetrachloride	2500	2400	98 %	2500	2000	82 %	18 %	70 - 130 %	25%
563-58-6	1,1-Dichloropropene	2500	2600	106 %	2500	2300	90 %	16 %	70 - 130 %	25%
71-43-2	Benzene	2500	2600	103 %	2500	2300	90 %	13 %	70 - 130 %	25%
107-06-2	1,2-Dichloroethane	2500	2300	92 %	2500	2000	78 %	16 %	70 - 130 %	25%
79-01-6	Trichloroethene	2500	2500	102 %	2500	2200	87 %	15 %	70 - 130 %	25%
78-87-5	1,2-Dichloropropane	2500	2500	99 %	2500	2100	85 %	16 %	70 - 130 %	25%
74-95-3	Dibromomethane	2500	2400	95 %	2500	2100	82 %	14 %	70 - 130 %	25%
75-27-4	Bromodichloromethane	2500	2500	100 %	2500	2100	85 %	17 %	70 - 130 %	25%
123-91-1	1,4-Dioxane	50000	68000	136 % q	50000	59000	118 %	14 %	70 - 130 %	25%
10061-01-5	cis-1,3-Dichloropropene	2500	2600	102 %	2500	2100	86 %	17 %	70 - 130 %	25%
108-10-1	4-Methyl-2-Pentanone (MIBK)	5000	4400	88 %	5000	3800	75 %	16 %	70 - 130 %	25%
108-88-3	Toluene	2500	2500	101 %	2500	2200	87 %	14 %	70 - 130 %	25%
10061-02-6	trans-1,3-Dichloropropene	2500	2300	91 %	2500	2000	79 %	14 %	70 - 130 %	25%
79-00-5	1,1,2-Trichloroethane	2500	2900	116 %	2500	2600	102 %	13 %	70 - 130 %	25%
127-18-4	Tetrachloroethene	2500	3000	122 %	2500	2600	104 %	16 %	70 - 130 %	25%
142-28-9	1,3-Dichloropropane	2500	3000	119 %	2500	2500	99 %	18 %	70 - 130 %	25%
591-78-6	2-Hexanone		\vdash				88 %			
124-48-1	Dibromochloromethane	5000 2500	5100 2800	101 %	5000	4400 2200		14 %	70 - 130 %	25%
106-93-4	1,2-Dibromoethane (EDB)	2500	2800	110 % 113 %	2500	2300	92 % 99 %	18 %	70 - 130 %	25%
108-90-7	Chlorobenzene	2500	2900	118 %	2500 2500	2500 2500		14 %	70 - 130 %	25%
630-20-6	1,1,1,2-Tetrachloroethane	2500			2500	-	101 %	15 %	70 - 130 %	25%
100-41-4	Ethylbenzene	+-	2800	113 %		2500	99 %	13 %	70 - 130 %	25%
100-41-4	meta- Xylene and para- Xylene	2500	2900	118 %	2500	2600	103 %	13 %	70 - 130 %	25%
95-47-6		5000	6000	121 %	5000	5200	104 %	15 %	70 - 130 %	25%
	ortho-Xylene	2500	3000	118 %	2500	2500	102 %	15 %	70 - 130 %	25%
100-42-5	Styrene	2500	3000	120 %	2500	2600	105 %	13 %	70 - 130 %	25%
75-25-2	Bromoform	2500	2800	114 %	2500	2300	94 %	19 %	70 - 130 %	25%
98-82-8	Isopropylbenzene	2500	2700	107 %	2500	2400	96 %	11 %	70 - 130 %	25%



LCS

LCSD

QC Batch ID: VM1-1591-EL

EPA Method 8260B Analyzed:

Instrument ID: MS-1 IIP 5890 -- 06-08-05-06:12

Analyzed:

Instrument ID: MS-1 HP 5890 06-08-05-06:47

Matrix:

Soil

Analyst:

LMG

Units:

ug/Kg

LMG

Analyst:

Page: 2 of 2

CAS Number	A STATE OF THE STA		- tcs		Amalo Listoro	i le	QCEin	aits :		
		Spiled	Measured	Recovery	Spiked	Measured	Recovery	RPD	Spile	RPD
108-86-1	Bromobenzene	2500	2600	105 %	2500	2300	93 %	12 %	70 - 130 %	25%
<i>7</i> 9-34-5	1,1,2,2-Tetrachloroethane	2500	2600	105 %	2500	2200	88 %	17 %	70 - 130 %	25%
96-18-4	1,2,3-Trichloropropane	2500	2700	107 %	2500	2300	92 %	15 %	70 - 130 %	25%
103-65-1	n-Propylbenzene	2500	2700	107 %	2500	2400	97 %	9 %	70 - 130 %	25%
95-49-8	2-Chlorotoluene	2500	2700	108 %	2500	2500	98 %	9 %	70 - 130 %	25%
108-67-8	1,3,5-Trimethylbenzene	2500	2600	105 %	2500	2300	93 %	12 %	70 - 130 %	25%
106-43-4	4-Chlorotoluene	2500	2800	114 %	2500	2500	100 %	13 %	70 - 130 %	25%
98-06-6	tert-Butylbenzene	2500	2600	105 %	2500	2300	93 %	12 %	70 - 130 %	25%
95-63-6	1,2,4-Trimethylbenzene	2500	2700	106 %	2500	2300	94 %	13 %	70 - 130 %	25%
135-98-8	sec -Butylbenzene	2500	2600	103 %	2500	2400	95 %	8 %	70 - 130 %	25%
541-73-1	1,3-Dichlorobenzene	2500	2600	103 %	2500	2400	95 %	8 %	70 - 130 %	25%
99-87-6	4-isopropyltoluene	2500	2700	108 %	2500	2400	97 %	10 %	70 - 130 %	25%
106-46-7	1,4-Dichlorobenzene	2500	2600	106 %	2500	2500	98 %	7 %	70 - 130 %	25%
95-50-1	1,2-Dichlorobenzene	2500	2600	102 %	2500	2300	94 %	9 %	70 - 130 %	25%
104-51-8	n-Butylbenzene	2500	2800	114 %	2500	2500	100 %	13 %	70 - 130 %	25%
96-12-8	1,2-Dibromo-3-chloropropane	2500	2600	103 %	2500	2300	93 %	10 %	70 - 130 %	25%
120-82-1	1,2,4-Trichlorobenzene	2500	2900	115 %	2500	2600	104 %	10 %	70 - 130 %	25%
87-68-3	Hexachlorobutadiene	2500	2800	113 %	2500	2500	101 %	11 %	70 - 130 %	25%
91-20-3	Naphthalene	2500	2500	100 %	2500	2100	84 %	18 %	70 - 130 %	25%
87-61-6	1,2,3-Trichlorobenzene	2500	2800	111 %	2500	2500	100 %	10 %	70 - 130 %	25%
75-65-0	tert -Butyl Alcohol (TBA)	50000	39000	79 %	50000	36000	73 %	8 %	70 - 130 %	25%
108-20-3	Di-isopropyl Ether (DIPE)	2500	2600	103 %	2500	2300	91 %	13 %	70 - 130 %	25%
637-92-3	Ethyl tert-butyl Ether (ETBE)	2500	2500	100 %	2500	2200	90 %	11 %	70 - 130 %	25%
994-05-8	tert-Amyl Methyl Ether (TAME)	2500	2500	99 %	2500	2100	85 %	16 %	70 - 130 %	25%

C Survicio Componid	Spled	Measured	Recovery	Spiked	Messel	Recovery	C Lands 1
Dibromofluoromethane	2,500	2,400	94 %	2,500	2,300	92 %	70 - 130 %
1,2-Dichloroethane-d ₄	2,500	2,500	100 %	2,500	2,300	94 %	70 - 130 %
Toluene-d ₈	2,500	2,600	104 %	2,500	2,600	105 %	70 - 130 %
4-Bromofluorobenzene	2.500	2.600	106 %	2 500	2 800	113 %	70 - 130 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample preparation performed by EPA Method 5030B.

Report Notations:

All calculations performed prior to rounding. Quality Control Limits are defined by the methodology, or alternatively based upon the historical average recovery plus or minus three standard deviation units.

Recovery outside recommended limits.



Category: QC Batch ID: EPA Method 8260B

VM1-1591-EB

Matrix: Soil

Instrument ID:

MS-1 HP 5890

Analyzed: Analyst: 06-08-05 07:22 LMG

				Page: 1 of 2
CAS Number	A	Concentration Notes	Units	Reporting Limit
75-71-8	Dichlorodifluoromethane	BRL	ug/Kg	500
74-87-3	Chloromethane	BRL	ug/Kg	500
75-01-4	Vinyl Chloride	BRL	ug/Kg	500
74-83-9	Bromomethane	BRL	ug/Kg	500
75-00-3	Chloroethane	BRL	ug/Kg	500
75-69-4	Trichlorofluoromethane	BRL	ug/Kg	500
60-29-7	Diethyl Ether	BRL	ug/Kg	500
75-35-4	1,1-Dichloroethene	BRL	ug/Kg	250
76-13-1	1,1,2-Trichlorotrifluoroethane	BRI.	ug/Kg	2500
67-64-1	Acetone	BRL	ug/Kg	2500
<i>75</i> -15-0	Carbon Disulfide	BRL	ug/Kg	2500
75-09-2	Methylene Chloride	BRL	ug/Kg	1000
156-60-5	trans-1,2-Dichloroethene	BRL	ug/Kg	250
1634-04-4	Methyl tert-butyl Ether (MTBE)	BRL	ug/Kg	250
75-34-3	1,1-Dichloroethane	BRL	ug/Kg	250
594-20-7	2,2-Dichloropropane	BRL	ug/Kg	250
156-59-2	cis-1,2-Dichloroethene	BRL	ug/Kg	250
78-93-3	2-Butanone (MEK)	BRL	ug/Kg	2500
74-97-5	Bromochloromethane	BRL	ug/Kg	250
109-99-9	Tetrahydrofuran (THF)	BRL	ug/Kg	2500
67-66-3	Chloroform	BRL	ug/Kg	250
71-55-6	1,1,1-Trichloroethane	BRL	ug/Kg	250
56-23-5	Carbon Tetrachloride	BRL	ug/Kg	250
563-58-6	1,1-Dichloropropene	BRL	ug/Kg	250
71-43-2	Benzene	BRL	ug/Kg	250
71 -4 3-2 107-06-2	1,2-Dichloroethane	BRL	ug/Kg	250
79-01-6	Trichloroethene	BRL	ug/Kg	250
		BRL	ug/Kg	250
78-87-5	1,2-Dichloropropane Dibromomethane	BRL	ug/Kg	250
74-95-3		BRL	ug/Kg	250
75-27-4	Bromodichloromethane	BRL	ug/Kg	250000
123-91-1	1,4-Dioxane	BRL		250
10061-01-5	cis-1,3-Dichloropropene	BRL	ug/Kg ug/Kg	2500
108-10-1	4-Methyl-2-Pentanone (MIBK)			250
108-88-3	Toluene	BRL	ug/Kg	250
10061-02-6	trans-1,3-Dichloropropene	BRL	ug/Kg	250
79-00-5	1,1,2-Trichloroethane	BRL	ug/Kg	250
127-18-4	Tetrachloroethene	BRL	ug/Kg	250
142-28-9	1,3-Dichloropropane	BRL	ug/Kg	
591-78-6	2-Hexanone	BRL	ug/Kg	2500
124-48-1	Dibromochloromethane	BRL	ug/Kg	250
106-93-4	1,2-Dibromoethane (EDB)	BRL	ug/Kg	250
108-90-7	Chlorobenzene	BRL	ug/Kg	250
630-20-6	1,1,1,2-Tetrachloroethane	BRL	ug/Kg	250
100-41-4	Ethylbenzene	BRL	ug/Kg	250
08-38-3/106-42-3	meta-Xylene and para-Xylene	BRL	ug/Kg	250
95-47-6	ortho- Xylene	BRL	ug/Kg	250
100-42-5	Styrene	BRL	ug/Kg	250
75-25-2	Bromoform	BRL	ug/Kg	250
98-82-8	Isopropylbenzene	BRL	ug/Kg	250



Category: QC Batch ID:

Matrix:

EPA Method 8260B

VM1-1591-EB

Soit

Instrument ID:

MS-1 HP 5890

Analyzed:

06-08-05 07:22

Analyst:

LMG -

Page: 2 of 2

CAS Number	Analyte	Concentration Notes	Units	Reporting Limit
108-86-1	Bromobenzene	BRL	ug/Kg	250
79-34-5	1,1,2,2-Tetrachloroethane	BRL	ug/Kg	250
96-18-4	1,2,3-Trichloropropane	BRL	ug/Kg	250
103-65-1	n-Propylbenzene	BRL	ug/Kg	250
95-49-8	2-Chlorotoluene	BRL	ug/Kg	250
108-67-8	1,3,5-Trimethylbenzene	BRL	ug/Kg	250
106-43-4	4-Chlorotoluene	BRL	ug/Kg	250
98-06-6	tert- Butylbenzene	BRL.	ug/Kg	250
95-63-6	1,2,4-Trimethylbenzene	BRL	ug/Kg	250
135-98-8	sec-Butylbenzene	BRL	ug/Kg	250
541-73-1	1,3-Dichlorobenzene	BRL	ug/Kg	250
99-87-6	4-Isopropyltoluene	BRL	ug/Kg	250
106-46-7	1,4-Dichlorobenzene	BRL	ug/Kg	250
95-50-1	1,2-Dichlorobenzene	BRL	ug/Kg	250
104-51-8	n-Butylbenzene	BRL	ug/Kg	250
96-12-8	1,2-Dibromo-3-chloropropane	BRL	ug/Kg	250
120-82-1	1,2,4-Trichlorobenzene	BRL	ug/Kg	250
87-68-3	Hexachlorobutadiene	BRL	ug/Kg	250
91-20-3	Naphthalene	BRL	ug/Kg	250
87-61-6	1,2,3-Trichlorobenzene	BRL	ug/Kg	250
75-65-0	tert-Butyl Alcohol (TBA)	BRL	ug/Kg	10000
108-20-3	Di-isopropyl Ether (DIPE)	BRL	ug/Kg	250
637-92-3	Ethyl tert-butyl Ether (ETBE)	BRL	ug/Kg	250
994-05-8	tert -Amyl Methyl Ether (TAME)	BRL	ug/Kg	250

QC Surrogate Compound	Spiked	Measured	Recovery Recovery	QC Limits
Dibromofluoromethane	2,500	2,300	93 %	<i>7</i> 0 - 130 %
1,2-Dichioroethane-d₄	2,500	2,000	81 %	70 - 130 %
Toluene-d ₈	2,500	2,500	100 %	70 - 130 %
4-Bromofluorobenzene	2,500	2,900	116 %	<i>7</i> 0 - 130 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996). Sample preparation performed by EPA Method 5035A and EPA 5030B.

Report Notations:

Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.



LCS

LCSD

Category:

Matrix:

EPA Method 8260B

QC Batch ID: VM1-1592-SL Soil

Analyzed: Analyst:

Instrument ID: MS-1 HP 5890 06-09-05 07:46

LMG

Analyzed: Analyst:

Instrument ID: MS-1 HP 5890 06-09-05-08:21

LMG

Units:	ug/Kg								Page:	1 of 2
CAS Number	Antique de la company de la co	The second secon	ics		**************************************		Duplicate	70.00	QCLin	nits
1 m 1 m 1 m 1 m 1 m 1 m 1 m 1 m 1 m 1 m	Section 1 Sectio	Spiked	Nexwel	Recovery	Spiked	Measured	Recovery	2PD	- Spike -	EP)
75-71-8	Dichlorodifluoromethane	50	52	104 %	50	55	110 %	5 %	70 - 130 %	25%
74-87-3	Chloromethane	50	50	101 %	50	53	106 %	5 %	70 - 130 %	25%
75-01-4	Vinyl Chloride	50	50	100 %	50	52	104 %	4 %	70 - 130 %	259
74-83-9	Bromomethane	50	44	88 %	50	46	92 %	4 %	70 - 130 %	259
75-00-3	Chloroethane	. 50	. 44	89 %	50	47	95 %	6 %	70 - 130 %	259
75-69-4	Trichlorofluoromethane	50	42	83 %	50	44	88 %	6 %	70 - 130 %	25%
60-29-7	Diethyl Ether	100	87	87 %	100	93	93 %	7 %	70 - 130 %	259
75-35-4	1,1-Dichloroethene	50	49	99 %	50	50	101 %	2 %	70 - 130 %	259
76-13-1	1,1,2-Trichlorotrifluoroethane	100	92	92 %	100	95	95 %	3 %	70 - 130 %	25
67-64-1	Acetone	100	82	82 %	100	79	79 %	4 %	70 - 130 %	25
75-15-0	Carbon Disulfide	100	84	84 %	100	88	88 %	5 %	70 - 130 %	259
75-09-2	Methylene Chloride	50	44	89 %	50	46	93 %	4 %	70 - 130 %	25°
156-60-5	trans-1,2-Dichloroethene	50	45	90 %	50	47	94 %	4 %	70 - 130 %	259
1634-04-4	Methyl tert-butyl Ether (MTBE)	50	43	86 %	50	45	89 %	3 %	70 - 130 %	25
75-34-3	1,1-Dichloroethane	50	44	88 %	50	46	92 %	4 %	70 - 130 %	25
594-20-7	2,2-Dichloropropane	50	47	94 %	50	49	98 %	4 %	70 - 130 %	25
156-59-2	cis-1,2-Dichloroethene	50	46	91 %	50	48	97 %	6 %	70 - 130 %	25
78-93-3	2-Butanone (MEK)	100	82	82 %	100	78	78 %	5 %	70 - 130 %	25
74-97-5	Bromochloromethane	50	46	92 %	50	49	98 %	7 %	70 - 130 %	25
109-99-9	Tetrahydrofuran (THF)	100	79	79 %	100	78	78 %	0 %	70 - 130 %	25
67-66-3	Chloroform	50	42	83 %	50	44	88 %	6 %	70 - 130 %	25
71-55-6	1,1,1-Trichloroethane	50	42	84 %	50	44	87 %	4 %	70 - 130 %	25
56-23-5	Carbon Tetrachloride	50	42	84 %	50	42	83 %	0 %	70 - 130 %	25
563-58-6	1,1-Dichloropropene	50	46	91 %	50	48	95 %	4 %	70 - 130 %	25
71-43-2	Benzene	50	47	93 %	50	49	98 %	5 %	70 - 130 %	25
107-06-2	1,2-Dichloroethane	50	39	78 %	50	42	83 %	6 %	70 - 130 %	25
79-01-6	Trichloroethene	50	45	91 %	50	48	95 %	5 %	70 - 130 %	25
78-87-5	1,2-Dichloropropane	50	45	90 %	50	47	95 %	5 %	70 - 130 %	25
74-95-3	Dibromomethane	50	42	85 %	50	43	85 %	0 %	70 - 130 %	25
75-27-4	Bromodichloromethane	50	42	84 %	50	45	90 %	6 %	70 - 130 %	25
123-91-1	1,4-Dioxane	1000	1200	119 %	1000	1300	130 %	8 %	70 - 130 %	25
10061-01-5	cis-1,3-Dichloropropene	50	44	89 %	50	48	95 %	7 %	70 - 130 %	25
108-10-1	4-Methyl-2-Pentanone (MIBK)	100	82	82 %	100	78	78 %	5 %	70 - 130 %	25
108-88-3	Toluene	50	47	93 %	50	49	98 %	5 %	70 - 130 %	
10061-02-6	trans-1,3-Dichloropropene	50	36	72 %	50	41	83 %	14 %	70 - 130 %	25
79-00-5	1,1,2-Trichloroethane	50	43	87 %	50	50	100 %	14 %	70 - 130 %	+
127-18-4	Tetrachloroethene	50	47	93 %	50	54	109 %	15 %	70 - 130 %	_
142-28-9	1,3-Dichloropropane	50	43	87 %	50	52	104 %	18 %	70 - 130 %	
591-78-6	1	100	76	76 %	100	87	87 %	12 %	70 - 130 %	
	2-Hexanone Dibromochloromethane	50	40	81 %	50	48	96 %	18 %	70 - 130 %	_
124-48-1	1,2-Dibromoethane (EDB)	50	43	87 %	50	52	104 %	18 %	70 - 130 %	+
106-93-4	<u>-</u>	50	46	92 %	50	55	110 %	18 %	70 - 130 %	
108-90-7	Chlorobenzene 1,1,1,2-Tetrachloroethane	50	42	85 %	50	52	104 %	20 %	70 - 130 %	
630-20-6		50	45	90 %	50	54	109 %	18 %	70 - 130 %	+
100-41-4	Ethylbenzene			94 %	100	110	114 %	20 %	70 - 130 %	-
108-38-3/106-42-3	·	100	94		·	55	109 %	20 %	70 - 130 %	-
95-47-6	ortho-Xylene	50	45	89 %	50		 	19 %	70 - 130 %	+
100-42-5	Styrene	50	47	94 %	50	57	114 %			+
75-25-2	Bromoform	50	40	80 %	50	48	96 %	18 %	70 - 130 %	
98-82-8	Isopropylbenzene	50	50	100 %	50	50	101 %	1 %	70 - 130 %	2:



LCS

LCSD

Category: QC Batch 1D: EPA Method 8260B

Analyzed:

Instrument ID: MS-1 HP 5890 06-09-05 07:46

Analyzed:

Instrument ID: MS-1 HP 5890 06-09-05 08:21

Matrix:

VM1-1592-SL Soil

Analyst:

LMG

Units:

ug/Kg

LMG

Analyst:

2 of 2

CAS Number	Analyte	The second secon	LCS	The second secon	LCS Duplicate				QC Limits	
And the second s	A STATE OF THE STA	Spiked	Measured	Recovery	Spiked	Measured	Become F.	EP.	Spike	RPD
108-86-1	Bromobenzene	50	49	98 %	50	50	100 %	1 %	70 - 130 %	25%
79-34-5	1,1,2,2-Tetrachloroethane	50	46	93 %	50	46	93 %	0 %	70 - 130 %	25%
96-18-4	1,2,3-Trichloropropane	50	47	94 %	50	46	92 %	2 %	70 - 130 %	25%
103-65-1	n-Propylbenzene	50	50	99 %	50	51	101 %	2 %	70 - 130 %	25%
95-49-8	2-Chlorotoluene	. 50	50	100 %	50	52	104 %	4 %	70 - 130 %	25%
108-67-8	1,3,5-Trimethylbenzene	50	50	100 %	50	50	101 %	1 %	70 - 130 %	25%
106-43-4	4-Chlorotoluene	50	54	107 %	50	55	109 %	2 %	70 - 130 %	25%
98-06-6	tert-Butylbenzene	50	49	98 %	50	49	99 %	1 %	70 - 130 %	25%
95-63-6	1,2,4-Trimethylbenzene	50	50	100 %	50	50	101 %	1 %	70 - 130 %	25%
135-98-8	sec -Butylbenzene	50	50	100 %	50	49	98 %	2 %	70 - 130 %	25%
541-73-1	1,3-Dichlorobenzene	50	48	97 %	50	50	99 %	2 %	70 - 130 %	25%
99-87-6	4-Isopropyltoluene	50	51	102 %	50	53	106 %	3 %	70 - 130 %	25%
106-46-7	1,4-Dichlorobenzene	50	48	97 %	50	51	101 %	5 %	70 - 130 %	25%
95-50-1	1,2-Dichlorobenzene	50	47	95 %	50	50	101 %	6 %	70 - 130 %	25%
104-51-8	n-Butylbenzene	50	51	103 %	50	51	103 %	0 %	70 - 130 %	25%
96-12-8	1,2-Dibromo-3-chloropropane	50	44	89 %	50	44	88 %	0 %	70 - 130 %	25%
120-82-1	1,2,4-Trichlorobenzene	50	52	104 %	50	52	103 %	0 %	70 - 130 %	25%
87-68-3	Hexachlorobutadiene	50	50	99 %	50	51	101 %	2 %	70 - 130 %	25%
91-20-3	Naphthalene	50	44	89 %	50	47	95 %	6 %	70 - 130 %	25%
87-61-6	1,2,3-Trichlorobenzene	50	50	100 %	50	51	102 %	2 %	70 - 130 %	25%
75-65-0	tert-Butyl Alcohol (TBA)	1000	730	<i>7</i> 3 %	1000	700	70 %	4 %	70 - 130 %	25%
108-20-3	Di-isopropyl Ether (DIPE)	50	44	88 %	50	47	94 %	7 %	70 - 130 %	25%
637-92-3	Ethyl tert-butyl Ether (ETBE)	50	44	88 %	50	47	94 %	7 %	70 - 130 %	25%
994-05-8	tert-Amyl Methyl Ether (TAME)	50	44	88 %	50	46	91 %	4 %	70 - 130 %	25%

OC Surrogate Compound	Spiked	Measured	Recovery	Spiked	Measured	Recovery	EE limis
Dibromofluoromethane	50	44	89 %	50	47	93 %	70 - 130 %
1.2-Dichloroethane-d₄	50	47	94 %	50	48	96 %	70 - 130 %
Toluene-da	50	53	106 %	50	55	109 %	<i>7</i> 0 - 130 %
4-Bromoflyombenzene	50	54	108 %	50	56	111 %	70 - 130 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample preparation performed by EPA Method 5030B.

Report Notations:

All calculations performed prior to rounding. Quality Control Limits are defined by the methodology, or alternatively based upon the historical average recovery plus or minus three standard deviation units.



Category:

EPA Method 8260B

QC Batch ID: VM1-1592-SB

Matrix: Soil

Instrument ID: Analyzed: MS-1 HP 5890 06-09-05 08:56

Analyst:

LMG

Page: 1 of 2

CAS Number	Analyte and a second se	Concentration Notes	Units	Reporting Limi
	Dichlorodifluoromethane	BRL	ug/Kg	10
75-71-8		BRL	ug/Kg	10
74-87-3	Chloromethane	BRL	ug/Kg	10
75-01-4	Vinyl Chloride	BRL	ug/Kg	10
74-83-9	Bromomethane		ug/Kg	10
75-00-3	Chloroethane	BRL		10
75-69-4	Trichlorofluoromethane	BRL	ug/Kg	
60-29-7	Diethyl Ether	BRL	ug/Kg	10
75-35-4	1,1-Dichloroethene	BRL	ug/Kg	5
76-13-1	1,1,2-Trichlorotrifluoroethane	BRL	ug/Kg	50
67-64-1	Acetone	BRL	ug/Kg	200
75-15-0	Carbon Disulfide	BRL	ug/Kg	50
75-09-2	Methylene Chloride	BRL	ug/Kg	50
156-60-5	trans-1,2-Dichloroethene	BRL	ug/Kg	5
1634-04-4	Methyl tert-butyl Ether (MTBE)	BRL	ug/Kg	5
75-34-3	1,1-Dichloroethane	BRL	ug/Kg	5
94-20-7	2,2-Dichloropropane	BRL	ug/Kg	5
56-59-2	cis-1,2-Dichloroethene	BRL	ug/Kg	5
78-93-3	2-Butanone (MEK)	BRL	ug/Kg	50
74-97-5	Bromochloromethane	BRL	ug/Kg	5
109-99-9	Tetrahydrofuran (THF)	BRL	ug/Kg	50
67-66-3	Chloroform	BRL	ug/Kg	5
71-55-6	1,1,1-Trichloroethane	BRL	ug/Kg	5
56-23-5	Carbon Tetrachloride	BRL	ug/Kg	5
563-58-6	1,1-Dichloropropene	BRL	ug/Kg	5
71-43-2	Benzene	BRL	ug/Kg	5
107-06-2	1,2-Dichloroethane	BRL	ug/Kg	. 5
79-01-6	Trichloroethene	BRL	ug/Kg	5
78-87-5	1,2-Dichloropropane	BRL	ug/Kg	5
7 6-67-3 74-95-3	Dibromomethane	BRL	ug/Kg	5
	Bromodichloromethane	BRL	ug/Kg	5
75-27-4		BRL	ug/Kg	5000
123-91-1	1,4-Dioxane	BRL	ug/Kg	5
10061-01-5	cis- 1,3-Dichloropropene	BRL	ug/Kg	50
108-10-1	4-Methyl-2-Pentanone (MIBK)			5
108-88-3	Toluene	BRL	ug/Kg	
10061-02-6	trans-1,3-Dichloropropene	BRL	ug/Kg	5
79-00-5	1,1,2-Trichloroethane	BRL	ug/Kg	5
127-18-4	Tetrachloroethene	BRL	ug/Kg	5
142-28-9	1,3-Dichloropropane	BRL	ug/Kg	5
591-78-6	2-Hexanone	BRL	ug/Kg	50
124-48-1	Dibromochloromethane	BRL	ug/Kg	5
106-93-4	1,2-Dibromoethane (EDB)	BRL	ug/Kg	5
108-90-7	Chlorobenzene	BRL	ug/Kg	5
630-20-6	1,1,1,2-Tetrachloroethane	BRL	ug/Kg	5
100-41-4	Ethylbenzene	BRL	ug/Kg	5
08-38-3/106-42-3	meta- Xylene and para- Xylene	BRL	ug/Kg	5
95-47-6	ortho- Xylene	BRL	ug/Kg	5
100-42-5	Styrene	BRL	ug/Kg	5
75-25-2	Bromoform	BRL	ug/Kg	5
98-82-8	Isopropylbenzene	BRL	ug/Kg	5



Category: QC Batch ID: EPA Method 8260B

Instrument ID: Analyzed:

MS-1 HP 5890

Matrix:

VM1-1592-SB Soil

Analyst:

06-09-05-08:56 LMG

Page: 2 of 2

CAS Number	Analyte	Concentration Notes	Units	Reporting Limit
108-86-1	Bromobenzene	BRL	ug/Kg	5
79-34-5	1,1,2,2-Tetrachloroethane	BRL	ug/Kg	5
96-18-4	1,2,3-Trichloropropane	BRL	ug/Kg	5
103-65-1	л -Propylbenzene	BR1.	ug/Kg	5
95-49-8	2-Chlorotoluene	BRL	ug/Kg	.5
108-67-8	1,3,5-Trimethylbenzene	BRL	ug/Kg	5
106-43-4	4-Chlorotoluene	BRL	ug/Kg	5
98-06-6	tert-Butylbenzene	BRL	ug/Kg	5
95-63- 6	1,2,4-Trimethylbenzene	BRL	ug/Kg	5
135-98-8	sec-Butylbenzene	BRL	ug/Kg	5
541-73-1	1,3-Dichlorobenzene	BRL	ug/Kg	5
99-87-6	4-Isopropyltoluene	BRL	ug/Kg	5
106-46-7	1,4-Dichlorobenzene	BRL	ug/Kg	5
95-50-1	1,2-Dichlorobenzene	BRL	ug/Kg	5
104-51-8	n-Butylbenzene	BRL	ug/Kg	5
96-12-8	1,2-Dibromo-3-chloropropane	BRL	ug/Kg	5
120-82-1	1,2,4-Trichlorobenzene	BRL	ug/Kg	5
87-68-3	Hexachlorobutadiene	BRL	ug/Kg	5
91-20-3	Naphthalene	BRL	ug/Kg	5
87-61-6	1,2,3-Trichlorobenzene	BRL	ug/Kg	5
75-65-0	tert -Butyl Alcohol (TBA)	BRL	ug/Kg	200
108-20-3	Di-isopropyl Ether (DIPE)	BRL	ug/Kg	5
637-92-3	Ethyl tert-butyl Ether (ETBE)	BRL	ug/Kg	5
994-05-8	tert -Amyl Methyl Ether (TAME)	BRL	ug/Kg	5

QC Surrogate Compound	Spiked	Measured	Recovery	QE-Limits
Dibromofluoromethane	50	44	87 %	70 - 130 %
1,2-Dichloroethane-d ₄	50	42	83 %	70 - 130 %
Toluene-d ₈	50	52	103 %	70 - 130 %
4-Bromofluorobenzene	50	56	112 %	70 - 130 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample preparation performed by EPA Method 5035A.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.



LCS

LCSD

Category: QC Batch ID:

MA DEP VPH VG3-1931-E

Instrument ID: GC-3 IIP 5890 Analyzed:--

06-13-05 08:09

5.0

5.0

4.6

92 %

Analyzed:

Instrument ID: GC-3 HP-5890 06-13-05 18:35

70 - 130 %

70 - 130 %

Matrix: Units:

Soil mg/Kg

JDH Analyst:

Analyst:

JDH

CAS Number	Analyte	Two port	±C			70.000	3 Daplicate		QCLim	its
		Spiked	تسدر	Recovery	Spiked	Mesenii	Recovery	R PD	Spike	RPE
109-66-0	n- Pentane	2.5	2.8	111 %	2.5	3.0	122 %	9 %	70 - 130 %	25%
107-83-5	2-Methylpentane	2.5	2.5	99 %	2.5	2.7	107 %	8 %	70 - 130 %	25%
540-84-1	2,2,4-Trimethylpentane	2.5	2.5	99 %	2.5	2.5	98 %	0 %	70 - 130 %	259
n/a	Aliphatic Group 1	7.5	7.7	103 %	7.5	8.2	109 %	6 %	70 - 130 %	25%
111-84-2	n-Nonane	2.5	2.3	93 %	2.5	2.3	91 %	2 %	70 - 130 %	25%
124-18-5	л- Decane	2.5	2.5	99 %	2.5	2.0	79 %	22 %	70 - 130 %	25%
1678-93-9	n-Butylcyclohexane	2.5	2.4	97 %	2.5	2.3	91 %	6 %	70 - 130 %	25%
n/a	Aliphatic Group 2	7.5	7.2	96 %	7.5	6.5	87 %	10 %	70 - 130 %	25%
1634-04-4	Methyl tert-butyl Ether	2.5	2.5	98 %	2.5	2.4	97 %	1 %	70 - 130 %	25%
71-43-2	Benzene	2.5	2.5	101 %	2.5	2.6	104 %	2 %	70 - 130 %	25%
108-88-3	Toluene	2.5	2.5	101 %	2.5	2.5	102 %	1 %	70 - 130 %	25%
100-41-4	Ethylbenzene	2.5	2.5	101 %	2.5	2.5	102 %	1 %	70 - 130 %	25%
108-38-3 and 106-42-3	meta- Xylene and para - Xylene	5.0	5.0	101 %	5.0	5.0	100 %	1 %	70 - 130 %	25%
95-47-6	ortho- Xylene	2.5	2.5	102 %	2.5	2.6	102 %	1 %	70 - 130 %	25%
95-63-6	1,2,4-Trimethylbenzene	2.5	2.5	99 %	2.5	2.4	98 %	1 %	70 - 130 %	25%
91-20-3	Naphthalene	2.5	2.0	81 %	2.5	1.9	<i>7</i> 5 %	7 %	70 - 130 %	25%
n/a	Aromatic Group	23	22	98 %	23	22	98 %	1 %	70 - 130 %	25%

2,5-Dibromotoluene (FID) Method Reference:

2,5-Dibromotoluene (PID)

Method for the Determination of Volatile Petroleum Hydrocarbons, MA DEP (Revision 1.1, 2004).

4.6

5.0

5.0

Report Notations:

All calculations performed prior to rounding. Quality Control Limits are defined by the methodology, or alternatively based upon the historical average recovery plus or minus three standard deviation units.

92 %



Category:

MA DEP VPH

Instrument ID:

GC-3 HP 5890

QC Batch 1D:

Analyzed: Analyst:

06-13-05-08:49 IDH.

VPH Ranges	Concentration Notes	Units	Reporting Limit
n-C5 to n-C8 Aliphatic Hydrocarbons ^{† ◊}	BRL	mg/Kg	1.0
n-C9 to n-C12 Aliphatic Hydrocarbons ^{† ⊗}	BRL	mg/Kg	1.0
n-C9 to n-C10 Aromatic Hydrocarbons †	BRL	mg/Kg	1.0

Unadjusted n-C5 to n-C8 Aliphatic Hydrocarbons †	BRL	mg/Kg	1.0
Unadjusted n-C9 to n-C12 Aliphatic Hydrocarbons †	BRL	mg/Kg	1.0

CAS Number	Analyje	Concentration Notes	tivis	Reporting Unit
1634-04-4	Methyl tert-butyl Ether "	BRL	mg/Kg	0.10
71-43-2	Benzene [#]	BRL	mg/Kg	0.10
108-88-3	Toluene "	BRL	mg/Kg	0.10
100-41-4	Ethylbenzene *	BRL	mg/Kg	0.10
108-38-3 and 106-42-3	meta- Xylene and para-Xylene *	BRL	mg/Kg	0.10
95-47-6	ortho- Xylene ‡	BRL	mg/Kg	0.10
91-20-3	Naphthalene	BR1.	mg/Kg	0.50

QC Surrogate Compound	Spiked	Measured	And Annual Control of the Control of	The series of th
2,5-Dibromotoluene (PID)	5.0	4.6	92 %	70 - 130 %
2.5-Dibromotoluene (FID)	5.0	4.6	92 %	70 - 130 %

Method Reference:

Method for the Determination of Volatile Petroleum Hydrocarbons, MA DEP (Revision 1.1, 2004).

- Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be BRL reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- Hydrocarbon range data excludes concentrations of any surrogate(s) and/or internal standards eluting in that range.
- n-C5 to n-C8 Aliphatic Hydrocarbons range data excludes the method target analyte concentrations. ٥
- n-C9 to n-C12 Aliphatic Hydrocarbons range data excludes the method target analyte concentrations and ⊗ the concentration for the n-C9 to n-C10 Aromatic Hydrocarbons range.
- Analyte elutes in the n-C5 to n-C8 Aliphatic Hydrocarbons range. п
- Analyte elutes in the n-C9 to n-C12 Aliphatic Hydrocarbons range.



LCS

Instrument ID: Category: EPA 8082 QC Batch ID: PB-2179-P

GC-6 HP-5890 06-08-05 13:00 Instrument ID: Extracted: 06-13-05 10:00

GC-6 HP 5890 06-08-05 13:00

Matrix:

Units:

Soil ug/Kg Extracted: Cleaned Up: Analyzed:

06-13-05 10:00 06-14-05 22:02 Cleaned Up: Analyzed:

LCSD

06-14-05 22:37

Analyst: CRL

Analyst: CRL

The state of the s	Annual Control of the		ics	The second secon	**************************************		V W	ICS Dupli		Personal Control of the Control of t	Manager Inc. (1990)	C	\$000,5
CSAME		l Measure	i ke	CHEFY		Meas	wed 🗀	Rece	ev	- B		- OCB	
The second of th	PARTICLE STATE OF THE STATE OF	16 Col 244	Cal 14 Cal	24Cd		THE COL	2nd Çol	sici i	2 11 Cal	19 Col :	24(6)		- PRO
12674-11-2 Aroclor	1016 330	240 2	20 72%	67%	330	300	290	91%	86%	24 %	25 %	40 - 140%	30 %
11096-82-5 Aroclor	260 330	270 2	50 82%	76%	330	340	320	101%	95%	21 %	22 %	40 - 140%	30 %

QC Surrogale Compound				AND SECURITY OF THE SECURITY O		gate Rec	overy		CO. T. STRINGSCOTTEN		QC Limits
Tetrachloro-m-xylene	13	8.8	8.3	66%	62%	13	11	10	85%	79%	30 - 150 %
Decachforobiphenyl	13	11	9.9	82%	74%	13	13	12	101%	91%	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3545. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Report Notations:

All calculations performed prior to rounding. Quality Control Limits are defined by the methodology, or alternatively based upon the historical average recovery plus or minus three standard deviation units.



Category:

Matrix:

EPA Method 8082

Instrument ID:

GC-6 HP 5890

QC Batch ID:

PB-2179-P

Soil

Extracted: Cleaned Up: 06-08-05 13:00 06-13-05 10:00

Analyzed:

06-14-05 21:27

Analyst:

CRL

_CAS Number	Analyte	Concentration Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL	ug/Kg	80
11104-28-2	Aroclor 1221	BRL	ug/Kg	80
11141-16-5	Aroclor 1232	BRL	ug/Kg	80
53469-21-9	Arocfor 1242	BRL	ug/Kg	80
12672-29-6	Aroclor 1248	BRL	ug/Kg	80
11097-69-1	Aroclor 1254	BRL	ug/Kg	80
11096-82-5	Aroclor 1260	BRL	ug/Kg	80
37324-23-5	Aroclor 1262 [↑]	BRL	ug/Kg	80
11100-14-4	Aroclor 1268 1	BRL	ug/Kg	80

QC Surrogate C	Burbasend	Spiked	Measured	Recovery	QC1 imits
First	Tetrachloro-m-xylene	13	9.2	69 %	30 - 150 %
Column	Decachlorobiphenyl	13	12	91 %	30 - 150 %
Second	Tetrachloro-m-xylene	13	8.5	64 %	30 - 150 %
Column	Decachlorobiphenyl	13	11	84 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3545. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

- BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- † Non-target analyte. Result is based on a single mid-range calibration standard.



LCSD LCSD

Category: MA DEP EPH Method
QC Batch ID: EP-2072-M
Matrix: Soil

Units:

mg/Kg

Extracted:
Analyzed (AL):
Analyzed (AR):

GC-9 Agilent 6890 06-09-05 07:00 06-09-05 15:01 06-09-05 15:42 Instrument ID: Extracted: Analyzed (AL): GC-9 Agilent 6890 06-09-05 07:00 06-09-05 16:46 06-09-05 17:26

Analyst:

Instrument ID:

MM

Analyzed (AR): Analyst:

MM

CAS Number	Analyte' Man	and very target		What is a second of the second		FC	S Duplicate	policy in the control of the control	CE linits		
Construction of the Constr	A	Spiked	Measured	Recovery	Spilked	Measured	Recovery	RPD	Spike	RPD	
111-84-2	n-Nonane (C ₉)	3.3	1.7	52 %	3.3	1.6	49 %	6 %	30 - 140 %	25%	
124-18-5	n-Decane (C ₁₀)	3.3	2.0	60 %	3.3	1.9	57 %	5 %	40 - 140 %	25%	
112-40-3	n-Dodecane (C ₁₂)	3.3	2.1	65 %	3.3	2.0	62 %	5 %	40 - 140 %	25%	
629-59-4	n-Tetradecane (C ₁₄)	3.3	2.4	73 %	3.3	2.4	72 %	1 %	40 - 140 %	25%	
544-76-3	n-Hexadecane (C ₁₆)	3.3	2.6	78 %	3.3	2.7	81 %	4 %	40 - 140 %	25%	
593-45-3	n-Octadecane (C ₁₈)	3.3	2.8	85 %	3.3	3.0	91 %	6 %	40 - 140 %	25%	
п/а	n-C9 to n-C18 Group	20	14	69 %	20	14	69 %	0 %	40 - 140 %	25%	
629-92-5	n-Nonadecane (C ₁₉)	3.3	2.7	81 %	3.3	2.9	86 %	6 %	40 - 140 %	25%	
112-95-8	n-Eicosane (C ₂₀)	3.3	2.7	81 %	3.3	2.9	86 %	7 %	40 - 140 %	25%	
629-97-0	n-Docosane (C ₂₂)	3.3	2.6	79 %	3.3	2.8	85 %	7 %	40 - 140 %	25%	
646-31-1	n-Tetracosane (C ₂₄)	3.3	2.5	<i>7</i> 5 %	3.3	2.8	84 %	11 %	40 - 140 %	25%	
630-01-3	n-Hexacosane (C ₂₆)	3.3	2.6	78 %	3.3	2.7	82 %	5 %	40 - 140 %	25%	
630-02-4	n-Octacosane (C ₂₈)	3.3	2.5	76 %	3.3	2.7	82 %	7 %	40 - 140 %	25%	
638-68-6	n-Triacontane (C ₃₀)	3.3	2.5	<i>7</i> 5 %	3.3	2.7	81 %	7 %	40 - 140 %	25%	
630-06-8	n-Hexatriacontane (C ₃₆)	3.3	2.2	66 %	3.3	2.4	73 %	9 %	40 - 140 %	25%	
n/a	л-C19 to л-C36 Group	26	20	<i>76</i> %	26	22	82 %	7 %	40 - 140 %	25%	
91-20-3	Naphthalene	3.3	1.8	55 %	3.3	1.9	57 %	4 %	40 - 140 %	25%	
91-57-6	2-Methylnaphthalene	3.3	2.0	62 %	3.3	2.1	63 %	1 %	40 - 140 %	25%	
208-96-8	Acenaphthylene	3.3	2.2	67 %	3.3	2.2	68 %	1 %	40 - 140 %	25%	
83-32-9	Acenaphthene	3.3	2.1	64 %	3.3	2.1	65 %	1 %	40 - 140 %	25%	
86-73-7	Fluorene	3.3	2.3	69 %	3.3	2.4	71 %	4 %	40 - 140 %	25%	
85-01-8	Phenanthrene	3.3	2.4	73 %	3.3	2.6	79 %	8 %	40 - 140 %	25%	
120-12-7	Anthracene	3.3	2.5	<i>77</i> %	3.3	2.8	84 %	8 %	40 - 140 %	25%	
206-44-0	Fluoranthene	3.3	2.9	89 %	3.3	3.1	94 %	6 %	40 - 140 %	25%	
129-00-0	Pyrene	3.3	2.8	86 %	3.3	3.0	92 %	6 %	40 - 140 %	25%	
56-55-3	Benzo[a]anthracene	3.3	3.1	94 %	3.3	3.2	97 %	3 %	40 - 140 %	25%	
218-01-9	Chrysene	3.3	3.0	92 %	3.3	3.1	95 %	4 %	40 - 140 %	25%	
205-99-2	Benzo[b]fluoranthene	3.3	2.9	89 %	3.3	3.0	92 %	4 %	40 - 140 %	25%	
207-08-9	Benzo[k]fluoranthene	3.3	3.0	91 %	3.3	3.1	93 %	3 %	40 - 140 %	25%	
50-32-8	Benzo[a]pyrene	3.3	3.0	90 %	3.3	3.1	93 %	3 %	40 - 140 %	25%	
193-39-5	Indeno[1,2,3-c,d]pyrene	3.3	2.8	84 %	3.3	2.9	86 %	3 %	40 - 140 %	25%	
53-70-3	Dibenzo[a,h]anthracene	3.3	3.1	93 %	3.3	3.2	96 %	3 %	40 - 140 %	25%	
191-24-2	Benzo[g,h,i]perylene	3.3	2.9	87 %	3.3	3.0	90 %	3 %	40 - 140 %	25%	
n/a	PAH Group	56	45	80 %	56	47	83 %	4 %	40 - 140 %	25%	

QC Surrogate	Compound	Spiked	Hennel	Recovery	Spiked	Meand	Recovery	QC Limits
Fractionation:	2-Fluorobiphenyl	2.7	1.9	70 %	2.7	2.0	74 %	40 - 140 %
	2-Bromonaphthalene	2.7	2.1	78 %	2.7	2.1	78 %	40 - 140 %
Extraction:	Chloro-octadecane	2.7	1.8	67 %	2.7	2.1	78 %	40 - 140 %
Ī	ortho-Terphenyl	2.7	2.2	81 %	2.7	2.3	85 %	40 - 140 %

- 32-1	Fract	ionation Br	reakthrough Evalua	tion =		QC Limits
91-20-3	Naphthalene	LCS	0 %	LCSD	0 %	5%
91-57-6	2-Methylnaphthalene	LCS	0 %	LCSD	0 %	5%

Method Reference:

Method for the Determination of Extractable Petroleum Hydrocarbons, MA DEP (Revision 1.1, 2004).

Method modified by use of microwave accelerated solvent extraction technique.

Report Notations:

All calculations performed prior to rounding. Quality Control Limits are defined by the methodology, or alternatively based upon the historical average recovery plus or minus three standard deviation units. The LCS and LCSD are prepared from separate source standards than those used for calibration.



Category:

MA DEP EPH

QC Batch ID:

Instrument ID:

GC-9 Agilent 6890

Extracted:

06-09-05-07:00 Analyzed (AL): 06-09-05 18:10

Analyzed (AR):

06-09-05 18:55

Analyst:

MM

IPH Canges	Concentration Notes	Units -	Especial Value
n-C9 to n-C18 Aliphatic Hydrocarbons †	BRL	mg/Kg	30
n-C19 to n-C36 Aliphatic Hydrocarbons [†]	BRL	mg/Kg	30
n-C11 to n-C22 Aromatic Hydrocarbons ^{† ♦}	BRL	mg/Kg	30

BRL mg/Kg 30 Unadjusted n-C11 to n-C22 Aromatic Hydrocarbons

CAS Number	Analyse at the Control of the Contro	Concentration Notes	Units	Reporting Limit
91-20-3	Naphthalene	BRL	mg/Kg	0.50
91-57-6	2-Methylnaphthalene	BRL	mg/Kg	0.50
85-01-8	Phenanthrene	BRL	mg/Kg	0.50
83-32-9	Acenaphthene	BRL	mg/Kg	0.50
208-96-8	Acenaphthylene	BRL	mg/Kg	0.50
86-73-7	Fluorene	BRL	mg/Kg	0.50
120-12-7	Anthracene	BRL	mg/Kg	0.50
206-44-0	Fluoranthene	BRL	mg/Kg	0.50
129-00-0	Pyrene	BRL	mg/Kg	0.50
56-55-3	Benzofalanthracene	BRL	mg/Kg	0.50
218-01-9	Chrysene	BRL	mg/Kg	0.50
205-99-2	Benzo[b]fluoranthene	BRL	mg/Kg	0.50
207-08-9	Benzo[k]fluoranthene	BRL	mg/Kg	0.50
50-32-8	Benzo[a]pyrene	BRL	mg/Kg	0.50
193-39-5	Indeno[1,2,3-c,d]pyrene	BRL	mg/Kg	0.50
53-70-3	Dibenzo[a,h]anthracene	BRL	mg/Kg	0.50
191-24-2	Benzolg h, ilperylene	BRL	mg/Kg	0.50

QC Surrogate C	THE POST OF THE PO	Spiled	Measured	Recovery .	QC LINES
Fractionation:	2-Fluorobiphenyl	2.7	2.1	80 %	40 - 140 %
	2-Bromonaphthalene	2.7	2.2	83 %	40 - 140 %
Extraction:	Chloro-octadecane	2.7	1.7	64 %	40 - 140 %
	ortho-Temhenyl	2.7	2.1	78 %	40 - 140 %

Method Reference:

Method for the Determination of Extractable Petroleum Hydrocarbons, MA DEP (Revision 1.1, 2004). Sample extraction performed by microwave accelerated solvent extraction technique.

- Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- Hydrocarbon range data excludes concentrations of any surrogate(s) and/or internal standards eluting in that range.
- n-C11 to n-C22 Aromatic Hydrocarbons range data excludes the method target analyte concentrations.



Analyst:

LCSE

Category: MA DEP EPH Method

QC Batch ID: EP-2080-M

Matrix: Soil

Units: mg/Kg

 Instrument ID:
 GC-7 HP 5890

 Extracted:
 06-16-05
 07:00

 Analyzed (AL):
 06-21-05
 16:03

 Analyzed (AR):
 06-21-05
 16:43

MM

Instrument ID: GC-7 HP 5890
Extracted: 06-16-05 07:00
Analyzed (AL): 06-21-05 17:27
Analyzed (AR): 06-21-05 18:11
Analyst: MM

			Лиа	.,50			Allaly	J.,	774171	
CAS Number	Analyte		1 11	The state of the s			S Duplicate		QCLim	its :
Application of the control of the co	The second secon	Spiked	Name of	Recovery	Spiked	Measured	Recovery	RPD :	Spilie	RPD
111-84-2	n-Nonane (C ₉)	3.3	1.7	52 %	3.3	1.7	52 %	1 %	30 - 140 %	25%
124-18-5	n-Decane (C ₁₀)	3.3	2.0	60 %	3.3	2.0	60 %	1 %	40 - 140 %	25%
112-40-3	n -Dodecane (C ₁₂)	3.3	2.1	64 %	3.3	2.0	60 %	5 %	40 - 140 %	25%
629-59-4	n-Tetradecane (C ₁₄)	3.3	2.3	70 %	3.3	2.2	66 %	7 %	40 - 140 %	25%
544-76-3	n-Hexadecane (C ₁₆)	3.3	2.5	76 %	3.3	2.4	73 %	4 %	40 - 140 %	25%
593-45-3	n-Octadecane (C ₁₈)	3.3	2.7	83 %	3.3	2.8	84 %	1 %	40 - 140 %	25%
n/a	n-C9 to n-C18 Group	20	13	68 %	20	13	66 %	3 %	40 - 140 %	25%
629-92-5	n-Nonadecane (C ₁₉)	3.3	2.7	81 %	3.3	2.7	83 %	3 %	40 - 140 %	25%
112-95-8	n-Eicosane (C ₂₀)	3.3	2.7	83 %	3.3	2.8	85 %	3 %	40 - 140 %	25%
629-97-0	n -Docosane (C ₂₂)	3.3	2.7	82 %	3.3	2.8	86 %	5 %	40 - 140 %	25%
646-31-1	n-Tetracosane (C ₂₄)	3.3	2.5	76 %	3.3	2.6	80 %	4 %	40 - 140 %	25%
630-01-3	n-Hexacosane (C ₂₆)	3.3	2.4	72 %	3.3	2.6	79 %	9 %	40 - 140 %	25%
630-02-4	n-Octacosane (C ₂₈)	3.3	2.4	72 %	3.3	2.5	75 %	4 %	40 - 140 %	25%
638-68-6	n-Triacontane (C ₃₀)	3.3	2.2	68 %	3.3	2.3	69 %	2 %	40 - 140 %	25%
630-06-8	n -Hexatriacontane (C36)	3.3	2.1	64 %	3.3	2.2	66 %	4 %	40 - 140 %	25%
n/a	n-C19 to n-C36 Group	26	20	<i>7</i> 5 %	26	21	78 %	4 %	40 - 140 %	25%
91-20-3	Naphthalene	3.3	1.7	52 %	3.3	1.7	51 %	3 %	40 - 140 %	25%
91-57-6	2-Methylnaphthalene	3.3	1.9	58 %	3.3	1.9	58 %	1 %	40 - 140 %	25%
208-96-8	Acenaphthylene	3.3	1.9	57 %	3.3	1.9	57 %	0 %	40 - 140 %	25%
83-32-9	Acenaphthene	3.3	1.9	5 8 %	3.3	1.9	58 %	1 %	40 - 140 %	25%
86-73-7	Fluorene	3.3	2.1	62 %	3.3	2.0	61 %	2 %	40 - 140 %	25%
85-01-8	Phenanthrene	3.3	2.3	68 %	3.3	2.2	68 %	0 %	40 - 140 %	25%
120-12-7	Anthracene	3.3	2.3	7 0 %	3.3	2.3	71 %	2 %	40 - 140 %	25%
206-44-0	Fluoranthene	3.3	2.3	69 %	3.3	2.4	72 %	4 %	40 - 140 %	25%
129-00-0	Pyrene	3.3	2.2	66 %	3.3	2.2	68 %	3 %	40 - 140 %	25%
56-55-3	Benzo[a]anthracene	3.3	2.2	67 %	3.3	2.5	74 %	10 %	40 - 140 %	25%
218-01-9	Chrysene	3.3	2.3	69 %	3.3	2.5	75 %	9 %	40 - 140 %	25%
205-99-2	Benzo[b]fluoranthene	3.3	2.0	62 %	3.3	2.2	68 %	9 %	40 - 140 %	25%
207-08-9	Benzo[k]fluoranthene	3.3	2.3	69 %	3.3	2.6	78 %	11 %	40 - 140 %	25%
50-32-8	Benzo[a]pyrene	3.3	2.1	64 %	3.3	2.3	70 %	10 %	40 - 140 %	25%
193-39-5	Indeno[1,2,3-c,d]pyrene	3.3	1.9	59 %	3.3	2.1	64 %	9 %	40 - 140 %	25%
53-70-3	Dibenzo[a,h]anthracene	3.3	2.2	65 %	3.3	2.3	71 %	9 %	40 - 140 %	25%
191-24-2	Benzo[g,h,i]perylene	3.3	1.9	59 %	3.3	2.0	60 %	2 %	40 - 140 %	25%
n/a	PAH Group	56	35	63 %	56	37	66 %	4 %	40 - 140 %	25%

QC Surrogate	Compound	Spiked	Measured	Recovery	Spiked	Meanwell	Recovery-	QCLimits
Fractionation:	2-Fluorobiphenyl	2.7	1.7	63 %	2.7	2.0	74 %	40 - 140 %
į į	2-Bromonaphthalene	2.7	1.7	63 %	2.7	1.9	70 %	40 - 140 %
Extraction:	Chloro-octadecane	2.7	1.9	70 %	2.7	2.0	74 %	40 - 140 %
	ortho-Terphenyl	2.7	1.7	63 %	2.7	1.7	63 %	40 - 140 %

	Frac	tionation B		ation		QC Limits
91-20-3	Naphthalene	LCS	0 %	LCSD	0 %	5%
91-57-6	2-Methylnaphthalene	LCS	1 %	LCSD	1 %	5%

Method Reference:

Method for the Determination of Extractable Petroleum Hydrocarbons, MA DEP (Revision 1.1, 2004).

Method modified by use of microwave accelerated solvent extraction technique.

Report Notations:

All calculations performed prior to rounding. Quality Control Limits are defined by the methodology, or alternatively based upon the historical average recovery plus or minus three standard deviation units.

The LCS and LCSD are prepared from separate source standards than those used for calibration.



Category: QC Batch ID: MA DEP EPH

Matrix:

Soil

Instrument ID:

GC-7 HP 5890

Extracted:

06-16-05 07:00

Analyzed (AL): Analyzed (AR): 06-21-05 18:55 06-21-05 19:40

Analyst:

MM

PPH Ranges (1988) (1988	Concentration Notes	Units 1	Reporting Limit
n-C9 to n-C18 Aliphatic Hydrocarbons †	BRL	mg/Kg	30
n-C19 to n-C36 Aliphatic Hydrocarbons †	BRL	mg/Kg	30
n-C11 to n-C22 Aromatic Hydrocarbons † o	BRL	mg/Kg	30
Unadjusted n-C11 to n-C22 Aromatic Hydrocarbons [†]	BRL	mg/Kg	30

CAS Number	Analyte	Concentration Notes	Units	Reporting Limit
91-20-3	Naphthalene	BRL	mg/Kg	0.50
91-57-6	2-Methylnaphthalene	BRL	mg/Kg	0.50
85-01-8	Phenanthrene	BRL	mg/Kg	0.50
83-32-9	Acenaphthene	BRL	mg/Kg	0.50
208-96-8	Acenaphthylene	BRL	mg/Kg	0.50
86-73-7	Fluorene	BRL	mg/Kg	0.50
120-12-7	Anthracene	BRL	mg/Kg	0.50
206-44-0	Fluoranthene	BRL	mg/Kg	0.50
129-00-0	Pyrene	BRL	mg/Kg	0.50
56-55-3	Benzofalanthracene	BRL	mg/Kg	0.50
218-01-9	Chrysene	BRL	mg/Kg	0.50
205-99-2	Benzo[b]fluoranthene	BRL	mg/Kg	0.50
207-08-9	Benzo[k]fluoranthene	BRL.	mg/Kg	0.50
50-32-8	Benzo[a]pyrene	BRL	mg/Kg	0.50
193-39-5	Indeno[1,2,3-c,d]pyrene	BRL	mg/Kg	0.50
53-70-3	Dibenzo[a,h]anthracene	BRL	mg/Kg	0.50
191-24-2	Benzo[g,h,i]perylene	BRL	mg/Kg	0.50

QC Surrogate C	ompound	Spiked	Measured	Recovery	The state of the s
Fractionation:	2-Fluorobiphenyl	2.7	2.1	78 %	40 - 140 %
	2-Bromonaphthalene	2.7	1.9	71 %	40 - 140 %
Extraction:	Chloro-octadecane	2.7	1.4	52 %	40 - 140 %
	ortho-Terphenyl	2.7	1.5	56 %	40 - 140 %

Method Reference:

Method for the Determination of Extractable Petroleum Hydrocarbons, MA DEP (Revision 1.1, 2004). Sample extraction performed by microwave accelerated solvent extraction technique.

- BRI. Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- † Hydrocarbon range data excludes concentrations of any surrogate(s) and/or internal standards eluting in that range.
- n-C11 to n-C22 Aromatic Hydrocarbons range data excludes the method target analyte concentrations.



Quality Control Report Laboratory Control Sample

Category:

Inorganic Chemistry

Matrix:

Soil

	Units	Spiked	Measured	Recovery	QC Limits	Analyzet	QC Baich	Method	Inst	Analyst
Ignitability (as Flashpoint)	°F	81	81	100 %	95 - 105 %	06-09-05 10:00	FP-0612-S	EPA 1010 Mod	2	JBW
Corrosivity (as pH)	pН	7	7	99 %	80 - 120 %	06-09-05 10:00	PH-0612-5	EPA 9040B	1	JBW

Method Reference:

Methods for Chemical Analysis of Water and Wastes, US EPA, EPA-600/4-790-020 (Revised 1983), and Methods for the Determination of Inorganic Substances in Environmental Samples, US EPA, EPA/600/R-93/100 (1993), and Standard Methods for the Examination of Water and Wastewater, APHA, Twentieth Edition (1998), and Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Report Notations:

All calculations performed prior to rounding. Quality Control Limits are defined by the methodology, or alternatively based upon the historical average recovery plus or minus three standard deviation units.

1 Instrument ID: Accumet AR50

2 Instrument ID: Boekel 152800 Flash Point Tester



Quality Control Report Laboratory Control Samples

Category:	Metals						
Matrix: Units:	Soil mg/Kg						
Sample Type	Method	OC Batch ID	Prep Method	Prepared	<u>Analyzed</u>	Instrument ID	<u>Analyst</u>
LCS LCSD LCSD	EPA 6010B EPA 7471A EPA 6010B EPA 7471A	MB-0634-SL MP-1796-SL MB-0634-SL MP-1796-SL	EPA 3050B EPA 7471A EPA 3050B EPA 7471A	06-08-05 09:46 06-08-05 09:00 06-08-05 09:46 06-08-05 09:00	06-09-05 13:47 06-08-05 14:37 06-09-05 13:50 06-08-05 14:40	ICP-1 PE 3000 CVAA-1 PE FIMS ICP-1 PE 3000 CVAA-1 PE FIMS	EB EB EB EB

CAS Number	1	Table 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1	-165	Francis Control	A VI STANDARD A	- 103	Duplicate		QETIN		Method
TANKS OF THE STATE	Activities of the control of the con	Sekel	Measured	Recovery	Spiled	Measured	Recovery	· rpb	ics	KPD	The second secon
7440-38-2	Arsenic	110	110	98%	110	100	94%	2 %	80-120 %	30 %	EPA 6010B
7440-39-3	Banum	200	190	100%	200	180	93%	4 %	82-118 %	30 %	EPA 6010B
7440-43-9	Cadmium	110	100	91%	110	93	84%	4 %	82-118 %	30 %	EPA 6010B
7440-47-3	Chromium	150	150	96%	150	140	89%	4 %	79-121 %	30 %	EPA 6010B
7439-92-1	Lead	160	140	87%	160	130	83%	2 %	80-120 %	30 %	EPA 6010B
7439-97-6	Mercury	8.4	6.7	80%	8.4	7.8	93%	8 %	51-149 %	30 %	EPA 7471A
7782-49-2	Selenium	94	92	97%	94	86	91%	3 %	76-124 %	30 %	EPA 6010B
7440-22-4	Silver	100	100	102%	100	96	94%	4 %	61-139 %	30 %	EPA 6010B

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Report Notations:

All calculations performed prior to rounding. Quality Control Limits are defined by the methodology, or alternatively based upon the historical average recovery plus or minus three standard deviation units.



Quality Control Report Method Blank

Category:	Metals							
Matrix:	Soil					:		
Analysis Method	QC Batch ID	Prep Method	Prepar		Sample Volum	e	Instrument ID	<u>Analyst</u> EB
EPA 6010B EPA 7471A	MB-0634-SB MP-1 <i>7</i> 96-5B	EPA 3050B EPA 7471A		05 09:46 05 09:00	0.5 g 0.6 g		ICP-1 PE 3000 CVAA-1 PE FIMS	EB
CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit	. DF	Analyzed -	Method
7440-38-2	Arsenic	В	RL	mg/Kg	1.0	1	06-09-05 13:44	EPA 6010B
7440-39-3	Barium	В	RL.	mg/Kg	20	1	06-09-05 13:44	EPA 6010B
7440-43-9	Cadmium	В	RL	mg/Kg	0.50	1	06-09-05 13:44	EPA 6010B
7440-47-3	Chromium		RL	mg/Kg	10	1	06-09-05 13:44	EPA 6010B
	Lead		RL	mg/Kg	10	1	06-09-05 13:44	EPA 6010B
7439-92-1			RL ·	mg/Kg	0.033	1	06-08-05 14:37	EPA 7471A
7439-97-6 7782-49-2	Mercury Selenium		RL	mg/Kg	10	1	06-09-05 13:44	EPA 6010B
770E TO E				-11/-		-	06 00 05 13:44	EPA 6010B

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

BRL

Report Notations:

7440-22-4

Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

mg/Kg

5.0

Dilution Factor.

Silver

EPA 6010B

06-09-05 13:44



Quality Control Report Laboratory Control Samples

LCS

LCSD

Category:

EPA Method 8021B

Instrument ID: Analyzed:

GC-2 HP 5890 06-09-05 -09:34 Instrument ID: Analyzed:

GC-2 HP 5890 06-09-05 23:08

QC Batch 1D: VG2-2871-S Matrix:

Soil

Analyst: JΗ

Analyst:

JΗ

viaitis: ,	ug/Kg									
CAS Number		THE COLUMN TWO IS NOT	tes	1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	704	CS Dupl	cate		QCLin	iits
F Sharehadara	A A A A A A A A A A	Spiked	Measured	Recovery	Spiked	Measured	Recovery	RPD	Spike	RPI
75-71-8	Dichlorodifluoromethane	1,000	1,000	105 %	1,000	1,200	117 %	11 %	70 - 130%	25%
74-87-3	Chloromethane	1,000	1,000	103 %	1,000	1,100	115 %	11 %	70 - 130%	25%
75-01-4	Vinyl Chloride	1,000	1,000	105 %	1,000	1,100	112 %	7 %	70 - 130%	259
74-83-9	Bromomethane	1,000	1,000	103 %	1,000	1,000	102 %	1 %	70 - 130%	25°
75-00-3	Chloroethane	1,000	1,100	107 %	1,000	1,100	106 %	1 %	70 - 130%	259
75-69-4	Trichlorofluoromethane	1,000	1,000	105 %	1,000	1,100	106 %	1 %	70 - 130%	25
75-35-4	1,1-Dichloroethene	1,000	1,100	113 %	1,000	1,100	110 %	2 %	70 - 130%	25
75-09-2	Methylene Chloride	1,000	1,300	126 %	1,000	1,100	112 %	12 %	70 - 130%	25
156-60-5	trans-1,2-Dichloroethene	1,000	1,000	101 %	1,000	990	99 %	1 %	70 - 130%	25
1634-04-4	Methyl tert-butyl Ether (MTBE)	1,000	1,100	109 %	1,000	1,100	105 %	3 %	70 - 130%	25
75-34-3	1.1-Dichloroethane	1,000	1,000	101 %	1,000	980	98 %	3 %	70 - 130%	25
156-59-2	cis-1,2-Dichloroethene	1,000	1,100	111 %	1,000	1,100	111 %	0 %	70 - 130%	25
67-66-3	Chloroform	1,000	980	98 %	1,000	970	97 %	1 %	70 - 130%	25
107-06-2	1.2-Dichloroethane	1,000	1,000	102 %	1,000	980	98 %	5 %	70 - 130%	25
71-55-6	1.1.1-Trichloroethane	1,000	990	99 %	1,000	970	97 %	2 %	70 - 130%	25
56-23-5	Carbon Tetrachloride	1,000	960	96 %	1,000	930	93 %	3 %	70 - 130%	25
71-43-2	Benzene	1,000	970	97 %	1,000	950	95 %	2 %	70 - 130%	25
78-87-5	1,2-Dichloropropane	1,000	1,000	103 %	1,000	970	97 %	5 %	70 - 130%	25
79-01-6	Trichloroethene	1,000	930	93 %	1,000	980	98 %	5 %	70 - 130%	25
75-27-4	Bromodichloromethane	1,000	1,000	103 %	1,000	960	96 %	6 %	70 - 130%	25
110-75-8	2-Chloroethyl Vinyl Ether	1,000	1,100	106 %	1,000	1,000	102 %	3 %	70 - 130%	25
10061-01-5	cis-1,3-Dichloropropene	1,000	1,000	102 %	1,000	940	94 %	8 %	70 - 130%	25
10061-02-6	trans-1,3-Dichloropropene	1,000	940	94 %	1,000	870	87 %	8 %	70 - 130%	25
79-00-5	1,1,2-Trichloroethane	1,000	1,000	101 %	1,000	990	99 %	2 %	70 - 130%	25
108-88-3	Toluene	1,000	1,000	102 %	1,000	970	97 %	5 %	70 - 130%	25
124-48-1	Dibromochloromethane	1.000	980	98 %	1,000	1,100	106 %	7 %	70 - 130%	25
127-18-4	Tetrachloroethene	1,000	980	98 %	1,000	990	99 %	1 %	70 - 130%	25
108-90-7	Chlorobenzene	1,000	1,000	102 %	1,000	1,000	101 %	1 %	70 - 130%	25
100-30-7	Ethylbenzene	1,000	980	98 %	1,000	990	99 %	1 %	70 - 130%	25
108-38-3 / 106-42-3		2,000	2,000	101 %	2,000	2,100	107 %	6 %	70 - 130%	25
75-25-2	Bromoform	1,000	1,000	104 %	1,000	970	97 %	6 %	70 - 130%	25
95-47-6	ortho-Xylene	1,000	1,000	104 %	1,000	970	97 %	6 %	70 - 130%	25
79-34-5	1,1,2,2-Tetrachloroethane	1,000	1,100	107 %	1,000	940	94 %	13 %	70 - 130%	25
541-73-1	1,3-Dichlorobenzene	1,000	970	97 %	1,000	980	98 %	1 %	70 - 130%	25
106-46-7	1,4-Dichlorobenzene	1,000	990	99 %	1,000	1,000	101 %	1 %	70 - 130%	25
95-50-1	1,2-Dichlorobenzene	1,000	970	97 %	1,000	980	98 %	1 %	70 - 130%	25
91-20-3	Naphthalene	1,000	1,000	103 %	1,000	1,000	100 %	4 %	70 - 130%	25

QC Surrogate Compound	Spiked	Measured	Recovery	Spiked	Measured	Recovery	QC Limits
a.a.a-Trifluorotoluene	500	510	102 %	500	480	97 %	: 70 - 130 %
1.2-Dichloroethane-d4	500	450	90 %	500	430	86 %	70 - 130 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample preparation performed by EPA Method 5030B.

Report Notations:

All calculations performed prior to rounding. Quality Control Limits are defined by the methodology, or alternatively based upon the historical average recovery plus or minus three standard deviation units.



Quality Control Report Method Blank

Category: QC Batch ID: EPA Method 8021B

VG2-2871-5

Matrix:

Soil

Instrument ID:

GC-2 HP 5890

Analyzed:

06-09-05 10:15

Analyst:

JΗ

CAS Number	Analyse	JAYV - La	Concer	stration Notes	Units	Reporting Limit
75-71-8	Dichlorodifluoromethane		VIII (1000)	BRL	ug/Kg	250
74-87-3	Chloromethane			BRL	ug/Kg	250
75-01-4	Vinyl Chloride			BRL	ug/Kg	100
74-83-9	Bromomethane			BRL	ug/Kg	250
75-00-3	Chloroethane		-	BRL	ug/Kg	250
75-69-4	Trichlorofluoromethane			BRL	ug/Kg	50
	1,1-Dichloroethene			BRL	ug/Kg	50
75-35-4	Methylene Chloride			BRL	ug/Kg	125
75-09-2	trans -1,2-Dichloroethene			BRL	ug/Kg	50
156-60-5	Methyl tert-butyl Ether (MT	BE)		BRL	ug/Kg	50
1634-04-4	1,1-Dichloroethane	DL)	-	BRL	ug/Kg	50
75-34-3	cis-1,2-Dichloroethene		 	BRL	ug/Kg	50
156-59-2	Chloroform			BRL	ug/Kg	50
67-66-3				BRL	ug/Kg	50
107-06-2	1,2-Dichloroethane	. 	<u>!</u>	BRL	ug/Kg	50
71-55-6	1,1,1-Trichloroethane	, <u> </u>	<u> </u>	BRL	ug/Kg	50
56-23-5	Carbon Tetrachloride		-	BRL	ug/Kg	50
71-43-2	Benzene		ļ	BRL	ug/Kg	50
78-87-5	1,2-Dichloropropane		}	BRL	ug/Kg	50
79-01-6	Trichloroethene				ug/Kg	50
75-27-4	Bromodichloromethane		<u> </u>	BRL	ug/Kg ug/Kg	250
110-75-8	2-Chloroethyl Vinyl Ether			BRL	ug/Kg	50
10061-01-5	cis-1,3-Dichloropropene		1	BRL	ug/Kg	50
10061-02-6	trans -1,3-Dichloropropene			BRL		50
79-00-5	1,1,2-Trichloroethane	<u>-</u>		BRL	ug/Kg	50
108-88-3	Toluene		-	BRL	ug/Kg	50
12 4-4 8-1	Dibromochloromethane			BRL	ug/Kg	
127-18-4	Tetrachloroethene			BRL	ug/Kg	50
108-90-7	Chlorobenzene			BRL	ug/Kg	50
100-41-4	Ethylbenzene			BRL_	ug/Kg	50
108-38-3 / 106-42-3	meta-Xylene and para-Xyl	ene		BRL	ug/Kg	50
75-25-2	Bromoform			BRL	ug/Kg	50
95-47-6	ortho-Xylene			BRL	ug/Kg	50
79-34-5	1,1,2,2-Tetrachloroethane			BRL	ug/Kg	50
541-73-1	1,3-Dichlorobenzene			BRL	ug/Kg	50
106-46-7	1,4-Dichlorobenzene			BRL	ug/Kg	50
95-50-1	1,2-Dichlorobenzene			BRL	ug/Kg	50
91-20-3	Naphthalene			BRL	ug/Kg	250
QC Surrogate C	emperator of the control of the cont	Spiked	Measured	Recovery	777	C Limits
a,a,a-Trifluoroto	- Com	500	520	104 %) - 130%
1,2-Dichloroeth		500	500	102 %	70) - 130%

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample preparation performed by EPA Method 5030B.

Report Notations:

Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.



Certifications and Approvals

Groundwater Analytical maintains environmental laboratory certification in a variety of states. Copies of our current certificates may be obtained from our website:

http://www.groundwateranalytical.com/qualifications.htm

CONNECTICUT, Department of Health Services, PH-0586

Categories: Potable Water, Wastewater, Solid Waste and Soil

http://www.dph.state.ct.us/BRS/Environmental_Lab/OutStateLabList.htm

FLORIDA, Department of Health, Bureau of Laboratories, E87643

Categories: SDWA, CWA, RCRA/CERCLA http://www.floridadep.org/labs/qa/dohforms.htm

MAINE, Department of Human Services, MA 103

Categories: Drinking Water and Wastewater

http://www.state.me.us/dhs/eng/water/Compliance.htm

MASSACHUSETTS, Department of Environmental Protection, M-MA-103

Categories: Potable Water and Non-Potable Water http://www.state.ma.us/dep/bspt/wes/files/certlabs.pdf

NEW HAMPSHIRE, Department of Environmental Services, 202703

Categories: Drinking Water and Wastewater

http://www.des.state.nh.us/asp/NHELAP/labsview.asp

NEW YORK, Department of Health, 11754

Categories: Potable Water, Non-Potable Water and Solid Waste

http://www.wadsworth.org/labcert/elap/comm.html

PENNSYLVANIA, Department of Environmental Protection, 68-665

Environmental Laboratory Registration (Non-drinking water and Non-wastewater)

http://www.dep.state.pa.us/Labs/Registered/

RHODE ISLAND, Department of Health, 54

Categories: Surface Water, Air, Wastewater, Potable Water, Sewage

http://www.healthri.org/labs/labsCT_MA.htm

U.S. Department of Agriculture, Soil Permit, S-53921

Foreign soil import permit

VERMONT, Department of Environmental Conservation, Water Supply Division

Category: Drinking Water

http://www.vermontdrinkingwater.org/wsops/labtable.PDF

GROUNDWATER ANALYTICAL

Groundwater Analytical, Inc. P.O. Box 1200 228 Main Street Buzzards Bay, MA 02532

July 28, 2005

Telephone (508) 759-4441 FAX (508) 759-4475 www.groundwateranalytical.com

Mr. Joe Callahan Environmental Strategies & Management, Inc. 184 West Main Street Norton, MA 02766

LABORATORY REPORT

Project:

Lewis Chemical/2004-301

Lab ID:

85632

Received:

07-14-05

Dear Joe:

Enclosed are the analytical results for the above referenced project. The project was processed for Standard turnaround.

This letter authorizes the release of the analytical results, and should be considered a part of this report. This report contains a sample receipt report detailing the samples received, a project narrative indicating project changes and non-conformances, a quality control report, and a statement of our state certifications.

The analytical results contained in this report meet all applicable NELAC standards, except as may be specifically noted, or described in the project narrative. This report may only be used or reproduced in its entirety.

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

Should you have any questions concerning this report, please do not hesitate to contact me.

Sincerely,

Eric H. Jensen

Operations Manager

Enclosures



Sample Receipt Report

Lewis Chemical/2004-301 Project:

Delivery: GWA Courier

Temperature: 2.0'C

Environmental Strategies & Management, Inc. Client:

Airbill: n/a

Chain of Custody: Present

Lab Receipt: 07-14-05

Custody Seal(s): n/a

E LAID	Feuil	751100000000000000000000000000000000000	Malrix	Sampled	Method			AND THE RESERVE OF THE PARTY OF
85632-1	ESM-11 (10-12')	The second secon	Soil	7/13/05 9:10	EPA 8260B V	olatile Organics	with Oxyger	nates
Con 1D	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	5hip	
C632935	40 mL VOA Viał	Proline	BX16322	Methanol	R-4361T	04-27-05	n/a	
C612600	40 mL VOA Vial	Proline	BX16340	NaH5O4	R-4159A	05-06-05	n/a	
C612562	40 mL VOA Vial	Proline	BX16340	NaHSO4	R-4159A	05-06-05	n/a	
C612544	40 mL VOA Vial	Proline	BX16340	NaHSO4	R-4159A	05-06-05	n/a	

Lab ID	Føld UD		Matrix	Sampled	Method	7 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -		Notes
85632-2	ESM-12 (12-14')		Soil	7/13/05 10:40	EPA 8260B V	olatile Organics	with Oxyger	nates
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	
C632946	40 mL VOA Vial	Proline	BX16322	Methanol	R-4361T	04-27-05	n/a	
C612583	40 mL VOA Vial	Proline	BX16340	NaHSO4	R-4159A	05-06-05	n/a	
C612578	40 mL VOA Vial	Proline	BX16340	NaHSO4	R-4159A	05-06-05	n/a	
C612574	40 mL VOA Vial	Proline	BX16340	NaHSO4	R-4159A	05-06-05	n/a	

1abit0	Field ID	Marie Commence of the Commence	Matrix	Sampled	Method	I manufacture of the court of t	A CONTROL OF THE CONT	Notes Tolking
85632-3	ESM-13 (1-3')		Soil	7/13/05 12:40	EPA 8260B V	olatile Organics	with Oxygen	nates
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	
C581850	40 mL VOA Vial	Proline	BX16287	Methanol	R-4361T	04-21-05	n/a	
C612981	40 mL VOA Vial	Proline	BX16329	NaHSO4	R-4159A	04-29-05	n/a	
C612976	40 mL VOA Vial	Proline	BX16329	NaH\$O4	R-4159A	04-29-05	n/a	
C612961	40 mL VOA Vial	Proline	BX16329	NaHSO4	R-4159A	04-29-05	n/a	

LAID	Field ID	Make V 191 192 193 1	Matrix	SaipleL	Method		The second secon	An and washing the warmer of	Not
85632-4	ESM-13 (12-14')		Soil	7/13/0 5 12:55	EPA 8260B V	ofatile Organics	with Oxyge	nates	
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship		
C632952	40 mL VOA Vial	Proline	BX16322	Methanol	R-4361T	04-27-05	n/a		
C612216	40 mL VOA Vial	Proline	BX16331	NaHSO4	R-4159A	05-06-05	n/a	1	
C612209	40 mL VOA Vial	Proline	BX16331	NaHSO4	R-4159A	05-06-05	n/a		1
C612174	40 mL VOA Vial	Proline	BX16331	NaH\$O4	R-4159A	05-06-05	n/a		

labib	Bell B		Matrix	Sampled	Method	t a transport to the tr	Was and the American	Management of Management Williams	
85632-5	ESM-14 (7-9')		Soil	7/13/05 14:00	EPA 8260B V	olatile Organics	with Oxyge	nates	
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship		
C581871	40 mL VOA Vial	Proline	BX16287	Methanol	R-4361T	04-21-05	n/a		
C673003	40 mL VOA Vial	Proline	BX16329	NaHSO4	R-4159A	04-29-05	n/a		
C612974	40 mL VOA Vial	Proline	BX16329	NaHSO4	R-4159A	04-29-05	n/a		
C612963	40 mL VOA Vial	Proline	BX16329	NaH5O4	R-4159A	04-29-05	n/a		

lab ID	Fell (D		Matrix	Sampled	Method	PAND IN MARKET PRO IN THE PARTY OF THE PARTY	AV. 73.	and the second s	Notes	100 100 100 100 100 100 100 100 100 100
85632-6	ESM-14 (15-17')		Soil	7/13/05 14:15	EPA 8260B V	olatile Organic	s with Oxygen	ates		
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Ртер	Ship	· · ·		
C632939	40 ml, VOA Vial	Proline	BX16322	Methanol	R-4361T	04-27-05	n/a		-	
C612598	40 mL VQA Vial	Proline	BX16340	NaHSO4	R-4159A	05-06-05	n/a			
C612563	40 mL VOA Vial	Proline	BX16340	NaHSO4	R-4159A	05-06-05	n/a			
C612539	40 mL VOA Vial	Proline	BX16340	NaHSO4	R-4159A	05-06-05	n/a			
C686815	250 mL Glass	Proline	BX16830	None	n/a	n/a	05-25-05			



Sample Receipt Report (Continued)

Project: Lewis Chemical/2004-301

Delivery: GWA Courier

Temperature: 2.0'C

Client: Environ

Environmental Strategies & Management, Inc.

Airbill: n/a

Chain of Custody: Present

Lab ID: 85632

Lab Receipt: 07-14-05

*Custody Seal(s): n/a

									0.4 (1.274.5, 22		· · · · · · ·
lab ID	Field ID		Malrix	Sampled		100 100 100 100 100 100 100 100 100 100			Notes	ALTONOMA AND ALTON	organization.
85632-7	DUP		Soil	7/13/05 14:20	EPA 8260B V	olatile Organics	with Oxyge	nates			
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship				
C599044	40 mL VOA Vial	Proline	BX15768	NaHSO4	R-4159A	04-29-05	n/a				
C599043	40 mt. VOA Vial	Proline	BX15768	NaHSO4	R-4159A	04-29-05	n/a				
C599042	40 mL VOA Viat	Proline	BX15768	NaHSO4	R-4159A	04-29-05	n/a				
C581881	40 mL VOA Vial	Proline	BX16287	Methanol	R-4361T	04-21-05	n/a	Ī			

. Lab IO	Sield (D.	The state of the s	Matrix	Sampled	Method	Anna Walter State	The second secon	F A	Notes	
85632-8	ESM-11 (10-12')		Soil	7/13/05 9:10	MA DEP VPH	with Targets				
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship			
C607376	40 mL VOA Vial	Proline	BX16315	Methanol	R-4367F	04-28-05	05-25-05			

1के 10	seld ID	The state of the s	Matrix	Sampled -	Method			**************************************	Makes the second of the second
85632-9	ESM-13 (1-3')		Soil	7/13/05 12:40	MA DEP VPH	with Targets			
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship		
C607392	40 mL VOA Vial	Proline	BX16315	Methanol	R-4367F	04-28-05	05-25-05		

ia id	FAID	100 100 100 100 100 100 100 100 100 100	Matrix	Sampled	Method		A Section of the sect	CONTROL OF THE PROPERTY OF THE	Nac	- VOODS-AND
85632-10	ESM-13 (12-14')		Soil	7/13/05 12:55	MA DEP VPH	l with Targets				
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship			
C607375	40 mL VOA Vial	Proline	BX16315	Methanol	R-4367F	04-28-05	05-25-05			

Lab ID	5WD	A second A s	Matrix	Sampled	Method	- Address Average - Averag	V TO THE STATE OF	And the second s	Notes
85632-11	ESM-14 (7-9')		Soil	7/13/05 14:00	MA DEP VPH	with Targets			
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship		
C607418	40 mL VOA Vial	Proline	BX16315	Methanol	R-4367F	04-28-05	05-25-05		

LabiD	Add	**************************************	Matrix	Sampled	Method	AAMada Aasaa aa	1 100 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		
85632-12	ESM-11 (10-12')		Soil	7/13/05 9:10	EPA 6010B/74	171A 8 RCRA N	∕letals		
					EPA 8082 PC	Bs			
					MA DEP EPH	with PAHs			
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship		
C677004	120 mt Amber Glass	Proline	BX16815	None	n/a	n/a	05-25-05		
C686818	250 mL Glass	Proline	BX16830	None	n/a	n/a	05-25-05	1	

Lab ID	- Beld ID	100 / 100 /	Matrix	Sampled	Method	94.14 pt	1-901 / 1-700 / 1-100	**************************************	Notes	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
85632-13	ESM-12 (12-14')		Soil	7/13/05 10:40	EPA 8082 PC	Bs				
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship			1
C686811	250 mL Glass	Proline	BX16830	None	n⁄a	n/a	05-25-05			

lab ID	FieldID	- 10 - 10 - 10 - 10 - 10 - 10 - 10 - 10	Matrix	Sampled	Method	Wind and a second secon	And the second s	TO SECURITY OF THE SECURITY OF	Notes	 Total Total
85632-14	ESM-13 (1-3')		Soil	7/13/05 12:40	EPA 6010B/74	171A 8 RCRA	Metals			
					EPA 8082 PC	Bs			•	
1					MA DEP EPH	with PAHs				i
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship			
C677002	120 mL Amber Glass	Proline	BX16815	None	n/a	n/a	05-25-05			
C686814	250 mL Glass	Proline	BX16830	None	n/a	n/a	05-25-05			



Sample Receipt Report (Continued)

Project: Lewis Chemical/2004-301

Delivery: GWA Courier

Temperature: 2.0'C

Client: Lab ID: 85632

Environmental Strategies & Management, Inc. Airbill: n/a Lab Receipt: 07-14-05 Chain of Custody: Present

Custody Seal(s): n/a

1. ab ID	Field ID	1, JOHN TO THE THE STATE OF THE	Matrix	Sampled	Method		The state of the s		The purpose Action is a second of the purpose of th
85632-15	ESM-13 (12-14')	- Section 1	Soil	7/13/05 12:55	EPA 6010B/74	71A 8 RCRA	Metals	"	
00002 10			[EPA 8082 PCB	Bs			
ļ					MA DEP EPH	with PAHs			
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship		
C677003	120 mL Amber Glass	Proline	BX16815	None	n/a	п⁄a	05-25-05		
C686820	250 mL Glass	Proline	BX16830	None	n/a	n⁄a	05-25-05		

IM D	EAL D	The second secon	Matrix	" Sampled "	Method	Application of the second of t	Months of the second se	A	Notes-	1 11 11 11 11 11 11 11 11 11 11 11 11 1	 **************************************
85632-16	ESM-14 (7-9')		Soil	7/13/05 14:00	EPA 6010B/74	71A 8 RCRA	Metals				
					EPA 8082 PCB	is		l			
					MA DEP EPH	with PAHs					
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship				
C677006		Proline	BX16815	None	n/a	n/a	05-25-05				
C686819	250 mL Glass	Proline	BX16830	None	n/a	n/a	05-25-05				



Data Certification

Project:

Lewis Chemical/2004-301

Environmental Strategies & Management, Inc.

Lab ID:

85632

Received:

07-14-05 17:50

ient:	Environmen	ntal Strategies & /	Managem	ient, Inc.				K	eceivea:		//- (-1- 05 1/:	
			MADE	P Compend	lum v	(Analyti	cal Met		Type de sales var per es partir de sales de sale	And the second	Homeon gallet management of the second	PROCESSION CO.
Proie	ect Location:	n/a						MA	DEP RTN:	t	v/a	
		ertifications for the	o followii	no data set				4				
this	rom provides ce											
EPA	8260B:	85632-01,-02,-0										
EPA	8082:	85632-12,-13,-1		>								
MA	DEP VPH:	85632-08,-09,-1										
MAI	DEP EPH:	85632-12,-14,-1										
	6010B:	85632-12,-14,-1										
EPA	7470A/1A:	85632-12,-14,-1	5,-16									
Sami	ple Matrices:	Groundwater	() So	il/Sediment	(X)	Drinkin	g Water	_()_	Other	()		
1 was 11 11111 A.	'SW-846	8260B	(X)	8151A	()		8330	()	6010B	(X)	7470A/1A	<u> </u>
Mett	uads Used	8270C	()	8081A	()		VPH	(X)	6020	()	9012A ²	
As spe	cified in MA DEP	8082	(X)	8021B	()		EPH	(X)	7000 S ³	()	Other	()
Comp	endium of Analytical	1. List Release Track	ng Number	(RIN), if knows	4					-	A Company of the Comp	A
Meth	A CONTROL OF THE PROPERTY OF T	2. SW-846 Method 9						wailable.Cy	/anide (PAC) Me	2000	11 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1	
(chec	call that apply)	3. S - SW-846 Metho	ds 7000 Se	nes List individ	lual mei	hod and an	alyle,	South Comments		Water I was Array	/ many the system program	11.
	An affirmative re	sponse to questio	ns A, B, (C and D is re	equire	d for "Pr	esumpti	ive Cen	ainty" status	<u> </u>		
Α.	Were all san	nples received by	the labo	ratory in a c	onditi	on consi	stent wi	th				
74.	that describe	ed on the Chain-o	f-Custod	y documenta	ation f	or the da	ata set?				Yes	
											· -	
В.	Were all QA	VQC procedures	required	for the speci	ified a	nalytical	method	d(s)				
- 1	included in	this report follow-	ed, inclu	ding the req	uirem	ent to no	ote and					
	discuss in a	narrative QC data	a that did	not meet ap	propr	iate perfe	ormance	e				
		guidelines?									Yes	
								<u> </u>				
C.	Does the an	alytical data inclu	ıded in th	nis report me	eet all	the requ	irement	S				
	for "Presum	ptive Certainty," a	ıs describ	ed in Section	n 2.0	of the M	IA DEP					
	document C	AM VII A, Qualit	y Assurai	nce and Qua	ality C	iontrol G	iuideline	es			Yes	
	for the Acqu	isition and Repo	rting of A	malytical Da	ata ?						165	_
		H methods only:	34/ 4b.	VOLL or ED	L mot	hod run	without					
D.	VPH and EP	'H metnous only:	vvas uie	in Section 1	1 27	illoa raii	Without				Yes	
	_	nodifications, as s										
	A response to qu	uestions E and F b	elow is r	equired for	"Presu	mptive C	Certainty	/" status	·			
E.	Were all O	C performance sta	andards a	nd recomme	endati	ons for th	he					
E.		ethods achieved?									No	
	specified in	Carous acmereur				-··				<u> </u>		
F.	Were result	s for all analyte-li	st compo	ounds/eleme	nts foi	the spec	cified					
••	method(s) r		•			-					No	
					A bar	4				-i		_
		are addressed in										
	ne undersianed	, attest under th	e pains :	and penalti	ies of	perjury	that, ba	ased u	oon my per	sonal		
		ononcible for ol	btaining	the informa	ation,	the mat	terial c	ontaine	ed in this			
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ESM-11 (10-12') Field ID: Project: Lewis Chemical/2004-301 Client:

Environmental Strategies & Management, Inc.

85632-01 Laboratory ID: Sampled: Received:

Analyzed:

07-13-05 09:10 07-14-05 17:50 07-21-05 03:18

Analyst: CCT Matrix:

Soil

40 mL VOA Vial Container: Methanol / Cool Preservation:

QC Batch ID: Instrument ID: VM1-1615-E

MS-1 HP 5890 Sample Weight: 14 g Final Volume: 15 mL

% Solids: 93

Dilution Factor: Page: 1 of 2

Analyte Dichlorodifluoromethane Chloromethane Vinyl Chloride Bromomethane	Soncentration Notes BRL BRL	ug/Kg ug/Kg	580
Dichlorodifluoromethane Chloromethane Vinyl Chloride	BRL		580
Vinyl Chloride		па/Ко	
			580
Bromomethane	BRL	ug/Kg	580
	BRL	ug/Kg	580
Chloroethane	BRL	ug/Kg	580
Trichlorofluoromethane	BRL	ug/Kg	580
Diethyl Ether	BRL	ug/Kg	580
1,1-Dichloroethene	BRL	ug/Kg	290
1,1,2-Trichlorotrifluoroethane	BRL	ug/Kg	2,900
Acetone	BRL	ug/Kg	2,900
Carbon Disulfide	BRL	ug/Kg	2,900
Methylene Chloride	BRL	ug/Kg	1,200
	BRL	ug/Kg	290
	BRI.	ug/Kg	290
	BRL	ug/Kg	290
	BRL	ug/Kg	290
cis-1.2-Dichloroethene	BRL	ug/Kg	290
	BRL	ug/Kg	2,900
	BRL	ug/Kg	290
	BRL		2,900
	BRL	_+	290
	BRL		290
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	1,1,2-Trichlorotrifluoroethane Acetone Carbon Disulfide Methylene Chloride trans-1,2-Dichloroethene Methyl tert-butyl Ether (MTBE) 1,1-Dichloroethane 2,2-Dichloropropane	Acetone BRL Acetone BRL Carbon Disulfide BRL Methylene Chloride BRL Methyleter-butyl Ether (MTBE) BRL 1,1-Dichloroethane BRL 2,2-Dichloropropane BRL cis-1,2-Dichloroethene BRL Bromochloromethane BRL Bromochloromethane BRL Tetrahydrofuran (THF) BRL Chloroform BRL 1,1,1-Trichloroethane BRL Carbon Tetrachloride BRL 1,1-Dichloropropene BRL 1,2-Dichloroethane BRL Trichloroethene BRL Trichloroethene BRL Trichloroethene BRL Trichloroethene BRL Trichloroethene BRL Trichloropropane BRL Dibromomethane BRL Bromodichloromethane BRL Trichloroethene BRL Trich	1,1,2-Trichlorotrifluoroethane

GROUNDWATER ANALYTICAL

EPA Method 8260B Volatile Organics by GC/MS

Field ID:

ESM-11 (10-12')

inot.

Lewis Chemical/2004-301

Project Client:

Environmental Strategies & Management, Inc.

Laboratory ID:

85632-01

Sampled:

07-13-05 09:10 07-14-05 17:50

Received: Analyzed:

07-21-05 03:18

Analyst:

CCT

Matrix:

Soil

Container:

40 mL VOA Vial

Preservation:

Methanol / Cool

QC Batch ID:

VM1-1615-E

Instrument 1D:

MS-1 HP 5890

Sample Weight: Final Volume:

14 g 15 mL

93

% Solids:

...

Dilution Factor: 1

Page: 2 of 2

CAS Number	Analyte	Concentration Notes	Units	Reporting Unit
100-42-5	Styrene	BRL	ug/Kg	290
75-25-2	Bromoform	BRL	ug/Kg	290
98-82-8	Isopropylbenzene	BRL	ug/Kg	290
108-86-1	Bromobenzene	BRI.	ug/Kg	290
79-34-5	1,1,2,2-Tetrachloroethane	BRL	ug/Kg	290
96-18-4	1,2,3-Trichloropropane	BRL	ug/Kg	290
103-65-1	n-Propylbenzene	BRL	ug/Kg	290
95-49-8	2-Chlorotoluene	BRL	ug/Kg	290
108-67-8	1,3,5-Trimethylbenzene	BRL	ug/Kg	290
106-43-4	4-Chlorotoluene	BRL	ug/Kg	290
98-06-6	tert-Butylbenzene	BRL	ug/Kg	290
95-63-6	1,2,4-Trimethylbenzene	BRL	ug/Kg	290
135-98-8	sec-Butylbenzene	BRL	ug/Kg	290
541-73-1	1,3-Dichlorobenzene	BRL	ug/Kg	290
99-87-6	4-Isopropyltoluene	BRL	ug/Kg	290
106-46-7	1,4-Dichlorobenzene	BRL	ug/Kg	290
95-50-1	1,2-Dichlorobenzene	BRL	ug/Kg_	290
104-51-8	n-Butylbenzene	BRL	ug/Kg	290
96-12-8	1,2-Dibromo-3-chloropropane	BRL	ug/Kg	290
120-82-1	1,2,4-Trichlorobenzene	BRL	ug/Kg	290
87-68-3	Hexachlorobutadiene	BRL	ug/Kg	290
91-20-3	Naphthalene	BRL	ug/Kg	290
87-61-6	1,2,3-Trichlorobenzene	BRL	ug/Kg	290
75-65-0	tert -Butyl Alcohol (TBA)	BRL	ug/Kg	12,000
108-20-3	Di-isopropyl Ether (DIPE)	BRL	ug/Kg	290
637-92-3	Ethyl tert-butyl Ether (ETBE)	BRL	ug/Kg	290
994-05-8	tert -Amyl Methyl Ether (TAME)	BRL	ug/Kg	290

QC Surrogate Compound	Spiked	Measured	Recovery Assessment	QE Limits
Dibromofluoromethane	2,500	2,000	82 %	70 - 130 %
1.2-Dichloroethane-d₄	2,500	2,300	90 %	70 - 130 %
Toluene-d _B	2,500	2,500	101 %	70 - 130 %
4-Bromofluorobenzene	2.500	2.600	104 %	70 - 130 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample preparation performed by EPA Method 5035A and EPA Method 5030B. Results are reported on a dry weight basis.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.



Field ID: ESM-12 (12-14')
Project: Lewis Chemical/2

Lewis Chemical/2004-301

Client: Environmental Strategies & Management, Inc.

Laboratory ID: Sampled:

Received:

85632-02 07-13-05 10:40 07-14-05 17:50

Analyzed: **07-21-05 03:55** Analyst: **CCT** Matrix:

Soil

Container: 40 : Preservation: Met

40 ml. VOA Vial Methanol / Cool

QC Batch ID: Instrument ID: VM1-1615-E MS-1 HP 5890

Sample Weight: Final Volume: 16 g 15 mL

% Solids:

88 1

Dilution Factor:

Page: 1 of 2

CAS Number	Analyte	Concentration 1 Notes	Units	Reporting 1 in
75-71-8	Dichlorodifluoromethane	BRL	ug/Kg	530
74-87-3	Chloromethane	BRL	ug/Kg	530
75-01-4	Vinyl Chloride	BRL	ug/Kg	530
74-83-9	Bromomethane	BRL	ug/Kg	530
75-00-3	Chloroethane	BRL	ug/Kg	530
75-69-4	Trichlorofluoromethane	BRL	ug/Kg	530
60-29-7	Diethyl Ether	BRL	ug/Kg	530
75-35-4	1,1-Dichloroethene	BRL	ug/Kg	260
76-13-1	1,1,2-Trichlorotrifluoroethane	BRL	ug/Kg	2,600
67-64-1	Acetone	BRL	ug/Kg	2,600
<i>7</i> 5-15-0	Carbon Disulfide	BRL	ug/Kg	2,600
75-09-2	Methylene Chloride	BRL	ug/Kg	1,100
156-60-5	trans-1,2-Dichloroethene	BRL	ug/Kg	260
1634-04-4	Methyl tert-butyl Ether (MTBE)	BRL	ug/Kg	260
75-34-3	1,1-Dichloroethane	BRL	ug/Kg	260
594-20-7	2,2-Dichloropropane	BRL	ug/Kg	260
156-59-2	cis-1,2-Dichloroethene	BRL	ug/Kg	260
78-93-3	2-Butanone (MEK)	BRL	ug/Kg	2,600
74-97-5	Bromochloromethane	BRL	ug/Kg	260
109-99-9	Tetrahydrofuran (THF)	BRL	ug/Kg	2,600
67-66-3	Chloroform	BRL	ug/Kg	260
71-55-6	1,1,1-Trichloroethane	BRL	ug/Kg	260
56-23-5	Carbon Tetrachloride	BRL	ug/Kg	260
563-58-6	1,1-Dichloropropene	BRL	ug/Kg	260
71-43-2	Benzene	BRL	ug/Kg	260
107-06-2	1,2-Dichloroethane	BRL	ug/Kg	260
79-01-6	Trichloroethene	BRL	ug/Kg	260
78-87-5	1,2-Dichloropropane	BRL	ug/Kg	260
74-95-3	Dibromomethane	BRL	ug/Kg	260
75-27-4	Bromodichloromethane	BRL	ug/Kg	260
123-91-1	1,4-Dioxane	BRL	ug/Kg	260,000
10061-01-5	cis-1,3-Dichloropropene	BRL	ug/Kg	260
108-10-1	4-Methyl-2-Pentanone (MIBK)	BRL	ug/Kg	2,600
108-88-3	Toluene	BRL	ug/Kg	260
10061-02-6	trans-1,3-Dichloropropene	BRL	ug/Kg	260
79-00-5	1,1,2-Trichloroethane	BRL	ug/Kg	260
127-18-4	Tetrachloroethene	BRL	ug/Kg	260
142-28-9	1,3-Dichloropropane	BRL	ug/Kg	260
591-78-6	2-Hexanone	BRL	ug/Kg	2,600
124-48-1	Dibromochloromethane	BRL	ug/Kg	260
106-93-4	1,2-Dibromoethane (EDB)	BRL	ug/Kg	260
108-90-7	Chlorobenzene	BRL	ug/Kg	260
630-20-6	1,1,1,2-Tetrachloroethane	BRL	ug/Kg	260
100-41-4	Ethylbenzene	BRL	ug/Kg	260
08-38-3/106-42-3	meta-Xylene and para-Xylene	BRL	ug/Kg	260
95-47-6	ortho-Xylene	BRL	ug/Kg	260



Field ID:

ESM-12 (12-14')

Matrix:

Soil

Project:

Lewis Chemical/2004-301

Container:

40 mL VOA Vial

Client:

Environmental Strategies & Management, Inc.

Preservation:

Methanol / Cool

Laboratory ID:

85632-02

QC Batch ID:

VM1-1615-E

Sampled:

07-13-05 10:40

Instrument ID:

MS-1 HP 5890

Received: Analyzed: 07-14-05 17:50 07-21-05 03:55

Sample Weight: Final Volume:

16 g

Analyst:

CCT

% Solids:

15 mL 88

Dilution Factors

D11011			••	-
Marine Marine	Ne	des	VWL-1	

Page: 2 of 2

CAS Number	Analyte	Concentration Notes	Units	Reporting Limit
100-42-5	Styrene	BRL .	ug/Kg	260
75-25-2	Bromoform	BRL	ug/Kg	260
98-82-8	Isopropylbenzene	BRL	ug/Kg	260
108-86-1	Bromobenzene	BRL	ug/Kg_	260
79-34-5	1,1,2,2-Tetrachloroethane	BRL	ug/Kg	260
96-18-4	1,2,3-Trichloropropane	BRL	ug/Kg	260
103-65-1	n-Propylbenzene	BRL	ug/Kg	260
95-49-8	2-Chlorotoluene	BRL	ug/Kg	260
108-67-8	1,3,5-Trimethylbenzene	BRL	ug/Kg	260
106-43-4	4-Chlorotoluene	BRL	ug/Kg	260
98-06-6	tert-Butylbenzene	BRL	ug/Kg	260
95-63-6	1,2,4-Trimethylbenzene	BRL	ug/Kg	260
135-98-8	sec-Butylbenzene	BRL	ug/Kg	260
541-73-1	1,3-Dichlorobenzene	BRL	ug/Kg	260
99-87-6	4-Isopropyltoluene	BRL	ug/Kg	260
106-46-7	1,4-Dichlorobenzene	BRL	ug/Kg	260
95-50-1	1,2-Dichlorobenzene	BRL	ug/Kg	260
104-51-8	n-Butylbenzene	BRL	ug/Kg	260
96-12-8	1,2-Dibromo-3-chloropropane	BRL	ug/Kg	260
120-82-1	1,2,4-Trichlorobenzene	BRL	ug/Kg	260
87-68-3	Hexachlorobutadiene	BRL	ug/Kg	260
91-20-3	Naphthalene	2,800	ug/Kg	260
87-61-6	1,2,3-Trichlorobenzene	BRL	ug/Kg	260
75-65-0	tert-Butyl Alcohol (TBA)	BRL	ug/Kg	11,000
108-20-3	Di-isopropyl Ether (DIPE)	BRL	ug/Kg	260
637-92-3	Ethyl tert-butyl Ether (ETBE)	BRL	ug/Kg	260
994-05-8	tert -Amyl Methyl Ether (TAME)	BRL	ug/Kg	260

QC Surrogate Compound	Spiked	Measured	Recovery	QCEINIS
Dibromofluoromethane	2,500	2,000	81 %	70 - 130 %
1,2-Dichloroethane-d ₄	2,500	2,100	84 %	70 - 130 %
Toluene-d ₈	2,500	2,600	103 %	70 - 130 %
4-Bromofluorobenzene	2,500	2,700	109 %	70 - 130 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample preparation performed by EPA Method 5035A and EPA Method 5030B. Results are reported on a dry weight basis.

Report Notations:

Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

GROUNDWATER ANALYTICAL

EPA Method 8260B Volatile Organics by GC/MS

Matrix: Soil ESM-13 (1-3') Field ID: 40 mL VOA Vial Container: Project: Lewis Chemical/2004-301 Preservation: Methanol / Cool. **Environmental Strategies & Management** -Client: QC Batch ID: VM1-1616-E 85632-03 Laboratory ID:

 Sampled:
 07-13-05
 12:40
 Instrument ID:
 MS-1 HP 5890

 Received:
 07-14-05
 17:50
 Sample Weight:
 18 g

 Analyzed:
 07-22-05
 09:28
 Final Volume:
 15 mL

 Analyst:
 IMG
 % Solids:
 85

Analyst: LMG % Solids: 85
Dilution Factor: 10 Page: 1 of 2

CAS Minister.	Austrie	Concentration Notes	Thills:	
75-71-8	Dichlorodifluoromethane	BRL	ug/Kg	5,100
74-87-3	Chloromethane	BRL	ug/Kg	5,100
75-01-4	Vinyl Chloride	BRL	ug/Kg	5,100
74-83-9	Bromomethane	BRL	ug/Kg	5,100
75-00-3	Chloroethane	BRL	ug/Kg	5,100
75-69-4	Trichlorofluoromethane	BRL	ug/Kg	5,100
60-29-7	Diethyl Ether	BRL	ug/Kg	5,100
75-35-4	1,1-Dichloroethene	BRL	ug/Kg	2,500
76-13-1	1,1,2-Trichlorotrifluoroethane	BRL	ug/Kg	25,000
67-64-1	Acetone	BRI.	ug/Kg	25,000
<i>75</i> -15-0	Carbon Disulfide	BRL	ug/Kg	25,000
75-09-2	Methylene Chloride	BRL	ug/Kg	10,000
156-60-5	trans-1,2-Dichloroethene	BRL	ug/Kg	2,500
1634-04-4	Methyl tert-butyl Ether (MTBE)	BRL	ug/Kg	2,500
75-34-3	1,1-Dichloroethane	BRL	ug/Kg	2,500
594-20-7	2,2-Dichloropropane	BRL	ug/Kg	2,500
156-59-2	cis-1,2-Dichloroethene	BRL	ug/Kg	2,500
78-93-3	2-Butanone (MEK)	BRL	ug/Kg	25,000
74-97-5	Bromochloromethane	BRL	ug/Kg	2,500
109-99-9	Tetrahydrofuran (THF)	BRL	ug/Kg	25,000
67-66-3	Chloroform	BRL	ug/Kg	2,500
71-55-6	1,1,1-Trichloroethane	BRL	ug/Kg	2,500
56-23-5	Carbon Tetrachloride	BRL	ug/Kg	2,500
563-58-6	1,1-Dichloropropene	BRL	ug/Kg	2,500
71-43-2	Benzene	BRL	ug/Kg	2,500
107-06-2	1,2-Dichloroethane	BRL	ug/Kg	2,500
<i>79</i> -01-6	Trichloroethene	3,900	ug/Kg	2,500
78-87- 5	1,2-Dichloropropane	BRL	ug/Kg	2,500
74-95-3	Dibromomethane	BRL	ug/Kg	2,500
75-27-4	Bromodichloromethane	BRL	ug/Kg	2,500
123-91-1	1,4-Dioxane	BRL	ug/Kg	2,500,000
10061-01-5	cis-1,3-Dichloropropene	BRL	ug/Kg	2,500
108-10-1	4-Methyl-2-Pentanone (MIBK)	BRL	ug/Kg	25,000
108-88-3	Toluene	BRL	ug/Kg	2,500
10061-02-6	trans-1,3-Dichloropropene	BRL	ug/Kg	2,500
79-00-5	1,1,2-Trichloroethane	BRL	ug/Kg	2,500
127-18-4	Tetrachloroethene	53,000	ug/Kg	2,500
142-28-9	1,3-Dichloropropane	BRL	ug/Kg	2,500
591-78-6	2-Hexanone	BRL	ug/Kg	25,000
124-48-1	Dibromochloromethane	BRL	ug/Kg	2,500
106-93-4	1,2-Dibromoethane (EDB)	BRL	ug/Kg	2,500
108-90-7	Chlorobenzene	BRL	ug/Kg	2,500
630-20-6	1,1,1,2-Tetrachloroethane	BRL	ug/Kg	2,500
100-41-4	Ethylbenzene	BRL	ug/Kg	2,500
108-38-3/106-42-3	meta-Xylene and para-Xylene	BRL	ug/Kg	2,500
95-47-6	ortho-Xylene	BRL	ug/Kg	2,500



ESM-13 (1-3') Field ID: Lewis Chemical/2004-301 Project: Client:

07-22-05 09:28

Environmental Strategies & Management

85632-03 Laboratory ID: Sampled: 07-13-05 12:40 Received: 07-14-05 17:50

LMG Analyst:

Analyzed:

Matrix: Soil

> 40 mL VOA Vial Container: Methanol / Cool Preservation:

VM1-1616-E QC Batch ID: MS-1 HP 5890 Instrument ID:

18 g Sample Weight: 15 mL Final Volume: 85 % Solids:

Dilution Factor: 10 Page: 2 of 2

CAS Number		Conceditation Notes	Units	Reporting Limit
100-42-5	Styrene	BRL	ug/Kg	2,500
75-25-2	Bromoform	BRL	ug/Kg	2 <u>,5</u> 00
98-82-8	Isopropylbenzene	BRL	ug/Kg	2,500
108-86-1	Bromobenzene	BRL	ug/Kg	2,500
79-34-5	1,1,2,2-Tetrachloroethane	BRI.	ug/Kg	2,500
96-18-4	1,2,3-Trichloropropane	BRL	ug/Kg	2,500
103-65-1	n-Propylbenzene	BRL	ug/Kg	2,500
95-49-8	2-Chlorotoluene	BRL	ug/Kg	2,500
108-67-8	1,3,5-Trimethylbenzene	BRL	ug/Kg	2,500
106-43-4	4-Chlorotoluene	BRI.	ug/Kg	2,500
98-06-6	tert-Butylbenzene	BRL	ug/Kg	2,500
95-63-6	1,2,4-Trimethylbenzene	BRL	ug/Kg	2,500
135-98-8	sec-Butylbenzene	BRL	ug/Kg	2,500
541-73-1	1,3-Dichlorobenzene	BRL	ug/Kg	2,500
99-87-6	4-isopropyltoluene	BRL	ug/Kg	2,500
106-46-7	1,4-Dichlorobenzene	BRL	ug/Kg	2,500
95-50-1	1,2-Dichlorobenzene	BRL	ug/Kg	2,500
104-51-8	n-Butylbenzene	BRL	ug/Kg	2,500
	1,2-Dibromo-3-chloropropane	BRL	ug/Kg	2,500
96-12-8	1,2,4-Trichlorobenzene	BRL	ug/Kg	2,500
120-82-1	Hexachlorobutadiene	BRL	ug/Kg	2,500
87-68-3	Naphthalene	BRL	ug/Kg	2,500
91-20-3		BRL	ug/Kg	2,500
87-61-6	1,2,3-Trichlorobenzene tert-Butyl Alcohol (TBA)	BRL	ug/Kg	100,000
75-65-0	Di-isopropyl Ether (DIPE)	BRL	ug/Kg	2,500
108-20-3	Ethyl tert- butyl Ether (ETBE)	BRL	ug/Kg	2,500
637-92-3 994-05-8	tert - Amyl Methyl Ether (TAME)	BRL	ug/Kg	2,500

QC Surrogate Compound	Spiked	Measured	Recovery	OCTIONS
Dibromofluoromethane	2,500	2,200	89 %	70 - 130 %
1,2-Dichloroethane-d ₄	2,500	2,200	87 %	70 - 130 %
Toluene-d ₈	2,500	2,700	107 %	70 - 130 %
4-Bromofluorobenzene	2,500	3,000	120 %	70 - 130 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample preparation performed by EPA Method 5035A and EPA Method 5030B. Results are reported on a dry weight basis.

Report Notations:

Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.



Field ID: ESM-13 (12-14*)
Project: Lewis Chemical/2004-301
Client: Environmental Strategies & Management
Laboratory ID: 85632-04
Sampled: 07-13-05 12:55

Sampled: 07-13-05 12:55 Received: 07-14-05 17:50 Analyzed: 07-22-05 11:18

Analyst: LMG

Matrix: Soil

Container: 40 mL VOA Vial Preservation: Methanol / Cool

QC Batch ID: VM1-1616-E
Instrument ID: MS-1 HP 5890

Sample Weight: 18 g
Final Volume: 15 mL
% Solids: 73
Pillution Factor: 3

CAS Number		Dilution Factor:	2	Page: 1 of 2
75-71-8		Concessed Notes	- Units	Reporting Limit
74-87-3	Dichlorodifluoromethane Chloromethane	BRL	ug/Kg	1,300
75-01-4		BRL	ug/Kg	1,300
74-83-9	Vinyl Chloride	BRL	ug/Kg	1,300
75-00-3	Bromomethane	BRL	ug/Kg	1,300
75-69-4	Chloroethane	BRL	ug/Kg	1,300
60-29-7	Trichlorofluoromethane	BRL	ug/Kg	1,300
75-35-4	Diethyl Ether	BRL	ug/Kg	1,300
76-13-1	1,1-Dichloroethene	BRL	ug/Kg	640
	1,1,2-Trichlorotrifluoroethane	BRL	ug/Kg	6,400
67-64-1	Acetone	BRL	ug/Kg	6,400
75-15-0	Carbon Disulfide	BRL	ug/Kg	6,400
75-09-2	Methylene Chloride	BRL	ug/Kg	2,600
156-60-5	trans-1,2-Dichloroethene	BRL	ug/Kg	640
1634-04-4	Methyl tert-butyl Ether (MTBE)	BRL	ug/Kg	640
75-34-3	1,1-Dichloroethane	BRL	ug/Kg	640
594-20-7	2,2-Dichloropropane	BRL	ug/Kg	640
156-59-2	cis-1,2-Dichloroethene	3,400	ug/Kg	640
78-93-3	2-Butanone (MEK)	BRL	ug/Kg	6,400
74-97-5	Bromochloromethane	BRL	ug/Kg	640
109-99-9	Tetrahydrofuran (THF)	BRL	ug/Kg	6,400
67-66-3	Chloroform	BRL	ug/Kg	640
<i>7</i> 1-55-6	1,1,1-Trichloroethane	BRL	ug/Kg	640
56-23-5	Carbon Tetrachloride	BRL	ug/Kg	640
563-58-6	1,1-Dichloropropene	BRL	ug/Kg	640
<u>7</u> 1-43-2	Benzene	BRL	ug/Kg	640
107-06-2	1,2-Dichloroethane	BRL	ug/Kg	640
<i>7</i> 9-01-6	Trichloroethene	BRL	ug/Kg	640
78-87-5	1,2-Dichloropropane	BRL	ug/Kg	640
74-95-3	Dibromomethane	BRL	ug/Kg	640
75-27-4	Bromodichloromethane	BRL	ug/Kg	640
123-91-1	1,4-Dioxane	BRL	ug/Kg	640,000
10061-01-5	cis- 1,3-Dichloropropene	BRL	ug/Kg	640
108-10-1	4-Methyl-2-Pentanone (MIBK)	BRL	ug/Kg	6,400
108-88-3	Toluene	4,100	ug/Kg	640
10061-02-6	trans-1,3-Dichloropropene	BRL	ug/Kg	640
79-00-5	1,1,2-Trichloroethane	BRL	ug/Kg	640
127-18-4	Tetrachloroethene	BRL	ug/Kg	
142-28-9	1,3-Dichloropropane	BRL	ug/Kg ug/Kg	640 640
591- <i>78</i> -6	2-Hexanone	BRL		
124-48-1	Dibromochloromethane	BRL	ug/Kg	6,400
106-93-4	1,2-Dibromoethane (EDB)	BRL	ug/Kg	640
108-90-7	Chlorobenzene	BRL	ug/Kg	640
630-20-6	1,1,1,2-Tetrachloroethane	BRL	ug/Kg	640
100-41-4	Ethylbenzene	20,000	ug/Kg	640
8-38-3/106-42-3	meta- Xylene and para- Xylene		ug/Kg	640
95-47-6	ortho-Xylene	33,000	ug/Kg	640
	1 STEED AFFICING	4,000	ug/Kg	640



Field ID:

ESM-13 (12-14')

Project:

Lewis Chemical/2004-301

Matrix: Container:

Client:

Environmental Strategies & Management

Preservation:

40 mL VOA Vial Methanol / Cool

Laboratory ID:

85632-04 Sampled:

07-13-05 12:55

Received:

QC Batch ID: Instrument ID: Sample Weight: VM1-1616-E MS-1 HP 5890

07-14-05 17:50 07-22-05 11:18

Analyzed: Analyst: **LMG** Final Volume:

18 g

% Solids:

15 mL **73**

Dilution Factor:

Page: 2 of 2

CAS Number		Concentration Notes	Lipis	Reporting Limit
100-42-5	Styrene	BRL	ug/Kg	640
75-25-2	Bromoform	BRL	ug/Kg	640
98-82-8	Isopropylbenzene	BRL	ug/Kg	640
108-86-1	Bromobenzene	BRL	ug/Kg	640
79-34-5	1,1,2,2-Tetrachloroethane	BRL	ug/Kg	640
96-18-4	1,2,3-Trichloropropane	BRL	ug/Kg	640
103-65-1	n-Propylbenzene	BRL	ug/Kg	640
95-49-8	2-Chlorotoluene	BRL	ug/Kg	640
108-67-8	1,3,5-Trimethylbenzene	BRL	ug/Kg	640
106-43-4	4-Chlorotoluene	BRL	ug/Kg	640
98-06-6	tert-Butylbenzene	BRL	ug/Kg	640
95-63-6	1,2,4-Trimethylbenzene	BRL	ug/Kg	640
135-98-8	sec-Butylbenzene	830	ug/Kg	640
541-73-1	1,3-Dichlorobenzene	BRL	ug/Kg	640
99-87-6	4-Isopropyltoluene	9,400	ug/Kg	640
106-46-7	1,4-Dichlorobenzene	BRL	ug/Kg	640
95-50-1	1,2-Dichlorobenzene	BRL	ug/Kg	640
104-51-8	n-Butylbenzene	BRL	ug/Kg	640
96-12-8	1,2-Dibromo-3-chloropropane	BRL	ug/Kg	640
120-82-1	1,2,4-Trichlorobenzene	BRL	ug/Kg	640
87-68-3	Hexachlorobutadiene	BRL	ug/Kg	640
91-20-3	Naphthalene	890	ug/Kg	640
87-61-6	1,2,3-Trichlorobenzene	BRL	ug/Kg	640
75-65-0	tert -Butyl Alcohol (TBA)	BRL	ug/Kg	26,000
108-20-3	Di-isopropyl Ether (DIPE)	BRL	ug/Kg	640
637-92-3	Ethyl tert-butyl Ether (ETBE)	BRL	ug/Kg	640
994-05-8	tert -Amyl Methyl Ether (TAME)	BRL	ug/Kg	640

OC Surrogate Compound	Spiked	Measured	Recovery	QC Eimits
Dibromofluoromethane	2,500	2,300	90 %	70 - 130 %
1.2-Dichloroethane-d₄	2,500	2,300	93 %	70 - 130 %
Toluene-d ₈	2,500	2,800	113 %	70 - 130 %
4-Bromofluorobenzene	2,500	3,000	120 %	70 - 130 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample preparation performed by EPA Method 5035A and EPA Method 5030B. Results are reported on a dry weight basis.

Report Notations:

Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.



Field ID: ESM-14 (7-9") Matrix: Soil Lewis Chemical/2004-301 Project Container: 40 mL VOA Vial Client: **Environmental Strategies & Management** Preservation: Methanol / Cool Laboratory ID: 85632-05 QC Batch ID: VM1-1616-E

Sampled: 07-13-05-14:00 Instrument 1D: MS-1 HP 5890 Received: 07-14-05 17:50 Sample Weight: 13 g 07-22-05 11:55 Final Volume: 15 mL Analyzed: % Solids: Analyst: LMG 97

Dilution Factor: 2 Page: 1 of 2

- CAS Number -		# Concentration # Notes ***		
75-71 -8	Dichlorodifluoromethane	BRL	ug/Kg	1,200
74-87-3	Chloromethane	BRL	ug/Kg	1,200
75-01-4	Vinyl Chloride	BRL	ug/Kg	1,200
74-83-9	Bromomethane	BRL	ug/Kg	1,200
75-00-3	Chloroethane	BRL	ug/Kg	1,200
75-69-4	Trichlorofluoromethane	BRL	ug/Kg	1,200
60-29-7	Diethyl Ether	BRL	ug/Kg	1,200
75-35-4	1,1-Dichloroethene	BRL	ug/Kg	580
76-13-1	1,1,2-Trichlorotrifluoroethane	BRL	ug/Kg	5,800
67-64-1	Acetone	BRL	ug/Kg	5,800
75-15-0	Carbon Disulfide	BRL	ug/Kg	5,800
75-09-2	Methylene Chloride	BRL	ug/Kg	2,300
156 -60- 5	trans-1,2-Dichloroethene	BRL	ug/Kg	580
1634-04-4	Methyl tert-butyl Ether (MTBE)	BRL	ug/Kg	580
75-34-3	1,1-Dichloroethane	BRL	ug/Kg	580
594-20-7	2,2-Dichloropropane	BRL	ug/Kg	580
156-59-2	cis-1,2-Dichloroethene	680	ug/Kg	580
78-93-3	2-Butanone (MEK)	BRL	ug/Kg	5,800
74-97-5	Bromochloromethane	BRL	ug/Kg	580
109-99-9	Tetrahydrofuran (THF)	BRL	ug/Kg	5,800
67-66-3	Chloroform	BRL	ug/Kg	580
71-55-6	1,1,1-Trichloroethane	BRL	ug/Kg	580
56-23-5	Carbon Tetrachloride	BRL	ug/Kg	580
563-58-6	1,1-Dichloropropene	BRL	ug/Kg	580
71-43-2	Benzene	BRL	ug/Kg	580
107-06-2	1,2-Dichloroethane	BRL	ug/Kg	580
79-01-6	Trichloroethene	BRL	ug/Kg	580
78-87- 5	1,2-Dichloropropane	BRL	ug/Kg	580
74-95-3	Dibromomethane	BRL	ug/Kg	580
75-27-4	Bromodichloromethane	BRL	ug/Kg	580
123-91-1	1,4-Dioxane	BRL	ug/Kg	580,000
10061-01-5	cis-1,3-Dichloropropene	BRL	ug/Kg	580
108-10-1	4-Methyl-2-Pentanone (MIBK)	BRL	ug/Kg	5,800
108-88-3	Toluene	3,600	ug/Kg	580
10061-02-6	trans-1,3-Dichloropropene	BRL	ug/Kg	580
79-00-5	1,1,2-Trichloroethane	BRL	ug/Kg	580
127-18-4	Tetrachloroethene	BRL	ug/Kg	580
142-28-9	1,3-Dichloropropane	BRL	ug/Kg	580
591-78-6	2-Hexanone	BRL	ug/Kg	5,800
124-48-1	Dibromochloromethane	BRL	ug/Kg	580
106-93-4	1,2-Dibromoethane (EDB)	BRL	ug/Kg	580
108-90-7	Chlorobenzene	BRL	ug/Kg	580
630-20-6	1,1,1,2-Tetrachloroethane	BRL	ug/Kg	580
100-41-4	Ethylbenzene	7,100	ug/Kg	580
08-38-3/106-42-3	meta-Xylene and para-Xylene	11,000	ug/Kg	580
95-47-6	ortho-Xylene	1,800	ug/Kg	580



Field ID:

ESM-14 (7-9')

Project:

Lewis Chemical/2004-301

Client:

Environmental Strategies & Management

Laboratory ID:

Sampled:

85632-05 07-13-05 14:00

Received: Analyzed: 07-14-05 17:50 07-22-05 11:55

Analyst:

LMG

Matrix:

Soil

Container:

40 mL VOA Vial

Preservation:

Methanol / Cool

QC Batch ID:

VM1-1616-E

Instrument ID:

MS-1 HP 5890

Sample Weight: Final Volume:

13 g 15 mL

% Solids: 97

Dilution Factor: Page: 2 of 2

CAS Number	Zoalyte	Concentration Notes	- Units	
100-42-5	Styrene	BRL	ug/Kg	580
75-25-2	Bromoform	BRL	ug/Kg	580
98-82-8	Isopropylbenzene	BRL	ug/Kg	580
108-86-1	Bromobenzene	BRL	ug/Kg	580
79-34-5	1,1,2,2-Tetrachloroethane	BRL	ug/Kg	580
96-18-4	1,2,3-Trichloropropane	BRL	ug/Kg	580
103-65-1	n-Propylbenzene	BRL	ug/Kg	580
95-49-8	2-Chlorotoluene	BRL	ug/Kg	580
108-67-8	1,3,5-Trimethylbenzene	BRL	ug/Kg	580
106-43-4	4-Chlorotoluene	BRL	ug/Kg	580
98-06-6	tert-Butylbenzene	BRL	ug/Kg	580
95-63-6	1,2,4-Trimethylbenzene	BRL	ug/Kg	580
135-98-8	sec-Butylbenzene	BRL	ug/Kg	580
541-73-1	1,3-Dichlorobenzene	BRL	ug/Kg	580
99-87-6	4-Isopropyltoluene	BRL	ug/Kg	580
106-46-7	1,4-Dichlorobenzene	BRL	ug/Kg	580
95-50-1	1,2-Dichlorobenzene	BRL	ug/Kg	580
104-51-8	n-Butvlbenzene	BRL	ug/Kg	580
96-12-8	1,2-Dibromo-3-chloropropane	BRL	ug/Kg	580
120-82-1	1,2,4-Trichlorobenzene	BRL	ug/Kg	580
87-68-3	Hexachlorobutadiene	BRL	ug/Kg	580
91-20-3	Naphthalene	BRL	ug/Kg	580
87-61-6	1,2,3-Trichlorobenzene	BRL	ug/Kg	580
75-65-0	tert-Butyl Alcohol (TBA)	BRL	ug/Kg	23,000
108-20-3	Di-isopropyl Ether (DIPE)	BRL	ug/Kg	580
637-92-3	Ethyl tert-butyl Ether (ETBE)	BRL	ug/Kg	580
994-05-8	tert-Amyl Methyl Ether (TAME)	BRL	ug/Kg	580

QC Surrogate Compound	Spiked	Measured	Resovery and the second	O THE RESERVE THE PROPERTY OF
Dibromofluoromethane	2,500	2,000	82 %	70 - 130 %
1.2-Dichloroethane-d₄	2,500	2,200	88 %	70 - 130 %
Toluene-d ₈	2,500	2,600	102 %	70 - 130 %
4. Bromofluorobenzene	2.500	2.800	111 %	70 - 130 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample preparation performed by EPA Method 5035A and EPA Method 5030B. Results are reported on a dry weight basis.

Report Notations:

Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.



CCT

Analyst:

EPA Method 8260B Volatile Organics by GC/MS

Field ID: ESM-14 (15-17')

Project: Lewis Chemical/2004-301

Client: Environmental Strategies & Management

Laboratory iD: 85632-06

Sampled: 07-13-05 14:15

Received: 07-14-05 17:50

Analyzed: 07-21-05 06:21

Matrix: Soil
Container: 40 in
Preservation: Met

40 mL VOA Vial Methanol / Cool

QC Batch ID: Instrument ID: VM1-1615-E MS-1 HP 5890

Sample Weight: 15 g
Final Volume: 15 mL
% Solide: 73

% Solids: 73

		Difut	ion Factor: 1	Page: 1 of 2
CAS Number	Assalyte	GREEKERS	Notes Juins	Réporting Lin
75-71 -8	Dichlorodifluoromethane	BRL	ug/Kg	680
74-87-3	Chloromethane	BRL	ug/Kg	680
75-01-4	Vinyl Chloride	BRL	ug/Kg	680
74-83-9	Bromomethane	BRL	ug/Kg	680
75-00-3	Chloroethane	BRL	นg/Kg	680
75-69 - 4	Trichforofluoromethane	BRL	ug/Kg	680
60-29-7	Diethyl Ether	BRL	ug/Kg	680
75-35-4	1,1-Dichloroethene	BRL	ug/Kg	340
<i>7</i> 6-13-1	1,1,2-Trichlorotrifluoroethane	BRL	ug/Kg	3,400
67-64-1	Acetone	BRL	ug/Kg	3,400
75-15-0	Carbon Disulfide	BRL	ug/Kg	3,400
75-09-2	Methylene Chloride	BRL	ug/Kg	1,400
156-60-5	trans-1,2-Dichloroethene	BRL	ug/Kg	340
1634-04-4	Methyl tert-butyl Ether (MTBE)	BRL	ug/Kg	340
75-34-3	1,1-Dichloroethane	BRL	ug/Kg	340
594-20-7	2,2-Dichloropropane	BRL	ug/Kg	340
156-59-2	cis-1,2-Dichloroethene	BRL	ug/Kg	340
78-93-3	2-Butanone (MEK)	BRL	ug/Kg	3,400
74-97-5	Bromochloromethane	BRL	ug/Kg	340
109-99-9	Tetrahydrofuran (THF)	BRL	ug/Kg	3,400
67-66-3	Chloroform	BRL	ug/Kg	340
<i>7</i> 1-55-6	1,1,1-Trichloroethane	BRL	ug/Kg	340
56-23-5	Carbon Tetrachloride	BRL	ug/Kg	340
563-58-6	1,1-Dichloropropene	BRL	ug/Kg	340
71-43-2	Benzene	BRL	ug/Kg	340
107-06-2	1,2-Dichloroethane	BRL	ug/Kg	340
79-01-6	Trichloroethene	BRL	ug/Kg	340
<i>7</i> 8-87-5	1,2-Dichloropropane	BRL	ug/Kg	340
74-95-3	Dibromomethane	BRL	ug/Kg	340
75-27-4	Bromodichloromethane	BRL	ug/Kg	340
123-91-1	1,4-Dioxane	BRL	ug/Kg	340,000
10061-01-5	cis-1,3-Dichloropropene	BRL	ид/Кд	340
108-10-1	4-Methyl-2-Pentanone (MIBK)	BRL	ug/Kg	3,400
108-88-3	Toluene	2,400	ug/Kg	340
10061-02-6	trans- 1,3-Dichloropropene	BRL	ug/Kg	340
79-00-5	1,1,2-Trichloroethane	BRL	ug/Kg	340
127-18-4	Tetrachloroethene	BRL	ug/Kg	340
142-28-9	1,3-Dichloropropane	BRL	ug/Kg	340
591-78-6	2-Hexanone	BRL	ug/Kg	3,400
124-48-1	Dibromochioromethane	BRL	ug/Kg	340
106-93-4	1,2-Dibromoethane (EDB)	BRL	ug/Kg	340
108-90-7	Chlorobenzene	BRL	ug/Kg	340
630-20-6	1,1,1,2-Tetrachloroethane	BRL	ug/Kg	340
100-41-4	Ethylbenzene		ug/Kg	340
08-38-3/106-42-3	meta- Xylene and para- Xylene	1,100	ug/Kg	340
95-47-6	ortho-Xylene	BRL	ug/Kg	340



Field ID:

ESM-14 (15-17')

Project:

Lewis Chemical/2004-301

Client:

Environmental Strategies & Management

Laboratory ID:

Sampled:

85632-06 07-13-05 14:15 07-14-05 17:50 07-21-05 06:21

Received: Analyzed: Analyst:

CCT

Matrix:

Container:

40 mL VOA Vial Methanol / Cool

Page: 2 of 2

Preservation:

QC Batch ID: Instrument 1D:

VM1-1615-E MS-1 HP 5890

Sample Weight: Final Volume:

15 g 15 mL

% Solids: 73 Dilution Factor:

CAS Number	Artive	Concentration Notes	- Units	Beporting Links
100-42-5	Styrene	BRL	ug/Kg	340
75-25-2	Bromoform	BRL	ug/Kg	340
08-87-8	Isopropylhenzene	BRL	ug/Kg	340

CAS Number	Audye	CORCINALIAN TOUCH	271000	
100-42-5	Styrene	BRL	ug/Kg	340
75-25-2	Bromoform	BRL	ug/Kg	340
98-82-8	Isopropylbenzene	BRL	ug/Kg	340
108-86-1	Bromobenzene	BRL	ug/Kg	340
79-34-5	1,1,2,2-Tetrachloroethane	BRL	ug/Kg	340
96-18-4	1,2,3-Trichloropropane	BRL	ug/Kg	340
103-65-1	n-Propylbenzene	BRL	ug/Kg	340
95-49-8	2-Chlorotoluene	BRL	ug/Kg	340
108-67-8	1,3,5-Trimethylbenzene	BRL	ug/Kg	340
106-43-4	4-Chlorotoluene	BRL	ug/Kg	340
98-06-6	tert-Butylbenzene	BRL	ug/Kg	340
95-63-6	1,2,4-Trimethylbenzene	BRL	ug/Kg	340
135-98-8	sec -Butylbenzene	BRL	ug/Kg	340
541-73-1	1,3-Dichlorobenzene	BRL	ug/Kg	340
99-87-6	4-Isopropyltoluene	BRL	ug/Kg	340
106-46-7	1,4-Dichlorobenzene	BRL	ug/Kg	340
95-50-1	1,2-Dichlorobenzene	BRL	ug/Kg	340
104-51-8	n-Butylbenzene	BRL	ug/Kg	340
96-12-8	1,2-Dibromo-3-chloropropane	BRL	ug/Kg	340
120-82-1	1,2,4-Trichlorobenzene	BRL	ug/Kg	340
87-68-3	Hexachlorobutadiene	BRL.	ug/Kg	340
91-20-3	Naphthalene	BRL	ug/Kg	340
87-61-6	1,2,3-Trichlorobenzene	BRL	ug/Kg	340
75-65-0	tert -Butyl Alcohol (TBA)	BRL	ug/Kg	14,000
108-20-3	Di-isopropyl Ether (DIPE)	BRL	ug/Kg	340
637-92-3	Ethyl tert-butyl Ether (ETBE)	BRL	ug/Kg	340
994-05-8	tert -Amyl Methyl Ether (TAME)	BRL	ug/Kg	340

		_		- Introduce was a supplementary of the same
QC Surrogate Compound	Spiked	Measured	Recovery	QC Limits
Dibromofluoromethane	2,500	2,000	81 %	70 - 130 %
1.2-Dichloroethane-d ₄	2,500	2,100	84 %	<i>7</i> 0 - 130 %
Toluene-d ₈	2,500	2,600	104 %	70 - 130 %
4-Bromofluorohenzene	2.500	2,800	112 %	70 - 130 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample preparation performed by EPA Method 5035A and EPA Method 5030B. Results are reported on a dry weight basis.

Report Notations:

Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.



Field ID: DUP Project: Lewis Chemical/2004-301 Client:

85632-07

Environmental Strategies & Management

Laboratory ID: Sampled: Received:

Analyzed:

07-13-05 14:20 07-14-05 17:50 07-21-05 06:58

Analyst: CCT Matrix:

Soil

Container: Preservation:

40 mt VOA Vial Methanol / Cool

QC Batch ID: Instrument ID: VM1-1615-E MS-1 HP 5890

Sample Weight: Final Volume: % Solids:

13 g 15 mL **73**

		Dilution Factor:	1	Page: 1 of 2
-GAS Number		Convenience ions	L. Libits	Legiting
75-71-8	Dichlorodifluoromethane	BRL	ug/Kg	790
74-87-3	Chloromethane	BRL	ug/Kg	790
75-01-4	Vinyl Chloride	BRL	ug/Kg	790
74-83-9	Bromomethane	BRL	ug/Kg	790
75-00-3	Chloroethane	BRL	ug/Kg	790
75-69-4	Trichlorofluoromethane	BRL	ug/Kg	790
60-29-7	Diethyl Ether	BRL	ug/Kg	790
75-35 -4	1,1-Dichloroethene	BRL	ug/Kg	390
76-13-1	1,1,2-Trichlorotrifluoroethane	BRL	ug/Kg	3,900
67-64-1	Acetone	BRL	ug/Kg	3,900
<i>75-</i> 1 <i>5-</i> 0	Carbon Disulfide	BRL	ug/Kg	3,900
75-09-2	Methylene Chloride	BRL	ug/Kg	1,600
156-60-5	trans-1,2-Dichloroethene	BRL	ug/Kg	390
1634-04-4	Methyl tert-butyl Ether (MTBE)	BRL	ug/Kg	390
75-34-3	1,1-Dichloroethane	BRL	ug/Kg	390
5 94 -20-7	2,2-Dichloropropane	BRL	ug/Kg	390
156-59-2	cis-1,2-Dichloroethene	BRL	ug/Kg	390
78-93-3	2-Butanone (MEK)	BRL	ug/Kg	
74-97-5	Bromochloromethane	BRL	ug/Kg	3,900 390
109-99-9	Tetrahydrofuran (THF)	BRL	ug/Kg	
67-66-3	Chloroform	BRL		3,900
71-55-6	1,1,1-Trichloroethane	BRL	ug/Kg ug/Kg	390
56-23-5	Carbon Tetrachloride	BRL		390
563-58-6	1,1-Dichloropropene	BRL	ug/Kg	390
71-43-2	Benzene	BRL	ug/Kg	390
107-06-2	1,2-Dichloroethane	BRL	ug/Kg	390
79-01-6	Trichloroethene	BRL	ug/Kg	390
78-87-5	1,2-Dichloropropane	BRL	ug/Kg	390
74-95-3	Dibromomethane	BRL	ug/Kg	390
75-27-4	Bromodichloromethane	BRL	ug/Kg	390
123-91-1	1,4-Dioxane	BRL	ug/Kg	390
10061-01-5	cis-1,3-Dichloropropene	BRL	ug/Kg	390,000
108-10-1	4-Methyl-2-Pentanone (MIBK)	BRL	ug/Kg	390
08-88-3	Toluene	2,400	ug/Kg	3,900
0061-02-6	trans- 1,3-Dichloropropene	8RL	ug/Kg	390
79-00-5	1,1,2-Trichloroethane		ug/Kg	390
27-18-4	Tetrachloroethene	BRL	ug/Kg	390
142-28-9	1,3-Dichloropropane	BRL	ug/Kg	390
91-78-6	2-Hexanone	BRL	ug/Kg	390
24-48-1	Dibromochloromethane	BRL	ug/Kg	3,900
06-93-4	1,2-Dibromoethane (EDB)	BRL	ug/Kg	390
08-90-7	Chlorobenzene	BRL	ug/Kg	390
30-20-6	1,1,1,2-Tetrachloroethane	BRL	ug/Kg	390
00-41-4	Ethylbenzene	BRL	ug/Kg	390
3-38-3/106-42-3	meta- Xylene and para- Xylene	820	ug/Kg	390
)5-47-6		1,000	ug/Kg	390
,, 7,-0	ortho-Xylene	BRL	ug/Kg	390



CCT

Analyst:

EPA Method 8260B Volatile Organics by GC/MS

DUP Field ID: Lewis Chemical/2004-301 Project: **Environmental Strategies & Management** Client: 85632-07 Laboratory ID: 07-13-05 14:20 Sampled: 07-14-05 17:50 Received: Analyzed: 07-21-05 06:58

Methanol / Cool Preservation: VM1-1615-E QC Batch ID: MS-1 HP 5890 Instrument ID:

Sample Weight: 13 g Final Volume: 15 mL 73

Soil

40 mL VOA Vial

Dilution Factor:

Matrix:

Container:

% Solids:

Page: 2 of 2

CAS Number	Analyte	Concentration Notes	- Units	Reporting Limit
100-42-5	Styrene	BRL	ug/Kg	390
75-25-2	Bromoform	BRL	ug/Kg	390
98-82-8	Isopropylbenzene	BRL	ug/Kg	390
108-86-1	Bromobenzene	BRL	ug/Kg	390
79-34-5	1,1,2,2-Tetrachloroethane	BRL	ug/Kg	390
96-18-4	1,2,3-Trichloropropane	BRL	ug/Kg	390
103-65-1	n-Propylbenzene	BRL	ug/Kg	390
95-49-8	2-Chlorotoluene	BRL	ug/Kg	390
108-67-8	1,3,5-Trimethylbenzene	BRL	ug/Kg	390
106-43-4	4-Chlorotoluene	BRL	ug/Kg	390
98-06-6	tert-Butylbenzene	BRL	ug/Kg	390
95-63-6	1,2,4-Trimethylbenzene	BRL	ug/Kg	390
135-98-8	sec-Butylbenzene	BRL	ug/Kg	390
541-73-1	1,3-Dichlorobenzene	BRL	ug/Kg	390
99-87-6	4-Isopropyltoluene	BRL	ug/Kg	390
106-46-7	1,4-Dichlorobenzene	BRL	ug/Kg	390
95-50-1	1,2-Dichlorobenzene	BRL	ug/Kg	390
104-51-8	n-Butylbenzene	BRL	ug/Kg	390
96-12-8	1,2-Dibromo-3-chloropropane	BRL	ug/Kg	390
120-82-1	1,2,4-Trichlorobenzene	BRL	ug/Kg	390
87-68-3	Hexachlorobutadiene	BRL	ug/Kg	390
91-20-3	Naphthalene	BRL	ug/Kg	390
87-61-6	1,2,3-Trichlorobenzene	BRL	ug/Kg	390
75-65-0	tert-Butyl Alcohol (TBA)	BRL	ug/Kg	16,000
108-20-3	Di-isopropyl Ether (DIPE)	BRL	ug/Kg	390
637-92-3	Ethyl tert- butyl Ether (ETBE)	BRL	ug/Kg	390
994-05-8	tert-Amyl Methyl Ether (TAME)	BRL	ug/Kg	390

QC Surrogate Compound	Spiked	Measured	The content of the	This is a second of the second
Dibromofluoromethane	2,500	2,100	83 %	70 - 130 %
1.2-Dichloroethane-d₄	2,500	2,300	90 %	70 - 130 %
Toluene-d ₈	2,500	2,600	105 %	70 - 130 %
4-Bromofluorobenzene	2,500	2,900	117 %	70 - 130 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample preparation performed by EPA Method 5035A and EPA Method 5030B. Results are reported on a dry weight basis.

Report Notations:

Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.



Massachusetts DEP VPH Method Volatile Petroleum Hydrocarbons by GC/PID/FID

Field 1D: ESM-11 (10-12') Matrix: Soil Project Lewis Chemical/2004-301 Container: 40 mL VOA Vial Client: **Environmental Strategies & Management** Preservation: Methanol / Cool Laboratory ID: QC Batch ID: VG3-1957-E Sampled: 07-13-05-09:10 Instrument ID: GC-3 HP 5890 Received: 07-14-05 17:50 Sample Weight: 15 g Analyzed: 07-21-05 16:26 Final Volume: 15 mL Analyst: Ш % Solids: 93 Dilution Factor:

VPH Ranges	A CONTRACTOR OF THE PROPERTY O		Conc	entrafione management	Notes	· Units:	. Reporting times
n-C5 to n-C8 Alix	phatic Hydrocarbons 10			BRL		mg/Kg	1.0
n-C9 to n-C12 Al	iphatic Hydrocarbons ^{† ⊗}			BRL		mg/Kg	1.0
n-C9 to n-C10 Ar	omatic Hydrocarbons [†]			BRL		mg/Kg	1.0
Unadjusted n-C5	to n-C8 Aliphatic Hydrocart	ons †		BRL		mg/Kg	1.0
<u>Unadjusted</u> n-C9	to n-C12 Aliphatic Hydroca	rbons [†]		BRL		mg/Kg	1.0
CAS Number	PARTY CONTROL OF THE PARTY OF T	- III W	Con	entration	Notes	- Enils -	Reporting Limit
1634-04-4	Methyl tert-butyl Ether *			BRL	West and a second secon	mg/Kg	0.10
71-43-2	Benzene [¤]			BRL		mg/Kg	0.10
108-88-3	Toluene *			BRL		mg/Kg	0.10
100-41-4	Ethylbenzene [‡]		1	BRL	-	mg/Kg	0.10
108-38-3 and 106-42-3	meta- Xylene and para - Xylene ‡			BRL		mg/Kg	0.10
95-47-6	ortho- Xylene *			BRL		mg/Kg	0.10
91-20-3	Naphthalene			BRL		mg/Kg	0.52
-QC Surrogate Ca	And searchest description of the search sear	Spikeri	Measured	Remery		n	Limits
2,5-Dibromotolu	ene (PID)	5.2	4.9	93 %	A CONTRACTOR OF THE PARTY OF TH		- 130 %

QA/QC Certification

5.0

- 1. Were all QA/QC procedures required by the method followed?
- 2. Were all performance/acceptance standards for the required QA/QC procedures achieved?
- 3. Were any significant modifications made to the method, as specified in Section 11.3.2.1?

Method non-conformances indicated above are detailed below on this data report, or in the accompanying project narrative and project quality control report. Release of this data is authorized by the accompanying signed project cover letter. The accompanying cover letter, project narrative and quality control report are considered part of this data report.

Method Reference:

2,5-Dibromotoluene (FID)

Method for the Determination of Volatile Petroleum Hydrocarbons, MA DEP (Revision 1.1, 2004). Results are reported on a dry weight basis.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

96 %

70 - 130 %

Yes

Yes

No

- † Hydrocarbon range data excludes concentrations of any surrogate(s) and/or internal standards eluting in that range.
- n-C5 to n-C8 Aliphatic Hydrocarbons range data excludes the method target analyte concentrations.
- n-C9 to n-C12 Aliphatic Hydrocarbons range data excludes the method target analyte concentrations and the concentration for the n-C9 to n-C10 Aromatic Hydrocarbons range.
- Analyte elutes in the n-C5 to n-C8 Aliphatic Hydrocarbons range.

5.2

‡ Analyte elutes in the n-C9 to n-C12 Aliphatic Hydrocarbons range.



Massachusetts DEP VPH Method Volatile Petroleum Hydrocarbons by GC/PID/FID

Field ID:

ESM-13 (1-3')

Matrix:

Soil

Project: Client:

Lewis Chemical/2004-301

Container: Preservation: 40 mL VOA Vial Methanol / Cool

Laboratory ID:

Environmental Strategies & Management

QC Batch ID:

VG3-1957-E

Sampled:

85632-09 07-13-05 12:40

Instrument ID:

GC-3 HP 5890

Received:

07-14-05 17:50

Sample Weight:

17 g

Analyzed:

07-21-05 17:07

Final Volume:

15 mL

85

Analyst:

JH

% Solids: Dilution Factor:

VPH Rages (1) (1) (1) (1) (1) (1) (1) (1) (1) (1)	Concentration Notes	Units	Reporting Limit
n-C5 to n-C8 Aliphatic Hydrocarbons † 0	17	mg/Kg	4.1
n-C9 to n-C12 Aliphatic Hydrocarbons † ®	6.2	mg/Kg	4.1
n-C9 to n-C10 Aromatic Hydrocarbons †	BRL	mg/Kg	4.1
Unadjusted n-C5 to n-C8 Aliphatic Hydrocarbons †	17	mg/Kg	4.1
Unadjusted n-C9 to n-C12 Aliphatic Hydrocarbons †	9.5	mg/Kg	4.1

CAS Number	Analyte William Communication	Concentration Notes	Units	Reporting Limit
1634-04-4	Methyl tert-butyl Ether "	BRL	mg/Kg	0.41
71-43-2	Benzene [#]	BRL	mg/Kg	0.41
108-88-3	Toluene ⁼	BRL	mg/Kg	0.41
100-41-4	Ethylbenzene [‡]	BRL	mg/Kg	0.41
108-38-3 and 106-42-3	meta- Xylene and para-Xylene ‡	BRL	mg/Kg	0.41
95-47-6	ortho- Xylene [‡]	BRL.	mg/Kg	0.41
91-20-3	Naphthalene	BRL	mg/Kg	2.0

QC Surrogate Compound	Spiked	Measured		Annu Burk Annu Annu Annu Annu Annu Annu Annu Ann
2,5-Dibromotoluene (PID)	5.1	4.6	90 %	70 - 130 %
2,5-Dibromotoluene (FID)	5.1	5.7	111 %	70 - 130 %

QA/QC Certification

- 1. Were all QA/QC procedures required by the method followed?
- 2. Were all performance/acceptance standards for the required QA/QC procedures achieved?
- 3. Were any significant modifications made to the method, as specified in Section 11.3.2.1?

Yes Yes No

Method non-conformances indicated above are detailed below on this data report, or in the accompanying project narrative and project quality control report. Release of this data is authorized by the accompanying signed project cover letter. The accompanying cover letter, project narrative and quality control report are considered part of this data report.

Method Reference:

Method for the Determination of Volatile Petroleum Hydrocarbons, MA DEP (Revision 1.1, 2004). Results are reported on a dry weight basis.

- BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- Hydrocarbon range data excludes concentrations of any surrogate(s) and/or internal standards eluting in that range.
- n-C5 to n-C8 Aliphatic Hydrocarbons range data excludes the method target analyte concentrations.
- n-C9 to n-C12 Aliphatic Hydrocarbons range data excludes the method target analyte concentrations and 8 the concentration for the n-C9 to n-C10 Aromatic Hydrocarbons range.
- Analyte elutes in the n-C5 to n-C8 Aliphatic Hydrocarbons range.
- Analyte elutes in the n-C9 to n-C12 Aliphatic Hydrocarbons range.

GROUNDWATER

Massachusetts DEP VPH Method Volatile Petroleum Hydrocarbons by GC/PID/FID

Field ID: Project:

ESM-13 (12-14')

Lewis Chemical/2004-301

Client:

Environmental Strategies & Management

Laboratory ID:

85632-10

Sampled: Received:

07-13-05 12:55 07-14-05 17:50 07-21-05 18:29 Analyzed:

Analyst:

ĵΗ

Matrix:

Soil

Container: Preservation:

40 mt VOA Vial Methanol / Cool

QC Batch ID:

VG3-1957-E

Instrument ID:

GC-3 HP 5890 15 g

Sample Weight: Final Volume:

15 mL

% Solids: 73 Dilution Factor: 20

	Concentration Notes	thits :::	- Epoder (Call C
n-C5 to n-C8 Aliphatic Hydrocarbons †6	BRL	mg/Kg	27
n-C9 to n-C12 Aliphatic Hydrocarbons † *	110	mg/Kg	. 27
n-C9 to n-C10 Aromatic Hydrocarbons †	150	mg/Kg	27

				п.
Unadjusted n-C5 to n-C8 Aliphatic Hydrocarbons †	39	mg/Kg	27	
Unadjusted n-C9 to n-C12 Aliphatic Hydrocarbons [†]	490	mg/Kg	27	

CAS Number	Analyte	Concentration Notes	Lange	Reporting Limit
1634-04-4	Methyl tert -butyl Ether *	BRL	mg/Kg	2.7
71-43-2	Benzene "	BRL	mg/Kg	2.7
108-88-3	Toluene "	15	mg/Kg	2.7
100-41-4	Ethylbenzene ‡	82	mg/Kg	2.7
108-38-3 and 106-42-3	meta-Xylene and para-Xylene †	130	mg/Kg	2.7
95-47-6	ortho- Xylene ‡	17	mg/Kg	2.7
91-20-3	Naphthalene	BRL	mg/Kg	13

QC Surrogate Compound	Spiked :	Measured	Recovery /	Climas :
2,5-Dibromotoluene (PID)	6.7	5.6	83 %	70 - 130 %
2,5-Dibromotoluene (FID)	6.7	8.2	122 %	70 - 130 %

QA/QC Certification

- 1. Were all QA/QC procedures required by the method followed?
- 2. Were all performance/acceptance standards for the required QA/QC procedures achieved? 3. Were any significant modifications made to the method, as specified in Section 11.3.2.1?

Yes Yes

Method non-conformances indicated above are detailed below on this data report, or in the accompanying project narrative and project quality control report. Release of this data is authorized by the accompanying signed project cover letter. The accompanying cover letter, project narrative and quality control report are considered part of this data report.

Method Reference:

Method for the Determination of Volatile Petroleum Hydrocarbons, MA DEP (Revision 1.1, 2004). Results are reported on a dry weight basis.

- Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- Hydrocarbon range data excludes concentrations of any surrogate(s) and/or internal standards eluting in that range.
- n-C5 to n-C8 Aliphatic Hydrocarbons range data excludes the method target analyte concentrations.
- n-C9 to n-C12 Aliphatic Hydrocarbons range data excludes the method target analyte concentrations and the concentration for the n-C9 to n-C10 Aromatic Hydrocarbons range.
- Analyte elutes in the n-C5 to n-C8 Aliphatic Hydrocarbons range.
- Analyte elutes in the n-C9 to n-C12 Aliphatic Hydrocarbons range.



Volatile Petroleum Hydrocarbons by GC/PID/FID

Field 1D: Project:	ESM-14 (7-9') Lewis Chemical/2004-301	Matrix:	Soil 40 mL VOA Vial
Client:	Environmental Strategies & Management	Preservation:	Methanol / Cool
Laboratory ID:	85632-11	QC Batch ID:	VG3-1957-E
Sampled:	07-13-05 14:00	Instrument ID:	GC-3 HP 5890
Received:	07-14-05 17:50	Sample Weight:	15 g
Analyzed:	07-21-05 19:09	Final Volume:	15 mL
Analyst:	JH	% Solids:	97
•	-	Dilution Factor:	1

VPH Pages	Coceliation	Vales Linits	. Réporting timit .
n-C5 to n-C8 Aliphatic Hydrocarbons †0	4.9	mg/Kg	1.0
n-C9 to n-C12 Aliphatic Hydrocarbons †8	4.4	mg/Kg	1.0
n-C9 to n-C10 Aromatic Hydrocarbons [†]	3.6	mg/Kg	1.0
Unadjusted n-C5 to n-C8 Aliphatic Hydrocarbons †	6.6	mg/Kg	1.0
Unadjusted n-C9 to n-C12 Aliphatic Hydrocarbons †	19	mg/Kg	1.0

CAS Number	Agalyte	Concentration Notes	Units	Reporting Limit
163 4-04-4	Methyl tert -butyl Ether x	BRL	mg/Kg	0.10
71-43-2	Benzene [¤]	BRL	mg/Kg	0.10
108-88-3	Toluene [#]	1.7	mg/Kg	0.10
100-41-4	Ethylbenzene [‡]	4.1	mg/Kg	0.10
108-38-3 and 106-42-3	meta-Xylene and para-Xylene *	6.1	mg/Kg	0.10
95-47-6	ortho- Xylene [‡]	1.0	mg/Kg	0.10
91-20-3	Naphthalene	BRL	mg/Kg	0.52

CCESsin rogates Compound	Spiled	Measured	Carrie Regulatory	• OC limits
2,5-Dibromotoluene (PID)	5.2	4.6	89 %	70 - 130 %
2,5-Dibromotoluene (FID)	5.2	4.7	91 %	70 - 130 %

QA/QC Certification

- Were all QA/QC procedures required by the method followed?
- 2. Were all performance/acceptance standards for the required QA/QC procedures achieved?
- 3. Were any significant modifications made to the method, as specified in Section 11.3.2.1?

Yes No

Yes

Method non-conformances indicated above are detailed below on this data report, or in the accompanying project narrative and project quality control report. Release of this data is authorized by the accompanying signed project cover letter. The accompanying cover letter, project narrative and quality control report are considered part of this data report.

Method Reference:

Method for the Determination of Volatile Petroleum Hydrocarbons, MA DEP (Revision 1.1, 2004). Results are reported on a dry weight basis.

- BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- † Hydrocarbon range data excludes concentrations of any surrogate(s) and/or internal standards eluting in that range.
- n-C5 to n-C8 Aliphatic Hydrocarbons range data excludes the method target analyte concentrations.
- n-C9 to n-C12 Aliphatic Hydrocarbons range data excludes the method target analyte concentrations and the concentration for the n-C9 to n-C10 Aromatic Hydrocarbons range.
- Analyte elutes in the n-C5 to n-C8 Aliphatic Hydrocarbons range.
- ‡ Analyte elutes in the n-C9 to n-C12 Aliphatic Hydrocarbons range.



EPA Method 8082

Polychlorinated Biphenyls (PCBs) by GC/ECD

Field ID: Project: Client:	ESM-11 (10-12') Lewis Chemical/2004-301 Environmental Strategies & Management	Matrix: Container: Preservation:	Soil 250 mL Glass Cool
Laboratory ID: Sampled: Received: Extracted: Cleaned Up: Analyzed: Analyst:	85632-12 07-13-05 09:10 07-14-05 17:50 07-18-05 13:00 07-19-05 10:00 07-20-05 18:18 CRL	QC Batch ID: Instrument ID: Sample Weight: Final Volume: Percent Solids: Dilution Factor:	PB-2198-P GC-6 HP 5890 15 g 1 mL 93

		Concentration ". Note	Jule 1	Prouding Lin
ÇAS Number		BRL	ug/Kg	85
12674-11-2	Aroclor 1016	BRL	ug/Kg	85
11104-28-2	Aroclor 1221		ug/Kg	85
11141-16-5	Aroclor 1232	BRI.		85
53469-21-9	Aroclor 1242	BRL	ug/Kg	85
12672-29-6	Aroclor 1248	BRL	ug/Kg	
11097-69-1	Aroclor 1254	BRL	ug/Kg	85
11096-82-5	Aroclor 1260	BRL	ug/Kg	<u>85</u>
37324-23-5	Aroclor 1262	BRL	ug/Kg	85
11100-14-4	Aroclor 1268	BRL	ug/Kg	85

				The second secon	
QC Surrogate C	ANDORRY	Spiked	Measured	Recovery	Assembly Company of the Company of t
First	Tetrachloro-m -xylene	14	13	94 %	30 - 150 %
	Decachlorobiphenyl	14	15	106 %	30 - 150 %
Column	Tetrachloro-m-xylene	14	13	91 %	30 - 150 %
Second	Decachlorobiohenyl	14	16	112 %	30 - 150 %
Column	Decarmonumunemy	17	,		

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).
Sample extraction performed by EPA Method 3545. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Results are reported on a dry weight basis.

Report Notations:

3RL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

† Non-target analyte. Result is based on a single mid-range calibration standard.



EPA Method 8082 Polychlorinated Biphenyls (PCBs) by GC/ECD

1 mL

88

Soil Matrix: ESM-12 (12-14') Field ID: Container: 250 mL Glass Lewis Chemical/2004-301 Project: Preservation: Cool **Environmental Strategies & Management** Client: OC Batch ID: PB-2198-P Laboratory ID: 85632-13 Instrument ID: GC-6 HP 5890 07-13-05 10:40 Sampled: 07-14-05 17:50 Sample Weight: 15 g Received:

Final Volume: Extracted: 07-18-05 13:00 Percent Solids: Cleaned Up: 07-19-05 10:00 Dilution Factor: 07-20-05 18:53 Analyzed: CRL

Reporting Limit Notes Units Concentration CAS Number Analyte BRL ug/Kg 90 Aroclor 1016 12674-11-2 90 Aroclor 1221 BRL ug/Kg 11104-28-2 180 1C (140)* 90 Aroclor 1232 ug/Kg 11141-16-5 90 BRL ug/Kg Aroclor 1242 53469-21-9 Aroclor 1248 BRL ug/Kg 90 12672-29-6 90 BRL ug/Kg Aroclor 1254 11097-69-1 90 BRL ug/Kg 11096-82-5 Aroclor 1260 90 BRL ug/Kg Aroclor 1262 37324-23-5 90 BRL 11100-14-4 Aroclor 1268 ug/Kg

QC Surrogate	Compound	Spiked	Measured	Recovery 1 de description de la constant de la cons	ACT AND
First	Tetrachloro-m-xylene	15	10	64 %	30 - 150 %
Column	Decachlorobiphenyl	15	13	86 %	30 - 150 %
Second	Tetrachloro-m -xylene	15	10	65 %	30 - 150 %
Column	Decachlorobiphenyl	15	14	94 %	30 - 150 %

Method Reference:

Analyst:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3545. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Results are reported on a dry weight basis.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

- Non-target analyte. Result is based on a single mid-range calibration standard.
- Confirmatory column quantification.
- Concentration reported from first column.

GROUNDWATER

EPA Method 8082

Polychlorinated Biphenyls (PCBs) by GC/ECD

Field ID:	ESM-13 (1-3') Lewis Chemical/2004-301	Matrix: Container:	Soil 250 m1 Glass
Client:	Environmental Strategies & Management	Preservation:	Cool
Laboratory ID:	85632-14 07-13-05 12:40	QC Batch ID:	PB-2198-P -GC-6 HP 5890
Received:	07-14-05 17:50	Sample Weight:	15 g
Extracted:	07-18-05 13:00	Final Volume:	1 mL
Cleaned Up:	07-19-05 10:00	Percent Solids:	85
Analyzed: Analyst:	07-20-05 19:28 CRL	Dilution Factor:	1

CAS Number	Analyle SALES	Concentration	t)mits	- Reputigible
12674-11-2	Aroclor 1016	BRL	ug/Kg	93
11104-28-2	Aroclor 1221	BRL	ug/Kg	93
11141-16-5	Aroclor 1232	470 2C (350)*	ug/Kg	93
53469-21-9	Aroclor 1242	BRL	ug/Kg	93
12672-29-6	Aroclor 1248	BRL	ug/Kg	93
11097-69-1	Aroclor 1254	BRL	ug/Kg	93
11096-82-5	Aroclor 1260	BRL	ug/Kg	93
37324-23-5	Aroclor 1262	BRL.	ug/Kg	93
11100-14-4	Aroclor 1268 [†]	BRL	ug/Kg	93

OC Surrogate	CONTODURA WINDOWS AND A CONTOUR AND A CONTOU	Spiked	Measured	The state of the s	QC Linits
First	Tetrachloro-m-xylene	15	15	95 %	30 - 150 %
Column	Decachlorobiphenyl	15	17	109 %	30 - 150 %
Second	Tetrachloro-m-xylene	15	15	94 %	30 - 150 %
Column	Decachlorobiphenyl	15	15	100 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3545. Cleanup performed by EPA Method 3660B and EPA Method 3665A. Results are reported on a dry weight basis.

Report Notations:

Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

- Non-target analyte. Result is based on a single mid-range calibration standard.
- Confirmatory column quantification.
- 2C Concentration reported from second column.

EPA Method 8082 Polychlorinated Biphenyls (PCBs) by GC/ECD

Field ID:	ESM-13 (12-14')	Matrix: Container:	Soil 250 mL Glass
Project: Client:	Lewis Chemical/2004-301 Environmental Strategies & Management	Preservation:	Cool
Laboratory ID:	85632-15	QC Batch ID:	PB-2198-P
Sampled:	07-13-05 12:55	Instrument ID:	GC-6 HP 5890
Received:	07-14-05 17:50	Sample Weight:	15 g
Extracted:	07-18-05 13:00	Final Volume:	1 mL
Cleaned Up:	07-19-05 10:00	Percent Solids:	73
Analyzed:	07-20-05 20:03	Dilution Factor:	1
Analyst:	CRL		

	Conceptration Notes	Units	Reporting Land
	BRL	ug/Kg	110
	BRL	ug/Kg	110
		ug/Kg	110
	BRL	ug/Kg	110
	BRL	ug/Kg	110
<u> </u>	BRL	ug/Kg	110
	Analyte Aroclor 1016 Aroclor 1221 Aroclor 1232 Aroclor 1242 Aroclor 1248 Aroclor 1254 Aroclor 1260 Aroclor 1262 Aroclor 1268	Aroclor 1016 BRL Aroclor 1221 BRL Aroclor 1232 320 2C (260)* Aroclor 1242 BRL Aroclor 1248 BRL Aroclor 1254 BRL Aroclor 1260 BRL Aroclor 1262 T BRL	Analyte BRL ug/Kg Aroclor 1016 BRL ug/Kg Aroclor 1221 BRL ug/Kg Aroclor 1232 320 2C (260)* ug/Kg Aroclor 1242 BRL ug/Kg Aroclor 1248 BRL ug/Kg Aroclor 1254 BRL ug/Kg Aroclor 1260 BRL ug/Kg Aroclor 1262 T BRL ug/Kg

QC Surrogate Co	THE COURT OF THE C	Spiked	Measured	AND A CONTROL OF THE PROPERTY	QC Linits
First	Tetrachloro-m -xylene	18	15	86 %	30 - 150 %
·	Decachlorobiphenyl	18	20	115 %	30 - 150 %
Column	Tetrachloro-m-xylene	18	15	82 %	30 - 150 %
Second	Decachlorobiphenyl	18	15	83 %	30 - 150 %
Column	I BECK DUBLICADUCITY)			·	

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3545. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Results are reported on a dry weight basis.

- Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- Non-target analyte. Result is based on a single mid-range calibration standard.
- Confirmatory column quantification.
- Concentration reported from second column. 2C



EPA Method 8082 Polychlorinated Biphenyls (PCBs) by GC/ECD

Field ID:	ESM-14 (7-9')	 Matrix:	Soil
Project:	Lewis Chemical/2004-301	 Container:	250 mL Glass
Client:	Environmental Strategies & Management	 Preservation:	Cool
Laboratory 1D:	85632-16	QC Batch ID:	PB-2198-P
Sampled:	07-13-05 14:00	 Instrument ID:	GC-6 HP 5890
Received:	07-14-05 17:50	Sample Weight:	15 g
Extracted:	07-18-05 13:00	Final Volume:	1 mL
Cleaned Up:	07-19-05 10:00	Percent Solids:	97
Analyzed:	07-21-05 13:33	Dilution Factor:	20
Analyst:	CRL		

CAS Number	Analyte	Concentration Motes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL	ug/Kg	1,600
11104-28-2	Aroclor 1221	BRL	ug/Kg	1,600
11141-16-5	Aroclor 1232	9,900 2C (7,200)*	ug/Kg	1,600
53469-21-9	Aroclor 1242	BRL	ug/Kg	1,600
12672-29-6	Aroclor 1248	BRL	ug/Kg	1,600
11097-69-1	Aroclor 1254	BRL	ug/Kg	1,600
11096-82-5	Aroclor 1260	BRL	ug/Kg	1,600
37324-23-5	Aroclor 1262	BRL	ug/Kg	1,600
11100-14-4	Aroclor 1268 †	BRL	ug/Kg	1,600

OC Surrogate	Compound	Spiked	Measured	Recovery	OC Limits
First	Tetrachloro-m-xylene	14	na	d	30 - 150 %
Column	Decachlorobiphenyl	14	na	d	30 - 150 %
Second	Tetrachloro-m -xylene	14	na	d	30 - 150 %
Column	Decachlorobiphenyl	14	na	d	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3545. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Results are reported on a dry weight basis.

- BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- Non-target analyte. Result is based on a single mid-range calibration standard.
- Confirmatory column quantification.
- 2C Concentration reported from second column.
- d Surrogate recovery not measurable due to required sample dilution.



Trace Metals

Field ID:

ESM-11 (10-12')

Matrix:

Soil

Project:

Lewis Chemical/2004-301

Container:

250 mL Glass

Client:

Environmental Strategies & Management, Inc.

Preservation:

Cool

Laboratory ID:

85632-12

93

Sampled:

07-13-05 09:10

Percent Solids:

Received: **Analysis Method**

EPA 6010B1

07-14-05 17:50

OC Batch ID MB-0658-S

EPA 3050B EPA 7471A <u>Prepared</u> 07-19-05 11:10 07-18-05 09:15 Sample Weight 0.5 g 0.6 g

Instrument ID ICP-1 PE 3000 CVAA-1 PE FIMS

<u>Analyst</u> EB EB

EPA 7471A ²	MP-1819-S	EPA 7471A	07-18-05 09:15	0.6 g		CVAA-1 PE FIMS	ŁB
CAS Number	Analyle	Concentration	Notes Units	Reporting Limit	ÐF	Analyzed	Melhod
7440-38-2	Arsenic, Total	2.1	mg/Kg	1.1	1	07-19-05 18:29	EPA 6010B1
7440-39-3	Barium, Total	69	mg/Kg	22	1	07-19-05 18:29	EPA 6010B1
7440-43-9	Cadmium, Total	BI	RL mg/Kg	0.54	1	07-19-05 18:29	EPA 6010B ¹
7440-47-3	Chromium, Total	13	mg/Kg	11	, 1	07-19-05 18:29	EPA 6010B [†]
7439-92-1	Lead, Total	150	mg/Kg	11	1	07-19-05 18:29	EPA 6010B1
7439-97-6	Mercury, Total	0.35	mg/Kg	0.036	1	07-18-05 15:32	EPA 7471A ²
7782-49-2	Selenium, Total	ВІ	RL mg/Kg	11	1	07-19-05 18:29	EPA 6010B1
7440-22-4	Silver, Total		RL mg/Kg	5.4	1	07-19-05 18:29	EPA 6010B1

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Results are reported on a dry weight basis.

Report Notations:

Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

DF Dilution Factor.



Trace Metals

Field ID:

ESM-13 (1-3')

Project:

Lewis Chemical/2004-301

Container:

Matrix:

Soil

Client:

Environmental Strategies & Management, Inc.

Preservation:

250 mL Glass

Laboratory ID:

85632-14

Sampled: Received: 07-13-05 12:40 07-14-05 17:50 Percent Solids:

85

Cool

Analysis Method
EPA 6010B1
EPA 7471A ²

QC Batch ID MB-0658-S MP-1819-S

Prep Method EPA 3050B EPA 7471A

<u>Prepared</u> 07-19-05 11:10 07-18-05 09:15

Sample Weight 0.5 g 0.6 g

Instrument ID ICP-1 PE 3000 CVAA-1 PE FIMS

<u>Analyst</u> EB ЕВ

CAS Number		Concentration Notes	Units	Reporting Limit	DF	Analyzed	Mellod
7440-38-2	Arsenic, Total	2.2	mg/Kg	1.1	1	07-19-05 18:32	EPA 6010B1
7440-39-3	Barium, Total	64	mg/Kg	23	1	07-19-05 18:32	EPA 6010B ^t
7440-43-9	Cadmium, Total	BRL	mg/Kg	0.57	1	07-19-05 18:32	EPA 6010B1
7440-47-3	Chromium, Total	16	mg/Kg	11	1	07-19-05 18:32	EPA 6010B1
7439-92-1	Lead, Total	35	mg/Kg	11	1	07-19-05 18:32	EPA 6010B1
7439-97-6	Mercury, Total	3.0	mg/Kg	0.077	2	07-18-05 15:55	EPA 7471A ²
7782-49-2	Selenium, Total	BRL	mg/Kg	11	1	07-19-05 18:32	EPA 6010B1
7440-22-4	Silver, Total	BRL	mg/Kg	5.7	1	07-19-05 18:32	EPA 6010B1

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Results are reported on a dry weight basis.

Report Notations:

Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

DF Dilution Factor.



Trace Metals

Field ID:

ESM-13 (12-14')

Matrix:

Soil

73

Project:

Lewis Chemical/2004-301

Container:

250 mt Glass

Client:

Environmental Strategies & Management, Inc.

Preservation: Cool

Laboratory ID:

85632-15

Percent Solids:

Sampled: Received: 07-13-05 12:55

07-14-05 17:50

Analysis Method EPA 6010B1 EPA 7471A2

OC Batch ID MB-0658-S MP-1819-S

Prep Method EPA 3050B EPA 7471A

Prepared 07-19-05 11:10 07-18-05 09:15

Sample Weight 0.5 g0.6 g

Instrument ID ICP-1 PE 3000 CVAA-1 PE FIMS

<u>Analyst</u> ΕB EΒ

CAS Number	Analyte	Concentration Notes	Units	Reporting Limit	DE	Analyzed	Method
7440-38-2	Arsenic, Total	2.3	mg/Kg	1.4	1	07-19-05 18:36	EPA 6010B1
7440-39-3	Barium, Total	62	mg/Kg	28	1	07-19-05 18:36	EPA 6010BT
7440-43-9	Cadmium, Total	BRL	mg/Kg	0.71	1	07-1 9- 05 18:36	EPA 6010B ¹
7440-47-3	Chromium, Total	37	mg/Kg	14	1	07-19-05 18:36	EPA 6010B ¹
7439-92-1	Lead, Total	37	mg/Kg	14	1	07-19-05 18:36	EPA 6010B ¹
7439-97-6	Mercury, Total	BRL	mg/Kg	0.045	1	07-18-05 15:49	EPA 7471A ²
7782-49-2	Selenium, Total	BRL	mg/Kg	14	1	07-19-05 18:36	EPA 6010B1
7440-22-4	Silver, Total	BRL	mg/Kg	7.1	1	07-19-05 18:36	EPA 6010B ¹

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Results are reported on a dry weight basis.

Report Notations:

Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

Dilution Factor. DF

GROUNDWATER ANALYTICAL

Trace	Metal	S

Field ID:	ESM-14 (7-9') Lewis Chemical/2004-	301		Matrix: Container:	Soil 250 mL Glass	
Client:	Environmental Strateg	ies & Management	, Inc.	Preservation:	Cool	
Laboratory ID:	85632-16			Percent Solids:	92	
Sampled: Received:	07-13-0 5-14:00 07-14-05-17:50	WANTED THE STATE OF THE STATE O			Independent ID	Analyst
Analysis Method	OC Batch ID	Prep Method	<u>Prepared</u> 07-19-05 11:10	<u>Sample Weight</u> 0.5 g	Instrument ID	EB

EPA 601081	MB-0658-5 MP-1819-5	EPA 7471A 07-18-05 0		-			CVAA-1 PE FIM5	EB
EPA 7471A2			Notes I	Inits	Reporting Limit	DE	Analyzed	Method
CAS Number		_ Concentration	Kindson C. Committee of the Committee of	g/Kg	1 1	1	07-19-05 18:39	EPA 6010B1
7440-38-2	Arsenic, Total	6.6		<u> </u>	21	1	07-19-05 18:39	EPA 6010B1
7440-39-3	Barium, Total	58		ıg/Kg	0.53	 _	07-19-05 18:39	EPA 6010B1
7440-43-9	Cadmium, Total	8		ng/Kg		1	07-19-05 18:39	EPA 6010B1
7440-47-3	Chromium, Total	16		ng/Kg	11		07-19-05 18:39	EPA 6010B1
7439-92-1	Lead, Total	420	n	ng/Kg_	11	-		EPA 7471A ²
	Mercury, Total	0.16	n	ng/Kg	0.036	1	07-18-05 15:52	
7439-97-6			BRL n	ng/Kg	11	1	07-19-05 18:39	EPA 6010B1
7782-49-2	Selenium, Total			ng/Kg	5.3	1	07-19-05 18:39	EPA 6010B1
7440-22-4	Silver, Total				<u> </u>			

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Results are reported on a dry weight basis.

EPA 3050B

Report Notations:

Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

Dilution Factor.

MB-0658-5

EB



Soil Matrix: ESM-11 (10-12") Field ID: 250 mL Glass Container: Lewis Chemical/2004-301 Project: Cool Preservation: Environmental Strategies & Management, Inc. Client: EP-2104-M QC Batch ID: GC-9 Agilent 6890 85632-12 Laboratory ID: Instrument ID: 07-13-05 09:10 Sampled: 15 g Sample Weight: 07-14-05 17:50 Received: 1 mL Final Volume: 07-22-05 14:00 Extracted: % Solids: 93 07-24-05 16:19 Analyzed (AL): Aliphatic Dilution Factor: 1 07-24-05 16:59 Analyzed (AR): Aromatic Dilution Factor: 1

Analyst:					Reporting Limit
. EPH Rai		American Ame	BRL	mg/Kg	32
n-C9 to n-	C18 Aliphatic Hydrocarbons †		BRL	mg/Kg	32
n-C19 to 1	n-C36 Aliphatic Hydrocarbons		33	mg/Kg	32
	n-C22 Aromatic Hydrocarbons **		44	mg/Kg	32
Upadiuste	d n-C11 to n-C22 Aromatic Hydro	carbons '			

CAS Number Analyte 91-20-3 Naphtha 91-57-6 2-Methy 85-01-8 Phenant 83-32-9 Acenaph 208-96-8 Acenaph	Aformatic riyulocalbons			
91-20-3 Naphtha 91-57-6 2-Methy 85-01-8 Phenantl 83-32-9 Acenaph	The part of the pa	Concentration Notes	Units	Reporting Limit
91-57-6 2-Methy 85-01-8 Phenant 83-32-9 Acenaph		BRL	mg/Kg	0.53
85-01-8 Phenant 83-32-9 Acenaph		BRL	mg/Kg	0.53
85-01-8 Phenant 83-32-9 Acenaph	Inaphthalene	1.0	mg/Kg	0.53
83-32-9 Acenaph	rene	BRL	mg/Kg	0.53
	thene	BRL	mg/Kg	0.53
	ithylene	BRL	mg/Kg	0.53
86-73-7 Fluorene	<u> </u>	BRL	mg/Kg	0.53
120-12-7 Anthrac	ene	1.8	mg/Kg	0.53
206-44-0 Fluorant	hene	1.7	mg/Kg	0.53
129-00-0 Pyrene		0.99	mg/Kg	0.53
56-55-3 Benzo[a]anthracene		mg/Kg	0.53
218-01-9 Chrysen		1.1	mg/Kg	0.53
205-99-2 Benzo[t	Jfluoranthene	0.96	mg/Kg	0.53
207-08-9 Benzo[[fluoranthene	0.64	mg/Kg	0.53
50-32-8 Benzo[a	a]pyrene	0.94	mg/Kg	0.53
193-39-5 Indenol	1,2,3-c,d]pyrene	0.55	mg/Kg	0.53
	o[a,h]anthracene	BRL	mg/Kg	0.53
	g,h,i]perylene	0.71		·

191-24-2	Belizotg,ii,ijperyiene				ec Emis
QC Surrogate Co	The state of the s	Spiked	Measured	Ang. if the same is a same in the same in	40 - 140 %
	2-Fluorobiphenyl	2.8	2.7	96 %	40 - 140 %
Fractionation:	2-Bromonaphthalene	2.8	2.8	98 %	40 - 140 %
E to etion.	Chloro-octadecane	2.8	2.3	80 %	40 - 140 %
Extraction:	ortho-Terphenyl	2.8	2.6	92 %	
	Office Corporation			the state of the s	The same of the sa

OA/QC Certification

- 1. Were all QA/QC procedures required by the method followed?
- 2. Were all performance/acceptance standards for the required QA/QC procedures achieved?
- 3. Were any significant modifications made to the method, as specified in Section 11.3.1.1?

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Method Reference:

Method for the Determination of Extractable Petroleum Hydrocarbons, MA DEP (Revision 1.1, 2004). Sample extraction performed by microwave accelerated solvent extraction technique. Results are reported on a dry weight basis.

Report Notations:

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- Hydrocarbon range data excludes concentrations of any surrogate(s) and/or internal standards eluting in that range.
- n-C11 to n-C22 Aromatic Hydrocarbons range data excludes the method target analyte concentrations.

Yes

Yes

Nο



Field ID:	ESM-13 (1-3')	Matrix:	Soil 250 mL Glass
Project: Client:	Lewis Chemical/2004-301 Environmental Strategies & Management, Inc.	Container: Preservation:	Cool
	85632-14	QC Batter 15.	EP-2104-M GC-9 Agilent 6890
Sampled:	07-13-05 12:40 07-14-05 17:50	Instrument ID: Sample Weight:	16 g
Received: Extracted:	07-22-05 14:00	Final Volume: % Solids:	1 mL 85
Analyzed (AL): Analyzed (AR):	07-24-05 17:44 07-24-05 18:28	Aliphatic Dilution Factor: Aromatic Dilution Factor:	
Analyst:	MM	Aromatic Diffusion Factor.	

Analyst:	MM			
	A CONTRACT OF THE PROPERTY OF	Concentration Notes	Units	Reporting Limit
EPH Range		BRL	mg/Kg	34
n-C9 to n-C18	B Aliphatic Hydrocarbons *	56	mg/Kg	34
n-C19 to n-C	36 Aliphatic Hydrocarbons †	88	mg/Kg	34
n-C11 to n-C	22 Aromatic Hydrocarbons * 0		1 7	24
	Ct 1 C22 Aromatic Hydrogathons †	130	mg/Kg	54

Unadjusted n-C11 to n-C22 Aromatic Hydrocarbons †		130	mg/Kg	34
Unadjusted n-C11 to	5 n-C22 Aromatic riyulocarbons	Concentration Notes	Units	Reporting Limit
CAS Number 7	**************************************	CANADA COMPANY	mg/Kg	0.57
	Naphthalene	BRL	mg/Kg	0.57
91-57-6	2-Methylnaphthalene	BRL	mg/Kg	0.57
	Phenanthrene	5.5		0.57
	Acenaphthene	BRL	mg/Kg	0.57
208-96-8	Acenaphthylene	BRL	mg/Kg	0.57
	Fluorene	BRL	mg/Kg	0.57
00 / 3 /	Anthracene	1.3	mg/Kg	
120 12 /	Fluoranthene	6.8	mg/Kg	0.57
200 47 0	Pyrene	5.6	mg/Kg	0.57
	Benzo[a]anthracene	3.1	mg/Kg	0.57
30 33 5		3.3	mg/Kg_	0.57
	Chrysene	3.6	mg/Kg	0.57
	Benzo[b]fluoranthene	1.6	mg/Kg	0.57
	Benzo[k]fluoranthene	2.8	mg/Kg	0.57
50-32-8	Benzo[a]pyrene	1.9	mg/Kg	0.57
193-39-5	Indeno[1,2,3-c,d]pyrene	BRL	mg/Kg	0.57
53-70-3	Dibenzo[a,h]anthracene	1.9	mg/Kg	0.57
191-24-2	Benzo[g,h,i]perylene	The second secon		

191-2-72				Recovery	oc init
QC Surrogate Ci	onapound	Spiked .		The state of the s	40 - 140 %
Fractionation:	2-Fluorobiphenyl	3.0	2.1	70 %	40 - 140 %
	2-Bromonaphthalene	3.0	2.2	72 %	
	Chloro-octadecane	3.0	2.5	82 %	40 - 140 %
Extraction:	ortho-Terphenyl	3.0	2.7	87 %	40 - 140 %
	Offito-Terpheny)			<u> </u>	The second secon

QA/QC Certification

1. Were all QA/QC procedures required by the method followed?

Yes Yes

2. Were all performance/acceptance standards for the required QA/QC procedures achieved? 3. Were any significant modifications made to the method, as specified in Section 11.3.1.1?

No

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Sample extraction performed by microwave accelerated solvent extraction technique. Results are reported on a dry weight basis.

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- n-C11 to n-C22 Aromatic Hydrocarbons range data excludes the method target analyte concentrations.



		Matrix:	Soil
Field ID:	ESM-13 (12-14")		250 ml Glass
Project:	Lewis Chemical/2004-301	Preservation:	Cool
Client:	Environmental Strategies & Management, Inc.		EP-2104-M
Laboratory ID:	85632-15	Instrument ID:	GC-9 Agilent 6890
Sampled:	07-13-05 12:55	Sample Weight:	16 g
Received:	07-14-05 17:50	Final Volume:	1 mL
Extracted:	07-22-05 14:00	% Solids:	73
Analyzed (AL):	07-24-05 19:13	Aliphatic Dilution Factor	: 1
Analyzed (AR):	07-24-05 19:57	Aromatic Dilution Factor	
Analyst:			- NEC

Analyst:	17477		Consultation	Notes I	hoits	Reporting Limit
	Langes	<u> </u>	BRL	n	ng/Kg	39
n-C9 to	n-C18 Aliphatic H	ydrocarbons *	90	n	ng/Kg	39
n-C19 t	o n-C36 Aliphatic	Hydrocarbons	78	п	ng/Kg	39
n-C111	to n-C22 Aromatic	Hydrocarbons '			ng/Kg	39
		a Atia Hudrocarbons †	94		18.18	

	C. H. desperbons †	94	mg/kg	
Jnadjusted n-C	C11 to n-C22 Aromatic Hydrocarbons †	Concentration Notes	Units	Reporting Limit
CAS Number	Analyte	BRL	mg/Kg	0.65
91-20-3	Naphthalene	BRL	mg/Kg	0.65
91-57-6	2-Methylnaphthalene	0.92	mg/Kg	0.65
35-01-8	Phenanthrene	BRL	mg/Kg	0.65
83-32-9	Acenaphthene	BRL	mg/Kg	0.65
208-96-8	Acenaphthylene	BRL	mg/Kg	0.65
86-73-7	Fluorene	BRL	mg/Kg	0.65
120-12-7	Anthracene		mg/Kg	0.65
206-44-0	Fluoranthene	1.4	mg/Kg	0.65
129-00-0	Pyrene	1.1 2.4	mg/Kg	0.65
56-55-3	Benzo[a]anthracene	2.3	mg/Kg	0.65
218-01-9	Chrysene		mg/Kg	0.65
205-99-2	Benzo[b]fluoranthene	0.81 BRL	mg/Kg	0.65
207-08-9	Benzo[k]fluoranthene	BRL	mg/Kg	0.65
50-32-8	Benzo[a]pyrene	BRL	mg/Kg	0.65
193-39-5	Indeno[1,2,3-c,d]pyrene	BRL	mg/Kg	0.65
53-70-3	Dibenzo[a,h]anthracene		mg/Kg	0.65
191-24-2	Benzo[g,h,i]perylene	4.2		

191-24-2	Benzolg,n,nperytene				Cr Limits
		Spiked	Measured	Resovery and a second of	40 - 140 %
QC Surrogate Co	2-Fluorobiphenyl	3.5	2.7	77 %	40 - 140 %
Fractionation:	2-Bromonaphthalene	3.5	2.8	81 %	40 - 140 %
Extraction:	Chloro-octadecane	3.5	2.5	70 %	40 - 140 %
Extraction	ortho-Terphenyl	3.5	2.9	82 %	
	<u> </u>				

QA/QC Certification

- 1. Were all QA/QC procedures required by the method followed? 2. Were all performance/acceptance standards for the required QA/QC procedures achieved?

3. Were any significant modifications made to the method, as specified in Section 11.3.1.1?

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- n-C11 to n-C22 Aromatic Hydrocarbons range data excludes the method target analyte concentrations.

Yes

Yes



	FC14 14 (7 0D	Matrix:	Soil
Field ID:	ESM-14 (7-9")	Container:	250 mL Glass
Project:	Lewis Chemical/2004-301	Preservation:	Cool
Client:	Environmental Strategies & Management, Inc.	QC Batch 1D:	EP-2104-M
Laboratory ID:	85632-16	Instrument ID:	GC-9 Agilent 6890
Sampled:	07-13-05 14:00	Sample Weight:	16 g
Received:	07-14-05 17:50	Final Volume:	1 mL
Extracted:	07-22-05 14:00	% Solids:	97
Analyzed (AL):	07-24-05 20:41	% SORIUS: Aliphatic Dilution Factor	- -
Analyzed (AR):	07-24-05 21:26	•	
Analyst:		Aromatic Dilution Factor	

Analyst: William Control			100
	Concentration Notes	Units	Cobstant and
EQL Ranges	BRL	mg/Kg	30
n-C9 to n-C18 Aliphatic Hydrocarbons †	BRL	mg/Kg	30
n-C19 to n-C36 Aliphatic Hydrocarbons †		mg/Kg	30
n-C11 to n-C22 Aromatic Hydrocarbons † 0	BRL		
n-C11 to n-C22 Atomatic Hydrodes	BRL	mg/Kg	30
Coo Atio Hydrocarbons	JKL		

11 to a C22 Aromatic Hydrocarbons	BRL	ingreg	
	Notes Notes	Units	Reporting Limit
		mg/Kg	0.50
			0.50
2-Methylnaphthalene			0.50
Phenanthrene			0.50
Acenaphthene			0.50
Acenaphthylene			0.50
Fluorene			0.50
Anthracene			0.50
Fluoranthene			0.50
Pyrene			0.50
Benzo[a]anthracene			0.50
Chrysene			0.50
Benzo[b]fluoranthene			0.50
			0.50
			0.50
			0.50
Dibenzola hlanthracene			0.50
	BRL		
	Naphthalene 2-Methylnaphthalene Phenanthrene Acenaphthene Acenaphthylene Fluorene Anthracene Fluoranthene Pyrene Benzo[a]anthracene	Analyte Concentration Notes Naphthalene BRL 2-Methylnaphthalene BRL Phenanthrene BRL Acenaphthene BRL Acenaphthylene BRL Acenaphthylene BRL Fluorene BRL Anthracene BRL Fluoranthene BRL Fluoranthene BRL Fluoranthene BRL Fluoranthene BRL Fluoranthene BRL	Ton-C22 Aromatic Hydrocarbons Concentration Notes Units

191-24-2	DCIIZO[8/11/1]POL)				euro Eroc Linite
QC Surrogate Ci		Spiked	Measured	Washington and the same of the	40 - 140 %
Fractionation:	2-Fluorobiphenyl	2.6	2.3	87 %	40 - 140 %
riactionation.	2-Bromonaphthalene	2.6	2.3	88 %	40 - 140 %
Extraction:	Chloro-octadecane	2.6	2.2	85 %	40 - 140 %
LAHGUIO	ortho-Terphenyl	2.6	2.2	82 %	
				And the second s	

QA/QC Certification

- 1. Were all QA/QC procedures required by the method followed? 2. Were all performance/acceptance standards for the required QA/QC procedures achieved?

3. Were any significant modifications made to the method, as specified in Section 11.3.1.1?

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- n-C11 to n-C22 Aromatic Hydrocarbons range data excludes the method target analyte concentrations.

Yes

Yes



Project Narrative

Project:

Lewis Chemical/2004-301

Client:

Environmental Strategies & Management, Inc.

Lab ID:

85632

Received:

07-14-05 17:50

A. Documentation and Client Communication

The following documentation discrepancies, and client changes or amendments were noted for this project:

No documentation discrepancies, changes, or amendments were noted.

B. Method Modifications, Non-Conformances and Observations

The sample(s) in this project were analyzed by the references analytical method(s), and no method modifications, non-conformances or analytical issues were noted, except as indicated below:

- EPA 8082 Non-conformance: Sample 85632-16. Sample had surrogate recoveries outside recommended limits due to required sample dilution.
- EPA 8082 Note: Sample 85632-16. Sample was diluted prior to analysis. Dilution was required to keep all target analytes within calibration.
- 3. EPA 8260B Note: Samples 85632-03 through -05. Sample were diluted prior to analysis. Dilution was required to keep all target analytes within calibration.
- MA DEP VPH Note: Sample 85632-09. Sample was diluted prior to analysis. Dilution was required due to presence of non-target analyte interference.
- 5. EPA 6010B Note: Samples 85632-12,-14,-15,-16. Samples were analyzed for select metal analytes as requested by client.
- EPA 8260B Non-conformance: Laboratory Control Sample (LCS) analyte 1,4-Dioxane was above recommended limits for QC batch VM1-1615-E.

 	Trip blanks a Signature: J	(Require	DYES P	EZVES I	MA DED		REMAR	F			1 () 1 ()	3/9 14 20	21 14 15	NO. 14:00	36 12:55	13/12/10	01:01 SP	3/85 09:45	DATE	Sempling	INSTRUC	ç	Project Manager:	Amanda	Sampler Name:	740 A	Project Number:	Lew.y	Project Name	*
	Trip blanks are also required Signature:	collection of cor	NO MCP Drinks	JNO MCP Data	MOD Data Entra		REMARKS / SPECIAL					م م	S 884.14	14-WS2 06	ST COM. IS	10 EZW-13	0 ESM-12	ESM-II	<u>.</u>		TIONS: Use se	Callahar	2 <u>88</u>	da freema	ame:	108	mber:	Lewis Chamical) <u>s</u>	
 . per (present	d. If VOA sample collected)	(Require collection of contingent duplicate sample	TYES TENO MCP Drinking Water Sample Beguired	EYES UNO MCP Data Certification is required	MA DEP MOD Data Enhancement Affirmation		IAL INSTRUCTIONS						(15.13.)	(15-47)	(-H-)	(,611)	(12-14)	(10-12')	SAMPLE SAMPLE		INSTRUCTIONS: Use separate line for each container (except replicates)			5			. :			A TOTAL
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 Dredge Material	☐ Wastewater ☐ Waste Dispoşal	☐ Drinking Water	Ň			Regulatory Program						7.	++	1 1 54	75 11	75 11	54 1	75 11	MUMBER 40mL VDA Vial 60mL/2 oz Glass 120mL/4 oz Amber Glass 250mL/8 oz Glass		ates).			02766	.	7				Buzzards Bay, MA 02532 Telephone (508) 759-4441 • FAX (508) 759-4475 www.groundwateranalytical.com
	-		MWRA	ŝ	Deliverables	3	DATA QUALITY				1								500mL/16 oz Glass 1L/32 oz Amber Glass 250mL/8 oz Plastic 500mL/16 oz Plastic 1L/32 oz Plastic	Container(s)								EŞ		9-4475
☐ Matrix Spike Duplicate	Project Specific QC Required	ınd Sample Dup	iot project specifi iamples are chai	Matrix Spikes, an	Many regulatory		THO ALITH												120mL Sterile HCI HMO, H,SO, Naidh	Preservation	GWA Quote:			☐ Please FAX to:	LL-Please Ema					AND WO
licate	: Required	ilicate requires	ged on a per sa mserq aseinu	d/or Matrix Spik	programs and E	Project Specific QC	OBJECTIVES					ت ح ک	277	23-7	マジノ	13/ /	[3 / /	23 / /	Methanol Socium Bisuffate ICE YES NO	ration Filtered		No.:	BILLING	. 11	III-Please Email to: JCalls han	Rush requires Rush Authorization Number	Business Days)	STANDARD (10 Business Days)	TURNAROUND	AND WORK ORDER
	Selection of QC Sample	and Sample Duplicate requires an additional sample sliquot	not project specific unless prearranged. Project specific QC samples are charged on a per sample basis, Each MS, MSD	Matrix Spikes, and/or Matrix Spike Duplicates, Laboratory OC	PA methods require p	etile QC		100		F		Ì	-						LABORATORY NUMBER (Lab Use Only)						اصر و دعامه اسره	iber)		*	UND	CHAIN-OF-CUSTODY RECORD AND WORK ORDER
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r ⊡ Express Mail d □	7/14/65 +	18/	Date	2/c2/4	Date	es submitted su	CHAIN							7	7	\		7	□ 8151A Herbicides □ 9011 EDE/OBCP TSUB RCRA □ 519CRA □ MA List Metals □ 23 TAL		15 3 Priority Poliutant			1 EDB/DI 1 and Cop		Specify (TO Medale		
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16	by Laconathry:	JE TO THE PROPERTY OF THE PROP	by:		J by:	NOTE: All samples submitted subject to Standard Terms and Conditions on reverse hereof.	DY RECORD						_	7	7	7		$A \sqcup A$	ISMA DEP EPH wild targ ☐ Hydrocarbon Engerpris ☐ TPH by GC/FID (80158) ☐ Gasoline Rengu Organi ☐ MA DEP VPH wild targ ☐ TCLP ☐ SPLP ☐ 8 Mail	Mod) (Mod) (ics (GR	FID by AS1 Manufactive O) I ME (VPH Carbo	NM D3328- I Only GRO III ranges o	00-Mod	1)		- Largh Invite		Apom Sharistarhee		; ;
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Quality Assurance/Quality Control

A. Program Overview

Groundwater Analytical conducts an active Quality Assurance program to ensure the production of high quality, valid data. This program closely follows the guidance provided by Interim Guidelines and Specifications for Preparing Quality Assurance Project Plans, US EPA QAMS-005/80 (1980), and Test Methods for Evaluating Solid Waste, US EPA, SW-846, Update III (1996).

Quality Control protocols include written Standard Operating Procedures (SOPs) developed for each analytical method. SOPs are derived from US EPA methodologies and other established references. Standards are prepared from commercially obtained reference materials of certified purity, and documented for traceability.

Quality Assessment protocols for most organic analyses include a minimum of one laboratory control sample, one method blank, one matrix spike sample, and one sample duplicate for each sample preparation batch. All samples, standards, blanks, laboratory control samples, matrix spikes and sample duplicates are spiked with internal standards and surrogate compounds. All instrument sequences begin with an initial calibration verification standard and a blank; and excepting GC/MS sequences, all sequences close with a continuing calibration standard. GC/MS systems are tuned to appropriate ion abundance criteria daily, or for each 12 hour operating period, whichever is more frequent.

Quality Assessment protocols for most inorganic analyses include a minimum of one laboratory control sample, one method blank, one matrix spike sample, and one sample duplicate for each sample preparation batch. Standard curves are derived from one reagent blank and four concentration levels. Curve validity is verified by standard recoveries within plus or minus ten percent of the curve.

B. Definitions

Batches are used as the basic unit for Quality Assessment. A Batch is defined as twenty or fewer samples of the same matrix which are prepared together for the same analysis, using the same lots of reagents and the same techniques or manipulations, all within the same continuum of time, up to but not exceeding 24 hours.

Laboratory Control Samples are used to assess the accuracy of the analytical method. A Laboratory Control Sample consists of reagent water or sodium sulfate spiked with a group of target analytes representative of the method analytes. Accuracy is defined as the degree of agreement of the measured value with the true or expected value. Percent Recoveries for the Laboratory Control Samples are calculated to assess accuracy.

Method Blanks are used to assess the level of contamination present in the analytical system. Method Blanks consist of reagent water or an aliquot of sodium sulfate. Method Blanks are taken through all the appropriate steps of an analytical method. Sample data reported is not corrected for blank contamination.

Surrogate Compounds are used to assess the effectiveness of an analytical method in dealing with each sample matrix. Surrogate Compounds are organic compounds which are similar to the target analytes of interest in chemical behavior, but which are not normally found in environmental samples. Percent Recoveries are calculated for each Surrogate Compound.



LCS

LCSD

Category:

EPA Method 8260B

Instrument ID: MS-1 HP 5890

QC Batch ID: VM1-1615-EL

Analyzed:

Instrument 1D:

MS-1 HP 5890 07-20-05 22:00

Analyzed:

07-20-05 22:41

Matrix:

Soil ug/Kg

CCT Analyst:

Analyst:

CCT

nits: U			ics.			165	Duplicate		QCLim	Manager - Property
AS Number	waye	Spiked		Recovery	Spiked	Measured	Recovery	RPD .	Spilke	RPD
A STATE OF THE PROPERTY OF THE			***************************************	106 %	2500	2700	108 %	2 %	70 - 130 %	25%
′5- <i>7</i> 1-8	Dichlorodifluoromethane	2500	2600	105 %	2500	2600	103 %	2 %	70 - 130 %	25%
4-87-3	Chloromethane	2500	2600		2500	2600	104 %	3 %	70 - 130 %	25%
5-01-4	Vinyl Chloride	2500	2700	108 %	2500	2200	90 %	1 %	70 - 130 %	25%
4-83-9	Bromomethane	2500	2200	89 %		2400	95 %	3 %	70 - 130 %	25%
75-00-3	Chloroethane	2500	2400	98 %	2500	2100	85 %	4 %	70 - 130 %	25%
75-69-4	Trichlorofluoromethane	2500	2200	88 %	2500		95 %	1 %	70 - 130 %	25%
0-29-7	Diethyl Ether	5000	4700	94 %	5000	4800	100 %	1 %	70 - 130 %	25%
75-35-4	1,1-Dichloroethene	2500	2500	101 %	2500	2500_	L	5 %	70 - 130 %	25%
	1,1,2-Trichlorotrifluoroethane	5000	4800	96 %	5000	4600	92 %	4 %	70 - 130 %	25%
76-13-1	Acetone	5000	4400	88 %	5000	4600	92 %	1 %	70 - 130 %	25%
67-64-1	Carbon Disulfide	5000	4300	86 %	5000	4300	85 %		70 - 130 %	25%
75-15-0	Methylene Chloride	2500	2400	97 %	2500	2400	94 %	3 %	70 - 130 %	25%
75-09-2	trans-1,2-Dichloroethene	2500	2300	93 %	2500	2300	91 %	2 %	70 - 130 %	25%
156-60-5	Methyl tert-butyl Ether (MTBE)	2500	2200	90 %	2500	2200	89 %	1 %		25%
1634-04-4		2500	2300	91 %	2500	2200	88 %	4 %	70 - 130 %	
75-34-3	1,1-Dichloroethane	2500	2000	79 %	2500	1900	75 %	5 %	70 - 130 %	25%
594-20-7	2,2-Dichloropropane	2500	2400	95 %	2500	2300	91 %	4 %	70 - 130 %	259
156-59-2	cis-1,2-Dichloroethene	5000	4800	96 %	5000	4800	95 %	1 %	70 - 130 %	25%
78-93-3	2-Butanone (MEK)		2400	94 %	2500	2200	89 %	6 %	70 - 130 %	
74-97-5	Bromochloromethane	2500		97 %	5000		91 %	6 %	70 - 130 %	25%
109-99-9	Tetrahydrofuran (THF)	5000	4800	88 %	2500		82 %	7 %	70 - 130 %	25
67-66-3	Chloroform	2500	2200		2500	+	82 %	5 %	70 - 130 %	25
71-55-6	1,1,1-Trichloroethane	2500	2200	86 %			78 %	2 %	70 - 130 %	25
56-23-5	Carbon Tetrachloride	2500	2000	80 %	2500		90 %	7 %	70 - 130 %	25
563-58-6	1,1-Dichloropropene	2500	2400	96 %	2500	_		2 %	70 - 130 9	25
71-43-2	Benzene	2500	2300	92 %	2500		+	5 %	70 - 130 %	
107-06-2	1,2-Dichloroethane	2500	2100	86 %	2500			3 %	70 - 130 °	-
	Trichloroethene	2500	2300	93 %	2500			0 %	70 - 130 °	
79-01-6	1,2-Dichloropropane	2500	2300	93 %	2500			1 %	70 - 130 °	
78-87-5	Dibromomethane	2500	2100	85 %	2500				70 - 130 °	
74-95-3	Bromodichloromethane	2500	2100	86 %	250	0 2200		1 %		-
75-27-4		50000		141 %	g 5000	00 7200			70 - 130 °	
123-91-1	1,4-Dioxane	2500		92 %	250	0 2200	89 %	3 %	70 - 130	
10061-01-5	cis-1,3-Dichloropropene	5000			500	0 480	96 %	0 %	70 - 130	
108-10-1	4-Methyl-2-Pentanone (MIBK)	2500			250	0 220	89 %	0 %	70 - 130	_
108-88-3	Toluene				250	0 180	0 70%	16 %	70 - 130	_
10061-02-6	trans-1,3-Dichloropropene	2500	+		250			18 %	70 - 130	_
79-00-5	1,1,2-Trichloroethane	2500			250		0 82 %	20 %	70 - 130	% 2:
127-18-4	Tetrachloroethene	2500						19 %	70 - 130	% 2
142-28-9	1,3-Dichloropropane	2500						17 %	70 - 130	% 2
591-78-6	2-Hexanone	5000				-	 	18 %	70 - 130	% 2
124-48-1	Dibromochloromethane	250						18 %	70 - 130	% 2
106-93-4	1,2-Dibromoethane (EDB)	250						19 %	70 - 130	
108-90-7	Chlorobenzene	250	0 260					19 %		
	1,1,1,2-Tetrachloroethane	250	0 250					19 %		
630-20-6	Ethylbenzene	250	0 250	0 102 %			- +		_+	
100-41-4		500	0 530	0 106 %	50	00 420		22 %		_
108-38-3/106-4		250		0 104 9	25	00 22		19 %		
95-47-6	ortho-Xylene	250			25	00 22		20 %		
100-42-5	Styrene	250			25	00 21	00 84 %	17 %		
75-25-2	Bromoform	250				00 23	00 91 %	6 %	70 - 130)%



LCS

LCSD

Category: QC Batch ID: VM1-1615-EL

EPA Method 8260B

Instrument ID: Analyzed:

Analyst:

MS-1 HP 5890 07-20-05 22:00 CCT

Instrument ID: Analyzed:

MS-1 HP 5890 07-20-05 22:41

Analyst:

CCT

Matrix:

Soil ug/Kg

Jnits:	ug/Kg					165	Duplicate		QC Lim	its
CAS Number		Spiked 0	LCS	Recovery	Spiloed		Recovery	RPD	Spile	RPD
				100 %	2500	2400	94 %	6 %	70 - 130 %	25%
108-86-1	Bromobenzene	2500	2500	101 %	2500	2400	95 %	7 %	70 - 130 %	25%
79-34-5	1,1,2,2-Tetrachloroethane	2500	2500	110 %	2500	2600	103 %	7 %	70 - 130 %	25%
96-18-4	1,2,3-Trichloropropane	2500	2800		2500	2200	90 %	8 %	70 - 130 %	25%
103-65-1	n-Propylbenzene	2500	2400	97 %	2500	2300	92 %	7 %	70 - 130 %	25%
95-49-8	2-Chlorotoluene	2500	2500	98 %	2500	2200	89 %	7 %	70 - 130 %	25%
108-67-8	1,3,5-Trimethylbenzene	2500	2400	96 %	2500	2400	95 %	7 %	70 - 130 %	25%
	4-Chlorotoluene	2500	2500	102 %		2200	89 %	7 %	70 - 130 %	25%
106-43-4	tert-Butylbenzene	2500	2400	95 %	2500	2500	101 %	5 %	70 - 130 %	25%
98-06-6	1,2,4-Trimethylbenzene	2500	2600	106 %	2500	2600	104 %	1 %	70 - 130 %	25%
95-63-6	sec -Butylbenzene	2500	2600	103 %	2500		91 %	5 %	70 - 130 %	25%
135-98-8	1,3-Dichlorobenzene	2500	2400	95 %	2500	2300	93 %	2 %	70 - 130 %	25%
541-73-1	4-Isopropyltoluene	2500	2400	95 %	2500	2300	92 %	7 %	70 - 130 %	25%
99-87-6	1,4-Dichlorobenzene	2500	2500	99 %	2500	2300		1 %	70 - 130 %	25%
106-46-7		2500	2300	92 %	2500	2300	91 %	3 %	70 - 130 %	
95-50-1	1,2-Dichlorobenzene	2500	2500	98 %	2500	2400	95 %	8 %	70 - 130 %	
104-51-8	n-Butylbenzene	2500	2800	113 %	2500	2600	104 %		70 - 130 %	+
96-12-8	1,2-Dibromo-3-chloropropane	2500	2300	90 %	2500	2400	98 %	8 %	70 - 130 %	4
120-82-1	1,2,4-Trichlorobenzene	2500	2300	93 %	2500	2200	88 %	5 %	70 - 130 %	
87-68-3	Hexachlorobutadiene	2500	2600	106 %	2500	2600	102 %	3 %		+
91-20-3	Naphthalene	2500	+	102 %	2500	2500	100 %	2 %	70 - 130 9	
87-61-6	1,2,3-Trichlorobenzene				50000	42000	84 %	3 %	70 - 130 %	
75-65-0	tert-Butyl Alcohol (TBA)	50000		94 %	2500	2200	89 %	5 %	70 - 130 °	
108-20-3	Di-isopropyl Ether (DIPE)	2500			2500		93 %	4 %	70 - 130 °	
637-92-3	Ethyl tert-butyl Ether (ETBE)	2500		 	2500	+	89 %	3 %	70 - 130 °	½ 25
004.05.8	tert -Amyl Methyl Ether (TAME)	2500	2300	J 92 K						

994-05-8	tert -Amyl Methyl Ether (TAME)	2500						OC Limits
		Soiked	Measured	Recovery	Spiked	Measured	Recovery	70 - 130 %
QC Surrogate	Compound	2.500	2.200	87 %	2,500	2,200	90 %	70 - 130 %
Dibromofluoron	nethane	 	2,300	92 %	2,500	2,400	95 %	
1,2-Dichloroeth		2,500	<u> </u>	100 %	2,500	2,600	104 %	70 - 130 %
		2,500	2,500		2,500	2.700	107 %	70 - 130 %
Toluene d ₈		2,500	2,700	107 %		·		<u> </u>
4-Bromofluorok	enzeile		116 E	DA S\A/_846	Third Edi	tion, Upd	late III (1996).	•

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample preparation performed by EPA Method 5030B.

Report Notations:

All calculations performed prior to rounding. Quality Control Limits are defined by the methodology, or alternatively based upon the historical average recovery plus or minus three standard deviation units.

Recovery outside recommended limits.



Category: QC Batch ID: EPA Method 8260B

VM1-1615-EB

Soil

Instrument ID:

MS-1 HP 5890 07-20-05 23:19 Analyzed:

Analyst:

CCT

Page: 1 of 2

trix:	The second was a contract of the second seco	Notes	Units	
		Concelliation	ug/Kg	500
CAS Number	Analyte Dichlorodifluoromethane	BRL	ug/Kg	500
5-71-8	Dichlorodifluoiometrano	BRL	ug/Kg	500
4-87-3	Chloromethane	BRL	ug/Kg	500
75-01-4	Vinyl Chloride	BRL	ug/Kg	500
74-83-9	Bromomethane	BRL	ug/Kg	500
75-00-3	Chloroethane	BRL	ug/Kg	500
75-69-4	Trichlorofluoromethane	BRL	ug/Kg	250
60-29-7	Diethyl Ether	BRL	ug/Kg	2500
75-35-4	1,1-Dichloroethene	BRL	ug/Kg	2500
76-13-1	1,1,2-Trichlorotrifluoroethane	BRL_	ug/Kg	2500
67-64-1	Acetone	BRL		1000
75-15-0	Carbon Disulfide	BRL	ug/Kg	250
75-09-2	Methylene Chloride	BRL	ug/Kg	250
156-60-5	trans- 1 2-Dichloroethene	BRI.	ug/Kg	250
	Methyl tert-butyl Ether (MTBE)	BRL	ug/Kg	
1634-04-4	1.1-Dichloroethane	BRL	ug/Kg	250
75-34-3	2 2-Dichloropropane	BRL	ug/Kg	250
594-20-7	cis-1,2-Dichloroethene	BRL	ug/Kg	2500
156-59-2	2-Butanone (MEK)	BRL	ug/Kg	250
78-93-3	Bromochloromethane	BRL	ug/Kg	2500
74-97-5	Tetrahydrofuran (THF)	BRL	ug/Kg	250
109-99-9	Chloroform		ug/Kg	250
67-66-3	1,1,1-Trichloroethane	BRL	ug/Kg	250
71-55-6	Carbon Tetrachloride	BRL	ug/Kg	250
56-23-5	Carbon Tetrachionide	BRL	ug/Kg	250
563-58-6	1,1-Dichloropropene	BRL	ug/Kg	250
71-43-2	Benzene	BRL	ug/Kg	250
107-06-2	1,2-Dichloroethane	BRL	ug/Kg	250
79-01-6	Trichloroethene	BRL	ug/Kg	250
78-87-5	1,2-Dichloropropane	BRL	ug/Kg	250
74-95-3	Dibromomethane	BRL		250000
75-27-4	Bromodichloromethane	BRL	ug/Kg	250
123-91-1	1,4-Dioxane	BRL	ug/Kg	2500
10061-01-5	cis-1,3-Dichloropropene	BRL	ug/Kg	250
108-10-1	4-Methyl-2-Pentanone (MIBK)	BRL	ug/Kg	250
108-88-3	Toluene	BRL	ug/Kg	250
100-66-3	trans-1,3-Dichloropropene	BRL	ug/Kg	
	1.1.2-Trichloroethane	BRL	ug/Kg	250
79-00-5	Tetrachloroethene	BRL	ug/Kg	250
127-18-4	1,3-Dichloropropane	BRL	ug/Kg	2500
142-28-9	2-Hexanone	BRL	ug/Kg	250
591-78-6	Dibromochloromethane	BRL	ug/Kg	250
124-48-1	1,2-Dibromoethane (EDB)	BRL	ug/Kg	250
106-93-4	Chlorobenzene		ug/Kg	250
108-90-7	1,1,1,2-Tetrachloroethane	BRL	ug/Kg	250
630-20-6	Ethylbenzene	BRL	ug/Kg	250
100-41-4		BRL	ug/Kg	250
108-38-3/106-	meta- Xylene and para Xylene	BRL	ug/Kg	250
95-47-6	ortho- Xylene	BRL	ug/Kg	
100-42-5	Styrene	BRL	ug/Kg	~ ~ ~ ~
75-25-2	Bromoform Isopropylbenzene	BRL	1 05 105	



Category: QC Batch ID:

Matrix:

EPA Method 82608

VM1-1615-EB

Soil

instrument ID: Analyzed:

MS-1 HP 5890 07-20-05 23:19

Analyst:

CCT

Page: 2 of 2

				ve Notes	this -	Reporting 1 1001
			Concentr	ation	ug/Kg	250
CAS Number	Analyfe			BRL BRL	ug/Kg	250
108-86-1	Bromobenzene		ug/Kg	250		
79-34-5	1,1,2,2-Tetrachloroethane			BRL	ug/Kg	250
96-18-4	1,2,3-Trichloropropane			BRL	ug/Kg	250
103-65-1	n-Propylbenzene			BRL	ug/Kg	250
95-49-8	2-Chlorotoluene			BRL	ug/Kg	250
108-67-8	1,3,5-Trimethylbenzene			BRL	ug/Kg	250
106-43-4	4-Chlorotoluene			BRL	ug/Kg	250
98-06-6	tert-Butylbenzene			BRL	ug/Kg	250
95-63-6	1,2,4-Trimethylbenzene			ug/Kg	250	
135-98-8	sec-Butylbenzene	sec-Butylbenzene BRL 1,3-Dichlorobenzene BRL				
541-73-1	1,3-Dichlorobenzene					
99-87-6	4-Isopropyltoluene			BRL	ug/Kg ug/Kg	250 250
106-46-7	1,4-Dichlorobenzene	nzene BRL				250
95-50-1	1,2-Dichlorobenzene			BRL	ug/Kg	250
104-51-8	n-Butylbenzene			BRL	ug/Kg	250
96-12-8	1,2-Dibromo-3-chloropropa	ane		BRL	ug/Kg	250
120-82-1	1,2,4-Trichlorobenzene			BRL	ug/Kg	250
87-68-3	Hexachlorobutadiene			BRL	ug/Kg	250
91-20-3	Naphthalene			BRL	ug/Kg	10000
87-61-6	1.2.3-Trichlorobenzene			BRL	ug/Kg	250
75-65-0	tert -Butyl Alcohol (TBA)		<u> </u>	BRL	ug/Kg	250
108-20-3	Di isopropyl Ether (DIPE)		 	BRL	ug/Kg	250
637-92-3	Ethyl tert-hutyl Ether (ETB	E)		BRL	ug/Kg	
994-05-8	tert-Amyl Methyl Ether (T.	AME)	L		A CONTRACTOR OF THE CONTRACTOR	QC Limits
		Spiked	Measured	Recovery	and the second s	0 - 130 %
QC Surroga	te Compound	2,500	2,200	89 %		70 - 130 %
Dibromoflu	oromethane	2,500	2,300	90 %		70 - 130 %
1.2-Dichlor	oethane-d ₄	2,500	2 600	105 %		70 130 %

994-05-8 tert-Amyl Methyl Ether (17	Resovery	QC Limits
	Spiked	70 - 130 %
QC Surrogate Compound	2,500 2,200	70 - 130 %
Dibromofluoromethane	2,500 2,300	70 - 130 %
1,2-Dichloroethane-d ₄	2,500 2,000	70 - 130 %
Toluene-d ₈	2,500 2,900 116 %	
4-Bromofluorobenzene	Third Edition, Update III (1996).	

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996). Sample preparation performed by EPA Method 5035A and EPA 5030B.

Report Notations:

Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.



LCS

LCSD

EPA Method 8260B

Instrument ID:

MS-1 HP 5890

MS-1 HP 5890 Instrument ID: 07-22-05 07:06

Category: QC Batch ID: VM1-1616-EL Analyzed:

07-22-05 06:31

Analyzed: **LMG**

Matrix:

Soil

Analyst:

LMG

Analyst:

1 of 2

OC Limits

nits: U	ıg/Kg	5 J. Profes (2007)						LCS	Dupli	cate		0.00)C Limit	RPD	=
	Analyte		T	S : :		Spilord Measured Recovery					RPD				=
AS Number		Spiked !	diam'r.	Market Company		MALE STATE OF THE	220		89		8 %	70 -		25%	4
	Dichlorodifluoromethane	2500	240		36 %	2500	250	_	100		0 %			25%	-
75-71-8		2500	250	· 1	00 %	2500	24	-+	96		8 %			25%	
74-87-3	Chloromethane	2500	260		04 %	2500			85		8 %		130 %	25%	
75-01-4	Vinyl Chloride	2500	230		92 %	2500	21		87		6 %	70	- 130 %	25%	<u>. </u>
74-83-9	Bromomethane	2500	230	00	92 %	2500		00	75		7 %	70	- 130 %	25%	•
75-00-3	Chloroethane	2500	200	ю	81 %	2500		00	89		4 %	70	- 130 %	25 %	
75-69-4	Trichlorofluoromethane	5000	430	00	85 %	5000		00			7 %	70	- 130 %	25%	-
60-29-7	Diethyl Ether	2500	250	00 1	100 %	2500		300		%	8 %	70	- 130 %	25%	6
75-35-4	1,1-Dichloroethene	5000	46		92 %	5000		200		%	6 %		- 130 %	25%	6
76-13-1	1,1,2-Trichlorotrifluoroethane	5000	39		77 %	5000		100		%	7 %		- 130 %	25%	6
67-64-1	Acetone	5000	43		85 %	5000	4	000		%	3 %		- 130 %	25%	%
75-15-0	Carbon Disulfide			00	92 %	2500	2	200	1	9%) - 130 %	25°	%
75-09-2	Methylene Chloride	2500	-	300	93 %	2500) 2	200		9 %	4 %) - 130 %	25°	
156-60-5	trans-1,2-Dichloroethene	2500		000	79 %	2500) 2	2000		1 %	3 %	4	0 - 130 %	25	_
1634-04-4	Methyl tert-butyl Ether (MTBE)	2500			89 %	250	0 2	2200	8	7 %	2 %		0 - 130 %	25	
	1,1-Dichloroethane	2500		200	89 %	250		2200	8	9 %	0 %				
75-34-3	2,2-Dichloropropane	2500		200	95 %	250		2300	9	2 %	2 %	i	0 - 130 %	+	_
594-20-7	cis-1,2-Dichloroethene	2500		400	73 %	500		3900	7	79 %	8 %	1 .	0 - 130 %	+	
156-59-2	2-Butanone (MEK)	5000		600		250	- + -	2300	+	92 %	4 %	1 -	0 - 130 %	_	
78-93-3	Bromochloromethane	2500		200	89 %	500	-+-	4000		30 %	12 %		70 - 130 %	+-	5%
74-97-5	Tetrahydrofuran (THF)	5000) 2	600	71 %	250		2000		81 %	3 %		70 - 130 %		5%
109-99-9		2500) 1	2100	83 %			1900		78 %	4 %	2	70 - 130 %		5%
67-66-3	Chloroform 1,1,1-Trichloroethane	250	5 2	2000	82 %	250		1800		73 %	6 %		70 - 130 9	_+-	5 %
71-55-6	1,1,1-Inchioroenane	250	0	1900	77 %	25				86 %	3 %		70 - 130 °		5%
56-23-5	Carbon Tetrachloride	250	0	2200	89 %	25	-+	220		90 %	6 %		70 - 130 °	% <u> </u>	25%
563-58-6	1,1-Dichloropropene	250	0	2400	95 %		00	220		75 %	2 %		70 - 130 °	% 2	25%
71-43-2	Benzene	250		1900	77 %		00	190			4 %		70 - 130 °	% 2	25%
107-06-2	1,2-Dichloroethane	250		2300	90 %	25	600	220		87 %	2 %		70 - 130	% 2	259
79-01-6	Trichloroethene	250		2300	91 %	, 2:	500	220	ю	89 %	2 9	-+	70 - 130		259
78-87-5	1,2-Dichloropropane	250		2100	83 %		500	200	00	81 %	0 9		70 - 130		25%
74-95-3	Dibromomethane			2100	84 %		500	210		85 %	9 9		70 - 130		25°
75-27-4	Bromodichloromethane	250		53000	106 %		0000	580	00	115 %			70 - 130		25
123-91-1	1,4-Dioxane	500		2200	90 °		500	23	00	90 %	0 °		70 - 130		25
10061-01-5	cis-1,3-Dichloropropene	25			71 9		000	38	00	76 %	7 '		70 - 130		25
108-10-1	4-Methyl-2-Pentanone (MIBK)		00	3500	93		500	22	.00	90 %	4		70 - 130		25
	Toluene	25	00	2300	77	~	2500	20	000	79 %	3		1		25
108-88-3	1.2 Dichloropropene		500	1900	99		2500		00	101 %	2	_	70 - 130		25
10061-02-6	1,1,2-Trichloroethane	2	500	2500			2500	↓	500	99 %	5	%	70 - 130		
79-00-5	Tetrachloroethene	2	500	2600	105		2500 2500		600	103 %	2	%	70 - 130		25
127-18-4	1,3-Dichloropropane		500	2500	101		5000	-	400	88 %	11	%	70 - 130		25
142-28-9		5	000	3900					300	91 %		%	70 - 13		2
591-78-6	2-Hexanone Dibromochloromethane		500	2300			2500		500	101 %		₩,	70 - 13		2
124-48-1	1,2-Dibromoethane (EDB)	- + 2	500	2400			2500			100 %		%	70 - 13		2
106-93-4			2500	2700	106	%	2500	-1-	500	98 %	<u></u>	%	70 - 13	0 % l	2
108-90-7	Chlorobenzene		2500	2500		%	2500		400	102 %		%	70 - 13	30 %	2
630-20-6	1,1,1,2-Tetrachloroethane		2500	2600		%	2500		2500		-	%	70 - 13		1
100-41-4	Ethylbenzene		5000	5400		%	5000		5300	106 %		%	70 - 1		
108-38-3/10	6-42-3 meta- Xylene and para- Xyle			 -		%	2500)] :	2600	104 %		4 %	70 - 1		
95-47-6	ortho-Xylene		2500	+		3 %	2500	3	2600	104 °	~		70 - 1	_	
100-42-5			2500			0 %	2500		2300	92		2 %	70 - 1		
100-72-3	Bromoform	i	2500	230		7 %	250		2400	97 9	%	0%	1/0-1	JU 70	



LCSD

MS-1 HP 5890

Category: QC Batch ID: VM1-1616-EL

EPA Method 8260B

Instrument ID: Analyzed:

MS-1 HP 5890 07-22-05 06:31

Analyzed:

Instrument ID:

07-22-05 07:06 LMG

Matrix:

LMG Analyst:

Analyst:

Page: 2 of 2

Matrix: Units:	ug/Kg			The second second second			Duplicate :		QC Lim	is
			LCS		Spiked (Recovery	RPD	Spike	RPD
CAS Number		Spiked	dessared	Recovery		2500	99 %	0 %	70 - 130 %	25%
	hoozone	2500	2500	99 %	2500	2400	95 %	6 %	70 - 130 %	25%
108-86-1	Bromobenzene 1,1,2,2-Tetrachloroethane	2500	2200	90 %	2500	2400	95 %	5 %	70 - 130 %	25%
79-34-5	1,2,3-Trichloropropane	2500	2300	91 %	2500	2400	98 %	1 %	70 - 130 %	25%
96-18 -4	n-Propylbenzene	2500	2500	99 %	2500	2500	99 %	1 %	70 - 130 %	25%
103-65-1		2500	2500	100 %	2500	2400	95 %	1 %	70 - 130 %	25%
95-49-8	2-Chlorotoluene 1,3,5-Trimethylbenzene	2500	2400	96 %	2500	2600	106 %	1 %	70 - 130 %	25%
108-67-8	4-Chlorotoluene	2500	2600	104 %	2500	2400	96 %	0 %	70 - 130 %	25%
106-43-4		2500	2400	96 %	2500	2400	95 %	3 %	70 - 130 %	25%
98-06-6	tert-Butylbenzene 1,2,4-Trimethylbenzene	2500	2500	98 %	2500	2300	93 %	2 %	70 - 130 %	
95-63-6		2500	2400	95 %	2500	2400	95 %	1 %	70 - 130 %	
135-98-8	sec -Butylbenzene 1,3-Dichlorobenzene	2500	2400	96 %	2500	2400	96 %	0 %	70 - 130 %	
541-73-1		2500	2400	96 %	2500	2500	98 %	1 %	70 - 130 %	
99-87-6	4-Isopropyltoluene	2500	2500	100 %	2500		94 %	4 %	70 - 130 %	
106-46-7	1,4-Dichlorobenzene	2500	2300	90 %	2500	2300	98 %	2 %	70 - 130 9	
95-50-1	1,2-Dichlorobenzene	2500	2500	100 %	2500		90 %	12 %	70 - 130 °	6 259
104-51-8	n-Butylbenzene 1,2-Dibromo-3-chloropropane	2500	2000	80 %	2500	-	+	3 %	70 - 130 °	6 25°
96-12-8	1,2-Dibromo-3-Chloropropass	2500	2300	92 %	2500			4 %	70 - 130 °	ъ 25°
120-82-1	1,2,4-Trichlorobenzene	2500	2300		2500			10 %	70 - 130	% 25°
87-68-3	Hexachlorobutadiene	2500	2000		2500	+		1 %	70 - 130	% 25°
91-20-3	Naphthalene	2500	2300		2500		<u> </u>	6 %	70 - 130	% 25
87-61-6	1,2,3-Trichlorobenzene	5000	0 3800	0 76 %	5000	_	<u> </u>	1 %	70 - 130	% 25
75-65-0	tert-Butyl Alcohol (TBA)	2500						1 %	70 - 130	% 25
108-20-3	Di-isopropyl Ether (DIPE)	250		83 %			<u> </u>	2 %	70 - 130	% 25
637-92-3	Ethyl tert-butyl Ether (ETBE)			0 80 %	250	0 200	0 81 %	1		
994-05-8	tert-Amyl Methyl Ether (TAME)						red Recovery	1		Limits

994-05-8 tert-Amyl Methyl Ether (TAME)	2500 2000	OU A		Decayory	QC Limits
	Spiked Measured	Recovery	Spiked Measured	86 %	70 - 130 %
OC Sumpsale Companie	2,500 2,200	89 %	2,500 2,100	92 %	70 - 130 %
Dibromofluoromethane	2,500 2,400	97 %	1	104 %	70 - 130 %
1,2-Dichloroethane-d4	2,500 2,700	107 %	2,500	111 %	70 - 130 %
Toluene-d ₈	2,500 2,800	110 %	2,340		
4-Bromofluorobenzene	a Solid Waste, US E	EPA, SW-846,	Third Edition, Upd	late III (1996).	

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996). Sample preparation performed by EPA Method 5030B.

Report Notations:

All calculations performed prior to rounding. Quality Control Limits are defined by the methodology, or alternatively based upon the historical average recovery plus or minus three standard deviation units.



Category:

EPA Method 8260B

Instrument ID:

MS-1 HP 5890

QC Batch ID:

VM1-1616-EB

Analyzed:

07-22-05 07:41

Analyst:

LMG

atrix:	THE ORDER OF THE THE OWNER OF THE OWNER	Notes	- Units 1	leporting Limit
		Concentiation	ug/Kg	500
CAS Number	Arralyte Dichlorodifluoromethane	BRL	ug/Kg	500
75-71-8		BRL	ug/Kg	500
74-87-3	Chloromethane	BRL	ug/Kg	500
75-01-4	Vinyl Chloride	BRL	ug/Kg	500
74-83-9	Bromomethane	BRL	ug/Kg	500
75-00-3	Chloroethane	BRL	ug/Kg	500
75-6 9-4	Trichlorofluoromethane	BRL	ug/Kg	250
60-29-7	Diethyl Ether	BRL	ug/Kg	2500
75-35-4	1,1-Dichloroethene	BRL	ug/Kg	2500
76-13-1	1,1,2-Trichlorotrifluoroethane	BRL	ug/Kg	2500
67-64-1	Acetone	BRL	ug/Kg	1000
75-15-0	Carbon Disulfide	BRI.	ug/Kg	250
75-09-2	Methylene Chloride	BRL	ug/Kg	250
156-60-5	trans-1,2-Dichloroethene	BRL.		250
1634-04-4	Methyl tert-butyl Ether (MTBE)	BRL	ug/Kg	250
75-34-3	1.1-Dichloroethane	BRL	ug/Kg	250
594-20-7	2 2-Dichloropropane	BRL	ug/Kg	2500
156-59-2	cis-1,2-Dichloroethene	BRL	ug/Kg	250
78-93-3	2-Butanone (MEK)	BRL	ug/Kg	2500
74-97-5	Bromochloromethane	BRL	ug/Kg	250
109-99-9	Tetrahydrofuran (THF)	BRL	ug/Kg	
67-66-3	Chloroform	BRL	ug/Kg	250
	1 1.1-Trichloroethane	BRL	ug/Kg	250
71-55-6	Carbon Tetrachloride	BRL	ug/Kg	250
56-23-5	1,1-Dichloropropene	BRL	ug/Kg	250
563-58-6	Benzene	BRL	ug/Kg	250
71-43-2	1,2-Dichloroethane	BRL	ug/Kg	250
107-06-2	Trichloroethene	BRL	ug/Kg	250
79-01-6	1,2-Dichloropropane		ug/Kg	250
78-87-5	Dibromomethane	BRL	ug/Kg	250
74-95-3	Bromodichloromethane	BRL	ug/Kg	250000
75-27-4	1,4-Dioxane	BRL	ug/Kg	250
123-91-1		BRL	ug/Kg	2500
10061-01-	5 cis-1,3-Dictioroproperte 4-Methyl-2-Pentanone (MIBK)	BRL	ug/Kg	250
108-10-1		BRL	ug/Kg	250
108-88-3	Toluene 6 trans-1,3-Dichloropropene	BRL	ug/Kg	250
10061-02	6 trans- 1,3-Dichlorophopene	BRL	ug/Kg	250
79-00-5	1,1,2-Trichloroethane	BRL	ug/Kg	250
127-18-4	Tetrachloroethene	BRL	ug/Kg	2500
142-28-9	1,3-Dichloropropane	BRL	ug/Kg	250
591-78-6	2-Hexanone	BRL	ug/Kg	250
124-48-1	Dibromochloromethane (EDR)	BRL	ug/Kg	250
106-93-4	1,2-Dibromoethane (EDB)	BRL	ug/Kg	250
108-90-7	Chlorobenzene	BRL	ug/Kg	250
630-20-6	1,1,1,2-Tetrachloroethalie	BRL	ug/Kg ug/Kg	250
100-41-4	Ethylbenzene	BRL		250
108-38-3/106	meta- Xylene and para- Xylene	BRL	ug/Kg	250
95-47-6	ortho-Xylene	BRL	ug/Kg	
100-42-5	5 Styrene	BRL	ug/Kg	
75-25-2		BRL	ug/Kg	233



Category:

EPA Method 8260B

Instrument ID:

MS-1 HP 5890

QC Batch ID:

VM1-1616-EB

Analyzed:

07-22-05 07:41

Page: 2 of 2

Matrix:

Soil

Analyst:

LMG

atrix:			Units	Reporting Limit
		Concentration Notes	ug/Kg	250
CAS Number	Analyte	BRL	ug/Kg	250
108-86-1	Bromobenzene	BRL	ug/Kg	250
79-34-5	1,1,2,2-Tetrachloroethane	BRL		250
96-18-4	1,2,3-Trichloropropane	BRL	ug/Kg	250
103-65-1	n-Propylbenzene	BRI.	ug/Kg	250
95-49-8	2-Chlorotoluene	BRL	ug/Kg	250
108-67-8	1,3,5-Trimethylbenzene	BRL	ug/Kg	250
106-43-4	4-Chlorotoluene	BRL	ug/Kg	250
98-06-6	tert-Butylbenzene	BRL	ug/Kg	250
95-63-6	1,2,4-Trimethylbenzene	BRL	ug/Kg	250
135-98-8	sec-Butylbenzene	BRL	ug/Kg	250
541-73-1	1.3-Dichlorobenzene	BRL	ug/Kg	
99-87-6	4-Isopropyltoluene	BRL	ug/Kg	250
106-46-7	1.4-Dichlorobenzene	BRL	ug/Kg	250
	1,2-Dichlorobenzene	BRL.	ug/Kg	250
95-50-1	n_Rutvibenzene	BRL	ug/Kg	250
104-51-8	1,2-Dibromo-3-chloropropane	BRL	ug/Kg	250
96-12-8	1,2,4-Trichlorobenzene	BRL	ug/Kg	250
120-82-1	Hexachlorobutadiene	BRL	ug/Kg	250
87-68-3	Naphthalene		ug/Kg	250
91-20-3	1,2,3-Trichlorobenzene	BRL	ug/Kg	10000
87-61-6	tert-Butyl Alcohol (TBA)	BRL	ug/Kg	250
75-65-0	Di-isopropyl Ether (DIPE)	BRL	ug/Kg	250
108-20-3	Ethyl tert- butyl Ether (ETBE)	BRL	ug/Kg	250
637-92-3	tert - Amyl Methyl Ether (TAME)	BRL		
994-05-8		d Measured Recovery		QC Limits

994-05-8 tert - Am	nyl Methyl Ether (TAME)		Recovery	QCLimits
- COMMONIA	Spiked		85 %	70 - 130 %
OC Surrogate Compound	2,500	2,100	83 %	70 - 130 %
Dibromofluoromethane 1,2-Dichloroethane d ₄	2,500	2,100	101 %	70 - 130 %
	2,500	2,500	120 %	70 - 130 %
Toluene-d ₈ 4-Bromofluorobenzene	2,500	3,000		
4-Bromotiuoloberizerie			and Third Edition, Undate III (1996).	

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996). Sample preparation performed by EPA Method 5035A and EPA 5030B.

Report Notations:

Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.



LCSD

Category: QC Batch ID: MA DEP VPH VG3-1957-E

Analyzed:

Instrument ID: GC-3 HP 5890 07-21-05 07:29 Analyzed:

instrument ID: GC-3 HP 5890 07-21-05 08:10

Matrix:

Soil

Analyst:

JΗ

Analyst:

Jnits:	mg/Kg					T in	S Duplicate	Avenue Array American	QC Limi	ls
CAS Number	Aidyle	The second secon	LC Magazed	Recovery	Spiked		Recovery	RPD	Spike	RPD
1.00 (The second secon	2.5	2.2	89 %	2.5	2.3	93 %	5 %	70 - 130 %	25%
109-66-0	n- Pentane		2.2	88 %	2.5	2.3	92 %	4 %	70 - 130 %	25%
107-83-5	2-Methylpentane	2.5	2.3	91 %	2.5	2.4	95 %	4 %	70 - 130 %	25%
540-84-1	2,2,4-Trimethylpentane	2.5	6.7	89 %	7.5	7.0	93 %	4 %	70 - 130 %	25%
n/a	Aliphatic Group 1	7.5	2.4	95 %	2.5	2.4	97 %	2 %	70 - 130 %	25%
111-84-2	n-Nonane	2.5		100 %	2.5	2.4	97 %	3 %	70 - 130 %	25%
124-18-5	n- Decane	2.5	2.5	96 %	2.5	2.4	98 %	2 %	70 - 130 %	25%
1678-93-9	n-Butylcyclohexane	2.5	2.4	97 %	7.5	7.3	97 %	0 %	70 - 130 %	25%
n/a	Aliphatic Group 2	7.5	7.3	97 %	2.5	2.7	107 %	9 %	70 - 130 %	25%
1634-04-4	Methyl tert-butyl Ether	2.5	2.4	93 %	2.5	2.5	100 %	8 %	70 - 130 %	25%
71-43-2	Benzene	2.5	2.3	93 %	2.5	2.5	101 %	9 %	70 - 130 %	25%
108-88-3	Toluene	2.5	2.3		2.5	2.5	101 %	8 %	70 - 130 %	25%
100-41-4	Ethylbenzene	2.5	2.3	93 %	5.0	5.0	101 %	9 %	70 - 130 %	25%
108-38-3 and 106-42-3	meta- Xylene and para -Xylene	5.0		93 %	2.5	2.6	103 %	9 %	70 - 130 %	25%
95-47-6	ortho- Xylene	2.5		94 %	2.5	2.5	99 %	9 %	70 - 130 %	25%
95-63-6	1,2,4-Trimethylbenzene	2.5		91 %	2.5	2.7	110 %	14 %	70 - 130 %	25%
91-20-3	Naphthalene	2.5		96 %	23	23	102 %	9 %	70 - 130 %	25%
n/a	Aromatic Group	23	21	93 %						
		Spike	d Messar	« Recover)	/ Spike	d Messero			QC Ein	
QC Surrogate		5.0		103 %	5.0	5.2	104 %		70 - 130 %	
2,5-Dibromoto	luene (PID)	5.0		<u> </u>	5.0	5.3	106 %	1	70 - 130 %	
2,5-Dibromoto	luene (FID)					A DEP (E	 Revision 1.1, 20	04).		

Method Reference:

Method for the Determination of Volatile Petroleum Hydrocarbons, MA DEP (Revision 1.1, 2004).

Report Notations:

All calculations performed prior to rounding. Quality Control Limits are defined by the methodology, or alternatively based upon the historical average recovery plus or minus three standard deviation units.



Category: QC Batch ID: MA DEP VPH

VG3-1957-E Soit

Instrument ID:

GC-3 HP 5890

70 - 130 %

Analyzed: Analyst:

07-21-05 08:51 JH

Matrix: 3	ou					Reporting Limit
	A A A A A A A A A A A A A A A A A A A	Many Town	Concer	tration Notes	Units	
VPH Ranges	The second secon			BRL	mg/Kg_	1.0
n-C5 to n-C8 Aliph	natic Hydrocarbons † 0			BRL	mg/Kg	1.0
n C9 to n-C12 Alit	ohatic Hydrocarbons			BRL	mg/Kg	1.0
CO 1 C10 Arc	omatic Hydrocarbons †	•		DKL		
1-C9 to II-C to Aic	Matter 1170.00	+ 7		BRL	mg/Kg	1.0
Inadjusted n-C5	to n-C8 Aliphatic Hydrocarbo	ns		BRL	mg/Kg	1.0
Unadjusted n-C91	to n-C12 Aliphatic Hydrocarb	ons '				
Oligolosica ii es				itration Notes	- Units	Reporting Carif.
CAS Number	Analyte			BRL	mg/Kg	0.10
1634-04-4	Methyl tert -butyl Ether *			BRL	mg/Kg	0.10
71-43-2	Benzene "				mg/Kg	0.10
108-88-3	Toluene "			BRL	mg/Kg	0.10
	Ethylbenzene [‡]		i	BRL	mg/Kg	0.10
100-41-4	meta-Xylene and para-Xyle	-ne [‡]	<u> </u>	BRL		0.10
108-38-3 and 106-42-3	meta- Xylene allu pala - Xyle	JIC		BRL	mg/Kg	
95-47-6	ortho- Xylene ‡			BRL	mg/Kg	0.50
91-20-3	Naphthalene					C Limits
	The second secon	Spiked	Measured	Recovery	200	
QC Surrogate C	ompound		5.3	106 %	i) - 130 %
a 5 Dibenmotol	uono (PID)	5.0	5.3		70	า - 130 %

Method Reference:

2,5-Dibromotoluene (PID)

5.3 2,5-Dibromotoluene (FID) Method for the Determination of Volatile Petroleum Hydrocarbons, MA DEP (Revision 1.1, 2004).

Report Notations:

Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

106 %

- Hydrocarbon range data excludes concentrations of any surrogate(s) and/or internal standards eluting in that range.
- n-C5 to n-C8 Aliphatic Hydrocarbons range data excludes the method target analyte concentrations.
- n-C9 to n-C12 Aliphatic Hydrocarbons range data excludes the method target analyte concentrations and the concentration for the n-C9 to n-C10 Aromatic Hydrocarbons range.
- Analyte elutes in the n-C5 to n-C8 Aliphatic Hydrocarbons range. п

5.0

Analyte elutes in the n-C9 to n-C12 Aliphatic Hydrocarbons range.



		 LCS		LCSD Instrument ID:	GC-6 HP 5890
Category:	EPA 8082	 Instrument ID: Extracted:	07-18-05 13:00	Extracted:	07-18-05 13:00 07-18-05 22:00
QC Batch ID: Matrix:	PB-2198-P Soil	Cleaned Up:	07-18-05 22:00 07-19-05 08:50	Cleaned Up: Analyzed:	07-18-05 22:00
Units:	ug/Kg	 Analyzed: Analyst:	CRL	Analyst:	CRL

_			7					William There	(CS Dapi	ale:				
		Klea	uCS swed	Reco	vay .	افتي	- Mese		Steel Let Col	airgi 2al Cal	er Cel	0 241 GJ	OCTS Sales	190
S. Asabe		The Landy Commercial	3464	ne Cul	- 34 CO			2ml Got	80%	81%	3 %	6%	40 - 140%	30 7
2674-11-2 Aroclor 1016	330	260	250	77%	76%	330	270	300	86%	89%	4 %	3 %	40 - 140%	30 1
1096-82-5 Aroclor 1260	330	280	290	83%_	86%	330	290	300						-
	F					gate Re	rencey					TT=-2****50	OF E	
C Surregale Compositor		Carre (* E. no)				-	9.7	9.8	73%	74%			30 - 15	0 %
etrachloro-m -xylene	13	8.5	8.5	64%	64%	13	+	12	85%	90%			30 - 15	50 %
ecachlorobiphenyl	13	11	11	82%	83%	13	11	<u> </u>	111 (1996)					

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996). Sample extraction performed by EPA Method 3545. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Report Notations:

All calculations performed prior to rounding. Quality Control Limits are defined by the methodology, or alternatively based upon the historical average recovery plus or minus three standard deviation units.



Category: QC Batch ID: EPA Method 8082

Matrix:

PB-2198-P

Instrument ID:

Extracted:

GC-6 HP 5890

07-18-05 13:00 07-18-05 22:00

Cleaned Up: Analyzed:

07-19-05 08:15

Analyst:

CRL

		Concentration Notes	Units	Reporting Limit
CAS Number	Analyte and a second and a seco	BRL	ug/Kg	80
12674-11-2	Aroclor 1016		ug/Kg	80
11104-28-2	Aroclor 1221	BRL		80
11141-16-5	Aroclor 1232	BRL	ug/Kg	ļ <u> </u>
53469-21-9	Aroclor 1242	BRL	ug/Kg	80
	Aroclor 1248	BRL	ug/Kg	80
12672-29-6		BRL	ug/Kg	80
11097-69-1	Aroclor 1254	BRL	ug/Kg	80
11096-82-5	Aroclor 1260	BRL	ug/Kg	80
37324-23-5	Aroclor 1262 [†]		ug/Kg	80
11100-14-4	Aroclor 1268 [†]	BRL		

	And the second s	Spiked	Management	Regier	N. Vandavija - Paris C. Limits - C. Limits
QC Surrogate 0		12	11	79 %	30 - 150 %
First	Tetrachloro-m-xylene	13	12	91 %	30 - 150 %
Column	Decachlorobiphenyl	13	12		30 - 150 %
Second	Tetrachloro-m -xylene	13	11	80 %	30 - 150 %
Column	Decachlorobiphenyl	13	13	99 %	30-130 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996). Sample extraction performed by EPA Method 3545. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Report Notations:

Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

Non-target analyte. Result is based on a single mid-range calibration standard.



Metals Category: Soil Matrix: mg/Kg Units: <u>Analyst</u> Instrument ID <u>Analyzed</u> Prepared Prep Method Method OC Batch ID Sample Type ICP-1 PE 3000 07-19-05-17:05 07-19-05 11:10 MB-0658-SL EPA 3050B EPA 6010B LCS EB 07-18-05 14:30 CVAA-1 PE FIMS 07-18-05 09:15 EPA 7471A MP-1819-SL LCS EPA 7471A ΕB 07-19-05 17:08 ICP-1 PE 3000 EPA 3050B 07-19-05 11:10 EPA 6010B MB-0658-SL LCSD EB CVAA-1 PE FIMS 07-18-05 14:33 07-18-05 09:15 MP-1819-SL EPA 7471A EPA 7471A LCSD

LCJD								The state of the s		The state of the s	Andrew . The Control of the Control
TOTAL STATE OF THE	- Avable		LCS.		-3 Jr (2000)		Duplicate	AND	QC Lin		Method
CAS Number		Spiked	Measured	Recovery	Spiked	Measured	Recovery	RPD	ES	R/D-	Value of the second sec
Linted year to the same		110	120	107%	110	120	106%	0%	80-120 %	30 %	EPA-60108
7440-38-2	Arsenic	200	220	115%	200	210	110%	2 %	82-118 %	30 %	EPA 6010B
7440-39-3	Barium	110	120	108%	110	110	104%	2 %	82-118 %	30 %	EPA 6010B
7440-43-9	Cadmium		170	112%	150	170	111%	0 %	79-121 %	30 %	EPA 6010B
7440-47-3	Chromium	150	 	106%	160	170	107%	0 %	80-120 %	30 %	EPA 6010B
7439-92-1	Lead	160	170		8.4	6.8	81%	7 %	51-149 %	30 %	EPA 7471A
7439-97-6	Mercury	8.4	7.8	93%	94	100	106%	0 %	76-124 %	30 %	EPA 6010B
7782-49-2	Selenium	94	100	107%			114%	3 %	61-139 %	30 %	EPA 6010B
7440-22-4	Silver	100	120	120%	100	120	11476		01-133 70		

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Report Notations:

All calculations performed prior to rounding. Quality Control Limits are defined by the methodology, or alternatively based upon the historical average recovery plus or minus three standard deviation units.



Category: Metals Matrix: Soil

Prep Method Prepared Sample Volume Instrument ID Analyst OC Batch ID Analysis Method 07-19-05 11:10 0.5 g EΒ ICP-1 PE 3000 EPA 6010B MB-0658-SB EPA 3050B 07-18-05 09:15 CVAA-1 PE FIMS EB MP-1819-SB EPA 7471A 0.6 g EPA 7471A

CAS Number	Analyte	Concentration Notes	Units	Reporting Limit	DF	Analyzed	Method
7440-38-2	Arsenic	BRL	mg/Kg	1.0	1	07-19-05 17:01	EPA 6010B
7440-39-3	Barium	BRL	mg/Kg	20	1	07-19-05 17:01	EPA 6010B
7440-43-9	Cadmium	BRL	mg/Kg	0.50	1	07-19-05 17:01	EPA 6010B
7440-47-3	Chromium	BRL	mg/Kg	10	1	07-19-05 17:01	EPA 6010B
7439-92-1	Lead	BRL	mg/Kg	10	1	07-19-05 17:01	EPA 6010B
7439-97-6	Mercury	BRL	mg/Kg	0.033	1	07-18-05 14:30	EPA 7471A
7782-49-2	Selenium	BRL	mg/Kg	10	1	07-19-05 17:01	EPA 6010B
7440-22-4	Silver	BRL	mg/Kg	5.0	1	07-19-05 17:01	EPA 6010B

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

DF Dilution Factor.

GROUNDWATER ANALYTICAL

Quality Control Report

Laboratory Control Samples

LCSD LCSD

MA DEP EPH Method GC-9 Agilent 6890 Category: Instrument ID: Instrument ID: GC-9 Agilent 6890 QC Batch ID: EP-2104-M Extracted: 07-22-05 14:00 07-22-05 14:00 Extracted: Matrix: Soil Analyzed (AL): 07-23-05 02:37 Analyzed (AL): 07-23-05 04:06 Units: mg/Kg Analyzed (AR): 07-23-05 03:21 Analyzed (AR): 07-23-05 04:50 Analyst. MM Analyst: MM

CAS Number		MILLION TO THE TOTAL OF T	EC	5	Annual control of		3 Duplicate	7 (M) = (1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	QCtim	Total Control
The second secon	The second secon	Spiked	Measured	Recovery	Spiked	Measured	Recovery	RPD	Spike	RPD
111-84-2	n-Nonane (C ₉)	3.3	1.8	55 %	3.3	2.0	61 %	11 %	30 - 140 %	25%
124-18-5	n-Decane (C ₁₀)	3.3	2.1	63 %	3.3	2.3	70 %	10 %	40 - 140 %	25%
112-40-3	n-Dodecane (C ₁₂)	3.3	2.1	63 %	3.3	2.4	72 %	12 %	40 - 140 %	25%
629-59-4	n-Tetradecane (C ₁₄)	3.3	2.3	<i>70</i> %	3.3	2.6	7 8 %	11 %	40 - 140 %	25%
544-76-3	n -Hexadecane (C ₁₆)	3.3	2.6	78 %	3.3	2.9	87 %	11 %	40 - 140 %	25%
593-45-3	n-Octadecane (C ₁₈)	3.3	2.9	87 %	3.3	3.2	96 %	10 %	40 - 140 %	25%
n/a	n-C9 to n-C18 Group	20	14	69 %	20	15	77 %	11 %	40 - 140 %	25%
629-92-5	n-Nonadecane (C ₁₉)	3.3	2.8	84 %	3.3	3.1	93 %	11 %	40 - 140 %	25%
112-95-8	n-Eicosane (C ₂₀)	3.3	2.8	86 %	3.3	3.2	96 %	11 %	40 - 140 %	25%
629-97-0	n-Docosane (C ₂₂)	3.3	2.8	85 %	3.3	3.1	95 %	11 %	40 - 140 %	25%
646-31-1	n-Tetracosane (C ₂₄)	3.3	2.6	77 %	3.3	2.9	87 %	11 %	40 - 140 %	25%
630-01-3	n-Hexacosane (C ₂₆)	3.3	2.5	76 %	3.3	2.8	85 %	11 %	40 - 140 %	25%
630-02-4	n-Octacosane (C ₂₈)	3.3	2.4	73 %	3.3	2.7	80 %	10 %	40 - 140 %	25%
638-68-6	n-Triacontane (C ₃₀)	3.3	2.3	<i>7</i> 1 %	3.3	2.6	78 %	10 %	40 - 140 %	25%
630-06-8	n-Hexatriacontane (C ₃₆)	3.3	2.1	64 %	3.3	2.4	72 %	11 %	40 - 140 %	25%
n/a	n-C19 to n-C36 Group	26	20	77 %	26	23	86 %	11 %	40 - 140 %	25%
91-20-3	Naphthalene	3.3	2.1	62 %	3.3	2.2	68 %	9 %	40 - 140 %	25%
91-57-6	2-Methylnaphthalene	3.3	2.3	68 %	3.3	2.5	<i>7</i> 5 %	9 %	40 - 140 %	25%
208-96-8	Acenaphthylene	3.3	2.4	73 %	3.3	2.6	80 %	9 %	40 - 140 %	25%
83-32-9	Acenaphthene	3.3	2.2	67 %	3.3	2.4	74 %	10 %	40 - 140 %	25%
86-73-7	Fluorene	3.3	2.3	71 %	3.3	2.6	79 %	10 %	40 - 140 %	25%
85-01-8	Phenanthrene	3.3	2.7	82 %	3.3	3.0	92 %	11 %	40 - 140 %	25%
120-12-7	Anthracene	3.3	2.8	85 %	3.3	3.1	94 %	11 %	40 - 140 %	25%
206-44-0	Fluoranthene	3.3	2.7	80 %	3.3	2.9	89 %	10 %	40 - 140 %	25%
129-00-0	Pyrene	3.3	2.5	77 %	3.3	2.8	85 %	10 %	40 - 140 %	25%
56-55-3	Benzo[a]anthracene	3.3	2.4	73 %	3.3	2.7	81 %	9 %	40 - 140 %	25%
218-01-9	Chrysene	3.3	2.5	<i>7</i> 5 %	3.3	2.7	82 %	9 %	40 - 140 %	25%
205-99-2	Benzo[b]fluoranthene	3.3	2.3	69 %	3.3	2.4	74 %	7 %	40 - 140 %	25%
207-08-9	Benzo[k]fluoranthene	3.3	2.3	71 %	3.3	2.6	80 %	13 %	40 - 140 %	25%
50-32-8	Benzo[a]pyrene	3.3	2.2	68 %	3.3	2.5	<i>7</i> 5 %	10 %	40 - 140 %	25%
193-39-5	Indeno[1,2,3-c,d]pyrene	3.3	2.2	65 %	3.3	2.4	72 %	10 %	40 - 140 %	25%
53-70-3	Dibenzo[a,h]anthracene	3.3	2.5	<i>7</i> 5 %	3.3	2.8	84 %	11 %	40 - 140 %	25%
191-24-2	Benzo{g,h,i]perylene	3.3	2.3	68 %	3.3	2.5	76 %	10 %	40 - 140 %	25%
n/a	PAH Group	56	41	72 %	56	45	80 %	10 %	40 - 140 %	25%

QC Surrogate	Compound	Spiked	Measured	Recovery	Spiked	Mossired	Recovery	QC Limits
Fractionation:	2-Fluorobiphenyl	2.7	2.1	78 %	2.7	2.2	81 %	40 - 140 %
	2-Bromonaphthalene	2.7	2.1	78 %	2.7	2.2	81 %	40 - 140 %
Extraction:	Chloro-octadecane	2.7	2.2	81 %	2.7	2.4	89 %	40 - 140 %
	ortho-Terphenyl	2.7	2.0	74 %	2.7	2.2	81 %	40 - 140 %

No. No.		ionation Br	ealdhrough Evalua	(Bon)		QCLImits
91-20-3	Naphthalene	LCS	0 %	LCSD	0 %	5%
91-57-6	2-Methylnaphthalene	LCS	0 %	LCSD	0 %	5%

Method Reference:

Method for the Determination of Extractable Petroleum Hydrocarbons, MA DEP (Revision 1.1, 2004).

Method modified by use of microwave accelerated solvent extraction technique.

Report Notations:

All calculations performed prior to rounding. Quality Control Limits are defined by the methodology, or alternatively based upon the historical average recovery plus or minus three standard deviation units.

The LCS and LCSD are prepared from separate source standards than those used for calibration.



Soil

Quality Control Report **Method Blank**

Category: QC Batch ID: Matrix:

MA DEP EPH EP-2104-M

Instrument ID:

GC-9 Agilent 6890

Extracted: Analyzed (AL): 07-22-05 14:00 07-23-05 01:08

Analyzed (AR):

07-23-05 01:52

Analyst:

MM

ESI Ranges	Concentration Notes	Units	Looks ton
n-C9 to n-C18 Aliphatic Hydrocarbons †	BRL	mg/Kg	30
n-C19 to n-C36 Aliphatic Hydrocarbons †	BRI,	mg/Kg	30
n-C11 to n-C22 Aromatic Hydrocarbons † 0	BRL	mg/Kg	30
Unadjusted n-C11 to n-C22 Aromatic Hydrocarbons †	DDI		

	-C11 to 11-C22 Aromatic Hydrocarbons	BRL	mg/Kg	30
CAS Numbe	Analyte	Concentration Notes		
91-20-3	Naphthalene	BRL	mg/Kg	
91-5 <i>7</i> -6	2-Methylnaphthalene	BRL		0.50
85-01-8	Phenanthrene	BRL	mg/Kg	0.50
83-32-9	Acenaphthene	BRL	mg/Kg	0.50
208-96-8	Acenaphthylene	BRL	mg/Kg	0.50
86-73-7	Fluorene	BRL	mg/Kg	0.50
120-12-7	Anthracene		mg/Kg	0.50
206-44-0	Fluoranthene	BRL	mg/Kg	0.50
129-00-0	Pyrene	BRL	mg/Kg	0.50
56-55-3	Benzo[a]anthracene	BRL	mg/Kg	0.50
218-01-9		BRL	mg/Kg	0.50
205-99-2	Chrysene	BRL_	mg/Kg	0.50
	Benzo[b]fluoranthene	BRL	mg/Kg	0.50
207-08-9	Benzo[k]fluoranthene	BRL	mg/Kg	0.50
50-32-8	Benzo[a]pyrene	BRL	mg/Kg	0.50
193-39-5	Indeno[1,2,3-c,d]pyrene	BRL	mg/Kg	0.50
53-70-3	Dibenzo[a,h]anthracene	BRL	mg/Kg	0.50
191-24-2	Benzo[g,h,i]perylene	BRL	mg/Kg	0.50
			8'''8'	0.50

QC Surrogate G	mpound	Spiked	Measured	*** Kemies ***	ections 4
Fractionation:	2-Fluorobiphenyl	2.7	2.0	75 %	40 - 140 %
L	2-Bromonaphthalene	2.7	2.0	74 %	40 - 140 %
Extraction:	Chloro-octadecane	2.7	2.2	83 %	40 - 140 %
	ortho-Terphenyl	2.7	1.8	68 %	40 - 140 %

Method Reference:

Method for the Determination of Extractable Petroleum Hydrocarbons, MA DEP (Revision 1.1, 2004). Sample extraction performed by microwave accelerated solvent extraction technique.

Report Notations:

- Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be BRL reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- Hydrocarbon range data excludes concentrations of any surrogate(s) and/or internal standards eluting in that range.
- n-C11 to n-C22 Aromatic Hydrocarbons range data excludes the method target analyte concentrations.



Certifications and Approvals

Groundwater Analytical maintains environmental laboratory certification in a variety of states. Copies of our current certificates may be obtained from our website:

http://www.groundwateranalytical.com/qualifications.htm

CONNECTICUT, Department of Health Services, PH-0586

Categories: Potable Water, Wastewater, Solid Waste and Soil

http://www.dph.state.ct.us/BRS/Environmental_Lab/OutStateLabList.htm

FLORIDA, Department of Health, Bureau of Laboratories, E87643

Categories: SDWA, CWA, RCRA/CERCLA http://www.floridadep.org/labs/qa/dohforms.htm

MAINE, Department of Human Services, MA103

Categories: Drinking Water and Wastewater

http://www.state.me.us/dhs/eng/water/Compliance.htm

MASSACHUSETIS, Department of Environmental Protection, M-MA-103

Categories: Potable Water and Non-Potable Water http://www.state.ma.us/dep/bspt/wes/files/certlabs.pdf

NEW HAMPSHIRE, Department of Environmental Services, 202703

Categories: Drinking Water and Wastewater

http://www.des.state.nh.us/asp/NHELAP/labsview.asp

NEW YORK, Department of Health, 11754

Categories: Potable Water, Non-Potable Water and Solid Waste

http://www.wadsworth.org/labcert/elap/comm.html

PENNSYLVANIA, Department of Environmental Protection, 68-665

Environmental Laboratory Registration (Non-drinking water and Non-wastewater) http://www.dep.state.pa.us/Labs/Registered/

RHODE ISLAND, Department of Health, 54

Categories: Surface Water, Air, Wastewater, Potable Water, Sewage http://www.healthri.org/labs/labsCT MA.htm

U.S. Department of Agriculture, Soil Permit, S-53921

Foreign soil import permit

VERMONT, Department of Environmental Conservation, Water Supply Division

Category: Drinking Water

http://www.vermontdrinkingwater.org/wsops/labtable.PDF

GROUNDWATER ANALYTICAL

September 20, 2005

Groundwater Analytical, Inc. P.O. Box 1200 228 Main Street Buzzards Bay, MA 02532

Telephone (508) 759-4441 FAX (508) 759-4475 www.groundwateranalytical.com

Mr. Joe Callahan Environmental Strategies & Management, Inc. 184 West Main Street Norton, MA 02766

LABORATORY REPORT

Project:

DND Lewis Chemical/2004-301

Lab ID-

87113

Received:

09-02-05

Dear loe:

Enclosed are the analytical results for the above referenced project. The project was processed for Standard turnaround.

This letter authorizes the release of the analytical results, and should be considered a part of this report. This report contains a sample receipt report detailing the samples received, a project narrative indicating project changes and non-conformances, a quality control report, and a statement of our state certifications.

The analytical results contained in this report meet all applicable NELAC standards, except as may be specifically noted, or described in the project narrative. This report may only be used or reproduced in its entirety.

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

Should you have any questions concerning this report, please do not hesitate to contact me.

Sincerely,

Eric H. Jensen

Operations Managery

PCE

EHJ/smd Enclosures



Data Certification

Project: Client:		is Chemical/2004-301 ental Strategies & Management, Inc.			b ID: ceived:	87113 09-02-05 18	3:30
		MA DEP Compe	endium of Analytica	l Methods			
Proje	ect Location:	n/a	St	MA	DEP RTN:	n/a	
This	Form provides co	ertifications for the following data se	et:				
	8260B: 8082:	87113-01,-02,-03,-04,-05,-06,-07,- 87113-31 through 66	08,-09,10,11,12,13	3,14,15,16,17,	18,19,20,21,2	2,23,24,25,26,27	7,28
MA !	DEP VPH:	87113-29,30,89					
	DEP EPH:	87113-68,69,70					
	6010B:	87113-31 through 44,47 through 6	52,64,65,66,67,72 t	through 88			
EPA	7470A/1A:	87113-67					
	ole Matrices:	Groundwater () Soil/Sedimer		Vater ()	Other (
	SW-846	8260B (X) 8151	************	3330 ()	6010B (X		
	ods Used	8270C () 8081		VPH (X)	6020 (
	cified in MA DEP endium of Analytical	8082 (X) 8021 1. List Release Tracking Number (RTN), if known		EPH (X)	7000 S ³ () Other	(
Metho		2. SW-846 Method 9012A (Equivalent to 901		ally Available Cvar	nide (PAC) Method		
(check	all that apply)	3. S - SW-846 Methods 7000 Series. List indi-					
	An affirmative re:	sponse to questions A, B, C and D is	required for "Presu	ımptive Certair	nty" status.		
A.		nples received by the laboratory in a				Yes	
B. C.	included in the discuss in a standards or Does the anafor "Presumpt document Control for the Acquiversal Epithemia (VPH and EPIthemia).	alytical data included in this report notive Certainty," as described in Sect AM VII A, Quality Assurance and Q isition and Reporting of Analytical E	equirement to note a appropriate perform meet all the requirer ion 2.0 of the MA Euality Control Guid Data?	and nance ments DEP delines		Yes Yes	
		nodifications, as specified in Section				Yes	
	n response to qui	estions E and F below is required for	Presumptive Certa	ainty" status.			
E.		Eperformance standards and recommethods achieved?	nendations for the			No	
F.	Were results method(s) re	for all analyte-list compounds/elemonted?	ents for the specifie	d		No	
	All No answers a	re addressed in the attached Projec	t Narrative.				
inqu	iry of those res	attest under the pains and penal ponsible for obtaining the inform to the best of my knowledge and	nation, the materia	al contained i	n this	ıl	
		. 1					
Signa	ture:	62//	Position:	Operation	ns Manager		
0				•	J		
D-:	ed Name:	Eric H. Jensen	Date:	02-01-07			



Sample Receipt Report

Project: DND Lewis Chemical/2004-301 Delivery: GWA Courier Temperature: 2.0'C Client: Environmental Strategies & Management, Inc. Airbill: n/a Chain of Custody: Present Lab ID: 87113 Lab Receipt: 09-02-05 Custody Seal(s): n/a

Lab ID	Field ID		Matrix	Sampled	Method			Notes
87113-1	HA09M		Soil	8/30/05 15:10	EPA 8260B Vo	latile Organics	with Oxygenat	es
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	
C612581	40 mt VOA Vial	Proline	BX16340	NaHSO4	R-4159A	05-06-05	n/a	
C662086	40 ml VOA Vial	Proline	BX17874	Methanol	R-4500A	08-26-05	n/a	
C617154	40 mL VOA Vial	Proline	BX17682	NaHSO4	R-4305A	08-24-05	rva	
C617153	40 mL VOA Vial	Profine	BX17682	NaH5O4	R-4305A	08-24-05	rVa	
Lab ID	Field ID		Matrix	Sampled	Method	-		Notes
-	IIA09D		Soil			latile Organics	with Oxygenat	
87113-2		75 -5		Annual Control of the	QC Lot	Prep	Ship	CS .
Con ID	Container	Vendor	QC Lot	Preserv			n/a	
C653333	40 mL VOA Vial	Proline	BX17326	NaHSO4	R-4159A	08-03-05	r/a	
C653330	40 mL VOA Vial	Proline	BX17326	NaHSO4	R-4159A	08-03-05		
C653303	40 mL VOA Vial	Proline	BX17326	NaHSO4	R-4159A	08-03-05	n/a	196
C651775	40 mL VOA Vial	Proline	BX17529	Methanol	R-4499AD	08-10-05	rv/a	
tab (D	Field ID	+	Matrix	Sampled	Method	40 1		Notes
87113-3	IIA11M		Soil	8/30/05 14:15	EPA 8260B Vo	latile Organics	with Oxygenal	es
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	
C651790	40 mL VOA Vial	Proline	BX17529	Methanol	R-4499AD	08-10-05	rVa	
C662085	40 mL VOA Vial	Proline	BX17867	NaHSO4	R-4305A	08-24-05	n/a	
C662084	40 mL VOA Vial	Proline	BX17867	NaHSO4	R-4305A	08-24-05	n/a	
C662083	40 mL VOA Vial	Proline	BX17867	NaHSO4	R-4305A	08-24-05	r/a	
	L							[mlastics
Lab ID	Field ID		Matrix	Sampled	Method			Nofes
87113-4	IIA11M2		Soil	8/30/05 14:30	EPA 8260B Vo	olatile Organics	with Oxygenat	res
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	5hip	
C519475	40 mL VOA Vial	Proline	BX17315	NaHSO4	R-4159A	08-01-05	n/a	
C519467	40 ml, VOA Vial	Proline	BX17315	NaHSO4	R-4159A	08-01-05	n/a	The state of the s
C519446	40 mL VOA Vial	Proline	BX17315	NaHSO4	R-4159A	08-01-05	rva	
C651802	40 mL VOA Vial	Proline	BX17529	Methano!	R-4499AD	08-10-05	n/a	418-41
-			1 30070	The state of				Notes
tab ID	Field ID		Matrix	Sampled	Method		W. 85	
87113-5	HAMD		Sail				with Daygena	105
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	
C653334	40 mt VOA Vial	Proline	BX17326	NaH5O4	R-4159A	08-03-05	n/a	
C653316	40 mt VOA Vial	Proline	BX17326	NaHSO4	R-4159A	08-03-05	n/a	
C653315	40 mt VOA Vial	Proline	BX17326	NaH5O4	R-4159A	08-03-05	n/a	
C681937	250 mt Class	Proline	BX17844	None	n/a	nfa	08-26-05	100000
	40 mL VOA Vial	Proline	BX17529	Methanol	R-4499AD	08-10-05	n/a	
C651820	- 1176		Matrix	Sampled	Method	100		Notes
	F1614 117	-14-0-0	Soil		The second second	olatile Organic	s with Oxygena	tes
Lab ID	Field ID		2011	3,30,03 3.23		Prep	Ship	
Lab 1D 87113-6	IA03M	Vandos	OCTAL	Preceru	Of Lot			
Lab ID 87113-6 Con ID	IAD3M Container	Vendor	QC Lot	Preserv NaHSO4	QC Lot R-4159A		n/a	
Lab 1D 87113-6 Con 1D C653319	Container 40 mL VOA Vial	Proline	BX17326	NaHSO4	R-4159A	08-03-05		
Lab ID 87113-6 Con ID	IAD3M Container		A STATE OF THE PERSON NAMED IN	The second secon	The second secon		n/a n/a n/a	



Project: DND Lewis Chemical/2004-301

Delivery: GWA Courier

Client: Environmental Strategies & Management, Inc. Airbill: n/a

Temperature: 2.0'C Chain of Custody: Present

Lab ID: 87113

Lab Receipt: 09-02-05

Custody Seal(s): n/a

Lab ID	Field ID		Matrix	Sampled	Method			Notes	
87113-7	IB055		Soil	8/30/05 10:20	EPA 8250B Vo	olatile Organics	with Oxygenates		
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship		
C519490	40 mL VOA Vial	Proline	BX17315	NaHSO4	R-4159A	08-01-05	n/a		
C519480	40 mL VOA Vial	Proline	BX17315	NaHSO4	R-4159A	08-01-05	n/a		
C519476	40 mL VOA Vial	Proline	BX17315	NaHSO4	R-4159A	05-01-05	n/a		
C651774	40 mt VOA Vial	Proline	BX17529	Methanol	R-4499AD	08-10-05	n/a		

Lab ID	Field ID		Matrix	Sampled	Method	10		Notes
87113-8	IB05D		Soil	8/30/05 11:00	EPA 8260B Vo	olatile Organics	with Oxygenates	
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	
C519474	40 mL VOA Vial	Proline	BX17315	NaH5O4	R-4159A	08-01-05	n/a	
C519463	40 mL VOA Vial	Proline	BX17315	NaH5O4	R-4159A	08-01-05	n/a	
C519457	40 ml VOA Vial.	Proline	BX17315	NaHSO4	R-4159A	08-01-05	n/a	
C651806	40 mL VOA Vial	Profine	BX17529	Methanol	R-4499AD	08-10-05	n/a	

Lab ID	Field ID		Matrix	Sampled	Method		to the same	Notes
87113-9	DUP1		Soll	8/30/05 10:55	EPA 82608 Vo	latile Organics	with Oxygenates	
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	
C653297	40 mL VOA Viai	Proline	BX17326	NaH5O4	R-4159A	08-03-05	n/a	
C653289	40 mL VOA Vial	Proline	BX17326	NaHSO4	R-4159A	08-03-05	n/a	
C617197	40 mL VOA Vial	Proline	BX17682	NaHSO4	R-4305A	08-24-05	n/a	
C651795	40 mL VOA Vial	Proline	BX17529	Methanol	R-4499AD	08-10-05	n/a	

Lab ID	Field ID	Field ID Matrix Sampled Method					Notes	
87113-10	1808M		5oil	8/30/05 11:30	EPA 8260B V	olatile Organics	with Oxygenates	
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	
C673996	40 mt VOA Vial	Proline	BX16560	NaHSO4	R-4159A	05-24-05	n/a	
C519477	40 mL VOA Vial	Proline	BX17315	NaHSO4	R-4159A	08-01-05	n/a	
C653306	40 mL VOA Vial	Proline	BX17326	NaH5O4	R-4159A	08-03-05	n/a	
C651788	40 mt VOA Viai	Proline	BX17529	Methanot	R-4499AD	08-10-05	n/a	

Lab ID	Field ID		Matrix	Sampled	Method			Notes
87113-11	ESM16	4)-	2011	8/21/05 13:30	ETA BANDE VI	name Organics	with Cxygenaids	
Con ID	Container	Vendor	QC Lat	Preserv	QC Lot	Prep	Ship	
C519471	40 mt VOA Vial	Proline	BX17315	NaHSO4	R-4159A	08-01-05	n/a	
C519468	40 mL VOA Via	Proline	BX17315	Nart5O4	R-4159A	08-01-05	n/a	
C651819	40 mL VOA Vial	Proline	BX17529	Methanoi	R-4499AD	08-10-05	n/a	

Lab ID	Field ID	Field ID		Sampled	Method				Notes
67113-12	IIIC02M		Soil	8/31/05 10:40	EPA 82608 V	olatile Organic	s with Oxygen	latels	
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship		
C612206	40 mL VOA Vial	Proline	BX16331	NaH5O4	R-4159A	05-06-05	n/a		1
C612198	40 mL VOA Vial	Proline	BX16331	NaH5O4	R-4159A	05-06-05	n/a		
C612192	40 mL VOA Vial	Proline	BX16331	NaHSO4	R-4159A	05-06-05	n/a		
C66214B	40 mL VOA Vial	Proline	BX17874	Methanol	R-4500A	08-26-05	08-26-05		A L



Project: DND Lewis Chemical/2004-301

Delivery: GWA Courier

Environmental Strategies & Management, Inc. Airbill: n/a

Temperature: 2.0¹C Chain of Custody: Present

Lab ID: 87113

Lab Receipt: 09-02-05

Custody Seal(s): n/a	
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	87113								
Lab ID	Field ID	1	Matrix	Sampled	Method			Notes	
67113-13	ESMB2	(05)	Soil	8/31/05 14:30	EPA 8260B Vo	latile Organics	with Oxygenates		
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship		
C519486	40 mL VOA Vial	Proline	BX17315	NaH5O4	R-4159A	08-01-05	n/a		
COMPANY OF THE PARK T	40 mt VOA Vial	Proline	BX17315	NaHSO4	R-4159A	08-01-05	n/a		
C519470	The state of the s	Proline	BX17315	NaHSO4	R-4159A	08-01-05	n/a		
C519444	40 mL VOA Vial		-	Methanol	R-4499AD	08-10-05	t/a		
C651798	40 mt VOA Vial	Proline	BX17529	Pyletiletty	K-4432/10	00 10 03	100		
Lab ID	Field ID		Matrix	Sampled	Method			Notes	
87113-14	IIIE02M		Sail	8/31/05 9:45	EPA 82608 Vo	latile Organics	with Oxygenates		
Con ID	Container	Vendor	Q€ Lot	Preserv	QC Lot	Ртер	Ship		
C653354	40 mL VOA Vial	Proline	BX17326	NaHSO4	R-4159A	08-03-05	n/a		
C653346	40 mt. VOA Vial	Proline	8X17326	NaHSO4	R-4159A	08-03-05	n/a		
+ +-	40 mL VOA Vial	Proline	BX17326	NaHSO4	R-4159A	08-03-05	r/a		7
C653338		Proline	BX17529	Methanol	R-4499AD	08-10-05	n/a		
C651810	40 mL VOA Vial	Profine	BYINDER	PARTITION (Towns and I	-10.00	18.90		_
Lab 1D	Field ID	1775	Matrix	Sampled	Method		la operation	Notes	
87113-15	IIADIS		Soil	8/31/05 10:40	EPA 8260B Vo	latile Organics	with Oxygenates		
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship		-
C653358	40 mL VQA VIal	Proline	BX17326	NaHSO4	R-4159A	08-03-05	n/a		
C653331	40 mL VOA Vial	Proline	BX17326	NaHSO4	R-4159A	08-03-05	n/a		
C653302	40 mL VQA Vial	Proline	BX17326	NaHSO4	R-4159A	08-03-05	n/a		
C651839	40 mL VQA Vial	Proline	BX17529	Methanol	R-4499AD	08-10-05	n/a	1	
				e. status	T destablish	-	Se 200 TO	Notes	
Lab ID	Field ID		Matrix	Sampled	Method	1.00	14 O		
THE RESERVE OF THE PARTY OF THE	HADIM		Soll	8/31/05 10:50	EPA 82608 V	platile Organics	with Oxygenates		
87113-16	10.00114	-				0			
87113-16 Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship		
and in sect of 1 (and to	Annual Contract of the Contrac	Vendor Proline	BX17326	NaHSO4	R-4159A	08-03-05	n/a		
Con ID	Container		BX17326 BX17326	NaHSO4 NaHSO4	R-4159A R-4159A	08-03-05 08-03-05	r/a n/a		
Con ID C653329	Container 40 mL VOA Vial	Proline	BX17326 BX17326 BX17326	NaHSO4 NaHSO4 NaHSO4	R-4159A R-4159A R-4159A	08-03-05 08-03-05 08-03-05	n/a n/a n/a		-
Con ID C653329 C653323	Container 40 mL VOA Vial 40 mL VOA Vial	Proline Proline	BX17326 BX17326	NaHSO4 NaHSO4	R-4159A R-4159A	08-03-05 08-03-05	r/a n/a		
Coo ID C653329 C653323 C651308 C651832	Container 40 mL VOA Vial 40 mL VOA Vial 40 mL VOA Vial 40 mL VOA Vial	Proline Proline Proline	BX17326 BX17326 BX17326 BX17529	NaHSO4 NaHSO4 NaHSO4 Methanol	R-4159A R-4159A R-4159A	08-03-05 08-03-05 08-03-05	n/a n/a n/a	Nates	
Con ID C653329 C653323 C653308 C651832	Container 40 mt VOA Vial	Proline Proline Proline	BX17326 BX17326 BX17326 BX17529	NaHSO4 NaHSO4 NaHSO4 Methanol	R-4159A R-4159A R-4159A R-4499AD	08-03-05 08-03-05 08-03-05 08-10-05	n/a n/a n/a n/a	Nates	
Coo ID C653329 C653323 C651308 C651832 Lao ID 87113-17	Container 40 mt VOA Vial Freic (2)	Proline Proline Proline Proline	BX17326 BX17326 BX17326 BX17529	NaHSO4 NaHSO4 NaHSO4 Methanol Excepted 8(31/05 11:00	R-4159A R-4159A R-4159A R-4499AD	08-03-05 08-03-05 08-03-05 08-10-05	n/a n/a n/a	Nates	
Con ID C653329 C653323 C651308 C651832 Lab ID 87113-17 Con ID	Container 40 mt VOA Vial 1001D Container	Proline Proline Proline Proline Vendor	BX17326 BX17326 BX17326 BX17529 Soil QC Lot	NaHSO4 NaHSO4 NaHSO4 Methanol Explicit 8/31/05 11:00 Preserv	R-4159A R-4159A R-4159A R-4499AD ***********************************	08-03-05 08-03-05 08-03-05 06-10-05 Diatile Organics Prep	n/a n/a n/a n/a n/a with Oxygenates	Notes	
Con ID C653329 C653323 C651308 C651832 La0 ID 87113-17 Con ID C653328	Container 40 mt VOA Vial 40 mt VOA Vial 40 mt VOA Vial 40 mt VOA Vial 10 mt VOA Vial Container 40 mt VOA Vial	Proline Proline Proline Proline Proline Vendor Proline	8X17326 8X17326 8X17326 8X17326 8X17529 Value Soil QC Lot 8X17326	NaHSO4 NaHSO4 NaHSO4 Methanol E===164 8/31/05 11:00 Preserv NaHSO4	R-4159A R-4159A R-4159A R-4499AD EPA 82608 V QC Lot R-4159A	08-03-05 08-03-05 08-03-05 06-10-05 Diatile Organics Prep 08-03-05	n/a n/a n/a n/a n/a with Oxygenates Ship	Notes	
Con ID C653329 C653323 C653308 C651832 Lab ID 87113-17 Con ID C653328 C653327	Container 40 mt VOA Vial 10 mt VOA Vial Container 40 mt VOA Vial 40 mt VOA Vial	Proline Proline Proline Proline Proline Vendor Proline Proline	8X17326 8X17326 8X17326 8X17326 8X17529 ************************************	NaHSO4 NaHSO4 NaHSO4 Methanol E===16.4 8/31/05 11:00 Preserv NaHSO4 NaHSO4	R-4159A R-4159A R-4159A R-4159A R-4499AD EPA 82608 V QC Lot R-4159A R-4159A	08-03-05 08-03-05 08-03-05 08-10-05 ofatlie Organics Prep 08-03-05	n/a n/a n/a n/a n/a n/a rva with Oxygenates Ship rva n/a	Notes	
Coo ID C653329 C653323 C653308 C651832 Lab ID 87113-17 Con ID C653328 C653327 C653326	Container 40 mt VOA Vial Freic 152 Container 40 mt VOA Vial 40 mt VOA Vial 40 mt VOA Vial	Proline Proline Proline Proline Proline Proline Proline Proline Proline	8X17326 8X17326 8X17326 8X17326 8X17529 ************************************	NaHSO4 NaHSO4 NaHSO4 Methanol EThd 8/31/05 11:00 Preserv NaHSO4 NaHSO4 NaHSO4	R-4159A R-4159A R-4159A R-4159A R-4499AD EPA 82608 V QC Lot R-4159A R-4159A	08-03-05 08-03-05 08-03-05 08-10-05 Ofatile Organics Prep 08-03-05 08-03-05	n/a n/a n/a n/a n/a n/a rv/a with Oxygenates Ship rv/a n/a n/a n/a	Notes	
Con ID C653329 C653323 C653308 C651832 La0 ID 87113-17 Con ID C653328 C653327	Container 40 mt VOA Vial 10 mt VOA Vial Container 40 mt VOA Vial 40 mt VOA Vial	Proline Proline Proline Proline Proline Vendor Proline Proline	8X17326 8X17326 8X17326 8X17326 8X17529 ************************************	NaHSO4 NaHSO4 NaHSO4 Methanol E===16.4 8/31/05 11:00 Preserv NaHSO4 NaHSO4	R-4159A R-4159A R-4159A R-4159A R-4499AD EPA 82608 V QC Lot R-4159A R-4159A	08-03-05 08-03-05 08-03-05 08-10-05 ofatlie Organics Prep 08-03-05	n/a n/a n/a n/a n/a n/a rva with Oxygenates Ship rva n/a	Notes	
Coo ID C653329 C653323 C653308 C651832 Lab ID 87113-17 Con ID C653328 C653327 C653326	Container 40 mt VOA Vial Freic 152 Container 40 mt VOA Vial 40 mt VOA Vial 40 mt VOA Vial	Proline Proline Proline Proline Proline Proline Proline Proline Proline	8X17326 8X17326 8X17326 8X17326 8X17529 ************************************	NaHSO4 NaHSO4 NaHSO4 Methanol EThd 8/31/05 11:00 Preserv NaHSO4 NaHSO4 NaHSO4	R-4159A R-4159A R-4159A R-4159A R-4159A EPA 82608 V QC Lot R-4159A R-4159A R-4159A R-4499AD	08-03-05 08-03-05 08-03-05 06-10-05 of-10-05 of-10-05 of-10-05 08-03-05 08-03-05 08-03-05	n/a n/a n/a n/a n/a n/a with Oxygenates Ship n/a n/a n/a n/a n/a n/a	Notes Notes	
Con ID C653329 C653323 C653308 C653832 Lao IIJ S7113-17 Con IIJ C653326 C653327 C653326 C653826 C653826	Container 40 mt VOA Vial 40 mt VOA Vial 40 mt VOA Vial 40 mt VOA Vial 10 mt VOA Vial Container 40 mt VOA Vial 40 mt VOA Vial 40 mt VOA Vial 40 mt VOA Vial Field ID	Proline Proline Proline Proline Proline Proline Proline Proline Proline	8X17326 8X17326 8X17326 8X17529 *Latria Soil QC Lot 8X17326 8X17326 8X17326 8X17529	NaHSO4 NaHSO4 NaHSO4 Methanol Early 105 8/31/05 11:00 Preserv NaHSO4 NaHSO4 NaHSO4 Methanol	R-4159A R-4159A R-4159A R-4159A R-4159A EPA 82608 V QC Lot R-4159A R-4159A R-4159A R-4499AD	08-03-05 08-03-05 08-03-05 06-10-05 Prep 08-03-05 08-03-05 08-03-05 08-10-05	n/a n/a n/a n/a n/a n/a with Oxygenates Ship n/a n/a n/a n/a n/a swith Oxygenates		
Con ID C653329 C653323 C653308 C653308 C651832 Lao IIJ S7113-17 Con ID C653326 C653327 C653326 C653804 Lab ID B7113-18	Container 40 mt VOA Vial Freio is IIAO1D Container 40 mt VOA Vial 40 mt VOA Vial 40 mt VOA Vial 40 mt VOA Vial Freid ID IIAO3S	Proline Proline Proline Proline Proline Proline Proline Proline Proline	BX17326 BX17326 BX17326 BX17529 Tunin Soil QC Lot BX17326 BX17326 BX17326 BX17529	NaHSO4 NaHSO4 NaHSO4 Methanol Earriba 8/31/05 11:00 Preserv NaHSO4 NaHSO4 NaHSO4 Methanol	R-4159A R-4159A R-4159A R-4159A R-4159A EPA 82608 V QC Lot R-4159A R-4159A R-4159A R-4499AD	08-03-05 08-03-05 08-03-05 06-10-05 Prep 08-03-05 08-03-05 08-03-05 08-03-05 08-10-05	n/a n/a n/a n/a n/a n/a with Oxygenates Ship n/a n/a n/a n/a n/a swith Oxygenates		
Con ID C653329 C653323 C653308 C653308 C651832 Lao IIJ S7113-17 Con ID C653326 C653327 C653326 C653804 Lab ID B7113-18 Con ID	Container 40 mt VOA Vial Frescope IIAO1D Container 40 mt VOA Vial 40 mt VOA Vial 40 mt VOA Vial Freld ID IIAO35 Container	Proline Proline Proline Proline Proline Proline Proline Proline Proline	8X17326 8X17326 8X17326 8X17326 8X17529 **Latrial QC Lot 8X17326 8X17326 8X17326 8X17326 8X17529 Matrix Soil	NaHSO4 NaHSO4 NaHSO4 Methanol Earging 8/31/05 11:00 Preserv NaHSO4 NaHSO4 NaHSO4 Methanol Sampled 8/31/05 9:40 Preserv	R-4159A R-4159A R-4159A R-4159A R-4499AD EPA 82608 V QC Lot R-4159A R-4159A R-4159A R-4159A R-4159A R-4159A R-4159A	08-03-05 08-03-05 08-03-05 08-10-05 Diatile Organics Prep 08-03-05 08-03-05 08-03-05 08-10-05 Olatile Organics Prep 08-01-05	n/a n/a n/a n/a n/a n/a with Oxygenates Ship n/a n/a n/a swith Oxygenates		
Con ID C653329 C653323 C653308 C653308 C651832 Lap IID S7113-17 Con ID C653327 C653326 C653826 C651804 Lab ID B7113-18 Con ID C519436	Container 40 mt VOA Vial Frenchs IJAOND Container 40 mt VOA Vial 40 mt VOA Vial 40 mt VOA Vial Freld ID IJAONS Container 40 mt VOA Vial Freld ID IJAONS Container 40 mt VOA Vial	Proline Proline Proline Proline Proline Vendor Proline Proline Proline Proline	BX17326 BX17326 BX17326 BX17529 Soil QC Lot BX17326 BX17326 BX17326 BX17326 BX17326 CD Lot BX17326	NaHSO4 NaHSO4 NaHSO4 Methanol Eargiled 8/31/05 11:00 Preserv NaHSO4 NaHSO4 NaHSO4 Methanol Sampled 8/31/05 9:40 Preserv NaHSO4	R-4159A R-4159A R-4159A R-4159A R-4499AD EPA 82608 V QC Lot R-4159A R-4159A R-4159A R-4499AD Method EPA 82608 V QC Lot	08-03-05 08-03-05 08-03-05 08-10-05 Diatile Organics Prep 08-03-05 08-03-05 08-03-05 08-10-05 Olattile Organics Prep 08-03-05	n/a n/a n/a n/a n/a n/a with Oxygenates Ship n/a		
Con ID C653329 C653323 C653308 C653308 C651832 Lao IIJ S7113-17 Con ID C653326 C653327 C653326 C653804 Lab ID B7113-18 Con ID	Container 40 mt VOA Vial 10 mt VOA Vial 40 mt VOA Vial 40 mt VOA Vial 40 mt VOA Vial 40 mt VOA Vial Field ID IIA035 Container 40 mt VOA Vial 40 mt VOA Vial VOA Vial Field ID IIA035	Proline	BX17326 BX17326 BX17326 BX17529 Soil QC Lot BX17326 BX17326 BX17326 BX17326 BX17326 BX17326 BX17326	NaHSO4 NaHSO4 NaHSO4 Methanol Eargled 8/31/05 11:00 Preserv NaHSO4 NaHSO4 Methanol Sampled 8/31/05 9:40 Preserv NaHSO4 NaHSO4 NaHSO4 NaHSO4 NaHSO4	R-4159A R-4159A R-4159A R-4159A R-4159A EPA 82608 V QC Lot R-4159A R-4159A R-4159A R-4159A R-4159A R-4159A	08-03-05 08-03-05 08-03-05 08-10-05 Diatile Organics Prep 08-03-05 08-03-05 08-03-05 08-10-05 Olatile Organics Prep 08-01-05	n/a n/a n/a n/a n/a n/a with Oxygenates Ship n/a n/a n/a swith Oxygenates		



Project: DND Lewis Chemical/2004-301

Delivery: GWA Courier

Environmental Strategies & Management, Inc.

Airbill: n/a

Temperature: 2.0'C Chain of Custody: Present

Lab ID: 87113

Lab Receipt: 09-02-05

Custody Seal(s): n/a

Lab	ID	Field ID	-	Matrix	Sampled	Method	41.		Notes
8711	-	IIA03M		Soft	8/31/05 9:50	EPA 82608 Vo	lattle Organics	with Oxygenates	
Con		Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	The second second
C519		40 mt VOA Vial	Proline	BX17315	NaHSO4	R-4159A	08-01-05	n/a	
C519	-	40 mt VOA Vial	Proline	8X17315	NaHSQ4	R-4159A	08-01-05	n/a	
C519	300	40 mL VOA Viai	Proline	BX17315	NaHSO4	R-4159A	08-01-05	n/a	
C651	2002.20.4	40 ml. VOA Vial	Proline	BX17529	Methanol	R-4499AD	08-10-05	n/a	
Lab	ID	Field ID		Matrix	Sampled	Method	25-25		Notes
B711	-	IIAB3D		Soil	8/31/05 10:00	EPA 8260B Vo	latile Organics	with Oxygenates	
Con	-	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	
C653	-	40 mL VOA Vial	Proline	BX17326	NaHSO4	R-4159A	08-03-05	n/a	
C653	-	40 mt VOA Vial	Proline	BX17326	NaHSO4	R-4159A	08-03-05	n/a	
C653	- me - H	40 mL VOA Vial	Proline	BX17326	NaHSO4	R-4159A	08-03-05	n/a	
C651	met 1986 5 5 5 5 6	40 ml. VOA Vial	Proline	BX17529	Methanol	R-4499AD	08-10-05	n/a	
C031	1023	AC DIL VON TIE	/ tolline	2000					
Lab	ID	Field ID		Matrix	Sampled	Method	W. 5.	13.00	Notes
8711	3-21	DUP3							
Con	(ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	
C562	100	40 mL VOA Viai	Proline	BX17874	Methanol	R-4500A	08-26-05	n/a	
Section Section 1	7152	40 mt VOA Vial	Proline	BX17682	NaHSO4	R-4305A	08-24-05	n/a	
	7151	40 mL VOA Vial	Proline	BX17682	NaHSO4	R-4305A	08-24-05	n/a	
-	7150	40 mL VOA Vial	Proline	BX17682	NaHSO4	R-4305A	08-24-05	n/a	
المياز	ID	Field ID	-	Matrix	Sampled	-Method	A SECTION	W. 1	Notes
-	13-22	IIA05D		Soil	8/31/05 9:00	The second second	olatile Organics	with Oxygenates	
Con		Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	
person in the	3331	40 mL VOA Vial	Proline	BX17326	NaH5O4	R-4159A	08-03-05	n/a	
participation of	3305	40 mL VOA Vial	Proline	BX17326	NaHSO4	R-4159A	08-03-05	n/a	
Jan 1994-0	3291	40 mL VOA Vial	Proline	BX17326	NaHSO4	R-4159A	08-03-05	n/a	
percentage of the last	1296	40 mL VOA Vial	Proline	BX17529	Methanol	R-4499AD	08-10-05	n/a	
1.00	11367	The time of the state of	1,3000	+					15.7725
Lab	UI	11010-02		Yamira	Sampled	Chattered			Notes
	13-23	HA07D		Soil	8/31/05 8:25	EPA 82608 V	platile Organic	with Oxygenates	
1	n iD	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	
5-1-1	3314	40 mt VGA Vial	Pasiline	HX17126	NaHSO4	R-4159A	08-03-05	n/a	
1	3311	40 mL VOA Vial	Proline	BX17326	NaHSO4	R-4159A	08-03-05	rva	
No.	3310	40 mL VOA Vial	Proline	BX17326	NaHSO4	R-4159A	08-03-05	n/a	
1000	1854	250 mL Glass	Proline	8X17847	None	rva	n/a	08-26-05	
100	1837	40 mL VOA Vial	Proline	BX17529	Methanol	R-4499AD	08-10-05	n/a	+10011
Lat	bID	Field ID	~ / ~	Matrix	Sampled	Method			Notes
-	13-24	ESMIS (17	1509 35	Soil	8/31/05 11:45	EPA 82608 V	olatile Organic	s with Oxygenates	
-	n ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	
3 445	9499	40 mL VOA Vial	Proline	BX17315	NaH504	R-4159A	08-01-05	n/a	
-	9449	40 mt VOA Vial	Proline	BX17315	The second secon	R-4159A	06-01-05	n/a	
See of 1		40 mL VOA Vial	Proline	BX17315	0.00	R-4159A	08-01-05	n/a	
C51	9443								



Project: DND Lewis Chemical/2004-301

Delivery: GWA Courier

Temperature: 2.0'C

Client:

Environmental Strategies & Management, Inc. Airbill: n/a

Chain of Custody: Present

Lab ID: 87113

Lab Receipt: 09-02-05

Custody Seal(s): n/a

Lab ID	Field ID	N	Matrix	Sampled	Method			Notes	from in
37113-25	ESM15 /10	15)	Soil	8/31/05 11:50	EPA 8260B V	olatile Organics	with Oxygenates	1	- 2
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship		1
C653335	40 mt VOA Vial	Proline	BX17326	NaHSO4	R-4159A	08-03-05	n/a	. 4	2/2
C653304	40 mL VOA Vial	Proline	BX17326	NaHSO4	R-4159A	08-03-05	n/a		1
C653298	40 mL VOA Vial	Proline	BX17326	NaHSO4	R-4159A	08-03-05	n/a	- 1	- /
C651841	40 mt VOA Vial	Proline	BX17529	Methanol	R-4499AD	08-10-05	n/a		
000,14,1	10 100 1 972 1 700 1								
Lab ID	Field ID		Matrix	Sampled	Method			Notes	
37113-26	IIIF035		Soil	9/1/05 8:50	EPA 8260B V	olatile Organics	with Oxygenates		
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship		
C632888	40 mL VOA Vial	Proline	BX16322	Methanol	R-4361T	04-27-05	n/a		
C612232	40 mL VOA Vial	Proline	BX16331	NaHSO4	R-4159A	05-06-05	n/a		
C612214	40 mt VOA Vial	Proline	8X16331	NaHSO4	R-4159A	05-06-05	n/a		
C612210	40 mL VOA Vial	Proline	BX16331	NaH5O4	R-4159A	05-06-05	n/a		-1
	TRA 1200-15-4	10-410-49-1						the Edition	
Lab ID	Field ID		Matrix	Sampled	Method	19454		Notes	11.
67113-27	IIIFO3M		Soil	9/1/05 9:00	EPA 8260B V	olatile Organics	with Oxygenates		
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship		
C632941	40 mt VOA Vial	Proline	BX16322	Methanol	R-4361T	04-27-05	n/a		
C612238	40 mL VOA Viai	Proline	BX16331	NaHSO4	R-4159A	05-06-05	n/a		
C612213	40 ml VOA Vial	Proline	BX16331	NaHSO4	R-4159A	05-06-05	n/a		-
C61218Z	40 mL VOA Vial	Proline	BX16331	NaH5O4	R-4159A	05-06-05	n/a		
CDIZIOZ	40 lift von viai	Tromic						15	
tab ID	Field ID		Matrix	Sampled	Method	11 4 4	3 41	Notes	
	IIIF03D		Soil	9/1/05 9:10	EPA 8260B V	olatile Organics	with Oxygenates		
87113-28	The second second	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship		
Con ID	Container 40 mt VOA Vial	Proline	BX16322	Methanol	R-4361T	04-27-05	n/a		
C632884	40 mL VOA VIAI	Proline	BX16331	NaHSO4	R-4159A	05-06-05	ri/a		
C612237 C612190	40 mL VOA Vial	Proline	BX16331	NaHSO4	R-4159A	05-06-05	n/a		
C612188	40 mL VOA Vial	Proline	BX16331	NaHSO4	R-4159A	05-06-05	n/a		
C612100	quitte very viai	1 dientie	1					- margina	***
142	F-1170		Matriy	Sampled	Method			Notes	
87113-29	MEDAI		Soil	8/30/05 9:25	MA DEP VP	with Targets			
All the Street	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship		
Con ID	40 rol VQA Vial	Proline	BX17874	Methanol	R-4500A	08-26-05	08-26-05		
Classina	ad the A Con A thi	T. H. G. L.							
Lab ID	Field ID		Matrix	Sampled	Method	1.1	4.0	Notes	
87113-30			Soil	8/30/05 11:00	MA DEP VP	I with Targets			
Company Company	Container	Vendor	QC Lot	Preserv	QC Lat	Prep	Ship		
Con ID	40 mL VOA Vial	Proline	BX17874	Methanol	R-4500A	08-26-05	08-25-05		
C662128	TO THE VON VIAI	1 Troning	3,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		1			- Indian	
Lab ID	Field ID		Matrix	Sampled	Method			Notes	
-/	IAO35		5oil	8/30/05 9:20	EPA 60108	Pb Total			
87113-37	10033		291		EPA 8082 PC				
-		1	001	2		Prep	Ship		
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	n/a	08-26-05		
C681861	250 ml Class	Proline	BX17848	None	īva	140	1, 22, 37, 38, 31		
	Field ID		Matrix	Sampled	Method			Notes	
Lab 1D				8/30/05 9:25	1000	Ph Total			
1 87113-32	IA03M Soi			uraurus 9:23	EPA 8082 P				
		Col a reason					Ship		
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep rva	08-26-05		100
C681858	250 ml. Glass	Proline	BX17848	None	n/a	IVA	00.10.03		

GROUNDWATER ANALYTICAL

Con ID

C581932

Lab ID

87113-41

Con ID

C681935

Container

250 mL Glass

Field ID

Container

250 mL Glass

IIA09M

Vendor

Proline

Vendor

Proline

QC Lot

9X17844

Matrix

Soil

QC Lot

BX17844

Preserv

None

Sampled

Preserv

None

Sample Receipt Report (Continued)

ab ID:	87113	Structure	ca manage	ement, Inc. La	Airbill: b Receipt:			in of Custody: Present ustody Seal(s): n/a
Lab ID	Field ID		Matrix	Sampled	Method			Notes
7113-13	IAO3D		Soil	8/30/05 9:30	EPA 6010B Pb Total EPA 8082 PC85			
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	
681859	250 mL Glass	Proline	BX17848	None	n/a	n/a	08-26-05	
ab ID	Field ID	-	Matrix	Sampled	Method		Notes	
113-34	18055		Soil	8/30/05 10:20	EPA 6010B PE	Total		
			1.400		EPA 8082 PCB			
on ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	
681862	250 mL Glass	Proline	BX17848	None	n/a	n/a	08-26-05	
ab ID	Field ID	******	Matrix	Sampled	Method		L BOOK YER Y'S	Notes
1113-35	IB05M		Soil	8/30/05 10:50	EPA 6010B PE			
on ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	
681660	250 mL Glass	Proline	BX17848	None	n/a	rva	08-26-05	
ab ID	ID Field ID		Matrix	Sampled	Method		1 2 7 4 7 5	Notes
113-36	1805D		Soil	8/30/05 11:00	EPA 6010B PI			
on ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	
681863	250 ml. Glass	Proline	BX17848	None	n/a	n/a	08-26-05	
ab ID	Field ID		Matrix	Sampled	Method	1	- Dec 10	- Notes
1113-37	18085		Soil	-	EPA 6010B PI EPA 8082 PCB			13.55
on ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	
681866	250 mL Glass	Proline	BX17848	None	n/a	n/a	08-26-05	
ab ID	Field ID		Matrix	Sampled	Method		91	Notes
17.5-30	(BUB/n		Juli	0/36/60 +12/6	EPA 8082 PC8			
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	prep	Ship	
681665	250 mil Glass	Proline.	BX17848	Nane	ก/ส	n/a	08-26-05	
lab ID	Field ID		Matrix	Sampled	Method	7.	716.61	Notes
113-39								
	2000				FFA 8082 PCB5			
Con ID	Container	Vendor	QC Lat	Preserv	V QC Lot Prep Ship			
681856	250 mt. Glass	Proline	BX17848	None	n/a	n/a	08-26-05	
ab ID	Field ID		Matrix	Sampled	Method			Notes
AU IL		***	Soil		EPA 6010B P	h Total	-	
113-40	1147305							

SPA BOBZ PCBs

QC Lot

n/a

Method

EPA 8082 PCBs

QC Lot

n/a

8/30/05 15:10 EPA 60108 Pb Total

5hip

08-26-05

Ship 08-26-05 Notes

n/a

Prep



Project: DND Lewis Chemical/2004-301

Delivery: GWA Courier

Environmental Strategies & Management, Inc. Airbill: n/a

Temperature: 2.0'C Chain of Custody: Present

Lab ID: 87113

Lab Receipt: 09-02-05

Custody Seal(s): n/a

Lab ID	Field ID		Matrix	Sampled	Method				Notes
7113-42	HA09D		Sail	8/30/05 15:20	EPA 6010B P	b Total			
1				1	EPA 8082 PC	Is			
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	_	
681938	250 mL Glass	Proline	8X17844	None	N/a	n/a	08-26-05	****	
Lab ID	Field ID		Matrix	Sampled	Method				Notes
	HA115		Soil	8/30/05 14:10	EPA 6010B P	Total			
					EPA 8082 PCE	Bs			
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship		
681936	250 mt Glass	Proline	BX17844	None	ri/a	rva	08-26-05		
Lab ID	Field ID		Matrix	Sampled	Method	11 -1			Notes
71-13-44		_	Spil	8/30/05 14:15	EPA 6010B P	b Total			
garana (MAT (III)		2011		5PÁ 8082 PC				
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship		
681933		Proline	BX17844	None	n/a	n/a	08-26-05		
0			Wile-tails.	was dead	viciona.				Notes
Lab ID	Field ID		Matrix	Sampled	Method	0.		0.1	PACINE
7113-45	IIA11M2	1177	Soil	8/30/05 14:30	QC Lot	Prep	Ship		
Con ID	Container 250 mL Glass	Vendor Proline	QC Lot BX17844	Preserv	QC Lot	n/a	08-26-05		
681934	230 mt Glass	Figure	SALL DAG	righte		- 1.75			lime to
Lab ID	Field ID	= (e)	Matrix	Sampled	Method		PER PER	No. 115	Notes
7113-46	ESM16		Soil	8/31/05 13:30			T #/: 1		
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship 08.26.05		
681822	250 ml. Glass	Proline	8X17849	None	n/a	t/a	08-26-05		
Lab ID	Field ID		Matrix	Sampled	Method				Notes
7113-47			Soil	8/31/05 10:40	EPA 6010B F	b Total			
	W-2 824.1				EPA 8082 PC				
Con 1D	Container	Vendor	QC LOS	PARKEY	Geni	No.	Ch.Ip		3
C613360	250 mL Glass	Greenwood	BX17646	None	rva	n/a	08-08-05		
Lab ID	Field ID		Matrix	Sampled	Method				Notes
-			Soll		EPA 6010B F	b Total			
37113-48	mCU2D		Juli	312 11302 14130	5PA 8082 PC				
Can ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship		
Con ID C681825	250 mL Glass	Proline	BX17849	None	n/a	n/a	08-26-05		
			(Carron	- Intheses	District.				Notes
Lab JD	Field ID		Matrix	Sampled	Method	oli Taral			13739
37113-49	IIIE025	Soil 8/31/05 9:35 EPA 60108 Pb Total					and all		
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship		
C681829	250 mt. Glass	Proline	BX17849	None	r/a	n/a	08-26-05		
Lab ID	Field ID		Matrix	Sampled	Method			A === 111	Notes
87/13-50	The last section of the la		Soil	8/31/05 9:45					
13-30	THE WAITE				EPA 8082 PC	Bs	-120-		
	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship		
Con ID							05-25-03		



Project: DND Lewis Chemical/2004-301 Delivery: GWA Courier Temperature: 2.0°C Client: Environmental Strategies & Management, Inc. Airbill: n/a Chain of Custody: Present Lab ID: 87113 Lab Receipt: 09-02-05 Custody Seal(s): n/a'

Lab 1D	Field ID		Matrix	Sampled	Method			Notes	
87113-51	IIIE02D	Soil	8/31/05 9:55	EPA 60108 PH	Total				
					EPA 8082 PCB	is			
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship		
C681830	250 mL Glass	Proline	BX17849	None	n/a	n/a	08-26-05		
Lab ID	Field ID		Matrix	Sampled	Method	Method			Notes
87113-52	IC095		Soil	8/31/05 14:00	EPA 6010B PE	PA 6010B Pb Total			
7			11.0		EPA 8082 PCBs				
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship		
C681819	250 mt Glass	Proline	BX17849	None	n/a	na	08-26-05		
Lab ID	Field ID		Matrix	Sampled	Method	Method			Notes
87113-53	IC09M		Soil		0 EPA 6010B Pb Total EPA 8082 PCBs				
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship		
C681826	250 mL Glass	Proline	BX17849	None	n/a	n/a	08-26-05		
Lab ID	Field ID		Matrix	Sampled	Method		5		Notes
87113-54	IC09D		5oll	6/31/05 14:20	EPA 60108 P	b Total			
					EPA 8082 PCBs				
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship		
C681820	250 mL Glass	Proline	BX17849	None	n/a	n/a	08-26-05		
Lab ID	Field ID	Matrix	Sampled	Method				Notes	
87113-55 HA015		Soil	8/31/05 9:40	5 9:40 EPA 6010B Pb Total					
2					EPA 8082 PCBs				
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	201	
C681846	250 ml. Glass	Proline	BX17847	None	n/a	n/a	08-26-05		-
Lab ID	Field ID	Matrix	Sampled	Method			Notes		
	_ 1000 1000	27 447010	English to an	T 235 7 - 1					
BZT1320 - BAUM					EPA 8082 PCBs			· ·	
Con ID	Container	Vendor	QC Lat	Preserv	QC Lot	Prep	Ship		
C681845	250 ml, Glass	Profine	B%17847	None	TI/M	TW/ch	08-26-05		
Lab ID	Field ID	Matrix	Sampled	Method			Notes		
87/13-57			Soil	8/31/05.9:40				requisted Ela	
7					EPA 8082 PC	PA 8082 PCBs			ted mistre da
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship		
C681843	250 mL Glass	Proline	BX17847	None	n/a	n/a	08-26-05		
Lab ID	Field ID		Matrix	Sampled	Method				Notes
F	IIAD3M		Soll	8/31/05 9:50	EPA 6010B Pb Total				
97113-30	TOTAL STATE		1	B.O. A.E. 2.25	PPA 8082 PC				
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship		and the same
C681847	250 mL Glass	Proline	BX17847	1	n/a	n/a	08-26-05		
Lab ID	Field ID		Matrix	Sampled	Method				Notes
Lab ID	.1	Soil	8/31/05 8:50	EPA 6010B Pb Total					
87113-59 ,	IIA05M	2011	0,3,703,0.30	EPK 8082 PCBs					
		Vendor	QC Lot	Preserv	QC Lot	Prep	Ship		
Con ID	Container	vengur	OC FOR	1. 1. North St. 1	age and				



Sample Receipt Report (Continued)

Project: DND Lewis Chemical/2004-301 Delivery: GWA Courier Temperature: 2.0'C Client: Environmental Strategies & Management, Inc. Airbill: n/a Chain of Custody: Present

Lab ID	Field ID		Matrix	Sampled	Method				Notes
87113-60	IIA05D		Soil	8/31/05 9:00	EPA 6010B PE EPA 8082 PCE				
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship		
C681849	250 mL Glass	Proline	BX17847	None	n/a	n/a	08-26-05		
Lab ID	Field ID		Matrix	Sampled	Method		September 1		Notes
82/13-61	IIA07S		5all	8/31/05 8:15	EPA 6010B PE				
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship		
C681853	250 mL Glass	Proline	8X17847	None	n/a	n/a	05-26-05		
Lab ID	Field ID		Matrix	Sampled	Method			- 1	Notes
87113-62	IIAD7M		Soll	8/31/05 8:20	EPA 6010B P	Total			
97113.02	W. S. C.		300	0.2 (7.0.)	SPA 8082 PCB				
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship		
C681852	250 mL Glass	Proline	BX17847	None	n/a	n/a	08-26-05		1
Lab ID	Field ID		Matrix	Sampled	Method	-	-44	75-5-	Notes
87113-63	ESM15 /1	3-15)	Soil	8/31/05 11:50	EPA 8082 PCB	5			
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship		
C686817	250 ml. Glass	Proline	BX16830	None	n/a	n/a	05-25-05		
Lab ID	Field ID		Matrix	Sampled	Method		Lucie	10000	Notes
87113-64	IIIF035		Sall	9/1/05 8:50	EPA 6010B P	Total			
20114161			340		EPA 8082 PCB				
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship		
C586813	250 mL Glass	Proline	BX16830	None	n/a	n/a	05-25-05		
Lab ID	Field ID		Matrix	Sampled	Method		1900		Notes
8/113-65	IIIF03M		Soll	9/1/05 9:00	EPA 6010B PE EPA 8082 PCE				
- 164		V5.45	OC L-V	District		Prep	Ship		
Con ID C620586	Container 250 ml. Glass	Vendor Proline	QC Lot BX16663	Preserv	QC Lot	n/a	05-13-05		
		7 330112					-		Telepina
Lab ID	Field ID		Matrix	Sampled	Method				Notes
87113-66	IIIF03D		Soil	9/1/05 9:10	EPA 6010B PI EPA 8082 PCE				
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship		
C686812	250 mL Glass	Proline	BX16830	None	n/a	n/a	05-25-05		I to the same of
Lab ID	Field ID	-	Matrix	Sampled	Method			-	Notes
82113-67	7	2	Soil	8/31/05 11:55	EPA 6010B/74	71A 8 RCRA	Metals		
Con ID	Container	Vendor	QC Lat	Preserv	QC Lot	Prep	Ship		
C546672	250 mL Glass	Proline	BX17432	None	n/a	n/a	07-29-05		- CE D
Lab-ID	Field ID		Matrix	Sampled	Method				Notes
87113-68	IA03M	100	Soil	8/30/05 9:25	MA DEP EPH	with PAHs			
Company and	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship		
Con ID									



Sample Receipt Report (Continued)

Project:	DND Lewis Chemical/2004-301	Delivery:	GWA Courier	Temperature:	2.0'C
Client:	Environmental Strategies & Management, Inc.	Airbill:	n/a	Chain of Custody:	Present
Lab ID:	87113 L	ab Receipt:	09-02-05	Custody Seal(s):	n/a

Lab ID	Field ID		Matrix	Sampled	Method				Notes	
87413-69	1805D		Soil	8/30/05 11:00	MA DEP EPH V	vith PAHs				
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship			
C613511	120 mt Amber Glass	Proline	BX17628	None	n/a	r/a	08-26-05			
Lab ID	Field ID		Matrix	Sampled	Method	_	-		Notes	***
87113:70	ESM15 / L.	6	Soil		MA DEP EPH v	vith PAHs	_		100	
Con ID	Container	Vendor	QC Lot	Presery	QC Lot	Prep	Ship			
C613517	120 mL Amber Glass	Proline	BX17628	None	n/a	n/a	08-26-05			me de la
	Liter mer eiten einem		1							J. V.
Lab ID	Field ID		Matrix	Sampled	Method		0-11-2-1	- 1	Notes	
87113-71	(Y')		5oil	8/31/05 9:30	EPA 6010B TC: EPA 7470A TC: EPA 8260B TC:	LP Hg				Legil
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship			~ ,
C677010	120 mt Amber Glass	Proline	BX16815	None	n/a	n/a	05-25-05			
Lab 1D	Field ID		Matrix	Sampled	Method			77772	Notes	
87113-72	IAD8S		Soil		EPA 6010B Pb	Total	THE PERSON	2 1040	3. 52. 50.4	
per print the same	Container	Vendor	OC Lot	Preserv	QC Lot	Ртер	Ship			
Con ID C681857	250 mL Glass	Proline	BX17848	None	n/a	n/a	08-26-05	1		
C001037	250 1112 (3)833	Tionie	1 5/17 6-16	TYONE						
Lab ID	Field ID		Matrix	Sampled	Method		1- 11	- 54	Notes	
87113-73	M80AI		Soil	8/30/05 12:30	EPA 6010B Pb					
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship			
C681855	250 mL Glass	Proline	BX17848	None	n/a	√a	08-26-05)- 4 (
Lab ID	Field ID		Matrix	Sampled	Method		1 1 1 1 2		Notes	
82113-74	DUPZ		Soil	8/30/05 11:40	EPA 60108 Pb	Total				
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship			
C681864	250 ml. Glass	Proline	BX17848	None	n/a	ava.	08-26-05			
Cities	F1-17-4-175		T. Market	Committee	Method				(NEWSON)	
Lab ID	Field ID	_	Matrix	Sampled	EPA 6010B PE	Total		-	1.000	
87113-75	18105	Weeder	5oil		QC Lot	Prep	Ship			
Con ID	Container 250 mt Glass	Proline Proline	QC Lot BX17844	Preserv	n/a	n/a	08-26-05			
C681927	230 Int. Glass	Tiomie	DATE	1,40,10	100					
Lab ID	Field ID		Matrix	Sampled	Method			100	Notes	
	IB10M		Soll	8/30/05 13:30	EPA 6010B Pb	Total				
87113-76	The Art and the State of the St	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship		-	
87113-76 Con ID	Container		BX17844	None	r/a	n/a	08-26-05		1	-
	Container 250 mt Glass	Proline							Tarren	decision yes
Con ID C681931	250 mL Glass	Proline	Matrix	Sampled	Method				Notes	
Con ID C681931 Lab ID	250 mL Glass Field ID	Proline			Method EPA 6010B Pb	o Total		-	NOLES	
Con ID C681931 Lab ID 8/113-77	250 mt Glass Field ID	Proline	Matrix			Total Frep	Ship		inoles	
Con ID C681931 Lab ID	250 mL Glass Field ID		Matrix 50il	8/30/05 13:40	EPA 6010B Pb		Ship 08-26-05		Notes	- 00000
Con ID C681931 Lab ID 8/113-77 Con ID C681929	Field ID (B10D Container 250 mL Glass	Vendor	Matrix 50Il QC Lot 8X17844	B/30/05 13:40 Preserv None	QC Lot	Prep			10.04	
Con ID C681931 Lab ID 8/113-77 Con ID C681929 Lab ID	Field ID (B10D Container 250 mL Glass Field ID	Vendor	Matrix Soil QC Lot BX17844 Matrix	B/30/OS 13:40 Preserv None Sampled	QC Lot n/a Method	Prep n/a			Notes	
Con ID C681931 Lab ID 8/113-77 Con ID C681929	Field ID (B10D Container 250 mL Glass	Vendor	Matrix 50Il QC Lot 8X17844	B/30/05 13:40 Preserv None	QC Lot n/a Method	Prep n/a			10.04	



Sample Receipt Report (Continued)

Project: DND Lewis Chemical/2004-301

Delivery: GWA Courier

Environmental Strategies & Management, Inc. Airbill: n/a

Temperature: 2.0'C Chain of Custody: Present

Client:

Lab ID: 87113

Lab Receipt: 09-02-05

Custody Seal(s): n/a

Lab ID	Field ID		Matrix	Sampled	Method			Notes
87113.79	ID105		Soil	8/31/05 14:50	EPA 6010B P	b Total		
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	
C681823	250 ml Glass	Proline	BX17849	None	n/a	n/a	08-26-05	
Lab ID	Field ID		Mately	5ampled	Method			Notes
			Matrix		EPA 6010B P	la Torral		INCIGS
87113-80 Con ID	ID10M Container	Vendor	Soil				Chile	1.1-11-11-1
C681821	250 mL Glass	Proline	QC Lot BX17849	None	QC Lot.	Prep n/a	5hip 08-26-05	
4.001001	Life for Grand	Traina	DATE: WITE	13505	10.00	189	1 40-20-32	
Lab ID	Field ID		Matrix	Sampled	Method			Notes
87113-81	ID10D		Soil	8/31/05 15:10	EPA 6010B P	b Total		
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	
C681827	250 mL Glass	Proline	BX17849	None	n/a	n/a	08-26-05	
tak in	Ciald ID		Mately	Samulad	Method	-		Notes
Lab ID	Field ID		Matrix	Sampled	11 10 000 000	la Yasal		17Mike
67113-82 Con ID	Container	Vendor	Soil QC Lot	8/31/05 11:00 Preserv	QC Lot	Prep	Ship	
C681848	250 mL Glass	Proline	8X17847	None	n/a	n/a	08-26-05	197-0-2
540,440		119/11/2		N. Wille		1	1 33 57 37 1	
Lab ID	Field ID		Matrix	Sampled	Method			Notes
87113-83	IIA03D		Soil	8/31/05 10:00	EPA 60108 P	b Total		
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	
C681844	250 mL Glass	Proline	BX17847	None	n/a	n/a	08-26-05	
Lab (D)	muld in		Adminis	Complex	Mathed			Notes
Lab ID	Field ID		Matrix	Sampled	- Method	h Tatal		Notes
87113-84	IIA055	0.74	Soll	8/31/05 8:40	EPA 6010B P		This I	
Con ID	Container 250 ml. Glass	Vendor Proline	QC Lot 8X17847	Preserv	QC Lot	Prep n/a	Ship 08-26-05	
C681851	230 mt Glass	Pronne	DA17047	recine	IVd	1//4	00-20-03	
Lab ID	Field ID	1	Matrix	Sampled	Method			Notes
87113-85	ESMB2	5 1	5011	8/31/05 14:30	EPA 6010B P	b Total		
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	5hip	
C613507	120 ml. Amber Class	Proline	8X17628	None	n/a	n/a	08-26-05	
Lab ID	Field ID		Matrix	Sampled	Method			Notes
87113-86			Soil	9/1/05 8:50	EPA 6010B P	h Total		1736-3
	UEOSS Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	****
Con ID C613362	Container 250 mL Glass	Greenwood		None	n/a	n/a	08-08-05	
	200 1176 01033			1,100.00				16.
Lab ID	Field ID	100	Matrix	Sampled	Method		1000	Notes
87113-87	IIIE05M		Soil	9/1/05 9:00	EPA 6010B P	b Total		
Con 1D	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	
C613364	250 mt Glass	Greenwood	BX17646	None	n/a	n/a	08-08-05	
1.610	Field 1D		Matrix	Campled	Method			Notes
Lab ID	4100000			Sampled 0/1/05 0:10		liv Total		1000
87113-88	IIIE05D	Armedia	Soil	9/1/05 9:10	EPA 6010B P		Ship	
Con ID	Container	Vendor Greenwood	QC Lot BX17646	Preserv None	QC Lot	Prep n/a	08-08-05	
C613363	250 ml. Glass	Greenwood	2011010	Tagne	784		1 27 22 75	
Lab ID	Field ID		Matrix	Sampled	Method			Notes
87113-89	ESM15	(1)	Spil	8/31/05 11:40	MA DEP VP	with Targets	0 - 1-1	
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	
	40 mL VOA Vial	Proline	BX17874	Methanol	R-4500A	08-26-05	08-26-05	

EPA Method 8260B Volatile Organics by GC/MS

Field ID: Project: IIA09M

DND Lewis Chemical/2004-301

Client:

Environmental Strategies & Management, Inc.

Laboratory ID:

Sampled: Received: 08-30-05 15:10 09-02-05 18:30 09-09-05 22:34

Analyzed: Analyst:

EMC

Matrix:

Soil

Container: Preservation: 40 mL VOA Vial Methanol / Cool

QC Batch ID:

VM1-1656-E MS-1 HP 5890

Instrument ID: Sample Weight:

M5-1 HP 589

Final Volume: % Solids:

15 mL 78

Dilution Factor: 2

.

CAS Number	Analyte	Concentration Notes	Units	Reporting Limit
5-71-8	Dichlorodifluoromethane	BRL	ug/Kg	1,100
4-87-3	Chloromethane	BRL	ug/Kg	1,100
5-01-4	Vinyl Chloride	BRL	ug/Kg	1,100
4-83-9	Bromomethane	BRL	ug/Kg	1,100
5-00-3	Chloroethane	BRL	ug/Kg	1,100
75-69-4	Trichlorofluoromethane	BRL	ug/Kg	1,100
50-29-7	Diethyl Ether	BRL	ug/Kg	1,100
75-35-4	1.1-Dichloroethene	BRL	ug/Kg	550
76-13-1	1,1,2-Trichlorotrifluoroethane	BRL	ug/Kg	5,500
67-64-1	Acetone	BRL	ug/Kg	5,500
75-15-0	Carbon Disulfide	BRL	ug/Kg	5,500
75-09-2	Methylene Chloride	BRL	ug/Kg	2,200
156-60-5	trans-1,2-Dichloroethene	BRL	ug/Kg	550
1634-04-4	Methyl tert-butyl Ether (MTBE)	BRL	ug/Kg	550
75-34-3	1,1-Dichloroethane	BRL	ug/Kg	550
594-20-7	2.2-Dichloropropane	BRL	ug/Kg	550
156-59-2	cis-1,2-Dichloroethene	580	ug/Kg	550
78-93-3	2-Butanone (MEK)	BRL	ug/Kg	5,500
74-97-5	Bromochloromethane	BRL	ug/Kg	550
109-99-9	Tetrahydrofuran (THF)	BRL	ug/Kg	5,500
67-66-3	Chloroform	BRL	ug/kg	550
71-55-6	1.1.1-Trichloroethane	BRL	ug/Kg	550
56-23-5	Carbon Tetrachloride	BRL	ug/Kg	550
563-58-6	1,1-Dichioroproperie	000	in/Va	550
71-43-2	Benzene	BRL	ug/Kg	550
107-06-2	1,2-Dichloroethane	BRL	ug/Kg	550
79-01-6	Trichloroethene	BRL	ug/Kg	550
78-87-5	1,2-Dichloropropase	BRL	ug/Kg	550
74-95-3	Dibromomethane	BRL	ug/Kg	550
75-27-4	Bromodichloromethane	BRL	ug/Kg	550
123-91-1	1.4-Dioxane	BRL	ug/Kg	550,000
10061-01-5	cis-1,3-Dichloropropene	BRL	ug/Kg	550
108-10-1	4-Methyl-2-Pentanone (MIBK)	BRL	ug/Kg	5,500
108 88-3	Toluene	1,600	ug/Kg	550
10061-02-6	trans-1,3-Dichloropropene	BRL	ug/Kg	550
79-00-5	1,1,2-Trichloroethane	BRL	ug/Kg	550
127-18-4	Tetrachloroethene	BRL	ug/Kg	550
142-28-9	1,3-Dichloropropane	BRL	ug/Kg	5,500
591-78-6	2-Hexanone	BRL	ug/Kg	5,500
124-48-1	Dibromochloromethane	BRL	ug/Kg	550
106-93-4	1,2-Dibromoethane (EDB)	BRL	ug/Kg	550
108-90-7	Chlorobenzene	BRL	ug/Kg	550
630-20-6	1,1,1,2-Tetrachloroethane	BRI.	ug/Kg	550
100-41-4	Ethylbenzene	4,000	ug/Kg	550
108-38-3/106-42-3	meta- Xylene and para- Xylene	13,000	ug/Kg	550
95-47-6	artho-Xylene	1,300	ug/Kg	1 350



EPA Method 8260B Volatile Organics by GC/MS

Field ID:

IIA09M

Project:

DND Lewis Chemical/2004-301

Client:

Environmental Strategies & Management, Inc.

Laboratory ID: Sampled: Received: 87113-01 08-30-05 15:10 09-02-05 18:30 09-09-05 22:34

Analyzed: Analyst:

EMC

Matrix: Soil

Container: Preservation:

40 mL VOA Vial Methanol / Cool

QC Batch ID:

VM1-1656-E

Instrument ID: Sample Weight: MS-1 HP 5890 18 g

Final Volume: 15 mL % Solids: 78

Dilution Factor: 2

Page: 2 of 2

CA5 Number	Analyte	-	Conce	ntration	Notes	Units	Reporting Lim
100-42-5	Styrene			BRL		ug/Kg	550
75-25-2	Bromoform			BRL		ug/Kg	550
98-82-8	Isopropylbenzene		BRL			ug/Kg	550
108-86-1	Bromobenzene			BRL		ug/Kg	550
79-34-5	1,1,2,2-Tetrachloroethane			BRL		ug/Kg	550
96-18-4	1,2,3-Trichforopropane			BRL		ug/Kg	550
103-65-1	n-Propylbenzene			BRL		ug/Kg	550
95-49-8	2-Chlorotoluene			BRL		ug/Kg	550
108-67-8	1,3,5-Trimethylbenzene		1	680		ug/Kg	550
106-43-4	4-Chlorotoluene			BRL		ug/Kg	550
98-06-6	tert- Butylbenzene			BRL		ид/Кд	550
95-63-6	1,2,4-Trimethylbenzene			1,300		ug/Kg	550
135-98-8	sec-Butylbenzene		BRL			ug/Kg	550
541-73-1	1,3-Dichlorobenzene			BRL			550
99-87-6	4-Isopropyltoluene			5,000		ug/Kg ug/Kg	550
106-46-7	1,4-Dichlorobenzene			BRL		ug/Kg	550
95-50-1	1,2-Dichlorobenzene			1,900			550
104-51-8	n-Butylbenzene		BRL			ug/Kg ug/Kg	550
96-12-8	1,2-Dibromo-3-chloropropa	ne	BRL			ug/Kg	550
120-82-1	1,2,4-Trichlorobenzene		BRL			ug/Kg	550
87-68-3	Hexachlorobutadiene		BRL			цд/Кд	550
91-20-3	Naphthalene			1,100			550
87-61-6	1,2,3-Trichlorobenzene			BRL		ug/Kg	550
75-65-0	tert-Butyl Alcohol (TBA)			BRL		ug/Kg	22,000
108-20-3	Di-isopropyl Ether (DIPE)			BRL		ug/Kg	550
637-92-3	Ethyl tert-butyl Ether (ETBE)			BRL		ug/Kg	550
994-05-8	tert -Amyl Methyl Ether (TAM	ME)		BRL		ug/Kg	550
QC Surrogate Co	ompound	5piked	Measured	Recovery	in the state of	Q	C Limits
Dibromofluoron	THE STATE OF THE S	2,500	2,400	95 %		70	- 130 %
1,2-Dichloroetha	ine-d ₄	2,500	2,200 88 %		70 - 130 %		
Toluene-d ₆		2,500	2,700	108 %		70 - 130 %	
4-Bromofluorobe	enzene	2,500	2,600	104 %		70	- 130 %

Method Reference:

Test Methods for Evaluating Solid Waste, U5 EPA, SW-846, Third Edition, Update III (1996).

Sample preparation performed by EPA Method 5035A and EPA Method 5030B. Results are reported on a dry weight basis.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution

EPA Method 8260B Volatile Organics by GC/MS

Field 1D:

HA09D

DND Lewis Chemical/2004-301

Project: Client:

Environmental Strategies & Management, Inc.

Laboratory ID: Sampled:

87113-02 08-30-05 15:20 09-02-05 18:30

Analyzed: Analyst:

Received:

09-09-05 23:08 EMC Matrix: Soil

Container:

40 mL VOA Vial

Preservation:

Methanol / Cool

QC Batch ID: Instrument ID:

VM1-1656-E

Sample Weight:

MS-1 HP 5890 10 g 10 mL

Final Volume: % Solids:

% Solids: 81
Dilution Factor: 20

CAS Number	Analyte	Concentration Notes	1 1700	H. S. Carrie
75-71-8	Dichlorodifluoromethane		Units	Reporting Lim
74-87-3	Chloromethane	BRL	ug/Kg	12,000
75-01-4	Vinyl Chloride	BRL	ug/Kg	12,000
74-83-9	Bromomethane	BRL	ug/Kg	12,000
75-00-3	Chloroethane	BRL	ug/Kg	12,000
75-69-4	Trichlorofluoromethane	BRL	ug/Kg	12,000
60-29-7	Diethyl Ether	BRL	ug/Kg	12,000
75-35-4	1,1-Dichloroethene	BRL	ug/Kg	12,000
76-13-1	1,1,2-Trichlorotrifluoroethane	BRL	ug/Kg	6,100
67-64-1	Acetone Acetone	BRL	ug/Kg	61,000
75-15-0	Carbon Disulfide	BRL	ug/Kg	61,000
75-09-2		BRL	ug/Kg	61,000
156-60-5	Methylene Chloride	BRL	ug/Kg	24,000
* . *	trans- 1,2-Dichloroethene	BRL	ug/Kg	6,100
1634-04-4	Methyl tert-butyl Ether (MTBE)	BRL	ug/Kg	6,100
75-34-3	1,1-Dichloroethane	BRL	ug/Kg	6,100
594-20-7	2,2-Dichloropropane	BRL	ug/Kg	6,100
156-59-2	cis-1,2-Dichloraethene	47,000	ug/Kg	6,100
78-93-3	2-Butanone (MEK)	BRL	ug/Kg	61,000
74-97-5	Bromochloromethane	BRL	ug/Kg	5,100
109-99-9	Tetrahydrofuran (THF)	BRL	ug/Kg	61,000
67-66-3	Chloroform	BRL	ug/Kg	6,100
71-55-6	1,1,1-Trichlorgethane	44,000	ug/Kg	6,100
56-23-5	Carbon Tetrachloride	BRL	ug/Kg	6,100
563-58-6	1,1-Dichloropropene	BRL	ug/Kg	6.100
71-43-2	Benzene	BRL	ug/Kg	6,100
107-06-2	1,2-Dichloroethane	BRL	ug/Kg	6,100
79-01-6	Trichloroethene	14.000	ug/Kg	6,100
8-87-5	1,2-Dichloropropane	BRL	ug/Kg	6,100
74-95-3	Dibromomethane	BRL	ug/Kg	5,100
75-27-4	Bromodichloromethane	BRL	ug/Kg	6,100
23-91-1	1,4-Dioxane	BRL.	ug/Kg	6,100,00
0061-01-5	cis-1,3-Dichloropropene	BRL	ug/Kg	6,100
08-10-1	4-Methyl-2-Pentanone (MIBK)	BRL	ug/Kg	61,000
08-88-3	Toluene	110,000	ug/Kg	6,100
0061-02-6	trans-1,3-Dichloropropene	BRL	ug/Kg	6,100
9-00-5	1,1,2-Trichloroethane	BRL	ug/Kg	6,100
27-18-4	Tetrachloroethene	26,000	ug/Kg	6,100
42-28-9	1,3-Dichloropropane	BRL	ug/Kg	6,100
91-78-6	2-Hexanone	BRL	ug/Kg	61,000
24-48-1	Dibromochloromethane	BRL	ug/Kg	6,100
06-93-4	1,2-Dibromoethane (EDB)	BRL	ug/Kg	6,100
08-90-7	Chlorobenzene	BRL	ug/Kg	6,100
30-20-6	1,1,1,2-Tetrachloroethane	BRL	ug/Kg	6,100
00-41-4	Ethylbenzene	8,000	ug/Kg	6,100
38-3/106-42-3	meta-Xylene and para-Xylene	25,000	ug/Kg	6,100
5-47-6	ortho-Xylene	6,300	ug/Kg	6,100

EPA Method 8260B Volatile Organics by GC/MS

Field ID:

IIA09D

87113-02

Project:

DND Lewis Chemical/2004-301

Client:

Environmental Strategies & Management, Inc.

Laboratory ID:

Sampled:

Received: Analyzed:

08-30-05 15:20 09-02-05 18:30 09-09-05 23:08

Analyst:

EMC

Matrix:

Container:

Soil

Preservation:

40 mL VOA Vial Methanol / Cool

QC Batch ID:

VM1-1656-E

Instrument ID: Sample Weight: MS-1 HP 5890 10 g

Final Volume: % Solids:

10 mL 81

Dilution Factor: 20

Page: 2 of 2

CAS Number	Analyte	Concentration Notes	Units	T
100-42-5	Styrene	BRL	L. C.	Reporting Limi
75-25-2	Bromoform	BRL	ug/Kg	6,100
98-82-8	Isapropylbenzene	BRL	ug/Kg	6,100
108-86-1	Bromobenzene	BRL	ug/Kg	5,100
79-34-5	1,1,2,2-Tetrachloroethane	BRL	ug/Kg	6,100
96-18-4	1,2,3-Trichloropropane	BRL	ug/Kg	6,100
103-65-1	n-Propylbenzene		ug/Kg	6,100
95-49-8	2-Chlorotoluene	BRL	ug/Kg	6,100
108-67-8	1,3,5-Trimethylbenzene	BRL	ug/Kg	6,100
106-43-4	4-Chlorotoluene	BRL	ug/Kg	6,100
98-06-6	tert-Butylbenzene	BRL	ug/Kg	6,100
95-63-6	1,2,4-Trimethylbenzene	BRL	ug/Kg	6,100
135-98-8	sec -Butylbenzene	BRL	ug/Kg	6,100
541-73-1	1,3-Dichlorobenzene	BRL	ug/Kg	6,100
99-87-6	4-Isopropyltoluene	BRL	ug/Kg	6,100
106-46-7	1,4-Dichlorobenzene	BRL	ug/Kg	6,100
95-50-1	1,2-Dichlorobenzene	BRL	ug/Kg	6,100
104-51-8	n-Butylbenzene	19,000	ug/Kg	6,100
96-12-8	1,2-Dibromo-3-chloropropane	BRL	ug/Kg	6,100
120-82-1	1,2,4-Trichlorobenzene	BRL	ug/Kg	6,100
87-68-3	Hexachlorobutadiene	BRL	ug/Kg	6,100
91-20-3	Naphthalene	BRL	ug/Kg	6,100
87-61-6	1,2,3-Trichlorobenzene	BRL	ug/Kg	6,100
75-65-0	tert-Butyl Alcohol (TBA)	BRL	ug/Kg	6,100
108-20-3	Distance of Color (18A)	BRL	ug/Kg	240,000
637-92-3	Ethyl tert-butyl Ether (ETBE)	UNC	Uging	6,100
994-05-8	tert-Amyl Methyl Ether (TAME)	BRL	ug/Kg	6,100
224.03.0	terr-mnyr Meinyr Ether (TAME)	BRL	ug/Kg	6,100

000				0.0
QC Surrogate Compound	Spiked	Measured	Recovery	OC Limits
Dibromofluoromethane	2,500	2,400	97 %	70 - 130 %
1,2-Dichloroethane-d4	2,500	2,200	89 %	70 - 130 %
Foluene-d ₈	2,500	2,700	107 %	70 - 130 %
4-Bromofluorobenzene	2,500	2,800	111 %	70 - 130 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample preparation performed by EPA Method 5035A and EPA Method 5030B Results are reported on a dry weight basis

Report Notations:

Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution

EPA Method 8260B Volatile Organics by GC/MS

Field ID:

IIA11M

Project:

DND Lewis Chemical/2004-301

Client:

Environmental Strategies & Management

Laboratory ID:

Sampled: Received: 87113-03 08-30-05 14:15 09-02-05 18:30

Analyzed: Analyst:

09-08-05 13:19 **LMG**

Matrix: Container:

Soil

40 mL VOA Vial

Preservation:

Methanol / Cool

QC Batch ID: Instrument ID:

VM1-1654-E

Sample Weight:

MS-1 HP 5890 17 g

Final Volume: % Solids:

15 mL 77

CAS Number	Analyte	Dilution Factor	r: 2	Page: 1 of 2
75-71-8	Dichlorodifluoromethane	Concentration Notes	Units	Reporting Lie
74-87-3	Chloromethane	BRL	ug/Kg	1,200
75-01-4	Vinyl Chloride	BRL	ug/Kg	1,200
74-83-9	Bromomethane	BRL	ug/Kg	1,200
75-00-3	Chloroethane	BRL	ug/Kg	1,200
75-69-4	Trichlorofluoromethane	BRL	ug/Kg	1,200
60-29-7	Diethyl'Ether	.∵ BRL	ug/Kg	1,200
75-35-4	1,1-Dichloroethene	BRL	ug/Kg	1,200
76-13-1	1,1,2-Trichlorotriffuoroethane	BRL.	ug/Kg	590
67-64-1	Acetone	BRL	ug/Kg	5,900
75-15-0	Carbon Disulfide	BRL	ug/Kg	5,900
75-09-2	Methylene Chloride	BRL	ug/Kg	5,900
156-60-5		BRL	ug/Kg	2,300
1634-04-4	trans-1,2-Dichloroethene	BRL	ug/Kg	590
75-34-3	Methyl tert-butyl Ether (MTBE)	BRL	ug/Kg	590
94-20-7	1,1-Dichloroethane	BRL	ug/Kg	590
56-59-2	2,2-Dichloropropane	BRL	ug/Kg	590
78-93-3	cis-1,2-Dichloroethene	1,300	ug/Kg	590
4-97-5	2-Butanone (MEK)	BRL	ug/Kg	
all a management	Bromochloromethane	BRL	The state of the s	5,900
09-99-9	Tetrahydrofuran (THF)	BRL	ug/Kg	590
7-66-3	Chloroform	BRL	ug/Kg	5,900
1-55-6	1,1,1-Trichloroethane	960	ug/Kg	590
6-23-5	Carbon Tetrachloride	BRL	ug/Kg	590
63-58-6	1.1-Dichloropropene	BRL	ug/Kg	590
	Westerije	BRL	ne/Ke	500
07-06-2	1,2-Dichloroethane	BRL	ug/Kg	590
9-01-6	Trichloroethene	BRL	ug/Kg	590
9-87-5	1,2-Dichloropropane	BRL	ug/Kg	590
1-95-3	Dibromomethane	DRL	ug/Kg	590
5-27-4	Bromodichloromethane	RRI	ug/Kg	590
3-91-1	1,4-Dioxane		ug/Kg	590
061-01-5	cis-1,3-Dichloropropene	BRL	ug/Kg	590,000
8-10-1	4-Methyl-2-Pentanone (MIBK)	BRL	ug/Kg	590
8-88-3	Toluene	BRL	ug/Kg	5,900
061-02-6	trans-1,3-Dichloropropene	BRL	ug/Kg	590
-00-5	1,1,2-Trichloroethane	BRL	ug/Kg	590
7-18-4	Tetrachloroethene	BRL	ug/Kg	590
2-28-9	1,3-Dichloropropane	BRL	ug/Kg	590
1-78-6	2-Hexanone	BRL	ug/Kg	590
4-48-1	Dibromochloromethane	BRL	ug/Kg	5,900
5-93-4	1,2-Dibromoethane (EDB)	BRL	ug/Kg	590
3-90-7	Chlorobenzene	BRL	ug/Kg	590
0-20-6	1,1,1,2-Tetrachloroethane	BRL	ug/Kg	590
Single Company of the	Ethylbenzene	BRL	ug/Kg	590
	meta Vulana and a Vul	BRL	ug/Kg	590
	meta- Xylene and para- Xylene ortho- Xylene	780	ug/Kg	590
	orano- Aylene	BRL	ug/Kg	590

EPA Method 8260B Volatile Organics by GC/MS

Field ID:

IIA11M

Project:

DND Lewis Chemical/2004-301

Client:

Environmental Strategies & Management

Laboratory ID: Sampled: 87113-03 08-30-05 14:15 09-02-05 18:30

Received: Analyzed: Analyst:

09-08-05 13:19 LMG Matrix: Container: Soil

~;

40 mL VOA Vial

Preservation:

Methanol / Cool

QC Batch ID: Instrument ID:

VM1-1654-E

Sample Weight:

MS-1 HP 5890 17 g

Final Volume: % Solids: 17 g 15 mL 77

2

Dilution Factor:

Page: 2 of 2

CAS Number	Analyte	Concentration Notes	Units	Reporting Lim
100-42-5	Styrene	BRL	ug/Kg	590
75-25-2	Bromoform	rm BRL		590
98-82-8	Isopropylbenzene	BRL	ug/Kg ug/Kg	590
108-86-1	Bromobenzene	BRL	ug/Kg	590
79-34-5	1,1,2,2-Tetrachloroethane	BRL	ug/Kg	590
96-18-4	1,2,3-Trichloropropane	BRL	ug/Kg	590
103-65-1	n-Propylbenzene	730	ug/Kg	590
95-49-8	2-Chlorotoluene	BRL	ug/Kg	590
108-67-8	1,3,5-Trimethylbenzene	2,000	ug/Kg	590
106-43-4	4-Chlorotoluene	BRL	ug/Kg	590
98-06-6	tert-Butylbenzene	BRL	ug/Kg	590
95-63-6	1,2,4-Trimethylbenzene	3,400	the second secon	590
135-98-8	sec-Butylbenzene	BRL	ug/Kg ug/Kg	
541-73-1	1,3-Dichlorobenzene	BRL		590
99-87-6	4-Isopropyltoluene	BRL	ug/Kg	590 590
106-46-7	1,4-Dichlorobenzene	BRL	ug/Kg	590
95-50-1	1,2-Dichlorobenzene	1,700	ug/Kg	590
104-51-8	n-Butylbenzene	BRL	ug/Kg	
96-12-8	1,2-Dibromo-3-chloropropane	BRL	ug/Kg	590 590
120-82-1	1,2,4-Trichlorabenzene	BRL	ug/Kg	
87-68-3	Hexachlorobutadiene	BRL	ug/Kg	590 590
91-20-3	Naphthalene	2,200	ug/Kg	The second secon
87-61-6	1,2,3-Trichlorobenzene	BRL.	ug/Kg	590
75.55.0	this Surjection (The	ONL	ug/Kg	590
108-20-3	Di-isopropyl Ether (DIPE)	BRL	OR VR	23,000
537-92-3	Ethyl (ert-butyl Ether (ETBE)	BRL	ug/Kg	590
994-05-8	tert -Amyl Methyl Ether (TAME)	BRL	ug/Kg	590
7 27 27	ten sufficiently court (11, pare)	DKL	ug/Kg	590

QC Surrogate Compound	Spiked	Measured	Recovery	QC Limits
Dibromofluoromethane	2,500	2,500	98 %	70 - 130 %
1,2-Dichlomethane-d ₄	2,500	2,300	91 %	70 - 130 %
Toluene-da	2,500	2,800	111 %	70 - 130 %
4-Bromofluorobenzene	2,500	2,600	106 %	70 - 130 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample preparation performed by EPA Method 5035A and EPA Method 5030B. Results are reported on a dry weight basis.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution

EPA Method 8260B Volatile Organics by GC/MS

Field ID Project: HA11M2

DND Lewis Chemical/2004-301

Client:

Environmental Strategies & Management

Laboratory ID: Sampled: 87113-04 08-30-05 14:30 09-02-05 18:30 09-08-05 13:54

Received: Analyzed: Analyst:

LMG

Matrix:

Soil

Container: Preservation: 40 mL VOA Vial Methanol / Cool

QC Batch ID:

VM1-1654-E

Instrument ID: Sample Weight: MS-1 HP 5890 7.6 g

Final Volume: 10 mL % Solids: 51

Dilution Factor: 4

CAS Number	Analyte	Concentration Notes	Units	Reporting Limi
75-71-8	Dichlorodifluoromethane	BRL	ug/Kg	5,200
74-87-3	Chloromethane	BRL	ug/Kg	5,200
75-01-4	Vinyl Chloride	BRL	ug/Kg	5,200
74-83-9 Bromomethane		BRL	ug/Kg	5,200
75-00-3	Chloroethane	BRL	ug/Kg	5,200
75-69-4	Trichlorofluoromethane	BRL	ug/Kg	5,200
60-29-7	Diethyl Ether	BRL	ug/Kg	5,200
75-35-4	1,1-Dichloroethene	BRL	ug/Kg	2,600
76-13-1	1,1,2-Trichlorotrifluoroethane	BRL	ug/Kg	26,000
67-64-1	Acetone	BRL	ug/Kg	26,000
75-15-0	Carbon Disulfide	BRL.	ug/Kg	26,000
75-09-2	Methylene Chloride	BRL	ug/Kg	10,000
156-60-5	trans-1,2-Dichloroethene	BRL	ug/Kg	2,600
1634-04-4	Methyl tert-butyl Ether (MTBE)	BRL	ug/Kg	2,600
75-34-3	1,1-Dichloroethane	6,100	ug/Kg	2,600
594-20-7	2,2-Dichloropropane	BRL	ug/Kg	2,600
156-59-2	cis-1,2-Dichloroethene	33,000	ug/Kg	2,600
78-93-3	2-Butanone (MEK)	BRL	ug/Kg	26,000
74-97-5	Bromochloromethane	BRL	ug/Kg	2,600
109-99-9	Tetrahydrofuran (THF)	BRL	ug/Kg	26,000
67-66-3	Chloroform	BRL	ug/Kg	2,600
71-55-6	1,1,1-Trichloroethane	BRL	ug/Kg	2,600
56-23-5	Carbon Tetrachloride	BRL	ug/Kg	2,600
563-58-6	1, 1-Dichipropropene	BKL	upilo	2,500
71-43-2	Benzene	BRL	ug/Kg	2,600
107-06-2	1,2-Dichloroethane	BRL	ug/Kg	2,600
79-01-6	Inchloroethene	BRL	ug/Kg	2,600
78-87-5	1,2-Dichloropropane	BRL	ug/Kg	2,600
74-95-3	Dibromomethane	BRL	ug/Kg	2,600
75-27-4	Bromodichloromethane	BRL	ug/Kg	2,600
123-91-1	1,4-Dioxane	BRL	ug/Kg	2,600,0
10061-01-5	cis-1,3-Dichloropropene	BRL	ug/Kg	2,600
108-10-1	4-Methyl-2-Pentanone (MIBK)	BRL	ug/Kg	26,000
108-88-3	Toluene	12,000	ug/Kg	2,600
10061-02-6	trans-1,3-Dichloropropene	BRL	ug/Kg	2,600
79-00-5	1,1,2-Trichloroethane	BRL	ug/Kg	2,600
127-18-4	Tetrachloroethene	BRL	ug/Kg	2,600
142-28-9	1,3-Dichloropropane	BRL	ug/Kg	2,600
591-78-6	2-Hexanone	BRL	ug/Kg	26,000
124-48-1	Dibromochloromethane	BRL	ug/Kg	2,600
106-93-4	1.2-Dibromoethane (EDB)	BRL	ug/Kg	2,600
108-90-7	Chlorobenzene	BRL	ug/Kg	2,600
630-20-6	1,1,1,2-Tetrachloroethane	ne BRL		2,600
100-41-4	Ethylbenzene	BRL	ug/Kg	2,600
8-18-1/106-47-3	meta-Xylene and para-Xylene	5,400	ug/Kg	2,600
95-47-6	ortho-Xylene	BRL	ug/Kg	2,600

EPA Method 8260B Volatile Organics by GC/MS

Field ID:

IIA11M2

Project: Client:

DND Lewis Chemical/2004-301

Environmental Strategies & Management

Laboratory ID:

Sampled: Received: 87113-04 08-30-05 14:30

Analyzed: Analyst:

09-02-05 18:30 09-08-05 13:54

LMG

Matrix:

Soil

Container: Preservation:

40 mL VOA Vial Methanol / Cool

QC Batch ID: Instrument ID: VM1-1654-E

Sample Weight:

MS-1 HP 5890

Final Volume:

7.6 g 10 mL

% Solids: 4

51

Dilution Factor:

Page: 2 of 2

CAS Number	Analyte	Concentration Notes	Units	Reporting Limi
100-42-5	Styrene	BRL	ug/Kg	2,600
75-25-2	Bromoform	BRL	ug/Kg	2,600
98-82-8	Isopropylbenzene	BRL	ug/Kg	2,600
108-86-1	Bromobenzene	BRL	ug/Kg	2,600
79-34-5	1,1,2,2-Tetrachloroethane	BRL	ug/Kg	2,600
96-18-4	1,2,3-Trichloropropane	BRL	ug/Kg	2,600
103-65-1	n - Propylbenzene	BRL	ug/Kg	2,600
95-49-8	2-Chlorotoluene	BRL	ug/Kg	2,600
108-67-8	1,3,5-Trimethylbenzene	BRL	ug/Kg	2,600
106-43-4	4-Chloratoluene	BRL	ug/Kg	2,600
98-06-6	tert-Butylbenzene	BRL	ug/Kg	2,600
95-63-6	1,2,4-Trimethylbenzene	BRL	ug/Kg	2,600
135-98-8	sec-Butylbenzene	BRL	ug/Kg	2,600
541-73-1	1,3-Dichlorobenzene	BRL	ug/Kg	2,600
99-87-6	4-Isopropyltoluene	BRL	ug/Kg	2,600
106-46-7	1,4-Dichlorobenzene	BRL.	ug/Kg	2,600
95-50-1	1,2-Dichlorobenzene	BRL	ug/Kg	2,600
104-51-8	n-Butylbenzene	BRL	ug/Kg	2,600
96-12-8	1,2-Dibromo-3-chloropropane	BRL	ug/Kg	2,600
120-82-1	1,2,4-Trichlorobenzene	BRL	ug/Kg	2,600
87-68-3	Hexachlorobutadiene	BRL	ug/Kg	2,600
91-20-3	Naphthalene	BRL	ug/Kg	2,600
87-61-6	1,2,3-Trichlorobenzene	BRL	ug/Kg	2,600
75-65-0	terr-Butyl Alconol (18A)	DKL	UB/NB	100,000
108-20-3	Di-isopropyl Ether (DIPE)	BRL	ug/Kg	2,600
637-92-3	Ethyl tert-butyl Ether (ETBE)	BRL	ug/Kg	2,600
994-05-8	tert-Amyl Methyl Ether (TAME)	BRL	ug/Kg	2,600
OC Surrogate C	omnound Snibad	Measured Recovery	0	C Limits

QC Surrogate Compound	Spiked	Measured	Recovery	QC Limits
Dibromofluoromethane	2,500	2,500	100 %	70 - 130 %
1,2-Dichloroethane-da	2,500	2,200	89 %	70 - 130 %
Toluene-d ₈	2,500	2,800	110 %	70 - 130 %
4-Bromofluorobenzene	2,500	2,800	112 %	70 - 130 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996)

Sample preparation performed by EPA Method 5035A and EPA Method 5030B. Results are reported on a dry weight basis

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

EPA Method 8260B Volatile Organics by GC/MS

Field ID: Project: IIA11D

DND Lewis Chemical/2004-301

Client:

Environmental Strategies & Management

Laboratory ID:

Sampled: Received: 08-30-05 14:40 09-02-05 18:30

Analyzed: Analyst:

09-0

87113-05

09-02-05 18:30 09-09-05 23:43

EMC

Matrix:

Soil

Container: Preservation:

40 mL VOA Vial

Methanol / Cool

QC Batch ID: Instrument ID: VM1-1656-E MS-1 HP 5890

Sample Weight:

MS-1 HP 589 17 g

Final Volume:

15 mL

% Solids:

87

Dilution Factor:

	, · · · · · · · · · · · · · · · · · · ·	Dilution Factor:	1	Page: 1 of 2
CAS Number	Analyte	Concentration Notes	Units	Reporting Lim
75-71-8	Dichlorodifluoromethane	BRI.	ug/Kg	520
74-87-3	Chloromethane	BRL	ug/Kg	520
75-01-4	Vinyl Chloride	940	ug/Kg	520
74-83-9	Bromomethane	BRL	ug/Kg	520
75-00-3	Chloroethane	BRL	ug/Kg	520
75-69-4	Trichlorofluoromethane	BRL	ug/Kg	520
60-29-7	Diethyl Ether	BRL	ug/Kg	520
75-35-4	1,1-Dichloroethene	BRL	ug/Kg	260
76-13-1	1,1,2-Trichlorotrifluoroethane	BRL	ug/Kg	2,600
67-64-1	Acetone	BRL	ug/Kg	2,600
75-15-0	Carbon Disulfide	BRL	ug/Kg	2,600
75-09-2	Methylene Chloride	BRL	ug/Kg	1,000
156-60-5	trans- 1,2-Dichloroethene	BRL	ug/Kg	260
1634-04-4	Methyl tert-butyl Ether (MTBE)	BRL	ug/Kg	260
75-34-3	1,1-Dichloroethane	640	ug/Kg	260
594-20-7	2,2-Dichloropropane	BRL	ug/Kg	260
156-59-2	cis-1,2-Dichloroethene	4,400	ug/Kg	260
78-93-3	2-Butanone (MEK)	BRL	ug/Kg	2,600
74-97-5	Bromochloromethane	BRL	ug/Kg	260
109-99-9	Tetrahydrofuran (THF)	BRL	ug/Kg	2,600
67-66-3	Chloroform	BRL	ug/Kg	260
71-55-6	1,1,1-Trichlomethane	270	ug/Kg	260
56-23-5	Carbon Tetrachloride	BRL	ug/Kg	260
(60,000)	1.1 Dichioopopea	Dh.	UNTED	255
71-43-2	Benzene	BRL	ug/Kg	260
107-06-2	1,2-Dichloroethane	BRL	ug/Kg	260
79-01-b	Trichloroethene	BRL	ug/Kg	260
78-87-5	1,2-Dichloropropane	BRL	ug/Kg	250
74-95-3	Dibromomethane	BRL	ug/Kg	260
75-27-4	Bromodichloromethane	BRL	ug/Kg	260
123-91-1	1,4-Dioxane	BRL	ug/Kg	260,000
10061-01-5	cis-1,3-Dichloropropene	BRL	ug/Kg	260
108-10-1	4-Methyl-2-Pentanone (MIBK)	BRL	ug/Kg	2,600
108-88-3	Toluene	1,500	ug/Kg	260
10061-02-6	trans-1,3-Dichloropropene	BRL	ug/Kg	260
79-00-5	1,1,2-Trichloroethane	BRL	ug/Kg	260
127-18-4	Tetrachloroethene	BRL	ug/Kg	260
142-28-9	1,3-Dichloropropane	BRL	ug/Kg	260
591-78-6	2-Hexanone	BRL	ug/Kg	2,600
124-48-1	Dibromochloromethane	BRL	ug/Kg	260
106-93-4	1,2-Dibromoethane (EDB)	BRL	ug/Kg	260
108-90-7	Chlorobenzene	BRL	ug/Kg	260
530-20-6	1,1,1,2-Tetrachloroethane	BRL	ug/Kg	260
100-41-4	Ethylbenzene	BRL	ug/Kg	260
8-38-3/106-42-3	meta- Xylene and para- Xylene	300	ug/Kg	260
95-47-6	ortho-Xylene	BRL	ug/Kg	260

EPA Method 8260B Volatile Organics by GC/MS

Field ID:

IIA11D

Project:

Client:

DND Lewis Chemical/2004-301 , Environmental Strategies & Management

Laboratory ID:

Sampled: Received: 87113-05 08-30-05 14:40 09-02-05 18:30

Analyzed: Analyst:

09-09-05 23:43 **EMC**

Matrix:

Soil

Container: Preservation: 40 mL VOA Vial Methanol / Coo!

QC Batch ID: Instrument ID: VM1-1656-E MS-1 HP 5890

Sample Weight:

17 g

Final Volume:

15 mL

% Solids: Dilution Factor:

87

1

Page: 2 of 2

CAS Number	Analyte	Concentration Notes	Units	Reporting Lim
100-42-5	Styrene	BRL	ug/Kg	260
75-25-2	Bromoform	BRL	ug/Kg	260
98-82-8	Isopropylbenzene	BRL	ug/Kg	260
108-86-1	Bromobenzene	BRL	ug/Kg	260
79-34-5	1,1,2,2-Tetrachloroethane	BRL	ug/Kg	260
96-18-4	1,2,3-Trichloropropane	BRL	ug/Kg	260
103-55-1	n-Propylbenzene	BRL	ug/Kg	260
95-49-8	2-Chlorotoluene	BRL	ug/Kg	260
108-67-8	1,3,5-Trimethylbenzene	BRL	ug/Kg	260
106-43-4	4-Chlarotoluene	BRL	ug/Kg	260
98-06-6	tert-Butylbenzene	BRL	ug/Kg	260
95-63-6	1,2,4-Trimethylbenzene	BRL	ug/Kg	260
135-98-8	sec-Butylbenzene	BRL	ug/Kg	260
541-73-1	1,3-Dichlorobenzene	BRL	ug/Kg	260
99-87-6	4-Isopropyltoluene	BRL	ug/Kg	260
106-46-7	1,4-Dichlorobenzene	BRL	ug/Kg	260
95-50-1	1,2-Dichlorobenzene	BRL	ug/Kg	260
104-51-8	n-Butylbenzene	BRL	ug/Kg	260
96-12-8	1,2-Dibromo-3-chloropropane	BRL	ug/Kg	260
120-82-1	1,2,4-Trichlorobenzene	BRL	ug/Kg	260
87-68-3	Hexachlorobutadiene	BRL	ug/Kg	260
91-20-3	Naphthalene	BRL	ug/Kg	260
87-61-6	1,2,3-Trichlorobenzene	BRL	ug/Kg	260
75 50 8	REDDY MENAUTRY	II The	200	10,000
108-20-3	Di-isopropyl Ether (DIPE)	BRL	ug/Kg	260
637-92-3	Ethyl tert-butyl Ether (ETBE)	BRL	ug/Kg	260
994-05-8	tert-Amyl Methyl Ether (TAME)	BRL	ug/Kg	260

QC Surrogate Compound	Spiked /	Measured	Recovery	QC Limits
Dibromofluoromethane	2,500	2,400	96 %	70 - 130 %
1,2-Dichloroethane-d ₄	2,500	2,200	90 %	70 - 130 %
Toluene-d ₈	2,500	2,600	105 %	70 - 130 %
4-Bromofluorobenzene	2,500	2,700	109 %	70 - 130 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample preparation performed by EPA Method 5035A and EPA Method 5030B. Results are reported on a dry weight basis.

Report Notations:

Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions Reporting limits are adjusted for sample size and dilution.

EPA Method 8260B Volatile Organics by GC/MS

Field ID:

- IA03M

Project:

DND Lewis Chemical/2004-301

Client:

Environmental Strategies & Management

Laboratory ID:

Sampled: Received: 08-30-05 09:25 09-02-05 18:30 09-10-05 00:17

87113-06

Analyzed: Analyst:

EMC

Matrix:

Soil

Container:

40 mL VOA Vial

Preservation:

Methanol / Cool

QC Batch ID: Instrument ID: VM1-1656-E MS-1 HP 5890

Sample Weight:

10 g

Final Volume:

15 mL

% Solids:

82 Dilution Factor:

CAS Number	Analyte	Concentration Notes	Units	Reporting Limit
75-71-8	Dichlorodifluoromethane	BRL	ug/Kg	8,900
74-87-3	Chloromethane	BRL	ug/Kg	8,900
75-01-4	Vinyl Chloride	BRL	ug/Kg	8,900
74-83-9	Bromomethane	BRL	ug/Kg	8,900
75-00-3	Chloroethane	BRL	ug/Kg	8,900
75-69-4	Trichlorofluoromethane	BRL	ug/Kg	8,900
60-29-7	Diethyl Ether	BRL	ug/Kg	8,900
75-35-4	1,1-Dichloroethene	BRL	ug/Kg	4,500
76-13-1	1.1.2-Trichlorotrifluoroethane	BRL	ug/Kg	45,000
67-64-1	Acetone	BRL	ug/Kg	45,000
75-15-0	Carbon Disulfide	BRL	ug/Kg	45,000
75-09-2	Methylene Chloride	BRL	ug/Kg	18,000
156-60-5	trans-1.2-Dichloroethene	BRL	ug/Kg	4,500
1634-04-4	Methyl tert-butyl Ether (MTBE)	BRL	ug/Kg	4,500
75-34-3	1,1-Dichloroethane	BRL	ug/Kg	4,500
25-34-3 594-20-7	2,2-Dichloropropane	BRI	ug/Kg	4,500
56-59-2	cis-1,2-Dichloroethene	BRL	ug/Kg	4,500
		BRL	ug/Kg	45,000
78-93-3	2-Butanone (MEK)	BRL	ug/Kg	4,500
74-97-5	Bromochloromethane	BRL	ug/Kg	45,000
09-99-9	Tetrahydrofuran (THF)	BRL		4,500
7-66-3	Chloroform		ug/Kg	4,500
71-55-6	1,1,1-Trichloroethane	4,700	ug/Kg	The second second second
56-23-5	Carbon Tetrachloride	BRL	ug/Kg	4,500
63-58-6	1,1-Dientoropropene	BKL	uging	4,544
71-43-2	Benzene	BRL	ug/Kg	4,500
107-06-2	1,2-Dichloroethane	BRL	ug/Kg	4,500
79-01-6	Trichloroethene	10,000	ug/Kg	4,500
78-87-5	1,2-Dichloropropane	BRL	ug/Kg	4,500
4-95-3	Dibromomethane	BRL	ug/Kg	4,500
75-27-4	Bromodichloromethane	BRL	ug/Kg	4,500
23-91-1	1,4-Dioxane	BRL	ug/Kg	4,500,00
0061-01-5	cis-1,3-Dichloropropene	BRL	ug/Kg	4,500
08-10-1	4-Methyl-2-Pentanone (MIBK)	BRL	ug/Kg	45,000
108-88-3	Toluene	BRL	ug/Kg	4,500
10061-02-6	trans-1,3-Dichloropropene	BRL	ug/Kg	4,500
79-00-5	1,1,2-Trichloroethane	BRL	ug/Kg	4,500
127-18-4	Tetrachloroethene	31,000	ug/Kg	4,500
42-28-9	1,3-Dichloropropane	BRL	ug/Kg	4,500
91-78-6	2-Hexanone	BRL	ug/Kg	45,000
124-48-1	Dibromochloromethane	BRL	ug/Kg	4,500
106-93-4	1,2-Dibromoethane (EDB)	BRL	ug/Kg	4,500
108-90-7	Chlorobenzene	BRL	ug/Kg	4,500
530-20-6	1,1,1,2-Tetrachloroethane	BRL	ug/Kg	4,500
100-41-4	Ethylbenzene	BRL	ug/Kg	4,500
8-38-3/106-42-3	meta-Xylene and para-Xylene	BRL	ug/Kg	4,500
95-47-6	ortho-Xylene	BRL	ug/Kg	4,500

EPA Method 8260B Volatile Organics by GC/MS

Field ID:

IA03M

Project:

DND Lewis Chemical/2004-301

Client:

Environmental Strategies & Management

Laboratory ID:

Sampled: Received: 87113-06 08-30-05 09:25 09-02-05 18:30

Analyzed: Analyst: 09-10-05 00:17 EMC Matrix:

Soil

Container: Preservation:

40 mL VOA Vial Methanol / Cool

QC Batch ID:

VM1-1656-E

Instrument ID: Sample Weight:

MS-1 HP 5890

Final Volume:

10 g 15 mL

% Solids: 82

Dilution Factor: 10

Page: 2 of 2

CAS Number	Analyte	Concentration Notes	Units	Reporting Limit
100-42-5	Styrene	BRL	ug/Kg	4,500
75-25-2	Bromoform	BRL	ug/Kg	4,500
98-82-8	Isopropylbenzene	BRL	ug/Kg	4,500
108-86-1	Bromobenzene	BRL	ug/Kg	4,500
79-34-5	1,1,2,2-Tetrachloroethane	BRL	ug/Kg	4,500
96-18-4	1,2,3-Trichloropropane	BRL	ug/Kg	4,500
103-65-1	n-Propylbenzene	BRL	ug/Kg	4,500
95-49-8	2-Chlorotoluene	BRL	ug/Kg	4,500
108-67-8	1,3,5-Trimethylbenzene	BRL	ug/Kg	4,500
106-43-4	4-Chlorotoluene	BRL	ug/Kg	4,500
98-06-6	tert-Butylbenzene	BRL	ug/Kg	4,500
95-63-6	1,2,4-Trimethylbenzene	BRL	ug/Kg	4,500
135-98-8	sec-Butylbenzene	BRL	ug/Kg	4,500
541-73-1	1,3-Dichlorobenzene	BRL	ug/Kg	4,500
99-87-6	4-Isopropyltoluene	BRL	ug/Kg	4,500
106-46-7	1,4-Dichlorobenzene	BRL	ug/Kg	4,500
95-50-1	1,2-Dichlorobenzene	BRL	ug/Kg	4,500
104-51-8	n-Butylbenzene	BRL	ug/Kg	4,500
96-12-8	1,2-Dibromo-3-chloropropane	BRL	ug/Kg	4,500
120-82-1	1,2,4-Trichlorobenzene	BRL	ug/Kg	4,500
87-68-3	Hexachlorobutadiene	BRL	ug/Kg	4,500
91-20-3	Naphthalene	BRL	ug/Kg	4,500
87-61-6	1,2,3-Trichlorobenzene	BRL	ug/Kg	4,500
75-b3-0	rem-Buryi Aiconoi (16A) BKL		nBAKR.	100,000
108-20-3	Di isopropyl Ether (DIPE)	BRL	ug/Kg	4,500
537-92-3	Ethyl tert-butyl Ether (ETBE)	BRL	ug/Kg	4,500
994-05-8	rerr-Amyl Methyl Ether (TAME)	BRL	ug/Kg	4,500

QC Surrogate Compound	Spiked N	easured	Recovery	QC Limits
Dibromofluoromethane	2,500	2,400	97 %	70 - 130 %
1,2-Dichloroethane-d ₄	2,500	2,400	94 %	70 - 130 %
Toluene-da	2,500	2,700	107 %	70 - 130 %
4-Bromoffuorohenzene	2 500	2.800	112 %	70 - 130 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample preparation performed by EPA Method 5035A and EPA Method 5030B. Results are reported on a dry weight basis.

Report Notations:

Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution

EPA Method 8260B Volatile Organics by GC/MS

Field ID:

IB05S

DND Lewis Chemical/2004-301

Project: Client:

Environmental Strategies & Management

Laboratory ID: Sampled:

87113-07 08-30-05 10:20 09-02-05 18:30

Received: Analyzed: Analyst:

09-10-05 00:52 **EMC**

Matrix:

Soil

Container: Preservation:

40 mL VOA Vial Methanol / Cool

QC Batch ID: Instrument ID: VM1-1656-E

Sample Weight:

MS-1 HP 5890

Final Volume: % Solids:

13 g 15 mL

91 1

Dilution Factor:

		Dilution Factor:	1	Page: 1 of 2
CAS Number	Analyte	Concentration Notes	Units	Reporting Lin
75-71-8	Dichlorodifluoromethane	BRL	ug/Kg	620
74-87-3	Chloromethane	BRL	ug/Kg	620
75-01-4	Vinyl Chloride	BRL	ug/Kg	620
74-83-9	Bromomethane	BRI	ug/Kg	620
75-00-3	Chloroethane	BRL	ug/Kg	620
75-69-4	Trichlorofluoromethane	BRL	ug/Kg	620
60-29-7	Diethyl Ether	BRL	ug/Kg	620
75-35-4	1,1-Dichloroethene	BRL	ug/Kg	310
76-13-1	1,1,2-Trichlorotrifluoroethane	BRL	ug/Kg	3,100
67-64-1	Acetone	BRL	ug/Kg	3,100
75-15-0	Carbon Disulfide	BRL	ug/Kg	3,100
75-09-2	Methylene Chloride	BRL	ug/Kg	1,200
156-60-5	trans-1,2-Dichloroethene	BRL	ug/Kg	310
1634-04-4	Methyl terr-butyl Ether (MTBE)	BRL	ug/Kg	310
75-34-3	1,1-Dichlorgethane	BRL	ug/Kg	310
594-20-7	2,2-Dichloropropane	BRL	ug/Kg	310
156-59-2	cis-1,2-Dichloroethene	BRL	ug/Kg	310
78-93-3	2-Butanone (MEK)	BRL	ug/Kg	3,100
74-97-5	Bromochloromethane	BRL	ug/Kg	310
109-99-9	Tetrahydrofuran (THF)	BRL	ug/Kg	3,100
67-66-3	Chloroform	BRL	ug/Kg	310
71-55-6	1, 1, 1-Trichloroethane	BRL	ug/Kg	310
56-23-5	Carbon Tetrachloride	BRL	ug/Kg	310
555 50 5	1.7 Dat to opropers	F-7 -	walls	510
71-43-2	Benzene	BRL	ug/Kg	310
107-06-2	1,2-Dichloroethane	680	ug/Kg	310
79-01-6	Trichlomethene	2.200	ug/Kg	310
78-87-5	1,2-Dichloropropane	BRL	ug/Kg	310
74-95-3	Dibromomethane	BRL	ug/Kg	310
75-27-4	Bromodichloromethane	BRL	ug/Kg	310
123-91-1	1.4-Dioxane	BRL	ug/Kg	310,000
1.0061-01-5	cis-1,3-Dichloropropene	BRL	ug/Kg	310,000
108-10-1	4-Methyl-2-Pentanone (MIBK)	BRL	ug/Kg	3,100
108-88-3	Toluene	330	ug/Kg	310
10061-02-6	trans-1,3-Dichloropropene	BRL	ug/Kg	310
79-00-5	1.1.2-Trichloroethane	BRL	ug/Kg	310
127-18-4	Tetrachloroethene	590	ug/Kg	310
142-28-9	1,3-Dichloropropane	BRL	ug/Kg	310
591-78-6	2-Hexanone	BRL	ug/Kg	3,100
124-48-1	Dibromochloromethane	BRL	ug/Kg	310
106-93-4	1,2-Dibromoethane (EDB)	BRL	ug/Kg	310
108-90-7	Chlorobenzene	BRL	ug/Kg	310
630-20-6	1,1,1,2-Tetrachloroethane	BRL	ug/Kg	310
100-41-4	Ethylbenzene	BRL	ug/Kg	310
8-38-3/106-42-3	meta- Xylene and para- Xylene	BRL	ug/Kg	310
95-47-6	ortho- Xylene	BRL	ug/Kg	310



EPA Method 8260B Volatile Organics by GC/MS

Field ID: Project:

1B05S

DND Lewis Chemical/2004-301

Client:

Environmental Strategies & Management

Laboratory ID:

Sampled: Received:

08-30-05 10:20 09-02-05 18:30

Analyzed: Analyst:

87113-07

09-10-05 00:52

EMC

Matrix:

Soil

Container:

40 mL VOA Vial

Preservation:

Methanol / Cool

QC Batch ID: Instrument ID:

VM1-1656-E MS-1 HP 5890

Sample Weight:

13 g 15 mL

Final Volume: % Solids: 91

Dilution Factor:

Page: 2 of 2

CAS Number	Analyte		Concentration Notes	Units	Reporting Lim
100-42-5	Styrene		BRL	ug/Kg	310
75-25-2	Bromoform		BRL	ug/Kg	310
98-82-8	Isopropylbenzene		BRL	ug/Kg	310
108-86-1	Bromobenzene		BRI.	ug/Kg	310
79-34-5	1,1,2,2-Tetrachloroethane		BRL	ug/Kg	310
96-18-4	1,2,3-Trichloropropane		BRI.	ug/Kg	310
103-65-1	n-Propylbenzene		BRL	ug/Kg	310
95-49-8	2-Chlorotoluene		BRL	ug/Kg	310
108-67-8	1,3,5-Trimethylbenzene		420	ug/Kg	310
106-43-4	4-Chlorotoluene		BRL	ug/Kg	310
98-06-6	tert-Butylbenzene		BRL	ug/Kg	310
95-63-6	1,2,4-Trimethylbenzene		410	ug/Kg	310
135-98-8	sec-Butylbenzene		BRL	ug/Kg	310
541-73-1	1,3-Dichlorobenzene		BRL	ug/Kg	310
99-87-6	4-Isopropyltoluene		BRL	ug/Kg	310
106-46-7	1,4-Dichlorobenzene		BRL	ug/Kg	310
95-50-1	1,2-Dichlorobenzene		BRL	ug/Kg	310
104-51-8	n-Butylbenzene		BRL	ug/Kg	310
96-12-8	1,2-Dibromo-3-chioropropa	ine	BRL	ug/Kg	310
120-82-1	1,2,4-Trichlorobenzene		В	ug/Kg	310
87-68-3	Hexachlorobutadiene		BRL	ug/Kg	310
91-20-3	Naphthalene		BRL	ug/Kg	310
87-61-6	1,2,3-Trichlorobenzene		BRL	ug/Kg	310
2-22-0	rea busys medical trans		UKL	UB/VR I	12,000
108-20-3	Di-isopropyl Ether (DIPE)		BRL	ug/Kg	310
537-92-3	Ethyl tert-butyl Ether (ETBE)		BRL	ug/Kg	310
994-05-8 tert -Amyl Methyl Ether (TAME)		BRL	ug/Kg	310	
QC Surrogate Compound Spiked		Measured Recovery	00	Limits	

QC Surrogate Compound	Spiked A	leasured	Recovery	QC Limits
Dibromofluoromethane	2,500	2,300	94 %	70 - 130 %
1,2-Dichlomethane-d ₄	2,500	2,300	92 %	70 - 130 %
Toluene-d _a	2,500	2,700	108 %	70 - 130 %
4-Bromofluorobenzene	2.500	2.700	109 %	70 - 130 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996)

Sample preparation performed by EPA Method 5035A and EPA Method 5030B. Results are reported on a dry weight basis.

Report Notations:

Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution

EPA Method 8260B Volatile Organics by GC/MS

Field ID: Project:

IB05D

DND Lewis Chemical/2004-301

Client:

Environmental Strategies & Management

Laboratory ID:

87113-08

Sampled: Received: Analyzed:

08-30-05 11:00 09-02-05 18:30 09-08-05 12:38

Matrix:

Soil

Container: Preservation: 40 mL VOA Vial NaHSO4 / Cool

QC Batch ID:

VM2-2773-S

Instrument ID: Sample Weight:

MS-2 HP 5890 5.6 g

88

% Solids:

Analyst:	LMG	Dilution Facto	r: 1	Page: 1 of 2
CAS Number	Analyte	Concentration Notes	Units	Reporting Lim
75-71-8	Dichlorodifluoromethane	BRL	ug/Kg	10
74-87-3	Chloromethane	BRL	ug/Kg	10
75-01-4	Vinyl Chloride	12	ug/Kg	10
74-83-9	Bromomethane	BRL	ug/Kg	10
75-00-3	Chloroethane	37	ug/Kg	10
75-69-4	Trichlorofluoromethane	BRL	ug/Kg	10
60-29-7	Diethyl Ether	BRL	ug/Kg	10
75-35-4	1,1-Dichloroethene	BRL	ug/Kg	5
76-13-1	1,1,2-Trichlorotrifluoroethane	BRL	ug/Kg	50
67-64-1	Acetone	BRL	ug/Kg	200
75-15-0	Carbon Disulfide	BRL	ug/Kg	50
75-09-2	Methylene Chloride	BRL	ug/Kg	50
156-60-5	trans- 1,2-Dichloroethene	BRL	ug/Kg	5
1634-04-4	Methyl tert-butyl Ether (MTBE)	BRL	ug/Kg	5
75-34-3	1,1-Dichloroethane	22	ug/Kg	5
594-20-7	2,2-Dichloropropane	BRL	ug/Kg	5
156-59-2	cis-1,2-Dichloroethene	BRL	ug/Kg	5
78-93-3	2-Butanone (MEK)	BRL	ug/Kg	50
74-97-5	Bromochloromethane	BRL	ug/Kg	5
109-99-9	Tetrahydrofuran (THF)	BRL	ug/Kg	50
67-66-3	Chloroform	BRL	ug/Kg	5
71-55-6	1,1,1-Trichlorgethane	BRL	ug/Kg	5
56-23-5	Carbon Tetrachloride	BRL	ug/Kg	5
563-58-6	1,1-Dichlarapropene	BRL	ug/Kg	5
71 42 7	Danasa	pp.		2
107-06-2	1,2-Dichloroethane	BRL	ug/Kg	5
79-01-6	Trichloroethene	BRL	ug/Kg	5
78-87-5	1,2-Dichloropropane	BRI	ug/Kg	5
74-95-3	Dibromomethane	BRL	ug/Kg	5
75-27-4	Bromodichloromethane	BRL	ug/Kg	5
123-91-1	1,4-Dioxane	BRL	ug/Kg	5000
10061-01-5	cis-1,3-Dichloropropene	BRL	ug/Kg	5
108-10-1	4-Methyl-2-Pentanone (MIBK)	BRL	ug/Kg	50
108-88-3	Toluene	85	ug/Kg	5
10061-02-6	trans-1,3-Dichloropropene	BRL	ug/Kg	5
79-00-5	1,1,2-Trichloroethane	BRL	ug/Kg	5
127-18-4	Tetrachloroethene	BRL	ug/Kg	5
142-28-9	1,3-Dichloropropane	BRL	ug/Kg	5
91-78-6	2-Hexanone	BRL	ug/Kg	50
24-48-1	Dibromochloromethane	BRL	ug/Kg	5
06-93-4	1,2-Dibromoethane (EDB)	BRL	ug/Kg	5
08-90-7	Chlorobenzene	BRL	ug/Kg	5
30-20-6	1,1,1,2-Tetrachloroethane	BRL	ug/Kg	5
00-41-4	Ethylbenzene	100	ug/Kg	5
5-38-3/106-42-3	meta- Xylene and para- Xylene	87	ug/Kg	5
5-47-6	ortho-Xylene	16	ug/Kg	5

EPA Method 8260B (Continued) Volatile Organics by GC/MS

Field ID: Project:

DND Lewis Chemical/2004-301

Client:

Environmental Strategies & Management

Laboratory ID: Sampled:

87113-08 08-30-05 11:00 09-02-05 18:30

Received: Analyzed: Analyst:

09-08-05 12:38

LMG

Matrix:

Soil

Container:

40 mL VOA Vial

Preservation:

NaHSO4 / Cool

QC Batch ID: Instrument ID:

VM2-2773-S MS-2 HP 5890

Sample Weight: % Solids:

5.6 g

Dilution Factor:

88

Page: 2 of 2

70 - 130 %

CAS Number	Analyte	Conce	entration	Notes	Units	
100-42-5	Styrene		BRI	Annes	-	Reporting Limit
75-25-2	Bromoform	1	BRL		ug/Kg	5
98-82-8	Isopropylbenzene		BRL		ug/Kg	5
108-86-1	Bromobenzene		BRL		ug/Kg	5
79-34-5	1,1,2,2-Tetrachloroethane	-	BRL		ug/Kg	5
96-18-4	1,2,3-Trichloropropane		BRL		ug/Kg	5
103-65-1	n-Propylbenzene		BRL		ug/Kg	5
95-49-8	2-Chlorotoluene		BRL		ug/Kg	5
108-67-8	1,3,5-Trimethylbenzene		BRL		ug/Kg	5
106-43-4	4-Chlorotoluene		BRL		ug/Kg	5
98-06-6	tert-Butylbenzene		BRL	-	ug/Kg	5
95-63-6	1,2,4-Trimethylbenzene		BRL		ug/Kg	5
135-98-8	sec-Butylbenzene		BRL		ug/Kg	5
541-73-1	1,3-Dichlorobenzene		BRL		ug/Kg	5
99-87-6	4-Isopropyltoluene	***	BRL		ug/Kg	5
106-46-7	1,4-Dichlorobenzene		BRL		ug/Kg	5
95-50-1	1,2-Dichlorobenzene		BRL		ug/Kg	5
104-51-8	n-Butylbenzene		BRL		ug/Kg	5
96-12-8	1,2-Dibromo-3-chloropropane	1	BRL		ug/Kg	5
120-82-1	1,2,4-Trichlorobenzene				ug/Kg	5.
7-68-3	Hexachlorobutadiene		BRL		ug/Kg	5
11-20-3	Naphthalene		BRL BRL		ug/Kg	5
7-61-6	1,2,3-Trichlorobenzene	+			ug/Kg	5
5-65-0	tert -Butyl Alcohol (TBA)		BRL		ug/Kg	5
08-20-3	Di itanimali Ether (Dioci		DAL		ug/Kg	200
37-92-3	Ethyl tert-butyl Ether (ETBE)				nRv9	3
94-05-8	tert-Amyl Methyl Ether (TAME)		BRL		ug/Kg	5
QC Surrogate Co		Type of the			ug/Kg	5
Dibromofluorom	Djemes.	Measured	Recovery	12 PL 1 TOL 1	QC	Limits
,2-Dichloroetha	7		48 96 %		70 - 130 %	
oluene-d _a		The second secon	39 78 %		70 - 130 %	
	50	42	64 %		70 - 130 %	
-Bromofluorobe	nzene 50	43	86 %		70 -	130 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996). Sample preparation performed by EPA Method 5035A. Results are reported on a dry weight basis.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution

EPA Method 8260B Volatile Organics by GC/MS

Field ID: Project: DUP₁

DND Lewis Chemical/2004-301

Client:

Environmental Strategies & Management

Laboratory ID:

Sampled:

87113-09 08-30-05 10:55 09-02-05 18:30

Received: Analyzed: Analyst:

09-09-05 03:07 CCT Matrix:

Soil

Container: Preservation:

40 mL VOA Vial NaHSO4 / Cool

QC Batch ID: Instrument ID:

VM1-1655-S MS-1 HP 5890

Sample Weight:

5.3 g

% Solids: **88**Dilution Factor: **1**

200 1 0

minute in	I was	Dilution Factor:		Page: 1 of 2
CAS Number	Analyte	Concentration Notes	Units	Reporting Lim
75-71-8	Dichlorodifluoromethane	BRL	ug/Kg	11
74-87-3	Chloromethane	BRL	ug/Kg	11
75-01-4	Vinyl Chloride	BRL	ug/Kg	11
74-83-9	Bromomethane	BRL	ug/Kg	11
75-00-3	Chloroethane	21	ug/Kg	11
75-69-4	Trichlorofluoromethane	BRL	ug/Kg	11
60-29-7	Diethyl Ether	BRL	ug/Kg	11
75-35-4	1,1-Dichloroethene	BRL	ug/Kg	5
76-13-1	1,1,2-Trichlorotrifluoroethane	BRL	ug/Kg	54
67-64-1	Acetone	BRL	ug/Kg	210
75-15-0	Carbon Disulfide	BRL	ug/Kg	54
75-09-2	Methylene Chloride	BRL	ug/Kg	54
156-60-5	trans-1,2-Dichloroethene	BRL	ug/Kg	5
1634-04-4	Methyl tert-butyl Ether (MTBE)	BRL	ug/Kg	5
75-34-3	1,1-Dichloroethane	10	ug/Kg	5
594-20-7	2,2-Dichloropropane	BRL	ug/Kg	5
156-59-2	cis-1,2-Dichloroethene	BRL	ug/Kg	5
78-93-3	2-Butanone (MEK)	BRL	ug/Kg	54
74-97-5	Bromochloromethane	BRL	ug/Kg	5
109-99-9	Tetrahydrofuran (THF)	BRL	ug/Kg	54
67-66-3	Chloroform	BRL	ug/Kg	5
71-55-6	1,1,1-Trichloroethane	BRL	ug/Kg	5
56-23-5	Carbon Tetrachloride	BRL	ug/Kg	5
663-58-6	1,1-Dichloropropene	BRL	ug/Kg	5
(9)3/2	penzelle	DKL	Ug/Kg	5
107-06-2	1,2-Dichloroethane	BRL	ug/Kg	5
79-01-6	Trichloroethene	BRL	ug/Kg	5
8-87-5	1,2-Dichloropropane	BRL	ug/Kg	5
4-95-3	Dibromomethane	BRL	ug/Kg	5
5-27-4	Bromodichloromethane	BRL	ug/Kg	5
23-91-1	1,4-Dioxane	BRL	ug/Kg	5400
0061-01-5	cis-1,3-Dichloropropene	BRL	ug/Kg	5
08-10-1	4-Methyl-2-Pentanone (MIBK)	BRL	ug/Kg	54
08-88-3	Toluene	6	ug/Kg	5
0061-02-6	trans- 1,3-Dichloropropene	BRL	ug/Kg	5
9-00-5	1,1,2-Trichloroethane	BRL	ug/Kg	5
27-18-4	Tetrachloroethene	BRL	ug/Kg	5
42-28-9	1,3-Dichloropropane	BRL	ug/Kg	5
91-78-6	2-Hexanone	BRL	ug/Kg	54
24-48-1	Dibromochloromethane	BRL	ug/Kg	5
06-93-4	1,2-Dibromoethane (EDB)	BRL	ug/Kg	5
08-90-7	Chlorobenzene	BRL	ug/Kg	5
30-20-6	1,1,1,2-Tetrachloroethane	BRL	ug/Kg	5
00-41-4	Ethylbenzene	92	ug/Kg	5
3-38-3/106-47-3	meta- Xylene and para- Xylene	BRL	ug/Kg	5
5-47-6	ortho-Xylene	BRL	ug/Kg	5

EPA Method 8260B (Continued) Volatile Organics by GC/MS

Field ID:

Sampled:

Received:

Analyzed:

Laboratory ID:

DUP₁

87113-09

08-30-05 10:55

09-02-05 18:30

09-09-05 03:07

DND Lewis Chemical/2004-301

Project: Client:

Environmental Strategies & Management

Matrix: Container: Soil

Preservation:

40 mL VOA Vial NaHSO4 / Cool

QC Batch ID: Instrument ID:

VM1-1655-S MS-1 HP 5890

Sample Weight:

5.3 g

% Solids:

88

Analyst: CCT Dilution Factor:

Page: 2 of 2

70 - 130 %

70 - 130 %

CAS Number	Analyte		Concen	tration	Notes	Units	Reporting Limi
100-42-5	Styrene			BRL		ug/Kg	5
75-25-2	Bromoform			BRL		ug/Kg	5
98-82-8	Isopropylbenzene			BRL		ug/Kg	5
108-86-1	Bromobenzene			BRL		ug/Kg	5
79-34-5	1,1,2,2-Tetrachloroethane			BRL		ug/Kg	5
96-18-4	1,2,3-Trichloropropane			BRL		ug/Kg	5
103-65-1	n - Propylbenzene			BRL		ug/Kg	5
95-49-8	2-Chlorotoluene			BRL	V	ug/Kg	5
108-67-8	1,3,5-Trimethylbenzene		1	BRL		ug/Kg	5
106-43-4	4-Chlorotoluene			BRL		ug/Kg	5
98-06-6	tert-Butylbenzene			BRL		ug/Kg	5
95-63-6	1,2,4-Trimethylbenzene			BRL		ug/Kg	5
135-98-8	sec-Butylbenzene			BRL		ug/Kg	5
541-73-1	1,3-Dichlorobenzene			BRL		ug/Kg	5
99-87-6	4-Isopropyltoluene		BRL			ug/Kg	5
106-46-7	1,4-Dichlorobenzene			BRL			5
95-50-1	1,2-Dichlorobenzene		BRL		ug/Kg	5	
104-51-8	n-Butylbenzene		BRL		ug/Kg	5	
96-12-8	1,2-Dibromo-3-chiloroprop	oane	BRL		ug/Kg	5	
120-82-1	1,2,4-Trichlorobenzene		BRL		ug/Kg	5	
87-68-3	Hexachlorobutadiene			BRL		ug/Kg	5
91-20-3	Naphthalene			8RL		ug/Kg	5
87-61-6	1,2,3-Trichlorobenzene			BRL		ug/Kg	5
75-65-0	tert-Butyl Alcohol (TBA)			BRL		ug/Kg	210
100-20-3	DESOPROPYLENE (DIFF.)			DISL		40160	-
637-92-3	Ethyl tert-butyl Ether (ETB	E)		BRL		ug/Kg	5
994-05-8	tert-Arnyl Methyl Ether (T/			BRL		ug/Kg	5
QC Surrogate C	ompound	Spiked	Measured	Recovery	J	Q	C Limits
Dibromofluoron		50	52	105 %		70	- 130 %
1,2-Dichloroeth	nne-da	50	51	101 %		70 - 130 %	

4-Bromofluorobenzene Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996) Sample preparation performed by EPA Method 5035A. Results are reported on a dry weight basis.

55

53

50

50

Report Notations:

Toluene-da

Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution

110 %

106 %

EPA Method 8260B Volatile Organics by GC/MS

Field ID: Project:

IB08M

DND Lewis Chemical/2004-301

Client:

Environmental Strategies & Management

Laboratory ID:

Sampled: Received:

87113-10 08-30-05 11:30 09-02-05 18:30

Analyzed: Analyst:

09-08-05 13:48 LMG

Matrix:

Soil

Container: Preservation:

40 mL VOA Vial NaHSO4 / Cool

QC Batch ID:

VM2-2773-S

Instrument ID:

MS-2 HP 5890

Sample Weight:

6 g 81

% Solids:

Analyst:	LMG	Dilution Factor:	1 Page: 1 of 2		
CAS Number	Analyte	Concentration Notes	Units-	Reporting Lim	
75-71-8	Dichlorodifluoromethane	BRL	ug/Kg	10	
74-87-3	Chloromethane	BRL	ug/Kg	10	
75-01-4	Vinyl Chloride	BRL	ug/Kg	10	
74-83-9	Bromomethane	BRL	ug/Kg	10	
75-00-3	Chloroethane	BRL	ug/Kg	10	
75-69-4	Trichlorofluoromethane	BRL	ug/Kg	10	
60-29-7	Diethyl Ether	BRL	ug/Kg	10	
75-35-4	1,1-Dichloroethene	BRL	ug/Kg	5	
76-13-1	1,1,2-Trichlorotrifluoroethane	BRL	ug/Kg	51	
67-64-1	Acetone	BRL	ug/Kg	200	
75-15-0	Carbon Disulfide	BRL	ug/Kg	51	
75-09-2	Methylene Chloride	BRL	ug/Kg	51	
156-60-5	trans- 1,2-Dichloroethene	BRL.	ug/Kg	5	
1634-04-4	Methyl tert-butyl Ether (MTBE)	BRL	ug/Kg	5	
75-34-3	1,1-Dichloroethane	BRL	ug/Kg	5	
594-20-7	2,2-Dichloropropane	BRL	ug/Kg	5	
156-59-2	cis- 1,2-Dichloroethene	BRL	ug/Kg	5	
78-93-3	2-Butanone (MEK)	BRL	ug/Kg	51	
74-97-5	Bromochloromethane	BRL	ug/Kg	5	
109-99-9	Tetrahydrofuran (THF)	BRL	ug/Kg	51	
67-66-3	Chloroform	BRL	ug/Kg	5	
71-55-6	1,1,1-Trichloroethane	BRL	ug/Kg	5	
56-23-5	Carbon Tetrachloride	BRL	ug/Kg	5	
563-58-6	1,1-Dichloropropene	BRL	ug/Kg	5	
11.12.2	Post and the	PAL PAL	He da	3	
107-06-2	1,2-Dichloroethane	BRL	ug/Kg	5	
79-01-6	Trichloroethene	6	ug/Kg	5	
78-87-5	1,2-Dichloropropane	BRL	ug/Kg	5	
74-95-3	Dibromomethane	BRL	ug/Kg	5	
75-27-4	Bromodichloromethane	BRL	ug/Kg	5	
123-91-1	1,4-Dioxane	BRL	ug/Kg	5100	
10061-01-5	cis-1,3-Dichloropropene	BRL	ug/Kg	5	
108-10-1	4-Methyl-2-Pentanone (MIBK)	BRL	ug/Kg	51	
108-88-3	Toluene	BRL	ug/Kg	5	
10061-02-6	trans-1,3-Dichloropropene	BRL	ug/Kg	5	
79-00-5	1,1,2-Trichloroethane	BRL	ug/Kg	5	
127-18-4	Tetrachloroethene	BRL	ug/Kg	5	
142-28-9	1,3-Dichloropropane	BRL	ug/Kg	5	
591-78-6	2-Hexanone	BRL	ug/Kg	51	
24-48-1	Dibromochloromethane	BRL	ug/Kg	5	
106-93-4	1,2-Dibromoethane (EDB)	BRL	ug/Kg	5	
108-90-7	Chlorobenzene	BRL.	ug/Kg	5	
30-20-6	1,1,1,2-Tetrachloroethane	BRL	ug/Kg	5	
00-41-4	Ethylbenzene	BRL	ug/Kg	5	
8-38-3/106-42-3	meta- Xylene and para- Xylene	BRL	ug/Kg	5	
95-47-6	onho-Xylene	BRL	ug/Kg	5	

EPA Method 8260B (Continued) Volatile Organics by GC/MS

Field ID:

IB08M

Project: .

DND Lewis Chemical/2004-301

Client:

Environmental Strategies & Management

Laboratory ID: Sampled:

Received:

08-30-05 11:30 09-02-05 18:30 09-08-05 13:48

87113-10

Analyzed: Analyst:

LMG

Matrix:

81

1

Container:

40 mL VOA Vial

Preservation: QC Batch ID: NaHSO4 / Cool

Instrument ID: Sample Weight: VM2-2773-S MS-2 HP 5890 6 g

% Solids: Dilution Factor:

Page: 2 of 2

CAS Number	Analyte	Concentration Notes	Units	Reporting Lin
100-42-5	Styrene	BRL	ug/Kg	177
75-25-2	Bromoform	BRL	The second secon	5
98-82-8	Isopropylbenzene	BRI.	ug/Kg	
108-86-1	Bromobenzene	BRL	ug/Kg	_ 5
79-34-5	1,1,2,2-Tetrachloroethane	BRL	ug/Kg	5
96-18-4	1,2,3-Trichloropropane	BRL	ug/Kg	5
103-65-1	n-Propylbenzene	BRL	ug/Kg	5
95-49-8	2-Chlorotoluene	BRL	ug/Kg	.5
108-67-8	1,3,5-Trimethylbenzene	BRL	ug/Kg	5
106-43-4	4-Chlorotoluene	BRU	ug/Kg	5
98-06-6	tert-Butylbenzene	BRL	ug/Kg	5
95-63-6	1,2,4-Trimethylbenzene		ug/Kg	5
135-98-8	sec-Butylbenzene	BRL	ug/Kg	5
541-73-1	1,3-Dichlorobenzene	BRL	ug/Kg	5
99-87-6	4-Isopropyltoluene	BRL	ug/Kg	5
106-46-7	1,4-Dichlorobenzene	BRL	ug/Kg	5
95-50-1	1,2-Dichlorobenzene	BRL	ug/Kg	5
104-51-8	n-Butylbenzene	BRL	ug/Kg	5
96-12-8	1,2-Dibromo-3-chloropropane	BRL	ug/Kg	5
120-82-1	1,2,4-Trichlorobenzene	BRL	ug/Kg	5
37-68-3	Hexachlorobutadiene	BRL	ug/Kg	-5
91-20-3	Naphthalene	BRL	ug/Kg	5
17-61-6		BRL	ug/Kg	5
5-65-0	1,2,3-Trichlorobenzene	BRL	ug/Kg	5
2-02-0	tert -Butyl Alcohol (TBA)	BRL	ug/Kg	200
	D' - , - , ' [0] . 'D'(0')	DIL	ne ve	3
37-92-3	Ethyl tert-butyl Ether (ETBE)	BRL	ug/Kg	5
94-05-8	tert-Amyl Methyl Ether (TAME)	BRL	ug/Kg	5
C Surrogate Co	ompound Spiked	Measured Recovery	oc oc	Limite

QC Surrogate Compound	Spiked	Measured	Recovery	QC Limits
Dibromofluoromethane	50	46	93 %	70 - 130 %
1,2-Dichloroethane-d ₄	50	38	75 %	70 - 130 %
Toluene-d _e	50	42	84 %	70 - 130 %
4-Bromofluorobenzene	50	47	94 %	70 - 130 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996). Sample preparation performed by EPA Method 5035A. Results are reported on a dry weight basis.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution

EPA Method 8260B Volatile Organics by GC/MS

Field ID: Project:

ESM16

DND Lewis Chemical/2004-301

Client:

Environmental Strategies & Management

Laboratory ID:

87113-11

Sampled: Received: 08-31-05 13:30 09-02-05 18:30

Analyzed: Analyst:

09-10-05 01:26 **EMC**

Matrix:

Soil

Container:

40 mL VOA Vial

Preservation:

Methanol / Cool

QC Batch ID:

VM1-1656-E

Instrument ID: Sample Weight: MS-1 HP 5890

Final Volume:

23 g

15 mL

% Solids:

76 10

Dilution Factor:

CAS Number	Analyte	Concentration Notes	Units	Reporting Lim
75-71-8	Dichlorodifluoromethane	BRL	ug/Kg	4,300
74-87-3	Chloromethane	BRL	ug/Kg	4,300
75-01-4	Vinyl Chloride	BRL	ug/Kg	4,300
74-83-9	Bromomethane	BRL	ug/Kg	4,300
75-00-3	Chloroethane	BRL	ug/Kg	4,300
75-69-4	Trichlorofluoromethane	BRI	ug/Kg	4,300
60-29-7	Diethyl Ether	BRL	ug/Kg	4,300
75-35-4	1,1-Dichloroethene	BRL	ug/Kg	2,100
76-13-1	1,1,2-Trichlorotrifluoroethane	BRL	ug/Kg	21,000
67-64-1	Acetone	BRL	ug/Kg	21,000
75-15-0	Carbon Disulfide	BRL	ug/Kg	21,000
75-09-2	Methylene Chloride	BRL	ug/Kg	8,600
156-60-5	trans-1,2-Dichloroethene	BRL	-	The second second
1634-04-4	Methyl tert-butyl Ether (MTBE)	BRL	ug/Kg ug/Kg	2,100
75-34-3	1,1-Dichloroethane	BRL		2,100
594-20-7	2,2-Dichloropropane	BRL	ug/Kg ug/Kg	2,100
156-59-2	cis-1,2-Dichloroethene	BRL		2,100
78-93-3	2-Butanone (MEK)	BRL	ug/Kg	2,100
74-97-5	Bromochloromethane	BRL	ug/Kg	21,000
109-99-9	Tetrahydrofuran (THF)	BRL	ug/Kg	2,100
57-66-3	Chloroform	BRL	ug/Kg	21,000
71-55-6	1,1,1-Trichloroethane	BRL	ug/Kg	2,100
6-23-5	Carbon Tetrachloride		ug/Kg	2,100
63-58-6	1,1-Dichloropropene	BRL	ug/Kg	2,100
1-43.2	Benzene	BRL BRL	ug/Kg	2,100
07-06-2	1.2-Dichloroethane		ug/Kg	2,100
9-01-6	Trichloroethene	BRL	ug/Kg	2,100
78-87-5	1,2-Dichloropropane	BRL	ug/Kg	2,100
4-95-3	Dibromomethane	BRL	ug/Kg	2,100
5-27-4	Bromodichloromethane	BRL	ug/Kg	2,100
23-91-1	1,4-Dioxane	BRL	ug/Kg	2,100
0061-01-5		BRL	ug/Kg	2,100,00
08-10-1	cis-1,3-Dichloropropene	BRL	ug/Kg	2,100
08-88-3	4-Methyl-2-Pentanone (MIBK) Toluene	BRL	ug/Kg	21,000
0061-02-6		36,000	ug/Kg	2,100
9-00-5	trans-1,3-Dichloropropene	BRL	ug/Kg	2,100
	1,1,2-Trichloroethane	BRL	ug/Kg	2,100
27-18-4	Tetrachloroethene	BRL	ug/Kg	2,100
42-28-9	1,3-Dichloropropane	BRL	ug/Kg	2,100
91-78-6	2-Hexanone	BRL	ug/Kg	21,000
24-48-1	Dibromochloromethane	BRL	ug/Kg	2,100
06-93-4	1,2-Dibromoethane (EDB)	BRL	ug/Kg	2,100
08-90-7	Chlorobenzene	BRL	ug/Kg	2,100
30-20-6	1,1,1,2-Tetrachloroethane	BRL	ug/Kg	2,100
00-41-4	Ethylbenzene	9,500	ug/Kg	2,100
-38-3/106-42-3	meta- Xylene and para- Xylene	29,000	ug/Kg	2,100
5-47-6	onho-Xylene	6,900	ug/Kg	2,100



EPA Method 8260B Volatile Organics by GC/MS

Field ID:

ESM16

Project:

DND Lewis Chemical/2004-301

Client:

Environmental Strategies & Management

Laboratory ID: Sampled:

ID: 87113-11

Received:

08-31-05 13:30 09-02-05 18:30 09-10-05 01:26

Analyzed: Analyst:

EMC

Matrix: Container:

Soil

Preservation:

40 mL VOA Vial Methanol / Cool

eservation:

Methanol / Coo

QC Batch ID: Instrument ID:

VM1-1656-E MS-1 HP 5890

Sample Weight: Final Volume:

23 g 15 mL

76

10

% Solids: Dilution Factor:

Page: 2 of 2

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limi
100-42-5	Styrene	BRL		ug/Kg	2,100
75-25-2	Bromoform	BRL		ug/Kg	-
98-82-8	Isopropylbenzene	BRL		-	2,100
108-86-1	Bromobenzene	BRL		ug/Kg	2,100
79-34-5	1,1,2,2-Tetrachloroethane	BRL		ug/Kg	2,100
96-18-4	1,2,3-Trichloropropane	BRL		ug/Kg	2,100
103-65-1	n-Propylbenzene	BRL		ug/Kg	2,100
95-49-8	2-Chlorotoluene	BRL		ug/Kg	2,100
108-67-8	1,3,5-Trimethylbenzene	BRL		ug/Kg	2,100
106-43-4	4-Chlorotoluene	BRL		ug/Kg	2,100
98-06-6	tert-Butylbenzene			ug/Kg	2,100
95-63-6	1,2,4-Trimethylbenzene	3,700		ug/Kg	2,100
135-98-8	sec-Butylbenzene	3,700 BRI		ug/Kg	2,100
541-73-1	1,3-Dichlorobenzene	1000		ug/Kg	2,100
99-87-6	4-Isopropyltoluene	BRL		ug/Kg	2,100
106-46-7	1,4-Dichlorobenzene	16,000		ug/Kg	2,100
95-50-1	1,2-Dichlorobenzene	BRL		ug/Kg	2,100
104-51-8	n-Butylbenzene	5,500		ug/Kg	2,100
96-12-8	1,2-Dibromo-3-chloropropane	BRL		ug/Kg	2,100
120-82-1	1,2,4-Trichlorobenzene	BRL		ug/Kg	2,100
87-68-3	Hexachlorobutadiene	BRL		ug/Kg	2,100
91-20-3	Naphthalene	BRL		ug/Kg	2,100
87-61-6	1,2,3-Trichlorobenzene	BRL	-	ug/Kg	2,100
75-65-0	tert-Butyl Alcohol (TBA)	BRL		ug/Kg	2,100
108-20-3		901		ne/ka	\$6,000
637-92-3	Di-isopropyl Ether (DIPE)	BRL		ug/Kg	2,100
994-05-8	Ethyl tert-butyl Ether (ETBE)	BRL		ug/Kg	2,100
774-03-0	tert-Amyl Methyl Ether (TAME)	BRL		ug/Kg	2,100

QC Surrogate Compound	5piked	Measured	Recovery	OC Limits
Dibromofluoromethane	2,500	2,300	94 %	70 - 130 %
1,2-Dichloroethane-d ₄	2,500	2,200	88 %	70 - 130 %
Toluene-d ₈	2,500	2,600	104 %	70 - 130 %
4-Bromofluorobenzene	2,500	2,700	110 %	70 - 130 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample preparation performed by EPA Method 5035A and EPA Method 5030B Results are reported on a dry weight basis

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

EPA Method 8260B Volatile Organics by GC/MS

Field ID:

IIIC02M

Project:

DND Lewis Chemical/2004-301

Client:

Environmental Strategies & Management

Laboratory ID: Sampled:

87113-12 08-31-05 10:40

Received: Analyzed: 09-02-05 18:30 09-10-05 02:00

Analyst:

EMC

Matrix: Container:

Soil

Preservation:

40 mL VOA Vial

Methanol / Cool

QC Batch ID: Instrument ID:

VM1-1656-E MS-1 HP 5890

Sample Weight: Final Volume:

9.6 g 15 mL

% Solids: 81 Dilution Factor:

4

CAS Number	Analyte	Dianon 1 act	Or: 4	Page: 1 of 2
75-71-8	Dichlorodifluoromethane	Concentration Notes	Units	Reporting Lin
74-87-3	Chloromethane	BRL	ug/Kg	3,900
75-01-4	Vinyl Chloride	BRL	ug/Kg	3,900
74-83-9	Bromomethane	BRL	ug/Kg	3,900
75-00-3	Chloroethane	BRL	ug/Kg	3,900
75-69-4	Trichlorofluoromethane	BRL	ug/Kg	3,900
60-29-7	Diethyl Ether	BRL	ug/Kg	3,900
75-35-4	1,1-Dichloroethene	BRL	ug/Kg	3,900
76-13-1	1,1,2-Trichlorotrifluoroethane	BRL	ug/Kg	1,900
67-64-1	Acetone	8RL	ug/Kg	19,000
75-15-0	Carbon Disulfide	BRL	ug/Kg	19,000
75-09-2	Methylene Chloride	BRL	ug/Kg	19,000
156-60-5	Issue 1.3 Dies	BRL	ug/Kg	7,700
1634-04-4	trans-1,2-Dichloroethene	BRL	ug/Kg	1,900
75-34-3	Methyl tert-butyl Ether (MTBE)	BRL	ug/Kg	
594-20-7	1,1-Dichloroethane	8,500	ug/Kg	1,900
156-59-2	2,2-Dichloropropane	BRL	ug/Kg	1,900
78-93-3	cis-1,2-Dichloroethene	23,000	ug/Kg	1,900
AND THE RESERVE OF THE PARTY OF	2-Butanone (MEK)	BRL		1,900
74-97-5	Bromochloromethane	BRL	ug/Kg	19,000
109-99-9	Tetrahydrofuran (THF)	BRL	ug/Kg	1,900
67-66-3	Chloroform	BRL	ug/Kg	19,000
71-55-6	1,1,1-Trichloroethane	4,800	ug/Kg	1,900
56-23-5	Carbon Tetrachlonde	BRL	ug/Kg	1,900
563-58-6	1.1-Dichloropropene	RPI	ug/Kg	1,900
/1-43-2	Benzene	BRL	10.10	1,200
107-06-2	1,2-Dichloroethane	BRL	ug/Kg	1,900
79-01-6	Trichloroethene	19,000	ug/Kg	1,900
78-87-5	1,2-Dichloropropane	BRL	ug/Kg	1,900
74-95-3	Dibromomethane	BRL	ug/Kg	1,900
75-27-4	Bromodichloromethane	BRL	ug/Kg	1,900
123-91-1	1,4-Dioxane		ug/Kg	1,900
0061-01-5	cis-1,3-Dichloropropene	BRL	ug/Kg	1,900,000
08-10-1	4-Methyl-2-Pentanone (MIBK)	BRL	ug/Kg	1,900
08-88-3	Toluene	BRL	ug/Kg	19,000
0061-02-6	trans-1,3-Dichloropropene	BRL	ug/Kg	1,900
9-00-5	1,1,2-Trichloroethane	BRL	ug/Kg	1,900
27-18-4	Tetrachloroethene	BRL	ug/Kg	1,900
42-28-9	1,3-Dichloropropane	8,000	ug/Kg	1,900
	2-Hexanone	BRL	ug/Kg	1,900
	Dibromochloromethane	BRL	ug/Kg	19,000
06-93-4	1,2-Dibromoethane (EDB)	BRL	ug/Kg	1,900
08-90-7	Chlorobenzene	BRL	ug/Kg	1,900
30-20-6	1,1,1,2-Tetrachloroethane	BRL	ug/Kg	1,900
00-41-4	Ethylbenzene	BRL	ug/Kg	1,900
	meta- Xylene and para- Xylene	BRL	ug/Kg	1,900
	ortho- Xylene	BRL	ug/Kg	1,900
	arone Ayrene	BRL	ug/Kg	1,900

EPA Method 8260B **Volatile Organics by GC/MS**

Field ID:

IIIC02M

Project:

DND Lewis Chemical/2004-301

Client:

Environmental Strategies & Management

Laboratory ID:

87113-12

Sampled: Received:

08-31-05 10:40 09-02-05 18:30 09-10-05 02:00

Analyzed: Analyst:

EMC

Matrix:

Soil

Container:

40 mL VOA Vial Methanol / Cool

Preservation: QC Batch ID:

VM1-1656-E

Instrument ID:

MS-1 HP 5890

Sample Weight: Final Volume:

9.6 g

% Solids:

15 mL 81

Dilution Factor:

Page: 2 of 2

70 - 130 %

70 - 130 %

CAS Number	Analyte		Conc	entration	Notes	Units	Reporting Lim
100-42-5	Styrene			BRU	140,65	ug/Kg	1,900
75-25-2	Bromoform			BRL			14.40
98-82-8	Isapropylbenzene			BRL		ug/Kg	1,900
108-86-1	Bromobenzene			BRL		ug/Kg	1,900
79-34-5	1,1,2,2-Tetrachloroethane			BRL		ug/Kg	1,900
96-18-4	1,2,3-Trichloropropane			BRL		ug/Kg	1,900
103-65-1	n-Propylbenzene		1	BRL		ug/Kg	1,900
95-49-8	2-Chlorotoluene	-	+	BRL		ug/Kg	1,900
108-67-8	1,3,5-Trimethylbenzene		+	BRL		ug/Kg	1,900
106-43-4	4-Chlorotoluene		+	BRL		ug/Kg	1,900
98-06-6	tert-Butylbenzene	-		BRL		ug/Kg	1,900
95-63-6	1,2,4-Trimethylbenzene			2757776		ug/Kg	1,900
135-98-8	sec-Butylbenzene	-	+	BRL		ug/Kg	1,900
541-73-1	1,3-Dichlorobenzene	-	-	BRL		ug/Kg	1,900
99-87-6	4-isopropyltoluene	-	+	BRL		ug/Kg	1,900
106-46-7	1,4-Dichlorobenzene	-	+	BRL BRL		ug/Kg	1,900
95-50-1	1,2-Dichlorobenzene	-			ug/Kg	1,900	
104-51-B	n-Butylbenzene	-	BRL			ug/Kg	1,900
96-12-8	1,2-Dibromo-3-chloropropane	-	BRL			ug/Kg	1,900
120-82-1	1,2,4-Trichlorobenzene	-	BRL			ug/Kg	1,900
87-68-3	Hexachlorobutadiene	_	-	BRL		ug/Kg	1,900
91-20-3	Naphthalene	-		BRL		ug/Kg	1,900
37-61-6	1,2,3-Trichlorobenzene	_	-	BRL		ug/Kg	1,900
5-65-0	tert -Butyl Alcohol (TRA)			BRL		ug/Kg	1,900
08-20-3	Di-isopropyl Ether (DIPE)		1	001		a W	77,000
537-92-3	Ethyl tert-butyl Ether (ETBE)		-	BRL		ug/Kg	1,900
994-05-8	The state of the s		BRL		ug/Kg	1,900	
zin-opia	tert-Amyl Methyl Ether (TAME)			BRL		ug/Kg	1,900
QC Surrogate Co		ked	Measured	Recovery	1000	QC	Limits
Dibromofluorom	2000000	500	2,400	97 %		70 -	130 %
,2-Dichloroetha	ne-d ₄ 2,3	500	2,200	89 %			130 %
oluene-d _E	2,3	500	2,600	106 %		70 - 130	

Method Reference:

4-Bromofluorobenzene

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

2,800

2,500

Sample preparation performed by EPA Method 5035A and EPA Method 5030B. Results are reported on a dry weight basis

Report Notations:

Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution

114 %

EPA Method 8260B Volatile Organics by GC/MS

Field ID:

ESMB2

87113-13

Project:

DND Lewis Chemical/2004-301

Client:

Environmental Strategies & Management

Laboratory ID:

Sampled: Received:

08-31-05 14:30 09-02-05 18:30 Analyzed: 09-10-05 02:35

Analyst:

EMC

Matrix: Container:

Soil

15 mL

Preservation:

40 mL VOA Vial Methanol / Cool

QC Batch ID:

Instrument ID: Sample Weight:

VM1-1656-E MS-1 HP 5890 16 g

Final Volume: % Solids:

90 Dilution Factor: 20

CAS Number	Analyte	Dilution Facto	r: 20	Page: 1 of 2
75-71-8	Dichlorodifluoromethane	Concentration Notes	Units	Reporting Lim
74-87-3	Chloromethane	BRL	ug/Kg	9,900
75-01-4	Vinyl Chloride	BRL	ug/Kg	9,900
74-83-9	Bromomethane	BRL	ug/Kg	9,900
75-00-3	Chloroethane	BRL	ug/Kg	9,900
75-69-4	Trichlorofluoromethane	BRL	ug/Kg	9,900
60-29-7	Diethyl Ether	BRL	ug/Kg	9,900
75-35-4	1,1-Dichloroethene	BRL	ug/Kg	9,900
76-13-1	1,1,2-Trichlorotrifluoroethane	BRL	ug/Kg	5,000
67-64-1	Acelone	BRL	ug/Kg	50,000
75-15-0	Carbon Disulfide	BRL	ug/Kg	50,000
75-09-2	Matheda - Chi I I	BRL	ug/Kg	50,000
156-60-5	Methylene Chloride	BRL	ug/Kg	20,000
1634-04-4	trans-1,2-Dichloroethene	BRL	ug/Kg	5,000
75-34-3	Methyl tert-butyl Ether (MTBE)	BRL	ug/Kg	5,000
594-20-7	1,1-Dichloroethane	BRL	ug/Kg	5,000
156-59-2	2,2-Dichloropropane	BRL	ug/Kg	5,000
78-93-3	cis-1,2-Dichloroethene	5,400	ug/Kg	5,000
74-97-5	2-Butanone (MEK)	BRL	ug/Kg	50,000
109-99-9	Bromochloromethane	BRL	ug/Kg	
The second second	Tetrahydrofuran (THF)	BRI.	ug/Kg	5,000
67-66-3	Chloroform	BRL	The second second	50,000
71-55-6	1,1,1-Trichloroethane	12,000	ug/Kg	5,000
56-23-5	Carbon Tetrachloride	BRL	ug/Kg	5,000
563-58-6	1,1-Dichloropropene	PRI	ug/Kg	5,000
10732	Benzene	BRL	o o	7,550
107-06-2	1,2-Dichloroethane	BRL	ug/Kg	5,000
79-01-6	Trichloroethene	67,000	ug/Kg	5,000
78-87-5	1,2-Dichloropropane	BRL	ug/Kg	5,000
74-95-3	Dibromomethane	BRL	ug/Kg	5,000
75-27-4	Bromodichloromethane	BRL	ug/Kg	5,000
123-91-1	1,4-Dioxane	BRL	ug/Kg	5,000
10061-01-5	cis-1,3-Dichloropropene	BRL	ug/Kg	5,000,000
108-10-1	4-Methyl-2-Pentanone (MIBK)	BRL	ug/Kg	5,000
08-88-3	Toluene	BRL	ug/Kg	50,000
10061-02-6	trans-1,3-Dichloropropene	BRL	ид/Кд	5,000
9-00-5	1,1,2-Trichloroethane	BRL	ug/Kg	5,000
27-18-4	Tetrachloroethene		ug/Kg	5,000
42-28-9	1,3-Dichloropropane	56,000 9.0 000 BRL	ug/Kg	5,000
91-78-6	2-Hexanone	BRL	ug/Kg	5,000
24-48-1	Dibromochloromethane	BRL	ug/Kg	50,000
06-93-4	1,2-Dibromoethane (EDB)	BRL	ug/Kg	5,000
08-90-7	Chlorobenzene	BRL	ug/Kg	5,000
30-20-6	1,1,1,2-Tetrachlorgethane	BRL	ug/Kg	5,000
00-41-4	Ethylbenzene		ug/Kg	5,000
38-3/106-42-3	meta- Xylene and para- Xylene	BRL	ug/Kg	5,000
5-47-6	ortho-Xylene	BRL	ug/Kg	5,000
	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	BRL	ug/Kg	5,000

51/643



EPA Method 8260B Volatile Organics by GC/MS

Field ID:

ESMB2

Project:

DND Lewis Chemical/2004-301

Client:

Environmental Strategies & Management

Laboratory ID:

87113-13

Sampled: Received: Analyzed:

08-31-05 14:30 09-02-05 18:30 09-10-05 02:35

Analyst:

EMC

Matrix:

Soil

Container: Preservation:

40 mL VOA Vial Methanol / Cool

QC Batch ID:

VM1-1656-E

Instrument ID: Sample Weight: MS-1 HP 5890 16 g

Final Volume: % Solids:

15 mL 90

70 - 130 %

CAS Number	Analyte	-			Dilution Factor:	20	Page: 2 of 2	
100-42-5	Styrene	_	Con	centration	Notes	Units	Reporting Lim	
75-25-2	Bromoform		-	BRL			5,000	
98-82-8	Isopropylbenzene			BRL			5,000	
108-86-1	Bromobenzene			BRL		ug/Kg ug/Kg	5,000	
79-34-5		-	-	BRL		ug/Kg	5,000	
96-18-4	1,1,2,2-Tetrachloroethane 1,2,3-Trichloropropane			BRL		ug/Kg	5,000	
103-65-1	n-Propylbenzene			BRL		ug/Kg	5,000	
95-49-8	2-Chlorotoluene			BRI		ug/Kg	5,000	
108-67-8	1,3,5-Trimethylbenzene			BRL		ug/Kg	5,000	
106-43-4	4-Chlorotoluene			BRL		ug/Kg	5,000	
98-06-6	tert-Butylbenzene			BRL		ug/Kg	5,000	
95-63-6	1,2,4-Trimethylbenzene			BRL		ug/Kg	5,000	
135-98-8	sec-Butylbenzene			BRL		ug/Kg	5,000	
541-73-1	1,3-Dichlorobenzene		BRL		ug/Kg	5,000		
99-87-6	4-Isopropyltoluene	-	BRL		ug/Kg	5,000		
106-46-7	1,4-Dichlorobenzene			BRL		ug/Kg	5,000	
95-50-1	1,2-Dichlorobenzene		BRL		ug/Kg	5,000		
104-51-B	n -Butylbenzene		BRL			ug/Kg	5,000	
96-12-8	1,2-Dibramo-3-chloroprop			BRL		ug/Kg	5,000	
120-82-1	1,2,4-Trichlorobenzene	ane	BRL		ug/Kg	5,000		
87-68-3	Hexachlorobutadiene		BRL		ug/Kg	5,000		
91-20-3	Naphthalene			BRL		ид/Кд	5,000	
37-61-6	1,2,3-Trichlorobenzene	-	+	BRL		ug/Kg	5:000	
5-65-0	tert-Butyl Alcohol (TBA)		-	BRL		ug/Kg	5,000	
118-20-3	Di-Isopropyl Ether (DIPE)			BRI		LONG	220,000	
37-92-3	Ethyl tert-butyl Ether (ETBE)	_	+	BRL		ug/Kg	5,000	
94-05-8	tert-Amyl Methyl Ether (TA)	MET	BRL			ug/Kg	5,000	
000		VILI		SRU		ug/kg	5,000	
C Surrogate Cor	mpound	Spiked	Measured	Recovery	1 1 2 1 2	00	Phase.	
Dishlarant		2,500	2,400	96 %		QC Limits		
,2-Dichloroethan	e-d ₄	2,500	2,200	89 %	-	70 - 130 %		
oluene-d _B		2,500	2,600	104 %			130 %	
Bromofluoroben	zene	2 500	2 000			70 - 130 %		

Method Reference:

4-Bromofluorobenzene

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

2,800

2,500

Sample preparation performed by EPA Method 503SA and EPA Method 5030B. Results are reported on a dry weight basis.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution

114 %

EPA Method 8260B Volatile Organics by GC/MS

Field ID: Project:

IIIE02M

DND Lewis Chemical/2004-301

Client:

Environmental Strategies & Management

Laboratory ID Sampled:

87113-14 08-31-05 09:45 09-02-05 18:30

Received: Analyzed: Analyst:

09-12-05 11:35 LMG

Matrix:

Soil

Container: Preservation:

40 mL VOA Vial

Methanol / Cool

QC Batch ID: Instrument ID:

VM1-1658-E MS-1 HP 5890

Sample Weight:

15 g

Final Volume:

15 mL

% Solids: 74

CAS Number	Analyte	Dilution Fact		Page: 1 of 2
75-71-8	Dichlorodifluoromethane	Concentration Notes	Units	Reporting Lim
74-87-3	Chloromethane	BRL	ug/Kg	670
75-01-4	Vinyl Chloride	BRL	ug/Kg	670
74-83-9	Bromomethane	BRL	ug/Kg	670
75-00-3	Chloroethane	BRL	ug/Kg	670
75-69-4	Trichlorofluoromethane	BRL	ug/Kg	670
60-29-7	Diethyl Ether	BRL	ug/Kg	670
75-35-4	1,1-Dichloroethene	BRL	ug/Kg	670
76-13-1		BRL	ug/Kg	340
67-64-1	1,1,2-Trichlorotrifluoroethane Acetone	BRL	ug/Kg	3,400
75-15-0	Control of the Contro	BRL	ug/Kg	3,400
75-09-2	Carbon Disulfide	BRL	ug/Kg	3,400
156-60-5	Methylene Chloride	BRL	ug/Kg	1,300
1634-04-4	trans- 1,2-Dichloroethene	BRL	ug/Kg	340
	Methyl tert-butyl Ether (MTBE)	BRL	ug/Kg	340
75-34-3	1,1-Dichloroethane	BRL	ug/Kg	340
594-20-7	2,2-Dichioropropane	BRL	ug/Kg	340
156-59-2	cis-1,2-Dichloroethene	890	ug/Kg	340
78-93-3	2-Butanone (MEK)	BRL	ug/Kg	3,400
74-97-5	Bromochloromethane	BRL	ug/Kg	340
109-99-9	Tetrahydrofuran (THF)	BRL	ug/Kg	3,400
67-66-3	Chloroform	BRL	ug/Kg	340
71-55-6	1,1,1-Trichloroethane	BRL	ug/Kg	340
56-23-5	Carbon Tetrachloride	BRL	ug/Kg	340
563-58-6	1,1-Dichloropropene	RRI	10 0	140
11-43-2	Benzene	BRL	ug/Kg	340
107-06-2	1,2-Dichloroethane	BRL	ug/Kg	340
79-01-6	Trichloroethene	BRL	ug/Kg	340
8-87-5	1,2-Dichloropropane	BRL	ug/Kg	340
4-95-3	Dibromomethane	BRL		
5-27-4	Bromodichloromethane	BRL	ug/Kg	340
23-91-1	1,4-Dioxane	BRL	ug/Kg	340
0061-01-5	cis-1,3-Dichloropropene	BRL	ug/Kg	340,000
08-10-1	4-Methyl-2-Pentanone (MIBK)	BRL	ug/Kg	340
08-88-3	Toluene	BRL	ug/Kg	3,400
0061-02-6	trans-1,3-Dichloropropene	BRL	ug/Kg	340
9-00-5	1,1,2-Trichloroethane	BRL	ug/Kg	340
27-18-4	Tetrachloroethene	BRL	ug/Kg	340
42-28-9	1,3-Dichloropropane	BRL	ug/Kg	340
91-78-6	2-Hexanone	The state of the s	ug/Kg	340
24-48-1	Dibromochloromethane	BRL	ug/Kg	3,400
06-93-4	1,2-Dibromoethane (EDB)	BRL	ug/Kg	340
08-90-7	Chlorobenzene	BRL	ug/Kg	340
30-20-6	1,1,1,2-Tetrachloroethane	BRL	ug/Kg	340
00-41-4	Ethylbenzene	BRL	ug/Kg	340
38-3/106-42-3	meta- Xylene and para- Xylene	400	ug/Kg	340
5-47-6	ortho-Xylene	810	ug/Kg	340
	Simo Apiene	530	ug/Kg	340

EPA Method 8260B Volatile Organics by GC/MS

Field ID:

IIIE02M

Project:

DND Lewis Chemical/2004-301

Client:

Environmental Strategies & Management

Laboratory ID:

Sampled: Received: 08-31-05 09:45

Analyzed: Analyst:

09-12-05 11:35

87113-14

09-02-05 18:30

LMG

Matrix:

Soil

Container: Preservation: 40 mL VOA Vial Methanol / Cool

QC Batch ID:

VM1-1658-E MS-1 HP 5890

Instrument ID: Sample Weight:

15 g

Final Volume:

15 mL 74

% Solids: Dilution Factor:

 •	rage.	1 07 2
 	-	

CAS Number	Analyte	Concentration Notes	Units	Reporting Limi
100-42-5	Styrene	BRL	ug/Kg	340
75-25-2	Bromoform	BRL	ug/Kg	340
98-82-8	Isopropylbenzene	BRL	ug/Kg	340
108-86-1	Bromobenzene	BRL	ug/Kg	340
79-34-5	1,1,2,2-Tetrachloroethane	BRL	ug/Kg	340
96-18-4	1,2,3-Trichloropropane	BRL	ug/Kg	340
103-65-1	n-Propylbenzene	BRL	ug/Kg	340
95-49-8	2-Chlorotoluene	BRL	ug/Kg	340
108-67-8	1,3,5-Trimethylbenzene	BRL	ug/Kg	340
106-43-4	4-Chlorotoluene	BRL	ug/Kg	340
98-06-6	tert-Butylbenzene	BRL	ug/Kg	340
95-63-6	1,2,4-Trimethylbenzene	BRL	ug/Kg	340
135-98-8	sec-Butylbenzene	BRL	ug/Kg	340
541-73-1	1,3-Dichlorobenzene	BRL	ug/Kg	340
99-87-6	4-Isopropyltoluene	BRL	ug/Kg	340
106-46-7	1,4-Dichlorobenzene	BRL	ug/Kg	340
95-50-1	1,2-Dichlorobenzene	BRL	ug/Kg	340
104-51-8	n-Butylbenzene	BRL	ug/Kg	340
96-12-8	1,2-Dibromo-3-chloropropane	BRL	ug/Kg	340
120-82-1	1,2,4-Trichlorobenzene	BRL	ug/Kg	340
87-68-3	Hexachlorobutadiene	BRL	ug/Kg	340
91-20-3	Naphthalene	BRL	ug/Kg	340
37-61-6	1,2,3-Trichlorobenzene	BRL	ug/Kg	340
75-65-0	tert -Rutyl Alcohol (TRA)	RRI	ing/Ve	11.000
108-20-3	Di-isopropyl Ether (DIPE)	BRL	ug/Kg	340
637-92-3	Ethyl tert-butyl Ether (ETBE)	BRL	ug/Kg	340
994-05-8	tert-Amyl Methyl Ether (TAMF)	BRL	ug/Kg	340

QC Surrogate Compound	Spiked	Measured	Recovery	QC Limits
Dibromofluoromethane	2,500	2,300	93 %	70 - 130 %
1,2-Dichloroethane-d4	2,500	2,200	88 %	70 - 130 %
Toluene-da	2,500	2,600	106 %	70 - 130 %
4-Bromofluorobenzene	2,500	2,600	105 %	70 - 130 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996)

Sample preparation performed by EPA Method 5035A and EPA Method 5030B. Results are reported on a dry weight basis

Report Notations:

Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution

EPA Method 8260B Volatile Organics by GC/MS

Field ID:

IIA01S

Project:

DND Lewis Chemical/2004-301

Client:

Environmental Strategies & Management

Laboratory ID: Sampled:

87113-15 08-31-05 10:40 09-02-05 18:30

Received: Analyzed:

09-10-05 03:09

Analyst:

EMC

Matrix: Container:

Soil

Preservation:

40 mL VOA Vial

QC Batch ID:

Methanol / Cool

Instrument ID:

VM1-1656-E MS-1 HP 5890

Sample Weight: Final Volume:

13 g

% Solids:

15 mL 88

Dilution Factor:

CAS Number	Analyte	Dilution ractor:	1	Page: 1 of 2	
75-71-8	Dichlorodifluoromethane	Concentration Notes	Units	Reporting Lin	
74-87-3	Chloromethane	BRL	ug/Kg	680	
75-01-4	Vinyl Chloride	BRL	ug/Kg	680	
74-83-9	Bromomethane	BRL	ug/Kg	680	
75-00-3	Chloroethane	BRL	ug/Kg	680	
75-69-4	Trichlorofluoromethane	BRL	ug/Kg	680	
60-29-7	Diethyl Ether	BRL	ug/Kg	680	
75-35-4	1,1-Dichloroethene	BRL	ug/Kg	680	
76-13-1	1,1,2-Trichlorotrifluoroethane	BRL	ug/Kg	340	
67-64-1	Acetone	BRL	ug/Kg	3,400	
75-15-0	Carbon Disulfide	BRL	ug/Kg	3,400	
75-09-2	Methylene Chloride	BRL	ug/Kg	3,400	
156-60-5	trans-1,2-Dichloroethene	BRL	ug/Kg	1,400	
1634-04-4	Adathyl for haid 5th	BRL	ug/Kg	340	
75-34-3	Methyl tert-butyl Ether (MTBE)	BRL	ug/Kg	340	
594-20-7	1,1-Dichloroethane	BRL	ug/Kg	340	
156-59-2	2,2-Dichloropropane	BRL	ug/Kg	340	
78-93-3	cis-1,2-Dichtoroethene	BRL	ug/Kg	340	
74-97-5	2-Butanone (MEK)	BRL	ug/Kg	3,400	
109-99-9	Bromochloromethane	BRL	ug/Kg	340	
67-66-3	Tetrahydrofuran (THF)	BRL	ug/Kg	3 400	
71-55-6	Chloroform	BRL	ug/Kg		
56-23-5	1,1,1-Trichloroethane	800	ug/Kg	340	
	Carbon Tetrachloride	BRL	ug/Kg	340	
563-58-5	1,1-Dichloropropene	BRI	ng kg	340	
107.00.0	Benzene	BRL	ug/Kg		
107-06-2	1,2-Dichloroethane	BRL	ug/Kg	340	
79-01-6	Trichlorpethene	1,900	ug/Kg	340	
78-87-5	1, Z-Dichloropropane	BRL	-	340	
4-95-3	Dibromomethane	BRL	ug/Kg	340	
5-27-4	Bromodichloromethane	BRL	ug/Kg	340	
23-91-1	1,4-Dioxane	BRL	ug/Kg	340	
0061-01-5	cis-1,3-Dichloropropene	BRL	ug/Kg	340,000	
08-10-1	4-Methyl-2-Pentanone (MIBK)	BRL	ug/Kg	340	
08-88-3	Toluene	BRL	ug/Kg	3,400	
0061-02-6	trans-1,3-Dichloropropene	BRL	ug/Kg	340	
9-00-5	1,1,2-Trichloroethane	BRL	ug/Kg	340	
27-18-4	Tetrachloroethene	1,200	ug/Kg	340	
42-28-9	1,3-Dichloropropane		ug/Kg	340	
91-78-6	2-Hexanone	BRL	ug/Kg	340	
24-48-1	Dibromochloromethane	BRL	ug/Kg	3,400	
16-93-4	1,2-Dibromoethane (EDB)	BRL	ug/Kg	340	
08-90-7	Chlorobenzene	BRL	ug/Kg	340	
0-20-6	1,1,1,2-Tetrachloroethane	BRL	ug/Kg	340	
00-41-4	Ethylbenzene	BRL	ug/Kg	340	
38-3/106-42-1	meta- Xylene and para- Xylene	BRI	ug/Kg	340	
5-47-6	ortho-Xylene	BRL	ug/Kg	340	
-		BRL	ug/Kg	340	

EPA Method 8260B Volatile Organics by GC/MS

Field ID:

IIA01S

Project:

DND Lewis Chemical/2004-301

Client:

Environmental Strategies & Management

Laboratory ID:

Sampled: Received: 87113-15 08-31-05 10:40 09-02-05 18:30

Analyzed:

09-10-05 03:09

Analyst:

EMC

Matrix:

Soil

Container: Preservation: 40 mL VOA Vial Methanol / Cool

QC Batch ID: Instrument ID:

VM1-1656-E

Sample Weight:

MS-1 HP 5890 13 g

Final Volume:

13 g 15 mL

% Solids:

88

Dilution Factor:

Page: 2 of 2

CAS Number	Analyte	Concentration Notes	Units	Reporting Lim
100-42-5	Styrene	BRL	ug/Kg	340
75-25-2	Bromoform	BRL	ug/Kg	340
98-82-8	Isopropylbenzene	BRL	ug/Kg	340
108-86-1	Bromobenzene	BRL	ug/Kg	340
79-34-5	1,1,2,2-Tetrachloroethane	BRL	ug/Kg	340
96-18-4	1,2,3-Trichloropropane	BRL	ug/Kg	340
103-65-1	n-Propylbenzene	BRL	ug/Kg	340
95-49-8	2-Chlorotoluene	BRL	ug/Kg	340
108-67-8	1,3,5-Trimethylbenzene	BRL	ug/Kg	340
106-43-4	4-Chlorotoluene	BRL		340
98-06-6	tert-Butylbenzene	BRL	ug/Kg	The second state of the se
95-63-6	1,2,4-Trimethylbenzene	BRL	ug/Kg	340
135-98-8	sec-Butylbenzene	BRL	ug/Kg	340
541-73-1	1,3-Dichlorobenzene	BRL	ug/Kg	340
99-87-6	4-Isopropyltoluene	BRL	ug/Kg	340
106-46-7	1,4-Dichlorobenzene	BRL	ug/Kg	340
95-50-1	1,2-Dichlorobenzene	BRL	ug/Kg	340
104-51-8	n-Butylbenzene	BRL	ug/Kg	340
96-12-8	1,2-Dibromo-3-chloropropane	BRL	ug/Kg	340
120-82-1	1,2,4-Trichlorobenzene	BRL	ug/Kg	340
87-68-3	Hexachlorobutadiene	BRL	ug/Kg	340
91-20-3	Naphthalene		ug/Kg	340
87-61-6	1,2,3-Trichlorobenzene	BRL	ug/Kg	340
75-65-0	tert-Butvi Alcohol (TBA)	BRL	ug/Kg	340
108-20-3	Di-isopropyl Ether (DIPE)	RPI DDI	tig/Kg	1.1.000
537-92-3	Ethyl tert-butyl Ether (ETBE)	BRL	ug/Kg	340
994-05-8	The state of the s	BRL	ug/Kg	340
754-03-0	tert - Amyl Methyl Ether (TAME)	BRI.	ug/Kg	340

QC Surrogate Compound	Spiked	Measured	Recovery	QC Limits
Dibromofluoromethane	2,500	2,400	97 %	70 - 130 %
1,2-Dichloroethane-d ₄	2,500	2,200	88 %	70 - 130 %
Toluene-d ₈	2,500	2,700	107 %	70 - 130 %
4-Bromofluorobenzene	2,500	2,700	109 %	70 - 130 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample preparation performed by EPA Method 5035A and EPA Method 5030B. Results are reported on a dry weight basis.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

EPA Method 8260B Volatile Organics by GC/MS

Field ID: IIA01M

Project: DND Lewis Chemical/2004-301

Client: **Environmental Strategies & Management**

Laboratory ID: 87113-16

Sampled: 08-31-05 10:50 Received: 09-02-05 18:30

Analyzed: Analyst:

09-10-05 03:44 **EMC**

% Solids: 71 Dilution Factor: 40 Page: 1 of 2

18 g

15 mL

Soil

40 mL VOA Vial

Methanol / Cool

VM1-1656-E

MS-1 HP 5890

Matrix:

Container:

Preservation:

QC Batch ID:

Instrument ID:

Final Volume:

Sample Weight:

CAS Number	Analyte	Concentration Notes	Units	Reporting Limit
75-71-8	Dichlorodifluoromethane	BRL	ug/Kg	24,000
74-87-3	Chloromethane	BRL	ug/Kg	24,000
75-01-4	Vinyl Chloride	BRL	ug/Kg	24,000
74-83-9	Bromomethane	BRL	ug/Kg	24,000
75-00-3	Chloroethane	BRL	ug/Kg	24,000
75-69-4	Trichlorofluoromethane	BRL	ug/Kg	24,000
60-29-7	Diethyl Ether	BRL.	ug/Kg	24,000
75-35-4	1,1-Dichloroethene	BRL	ug/Kg	12,000
76-13-1	1,1,2-Trichlorotrifluoroethane	BRL	ug/Kg	120,000
67-64-1	Acetone	BRL	ug/Kg	120,000
75-15-0	Carbon Disulfide	BRL	ug/Kg	120,000
75-09-2	Methylene Chloride	BRL	ug/Kg	48,000
156-60-5	trans-1,2-Dichloroethene	BRL	The second secon	12,000
1634-04-4	Methyl tert-butyl Ether (MTBE)	BRL	ug/Kg	
75-34-3	1,1-Dichloroethane	BRL	ug/Kg	12,000
594-20-7	2,2-Dichloropropane	BRL	ug/Kg	12,000
156-59-2	cis-1,2-Dichloroethene		ug/Kg	12,000
78-93-3	2-Butanone (MEK)	20,000	ug/Kg	12,000
74-97-5	Bromochloromethane	BRL	ug/Kg	120,000
09-99-9	The state of the s	BRL	ug/Kg	12,000
	Tetrahydrofuran (THF)	BRL	ug/Kg	120,000
7-66-3	Chloroform	BRL	ug/Kg	12,000
1-55-6	1,1,1-Trichloroethane	85,000	ug/Kg	12,000
6-23-5	Carbon Tetrachloride	BRL	ug/Kg	12,000
	1 t. Dichlampropana	por	nalVa o o	12 000
1-43-2	Benzerie	BRL	ug/Kg	12,000
07-06-2	1,2-Dichloroethane	BRL	ug/Kg	12,000
9-01-6	Trichloroethene	140,000	ug/Kg	12,000
8-87-5	1,2-Dichloropropane	BRL	ug/Kg	12,000
4-95-3	Dibromomethane	BRL	ug/Kg	12,000
5-27-4	Bromodichloromethane	BRL.	ug/Kg	12,000
23-91-1	1,4-Dioxane	BRL	ug/Kg	12,000,00
0061-01-5	cis-1,3-Dichloropropene	BRL	ug/Kg	12,000
08-10-1	4-Methyl-2-Pentanone (MIBK)	BRL	ug/Kg	120,000
08-88-3	Toluene	BRL	ug/Kg	12,000
0061-02-6	trans-1,3-Dichloropropene	BRL	ug/Kg	12,000
9-00-5	1,1,2-Trichloroethane	BRL	ug/Kg	12,000
27-18-4	Tetrachloroethene	BRL	ид/Кд	12,000
42-28-9	1,3-Dichloropropane	BRL	ug/Kg	12,000
91-78-6	2-Hexanone	BRL	ug/Kg	120,000
24-48-1	Dibromochloromethane	BRL	ug/Kg	12,000
06-93-4	1,2-Dibromoethane (EDB)	BRL	ug/Kg	12,000
08-90-7	Chlorobenzene	BRL	ug/Kg	12,000
30-20-6	1,1,1,2-Tetrachloroethane	BRL	ug/Kg	12,000
00-41-4	Ethylbenzene	BRL	ug/Kg	12,000
38-3/106-42-3	meta- Xylene and para- Xylene	BRL	ug/Kg	12,000
5-47-6	ortho-Xylene	BRL	ug/Kg	12,000



EPA Method 8260B Volatile Organics by GC/MS

Field ID:

IIA01M

DND Lewis Chemical/2004-301

Project: Client:

Environmental Strategies & Management

Laboratory ID:

87113-16

Sampled: Received: 08-31-05 10:50 09-02-05 18:30

Analyzed: Analyst:

09-10-05 03:44

EMC

Matrix:

Soil

Container: Preservation:

40 mL VOA Vial Methanol / Cool

QC Batch ID:

VM1-1656-E

Instrument 1D:

MS-1 HP 5890

Sample Weight: Final Volume:

18 g 15 mL

% Solids: 71 40

Dilution Factor:

Page: 2 of 2

CAS Number	Analyte	Conc	entration	Notes	Units	Reporting Un	
100-42-5	Styrene		BRL			12,000	
75-25-2	Bromoform		BRL		ug/Kg	12,000	
98-82-8	Isopropylbenzene		BRL		ug/Kg	12,000	
108-86-1	Bromobenzene		BRL		ug/Kg	12,000	
79-34-5	1,1,2,2-Tetrachloroethane		BRL		ug/Kg	12,000	
96-18-4	1,2,3-Trichloropropane		BRL		ug/Kg	12,000	
103-65-1	n-Propylbenzene		BRL		ug/Kg	12,000	
95-49-8	2-Chlorotoluene		BRL		ug/Kg	12,000	
108-67-8	1,3,5-Trimethylbenzene	4	BRL		ug/Kg	12,000	
106-43-4	4-Chlorotoluene		BRL		ug/Kg	12,000	
98-06-6	tert-Butylbenzene		BRL		ug/Kg	12,000	
95-63-6	1,2,4-Trimethy!benzene	11/2	BRL		ug/Kg	12,000	
135-98-8	sec-Butylbenzene		BRL		ug/Kg	12,000	
541-73-1	1,3-Dichlorobenzene		BRL		ug/Kg	12,000	
99-87-6	4-Isopropyltoluene		BRL		ug/Kg	12,000	
106-46-7	1,4-Dichlorobenzene		BRL		ug/Kg	12,000	
95-50-1	1,2-Dichlorobenzene		BRL		ug/Kg	12,000	
104-51-8	n-Butylbenzene		BRL		ug/Kg	12,000	
96-12-8	1,2-Dibromo-3-chloropropane	4	BRL		ug/Kg	12,000	
120-82-1	1,2,4-Trichlorobenzene		BRL		ug/Kg	12,000	
87-68-3	Hexachlorobutadiene		BRL		ug/Kg	12,000	
91-20-3	Naphthalene	11 11 11	BRL		ug/Kg	12,000	
87-61-6	1.2.3-Trichlorobenzene		BRL		ug/Kg	12,000	
75-65-0	tert-Butyl Alcohol (TBA)	1	BRI.		ug/Kg	480,000	
108-20-3	Di-isopropyl Ether (DIPE)		BRL		ug/Kg	12,000	
637-92-3	Ethyl tert-butyl Ether (ETBE)		BRL		ug/Kg	12,000	
994-05-8	tert -Amyl Methyl Ether (TAME)		BRL		ug/Kg	12,000	
QC Surrogate C	ompound Spiked	Measured	Recover	y	Q	C Limits	
Dibromofluoromethane 2,500		2,400	95 %		70 - 130 %		
1,2-Dichloroethane-d ₄ 2,500		2,200				70 - 130 %	
Toluene-da	2,500		Description of the second seco		70 - 130 %		
4-Bromofluorob	enzene 2,500	2,800	112 %		70) - 130 %	

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample preparation performed by EPA Method 5035A and EPA Method 5030B. Results are reported on a dry weight basis.

Report Notations:

Indicates concentration, if any, is below reporting limit for analyte Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution

EPA Method 8260B Volatile Organics by GC/MS

Field ID:

HA01D

Project:

DND Lewis Chemical/2004-301

Client:

Environmental Strategies & Management

Laboratory ID: Sampled:

87113-17 08-31-05 11:00 09-02-05 18:30 09-08-05 15:33

Received: Analyzed: Analyst:

LMG

Matrix:

Soil

Container: Preservation: 40 mL VOA Vial NaHSO4 / Cool

QC Batch ID: Instrument ID: VM2-2773-S MS-2 HP 5890

Sample Weight: 5.3 % Solids: 91

5.3 g

Analyst:	LMG	Dilution Factor:	1	Page: 1 of 2
CAS Number	Analyte	Concentration Notes	Units	Reporting Lim
75-71-8	Dichlorodifluoromethane	BRL	ug/Kg	10
74-87-3	Chloromethane	BRL	ug/Kg	10
75-01-4	Vinyl Chloride	BRL	ug/Kg	10
74-83-9	Bromomethane	BRL	ug/Kg	10
75-00-3	Chloroethane	BRL	ug/Kg	10
75-69-4	Trichlorofluoromethane	BRL.	ug/Kg	10
60-29-7	Diethyl Ether	BRL	ug/Kg	10
75-35-4	1,1-Dichloroethene	BRL	ug/Kg	5
76-13-1	1,1,2-Trichlorotrifluoroethane	BRL	ug/Kg	52
67-64-1	Acetone	BRL	ug/Kg	210
75-15-0	Carbon Disulfide	BRL	ug/Kg	52
75-09-2	Methylene Chloride	BRL	ug/Kg	52
156-60-5	trans-1,2-Dichloroethene	BRL	ug/Kg	5
1634-04-4	Methyl tert- butyl Ether (MTBE)	BRL	ug/Kg	5
75-34-3	1,1-Dichloroethane	BRL	ug/Kg	5
594-20-7	2,2-Dichloropropane	BRL	ug/Kg	5
156-59-2	cis- 1,2-Dichloroethene	BRL.	ug/Kg	5_
78-93-3	2-Butanone (MEK)	BRL	ug/Kg	52
74-97-5	Bromochloromethane	BRL	ug/Kg	5
109-99-9	Tetrahydrofuran (THF)	BRL	ug/Kg	52
67-66-3	Chloroform	BRL	ug/Kg	5
71-55-6	1,1,1-Trichloroethane	73	ug/Kg	5
56-23-5	Carbon Tetrachloride	BRL	ug/Kg	5
563-58-6	1,1-Dichloropropene	BRL	ug/Kg	5
71-43-2	Benzene	BKL	UB/AB	3
107-06-2	1,2-Dichloroethane	BRL	ug/Kg	5
79-01-6	Trichloroethene	67	ug/Kg	5
78-87-5	1,2-Dichloropropane	BRL	ug/Kg	5
74-95-3	Dibromomethane	BRL	ug/Kg	5
75-27-4	Bromodichloromethane	BRL	ug/Kg	5
123-91-1	1,4-Dioxane	BRL	ug/Kg	5200
10061-01-5	cis-1,3-Dichloropropene	BRL	ug/Kg	5
108-10-1	4-Methyl-2-Pentanone (MIBK)	BRL	ug/Kg	52
108-88-3	Toluene	BRL	ug/Kg	5
10061-02-6	trans-1,3-Dichloropropene	BRL	ug/Kg	5
79-00-5	1,1,2-Trichloroethane	BRL	ug/Kg	5
127-18-4	Tetrachloroethene	16	ug/Kg	5
142-28-9	1,3-Dichloropropane	BRL	ug/Kg	5
591-78-6	2-Hexanone	BRL	ug/Kg	52
124-48-1	Dibromochloromethane	BRL	ug/Kg	5
106-93-4	1,2-Dibromoethane (EDB)	BRL	ug/Kg	5
108-90-7	Chlorobenzene	BRL	ug/Kg	5
630-20-6	1,1,1,2-Tetrachloroethane	BRL	ug/Kg	5
100-41-4	Ethylbenzene	BRL	ug/Kg	5
8-38-3/106-42-3	meta- Xylene and para- Xylene	BRL	ug/Kg	5
95-47-6	ortho-Xylene	BRL	ug/Kg	5



EPA Method 8260B (Continued) Volatile Organics by GC/MS

Field ID: Project:

IIA01D

DND Lewis Chemical/2004-301

Client:

Environmental Strategies & Management

Laboratory ID: Sampled: Received:

87113-17 08-31-05 11:00 09-02-05 18:30 09-08-05 15:33

Analyzed: Analyst:

LMG

Matrix: Container: Soil

Preservation:

40 mL VOA Vial NaHSO4 / Cool

QC Batch ID: Instrument ID:

VM2-2773-S MS-2 HP 5890

Sample Weight: % Solids:

5.3 g 91

Dilution Factor:

Page: 2 of 2

70 - 130 %

CAS Number	Analyte		Conce	ntration	Notes	Units	Reporting Limit
100-42-5	Styrene			BRL	1057.882	ug/Kg	5
75-25-2	Bromoform			BRL	1-1-1-1-1	ug/Kg	5
98-82-8	Isopropylbenzene			BRL		ug/Kg	5
108-86-1	Bromobenzene			BRL		ug/Kg	5
79-34-5	1,1,2,2-Tetrachloroethane			BRL		ug/Kg	5
96-18-4	1,2,3-Trichloropropane			BRL		ug/Kg	5
103-65-1	n-Propylbenzene			BRL		ug/Kg	5
95-49-8	2-Chlorotoluene			BRL		ug/Kg	5
108-67-8	1,3,5-Trimethylbenzene			BRL	-	ug/Kg	5
106-43-4	4-Chlorotoluene			BRL		ug/Kg	5
98-06-6	tert-Butylbenzene			BRL		ug/Kg	5
95-63-6	1,2,4-Trimethylbenzene			BRL		ug/Kg	5
135-98-8	sec-Butylbenzene		BRL		ug/Kg	5	
541-73-1	1,3-Dichlorobenzene		BRL		ug/Kg	5	
99-87-6	4-isopropyltoluene		BRL			ug/Kg	5
106-46-7	1,4-Dichlorobenzene		BRL			ug/Kg	s
95-50-1	1,2-Dichlorobenzene		BRL		ug/Kg	5	
104-51-8	n-Butylbenzene		BRL BRL		ug/Kg	5	
96-12-8	1,2-Dibromo-3-chloropropar	ne .				ug/Kg ug/Kg	5
120-82-1	1,2,4-Trichlorobenzene			BRL			
87-68-3	Hexachlorobutadiene		BRL		ug/Kg	5	
91-20-3	Naphthalene		BRL			ug/Kg	5
87-61-6	1,2,3-Trichlorobenzene		BRL			ug/Kg	5
75-65-0	tert -Butyl Alcohol (TBA)			BRL		ug/Kg	210
108-20-3	Di-isopropyl Ether (DIPF)			BRI		ug/Kg	210
637-92-3	Ethyl tert-butyl Ether (ETBE)			BRL		ug/Kg	5
994-05-8 tert -Amyl Methyl Ether (TAME)		BRL			ug/Kg	5	
QC Surrogate Compound Spiked		piked	Measured	Recovery			Limits
Dibromofluorom		50	44	88 %		70 - 130 %	
,2-Dichloroetha		50	39	77 %			- 130 %
Toluene-d _*		50	41	81 %			- 130 %

Method Reference:

4-Bromofluorobenzene

44 Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996). Sample preparation performed by EPA Method 5035A. Results are reported on a dry weight basis.

50

Report Notations:

Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution

88 %

EPA Method 8260B Volatile Organics by GC/MS

Field ID: Project:

IIA035

DND Lewis Chemical/2004-301

Client:

Environmental Strategies & Management

Laboratory ID: Sampled:

87113-18 08-31-05 09:40 09-02-05 18:30 09-10-05 04:18

Received: Analyzed: Analyst:

EMC

Matrix: Container: Soil

Preservation:

40 mL VOA Vial Methanol / Cool

QC Batch ID:

VM1-1656-E

Instrument ID:

MS-1 HP 5890

Sample Weight: Final Volume:

15 g 15 mL

% Solids: 95 Dilution Factor:

VSVSIII	r		Dilution Factor:	1	Page: 1 of 2
CAS Number	Analyte	Concentration	Notes	Units	Reporting Lin
75-71-8	Dichlorodifluoromethane	BRL		ug/Kg	530
74-87-3	Chloromethane	BRL		ug/Kg	530
75-01-4	Vinyl Chloride	BRL		ug/Kg	530
74-83-9	Bromomethane	BRL		ug/Kg	530
75-00-3	Chloroethane	BRL		ug/Kg	530
75-69-4	Trichlorofluoromethane	BRL		ug/Kg	530
60-29-7	Diethyl Ether	BRL		ug/Kg	530
75-35-4	1,1-Dichloroethene	BRL		ug/Kg	260
76-13-1	1,1,2-Trichlorotrifluoroethane	BRL		ug/Kg	2,600
67-64-1	Acetone	BRL		ug/Kg	2,600
75-15-0	Carbon Disulfide	BRL		ug/Kg	2,600
75-09-2	Methylene Chloride	BRL		ug/Kg	1,100
156-60-5	trans-1,2-Dichloroethene	BRL		ug/Kg	260
1634-04-4	Methyl tert-butyl Ether (MTBE)	BRL		ug/Kg	260
75-34-3	1,1-Dichlorpethane	BRL		ug/Kg	260
594-20-7	2,2-Dichloropropane	BRL		ug/Kg	260
156-59-2	cis-1,2-Dichloroethene	320		ug/Kg	260
78-93-3	2-Butanone (MEK)	BRL		ug/Kg	2,600
74-97-5	Bromochloromethane	BRL		ug/Kg	260
109-99-9	Tetrahydrofuran (THF)	BRL		ug/Kg	2,600
67-66-3	Chloroform	BRL		ug/Kg	260
71-55-6	1,1,1-Trichloroethane	790		ug/Kg	260
56-23-5	Carbon Tetrachloride	BRL		ug/Kg	260
EVSEBY	1 1 Dieklarapennann	10.01		ug/Kg	260
71-43-2	Benzene	BRL		ug/Kg	260
107-06-2	1,2-Dichloroethane	BRL		ug/Kg	260
79-01-6	Trichloroethene	1,800		ug/Kg	260
78-87-5	1,2-Dichloropropane	BRL		ug/Kg	260
74-95-3	Dibromomethane	BRL		ug/Kg	260
75-27-4	Bromodichloromethane	BRL		ug/Kg	260
123-91-1	1,4-Dioxane	BRL		ug/Kg	260,000
10061-01-5	cis-1,3-Dichloropropene	BRL		ug/Kg	260
108-10-1	4-Methyl-2-Pentanone (MIBK)	BRL		ug/Kg	2,600
108-88-3	Toluene	290		ug/Kg	260
10051-02-6	trans-1,3-Dichloropropene	BRL		ug/Kg	260
79-00-5	1,1,2-Trichloroethane	BRL	7.5	ug/Kg	260
127-18-4	Tetrachloroethene	1,700	7111)	ug/Kg	260
142-28-9	1,3-Dichloropropane	BRL		ug/Kg	260
91-78-6	2-Hexanone	BRL		ug/Kg	2,600
24-48-1	Dibromochloromethane	BRL		ug/Kg	260
06-93-4	1,2-Dibromoethane (EDB)	BRL		ug/Kg	260
08-90-7	Chlorobenzene	BRL		ug/Kg	260
30-20-6	1,1,1,2-Tetrachloroethane	BRL		ug/Kg	260
00-41-4	Ethylbenzene	BRL		ug/Kg	260
5-36-3/106-42-3	meta-Xylene and para-Xylene	BRL		ug/Kg	260
95-47-6	ortho-Xylene	BRL		ug/Kg	260



EPA Method 8260B Volatile Organics by GC/MS

Field ID: IIA03S

Project: DND Lewis Chemical/2004-301

Client: **Environmental Strategies & Management**

Laboratory ID: 87113-18

Sampled: 08-31-05 09:40 Received: 09-02-05 18:30

Analyzed: 09-10-05 04:18

Analyst: **EMC** Matrix: Soil

40 mL VOA Vial Methanol / Cool

QC Batch ID:

VM1-1656-E

Instrument ID:

Container:

Preservation:

MS-1 HP 5890

Sample Weight: Final Volume: % Solids:

15 g 15 mL 95

1

Dilution Factor:

Page: 2 of 2

CAS Number	Analyte	Concentration Notes	Units	Reporting Limi
100-42-5	Styrene	BRL	ug/Kg	260
75-25-2	Bromoform	BRL	ug/Kg	260
98-82-8	Isopropylbenzene	BRL	ug/Kg	260
108-86-1	Bromobenzene	BRL	ug/Kg	260
79-34-5	1,1,2,2-Tetrachloroethane	BRL	ug/Kg	260
96-18-4	1,2,3-Trichloropropane	BRL	ug/Kg	260
103-65-1	n - Propyibenzene	BRL	ug/Kg	260
95-49-8	2-Chlorotoluene	BRL	ug/Kg	260
108-67-8	1,3,5-Trimethylbenzene	BRL	ug/Kg	260
106-43-4	4-Chlorotoluene	BRL	ug/Kg	260
98-06-6	tert-Butylbenzene	BRL	ug/Kg	260
95-63-6	1,2,4-Trimethylbenzene	BRL	ug/Kg	260
135-98-8	sec-Butylbenzene	BRL	ug/Kg	260
541-73-1	1,3-Dichlorobenzene	BRL	ug/Kg	260
99-87-6	4-Isopropyltoluene	BRL	ug/Kg	260
106-46-7	1,4-Dichlorobenzene	BRL	ug/Kg	260
95-50-1	1,2-Dichlorobenzene	BRL	ug/Kg	260
104-51-8	n -Butylbenzene	BRL	ug/Kg	260
96-12-8	1,2-Dibromo-3-chloropropane	BRL	ug/Kg	260
120-82-1	1,2,4-Trichlorobenzene	BRL	ug/Kg	260
37-68-3	Hexachlorobutadiene	BRL	ug/Kg	260
91-20-3	Naphthalene	BRL	ug/Kg	260
37-61-6	1,2,3-Trichlorobenzene	BRL	ug/Kg	260
TE ECO	tot Pubil Alcohol (TRA)	RD)	ua/Va	11.000
108-20-3	Di-Isopropyl Ether (DIPE)	BRL	ug/Kg	260
537-92-3	Ethyl tert-butyl Ether (ETBE)	BRL	ug/Kg	260
994-05-8	tert -Amyl Methyl Ether (TAME)	BRL	ug/Kg	260

QC Surrogate Compound	Spiked	Measured	Recovery	QC Limits
Dibromofluoromethane	2,500	2,300	93 %	70 - 130 %
1,2-Dichloroethane-d4	2,500	2,200	87 %	70 - 130 %
Toluene-d ₈	2,500	2,600	106 %	70 - 130 %
4-Bromofluorobenzene	2.500	2,700	108 %	70 - 130 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample preparation performed by EPA Method 5035A and EPA Method 5030B. Results are reported on a dry weight basis.

Report Notations:

Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution

EPA Method 8260B Volatile Organics by GC/MS

Field ID: IIA03M

Project: DND Lewis Chemical/2004-301

Client: Environmental Strategies & Management

Laboratory ID: 87113-19
Sampled: 08-31-05 09:50
Received: 09-02-05 18:30

Analyzed: **09-13-05 02:32** Analyst: **CCT** Matrix: Soil

Container: 40 mL VOA Vial
Preservation: Methanol / Cool

QC Batch ID: VM1-1659-E Instrument ID: MS-1 HP 5890

Sample Weight: 19 g
Final Volume: 15 mL
% Solids: 76

Dilution Factor: 1000 Page 1 of 2

1200 006

CAS Number	Andre	Dilution Factor:	1000	Page 1 of 2	
75-71-8	Analyte	Concentration Notes	Units	Reporting Limit	
74-87-3	Dichlorodifluoromethane	BRL	ug/Kg	520,000	
75-01-4	Chloromethane	BRL	ug/Kg	520,000	1
	Vinyl Chloride	BRL	ug/Kg	520,000	1
74-83-9	Bromomethane	BRL	ug/Kg	520,000	1
75-00-3	Chloroethane	BRL	ug/Kg	520,000	- 1
75-69-4	Trichlorofluoromethane	BRL	ug/Kg	520,000	
60-29-7	Diethyl Ether	BRL	ug/Kg	520,000	
75-35-4	1,1-Dichloroethene	BRL	ug/Kg	260,000	1
76-13-1	1,1,2-Trichlorotrifluoroethane	BRL	ug/Kg	2,600,000	
67-64-1	Acetone	BRL	ug/Kg	2,600,000	1
75-15-0	Carbon Disulfide	BRL	ug/Kg	2,600,000	
75-09-2	Methylene Chloride	BRL	ug/Kg	1,000,000	50
156-60-5	trans- 1,2-Dichloroethene	BRL	ug/Kg	260,000	-
1634-04-4	Methyl tert-butyl Ether (MTBE)	BRL	ug/Kg	260,000	
75-34-3	1,1-Dichloroethane	BRL		the second second second second second	-
594-20-7	2,2-Dichloropropane	BRL	ug/Kg	260,000	-
56-59-2	cis-1,2-Dichloroethene	BRL	ug/Kg	260,000	
8-93-3	2-Butanone (MEK)	BRL	ug/Kg	260,000	4
14-97-5	Bromochforomethane	BRL	ug/Kg	2,600,000	
09-99-9	Tetrahydrofuran (THF)	BRL	ug/Kg	260,000	47
7-66-3	Chloroform		ug/Kg	2,600,000	
1-55-6	1,1,1-Trichloroethane	BRL	ug/Kg	260,000	
6-23-5	Carbon Tetrachloride	3,000,000 100 000 1 100		260,000	132 E Q
63-58-6	1.1-Dichloropropene	BRL	ug/Kg	260,000	
1-43-2	Benzene	BRI	Ha/Kin	260,000	
07-06-2	1,2-Dichloroethane	BRL	ug/Kg	260,000	1
9-01-6	Trichlomethene	BRL	ug/Kg	260,000	
8-87-5	1,2-Dichloropropane	1,900,000	ug/Kg	260,000	
4-95-3	Dibromomethane	BRL	ug/Kg	260,000	
5-27-4	The state of the s	BRL	ug/Kg	260,000	
23-91-1	Bromodichloromethane	BRL	ug/Kg	260,000	
The State of the latest and the late	1,4-Dioxane	BRL	ug/Kg	260,000,000	
0061-01-5	cis-1,3-Dichloropropene	BRL	ug/Kg	260,000	
08-10-1	4-Methyl-2-Pentanone (MIBK)	BRL	ug/Kg	2,600,000	
08-88-3	Toluene	680,000	ug/Kg	260,000	500 ac
0061-02-6	trans- 1,3-Dichloropropene	BRL	ug/Kg	260,000	500,00
9-00-5	1,1,2-Trichloroethane	BRL	ug/Kg	260,000	
27-18-4	Tetrachloroethene	1,600,000 20,600	ug/Kg	260,000	
42-28-9	1,3-Dichloropropane	BRL	ug/Kg	260,000	100 600
91-78-6	2-Hexanone	BRL	ug/Kg	2,600,000	
24-48-1	Dibromochloromethane	BRL	ug/Kg	260,000	1
76-93-4	1,2-Dibromoethane (EDB)	BRL	ug/Kg	260,000	4
08-90-7	Chlorobenzene	BRL	ug/Kg	260,000	
30-20-6	1,1,1,2-Tetrachloroethane	BRL	ug/Kg	260,000	
00-41-4	Ethylbenzene	BRL	ug/Kg	260,000	
	The second secon	4-46	- Br 118	200,000	
38-3/106-42-3	meta- Xylene and para- Xylene	BRL	ug/Kg	260,000	



EPA Method 8260B Volatile Organics by GC/MS

Field ID:

IIA03M

Project:

DND Lewis Chemical/2004-301

Client:

Environmental Strategies & Management

Laboratory ID: Sampled:

87113-19

Received: Analyzed:

08-31-05 09:50 09-02-05 18:30 09-13-05 02:32

Analyst:

CCT

Matrix:

Container:

Soil

Preservation:

40 mL VOA Vial Methanol / Cool

QC Batch ID:

VM1-1659-E MS-1 HP 5890

Instrument ID: Sample Weight: Final Volume:

19 g

% Solids:

15 mL 76

Dilution Factor: 1000 Page 2 of 2

70 - 130 %

70 - 130 %

70 - 130 %

CAS Number	Analyte		Conc	entration	Parallal Allegan	T. Maria	I
100-42-5	Styrene		Cont		Notes	Units	Reporting Limi
75-25-2	Bromoform		BRL BRL			ug/Kg	260,000
98-82-8	Isopropylbenzene			BR		ug/Kg	260,000
108-86-1	Bromobenzene		-	BR		ug/Kg	260,000
79-34-5	1,1,2,2-Tetrachloroethar	np.	-			ug/Kg	260,000
96-18-4	1,2,3-Trichloropropane	-	1	BR		ug/Kg	260,000
103-65-1	n-Propylbenzene			BR		ug/Kg	260,000
95-49-8	2-Chlorotoluene	-	-	BR		ug/Kg	260,000
108-67-8	1,3,5-Trimethylbenzene		+	BR		ug/Kg	260,000
106-43-4	4-Chlorotoluene		-	BR		ug/Kg	260,000
98-06-6	tert-Butylbenzene	_	-	BR		ug/Kg	260,000
95-63-6	1,2,4-Trimethylbenzene		-	BR		ug/Kg	260,000
135-98-8	sec-Butylbenzene		-	BR		ug/Kg	260,000
541-73-1	1,3-Dichlorobenzene			BR		ug/Kg	260,000
99-87-6	4-Isopropyltoluene			BR		ug/Kg	260,000
106-46-7	1,4-Dichlorobenzene		BRL		ug/Kg	260,000	
95-50-1			4	BRL		ug/Kg	260,000
04-51-8	1,2-Dichlorobenzene			BR		ug/Kg	260,000
6-12-8	n-Butylbenzene			BRI		ug/Kg	260,000
20-82-1	1,2-Dibromo-3-chloropro	pane		BRI		ug/Kg	260,000
7-68-3	1,2,4-Trichlorobenzene			BRI		ug/Kg	260,000
11-20-3	Hexachlorobutadiene			BRL		ug/Kg	260,000
7-61-6	Naphthalene			BRL		ug/Kg	260,000
	1,2,3-Trichlorobenzene			BRL		ug/Kg	260,000
5-65-0	tert-Butyl Alcohol (TBA)			BRL		ug/Kg	10.000.000
08-20-3	DHISopropyl Ether (DIPE)		BRL		ug/Kg	260,000	
37-92-3	Ethyl tert-butyl Ether (ETB			BRL		ug/Kg	260,000
94-05-8	tert-Amyl Methyl Ether (T	AME)		BRL		ug/Kg	260,000
C Surrogate Co		Spiked	Measured	Recov	ery	00	Limits
ibromofluorome		2,500	2,500	98 %	and .		- 130 %
2-Dichlomath	nn d					70	130 70

Method Reference:

Toluene-da

1,2-Dichloroethane-d4

4-Bromofluorobenzene

2,700 Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

2,200

2,700

2,500

2,500

2,500

Sample preparation performed by EPA Method 5035A and EPA Method 5030B. Results are reported on a dry weight basis.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions Reporting limits are adjusted for sample size and dilution.

87 %

108 %

110 %

EPA Method 8260B Volatile Organics by GC/MS

Field ID:

IIA03D

Project: DND Lewis Chemical/2004-301

Client:

Environmental Strategies & Management

Laboratory ID Sampled:

87113-20 08-31-05 10:00 09-02-05 18:30

Received: Analyzed:

09-13-05 03:07

Analyst:

CCT

Matrix:

Soil

Container:

40 ml VOA Vial

Preservation:

Methanol / Cool

QC Batch ID: Instrument ID: VM1-1659-E

Sample Weight:

MS-1 HP 5890

Final Volume:

12 g 10 mL

90

% Solids: Dilution Factor:

CAS Number	Analyte	Dilution Factor:	2	Page: 1 of 2
75-71-8	Dichlorodifluoromethane	Concentration Notes	Units	Reporting Lin
74-87-3	Chloromethane	BRL	ug/Kg	930
75-01-4	Vinyl Chloride	BRL	ug/Kg	930
74-83-9	Bromomethane	BRL	ug/Kg	930
75-00-3	Chloroethane	BRL	ug/Kg	930
75-69-4		BRL	ug/Kg	930
60-29-7	Trichlorofluoromethane	BRL	ug/Kg	930
75-35-4	Diethyl Ether	BRL	ug/Kg	930
76-13-1	1,1-Dichloroethene	BRL	ug/Kg	470
67-64-1	1,1,2-Trichlorotrifluoroethane Acetone	BRL	ug/Kg	4,700
75-15-0	7.75 THE	BRL	ug/Kg	4,700
75-09-2	Carbon Disulfide	BRL	ug/Kg	4,700
156-60-5	Methylene Chloride	BRL	ug/Kg	1,900
1634-04-4	trans-1,2-Dichloroethene	BRL	ug/Kg	470
75-34-3	Methyl tert- butyl Ether (MTBE)	BRL	ug/Kg	470
75-34-3 594-20-7	1,1-Dichloroethane	BRL	ug/Kg	470
And the second second	2,2-Dichloropropane	BRL	ug/Kg	470
156-59-2	cis-1,2-Dichloroethene	BRL	ug/Kg	470
78-93-3	2-Butanone (MEK)	BRL	ug/Kg	4,700
74-97-5	Bromochloromethane	BRL	ug/Kg	470
109-99-9	Tetrahydrofuran (THF)	BRL	ug/Kg	4,700
67-66-3	Chloroform	BRL	ug/Kg	470
71-55-6	1,1,1-Trichloroethane	1,100	ug/Kg	470
6-23-5	Carbon Tetrachloride	BRL	ug/Kg	470
63-58-6	1,1-Dichloropropene	BRL	ug/Kg	470
1-3-2	benzene	BRL	ug/Kg	470
07-06-2	1,2-Dichloroethane	BRL	ug/Kg	470
9-01-6	Trichloroethene	BRL	ug/Kg	470
8 87-5	1,2-Dichloropropane	BRL	ug/Kg	470
4-95-3	Dibromomethane	BRL	ug/Kg	470
5-27-4	Bromodichloromethane	BRL	ug/Kg	470
23-91-1	1,4-Dioxane	BRL	ug/Kg	470,000
0061-01-5	cis-1,3-Dichloropropene	BRL	ug/Kg	470
08-10-1	4-Methyl-2-Pentanone (MIBK)	BRL	ug/Kg	4,700
08-88-3	Toluene	BRL	ug/Kg	470
0061-02-6	trans-1,3-Dichloropropene	BRL	ug/Kg	470
9-00-5	1,1,2-Trichloroethane	BRL	ug/Kg	470
27-18-4	Tetrachloroethene	1,100	ug/Kg	470
42-28-9	1,3-Dichloropropane	BRL	ug/Kg	470
91-78-6	2-Hexanone	BRL	ug/Kg	4,700
24-48-1	Dibromochloromethane	BRL	ug/Kg	470
36-93-4	1,2-Dibromoethane (EDB)	BRL	ug/Kg	470
08-90-7	Chlorobenzene	BRL	ug/Kg	470
30-20-6	1,1,1,2-Tetrachloroethane	BRL	ug/Kg	470 470
00-41-4	Ethylbenzene	610	ug/Kg	470
38-3/106-42-3	meta- Xylene and para- Xylene	630	ug/Kg	470
-47-6	ortho-Xylene	BRL	ug/Kg	470



EPA Method 8260B Volatile Organics by GC/MS

Field ID:

IIA03D

Project:

DND Lewis Chemical/2004-301

Client:

Environmental Strategies & Management

Laboratory ID:

Sampled: Received: 87113-20 08-31-05 10:00 09-02-05 18:30

Analyzed: Analyst:

09-13-05 03:07

Matrix:

Soil

Container: Preservation: 40 mL VOA Vial Methanol / Cool

QC Batch ID:

VM1-1659-E

Instrument ID: Sample Weight: MS-1 HP 5890 12 g

Final Volume: % Solids:

10 mL 90

Dilution Factor: 2

Page: 2 of 2

CAS Number	Analyte	Conc	entration Notes	Units	Reporting Lin	
100-42-5	Styrene		BRL	ug/Kg	470	
75-25-2	Bromoform	***	BRL	ug/Kg	470	
98-82-8	Isopropylbenzene		BRL	ug/Kg	470	
108-86-1	Bromobenzene		BRL	ug/Kg		
79-34-5	1,1,2,2-Tetrachloroethane	**	BRL		470	
96-18-4	1,2,3-Trichloropropane		BRL	иg/Кg иg/Кg	470	
103-65-1	n-Propylbenzene		BRL		470	
95-49-8	2-Chlorotoluene		BRL	ug/Kg	470	
108-67-8	1,3,5-Trimethylbenzene		650	ug/Kg	470	
106-43-4	4-Chlorotoluene		BRL	ug/Kg	470	
98-06-6	tert-Butylbenzene		BRL	ug/Kg	470	
95-63-6	1,2,4-Trimethylbenzene		1,200	ug/Kg ug/Kg	470	
135-98-8	sec-Butylbenzene	-	2,400		470	
541-73-1	1,3-Dichlorobenzene		BRL		470	
99-87-6	4-Isopropyltoluene	-	BRL		470	
106-46-7	1,4-Dichlorobenzene		BRL		470	
95-50-1	1,2-Dichlorobenzene		BRL		470	
104-51-8	n-Butylbenzene	BRL		ug/Kg	470	
96-12-8	1,2-Dibromo-3-chloropropane	BRL		ug/Kg	470	
120-82-1	1,2,4-Trichlorobenzene	BRL		ug/Kg ug/Kg	470	
7-68-3	Hexachlorobutadiene		BRL		470	
11-20-3	Naphthalene		BRL	ug/Kg	470	
37-61-6	1,2,3-Trichlorobenzene		BRL	ug/Kg	470	
5-65-0	tert-Butyl Alcohol (TBA)		BRL	ug/Kg	470	
08-20-3	Di-isopropyl Ether (DIPE)	1	BRL	ug/Kg	19 000	
37-92-3	Ethyl tert-butyl Ether (ETBE)		BRL	ug/Kg	470	
94-05-8	tert-Amyl Methyl Ether (TAME)		BRL	ug/Kg	470	
200		To the second		ug/Kg	470	
C Surrogate Co			Recovery	QC	Limits	
Dibromofluorom	-1000	2,400	96 %		130 %	
,2-Dichloroetha			2,200 88 % 70 - 13			
oluene-d ₈	2,500	2,700	108 %	70 - 130 %		
-Bromofluorobe	nzene 2,500	2,300	90 %	70 -	130 %	

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996)

Sample preparation performed by EPA Method 5035A and EPA Method 5030B. Results are reported on a dry weight basis

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution

EPA Method 8260B Volatile Organics by GC/MS

Field ID

DUP3

87113-21

Project:

DND Lewis Chemical/2004-301

Client:

Environmental Strategies & Management

Laboratory ID:

Sampled: Received:

08-31-05 09:55 09-02-05 18:30 09-13-05 03:42

Analyzed: Analyst:

CCT

Matrix:

Soil

Container: Preservation: 40 mL VOA Vial Methanol / Cool

QC Batch ID:

VM1-1659-E

Instrument ID:

MS-1 HP 5890

Sample Weight: Final Volume: % Solids:

145 g 15 mL

Dilution Factor: 4

76 400

Page 1 of 2

CAS Number	Analyte	Dilution Factor		Page 1 of 2
75-71-8		Concentration Notes		Reporting Limit
74-87-3	Dichlorodifluoromethane	BRL	ug/Kg	280,000
75-01-4	Chloromethane	BRL	ug/Kg	280,000
the second secon	Vinyl Chloride	BRL	ug/Kg	280,000
74-83-9	Bromomethane	BRL	ug/Kg	280,000
75-00-3	Chloroethane	BRL	ug/Kg	280,000
75-69-4	Trichlorofluoromethane	BRL	ug/Kg	280,000
60-29-7	Diethyl Ether	BRL	ug/Kg	280,000
75-35-4	1,1-Dichloroethene	BRL	ug/Kg	140,000
76-13-1	1,1,2-Trichlorotrifluoroethane	BRL	ug/Kg	1,400,000
67-64-1	Acetone	BRL	ug/Kg	1,400,000
75-15-0	Carbon Disulfide	BRL	ug/Kg	1,400,000
75-09-2	Methylene Chloride	BRL	ug/Kg	550,000
156-60-5	trans-1,2-Dichloroethene	BRL	ug/Kg	140,000
1634-04-4	Methyl tert-butyl Ether (MTBE)	BRL	ug/Kg	140,000
75-34-3	1,1-Dichloroethane	BRL	ug/Kg	140,000
594-20-7	2,2-Dichloropropane	BRL	ug/Kg	140,000
156-59-2	cis-1,2-Dichloroethene	BRL	ug/Kg	140,000
78-93-3	2-Butanone (MEK)	BRL	ug/Kg	1,400,000
74-97-5	Bromochloromethane	BRL	ug/Kg	140,000
109-99-9	Tetrahydrofuran (THF)	BRL	ug/Kg	1,400,000
67-66-3	Chloroform	BRL	ug/Kg	140,000
71-55-6	1,1,1-Trichloroethane	2,100,000	ug/Kg	140,000
56-23-5	Carbon Tetrachloride	BRL	ug/Kg	140,000
563-58-6	1.1-Dichloropropene	BRL	ug/Kg	140,000
71-43-2	Benzene	BRI	ug/Kg	140,000
107-06-2	1,2-Dichloroethane	BRU	ug/Kg	140,000
79-01-6	Trichloroethene	1,500,000	ug/Kg	140,000
78-87-5	1,2-Dichloropropane	BRL	ug/Kg	140,000
74-95-3	Dibromomethane	BRL	ug/Kg	140,000
75-27-4	Bromodichloromethane	BRL	ug/Kg	140,000
123-91-1	1,4-Dioxane	BRL		75-2
10061-01-5	cis-1,3-Dichloropropene	BRL	ug/Kg	140,000,00
108-10-1	4-Methyl-2-Pentanone (MIBK)	BRL	ug/Kg	140,000
108-88-3	Toluene		ug/Kg	1,400,000
10061-02-6	trans-1,3-Dichloropropene	580,000	ug/Kg	140,000
79-00-5	1,1,2-Trichloroethane	BRL	ug/Kg	140,000
127-18-4	Tetrachloroethene	BRL	ug/Kg	140,000
142-28-9	1,3-Dichloropropane	1,600,000	ug/Kg	140,000
591-78-6	2-Hexanone	BRL	ug/Kg	140,000
124-48-1		BRL	ug/Kg	1,400,000
THE RESERVE TO 1	Dibromochloromethane	BRL	ug/Kg	140,000
106-93-4	1,2-Dibromoethane (EDB)	BRL	ug/Kg	140,000
108-90-7	Chlorobenzene	BRL	ug/Kg	140,000
630-20-6	1,1,1,2-Tetrachloroethane	BRL	ug/Kg	140,000
100-41-4	Ethylbenzene	BRL	ug/Kg	140,000
16-38-3/106-42-3	meta- Xylene and para- Xylene	160,000	ug/Kg	140,000
95-47-6	ortho-Xylene	BRL	ug/Kg	140,000

EPA Method 8260B Volatile Organics by GC/MS

Field ID:

HA05D

Project:

DND Lewis Chemical/2004-301

Client:

Environmental Strategies & Management

Laboratory ID: Sampled:

87113-22 08-31-05 09:00

Received: Analyzed:

09-02-05 18:30 09-13-05 04:16

Analyst:

CCT

Matrix:

Soil

Container:

40 mL VOA Vial

Preservation:

Methanol / Cool

QC Batch ID: Instrument ID:

VM1-1659-E MS-1 HP 5890

Sample Weight:

17 g

Final Volume: % Solids:

15 mL 68

CAS Number	Analyte	Dilution Fact		Page: 1 of 2
75-71-8	Dichlorodifluoromethane	Concentration Notes	Units	Reporting Lim
74-87-3	Chloromethane	BRL	ug/Kg	1,300
75-01-4	Vinyl Chloride	BRL	ug/Kg	1,300
74-83-9	Bromomethane	BRL	ug/Kg	1,300
75-00-3	Chloroethane	BRL	ug/Kg	1,300
75-69-4	Trichlorofluoromethane	BRL	ug/Kg	1,300
60-29-7	Diethyl Ether	BRL	ug/Kg	1,300
75-35-4	1,1-Dichloroethene	BRL	ug/Kg	1,300
76-13-1	1,1,2-Trichlorotrifluoroethane	BRL	ug/Kg	650
67-64-1	Acetone	BRL	ug/Kg	6,500
75-15-0	Carbon Disulfide	BRL	ug/Kg	6,500
75-09-2	Methylene Chloride	BRL	ug/Kg	6,500
156-60-5	trans-1,2-Dichloroethene	BRL	ug/Kg	2,600
1634-04-4	Methyl tert-butyl Ether (MTBE)	BRL	ug/Kg	650
75-34-3	1,1-Dichloroethane	BRL	ug/Kg	650
594-20-7	2,2-Dichloropropane	BRL	ug/Kg	650
156-59-2	cis-1,2-Dichloroethene	BRL	ug/Kg	650
78-93-3	2-Butanone (MEK)	BRL	ug/Kg	650
74-97-5	Bromochloromethane	BRL	ug/Kg	6,500
109-99-9	Tetrahydrofuran (THF)	BRL	ug/Kg	650
67-66-3	Chloroform	BRL	ug/Kg	6,500
71-55-6	1,1,1-Trichloroethane	BRL	ug/Kg	650
56-23-5	Carbon Tetrachloride	BRL	ug/Kg	650
563-58-6	1,1-Dichloropropene	BRL	ug/Kg	650
1.043-4	Benzene	BRI	ug/Vg	270
107-06-2	1,2-Dichloroethane	BRL	ug/Kg	650
79-01-6	Trichloroethene	BRL	ug/Kg	650
78-87-5		BRI	ug/Kg	650
4-95-3	1,2-Dichloropropane Dibromomethane	BRL	ug/Kg	650
5-27-4	Bromodichloromethane	BRi.	ug/Kg	650
23-91-1	1,4-Dioxane	BRL	ug/Kg	650
10061-01-5		BRL	ug/Kg	650,000
08-10-1	cis-1,3-Dichloropropene	BRL	ug/Kg	650
08-88-3	4-Methyl-2-Pentanone (MIBK)	BRI	ug/Kg	6,500
0061-02-6	Toluene	13,000	ug/Kg	650
9-00-5	trans- 1,3-Dichloropropene	BRI.	ug/Kg	650
27-18-4	1,1,2-Trichloroethane	BRL	ug/Kg	650
	Tetrachlorgethene	BRI.	ug/Kg	650
42-28-9	1,3-Dichipropropane	BRL	ug/Kg	650
91-78-6	2-Hexanone	BRL	ug/Kg	6,500
24-48-1	Dibromochloromethane	BRL	ug/Kg	650
06-93-4	1,2-Dibromoethane (EDB)	BRL	ug/Kg	650
08-90-7	Chlorobenzene	BRL	ug/Kg	650
30-20-6	1,1,1,2-Tetrachloroethane	BRL	ug/Kg	650
00-41-4	Ethylbenzene	BRL	ug/Kg	650
38-3/106-42-3	meta-Xylene and para-Xylene	1,300	ug/Kg	650
5-47-6	ortho-Xylene	BRL	ug/Kg	650

EPA Method 8260B Volatile Organics by GC/MS

Field ID:

DUP3

DND Lewis Chemical/2004-301

Project: Client:

Environmental Strategies & Management

Laboratory ID:

):

87113-21 08-31-05 09:55

Sampled: Received: Analyzed:

08-31-05 09:55 09-02-05 18:30 09-13-05 03:42

Analyst:

CCT

Matrix:

Soil

Container:

40 mL VOA Vial Methanol / Cool

Preservation: QC Batch ID:

VM1-1659-E

Instrument ID: Sample Weight:

MS-1 HP 5890 145 g

Final Volume: % Solids:

15 mL 76

Dilution Factor: 400

CAS Number	A. 21. a.	-			Dilution Factor:	400	Page 2 of 2
100-42-5	Analyte	- 1	Co	ncentration	Notes	Units	Reporting Lim
75-25-2	Styrene Bromoform		BRL			ug/Kg	140,000
98-82-8				BRL		ug/Kg	140,000
108-86-1	Isopropylbenzene Bromobenzene		-	BRL		ug/Kg	140,000
79-34-5				BRL		ug/Kg	140,000
96-18-4	1,1,2,2-Tetrachloroethane			BRL		ug/Kg	140,000
103-65-1	1,2,3-Trichloropropane			BRL		ug/Kg	140,000
95-49-8	n-Propylbenzene			BRL		ug/Kg	140,000
	2-Chlorotoluene			BRL		ug/Kg	140,000
108-67-8	1,3,5-Trimethylbenzene			BRL		ug/Kg	140,000
106-43-4	4-Chlorotoluene			BRL		ug/Kg	140,000
98-06-6	tert- Butylbenzene			BRL		ug/Kg	140,000
95-63-6	1,2,4-Trimethylbenzene			BRL		ug/Kg	140,000
135-98-8	sec-Butylbenzene			BRL		ug/Kg	140,000
541-73-1	1,3-Dichlorobenzene			BRL		ug/Kg	140,000
99-87-6	4-Isopropyltoluene		BRI.		ug/Kg	140,000	
106-46-7	1,4-Dichlorobenzene		BRL		ug/Kg		
95-50-1	1,2-Dichlorobenzene		BRL			ug/Kg	140,000
104-51-8	n-Butylbenzene			BRL			140,000
96-12-8	1,2-Dibromo-3-chloropropar	ne	BRL			ug/Kg	140,000
120-82-1	1,2,4-Trichlorobenzene	-		BRL		ug/Kg	140,000
87-68-3	Hexachlorobutadiene			BRL		ug/Kg	140,000
91-20-3	Naphthalene			BRL		ug/Kg	140,000
87-61-6	1,2,3-Trichlorobenzene			BRL		ug/Kg	140,000
75-65-0	tert-Butvl Alcohol (TBA)			BRI		ug/Kg	140,000
108-20-3	Di-isopropyl Ether (DIPE)			BRL		na/Ka	5 500 000
537-92-3	Ethyl tert-butyl Ether (ETBE)			BRL		ug/Kg	140,000
994-05-8	tert-Amyl Methyl Ether (TAN	(F)		BRL		ug/Kg	140,000
-				DKL		ug/Kg	140,000
QC Surrogate Compound Spiked Dibromofluoromethane 2 500			Recover	y .	Q	C Limits	
		,500	2,400 97 %		70 - 130 %		
,2-Dichloroethar		,500	2,300 91 %		70	- 130 %	
Foluene-d _a		,500	2,600 105 %		70 - 130 %		
l-Bromofluorober	izene 2	,500	2,700	107 %			- 130 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample preparation performed by EPA Method 5035A and EPA Method 5030B. Results are reported on a dry weight basis

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution

EPA Method 8260B Volatile Organics by GC/MS

Field ID:

HA05D

Project:

DND Lewis Chemical/2004-301

Client:

Environmental Strategies & Management

Laboratory ID:

87113-22

Sampled: Received:

08-31-05 09:00 09-02-05 18:30 09-13-05 04:16

Analyzed: Analyst:

CCT

Matrix:

Soil

Container:

40 mL VOA Vial

Preservation:

Methanol / Cool

QC Batch ID: Instrument ID:

VM1-1659-E

Sample Weight:

MS-1 HP 5890 17 g

Final Volume: % Solids:

15 mL 68

Dilution Factor:

CAS Number	Analyte	-	-		Dilution Factor:	2	Page: 2 of 2
100-42-5	Styrene		Conc	entration	Notes	Units	Reporting Lim
75-25-2	Bromoform	_	-	BRL		ug/Kg	650
98-82-8	Isopropylbenzene			BRL		ug/Kg	650
108-86-1	Bromobenzene			BRL		ug/Kg	650
79-34-5	1,1,2,2-Tetrachloroethane			BRL		ug/Kg	650
96-18-4	1,2,3-Trichloropropane	-	-	BRI		ug/Kg	650
103-65-1	n-Propylbenzene		-	BRL		ug/Kg	650
95-49-8	2-Chlorotoluene			BRL		ug/Kg	650
108-67-8	1,3,5-Trimethylbenzene			BRL		ug/Kg	650
106-43-4	4-Chlorotoluene			BRL		ug/Kg	650
98-06-6	tert- Butylbenzene			BRL		ug/Kg	650
95-63-6	1,2,4-Trimethylbenzene			BRL		ug/Kg	650
135-98-8	sec-Butylbenzene	-		BRL		ug/Kg	650
541-73-1	1,3-Dichlorobenzene			BRL		ug/Kg	650
99-87-6	4-Isopropyltoluene		BRL		ug/Kg	650	
106-46-7	1,4-Dichlarobenzene		BRL			ug/Kg	650
95-50-1	1,2-Dichlorobenzene			BRL		ug/Kg	650
104-51-8	n -Butylbenzene			BRL		ug/Kg	650
96-12-8	1,2-Dibromo-3-chloroprop			BRL BRL BRL BRL			650 650 650
120-82-1	1,2,4-Trichlorobenzene	ane	1				
37-68-3	Hexachlorobutadiene	·					
01-20-3	Naphthalene						
7-61-6	1,2,3-Trichlorobenzene			BRL		ug/Kg ug/Kg	650
5-65-0	tert -Butyl Alcohol (TBA)			BRL	BRL	ug/Kg	650
08-20-3	Di-isopropyl Ether (DIPE)		/	R.P.		Colle	25,050
37-92-3	Ethyl test but I fil (STEE			BRL		ug/Kg	650
94-05-8	Ethyl tert-butyl Ether (ETBE)		BRL		ug/Kg	650
	ten -Amyl Methyl Ether (TA	ME)		BRL		ид/Кд	650
C Surrogate Co	mpound	Spiked	Measured	Recovery	三型百分别		Limits
bibromofluoromethane 2,500						The state of the s	
2-Dichloroethar	ne-d ₄	2,500				70 - 130 %	
oluene-d ₈		2,500	2,700			70 - 130 %	
Bromofluorobenzene 2,500		2,700 109 %			70 - 130 % 70 - 130 %		

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample preparation performed by EPA Method 5035A and EPA Method 5030B. Results are reported on a dry weight basis

Report Notations:

Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution

EPA Method 8260B Volatile Organics by GC/MS

Field ID: Project:

IIA07D

DND Lewis Chemical/2004-301

Client:

Environmental Strategies & Management

Laboratory ID: Sampled: Received:

87113-23 08-31-05 08:25 09-02-05 18:30 09-08-05 16:08

Analyzed: Analyst:

LMG

Matrix:

Soil

Container: Preservation:

40 mL VOA Vial NaHSO4 / Cool

QC Batch ID:

VM2-2773-S MS-2 HP 5890

Instrument ID: Sample Weight:

6.3 g 90

% Solids:

CAS Number	Analyte	Dilution Fac		Page: 1 of 2
75-71-8	Dichlorodifluoromethane	Concentration Notes	Units	Reporting Lim
74-87-3	Chloromethane	BRL	ug/Kg	10
75-01-4	Vinyl Chloride	BRL	ug/Kg	10
74-83-9	Bromomethane	BRL	ug/Kg	10
75-00-3	Chloroethane	BRL	ug/Kg	10
75-69-4	Trichlorofluoromethane	BRL	ug/Kg	10
60-29-7	Diethyl Ether	BRL	ug/Kg	10
75-35-4	1,1-Dichloroethene	BRL	ug/Kg	10
76-13-1	1,1,2-Trichlorotrifluoroethane	BRL	ug/Kg	5
67-64-1	Acetone	BRL	ug/Kg	50
75-15-0	Carbon Disulfide	BRL	ug/Kg	200
75-09-2		BRL	ug/Kg	50
156-60-5	Methylene Chloride	BRL	ug/Kg	50
1634-04-4	trans-1,2-Dichloroethene	BRL	ug/Kg	5
75-34-3	Methyl tert-butyl Ether (MTBE)	BRL	ug/Kg	5
594-20-7	1,1-Dichloroethane	14	ug/Kg	5
156-59-2	2,2-Dichloropropane	BRL	ug/Kg	5
78-93-3	cis-1,2-Dichloroethene	BRL	ug/Kg	5.
74.97.5	2-Butanone (MEK)	BRL	ug/Kg	50
109-99-9	Bromochloromethane	BRL	ug/Kg	5
67-66-3	Tetrahydrofuran (THF)	BRL	ug/Kg	50
	Chloroform	BRL	ug/Kg	5
71-55-6	1,1,1-Trichloroethane	BRL	ug/Kg	5
56-23-5	Carbon Tetrachloride	BRL	ug/Kg	5
563-58-6	1,1-Dichloropropene	BRL	ug/Kg	5
71-43-2	Benzene	001	10.10	-
(0)-06-2	1,2-Dichloroethane	BRL	ug/Kg	5
79-01-6	Trichloroethene	5	ug/Kg	5
8-87-5	1,2 Dichloropropane	BRL	ug/Kg	5
4-95-3	D)bromomethane	BRL	ug/Kg	5
5-27-4	Bromodichloromethane	BRL	ug/Kg	5
23-91-1	1,4-Dioxane	BRL	ug/Kg	5000
0061-01-5	cis-1,3-Dichloropropene	BRL	ug/Kg	5
08-10-1	4-Methyl-2-Pentanone (MIBK)	BRL	ug/Kg	50
08-88-3	Toluene	BRL	ug/Kg	5
0061-02-6	trans-1,3-Dichloropropene	BRL	ug/Kg	5
9-00-5	1,1,2-Trichloroethane	BRL	ug/Kg	5
27-18-4	Tetrachloroethene	BRL	ug/Kg	5
42-28-9	1,3-Dichloropropane	BRL	ug/Kg	5
91-78-6	2-Hexanone	BRL	ug/Kg	50
24-48-1	Dibromochloromethane	BRL	ug/Kg	5
06-93-4	1,2-Dibromoethane (EDB)	BRL	The second secon	
08-90-7	Chlorobenzene	BRI	ug/Kg	5
30-20-6	1,1,1,2-Tetrachloroethane	BRL	ug/Kg	5
00-41-4	Ethylbenzene	7	ug/Kg	5
38 3/106 42-3	meta- Xylene and para- Xylene	9	ug/Kg	5
	ortho-Xylene		ug/Kg	5

EPA Method 8260B (Continued) Volatile Organics by GC/MS

Field ID:

IIA07D

Project:

DND Lewis Chemical/2004-301

Client:

Environmental Strategies & Management

Laboratory ID:

87113-23

Sampled: Received: Analyzed:

08-31-05 08:25 09-02-05 18:30 09-08-05 16:08

Analyst:

LMG

Matrix: Soil

Container: Preservation: 40 mL VOA Vial

NaHSO4 / Cool

QC Batch ID: Instrument ID:

VM2-2773-5 MS-2 HP 5890

6.3 g

Sample Weight: % Solids:

90 Dilution Factor: 1

Page: 2 of 2

70 - 130 %

70 - 130 %

70 - 130 %

CAS Number	Analyte		Course	ntration	75.65.5	T control	1 age. 2 01 2
100-42-5	Styrene		Conce	ntration	Notes	Units	Reporting Limi
75-25-2	Bramaform	-				ug/Kg	5
98-82-8	Isopropylbenzene			BRI.		ug/Kg	5
108-86-1	Bromobenzene	-	-	BRL		ug/Kg	5
79-34-5	1,1,2,2-Tetrachloroethane			BRL		ug/Kg	5
96-18-4	1,2,3-Trichloropropane			BRL		ug/Kg	5
103-65-1	n-Propylbenzene	_		BRL		ug/Kg	5
95-49-8	2-Chlorotoluene		-	BRL		ug/Kg	5
108-67-8	The state of the s			BRL		ug/Kg	5
106-43-4	1,3,5-Trimethylbenzene 4-Chlorotaluene		-	BRL		ug/Kg	5
98-06-6				BRL		ug/Kg	5
95-63-6	tert-Butylbenzene			BRL		ug/Kg	5
135-98-8	1,2,4-Trimethylbenzene	-		BRL		ug/Kg	5
541-73-1	sec-Butylbenzene			BRL		ug/Kg	5
99-87-6	1,3-Dichlorobenzene			BRL		ug/Kg	5
The second secon	4-Isopropyltoluene			BRL		ug/Kg	5
106-46-7	1,4-Dichlorobenzene			BRL		ug/Kg	5
95-50-1	1,2-Dichlorobenzene			8		ug/Kg	5
104-51-8	n-Butylbenzene			BRL		ug/Kg	5
96-12-8	1,2-Dibromo-3-chloroprop	ane		BRL		ug/Kg	5
120-82-1	1,2,4-Trichlorobenzene			BRL		ug/Kg	5
87-68-3	Hexachlorobutadiene			BRL		ug/Kg	5
91-20-3	Naphthalene			BRL		ug/Kg	5
87-61-6	1,2,3-Trichlorobenzene			BRL		ug/Kg	5
75-65-0	tert -Butyl Alcohol (TBA)			BRL		ug/Kg	200
108-20-3	Di-Isopropyl Ether (DIPE)			BRL		ug/Kg	5
037-92-3	Ethyl tert-butyl Ether (ETBE)		BKL		ug/Kg	5
994-05-8	tert - Amyl Methyl Ether (TA	ME)		BRL		ug/Kg	5
QC Surrogate Co		Spiked	Measured	Recovery		OC	Limits
Dibromofluorom		50	49	99 %			130 %
2-Dichloroetha	ne-d ₄	50	43	85 %			130 %
A Charles of the Control of the Cont						F 50	4 44 W 144

Method Reference:

4-Bromofluorobenzene

Toluene-da

44 Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996). Sample preparation performed by EPA Method 5035A. Results are reported on a dry weight basis.

44

50

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions Reporting limits are adjusted for sample size and dilution

87 %

89 %

EPA Method 8260B Volatile Organics by GC/MS

Field ID:

ESM15

Project:

DND Lewis Chemical/2004-301

Client:

Environmental Strategies & Management

Laboratory ID: Sampled:

87113-24 08-31-05 11:45

Received: Analyzed:

09-02-05 18:30 09-13-05 14:51

Analyst:

LMG

Matrix: Container:

Soil

Preservation:

40 mL VOA Vial

QC Batch ID:

Methanol / Cool

Instrument ID:

VM1-1660-E MS-1 HP 5890

Sample Weight: Final Volume: % Solids:

12 g 10 mL

CAS Number	Analyte	Dilution Factor	: 20	Page 1 of 2
75-71-8	Dichlorodifluoromethane	Concentration Notes	Units	Reporting Lin
74-87-3	Chloromethane	BRL	ug/Kg	9,500
75-01-4	Vinyl Chloride	BRL	ug/Kg	9,500
74-83-9	Bromomethane	BRL	ug/Kg	9,500
75-00-3	Chloroethane	BRL	ug/Kg	9,500
75-69-4	Trichlorofluoromethane	BRL	ug/Kg	9,500
60-29-7	Diethyl Ether	BRL	ug/Kg	9,500
75-35-4	1,1-Dichloraethene	BRL	ug/Kg	9,500
76-13-1	1,1,2-Trichlorotrifluoroethane	BRL	ug/Kg	4,700
67-64-1	Acetone	BRL	ug/Kg	47,000
75-15-0	Carbon Disulfide	BRL	ug/Kg	47,000
75-09-2	Methylene Chloride	BRL	ug/Kg	47,000
156-60-5	trans-1,2-Dichloroethene	BRL	ug/Kg	19,000
1634-04-4	Methyl tert- butyl Ether (MTBE)	BRL	ug/Kg	4,700
75-34-3	1.1-Dichloroethane	BRL	ug/Kg	4,700
594-20-7	2,2-Dichloropropane	BRL	ug/Kg	4,700
156-59-2	cis-1,2-Dichloroethene	BRL	ug/Kg	4,700
78-93-3	2-Butanone (MEK)	BRL	ug/Kg	4,700
74-97-5	Bromochloromethane	BRL	ug/Kg	47,000
109-99-9	Tetrahydrofuran (THF)	BRL	ug/Kg	4,700
67-66-3	Chloroform	BRL	ug/Kg	47,000
71-55-6	1,1,1-Trichloroethane	BRL	ug/Kg	4,700
56-23-5	Carbon Tetrachloride	58,000	ug/Kg	4,700
563-58-6	1,1-Dichloropropene	BRL	ug/Kg	4,700
1-43-2	Benzene	RRI	U5/85	7,700
07-06-2	1,2-Dichloroethane	BRL	ид/Кд	4,700
9-01-6	Trichloroethene	BRL	ug/Kg	4,700
8-87-5	1,2-Dichloropropane	120,000	ug/Kg	4,700
4-95-3	Dibromomethane	BRL	ug/Kg	4,700
5-27-4	Bromodichloromethane	BRL	ug/Kg	4,700
23-91-1	1,4-Dioxane	BRL	ug/Kg	4,700
0061-01-5		BRL	ug/Kg	4,700,000
OB-10-1	cis-1,3-Dichloropropene	BRL	ug/Kg	4,700
08-88-3	4-Methyl-2-Pentanone (MIBK) Toluene	BRL	ug/Kg	47,000
0061-02-6		34,000	ug/Kg	4,700
9-00-5	trans-1,3-Dichloropropene 1,1,2-Trichloroethane	BRL	ug/Kg	4,700
27-18-4	Tetrachloroethene	BRL	ug/Kg	4,700
12-28-9	1,3-Dichloropropane	55,000 200	ug/Kg	4,700
91-78-6	2-Hexanone	BRL	ug/Kg	4,700
24-48-1		BR!	ug/Kg	47,000
06-93-4	Dibromochloromethane	BRL	ug/Kg	4,700
8-90-7	1,2-Dibromoethane (EDB)	BRL	ug/Kg	4,700
0-20-6	Chlorobenzene	BRL	ug/Kg	4,700
00-20-6	1,1,1,2-Tetrachloroethane	BRL	ug/Kg	4,700
38-3/106-42-3	Ethylbenzene	BRL	ug/Kg	4,700
	meta- Xylene and para- Xylene	11,000	ug/Kg	4,700
7/-0	ortho-Xylene	BRL	ug/Kg	4,700

EPA Method 8260B Volatile Organics by GC/MS

Field ID:

ESM15

Project:

DND Lewis Chemical/2004-301

Client:

Environmental Strategies & Management

Laboratory ID:

Sampled: Received:

87113-24 08-31-05 11:45 09-02-05 18:30

Analyzed: Analyst:

09-13-05 14:51 **LMG**

Matrix:

Container:

Soil

Preservation:

40 mL VOA Vial Methanol / Cool

QC Batch ID:

VM1-1660-E

Instrument ID: Sample Weight: MS-1 HP 5890

Final Volume: % Solids:

12 g 10 mL 88

Dilution Factor: 20

CAS Number	T-1-1-	Dilution Factor:	20	Page: 2 of 2
100-42-5	Analyte	Concentration Notes	Units	Reporting Lin
75-25-2	Styrene	BRL	ug/Kg	4,700
98-82-8	Bromoform	BRL	ug/Kg	4,700
	Isopropylbenzene	BRL	ug/Kg	
108-86-1	Bromobenzene	BRL	ug/Kg	4,700
79-34-5	1,1,2,2-Tetrachloroethane	BRL	The same of the sa	4,700
96-18-4	1,2,3-Trichloropropane	BRL	ug/Kg	4,700
103-65-1	n-Propylbenzene	BRL	ug/Kg	4,700
95-49-8	2-Chlorotoluene	BRL	ug/Kg	4,700
108-67-8	1,3,5-Trimethylbenzene	BRL	ug/Kg	4,700
106-43-4	4-Chlorotoluene	BRL	ug/Kg	4,700
98-06-6	tert-Butylbenzene	BRL	ug/Kg	4,700
95-63-6	1,2,4-Trimethylbenzene		ug/Kg	4,700
135-98-8	sec-Butylbenzene	BRL	ug/Kg	4,700
541-73-1	1,3-Dichlorobenzene	BRI.	ug/Kg	4,700
99-87-6	4-Isopropyltoluene	BRL	ug/Kg	4,700
106-46-7	1,4-Dichlorobenzene	BRL	ug/Kg	4,700
95-50-1	1,2-Dichlorobenzene	BRL	ug/Kg	4,700
04-51-8	n-Butylbenzene	BRL	ug/Kg	4,700
6-12-8	1,2-Dibromo-3-chloropropane	9,200	ug/Kg	4,700
20-82-1	1,2,4-Trichlorobenzene	BRL	ug/Kg	4,700
7-68-3	Hexachlorobutadiene	BRL	ug/Kg	4,700
1-20-3	Naphthalene	BRL	iig/Kg	4,700
7-61-6	1,2,3-Trichlorobenzene	BRL	ug/Kg	4,700
5-65-0		BRL	ug/Kg	4,700
Ub-LU-3	tert-Butyl Alcohol (TBA)	BRL	IIg/Kg	190 000
37-92-3	Ul-isopropyi Ether (DIPE)	BRI	ug/Kg	4,700
94-05-8	Ethyl tert-butyl Ether (ETBE)	BRL	ug/Kg	4,700
	tert-Amyl Methyl Ether (TAME)	BRL	ид/Кд	4,700
C Surrogate Co	mpound Spiked	Measured Document	-	

QC Surrogate Compound				4,700
	Spiked	Measured	Recovery	QC Limits
Dibromofluoromethane	2,500	2,500	99 %	
1.2-Dichloroethane-d4	2,500	2,300	91 %	70 - 130 %
Toluene-da	2,500	2,700	106 %	70 - 130 %
4-Bromofluorobenzene	2,500	2,700	110 %	70 - 130 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample preparation performed by EPA Method 5035A and EPA Method 5030B. Results are reported on a dry weight basis

Report Notations:

Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution

EPA Method 8260B Volatile Organics by GC/MS

Concentration

Field ID:

Project: DND Lewis Chemical/2004-301

Analyte

Client: **Environmental Strategies & Management**

Laboratory ID: 87113-25 Sampled: 08-31-05 11:50

Received: 09-02-05 18:30 Analyzed: 09-13-05 15:30

Analyst: IMG

CAS Number

100-41-4

95-47-6

105-38-3/106-42-3

Ethylbenzene

ortho-Xylene

meta- Xylene and para- Xylene

Matrix: Soil

Units

Reporting Limit

250

250

250

250

ug/Kg

ug/Kg

ug/Kg

ug/Kg

Container: 40 mL VOA Vial Preservation: Methanol / Cool

QC Batch ID: VM1-1660-E Instrument ID: MS-1 HP 5890

Sample Weight: 13 g Final Volume: 10 mL % Solids: 88

Notes

Dilution Factor: 1 Page: 1 of 2

75-71-8 Dichlorodifluoromethane BRL ug/Kg 500 74-87-3 Chloromethane BRL 500 ug/Kg 75-01-4 Vinyl Chloride BRL 500 ug/Kg 74-83-9 Bromomethane BRL ug/Kg 500 75-00-3 Chloroethane BRL 500 ug/Kg 75-69-4 Trichlorofluoromethane. BRL ug/Kg 500 60-29-7 Diethyl Ether BRL 500 ug/Kg 75-35-4 1,1-Dichloroethene BRL ug/Kg 250 76-13-1 1,1,2-Trichlorotrifluoroethane BRI ug/Kg 2,500 67-64-1 Acetone BRI 2,500 ug/Kg 75-15-0 Carbon Disulfide BRL ug/Kg 2,500 75-09-2 Methylene Chloride BRL 1,000 ug/Kg 156-60-5 trans-1,2-Dichloroethene BRL 250 ug/Kg 1634-04-4 Methyl tert-butyl Ether (MTBE) BRL 250 ug/Kg 75-34-3 1,1-Dichloroethane 380 250 ug/Kg 594-20-7 2,2-Dichloropropane BRL 250 ug/Kg 156-59-2 cis-1,2-Dichloroethene 3,100 ug/Kg 250 78-93-3 2-Butanone (MEK) BRL ug/Kg 2,500 74-97-5 Bromochloromethane BRL 250 ug/Kg 109-99-9 Tetrahydrofuran (THF) BRL ug/Kg 2,500 67-65-3 Chloroform BRL 250 ug/Kg 71-55-6 1.1.1-Trichlomethane 5,500 250 ug/Kg 56-23-5 Carbon Tetrachloride BRL 250 ug/Kg 563-58-6 1.1-Dichloroomnene RRI no/k'p 250 71-43-2 Benzene BRL 250 ug/Kg 107-06-2 1,2-Dichloroethane 310 250 ug/Kg 79-01-6 Trichloroethene 3,000 ug/Kg 250 78-87-5 1,2-Dichloropropane BRL ug/Kg 250 74-95-3 Dibromomethane BRI ug/Kg 250 75-27-4 Bromodichloromethane BRL 250 ug/Kg 123-91-1 1,4-Dioxane BRL ug/Kg 250,000 cis-1,3-Dichloropropene 10061-01-5 BRI ug/Kg 250 108-10-1 4-Methyl-2-Pentanone (MIBK) BRL 2,500 ug/Kg 108-88-3 Toluene 1,200 ug/Kg 250 10061-02-6 trans-1,3-Dichloropropene BRL 250 ug/Kg 1,1,2-Trichloroethane 79-00-5 BRL 250 ug/Kg 127-18-4 Tetrachloroethene 2,100 ug/Kg 250 142-28-9 1,3-Dichloropropane BRL 250 ug/Kg 591-78-6 2-Hexanone BRL 2,500 ug/Kg 124-48-1 Dibromochloromethane BRL ug/Kg 250 1,2-Dibromoethane (EDB) 106-93-4 BRL 250 ug/Kg 108-90-7 Chlorobenzene BRL 250 ug/Kg 630-20-6 1,1,1,2-Tetrachloroethane

BRL

BRL

BRL

490

EPA Method 8260B Volatile Organics by GC/MS

Field ID:

ESM15

Project:

DND Lewis Chemical/2004-301

Client:

Environmental Strategies & Management

Laboratory ID: Sampled:

87113-25

Received: Analyzed: 08-31-05 11:50 09-02-05 18:30 09-13-05 15:30

Analyst:

LMG

Matrix:

Soil

Container:

40 mL VOA Vial

Preservation:

Methanol / Cool

QC Batch ID: Instrument ID: VM1-1660-E MS-1 HP 5890

Sample Weight:

13 g

Final Volume: % Solids:

10 mL 88

Dilution Factor:

Page: 2 of 2

CAS Number	Analyte	Concentration Notes	Units	Reporting Limit
100-42-5	Styrene	BRL	ug/Kg	250
75-25-2	Bromoform	BRL	ug/Kg	250
98-82-8	Isopropylbenzene	BRL	ug/Kg	250
108-86-1	Bromobenzene	BRL	ug/Kg	250
79-34-5	1,1,2,2-Tetrachioroethane	BRL	ug/Kg	250
96-18-4	1,2,3-Trichloropropane	BRL	ug/Kg	250
103-65-1	n-Propylbenzene	BRL	ug/Kg	250
95-49-8	2-Chlorotoluene	BRL	ug/Kg	250
108-67-8	1,3,5-Trimethylbenzene	BRL	ug/Kg	250
106-43-4	4-Chlorotoluene	BRL	ug/Kg	250
98-06-6	tert-Butylbenzene	BRL	ug/Kg	250
95-63-6	1,2,4-Trimethylbenzene	400	ug/Kg	250
135-98-8	sec -Butylbenzene	300	ug/Kg	250
541-73-1	1,3-Dichlorobenzene	BRL	ug/Kg	250
99-87-6	4-Isopropyltoluene	BRL	ug/Kg	250
106-46-7	1,4-Dichlorobenzene	BRL	ug/Kg	250
95-50-1	1,2-Dichlorobenzene	BRL	ug/Kg	250
104-51-8	n-Butylbenzene	1,900	ug/Kg	250
96-12-8	1,2-Dibromo-3-chloropropane	BRL	ug/Kg	250
120-82-1	1,2,4-Trichlorobenzene	BRL	ug/Kg	250
87-68-3	Hexachlorobutadiene	BRL	ug/Kg	250
91-20-3	Naphthalene	BRL	ug/Kg	250
87-61-6	1,2,3-Trichlorobenzene	BRL	ug/Kg	250
75-65-0	rent-Butyl Alcohol (TBA)	5RL	in/Vn	10,000
108-20-3	Di-isopropyl Ether (DIPE)	BRL	ug/Kg	250
637-92-3	Ethyl tert-butyl Ether (ETBE)	BRL	ug/Kg	250
994-05-8	Tert -Amyl Methyl Ether (TAME)	BRL	ug/Kg	250

OC Surrogate Compound	Spiked	Measured	Recovery	QC Limits
Dibromofluoromethane	2,500	2,500	99 %	70 - 130 %
1. 2-Dichloroethane-d ₄	2,500	2,200	90 %	70 - 130 %
Toluene-da	2.500	2,700	106 %	70 - 130 %
4-Bromofluorobenzene	2,500	2,900	118 %	70 - 130 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample preparation performed by EPA Method 5035A and EPA Method 5030B. Results are reported on a dry weight basis

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions Reporting limits are adjusted for sample size and dilution



EPA Method 8260B Volatile Organics by GC/MS

Field ID:

IIIF03S

87113-26

DND Lewis Chemical/2004-301

Project: Client:

Environmental Strategies & Management

Laboratory ID:

Sampled: Received:

09-01-05 08:50 09-02-05 18:30

Analyzed: Analyst:

09-13-05 05:59 CCT

Matrix:

Container:

Soil

40 mL VOA Vial

Preservation:

Methanol / Cool

QC Batch ID: Instrument ID:

VM1-1659-E

Sample Weight:

MS-1 HP 5890

Final Volume:

14 g 15 mL 91

% Solids:

	,		% Solids: Dilution Factor:	91 1	Page: 1 of 2
CAS Number	Analyte	Concentration	Notes	Units	Reporting Limi
75-71-8	Dichlorodifluoromethane	BRL		ug/Kg	610
74-87-3	Chloromethane	BRL		ug/Kg	610
75-01-4	Vinyl Chloride	BRL		ug/Kg	610
74-83-9	Bromomethane	BRL		ug/Kg	610
75-00-3	Chloroethane	BRL		ug/Kg	610
75-69-4	Trichlorofluoromethane	BRL		ug/Kg	610
60-29-7	Diethyl Ether	BRL		ug/Kg	610
75-35-4	1,1-Dichloroethene	BRL		ug/Kg	300
76-13-1	1,1,2-Trichlorotrifluoroethane	BRL		ug/Kg	3,000
67-64-1	Acetone	BRL		ug/Kg	3,000
75-15-0	Carbon Disulfide	BRL		ug/Kg	3,000
75-09-2	Methylene Chloride	BRL		ug/Kg	The second of
156-60-5	trans-1,2-Dichloroethene	BRL		ug/Kg	1,200
1634-04-4	Methyl tert-butyl Ether (MTBE)	BRL		ug/Kg	300
75-34-3	1,1-Dichloroethane	BRL		ug/Kg	
594-20-7	2,2-Dichloropropane	BRL		The second secon	300
156-59-2	cis-1,2-Dichloroethene	BRL		ug/Kg	300
78-93-3	2-Butanone (MEK)	BRL		ug/Kg	300
74-97-5	Bromochloromethane	BRL		ug/Kg	3,000
109-99-9	Tetrahydrofuran (THF)	BRL		ug/Kg	300
67-66-3	Chloroform	BRL		ug/Kg	3,000
71-55-6	1,1,1-Trichloroethane	790		ug/Kg	300
66-23-5	Carbon Tetrachloride	BRL		ug/Kg	300
63-58-6	1,1-Dichloropropene	RRI		ug/Kg	300
71-43-2	Benzene	BRL		no/Ko	500
107-06-2	1,2-Dichloroethane			ug/Kg	300
79.01-6	Trichlorgethene	BRL		ид/Кд	300
8-87-5	1,2-Dichloropropane	1,000		ug/Kg	300
4-95-3	Dibromomethane	BRL		ug/Kg	300
5-27-4	Bromodichloromethane	BRL		ug/Kg	300
23-91-1	1,4-Dioxane	BRL		ug/Kg	300
0061-01-5	cis-1,3-Dichloropropene	BRL		ug/Kg	300,000
08-10-1	4-Methyl-2-Pentanone (MIBK)	BRL		ug/Kg	300
08-88-3	Toluene	BRL		ug/Kg	3,000
0061-02-6	trans-1,3-Dichloropropene	BRL		ug/Kg	300
9-00-5	1,1,2-Trichloroethane	BRL		ug/Kg	300
27-18-4	Tetrachloroethene	BRL		ug/Kg	300
42-28-9	1,3-Dichloropropane	910		ug/Kg	300
91-78-6	2-Hexanone	BRL		ug/Kg	300
24-48-1	Dibromochloromethane	BRL		ug/Kg	3,000
06-93-4		BRL	_	ug/Kg	300
08-90-7	1,2-Dibromoethane (EDB)	BRL		ug/Kg	300
30-20-6	Chlorobenzene	BRL		ug/Kg	300
00-41-4	1,1,1,2-Tetrachloroethane	BRL		ug/Kg	300
38-3/106-42-3	Ethylbenzene	BRL		ug/Kg	300
5-47-6	meta-Xylene and para-Xylene	BRL		ug/Kg	300
2-47-0	ortho- Xylene	BRL		ug/Kg	300

EPA Method 8260B Volatile Organics by GC/MS

Field ID

IIIF03S

Project:

DND Lewis Chemical/2004-301

Client:

Environmental Strategies & Management

Laboratory ID:

87113-26 09-01-05 08:50 Sampled:

Received:

09-13-05 05:59 Analyzed:

Analyst:

CCT

09-02-05 18:30

Matrix:

Soil

Container:

40 mL VOA Vial Methanol / Cool

Preservation:

QC Batch ID: Instrument ID: VM1-1659-E MS-1 HP 5890

Sample Weight: Final Volume:

14 g 15 mL

% Solids:

Dilution Factor:

Page: 2 of 2

916 4 14	Concentration Notes	Units -	Reporting Limit
Analyte		ug/Kg	300
Styrene		ug/Kg	300
		ug/Kg	300
		ug/Kg	300
		ug/Kg	300
1,1,2,2-Tetrachloroethane	500	ug/Kg	300
		ug/Kg	300
		ug/Kg	300
			300
			300
4-Chlorotoluene			300
tert-Butylbenzerie		ug/Kg	300
1,2,4-Trimethylbenzene		ug/Kg	300
		ug/Kg	300
		ug/Kg	300
	447.00	ug/Kg	300
		ug/Kg	300
			300
n-Butylbenzene			300
1,2-Dibromo-3-chloropropane	1,02	ug/Kg	300
1,2,4-Trichlorobenzene		ug/Kg	300
		ug/Kg	300
Naphthalene	70.10	ug/Kg	300
1,2,3-Trichlorobenzene		ug/Kg	12,000
	2-22-2-2-2-2-2-2-2-2-2-2-2-2-2-2-2-2-2-2	ивпр	300
Di-isopropyl Ether (D(PE)		ug/Kg	300
Ethyl tert-butyl Ether (ETBE)		ug/Kg	300
tert-Amy Methy Ether (TAME)			QC Limits
	Bromoform Isopropylbenzene Bromobenzene 1,1,2,2-Tetrachloroethane 1,2,3-Trichloropropane n-Propylbenzene 2-Chlorotoluene 1,3,5-Trimethylbenzene 4-Chlorotoluene	Styrene BRL Bromoform BRL Isopropylbenzene BRL Bromobenzene BRL I.1,2,2-Tetrachloroethane BRL I.2,3-Trichloropropane BRL I.3,5-Trimethylbenzene BRL I.3,5-Trimethylbenzene BRL I.2,4-Trimethylbenzene BRL I.2,4-Trimethylbenzene BRL I.3-Dichlorobenzene BRL I.3-Dichlorobenzene BRL I.3-Dichlorobenzene BRL I.2-Dibromo-3-thloropropane BRL I.2-Dibromo-3-thloropropane BRL I.2-Trichlorobenzene BRL III-III-III-III-III-III-III-III-III-II	Analyte Styrene Bru Bromoform BRL Ug/Kg Bromobenzene Bromobenzene Bru Bromobenzene Bru Bru Bromobenzene Bru Bru Bromobenzene Bru

994-05-8	994-05-8 ren-Amyl Methyl				OC Limits	
	Lancaux II	Spiked	Measured	Recovery	70 - 130 %	
QC Surrogate C		2,500	2,400	96 %		
Dibromofluoron		2,500	2,300	91 %	70 - 130 %	
1,2-Dichloroeth	ane-d ₄	2,500	2,700	108 %	70 - 130 %	
Toluene-d _a			2,700	108 %	70 - 130 %	
4-Bromofluorob	enzene	2,500	2,700			

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996). Sample preparation performed by EPA Method 5035A and EPA Method 5030B. Results are reported on a dry weight basis

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution

EPA Method 8260B Volatile Organics by GC/MS

Field ID

IIIF03M

Project: Client:

DND Lewis Chemical/2004-301

Environmental Strategies & Management

Laboratory ID:

87113-27 Sampled: 09-01-05 09:00 Received: 09-02-05 18:30

Analyzed: Analyst:

09-13-05 16:08 LMG

Matrix:

Soil

Container: Preservation: 40 mL VOA Vial Methanol / Cool

QC Batch ID:

VM1-1660-E

Instrument ID: Sample Weight: MS-1 HP 5890

Final Volume: % Solids:

10 g 10 mL 74

CACNILL	I had a	1	Pilution Factor:	Sales Sa	Page: 1 of 2
CAS Number	Analyte	Concentration	Notes	Units	Reporting Limi
75-71-8	Dichlorodifluoromethane	BRL		ug/Kg	660
74-87-3	Chloromethane	BRL		ug/Kg	660
75-01-4	Vinyl Chloride	BRL		ug/Kg	660
74-83-9	Bromomethane	BRL		ug/Kg	660
75-00-3	Chloroethane	BRL		ug/Kg	660
75-69-4	Trichlorofluoromethane	BRL		ug/Kg	660
60-29-7	Diethyl Ether	BRL		ug/Kg	660
75-35-4	1,1-Dichloroethene	BRL		ug/Kg	330
76-13-1	1,1,2-Trichlorotrifluoroethane	BRL		ug/Kg	3,300
57-64-1	Acetone	BRL		ug/Kg	3,300
75-15-0	Carbon Disulfide	BRL		ug/Kg	3,300
75-09-2	Methylene Chloride	BRL		ug/Kg	1,300
156-60-5	trans-1,2-Dichloroethene	BRL		ug/Kg	330
1634-04-4	Methyl tert-butyl Ether (MTBE)	BRI.		ug/Kg	330
75-34-3	1,1-Dichloroethane	3,300		ug/Kg	330
594-20-7	2,2-Dichloropropane	BRL		ug/Kg	330
56-59-2	cis-1,2-Dichloroethene	3,600		ug/Kg	330
8-93-3	2-Butanone (MEK)	BRL		ug/Kg	3,300
4-97-5	Bromochloromethane	BRL		ug/Kg	330
09.99.9	Tetrahydrofuran (THF)	BRL		ug/Kg	3,300
7-66-3	Chloroform	BRL		ug/Kg	330
1-55-6	1,1,1-Trichloroethane	2,400		ug/Kg	330
6-23-5	Carbon Tetrachloride	BRL		ug/Kg	330
33 50 C	1,1 Dictionophopene	ERL		6'.0	220
1-43-2	Benzene	BRL		ид/Кд	330
07-06-2	1,2-Dichloroethane	BRL		ug/Kg	330
9-01-6	Trichlorgethene	BKL		ug/Kg	330
8-87-5	1,2-Dichloropropane	BRL		ug/Kg	330
4-95-3	Dibromomethane	BRL		ug/Kg	330
5-27-4	Bromodichloromethane	BRL		ug/Kg	330
23-91-1	1,4-Dioxane	BRL		ug/Kg	330,000
0061-01-5	cis-1,3-Dichloropropene	BRL		ug/Kg	330
08-10-1	4-Methyl-2-Pentanone (MIBK)	BRL		ug/Kg	3,300
08-88-3	Toluene	5,000		ug/Kg	330
0061-02-6	trans-1,3-Dichloropropene	BRL		ug/Kg	330
9-00-5	1,1,2-Trichloroethane	BRL		ug/Kg	330
27-18-4	Tetrachloroethene	BRL		ug/Kg	330
42-28-9	1,3-Dichloropropane	BRI.		ug/Kg	330
91-78-6	2-Hexanone	BRL		ug/Kg	3,300
24-48-1	Dibromochloromethane	BRL		ug/Kg	330
06-93-4	1,2-Dibromoethane (EDB)	BRL		ug/Kg	330
08-90-7	Chlorobenzene	BRL		ug/Kg	330
30-20-6	1,1,1,2-Tetrachloroethane	BRL	A STATE OF THE PARTY OF THE PAR		330
00-41-4	Ethylbenzene	2,700		ug/Kg ug/Kg	330
383/106-42-3	meta-Xylene and para-Xylene	6,400	-	ug/Kg	330
5-47-6	artho-Xylene	2,100		ug/Kg	330



EPA Method 8260B Volatile Organics by GC/MS

Field ID: Project: IIIF03M

DND Lewis Chemical/2004-301

Client:

Environmental Strategies & Management

Laboratory ID: Sampled:

87113-27

Received: Analyzed: 09-01-05 09:00 09-02-05 18:30 09-13-05 16:08

Analyst:

LMG

Matrix:

Soil

Container: Preservation: 40 mL VOA Vial Methanol / Cool

QC Batch ID:

VM1-1660-E MS-1 HP 5890

Instrument ID: Sample Weight:

10 g 10 mL 74

Final Volume: % Solids:

Dilution Factor: 1

Page: 2 of 2

CAS Number	Analyte	Concentration Notes	Units	Reporting Lim
100-42-5	Styrene	BRL	ug/Kg	330
75-25-2	Bromoform	BRL	ug/Kg	330
98-82-8	Isopropylbenzene	BRL	ug/Kg	330
108-86-1	Bromobenzene	BRL	ug/Kg	330
79-34-5	1,1,2,2-Tetrachloroethane	BRL	ug/Kg	330
96-18-4	1,2,3-Trichloropropane	BRL	ug/Kg	330
103-65-1	n-Propylbenzene	BRL	ug/Kg	330
95-49-8	2-Chlorotoluene	BRL	ug/Kg	330
108-67-8	1,3,5-Trimethylbenzene	370	ug/Kg	330
106-43-4	4-Chlorotoluene	BRL	ug/Kg	330
98-06-6	tert-Butylbenzene	BRL	ug/Kg	330
95-63-6	1,2,4-Trimethylbenzene	650	ug/Kg	330
135-98-8	sec-Butylbenzene	BRL	ug/Kg	330
541-73-1	1,3-Dichlorobenzene	BRL	ug/Kg	330
99-87-6	4-Isopropyltoluene	BRL	ug/Kg	330
106-46-7	1,4-Dichlorobenzene	BRL	ug/Kg	330
95-50-1	1,2-Dichlorobenzene	2,100	ug/Kg	330
104-51-8	n-Butylbenzene	350	ug/Kg	330
96-12-8	1,2-Dibromo-3-chloropropane	BRL	ug/Kg	330
120-82-1	1,2,4-Trichlorobenzene	BRL	ug/Kg	330
87-68-3	Hexachlorobutadiene	BRL	ug/Kg	330
91-20-3	Naphthalene	BRL	ug/Kg	330
87-61-6	1,2,3-Trichlorobenzene	BRL	ug/Kg	330
75-65-0	tert-Butyl Alcohol (TBA)	BRL	ug/Kg	13,000
108-20-3	Di-isopropyl Ether (DIPE)	DŘL	::5'V 3	3311
637-92-3	Ethyl tert-butyl Ether (ETBE)	BRL	ug/Kg	330
994-05-8	tert-Arnyl Methyl Ether (TAME)	BRL	ug/Kg	330
OC Surrogate C	Cottod	Measured Recovery	0	C Limits

QC Surrogate Compound	Spiked	Measured	Recovery	QC Limits
Dibromofluoromethane	2,500	2,400	98 %	70 - 130 %
1.2-Dichloroethane-da	2.500	2,300	92 %	70 - 130 %
Toluene-da	2.500	2,700	109 %	70 - 130 %
4-Bromoiluorobenzene	2,500	2,800	112 %	70 - 130 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample preparation performed by EPA Method 5035A and EPA Method 5030B. Results are reported on a dry weight basis.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution

EPA Method 8260B Volatile Organics by GC/MS

Field ID

IIIF03D

Soil

Project: Client:

DND Lewis Chemical/2004-301 **Environmental Strategies & Management** Container:

40 mL VOA Vial

Laboratory ID:

87113-28

EMC

Preservation:

NaHSO4 / Cool

Sampled:

09-01-05 09:10

QC Batch ID: Instrument ID: VM1-1661-S

MS-1 HP 5890

Received:

09-02-05 18:30

Sample Weight:

5.4 g

85

Analyzed: Analyst:

09-13-05 23:03

% Solids: Dilution Factor:

Page: 1 of 2

CAS Number	Analyte	Concentration Notes	Units	Reporting Lim
75-71-8	Dichlorodifluoromethane	BRL	ug/Kg	11
74-87-3	Chloromethane	BRL	ug/Kg	11
75-01-4	Vinyl Chloride	BRL	ug/Kg	11
74-83-9	Bromomethane	BRL	ug/Kg	11
75-00-3	Chloroethane	BRL	ug/Kg	11
75-69-4	Trichlorofluoromethane	BRL	ug/Kg	11
60-29-7	Diethyl Ether	BRL	ug/Kg	11
75-35-4	1,1-Dichloroethene	BRL	ug/Kg	6
76-13-1	1,1,2-Trichlorotrifluoroethane	BRL	ug/Kg	55
67-64-1	Acetone	BRL	ug/Kg	220
75-15-0	Carbon Disulfide	BRL	ug/Kg	55
75-09-2	Methylene Chloride	BRL	ug/Kg	55
156-60-5	trans-1,2-Dichloroethene	BRL	ug/Kg	6
1634-04-4	Methyl tert-butyl Ether (MTBE)	BRL	ug/Kg	6
75-34-3	1,1-Dichloroethane	BRL	ug/Kg	6
594-20-7	2,2-Dichloropropane	BRL	ug/Kg	6
156-59-2	cis-1,2-Dichloroethene	BRL	ug/Kg	6
78-93-3	2-Butanone (MEK)	BRL	ug/Kg	_ 55
74-97-5	Bromochloromethane	BRL	ug/Kg	6
109-99-9	Tetrahydrofuran (THF)	BRL	ug/Kg	55
67-66-3	Chloroform	BRL	ug/Kg	6
71-55-6	1,1,1-Trichloroethane	BRL	ug/Kg	6
56-23-5	Carbon Tetrachloride	BRL	ug/Kg	6
563-58-6	1,1-Dichloropropene	BRL	ug/Kg	6
21 12 2	Renzene	BRL	ug/Kg	.6
107-06-2	1,2-Dichloroethane	BRL	(Ig/Kg	b
79-01-6	Trichloroethene	BRL	ug/Kg	6
78.87.5	1,2-Dichloropropane	BRL	ug/Kg	6
74-95-3	Dibromomethane	BRL	ug/Kg	6
75-27-4	Bromodichloromethane	BRL	ug/Kg	6
123-91-1	1,4-Dioxane	BRL	ug/Kg	5500
10061-01-5	cis-1,3-Dichloropropene	BRL	ug/Kg	6
108-10-1	4-Methyl-2-Pentanone (MIBK)	BRL	ug/Kg	55
108-88-3	Toluene	BRL	ug/Kg	6
10061-02-6	trans-1,3-Dichloropropene	BRL	ug/Kg	6
79-00-5	1,1,2-Trichloroethane	BRL	ug/Kg	6
127-18-4	Tetrachloroethene	BRL	ug/Kg	6
142-28-9	1,3-Dichloropropane	BRL	ug/Kg	6
591-78-6	2-Hexanone	BRL	ug/Kg	55
124-48-1	Dibromochloromethane	BRL	ug/Kg	6
106-93-4	1,2-Dibromoethane (EDB)	BRL	ug/Kg	6
108-90-7	Chlorobenzene	BRL	ug/Kg	6
630-20-6	1,1,1,2-Tetrachloroethane	BRL	ug/Kg	6
100-41-4	Ethylbenzene	BRL	ug/Kg	6
08-38-3/106-42-3	meta-Xylene and para-Xylene	BRL	ug/Kg	5
95-47-6	ortho-Xylene	BRL	ug/Kg	6

EPA Method 8260B (Continued) Volatile Organics by GC/MS

Field ID: Project:

Client:

IIIF03D

DND Lewis Chemical/2004-301

Environmental Strategies & Management

Laboratory ID:

87113-28 09-01-05 09:10

Sampled: 09-02-05 18:30 Received: Analyzed: 09-13-05 23:03

EMC Analyst:

Matrix: Container: Soil

Preservation:

40 mL VOA Vial NaHSO4 / Cool

QC Batch ID:

VM1-1661-S

Instrument ID:

MS-1 HP 5890

Sample Weight:

5.4 g

% Solids:

85 Dilution Factor: 1

Page: 2 of 2

CAS Number	Analyte	-	Concent	ration	Notes	Units	Reporting Limi
100-42-5	Styrene		2 3 3 3 3 3 3 3 3 3	BRL		ug/Kg	6
75-25-2	Bromoform		1	BRL		ug/Kg	6
98-82-8	Isopropylbenzene			BRL		ug/Kg	- 6
108-86-1	Bromobenzene			BRL		ug/Kg	6
79-34-5	1,1,2,2-Tetrachloroethane			BRL		ug/Kg	6
96-18-4	1.2.3-Trichloropropane			BRL		ug/Kg	6
103-65-1	n-Propylbenzene			BRL		ug/Kg	6
95-49-8	2-Chlorotoluene			BRL		ug/Kg	6
108-67-8	1,3,5-Trimethylbenzene			BRL		ug/Kg	6
106-43-4	4-Chlorotoluene			BRL		ug/Kg	6
98-06-6	tert-Butylbenzene			BRL		ug/Kg	6
95-63-6	1,2,4-Trimethylbenzene			BRL		ug/Kg	6
135-98-8	sec-Butylbenzene			BRL		ug/Kg	6
541-73-1	1,3-Dichlorobenzene			BRL	444	ug/Kg	6
99-87-6	4-Isopropyltoluene		BRL		ug/Kg	6	
106-46-7	1,4-Dichlorobenzene		BRL		ug/Kg	б	
95-50-1	1,2-Dichlorobenzene		BRL		ug/Kg	6	
104-51-8	n-Butylbenzene		BRL		ug/Kg	6	
96-12-8	1,2-Dibromo-3-chloropropane	9	BRL		ug/Kg	6	
120-82-1	1,2,4-Trichlorobenzene		BRL		ug/Kg	6	
87-68-3	Hexachlorobutadiene		BRL		ug/Kg	6	
91-20-3	Naphthalene		BRL			ug/Kg	6
87-61-6	1,2,3-Trichlorobenzene			BRL		ug/Kg	6
75-65-0	tert-Butyl Alcohol (TBA)			BRL		ug/Kg	220
100 00 3	Di (contonul Ethar (DIPE)			BRL		ug/Kg	6
637-92-3	Ethyl tert-butyl Ether (ETBE)		BRL			ид/Кд	D
994-05-8	tert-Amyl Methyl Ether (TAM	E)	BRL			ug/Kg	6
QC Surrogate C	ompound S	piked	Measured	Recovery			C Limits
Dibromofluoro	STATE OF THE PARTY	50	51	102 %		70 - 130	
1,2-Dichloroeth	and the same of th	50	49			70 - 130 %	
Toluene-da	14.114	50	53	107 %	70 - 1) - 130 %
4-Bromofluorot	an yang	50	57	113 %		70) - 130 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996). Sample preparation performed by EPA Method 5035A. Results are reported on a dry weight basis.

Report Notations:

Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution

Massachusetts DEP VPH Method Volatile Petroleum Hydrocarbons by GC/PID/FID

Field ID:

IA03M

Project:

DND Lewis Chemical/2004-301

Client:

Environmental Strategies & Management

Laboratory ID:

87113-29 08-30-05 09:25

Sampled: Received: Analyzed:

09-02-05 18:30 09-09-05 15:12

Analyst:

JH

Matrix:

Container: Preservation:

40 mL VOA Vial Methanol / Cool

QC Batch ID:

VG3-1993-E

Instrument ID: Sample Weight: GC-3 HP 5890

Final Volume: % Solids:

13 g 15 mL 82

Dilution Factor:

				Diluti	on ractor:	1	
VPH Ranges		Conc	entration	Notes	Units	Reporting Lim	
	phatic Hydrocarbons * 0			5.4		mg/Kg	1.4
	iphatic Hydrocarbons 18			BRL		mg/Kg	1.4
n-C9 to n-C10 A	romatic Hydrocarbons *			BRL		mg/Kg	1.4
	to n-C8 Aliphatic Hydrocari			6.1		mg/Kg	1.4
Unadiusted n-C9	to n-C12 Aliphatic Hydroca	rbons †		2.5		mg/Kg	1.4
CAS Number	Analyte	100	Concentration Notes				Reporting Limi
1634-04-4	Methyl tert -butyl Ether		BRL			Units mg/Kg	0.14
71-43-2	Benzene "		BRL			mg/Kg	0.14
108-88-3	Toluene #		0.67			mg/Kg	0.14
100-41-4	Ethylbenzene 1			0.27			0.14
106-38-3 and 106-42-3	meta-Xylene and para-Xy	lene ‡	BRL		mg/Kg mg/Kg	0.14	
95-47-6	ortho- Xylene 1		BRL		mg/Kg	0.14	
91-20-3	Naphthalene		BRL			mg/Kg	0.72
QC Surrogate Co	ompound	Spiked	Measured	Recovery	Karajania		Limits
2,5-Dibromotolu	ene (PID)	7.2	7.2	100 %	03.000.303	STATE OF THE PARTY	- 130 %
2,5-Dibromotoluene (FID) 7.2		7.3 101 %		70 - 130 %			

QA/QC Certification

- 1. Were all QA/QC procedures required by the method followed?
- 2. Were all performance/acceptance standards for the required QA/QC procedures achieved?
- 3. Were any significant modifications made to the method, as specified in Section 11 3.2.1?

Yes Yes Νo

Method non-conformances indicated above are detailed below on this data report, or in the accompanying project narrative and project quality control report. Release of this data is authorized by the accompanying signed project cover letter. The accompanying cover letter, project narrative and quanty comfor report are considered part of this data report

Method Reference:

Method for the Determination of Volatile Petroleum Hydrocarbons, MA DEP (Revision 1.1, 2004). Results are reported on a dry weight basis.

Report Notations:

- Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution
- Hydrocarbon range data excludes concentrations of any surrogate(s) and/or internal standards eluting in that range
- n-C5 to n-C8 Aliphatic Hydrocarbons range data excludes the method target analyte concentrations.
- n-C9 to n-C12 Aliphatic Hydrocarbons range data excludes the method target analyte concentrations and the concentration for the n-C9 to n-C10 Aromatic Hydrocarbons range.
- Ħ Analyte elutes in the n-C5 to n-C8 Aliphatic Hydrocarbons range.
- Analyte elutes in the n-C9 to n-C12 Aliphatic Hydrocarbons range.

Massachusetts DEP VPH Method Volatile Petroleum Hydrocarbons by GC/PID/FID

Field ID: Project:

1B05D

Client:

DND Lewis Chemical/2004-301 **Environmental Strategies & Management**

Laboratory ID: Sampled:

08-30-05 11:00

Received: Analyzed:

Analyst:

87113-30

09-02-05 18:30 09-09-05 15:53

Soil

Container: Preservation:

40 mL VOA Vial Methanol / Cool

QC Batch ID:

VG3-1993-E

Instrument ID: Sample Weight: GC-3 HP 5890 19 g

Final Volume: % Solids: Dilution Factor: 15 mL 88

The second secon	Concentration Notes	Units	Reporting Limi
VPH Ranges	BRL	mg/Kg	1.0
n-C5 to n-C8 Aliphatic Hydrocarbons 10	BRL	mg/Kg	1.0
n-C9 to n-C12 Aliphatic Hydrocarbons 1	BRL	mg/Kg	1.0
n-C9 to n-C10 Aromatic Hydrocarbons 1	BRL	mg/Kg	1.0
Unadjusted n-C5 to n-C8 Aliphatic Hydrocarbons	BRL	mg/Kg	1.0
Unadjusted n-C9 to n-C12 Aliphatic Hydrocarbons *	Disc.		-

to n-C12 Aliphatic riyurocarbons		Linder	Reporting Limit	
Analyte	Concent about			
Methyl tert-hutyl Fther "	BRL		0.10	
	8RL	-	0.10	
	BRL	mg/Kg	0.10	
	BRL	mg/Kg	0.10	
		mg/Kg	0.10	
meta- Xylene and para - Xylene		mg/Kg	0.10	
ortho- Xylene 1			0.50	
Naphthalene	BKL			
	Analyte Methyl tert-butyl Ether " Benzene " Toluene " Ethylbenzene ' meta- Xylene and para - Xylene ' ortho- Xylene '	Analyte Concentration Notes Methyl tert -butyl Ether BRL Benzene BRL Toluene BRL Ethylbenzene BRL meta-Xylene and para -Xylene BRL ortho- Xylene BRL BRL BRL BRL BRL BRL BRL BRL	Analyte Concentration Notes Units Methyl tert -butyl Ether " BRL mg/Kg Benzene " BRL mg/Kg Toluene " BRL mg/Kg Ethylbenzene " BRL mg/Kg meta- Xylene and para -Xylene " BRL mg/Kg ortho- Xylene " BRL mg/Kg Naphthalene BRL mg/Kg	

91-20-3 Naphthaiene		_							
000 -1	Command	Spiked-	Measured	Recovery	QC Limits				
QC Surrogate Compound		The state of the s	100	99 %	70 - 130 %				
2,5-Dibromotoluene (PID)		4.5	4.4	and the second	70 - 130 %				
	toluene (FID)	4.5	4.4	99 %					

QA/QC Certification

- Were all QA/QC procedures required by the method followed?
- Were all performance/acceptance standards for the required QA/QC procedures achieved?
- 3. Were any significant modifications made to the method, as specified in Section 11.3.2.1?

Method non-conformances indicated above are detailed below on this data report, or in the accompanying project narrative and project quality control report. Release of this data is authorized by the accompanying cover letter, project narrative and quality control report are considered part of this data report.

Method Reference:

Method for the Determination of Volatile Petroleum Hydrocarbons, MA DEP (Revision 1.1, 2004). Results are reported on a dry weight basis.

Report Notations:

- Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- Hydrocarbon range data excludes concentrations of any surrogate(s) and/or internal standards eluting in that range
 - n-C5 to n-C8 Aliphatic Hydrocarbons range data excludes the method target analyte concentrations.
- n-C9 to n-C12 Aliphatic Hydrocarbons range data excludes the method target analyte concentrations and the concentration for the n-C9 to n-C10 Aromatic Hydrocarbons range.
- Analyte elutes in the n-C5 to n-C8 Aliphatic Hydrocarbons range.
- Analyte elutes in the n-C9 to n-C12 Aliphatic Hydrocarbons range



Field ID:

1A035

Matrix:

Soil

Project:

DND Lewis Chemical/2004-301

Container:

250 mL Glass

Client:

Environmental Strategies & Management, Inc.

Preservation:

Cool

Laboratory ID:

87113-31

Percent Solids:

82

Sampled: Received: 08-30-05 09:20 09-02-05 18:30

Lead, Total

OC Batch ID

Prep Method EPA 3050B

Prepared 09-12-05 12:18 Sample Weight 0.5 g

12

Instrument ID ICP-1 PE 3000

Analyst MWR

EPA 6010B1 CAS Number 7439-92-1

Analysis Method

MB-0699-S Analyte

Units Concentration Notes

Reporting Limit DF

Analyzed 09-13-05 11:05

Method EPA 6010B

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Results are reported on a dry weight basis.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

mg/Kg

DF Dilution Factor.

600

300



Field ID:

IA03M

DND Lewis Chemical/2004-301

Matrix:

Soil

Project: Client:

Environmental Strategies & Management, Inc.

Container: Preservation: 250 mL Glass

Laboratory ID:

87113-32

Percent Solids:

Cool 82

Sampled:

Received:

08-30-05 09:25 09-02-05 18:30

Lead, Total

<u>Analyst</u>

Analysis Method EPA 6010B1

OC Batch ID MB-0699-5

Prep Method Prepared

590

Sample Weight

Instrument ID ICP-1 PE 3000

MWR

CAS/Number

EPA 3050B Analyte Concentration 09-12-05 12:18

Notes

0.5 g Reporting Umit DF

12

Analyzed

09-13-05 11:08

Method

EPA 6010B1

7439-92-1 Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Results are reported on a dry weight basis.

Report Notations:

Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

- Units

mg/Kg

Dilution Factor.

300

600



Field ID:

IA03D

DND Lewis Chemical/2004-301

Project: Client:

Environmental Strategies & Management, Inc.

Matrix: Container: Soil

Preservation:

250 ml Glass Cool

Laboratory ID:

87113-33

Sampled: Received: 08-30-05 09:30 09-02-05 18:30

Lead, Total

Percent Solids:

: 53

e Weight	Instrument ID	Analyst

Analysis Method EPA 60108¹ OC Batch ID MB-0699-S Analyte Prep Method Prepai EPA 30508 09-12-4 Concentration Notes

Prepared 09-12-05 12:18 Notes Units Sample Weight
0.5 g
Reporting Limit DF

18

Analyzed

09-13-05 11:12

MWR

EPA 6010B

7439-92-1 Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Results are reported on a dry weight basis.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

mg/Kg

Trace Metals

Field ID:

IB05S

Project:

DND Lewis Chemical/2004-301

Client:

Environmental Strategies & Management, Inc.

Matrix: Container: Soil

250 mL Glass

Preservation:

Cool

Laboratory ID:

Sampled: Received: 08-30-05 10:20 09-02-05 18:30

Percent Solids:

Analysis Method EPA 6010B ¹	QC Batch ID MB-0699-S	Prep Method EPA 3050B	<u>Prepare</u> 09-12-05		Sample Weight 0.5 g	ı	Instrument ID	Analyst MWR
CA5 Number	Analyte	Concentration	Notes	Units	Reporting Umit	DF	Analyzed	Method
7439-92-1	Lead, Total	350		mg/Kg	11	1	09-13-05 11:15	EPA 6010B1

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Results are reported on a dry weight basis.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

GROUNDWATER

Trace Metals

Field ID:

1B05M

Matrix:

Soil

Project:

DND Lewis Chemical/2004-301

Container:

250 mL Glass

Client:

Environmental Strategies & Management, Inc.

Prep Method

EPA 3050B

Concentration

Preservation:

Cool

Laboratory ID: Sampled:

Received:

87113-35

08-30-05 10:50 09-02-05 18:30

Lead, Total

Percent Solids:

91

Analysis Method EPA 6010B1

OC Batch ID MB-0699-S

Prenared 09-12-05 12:18 Sample Weight

11

Instrument ID ICP-1 PE 3000

Analyst MWR

CAS Number 7439-92-1

Analyte

Units Notes

0.5 gReporting Limit

Analyzed

09-13-05 11:19

Method EPA 601081

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Results are reported on a dry weight basis.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

mg/Kg

Trace Metals

Field ID:

IB05D

Project:

DND Lewis Chemical/2004-301

Client:

Sampled:

Received:

Environmental Strategies & Management, Inc.

Matrix:

Soil

88

Container: Preservation:

Percent Solids:

250 mL Glass Cool

Laboratory ID:

87113-36

08-30-05 11:00

09-02-05 18:30

Lead, Total

Analysis Method EPA 6010B1

OC Batch ID MB-0700-S

Prep Method **EPA 3050B**

Concentration

Prepared

Sample Weight

Instrument ID

Analyst

CAS Number 7439-92-1

Analyte

09-13-05 12:13 Notes

0.5 g

11

Reporting Limit DF

ICP-1 PE 3000

Analyzed

09-13-05 18:00

MWR Method

EPA 60108

Method Reference:

BRL Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996). Results are reported on a dry weight basis.

Report Notations:

Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

Units



Field ID:

1B08S

Project:

DND Lewis Chemical/2004-301

Client:

Environmental Strategies & Management, Inc.

Matrix:

Soil

Container:

250 mL Glass

Preservation:

Cool

Laboratory ID:

87113-37

Sampled: Received: 08-30-05 11:00 09-02-05 18:30

Analyte

Lead, Total

Percent Solids:

91

Analysis Method EPA 6010B1

OC Batch ID MB-0700-S

Prep Method **EPA 3050B**

Concentration

Prepared 09-13-05 12:13

Notes

Sample Weight 0.5 g

11

Reporting Limit DF

Instrument ID ICP-1 PE 3000 Analyzed

09-13-05 18:03

Analyst MWR Method

EPA 6010B1

7439-92-1 **Method Reference:**

CAS Number

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Results are reported on a dry weight basis.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

Units

mg/Kg



Field ID:

IB08M

Project:

DND Lewis Chemical/2004-301

Client:

Environmental Strategies & Management, Inc.

Matrix:

Soil

Container: Preservation: 250 mL Glass

Analyzed

09-13-05 18:07

Laboratory ID: Sampled:

87113-38

08-30-05 11:30 09-02-05 18:30

Analyte

Lead, Total

Percent Solids:

Cool 81

Received: Analysis Method EPA 6010B1

QC Batch ID MB-0700-S

Prepared 09-13-05 12:13

Notes

Sample Weight 0.5 g

Reporting Limit

DF

Instrument ID ICP-1 PE 3000

Analyst MWR

Method

EPA 6010B

CAS Number 7439-92-1

Method Reference:

mg/Kg 12 Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996). Results are reported on a dry weight basis.

Prep Method

Concentration

EPA 3050B

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution

Units



Field ID:

1B08D

Project:

DND Lewis Chemical/2004-301

Client:

Received:

Environmental Strategies & Management, Inc.

Matrix:

Soil

Container:

250 mL Glass

Preservation:

Cool

Laboratory ID: Sampled:

87113-39

08-30-05 11:50 09-02-05 18:30

Analyte

Lead, Total

Percent Solids:

87

DF

Ana	vsis	Method
EPA	6010)B1

OC Batch ID MB-0700-S

Prep Method **EPA 3050B**

Concentration

Prepared 09-13-05 12:13

Notes

Sample Weight 0.5 g

Reporting Limit

11

Instrument ID ICP-1 PE 3000

Analyzed

09-13-05 18:10

Analyst MWR Method

EPA 6010B

CAS Number 7439-92-1

BRL Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996). Results are reported on a dry weight basis.

Report Notations:

Method Reference:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution

Units

mg/Kg



Notes

Field ID:

IIA09S

Project: Client:

Sampled:

Received:

DND Lewis Chemical/2004-301

Environmental Strategies & Management, Inc.

Matrix:

Soil

Container: Preservation: 250 mL Glass Cool

Laboratory ID:

08-30-05 15:00 09-02-05 18:30

Analyte

Percent Solids:

89

Analysis Method EPA 6010B1

OC Batch ID MB-0700-S

Prep Method Prepared **EPA 3050B** 09-13-05 12:13 Sample Weight 0.5 g

Reporting Limit DF

Instrument ID ICP-1 PE 3000

Analyzed

09-13-05 18:14

<u> ∆nalyst</u> MWR Method

EPA 6010B

CAS Number 7439-92-1

Method Reference:

Lead, Total

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996). Results are reported on a dry weight basis.

150

Concentration

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

Units

mg/Kg



Field ID:

IIA09M

DND Lewis Chemical/2004-301

Matrix:

Soil

Project: Client:

Environmental Strategies & Management, Inc.

Container: Preservation: 250 mL Glass Cool

Laboratory ID:

Sampled: Received: 08-30-05 15:10 09-02-05 18:30

Analyte

Lead, Total

Percent Solids:

78

Analysis Method

OC Batch ID

Prep Method

Concentration

Prepared

Notes

Sample Weight

Instrument ID

09-13-05 18:17

Analyst

EPA 6010B1 CAS Number MB-0700-S

EPA 3050B

09-13-05 12:13

0.5 g

12

ICP-1 PE 3000 Reporting Limit DF Analyzed

MWR Method

EPA 6010B1

7439-92-1 Method Reference:

BRL Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Results are reported on a dry weight basis.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

Units

mg/Kg



Field ID:

IIA09D

Project:

DND Lewis Chemical/2004-301

Client:

Environmental Strategies & Management, Inc.

Prep Method

Concentration

EPA 3050B

Matrix:

Soil

Container: Preservation: 250 mL Glass Cool

Laboratory ID: 87113-42

Sampled: Received: 08-30-05 15:20

Analyte

Percent Solids:

81

Applying Marked

09-02-05 18:30 QC Batch ID

ent Solids: 8

Δna	vsis Method
EPA	6010B ¹

OC Batch ID MB-0700-S Prepared 09-13-05 12:13 Sample Weight 0.5 g

Instrument ID
ICP-1 PE 3000

Analyst MWR

CAS Number 7439-92-1

Lead, Total 110

 Units
 Reporting Limit
 DF

 mg/Kg
 12
 1

Analyzed Method 09-13-05 18:21 EPA 6010B

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Results are reported on a dry weight basis.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

Trace Metals

Field ID: Project:

IIA11S

DND Lewis Chemical/2004-301

Client:

Environmental Strategies & Management, Inc.

Matrix:

Soil

Container:

250 mL Glass

Preservation:

Cool

Laboratory ID: Received:

87113-43

Sampled:

08-30-05 14:10 09-02-05 18:30

Lead, Total

Percent Solids:

91

Analysis Method

QC Batch ID

Prep Method **EPA 3050B**

Concentration

Prepared

Sample Weight

Instrument ID ICP-1 PE 3000

Analyst MWR

EPA 6010B1 CAS Number 7439-92-1

MB-0700-S Analyte

09-13-05 12:13 Notes Units

0.5 g Reporting Limit DF

Method Analyzed 09-13-05 18:31 EPA 6010B1

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

110

Results are reported on a dry weight basis.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

mg/Kg

Dilution Factor.

2



Field ID:

IIA11M

Matrix:

Soil

Project:

DND Lewis Chemical/2004-301

Container:

250 mL Glass

Client:

Environmental Strategies & Management, Inc.

Preservation:

Cool

Laboratory ID:

87113-44

Percent Solids:

Sampled:

08-30-05 14:15 09-02-05 18:30

Analyte

Lead, Total

77

Received: **Analysis Method**

OC Batch ID

Prep Method

Prepared

Sample Weight

Instrument ID ICP-1 PE 3000

Analyst MWR

EPA 6010B1 CAS Number 7439-92-1

MB-0700-5

09-13-05 12:13 **EPA 3050B** Units Concentration Notes

0.5 g Reporting Limit DF 13

Analyzed 09-13-05 18:35

Method EPA 6010B

Method Reference:

BRL Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Results are reported on a dry weight basis.

Report Notations:

Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

mg/Kg

Trace Metals

Field ID:

IIIC02M

Soil

Project:

DND Lewis Chemical/2004-301

Container:

250 mL Glass

Client:

Environmental Strategies & Management, Inc.

Prep Method

Concentration

EPA 3050B

Preservation:

Matrix:

Cool

Laboratory ID:

87113-47

Percent Solids:

81

Sampled:

08-31-05 10:40

Analyte

Lead, Total

Analyzed

09-13-05 18:38

Received:

09-02-05 18:30

Analysis Method EPA 6010B1

QC Batch ID MB-0700-S

09-13-05 12:13

Notes

Sample Weight 0.5 g Reporting Limit

12

Instrument ID ICP-1 PE 3000

Analyst MWR

Method

EPA 6010B

CAS Number 7439-92-1 Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

140

Results are reported on a dry weight basis.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

Units

mg/Kg



Field ID:

IIIC02D

Project:

DND Lewis Chemical/2004-301

Client:

Environmental Strategies & Management, Inc.

Matrix:

Soil

Container:

250 mL Glass

Preservation:

Cool

Laboratory ID:

87113-48

Sampled: Received: 08-31-05 10:50 09-02-05 18:30 Percent Solids:

80

Analysis Method	is Method OC Batch ID Prep Method Prepan		red	Sample Weigh	t	Instrument ID	Analyst	
EPA 6010B1	MB-0700-S	EPA 3050B 09-13-	05 12:13	0.5 g		ICP-1 PE 3000	MWR	
CAS Number Analyte		Concentration Notes	es Units Reporting L		DF	Analyzed	Method	
7439-92-1	Lead, Total	BRL	mg/Kg	12	1	09-13-05 18:41	EPA 6010B1	

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Results are reported on a dry weight basis.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution

Trace Metals

Field ID:

IIIE02S

Matrix:

Soil

Project:

DND Lewis Chemical/2004-301

250 mt. Glass

Client:

Environmental Strategies & Management, Inc.

Container: Preservation:

Laboratory ID:

87113-49

Cool

Sampled: Received:

08-31-05 09:35 09-02-05 18:30 Percent Solids:

92

Analysis Method EPA 6010B¹

QC Batch ID MB-0700-S

Prep Method EPA 3050B

120

Sample Weight 0.5 g

Instrument ID ICP-1 PE 3000

Analyst MWR

CAS Number 7439-92-1

Analyte Lead, Total

09-13-05 12:13 Units Concentration Notes

Analyzed Reporting Limit DF 09-13-05 18:45 11

Method EPA 601081

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Results are reported on a dry weight basis.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

mg/Kg



Field ID:

IIIE02M

Matrix:

Soil

Project:

DND Lewis Chemical/2004-301

Container:

250 mL Glass

Client:

Environmental Strategies & Management, Inc.

Preservation:

Cool

Laboratory ID:

87113-50

74

Sampled:

08-31-05 09:45

Percent Solids:

Received: Analysis Method 09-02-05 18:30

Analyte

Lead, Total

OC Batch ID Prep Method

EPA 3050B

Concentration

Prepared

Sample Weight

14

Instrument ID ICP-1 PE 3000

Analyzed

09-14-05 20:03

Analyst DRW

EPA 6010B1 CAS Number MB-0702-S

09-14-05 11:50

Notes Units

0.5 g Reporting Limit DF

Method EPA 6010B

7439-92-1 **Method Reference:**

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Results are reported on a dry weight basis.

Report Notations:

indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

mg/Kg

Trace Metals

Field ID:

IIIE02D

Project:

Sampled:

Received:

DND Lewis Chemical/2004-301

Client:

Environmental Strategies & Management, Inc.

Matrix:

Soil

Container:

250 mL Glass

Preservation:

Cool

Laboratory ID: 87113-51

08-31-05 09:55 09-02-05 18:30 Percent Solids:

Analysis Method	OC Batch ID	Prep Method	Prepare	ad .	Sample Weight		Instrument ID	<u> Analyst</u>	
PA 6010B1	MB-0702-S	EPA 3050B 09-14-05 11:50 0.5 g ICP-1 PE 3000		09-14-05 11:50 0.5 g ICP-1 PE 3000		ICP-1 PE 3000	DRW		
CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit	DF Analyzed		Method	
7439-92-1	Lead, Total	BRL		mg/Kg	12	1	09-14-05 20:06	EPA 601081	

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Results are reported on a dry weight basis.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

Trace Metals

Field ID:

IC09S

Project:

DND Lewis Chemical/2004-301

Client:

Environmental Strategies & Management, Inc.

Matrix:

Soil

Container: Preservation:

250 mL Glass Cool

Laboratory ID:

Sampled: Received:

87113-52 08-31-05 14:00 09-02-05 18:30

Lead, Total

Percent Solids:

91

Analysis Method EPA 6010B1

OC Batch ID

Prep Method **EPA 3050B**

Prepared

Sample Weight 0.5 g

Instrument ID ICP-1 PE 3000

Analyst DRW

CAS Number 7439-92-1

MB-0702-S Analyte

09-14-05 11:50 Concentration Notes Units

Reporting Limit DF

Analyzed 09-14-05 20:16

Method EPA 601081

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Results are reported on a dry weight basis.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

mg/Kg



Field ID:

IC09M

DND Lewis Chemical/2004-301

Matrix: Container: Soil

Cool

Project: Client:

Environmental Strategies & Management, Inc.

250 mL Glass

Laboratory ID:

87113-53

Preservation:

Sampled: Received:

08-31-05 14:10 09-02-05 18:30

Lead, Total

Percent Solids:

Analysis Method EPA 601081

OC Batch ID

Prep Method **EPA 3050B**

Prepared 09-14-05 11:50 Sample Weight 0.5 g

11

Instrument ID ICP-1 PE 3000

Analyst DRW

CAS Number 7439-92-1

MB-0702-S Analyte

Concentration Notes

Units

Reporting Limit DF Analyzed 09-14-05 20:20

Method EPA 6010B

Method Reference:

BRL Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Results are reported on a dry weight basis.

Report Notations:

Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

mg/Kg



Field ID: Project:

1C09D

DND Lewis Chemical/2004-301

Matrix:

Soil

Environmental Strategies & Management, Inc.

Container:

250 mL Glass

Client:

Preservation:

Cool

Laboratory ID: Sampled:

87113-54

08-31-05 14:20

Analyte

Lead, Total

Percent Solids:

92

Received: **Analysis Method** 09-02-05 18:30

Prep Method

Concentration

Prepared

Notes

Sample Weight

11

Instrument ID

09-14-05 20:23

Analyst

EPA 6010B1

EPA 6010B1 CAS Number OC Batch ID MB-0702-5

EPA 30508 09-14-05 11:50 0.5 g

ICP-1 PE 1000 Reporting Limit DF Analyzed

DRW Method

7439-92-1 **Method Reference:**

BRL Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Results are reported on a dry weight basis.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

Units

mg/Kg

Trace Metals

Field ID:

HA01S

DND Lewis Chemical/2004-301

Project: Client:

Environmental Strategies & Management, Inc.

Laboratory ID:

87113-55

Sampled:

08-31-05 09:40

Received:

EPA 6010B1

Analysis Method

09-02-05 18:30

Analyte

Lead, Total

OC Batch ID MB-0702-S

Prep Method **EPA 3050B**

Prepared 09-14-05 11:50 Sample Weight 0.5 g

Matrix:

Container:

Preservation:

Percent Solids:

Instrument ID ICP-1 PE 3000

250 mL Glass

Soil

Cool

88

<u>Analyst</u> DRW Method

EPA 6010B1

Reporting Limit DF Analyzed Concentration Notes Units 09-14-05 20:26 11 mg/Kg

7439-92-1 Method Reference:

CAS Number

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Results are reported on a dry weight basis.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.



Field ID:

HA01M

Matrix:

Soil

Project:

DND Lewis Chemical/2004-301

Container:

250 mL Glass

Client:

Environmental Strategies & Management, Inc.

Preservation:

Cool

Laboratory ID: Sampled:

Analyte

08-31-05 10:50 09-02-05 18:30 Percent Solids:

71

Received:
Analysis Method

OC Batch ID MB-0702-S

Prep Method Prepared Sample Weight 0.5 g

Instrument ID **Analyst**

EPA 6010B1 CAS Number

EPA 3050B Concentration Lead, Total

09-14-05 11:50 Units Notes

Reporting Limit DF Analyzed 09-14-05 20:30 14

DRW Method

EPA 601081

7439-92-1 Method Reference:

BRL Test Methods for Evaluating Solid Waste, US EPA, 5W-846, Third Edition, Update III (1996).

Results are reported on a dry weight basis.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution

mg/Kg



Field ID:

IIA035

Matrix:

Soil

Project:

DND Lewis Chemical/2004-301

Container:

250 mL Glass

Client:

Environmental Strategies & Management, Inc.

Preservation:

Cool

Laboratory ID:

87113-57

Percent Solids:

95

Sampled: Received:

EPA 6010B1

08-31-05 09:40

Analysis Method

09-02-05 18:30

Lead, Total

OC Batch ID

Prep Method **EPA 3050B**

Prepared 09-14-05 11:50 Sample Weight 0.5 g

10

Instrument ID ICP-1 PE 3000

Analyst DRW

CAS Number 7439-92-1

MB-0702-S Analyte Concentration

Reporting Umit DF Notes Units mg/Kg

Analyzed 09-14-05 20:33 EPA 60108

Method

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Results are reported on a dry weight basis.

Report Notations:

Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution

Dilution Factor.

Medicated her

Trace Metals

Field ID:

IIA03M

Project:

DND Lewis Chemical/2004-301

Client:

Environmental Strategies & Management, Inc.

Matrix:

Soil

Container:

250 mL Glass

Preservation:

Cool

Laboratory ID:

87113-58

Analyte

Sampled: Received: 08-31-05 09:50 09-02-05 18:30

Percent Solids:

76

Analysis Method EPA 6010B1

OC Batch ID MB-0702-S

Prep Method **EPA 3050B**

Concentration

Prepared 09-14-05 11:50

Notes

Sample Weight 0.5 g

Reporting Limit DF

Instrument ID ICP-1 PE 3000

Analyzed

09-14-05 20:43

Analyst DRW

Method

EPA 6010B

CAS Number 7439-92-1 **Method Reference:**

Lead, Total BRL mg/Kg 13 Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996). Results are reported on a dry weight basis.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

Units

Trace Metals

Field ID:

IIA05M

Matrix:

Soil

Project: Client:

DND Lewis Chemical/2004-301

Container:

250 ml. Glass

Environmental Strategies & Management, Inc.

Preservation:

Cool

Laboratory ID:

87113-59

Percent Solids:

79

Sampled: Received: 08-31-05 08:50 09-02-05 18:30

Analysis Method EPA 6010B1

OC Batch ID MB-0702-S

Prepared 09-14-05 11:50 Sample Weight 0.5 g

12

Instrument ID ICP-1 PE 3000

Analyst DRW

CAS Number 7439-92-1

Analyte Concentration Notes Units Reporting Limit DF Lead, Total BRL mg/Kg

Prep Method

EPA 3050B

Analyzed 09-14-05 20:47

Method EPA 601081

Method Reference: Report Notations:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996). Results are reported on a dry weight basis.

BRL

Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.



Field ID:

IIA05D

Project:

Received:

DND Lewis Chemical/2004-301

Client:

Environmental Strategies & Management, Inc.

Matrix:

Soil

Container:

250 mL Glass

Preservation:

Cool

Laboratory ID: Sampled:

87113-60

Analyte

Lead, Total

08-31-05 09:00 09-02-05 18:30

Percent Solids:

68

Analysis Method	
EPA 6010B1	

OC Batch ID MB-0702-S

Prep Method **EPA 3050B**

Concentration

Prepared 09-14-05 11:50

Notes Units

Sample Weight 0.5 g

Reporting Limit DF

Instrument ID ICP-1 PE 3000

Analyzed

09-14-05 20:56

Analyst DRW Method

EPA 6010B1

CAS Number 7439-92-1 **Method Reference:**

BRL mg/Kg 14 Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996). Results are reported on a dry weight basis.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.



Field ID:

HA07S

Project:

DND Lewis Chemical/2004-301

Client:

Environmental Strategies & Management, Inc.

Matrix:

Soil

Container: Preservation: 250 mL Glass Cool

Laboratory ID:

Sampled: Received:

08-31-05 08:15 09-02-05 18:30 Percent Solids:

85

Analysis Method

OC Batch ID

Lead, Total

Prep Method

Prepared

Sample Weight

Instrument ID

09-14-05 20:59

Analyst

EPA 601081 **CAS Number** 7439-92-1

MB-0702-S Analyte

EPA 3050B Concentration 09-14-05 11:50 Notes Units

0.5 g Reporting Limit DF

12

ICP-1 PE 3000 Analyzed

DRW Method

EPA 6010B

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Results are reported on a dry weight basis.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

mg/Kg

DF Dilution Factor.

600

300



Field ID:

IIA07M

Project:

DND Lewis Chemical/2004-301

Client:

Environmental Strategies & Management, Inc.

Matrix:

Soil

Container:

250 mL Glass

Preservation:

Cool

Percent Solids:

Reporting Limit | DF

80

Sampled: Received: Analysis Method

EPA 601081

Laboratory ID:

08-31-05 08:20 09-02-05 18:30

MB-0702-S

OC Batch ID

Analyte

Lead, Total

87113-62

Prep Method EPA 3050B

Concentration

Prepared 09-14-05 11:50

Notes

Sample Weight 0.5 g

Instrument ID ICP-1 PE 3000

Analyzed

09-14-05 21:03

Analyst DRW Method

EPA 60108

CAS Number 7439-92-1 Method Reference:

BRL Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Results are reported on a dry weight basis.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

Units

mg/Kg

Trace Metals

Field ID:

IIIF03S

Project:

DND Lewis Chemical/2004-301

Client:

Environmental Strategies & Management, Inc.

Matrix:

Soil

Container:

250 mL Glass

Preservation:

Cool

Laboratory ID:

87113-64

Sampled: Received: 09-01-05 08:50 09-02-05 18:30 Percent Solids:

Solids: 91

Analysis Method

OC Batch ID

Lead, Total

Prep Method EPA 3050B

Concentration

<u>Prepared</u> 09-14-05 11:50 Sample Weight 0.5 g

Instrument ID

Analyst DRW

CAS Number 7439-92-1 MB-0702-S Analyte

Notes Units

Reporting Limit DF

Analyzed 09-14-05 21:07

Method EPA 6010B

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Results are reported on a dry weight basis.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

mg/Kg

Trace Metals

Field ID:

IIIF03M

Project:

DND Lewis Chemical/2004-301

Client:

Environmental Strategies & Management, Inc.

Matrix:

Soil

Container:

250 mL Glass

Preservation:

Percent Solids:

Cool 74

Laboratory ID: Sampled:

87113-65 09-01-05 09:00

Received: Analysis Method EPA 6010B1

09-02-05 18:30

M8-0702-S

Analyte

QC Batch ID Prep Method **EPA 3050B**

Concentration

Prepared 09-14-05 11:50 Notes Units Sample Weight 0.5 g

Reporting Limit DF

Instrument ID ICP-1 PE 3000

Analyzed

09-14-05 21:10

Analyst DRW

Method

EPA 60108

CAS Number 7439-92-1 **Method Reference:**

Lead, Total BRL mg/Kg 14 Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996). Results are reported on a dry weight basis.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.



Field ID:

IIIF03D

Project:

DND Lewis Chemical/2004-301

Client:

Environmental Strategies & Management, Inc.

Matrix:

Soil

Container:

250 mL Glass

Preservation:

Cool 85

Laboratory ID: Sampled:

87113-66

Analyte

Lead, Total

09-01-05 09:10 09-02-05 18:30

Percent Solids:

Analyzed

09-14-05 21:14

Analysis Method EPA 6010B1

Received:

QC Batch ID MB-0702-S

Prep Method **EPA 3050B**

Concentration

Prepared 09-14-05 11:50

Notes

Sample Weight 0.5 g

12

Reporting Limit DF

Instrument ID ICP-1 PF 3000

<u>Analyst</u> DRW Method

EPA 6010B1

CAS Number 7439-92-1 Method Reference:

BRL mg/Kg Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Results are reported on a dry weight basis.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

Units

GROUNDWATER

Trace Metals

Field ID:

IA08S

Project:

DND Lewis Chemical/2004-301

Client:

Environmental Strategies & Management, Inc.

Soil

Container:

250 mL Glass

Preservation: Percent Solids:

Matrix:

Cool 86

Laboratory ID: Sampled:

Received:

87113-72 08-30-05 12:20

Analyte

Lead, Total

09-02-05 18:30

Analysis Method EPA 6010B1

OC Batch ID MB-0702-S

Prep Method EPA 3050B Concentration Prepared 09-14-05 11:50 Notes Units Sample Weight 0.5 g Reporting Limit DF

11

Instrument ID ICP-1 PE 3000 Analyzed

09-14-05 21:21

Analyst DRW

Method EPA 601081

Method Reference:

7439-92-1

CAS Number

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996). Results are reported on a dry weight basis.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

mg/Kg

Trace Metals

Field ID:

IA08M

Project:

DND Lewis Chemical/2004-301

Client:

Received:

Environmental Strategies & Management, Inc.

Matrix:

Soil

Container:

250 mL Glass

Preservation:

Cool

Laboratory ID: Sampled:

87113-73 08-30-05 12:30 09-02-05 18:30

Percent Solids:

89

Analysis Method EPA 6010B ¹	OC Batch ID MB-0702-S	Prep Method EPA 3050B	Prepared 09-14-05 11:50		Sample Weight 0.5 g		Instrument ID ICP-1 PE 3000	Analyst	
CAS Number	Analyte	Concentration	Notes	Units	Reporting Umit	DF	Analyzed	Method	
7439-92-1	Lead, Total	150		mg/Kg	11	1	09-14-05 21:24	FPA 60108 ¹	

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Results are reported on a dry weight basis.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.



Field ID:

DUP2

Project:

DND Lewis Chemical/2004-301

Client:

Environmental Strategies & Management, Inc.

Matrix:

Soil

Container: Preservation:

250 mL Glass Cool

Laboratory ID:

Received:

Sampled:

87113-74 08-30-05 11:40

09-02-05 18:30

Percent Solids:

83

Analysis Method	QC Batch ID	Prep Method	Prepare	d	Sample Weight Instrument ID		Analyst		
EPA 6010B1	MB-0702-S	EPA 3050B	09-14-05 11:50		0.5 g ICP-1 PE 3000		DRW		
CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit	DF	Analyzed	Method	
7439-92-1	Lead, Total	В	RL	mg/Kg	12	1	09-14-05 21:28	EPA 601081	

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Results are reported on a dry weight basis.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.



Prepared

09-15-05 14:24

Notes Units

Field ID:

IB10S

DND Lewis Chemical/2004-301

Project: Client:

Environmental Strategies & Management, Inc.

Matrix:

Soil

Container: Preservation:

Reporting Limit DF

11

250 mL Glass Cool

Laboratory ID: 87113-75

Sampled:

EPA 6010B1

08-30-05 13:20

Analyte

Lead, Total

Percent Solids:

92

09-02-05 18:30 Received: **Analysis Method**

OC Batch ID MB-0703-S

Prep Method

EPA 3050B

Concentration

Sample Weight 0.5 g

Instrument ID ICP-1 PE 3000

Analyzed

09-16-05 11:49

Analyst MWR Method

EPA 6010B1

CAS Number 7439-92-1 **Method Reference:**

mg/Kg Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996). Results are reported on a dry weight basis.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.



Field ID:

IB10M

Project:

DND Lewis Chemical/2004-301

Client:

Environmental Strategies & Management, Inc.

Matrix:

Soil

Container:

250 mL Glass

Preservation:

Cool

Laboratory ID:

· ·

87113-76

Sampled: Received: 08-30-05 13:30 09-02-05 18:30

Percent Solids:

80

Analysis Method EPA 601081	OC Batch ID MB-0703-S	Prep Method EPA 3050B			Sample Weight 0.5 g	•	Instrument ID	Analyst MWR
CAS Number	Analyte	Concentration	Notes	Units	Reporting Urnit [DF	Analyzed	Method
7439-92-1	Lead, Total	Bi	RL	mg/Kg	12	1	09-16-05 11:53	EPA 6010B1

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Results are reported on a dry weight basis.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

Trace Metals

Field ID: Project:

Client:

IB10D

DND Lewis Chemical/2004-301 Environmental Strategies & Management, Inc. Matrix:

Soil

250 mL Glass

Container: Preservation:

Cool

Laboratory ID: Sampled:

87113-77

08-30-05 13:40

Percent Solids:

Received:

EPA 6010B1

09-02-05 18:30

Analyte

Lead, Total

Analysis Method

OC Batch ID MB-0703-S

Prep Method **EPA 3050B**

Concentration

Prenared 09-15-05 14:24 Sample Weight 0.5 g

11

Reporting Limit DF

Instrument ID ICP-1 PE 3000 Analyzed

09-16-05 11:56

Analyst MWR Method

EPA 601081

CAS Number 7439-92-1 Method Reference:

BRL Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Results are reported on a dry weight basis.

Report Notations:

Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

Units

mg/Kg

Trace Metals

Field ID:

DUP4

Project:

DND Lewis Chemical/2004-301

Client:

Environmental Strategies & Management, Inc.

Matrix:

Soil

Container: Preservation: 250 mL Glass Cool

Laboratory ID:

Sampled:

87113-78 08-31-05 10:45

Received:

09-02-05 18:30

Percent Solids:

76

Analysis Method EPA 6010B [†]	OC Batch ID MB-0703-S	Prep Method Prep EPA 3050B 09-1		<u>:d</u> 5 14:24	Sample Weight 0.5 g		Instrument ID ICP-1 PE 3000	<u>Analyst</u> MWR	
CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit	DF	Analyzed	Method	
7439-92-1	Lead, Total	190		mg/Kg	13	1.	09-16-05 12:00	EPA 60108	

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Results are reported on a dry weight basis.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

Trace Metals

Field ID: Project:

Client:

1D10S

DND Lewis Chemical/2004-301

Environmental Strategies & Management, Inc.

Matrix:

Soil

Container:

Percent Solids:

250 mL Glass

Preservation:

Cool 89

Laboratory ID:

Sampled: Received: 87113-79

08-31-05 14:50 09-02-05 18:30

OC Batch ID

Prepared

Sample Weight 0.5 g

Instrument ID ICP-1 PE 3000

Analyst MWR

CAS Number 7439-92-1

Analysis Method

EPA 6010B1

MB-0703-S Analyte Lead, Total

Prep Method **EPA 3050B** Concentration

09-15-05 14:24 Notes Units mg/Kg

Reporting Limit DF Analyzed 09-16-05 12:03 11

Method EPA 6010B

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Results are reported on a dry weight basis.

Report Notations:

BRL Indicates concentration, If any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution



Field ID:

ID10M

Project:

DND Lewis Chemical/2004-301

Client:

Environmental Strategies & Management, Inc.

Matrix:

Soil

Container:

250 mL Glass

Preservation:

Cool

Laboratory ID:

Sampled: Received:

87113-80 08-31-05 15:00

Analyte

Lead, Total

09-02-05 18:30

Percent Solids:

74

DF

Analysis Method
EPA 6010B1

OC Batch ID MB-0703-S

Prep Method **EPA 3050B**

Concentration

Prepared 09-15-05 14:24

Notes

Sample Weight 0.5 g

Reporting Limit

13

Instrument ID ICP-1 PE 3000

Analyzed

09-16-05 12:07

Analyst MWR

Method

EPA 60108

CAS Number 7439-92-1 Method Reference:

BRL Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996). Results are reported on a dry weight basis.

Report Notations:

indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

Units

mg/Kg

Trace Metals

Field ID:

1D10D

Project:

DND Lewis Chemical/2004-301

Client:

Environmental Strategies & Management, Inc.

Prep Method

Concentration

EPA 3050B

Matrix:

Soil

Container:

250 mL Glass

Preservation:

Cool

Sampled: Received:

Laboratory ID:

87113-81 08-31-05 15:10

Analyte

Lead, Total

09-02-05 18:30

Percent Solids:

Reporting Limit DF

Analysis Method
EPA 6010B1

OC Batch ID MB-0703-S

Prepared 09-15-05 14:24

Notes

Sample Weight 0.5 g

13

Instrument ID

Analyzed

09-16-05 12:16

Analys MWR Method

EPA 6010B

CAS Number 7439-92-1 Method Reference:

BRL Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996). Results are reported on a dry weight basis.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

Units

mg/Kg

Trace Metals

Field ID:

Sampled:

Received: Analysis Method

EPA 6010B1

HA01D

Project:

DND Lewis Chemical/2004-301

Client:

Environmental Strategies & Management, Inc.

Matrix:

Soil

91

Container: Preservation: Percent Solids: 250 mL Glass Cool

Laboratory 1D:

Analyte

08-31-05 11:00 09-02-05 18:30

OC Batch ID

MB-0703-S

Prep Method

Concentration

EPA 3050B

Prepared 09-15-05 14:24

Notes

BRL

Sample Weight 0.5 g

Reporting Limit DF

11

Instrument (D ICP-1 PE 3000

Analyzed

09-16-05 12:20

Analyst MWR Method

EPA 6010B

CAS Number 7439-92-1 **Method Reference:**

Lead, Total Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996). Results are reported on a dry weight basis.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

Units

mg/Kg

Trace Metals

Field ID:

IIA03D

Matrix:

Soil

Project:

DND Lewis Chemical/2004-301

Container:

250 mL Glass

Client:

Environmental Strategies & Management, Inc.

Preservation:

Cool

Laboratory ID:

Sampled:

87113-83 08-31-05 10:00

Percent Solids:

90

Received:

09-02-05 18:30

Analyte

Analysis Method EPA 6010B1

QC Batch ID MB-0703-S

Prep Method EPA 3050B

Prepared 09-15-05 14:24

Notes

Sample Weight 0.5 g

Reporting Limit DF

Instrument ID ICP-1 PE 3000

Analyzed

09-16-05 12:23

Analyst MWR

CAS Number 7439-92-1

Concentration Lead, Total

mg/Kg 11

Method EPA 601081

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Results are reported on a dry weight basis.

Report Notations:

Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

Units

Trace Metals

Field ID:

IIA05S

Matrix:

Soil

Project:

DND Lewis Chemical/2004-301

Container:

250 mt. Glass

Client:

Environmental Strategies & Management, Inc.

Preservation:

Cool

Laboratory ID: Sampled:

87113-84 08-31-05 08:40

Lead, Total

Percent Solids:

88

DF

Received:

09-02-05 18:30

Analysis Method EPA 6010B1

OC Batch ID MB-0703-5 Analyte

Prep Method **EPA 3050B** Concentration Prepared 09-15-05 14:24 Notes Units

Sample Weight 0.5 g Reporting Limit

11

Instrument ID ICP-1 PE 3000

Analyzed

09-16-05 12:27

<u>Analyst</u> MWR Method

EPA 60108

CAS Number 7439-92-1 Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996). Results are reported on a dry weight basis.

420

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

mg/Kg



Field ID:

ESMB2

Project:

DND Lewis Chemical/2004-301

Client:

Environmental Strategies & Management, Inc.

Matrix:

Soil

Cool

Container:

120 mL Glass

Preservation:

Percent Solids:

Laboratory ID: Sampled:

87113-85 08-31-05 14:30

Received: Analysis Method EPA 6010B1

09-02-05 18:30

Analyte

Lead, Total

QC Batch ID MB-0703-S

Prep Method **EPA 3050B**

Concentration

Prepared 09-15-05 14:24 Units

Notes

Sample Weight 0.5 g

11

Reporting Limit DF

Instrument ID

Analyzed

09-16-05 12:30

Analyst MWR Method

EPA 6010B1

CAS Number 7439-92-1 Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996). Results are reported on a dry weight basis.

1600

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

mg/Kg

DF Dilution Factor.

600



Trace Metals

Field ID:

IIIE05S

Matrix:

Soil

Project:

DND Lewis Chemical/2004-301

Container:

250 mL Glass

Client:

Environmental Strategies & Management, Inc.

Preservation:

Cool

Laboratory ID:

Analysis Method

87113-86

84

Sampled:

09-01-05 08:50

Percent Solids:

Instrument ID Analyst

Received:

09-02-05 18:30 OC Batch ID

Lead, Total

FPA 6010B1 MB-0703-S CAS Number Analyte

Prepared 09-15-05 14:24 Notes

Sample Weight 0.5 g

11

Reporting Limit DF

ICP-1 PE 3000

Analyzed

09-16-05 12:34

MWR Method

EPA 6010B

7439-92-1 Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

420

Prep Method

Concentration

EPA 3050B

Results are reported on a dry weight basis.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution

Units

mg/Kg

Dilution Factor.

300

GROUNDWATER ANALYTICAL

Trace Metals

Field ID:

IIIE05M

Matrix:

Soil

Project:

DND Lewis Chemical/2004-301

Container:

250 mL Glass

Client:

Environmental Strategies & Management, Inc.

Preservation:

Cool

Laboratory ID:

Percent Solids:

Sampled: Received:

EPA 6010B1

09-01-05 09:00 09-02-05 18:30

Analysis Method

OC Batch ID MB-0703-S

Prep Method **EPA 3050B**

Prepared 09-15-05 14:24

Notes

Sample Weight 0.5 g

Instrument ID ICP-1 PE 3000

Analyst MWR

CAS Number 7439-92-1

Analyte Concentration Lead, Total

Reporting Limit DF Units mg/Kg 15

Analyzed Method 09-16-05 12:44 EPA 6010B

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Results are reported on a dry weight basis.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

DF Dilution Factor.



Trace Metals

Field ID: Project:

IHE05D

DND Lewis Chemical/2004-301

Matrix: Container: Soil

Client:

250 mL Glass

Environmental Strategies & Management, Inc.

Preservation:

Cool

Laboratory ID:

87113-88

Percent Solids:

Sampled: Received:

09-01-05 09:10 09-02-05 18:30

Lead, Total

91

Analysis Method EPA 6010B1

OC Batch ID

Prep Method

Prepared 09-15-05 14:24 Sample Weight 0.5 g

Instrument ID ICP-1 PE 3000

Analyzed

09-16-05 12:48

<u>Analyst</u> MWR

CAS Number 7439-92-1

MB-0703-S **EPA 3050B** Analyte Concentration

Units

Reporting Limit 11

Method EPA 601081

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Results are reported on a dry weight basis.

Report Notations:

Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

mg/Kg

Dilution Factor.



Field ID: IA035 Matrix: Soil Project: DND Lewis Chemical/2004-301 Container: 250 mL Glass Environmental Strategies & Management Client: Preservation: Cool Laboratory ID: 87113-31 QC Batch ID: PB-2248-P 08-30-05 09:20 Sampled: Instrument ID: GC-6 HP 5890 Received: 09-02-05 18:30 Sample Weight: 15 g Extracted: 09-08-05 07:00 Final Volume: 1 mL Cleaned Up: 09-09-05 14:00 Percent Solids: 82 Analyzed: 09-18-05 19:59 Dilution Factor: Analyst: **CRL**

CAS Number	Analyte	Concentration Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL	ug/Kg	BUSE SUPERSON
11104-28-2	Aroclor 1221	BRL	ug/Kg	96 96
11141-16-5	Aroclor 1232	BRL	ug/Kg	
53469-21-9	Aroclor 1242	BRL	ug/Kg	96 96
12672-29-6	Aroclor 1248	2,100 e 2C (1,500)*	ug/Kg	THE RESERVE
11097-69-1	Aroclor 1254	BRL	ug/Kg	96 96
11096-82-5	Aroclor 1260	BRL	ug/Kg	96
37324-23-5	Aroclor 1262	BRL	ug/Kg	96
11100-14-4	Aroclor 1268	BRL	ug/Kg	96

2,000

QC Surrogate	Compound	Spiked	Measured	Recovery	OC	Limits
First	Tetrachloro-m-xylene	16	11	68 %		- 150 %
Column	Decachlorobiphenyl	16	18	112 %		- 150 %
Second	Tetrachloro-m-xylene	16	11	70 %		- 150 %
Column	Decachlorobiphenyl	16	15	93 %		- 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3545. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Results are reported on a dry weight basis.

- BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution
- † Non-target analyte. Result is based on a single mid-range calibration standard.
- Confirmatory column quantification.
- 2C Concentration reported from second column.
- e Indicates concentration exceeded calibration range for the analyte.



Field ID:

IA035

DND Lewis Chemical/2004-301

Matrix: Container: Soil

Project: Client:

Environmental Strategies & Management

Preservation:

250 mL Glass Cool

Laboratory ID: Sampled:

87113-31RA1

08-30-05 09:20 09-02-05 18:30 QC Batch ID: Instrument ID: Sample Weight: PB-2248-P GC-6 HP 5890

Received: Extracted: Cleaned Up:

09-08-05 07:00 09-09-05 14:00 09-18-05 22:18

Final Volume: Percent Solids: Dilution Factor: 15 g 1 mL 82

Analyzed: Analyst:

CRL

CAS Number	Analyte	Concentration Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL.	ug/Kg	190
11104-28-2	Aroclor 1221	BRL	ug/Kg	190
11141-16-5	Aroclor 1232	BRL	ug/Kg	190
53469-21-9	Aroclor 1242	BRL	ug/Kg	190
12672-29-6	Aroclor 1248	1,800 2C (1,600)*	ug/Kg	190
11097-69-1	Aroclor 1254	BRL	ug/Kg	190
11096-82-5	Aroclor 1260	BRL.	ug/Kg	190
37324-23-5	Aroclor 1262 f	BRL	ug/Kg	190
11100-14-4	Aroclor 1268 '	BRL	ug/Kg	190

QC Surrogate Compound		Spiked Measured Recovery		Recovery	QC Limits	
First	Tetrachloro-m -xylene	16	10	61 %	30 - 150 %	
Column	Decachlorobiphenyl	16	16	101 %	30 - 150 %	
Second	Tetrachloro-m-xylene	16	11	69 %	30 - 150 %	
Column	Decachlorobiphenyl	16	14	90 %	30 - 150 %	

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3545 Cleanup performed by EPA Method 3660B and EPA Method 3665A Results are reported on a dry weight basis.

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be

Report Notations:

reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution

Non-target analyte. Result is based on a single mid-range calibration standard.

Confirmatory column quantification

Concentration reported from second column



Concentration

BRL

BRL

1,200

Field ID:

IA03M

Project:

DND Lewis Chemical/2004-301

Client:

Environmental Strategies & Management

Matrix:

Soil

15 g

1 mL

250 mL Glass Cool

Laboratory ID: Sampled:

Received:

Extracted:

Cleaned Up: Analyzed:

CAS Number

12674-11-2

11104-28-2

11141-16-5

53469-21-9

12672-29-6

11097-69-1

11096-82-5

37324-23-5

Analyst:

09-18-05 20:34

87113-32 08-30-05 09:25

Analyte

Aroclor 1016

Aroclor 1221

Aroclor 1232

Aroclor 1242

Aroclor 1248

Aroclor 1254

Aroclor 1260

Aroclor 1262

09-02-05 18:30 09-08-05 07:00 09-09-05 14:00

CRL

Container:

Preservation:

QC Batch ID: PB-2248-P Instrument ID: GC-6 HP 5890

Sample Weight:

Final Volume: Percent Solids:

82 Dilution Factor:

(930)*

2C

	Notes	Units	Reporting Limit
BRL		ид/Кд	94
BRL		ug/Kg	94
BRL		ug/Kg	94
BRL		ug/Kg	94

ug/Kg

ug/Kg

ug/Kg

94

94

94

37324-23-5 11100-14-4	Sal			BRL BRL	ug/Kg ug/Kg	94
QC Surrogate	Compound	Spiked	Measured	Recovery		Limits
First	Tetrachloro-m-xylene	16.	12	75 %		150 %
Column	Decachlorobiphenyl	16	19	124 %		150 %
Second	Tetrachloro-m-xylene	16	13	83 %		150 %
Column	Decachlorobiphenyl	16	19	122 %		150 %

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996)

Sample extraction performed by EPA Method 3545. Cleanup performed by EPA Method 3660B and EPA Method 3665A Results are reported on a dry weight basis.

Report Notations:

Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution

Non-target analyte. Result is based on a single mid-range calibration standard.

Confirmatory column quantification.

Indicates concentration exceeded calibration range for the analyte.



IA03M Project: DND Lewis Chemical/2004-301 Client: **Environmental Strategies & Management**

Laboratory ID: 87113-32RA1 Sampled: 08-30-05 09:25 Received: 09-02-05 18:30 Extracted: 09-08-05 07:00 Cleaned Up: 09-09-05 14:00 Analyzed: 09-20-05 11:25

Analyst: **CRL**

Field ID

Matrix: Soil Container:

250 mL Glass

Preservation: Cool

QC Batch ID: PB-2248-P Instrument ID: GC-6 HP 5890

Sample Weight: 15 g Final Volume: 1 mL Percent Solids: 82

Dilution Factor:

CAS Number	Analyte	Concentration Notes	Units	Reporting Limit
12674-11-2	Aroclar 1016	BRL	ug/Kg	190
11104-28-2	Aroclor 1221	BRL	ug/Kg	the second
11141-16-5	Arocior 1232	BRL	ug/Kg	190
53469-21-9	Aroclor 1242	BRL	ug/Kg	190
12672-29-6	Aroclor 1248	1,200 2C (1,100)*	ug/Kg	190
11097-69-1	Aroclor 1254	BRL	ug/Kg	1,000
1096-82-5	Aroclor 1260	BRL		190
37324-23-5	Aroclor 1262	BRL	ug/Kg	190
11100-14-4	Aroclor 1268	BRL	ug/Kg ug/Kg	190

QC Surrogate	Compound	Spiked	Measured	Recovery	OC Limits
First	Tetrachloro-m-xylene	16	12	79 %	30 - 150 %
Column	Decachlorobiphenyl	16	18	118 %	30 - 150 %
Second	Tetrachloro-m-xylene	16	14	92 %	30 - 150 %
Column	Decachlorobiphenyl	16	19	122 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3545. Cleanup performed by EPA Method 3660B and EPA Method 3665A. Results are reported on a dry weight basis

Report Notations:

Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution

Non-target analyte. Result is based on a single mid-range calibration standard

Confirmatory column quantification.

Concernation reported from second color

GROUNDWATER ANALYTICAL

EPA Method 8082 Polychlorinated Biphenyls (PCBs) by GC/ECD

Field ID:

IA03D

Project:

DND Lewis Chemical/2004-301

Client:

Environmental Strategies & Management

Laboratory ID: Sampled:

87113-33 08-30-05 09:30 09-02-05 18:30 09-08-05 07:00

Extracted: Cleaned Up: Analyzed:

Received:

09-09-05 14:00 09-09-05 22:44

Analyst:

CRL

Soil

Container: Preservation: 250 mL Glass Cool

QC Batch ID:

Instrument ID:

PB-2248-P GC-6 HP 5890

Sample Weight:

15 g 1 mL

Final Volume: Percent Solids:

53 Dilution Factor:

CAS Number	Analyte	Concentration Notes	1 44.74	To was to a too a
12674-11-2	Aroclor 1016	110103	Units	Reporting Limi
11104-28-2	Aroclor 1221	BRL	ug/Kg	150
11141-16-5	Aroclor 1232	BRL	ug/Kg	150
53469-21-9	Aroclor 1242	BRL	ug/Kg	150
12672-29-6	Aroclor 1248	BRL	ug/Kg	150
11097-69-1		BRL	ug/Kg	150
11096-82-5	Aroclor 1254	BRL	ug/Kg	150
The state of the s	Aroclor 1260	BRL	ug/Kg	150
37324-23-5	Aroclor 1262	BRL	ug/Kg	150
11100-14-4	Aroclor 1268 *	BRL	ug/Kg	150

C Surrogate C	ompound	Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m-xylene	24	14	56 %	30 - 150 %
Column	Decachlorobiphenyl	24	19	79 %	30 - 150 %
Second	Tetrachloro-m-xylene	24	15	62 %	30 - 150 %
Column	Decachlorobiphenyl	24	20	80 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3545. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Results are reported on a dry weight basis.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution



Field 1D:

IB05S

Environmental Strategies & Management

Matrix: Container: Soil

Project: Client:

DND Lewis Chemical/2004-301

Preservation:

250 mL Glass Cool

Laboratory ID:

87113-34

08-30-05 10:20

QC Batch 1D: Instrument ID: PB-2248-P GC-6 HP 5890

Sampled: Received: Extracted:

09-02-05 18:30 09-08-05 07:00

Sample Weight: Final Volume:

16 g 1 mL

Cleaned Up: Analyzed:

09-09-05 14:00 09-20-05 12:00

Percent Solids: Dilution Factor: 91 200

Analyst:

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL		ug/Kg	17,000
11104-28-2	Aroclor 1221	BRL		ug/Kg	17,000
11141-16-5	Aroclor 1232	BRL		ug/Kg	17,000
53469-21-9	Aroclor 1242	BRL		ug/Kg	17,000
12672-29-6	Aroclor 1248	70,000	2C (64,000)	ug/Kg	17,000
11097-69-1	Aroclor 1254	BRL		ug/Kg	17,000
11096-82-5	Aroclor 1260	BRL		ug/Kg	17,000
37324-23-5	Araclar 1262	BRL		ug/Kg	17,000
11100-14-4	Araclar 1268 1	BRL		ug/Kg	17,000

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m -xylene	14	na	d	30 - 150 %
Column	Decachlorobiphenyl	14	na	d	30 - 150 %
Second	Tetrachloro-m -xylene	14	na	ď	30 - 150 %
Column	Decachlorobiphenyl	14	na	d	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3545. Cleanup performed by EPA Method 3660B and EPA Method 3665A

Results are reported on a dry weight basis.

- Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution
- Non-target analyte. Result is based on a single mid-range calibration standard.
- Confirmatory column quantification
- Concentration reponed from second column
- Surrogate recovery not measurable due to required sample dilution



Field ID:	IB05M	Matrix:	Soil
Project:	DND Lewis Chemical/2004-301	Container:	250 mL Glass
Client:	Environmental Strategies & Management	Preservation:	Cool
Laboratory ID: Sampled: Received: Extracted: Cleaned Up: Analyzed: Analyst:	87113-35 08-30-05 10:50 09-02-05 18:30 09-08-05 07:00 09-09-05 14:00 09-18-05 21:43 CRL	QC Batch ID: Instrument ID: Sample Weight: Final Volume: Percent Solids: Dilution Factor:	PB-2248-P GC-6 HP 5890 15 g 1 mL 91

CAS Number	Analyte	Concentration Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL	ug/Kg	85
11104-28-2	Aroclor 1221	BRL	ug/Kg	85
11141-16-5	Aroclor 1232	BRL	ug/Kg	85
3469-21-9	Aroclor 1242	BRL	ug/Kg	85
12672-29-6	Aroclor 1248		00)* ug/Kg	85
1097-69-1	Aroclor 1254	BRL	ug/Kg	85
1096-82-5	Aroclor 1260	BRL	ug/Kg	85
7324-23-5	Aroclor 1262	BRL	ug/Kg	85
1100-14-4	Aroclor 1268	BRL	ug/Kg	85

QC Surrogate	Compound	Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m-xylene	14	14	100 %	30 - 150 %
Column	Decachlorobiphenyl	14	18	126 %	30 - 150 %
Second	Tetrachloro-m-xylene	14	15	106 %	30 - 150 %
Column	Decachiorobiphenyl	14	16	114 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3545. Cleanup performed by EPA Method 3660B and EPA Method 3665A. Results are reported on a dry weight basis.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

t Non-target analyte. Result is based on a single mid-range calibration standard.

* Confirmatory column quantification.

16 Concentration reported from first relumn

e Indicates concentration exceeded calibration range for the analyte.



Field ID:

1B05M

Project: Client:

DND Lewis Chemical/2004-301

Laboratory ID:

Environmental Strategies & Management

87113-35RA1 08-30-05 10:50

Sampled: Received: Extracted:

09-02-05 18:30 09-08-05 07:00 09-09-05 14:00

Cleaned Up: Analyzed: Analyst:

09-18-05 22:53

Matrix: Container:

Soil

250 mL Glass Preservation:

Cool

PB-2248-P

GC-6 HP 5890

QC Batch ID:

Instrument ID: Sample Weight:

15 g Final Volume: 1 mL Percent Solids:

91 5

Dilution Factor:	
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CAS Number	Analyte	Concentration Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL	The state of the s	- Distriction of the state of t
11104-28-2	Aroclor 1221		ug/Kg	430
11141-16-5	Aroclor 1232	BRL	ug/Kg	430
53469-21-9	Aroclor 1242	BRL.	ug/Kg	430
12672-29-6		BRL	ug/Kg	430
Market A. Landers	Aroclor 1248	2,300 2C (2,000)*	ug/Kg	430
11097-69-1	Aroclor 1254	BRL	ug/Kg	430
11096-82-5	Araclor 1260	BRL	ug/Kg	430
37324-23-5	Aroclor 1262 1	BRL		
11100-14-4	Aroclor 1268	BRL	ug/Kg	430
		DKL	ug/Kg	430

2000

QC Surrogate	Compound	Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m-xylene	14	13	90 %	30 - 150 %
Column	Decachlorobiphenyl	14	17	122 %	30 - 150 %
Second	Tetrachloro-m-xylene	14	15	108 %	30 - 150 %
Column	Decachlorobiphenyl	14	14	97 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3545. Cleanup performed by EPA Method 3660B and EPA Method 3665A

Results are reported on a dry weight basis.

Report Notations:

Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution

Non-target analyte. Result is based on a single mid-range calibration standard.

Confirmatory column quantification



Field ID:

IB05D

Soil

Project:

DND Lewis Chemical/2004-301

Matrix: Container:

250 mL Glass

Client:

Environmental Strategies & Management

Preservation:

Cool

Laboratory ID:

87113-36

QC Batch ID:

PB-2248-P

Sampled: Received: 08-30-05 11:00 09-02-05 18:30

Instrument ID: Sample Weight:

GC-6 HP 5890 16 g

Extracted: Cleaned Up: Analyzed:

09-08-05 07:00 09-09-05 14:00 09-18-05 00:44

Final Volume: Percent Solids:

1 mL 88

Analyst:

CRL

Dilution Factor: 1

CAS Number	Analyte	Concentration Notes	Units	Reporting Limi
12674-11-2	Aroclor 1016	BRL	-	
11104-28-2	Aroclor 1221		ug/Kg	86
11141-16-5	Aroclor 1232	BRL	ug/Kg	86
53469-21-9	Aroclor 1242	BRL	ug/Kg	86
12672-29-6	Aroclor 1248	BRL	ug/Kg	86
11097-69-1		BRL	ug/Kg	86
	Aroclor 1254	BRL	ug/Kg	86
11096-82-5	Aroclor 1260	BRL	ug/Kg	86
37324-23-5	Aroclor 1262	BRL	ug/Kg	86
11100-14-4	Aroclor 1268	BRL	ug/Kg	86

QC Surrogate Compound		Spiked	Measured	Recovery	OC Limits	
First	Tetrachloro-m -xylene	14	12	81 %	30 - 150 %	
Column	Decachlorobiphenyl	14	16	110 %	30 - 150 %	
Second	Tetrachloro-m-xylene	14	13	91 %	30 - 150 %	
Column	Decachlorobiphenyl	14	16	111 %	30 - 150 %	

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3545. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Results are reported on a dry weight basis.

Report Notations:

Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.



Field ID:

1808\$

Matrix:

Soil

Cool

Project:

DND Lewis Chemical/2004-301

Environmental Strategies & Management

Container: Preservation: 250 ml Glass

Client: Laboratory ID:

87113-37

QC Batch ID:

PB-2248-P

Sampled: Received:

08-30-05 11:00 09-02-05 18:30

Instrument ID: Sample Weight: GC-6 HP 5890

Extracted: Cleaned Up: 09-08-05 07:00 09-09-05 14:00 09-18-05 01:19 Final Volume:

15 g 1 mL 91

Analyzed: Analyst:

CRL

Percent Solids: Dilution Factor:

1

CAS Number	Analyte	Concentration Notes	Units	Reporting Limi
12674-11-2	Aroclor 1016	BRL	ug/Kg	86
11104-28-2	Aroclor 1221	BRL	ug/Kg	86
11141-16-5	Aroclor 1232	BRL	ug/Kg	86
53469-21-9	Aroclor 1242	BRL	ug/Kg	86
12672-29-6	Aroclar 1248	3,200 e 1C (2,900)*	ug/Kg	86
11097-69-1	Aroclor 1254	BRL	ug/Kg	86
11096-82-5	Aroclor 1260	BRL	ug/Kg	86
37324-23-5	Aroclor 1262 T	BRL	ug/Kg	86
11100-14-4	Aroclor 1268 1	BRL	ug/Kg	86

QC Surrogate	Compound	Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m-xylene	14	13	94 %	30 - 150 %
Column	Decachlorobiphenyl	14	17	119 %	30 - 150 %
Second	Tetrachloro-m -xylene	14	15	102 %	30 - 150 %
Column	Decachlorobiphenyl	14	16	114 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3545. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Results are reported on a dry weight basis.

- Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- Non-target analyte. Result is based on a single mid-range calibration standard.
- Confirmatory column quantification.
- Concentration reported from first corolling
- Indicates concentration exceeded calibration range for the analyte.



Field ID:

IB08S

Project:

DND Lewis Chemical/2004-301

Client:

Environmental Strategies & Management

Laboratory ID: Sampled: Received:

87113-37RA1 08-30-05 11:00 09-02-05 18:30

Extracted: Cleaned Up: Analyzed:

09-08-05 07:00 09-09-05 14:00 09-18-05 01:54

Analyst:

CRL

Matrix:

Soil

Container: Preservation: 250 mL Glass

Cool

QC Batch ID: Instrument ID:

PB-2248-P GC-6 HP 5890

Sample Weight: Final Volume:

15 g 1 mL

Percent Solids: 91 Dilution Factor:

5

CAS Number	Analyte	2000		
12674-11-2	Aroclor 1016	Concentration Notes	Units	Reporting Limit
11104-28-2	Aroclor 1221	BRL	ug/Kg	430
11141-16-5	Aroclor 1232	BRL	ug/Kg	430
53469-21-9	Aroclor 1242	BRL.	ug/Kg	430
12672-29-6	Aroclor 1248	BRL	ug/Kg	430
11097-69-1	Aroclor 1254	3,900 2C (3,500)*	ug/Kg	430
11096-82-5	Aroclor 1260	BRL	ug/Kg	430
37324-23-5	Aroclor 1262 1	BRL	ug/Kg	430
11100-14-4	Aroclor 1268 7	BRL	ug/Kg	430
C Current C	-	BRL	ug/Kg	430

2000

QC Surrogate	Compound	Spiked	Measured	D. S.	1 0 0 1 130
First	Tetrachloro-m-xylene	14	12	100 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	QC Limits
Column	Decachlorobiphenyl	14	13	89 %	30 - 150 %
Second	Tetrachloro-m-xylene	14	19	134 %	30 - 150 %
Column		14	15	104 %	30 - 150 %
	Decachiorobiphenyl	14	18	127 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3545. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Results are reported on a dry weight basis.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

Non-target analyte. Result is based on a single mid-range calibration standard.

Confirmatory column quantification.

2012: Latie, reported from second column.

GROUNDWATER ANALYTICAL

EPA Method 8082 Polychlorinated Biphenyls (PCBs) by GC/ECD

Field ID: Project:

1B08M

DND Lewis Chemical/2004-301

Client:

Environmental Strategies & Management

Laboratory ID:

87113-38 08-30-05 11:30

Sampled: Received: Extracted:

09-02-05 18:30 09-08-05 07:00 09-09-05 14:00

Cleaned Up: Analyzed: Analyst:

09-10-05 01:39 CRL

Matrix:

Soil

Container: Preservation:

250 mL Glass

Cool

QC Batch ID: Instrument ID:

PB-2248-P GC-6 HP 5890 15 g

Sample Weight: Final Volume: 1 mL Percent Solids:

81 Dilution Factor:

CAS Number	Analyte	Concentration Notes	Units	Secondary (1)
12674-11-2	Aroclor 1016	BRL		Reporting Limi
11104-28-2	Aroclor 1221		ug/Kg	97
11141-16-5	Aroclor 1232	BRL	ug/Kg	97
53469-21-9	Aroclor 1242	BRL	ug/Kg	97
12672-29-6	Aroclor 1248	BRL	ug/Kg	97
11097-69-1		BRL	ug/Kg	97
1	Aroclor 1254	BRL	ug/Kg	97
11096-82-5	Aroclor 1260	BRL	ug/Kg	97
37324-23-5	Aroclor 1262	BRL	ug/Kg	97
11100-14-4	Aroclor 1268	BRL	ug/Kg	97

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m-xylene	16	11	67 %	30 - 150 %
Column	Decachlorobiphenyl	16	16	102 %	30 - 150 %
Second	Tetrachloro-m-xylene	16	12	74 %	30 - 150 %
Calumn	Decachlorobiphenyl	16	14	87 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3545. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Results are reported on a dry weight basis.

Report Notations:

Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.



Field ID: 1808D Project. DND Lewis Chemical/2004-301 Client: **Environmental Strategies & Management** Laboratory ID: 87113-39 Sampled: 08-30-05 11:50 Received: 09-02-05 18:30 Extracted: 09-08-05 07:00 Cleaned Up: Analyzed:

09-09-05 14:00 09-10-05 17:55 CRL

Matrix: Soil Container: 250 mL Glass Preservation: Cool QC Batch ID: PB-2248-P Instrument ID: GC-6 HP 5890 Sample Weight:

15 g Final Volume: 1 mL Percent Solids: 87 Dilution Factor:

CAS Number	Analyte						
12674-11-2	Aroclor 1016	11 11	Conce	ntration	Notes	THE EXCEPT	
11104-28-2	Aroclor 1221			BRL	TABLES	Units	Reporting Lim
11141-16-5	Aroclor 1232			BRL		ug/Kg	91
53469-21-9	Aroclor 1242			BRL			91
12672-29-6	Aroclor 1248			BRL		ug/Kg	91
11097-69-1	Aroclor 1254		BRL			ug/Kg	91
11096-82-5	Aroclor 1260			BRL		ug/Kg	91
37324-23-5	Aroclor 1262		BRL			ug/Kg	91
1100-14-4	Aroclor 1268			BRL		ug/Kg	91
				BRL		ug/Kg	91
C Surrogate Cor	npound	Spiked	Tax & Secretary	SKL		ug/Kg	91
irst	Tetrachloro-m-xylene	15	Measured	Recovery	The State of the S	2 1 00	Limits

C Surrogate Co		Spiked	Measured	Recovery	ug/Kg 91
Column	Tetrachloro-m-xylene	15	9	62 %	QC Limits
econd	Decachlorobiphenyl	15	14	90 %	30 - 150 %
Column	Tetrachloro-m-xylene Decachlorobiphenyl	15	10	67 %	30 - 150 %
4 41 1 4		15	7	AA U	30 - 150 %
	Test Methods for Evaluating Solid Waste, US		EDA SIACOLA		30 - 150 %

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3545. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Report Notations:

Analyst:

Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.



Field ID:

IIA09S

Project:

DND Lewis Chemical/2004-301

Client:

Environmental Strategies & Management

Laboratory ID: 87113-40

Sampled: Received: 08-30-05 15:00 09-02-05 18:30 09-08-05 07:00

Extracted: Cleaned Up: Analyzed:

09-09-05 14:00 09-18-05 02:29

Analyst:

CRL

Matrix: Container:

Soil

250 mL Glass

Preservation:

QC Batch ID: Instrument ID: PB-2248-P GC-6 HP 5890

Sample Weight: Final Volume: Percent Solids:

16 g 1 mL 89

Dilution Factor: 1

CAS Number	Analyte	Concentration Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL	ug/Kg	
11104-28-2	Aroclor 1221	BRL	ug/Kg	86
11141-16-5	Aroclor 1232	BRL	ug/Kg	86
53469-21-9	Aroclor 1242	BRL	ug/Kg	86
12672-29-6	Aroclor 1248	980 1C (820)*	ug/Kg	86
11097-69-1	Aroclor 1254	BRL	ug/Kg	86
11096-82-5	Aroclor 1260	BRL	ug/Kg	86
37324-23-5	Aroclor 1262	BRL	ug/Kg	86
11100-14-4	Aroclor 1268 [†]	BRL	ug/Kg	86

QC Surrogate Compound		Spiked Measured		Recovery	OC Limits	
First	Tetrachloro-m-xylene	14	13	90 %	30 - 150 %	
Column	Decachlorobiphenyl	14	16	115 %	30 - 150 %	
Second	Tetrachloro-m-xylene	14	14	99 %	30 - 150 %	
Column	Decachforobiphenyl	14	18	124 %	30 - 150 %	

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3545. Cleanup performed by EPA Method 3660B and EPA Method 3665A

Results are reported on a dry weight basis.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution

Non-target analyte. Result is based on a single mid-range calibration standard.

Confirmatory column quantification.

Concentration reported from the ent me



CRL

EPA Method 8082 Polychlorinated Biphenyls (PCBs) by GC/ECD

Field ID: IIA09M Project: DND Lewis Chemical/2004-301 Client: **Environmental Strategies & Management** Laboratory ID: 87113-41 Sampled: 08-30-05 15:10 Received: 09-02-05 18:30 Extracted: 09-08-05 07:00 Cleaned Up: 09-09-05 14:00 Analyzed: 09-10-05 19:05

Matrix: Soil Container: 250 ml. Glass Preservation: Cool QC Batch ID: PB-2248-P Instrument ID: GC-6 HP 5890

Sample Weight: 15 g Final Volume: 1 mL Percent Solids: 78 Dilution Factor: 1

CAS Number	Analyte	Concentration Notes	of all wares	
12674-11-2	Aroclor 1016	THE PARTY OF THE P	Units	Reporting Limit
11104-28-2	Aroclor 1221	BRL	ug/Kg	100
11141-16-5	Aroclor 1232	BRL	ug/Kg	100
53469-21-9	Aroclor 1242	BRL	ug/Kg	100
12672-29-6	Aroclor 1248	BRL	ug/Kg	100
11097-69-1	Aroclor 1254	BRL	ug/Kg	100
11096-82-5	Aroclor 1260	BRL	ug/Kg	100
37324-23-5	Aroclor 1260	BRL	ug/Kg	100
11100-14-4		BRL	ug/Kg	100
11100-14-4	Aroclor 1268	BRL	ug/Kg	100

QC Surrogate Compound First Tetrachloro-m-xylene		Spiked Measured		Recovery	QCLimits	
				76 %		
Column	Decachlorobiphenyl	17	15	92 %	30 - 150 %	
Second	Tetrachloro-m-xylene	17	17	81 %	30 - 150 %	
Column	Decachlorobiphenyl	17	13		30 - 150 %	
		17	0	50 %	30 - 150 %	

Method Reference:

Analyst:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3545. Cleanup performed by EPA Method 36608 and EPA Method 3665A

Results are reported on a dry weight basis

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.



Field ID: IIA09D

Project: DND Lewis Chemical/2004-301

08-30-05 15:20

09-02-05 18:30

09-08-05 07:00

09-09-05 14:00

87113-42

Client:

Sampled:

Received:

Extracted:

Analyzed:

Cleaned Up:

Laboratory ID:

Environmental Strategies & Management

Container: Preservation:

Matrix:

Soil

250 mL Glass

Cool

QC Batch ID:

PB-2248-P GC-6 HP 5890

Instrument ID: Sample Weight:

15 g

Final Volume: Percent Solids: 1 mL 81

Dilution Factor:

1

09-10-05 19:40 Analyst:

CAS Number	Analyte	Concentration Notes	Elizate .	Barradia II.
12674-11-2	Aroclor 1016	BRL	Units	Reporting Limi
11104-28-2	Aroclor 1221		ug/Kg	97
11141-16-5	Aroclor 1232	BRL	ug/Kg	97
53469-21-9	Aroclor 1242	BRL	ug/Kg	97
12672-29-6	THE PERSON NO. LEWIS CO., LANSING, MICH.	BRL	ug/Kg	97
	Aroclor 1248	BRL	ug/Kg	97
11097-69-1	Aroclor 1254	BRL	ug/Kg	97
11096-82-5	Aroclor 1260	BRL	ug/Kg	The second second second
37324-23-5	Aroclor 1262	BRL		97
11100-14-4	Aroclor 1268		ug/Kg	97
	Contract of the second	BRL	ug/Kg	97

QC Surrogate	Compound	Spiked	Measured	Recovery	OC Limits
First	Tetrachloro-m-xylene	16	10	62 %	30 - 150 %
Column	Decachlorobiphenyl	16	14	90 %	30 - 150 %
Second	Tetrachloro-m-xylene	16	12	75 %	30 - 150 %
Column	Decachlorobiphenyl	16	15	92 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3545. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Results are reported on a dry weight basis.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution



CRL

EPA Method 8082 Polychlorinated Biphenyls (PCBs) by GC/ECD

Field ID: **IIA11S** Matrix: Soil Project: DND Lewis Chemical/2004-301 Container: 250 mL Glass Client: **Environmental Strategies & Management** Preservation: Cool Laboratory ID: 87113-43 QC Batch ID: PB-2248-P Sampled: 08-30-05 14:10 Instrument ID: GC-6 HP 5890 09-02-05 18:30 Received: Sample Weight: 15 g Extracted: 09-08-05 07:00 Final Volume: 1 mL Cleaned Up: 09-09-05 14:00 Percent Solids: 91 Analyzed: 09-18-05 03:39 Dilution Factor:

CAS Number	Analyte	Concentration Notes	en Sylvanian II	100000000000000000000000000000000000000
12674-11-2	Aroclor 1016		Units	Reporting Limit
11104-28-2	Aroclor 1221	BRL	ug/Kg	88
11141-16-5	Aroclor 1232	BRL	ug/Kg	88
53469-21-9		BRL	ug/Kg	88
	Aroclor 1242	BRL	ug/Kg	88
12672-29-6	Aroclor 1248	280 2C (260)*	-	
11097-69-1	Aroclor 1254	BRL 2C (200)	ug/Kg	88
11096-82-5	Aroclor 1260		ug/Kg	88
37324-23-5	Aroclor 1262 †	BRL	ug/Kg	88
11100-14-4		BRL	ug/Kg	88
11100-14-4	Aroclor 1268 7	BRL	ug/Kg	88

64 W AL 65	OC Limits	
	30 - 150 %	
	30 - 150 %	
	30 - 150 %	
	30 - 150 %	

Method Reference:

Analyst:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3545. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Results are reported on a dry weight basis.

Report Notations:

Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

Non-target analyte. Result is based on a single mid-range calibration standard

Confirmatory column quantification.

Or constant part of the regarded



Field ID: Project:

IIA11M

DND Lewis Chemical/2004-301

Client:

Environmental Strategies & Management

Laboratory ID:

87113-44 Sampled:

Received:

08-30-05 14:15 09-02-05 18:30

Extracted: Cleaned Up:

09-08-05 07:00 09-09-05 14:00 09-10-05 20:50

Analyzed: Analyst:

CRL

Matrix:

Container:

Soil

15 g

Preservation:

250 mL Glass Cool

QC Batch ID: Instrument 1D:

PB-2248-P GC-6 HP 5890

Sample Weight: Final Volume:

1 mL Percent Solids: 77

Dilution Factor: 1

CAS Number	Analyte	Concentration Notes	- Frankland	
12674-11-2	Aroclor 1016	The state of the s	Units	Reporting Limit
11104-28-2	Aroclor 1221	BRL	ug/Kg	100
11141-16-5	Aroclor 1232	BRL	ug/Kg	100
53469-21-9		BRL	ug/Kg	100
12672-29-6	Aroclor 1242	BRL	ug/Kg	100
	Aroclor 1248	BRL	ug/Kg	100
11097-69-1	Aroclor 1254	BRL	ug/Kg	-
11096-82-5	Aroclor 1260	BRL	1	100
37324-23-5	Aroclor 1262	BRL	ug/Kg	100
11100-14-4	Aroclor 1268		ug/Kg	100
		BRL	ug/Kg	100

Compound	Spiked	Measured	Recovery	DOM: NO.
Tetrachloro-m-xylene	17	9	TEACHER MAN AND THE RESERVE AND ADDRESS OF THE PARTY OF T	QC Limits
Decachlorobiphenyl	17	14		30 - 150 %
Tetrachioro-m-xylene	17	9		30 - 150 %
Decachlorobiphenyl	17	13		30 - 150 %
	Tetrachloro-m-xylene Decachlorobiphenyl Tetrachloro-m-xylene	Tetrachloro-m-xylene 17 Decachlorobiphenyl 17 Tetrachloro-m-xylene 17	Tetrachloro-m-xylene 17 9 Decachlorobiphenyl 17 14 Tetrachloro-m-xylene 17 9	Tetrachloro-m-xylene 17 9 50 % Decachlorobiphenyl 17 14 81 % Tetrachloro-m-xylene 17 9 56 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3545. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Results are reported on a dry weight basis.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution



Field ID:

IIA11M2

Project:

DND Lewis Chemical/2004-301

Client:

Environmental Strategies & Management

87113-45

Sampled: Received: Extracted:

Laboratory ID:

08-30-05 14:30 09-02-05 18:30 09-08-05 07:00

Cleaned Up: Analyzed:

09-09-05 14:00 09-10-05 22:35

Analyst:

Matrix:

Container:

Soil

250 mL Glass

Preservation:

Cool

QC Batch ID: Instrument ID: PB-2248-P GC-6 HP 5890

Sample Weight: Final Volume:

15 g 1 mL 51

Percent Solids: Dilution Factor:

CAS Number	Analyte	Cuc Villa		
12674-11-2	Aroclor 1016	Concentration Notes	Units	Reporting Limit
11104-28-2	Aroclor 1221	BRL	ug/Kg	150
11141-16-5	Aroclor 1232	BRL	ug/Kg	150
53469-21-9	Aroclor 1242	BRL	ug/Kg	150
12672-29-6	Arocior 1248	BRL	ug/Kg	150
11097-69-1	Aroclor 1254	BRL	ug/Kg	150
11096-82-5	Aroclor 1260	BRL	ug/Kg	150
37324-23-5	Aroclor 1260	BRL	ug/Kg	150
11100-14-4	Aroclor 1268 †	BRL	ug/Kg	150
C Surrogate Cor		BRL	ug/Kg	150

QC Surrogate Compound		Spiked	Measured	0.00	1 1 3 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	
First	Tetrachloro-m-xylene	26	1.4		QC Limits	
Column	Decachlorobiphenyl	26	71	56 %	30 - 150 %	
Second	Tetrachloro-m-xylene	20	21	84 %	30 - 150 %	
Column	Decachlorobiphenyl	26	14	56 %	30 - 150 %	
	Decachiologiphenyi	26	22	85 %	30 - 150 %	

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3545. Cleanup performed by EPA Method 3660B and EPA Method 3665A Results are reported on a dry weight basis.

Report Notations:

Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.



CRL

EPA Method 8082 Polychlorinated Biphenyls (PCBs) by GC/ECD

Field ID: ESM16 Project: Matrix: DND Lewis Chemical/2004-301 Soil Client: Container: **Environmental Strategies & Management** 250 mL Glass Preservation: Laboratory ID: Cool 87113-46 Sampled: 08-31-05 13:30 QC Batch ID: PB-2248-P Received: Instrument ID: 09-02-05 18:30 GC-6 HP 5890 Sample Weight: Extracted: 09-08-05 07:00 15 g Cleaned Up: Final Volume: 09-09-05 14:00 1 mL Analyzed: Percent Solids: 09-18-05 04:14 **76**

CAS Number	Analyte	To be well that the control of the c		
12674-11-2	Aroclor 1016	Concentration Notes	Units	Reporting Limi
11104-28-2	Aroclor 1221	BRL	ug/Kg	100
11141-16-5	Aroclor 1232	BRL	ug/Kg	100
53469-21-9	Aroclor 1242	BRL	ug/Kg	100
12672-29-6	Aroclor 1248	BRL	ug/Kg	100
11097-69-1	Aroclor 1254	380 2C (330)*	ug/Kg	100
11096-82-5	Aroclor 1260	BRL	ug/Kg	100
37324-23-5	Aroclor 1262	BRL	ug/Kg	100
11100-14-4	Aroclor 1268	BRL	ug/Kg	100
C Surrogate Con		BRL	ug/Kg	100

Dilution Factor:

1

QC Surrogate Co	mpound	Snikad	Measured	ATTEMPT TO THE RESERVE OF THE PARTY OF THE P	1 48/48 100
First	Tetrachloro-m-xylene	1.7	wieasured	Recovery	QC Limits
Column	Decachlorobiphenyl	17	10	62 %	30 - 150 %
		17	18	109 %	
	Tetrachloro-m-xylene	17	12	70 %	30 - 150 %
Column	Decachlorobiphenyl	17	12		30 - 150 %
lethor References	Test Most - 1-7 - 5 - 1	1	14	68 %	30 - 150 %

Method Reference:

Analyst:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update (II (1996).

Sample extraction performed by EPA Method 3545. Cleanup performed by EPA Method 3660B and EPA Method 3665A. Results are reported on a dry weight basis.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

Non-target analyte. Result is based on a single mid-range calibration standard.

Confirmatory column quantification.



Field ID:

Laboratory ID:

IIIC02M

87113-47

08-31-05 10:40

09-02-05 18:30

09-09-05 09:00

09-12-05 08:30

Project:

Sampled:

Received:

Extracted:

Analyzed:

Analyst:

Cleaned Up:

DND Lewis Chemical/2004-301

Client:

Environmental Strategies & Management

Matrix: Container:

Soil

Preservation:

250 mL Glass Cool

QC Batch ID:

Instrument ID:

PB-2250-P GC-6 HP 5890

Sample Weight: Final Volume:

16 g 1 mL

81

09-18-05 04:49 CRL

Percent Solids: Dilution Factor:

CAS Number	Analyte	The state of the s		
12674-11-2	Aroclor 1016	Concentration Notes	Units	Reporting Limi
11104-28-2	Aroclor 1221	BRL	ug/Kg	94
11141-16-5	Aroclor 1232	BRL	ug/Kg	94
53469-21-9	Aroclor 1242	BRL	ug/Kg	94
12672-29-6	Aroclor 1248	BRL	ug/Kg	94
11097-69-1	Aroclor 1254	BRL	ug/Kg	94
11096-82-5	Aroclor 1260	BRL,	ug/Kg	94
37324-23-5	Aroclor 1262	BRL	ug/Kg	94
11100-14-4	Aroclor 1268 1	BRL	ug/Kg	94
C Surrogato Co.		BRL	ug/Kg	94

QC Surrogate	Compound	Spiked	Measured	P. CVWARRED BY	1 -0 -0 34
First		Spineu	Meganical	Recovery	QC Limits
	Tetrachioro-m-xylene	16	14	89 %	
Column	Decachlorobiphenyl	16	17	106 %	30 - 150 %
Second	Tetrachloro-m-xylene	1/			30 - 150 %
Column		16	15	97 %	30 - 150 %
Decachiorobiphe	Decachlorobiphenyl	16	16	104 %	
41 1 - 4					30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3545. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Results are reported on a dry weight basis.

Report Notations:

Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.



Field ID:	IIIC02D	Matrix: Container: Preservation:	Soil
Project:	DND Lewis Chemical/2004-301		250 mL Glass
Client:	Environmental Strategies & Management		Cool
Laboratory ID: Sampled: Received: Extracted: Cleaned Up: Analyzed: Analyst:	87113-48 08-31-05 10:50 09-02-05 18:30 09-09-05 09:00 09-12-05 08:30 09-18-05 05:24 CRL	QC Batch ID: Instrument ID: Sample Weight: Final Volume: Percent Solids: Dilution Factor:	PB-2250-P GC-6 HP 5890 15 g 1 mL 80

CAS Number	Analyte	The second second second	The state of the s	
12674-11-2	Aroclor 1016	Concentration Notes	Units	Reporting Limi
11104-28-2	Aroclor 1221	BRL	ug/Kg	99
11141-16-5	Aroclor 1232	BRL	ug/Kg	99
53469-21-9	Aroclor 1242	BRL	ug/Kg	99
12672-29-6	Aroclor 1248	BRL	ug/Kg	99
11097-69-1		BRL	ug/Kg	99
1096-82-5	Aroclor 1254	BRL	ug/Kg	99
37324-23-5	Aroclor 1260	BRL	ug/Kg	99
11100-14-4	Aroclor 1262	BRL	ug/Kg	99
1100-14-4	Aroclor 1268 [†]	BRL	ug/Kg	99

QC Surrogate Co	mpound	Spiked	Measured	Recovery	INTERIOR COMPLETE
First	Tetrachloro-m-xylene	4.77	The second second	The state of the s	QC Limits
Column		17	13	79 %	30 - 150 %
	Decachlorobiphenyl	17	16	100 %	
Second	Tetrachloro-m -xylene	17	14		30 - 150 %
Column	Decachlorobiphenyl	1 17	17	87 %	30 - 150 %
	Decachiolopiphenyi	17	16	98 %	30 - 150 %
Anthod Deferre					30 - 130 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).
Sample extraction performed by EPA Method 3545. Cleanup performed by EPA Method 3660B and EPA Method 3665A.
Results are reported on a dry weight basis.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution



Field ID:

Laboratory ID:

IIIE02S

87113-49

08-31-05 09:35

09-02-05 18:30

09-09-05 09:00

09-12-05 08:30

Project: Client:

Sampled:

Received:

Extracted:

Analyzed:

Cleaned Up:

DND Lewis Chemical/2004-301

Environmental Strategies & Management

Matrix: Container:

Soil

250 mL Glass

Preservation:

Cool

QC Batch ID:

Instrument ID:

PB-2250-P GC-6 HP 5890

Sample Weight:

16 g

Final Volume: Percent Solids: Dilution Factor:

09-19-05 19:34 Analyst:

, 51.		CKL
CAS N	Number	An

CAS Number	Analyte	7/5 10 a st 1 a st		
12674-11-2	Aroclor 1016	Concentration Notes	Units	Reporting Limi
11104-28-2	Aroclor 1221	BRL	ug/Kg	830
11141-16-5	Aroclor 1232	BRL	ug/Kg	830
53469-21-9	Aroclor 1242	BRL BRL	ug/Kg	830
12672-29-6	Aroclor 1248	BRL	ug/Kg	830
11097-69-1	Aroclor 1254	5,600 2C (5,000)*	ug/Kg	830
11096-82-5	Aroclor 1260	BRL	ug/Kg	830
37324-23-5	Aroclor 1262	BRL	ug/Kg	830
11100-14-4	Aroclor 1268	BRL	ug/Kg	830
C Summer C		BRL	ug/Kg	830

QC Surrogate	Compound	Spiked	Measured	Condition and the condition of the condi	030
First	Tetrachloro-m-xylene	spined	measured	Recovery	QC Limits
Column		1.4	12	90 %	
	Decachlorobiphenyl	14	13	96 %	30 - 150 %
Second	Tetrachloro-m-xviene	14	16		30 - 150 %
Column	Decachlorobiphenyl	14	15	109 %	30 - 150 %
		14	14	99 %	30 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3545. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Results are reported on a dry weight basis.

- BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- Non-target analyte. Result is based on a single mid-range calibration standard.
- Confirmatory column quantification
- Concentration reported from second column



Field ID: IIIE02M Matrix: Project: DND Lewis Chemical/2004-301 Client: **Environmental Strategies & Management** Laboratory ID: B7113-50 Sampled: 08-31-05 09:45 Received: 09-02-05 18:30 Extracted: 09-09-05 09:00 Cleaned Up: 09-12-05 08:30 Analyzed: 09-18-05 07:44 Analyst: CRL

MIGUIA.	2011
Container:	250 mL Glass
Preservation:	Cool
QC Batch ID:	PB-2250-P
Instrument ID:	GC-6 HP 5890
Sample Weight:	16 g
Final Volume:	1 mL
Percent Solids:	74
Dilution Forter	4

CAS Number	Analyte	Control of the contro		
12674-11-2	Aroclor 1016	Concentration Notes	Units	Reporting Limi
11104-28-2	Aroclor 1221	BRL	ug/Kg	100
11141-16-5	Aroclor 1232	BRL	ug/Kg	100
53469-21-9	Aroclor 1242	BRL	ug/Kg	100
12672-29-6	Aroclor 1248	BRL	ug/Kg	100
11097-69-1	Aroclor 1254	120 2C (120)*	ug/Kg	100
1096-82-5	Aroclor 1260	BRL	ug/Kg	100
37324-23-5	Aroclar 1262	BRL	ug/Kg	100
11100-14-4	Aroclor 1268	BRL	ug/Kg	100
Proc. Discovers and a		BRL	ug/Kg	100

	Compound	Spiked	Measured	Recovery	11 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
First	Tetrachloro-m-xylene	17	13	74 %	QC Limits
Column	Decachlorobiphenyl	17	18	105 %	30 - 150 %
Second	Tetrachloro-m-xylene	17	15	85 %	30 - 150 %
Column	Decachlorobiphenyl	17	18	102 %	30 - 150 %
			10	102 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3545. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Results are reported on a dry weight basis.

- Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution
- Non-target analyte. Result is based on a single mid-range calibration standard
- Confirmatory column quantification
- Concentration reported from second column



IIIE02D

EPA Method 8082 Polychlorinated Biphenyls (PCBs) by GC/ECD

Project: DND Lewis Chemical/2004-301 Client:

Environmental Strategies & Management 87113-51

Sampled: 08-31-05 09:55 Received: 09-02-05 18:30 Extracted: 09-09-05 09:00 Cleaned Up: 09-12-05 08:30 Analyzed: 09-18-05 08:19 Analyst:

CRL

Field ID:

Laboratory ID:

Matrix: Soil Container:

250 mL Glass

Preservation: Cool

QC Batch ID: Instrument ID:

PB-2250-P GC-6 HP 5890

Sample Weight: 16 g Final Volume: 1 mL Percent Solids: 86 Dilution Factor:

CAS Number	Analyte	Comments		
12674-11-2	Aroclor 1016	Concentration Notes	Units	Reporting Limit
11104-28-2	Aroclor 1221	BRL	ug/Kg	88
11141-16-5	Aroclor 1232	BRL	ug/Kg	88
53469-21-9	Aroclor 1242	BRL	ug/Kg	88
12672-29-6	Aroclor 1248	BRL	ug/Kg	88
11097-69-1	Aroclor 1254	BRL	ug/Kg	88
11096-82-5	Aroclor 1260	BRL	ug/Kg	88
37324-23-5	Aroclor 1262	BRL	ug/Kg	88
11100-14-4	Aroclor 1268	BRL	ug/Kg	88
	1000011200	BRL	ug/Kg	88

QC Surrogate	Compound	Smilead	Measured	of the selection of the	1 70 00
First	THE PERSON NAMED IN COLUMN TWO IS NOT THE OWNER.	- spikeu	Measured	Recovery	QC Limits
	Tetrachloro-m-xylene	15	12	79 %	30 - 150 %
Column	Decachlorobiphenyl	15	15	105 %	
Second	Tetrachloro-m-xylene	15	13		30 - 150 %
Column	Decachlorobiphenyl	13	13	87 %	30 - 150 %
Coldini	Decachiorobiphenyi	15	15	104 %	30 - 150 %

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3545. Cleanup performed by EPA Method 3660B and EPA Method 3665A

Results are reported on a dry weight basis.

Report Notations:

Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.



Field ID:

IC095

Project:

DND Lewis Chemical/2004-301

Client:

Environmental Strategies & Management

Laboratory ID:

87113-52

Sampled: Received: Extracted:

08-31-05 14:00 09-02-05 18:30 09-09-05 09:00

Cleaned Up: Analyzed:

09-12-05 08:30 09-18-05 08:54

Analyst:

CRL

Matrix: Container:

Soil 250 mL Glass

Preservation:

Cool

QC Batch ID: Instrument ID:

PB-2250-P GC-6 HP 5890

Sample Weight: Final Volume:

15 g 1 mL 91

1

Percent Solids:

lution Factor:

CAS Number	Analyte	Charles		
12674-11-2	Aroclor 1016	Concentration Notes	Units	Reporting Limit
11104-28-2	Aroclor 1221	BRL	ug/Kg	86
11141-16-5	Aroclor 1232	BRL	ug/Kg	86
53469-21-9	Aroclor 1242	BRL	ug/Kg	86
12672-29-6	Aroclor 1248	BRL	ug/Kg	86
11097-69-1	Aroclor 1254	380 2C (330)*	ug/Kg	86
11096-82-5	Aroclor 1260	BRL	ug/Kg	86
37324-23-5	Aroclor 1262	BRL	ug/Kg	86
11100-14-4	Aroclor 1268	BRL	ug/Kg	86
	7.00.01 1200	BRL	ug/Kg	86

QC Surrogate	Compound	Spiked	Measured	Recovery	A SHOP IN THE STATE OF THE STAT
First	Tetrachloro-m-xylene	14	10	69 %	QC Limits
Column	Decachlorobiphenyl	14	14	97 %	30 - 150 %
Second	Tetrachloro-m -xylene	14	11	76 %	30 - 150 %
Column	Decachlorobiphenyl	14	17	119 %	30 - 150 %
			1 10.0	117 /0	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3545. Cleanup performed by EPA Method 36608 and EPA Method 3665A.

Results are reported on a dry weight basis.

Report Notations:

Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution

Non-target analyte. Result is based on a single mid-range calibration standard.

Confirmatory column quantification.

Concentration reported from second column



Field ID:

IC09M

Project:

DND Lewis Chemical/2004-301

Client:

Environmental Strategies & Management

Laboratory ID: Sampled:

87113-53 08-31-05 14:10 09-02-05 18:30

Received: Extracted: Cleaned Up:

09-09-05 09:00 09-12-05 08:30 09-18-05 09:29

Analyzed: Analyst:

CRL

Matrix: Container:

Soil

250 mL Glass

Preservation: QC Batch ID:

Cool

Instrument ID:

PB-2250-P GC-6 HP 5890

Sample Weight: Final Volume:

16 g 1 mL

Percent Solids: Dilution Factor:

88 1

CAS Number	Analyte	Concentration Notes	1000000	-
12674-11-2	Aroclor 1016		Units	Reporting Limit
11104-28-2	Aroclor 1221	BRL	ug/Kg	87
11141-16-5	Aroclor 1232	BRL	ug/Kg	87
53469-21-9		BRL	ug/Kg	87
	Aroclor 1242	BRL	ug/Kg	87
12672-29-6	Aroclor 1248	BRL	ug/Kg	87
11097-69-1	Aroclor 1254	BRL	ug/Kg	87
11096-82-5	Aroclor 1260	BRL		
37324-23-5	Aroclor 1262	BRL	ug/Kg	87
11100-14-4	Aroclor 1268		ug/Kg	87
		BRL	ug/Kg	87

QC Surrogate	Compound	Spiked	Measured	Recovery	OC Limits
First	Tetrachloro-m -xylene	14	11	74 %	30 - 150 %
Column	Decachlorobiphenyl	14	14	96 %	30 - 150 %
Second	Tetrachloro-m-xylene	14	12	82 %	30 - 150 %
Column	Decachlorobiphenyl	14	14	96 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3545. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Results are reported on a dry weight basis.

Report Notations:

Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.



Field ID: 1C09D Matrix: Project: Soil DND Lewis Chemical/2004-301 250 mL Glass Container: Client: **Environmental Strategies & Management** Preservation: Cool Laboratory ID: 87113-54 QC Batch ID: Sampled: 08-31-05 14:20 PB-2250-P Instrument ID: Received: GC-6 HP 5890

09-02-05 18:30 Sample Weight: 15 g Extracted: 09-09-05 09:00 Final Volume: Cleaned Up: 1 mL 09-12-05 08:30 Percent Solids: Analyzed: 92 09-18-05 10:04 Dilution Factor: Analyst: CRŁ

CAS Number	Analyte			
12674-11-2	Aroclor 1016	Concentration Notes	Units	Reporting Limi
11104-28-2	Aroclor 1221	BRL	ug/Kg	86
11141-16-5	Aroclor 1232	BRL	ug/Kg	86
53469-21-9	Aroclor 1242	BRL	ug/Kg	86
12672-29-6	Aroclor 1248	BRL	ug/Kg	86
11097-69-1	Aroclor 1254	BRI.	ug/Kg	86
11096-82-5	Aroclor 1260	BRL	ug/Kg	86
37324-23-5	Aroclor 1262	BRL	ug/Kg	86
11100-14-4	Aroclor 1268	BRL	ug/Kg	86
C Surrogate Cor		BRL	ug/Kg	86

QC Surrogate	Compound	Spilled	Measured	A DE WAS SHOWN TO SHOW THE SHOW	
First	Totrophless	Spineu	Micasured	Recovery	QC Limits
	Tetrachloro-m -xylene	14	11	79 %	30 - 150 %
Column	Decachlorobiphenyl	14	13	94 %	
Second	Tetrachloro-m-xylene	14	10		30 - 150 %
Column		1-9	12	87 %	30 - 150 %
	Decachlorobiphenyl	14	13	93 %	30 + 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3545. Cleanup performed by EPA Method 3660B and EPA Method 3665A. Results are reported on a dry weight basis.

Report Notations:

Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.



Field ID:

IIA01S

Project:

DND Lewis Chemical/2004-301

Client:

Environmental Strategies & Management

Laboratory ID:

87113-55 Sampled: 08-31-05 09:40

Received: Extracted: Cleaned Up:

CAS Number

09-02-05 18:30 09-13-05 17:00 09-14-05 10:00 09-19-05 20:09

Analyte

Analyzed: Analyst:

CRI

Matrix:

Container:

Soil

Preservation:

250 mL Glass Cool

QC Batch ID:

PB-2254-P GC-6 HP 5890

Instrument ID: Sample Weight: Final Volume:

15 g 1 mL 88

25

Percent Solids: Dilution Factor:

23		
- 1		
- 4		

CAS Number	Analyte	Commence of the commence of th		
12674-11-2	Aroclor 1016	Concentration Notes	Units	Reporting Limit
11104-28-2	Aroclor 1221	BRL	ug/Kg	2,200
11141-16-5	Arocior 1232	BRL	ug/Kg	2,200
53469-21-9	Aroclor 1242	BRL	ug/Kg	2,200
12672-29-6	Aroclor 1248	BRL	ug/Kg	2,200
1097-69-1	Aroclor 1254	18,000 2C (15,000)	ug/Kg	2,200
1096-82-5	Aroclor 1260	BRL	ug/Kg	2,200
37324-23-5	Aroclor 1262	BRL	ug/Kg	2,200
11100-14-4	Aroclor 1268 †	BRL	ug/Kg	2,200
C Surrogate Cor	enitars to all the	BRL	ug/Kg	2,200

First Recovery QC Limits Tetrachloro-m-xylene 15 na d Column Decachlorobiphenyl 30 - 150 % 15 na Second d Tetrachloro-m-xylene 30 - 150 % 15 па d Column 30 - 150 % Decachlorobiphenyl 15 na d 30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3545. Cleanup performed by EPA Method 3660B and EPA Method 3665A. Results are reported on a dry weight basis.

- Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- Non-target analyte. Result is based on a single mid-range calibration standard.
- Confirmatory column quantification.
- Concentration reported from cocond colinger
- Surrogate recovery not measurable due to required sample dilution



Field ID: Project:

HAD1M

DND Lewis Chemical/2004-301

Client:

Environmental Strategies & Management

Laboratory ID:

87113-56 08-31-05 10:50

Sampled: Received: Extracted: Cleaned Up:

09-02-05 18:30 09-13-05 17:00 09-14-05 10:00

Analyzed: Analyst:

09-18-05 11:14

Matrix:

Container:

Soil 250 mL Glass

Preservation:

QC Batch ID:

PB-2254-P GC-6 HP 5890

Instrument ID: Sample Weight: Final Volume:

15 g 1 mL

Cool

Percent Solids:

71 Dilution Factor:

CAS Number	Analyte	RESOLUTION OF THE PROPERTY OF		
12674-11-2	Aroclor 1016	Concentration Notes	Units	Reporting Limit
11104-28-2	Aroclor 1221	BRL	ug/Kg	110
11141-16-5	Aroclor 1232	BRL	ug/Kg	110
53469-21-9	Aroclor 1242	BRL	ug/Kg	110
12672-29-6	Arocior 1248	BRL	ug/Kg	110
11097-69-1	Aroclor 1254	350 2C (280)*	ug/Kg	110
11096-82-5	Aroclor 1260	BRL	ug/Kg	110
37324-23-5	Aroclor 1262	BRL	ug/Kg	110
11100-14-4	Aroclor 1268 1	BRL	ug/Kg	110
0.6	12.00	BRL	ug/Kg	110

Compound	Spiked	Measured	Parminu	
Tetrachloro-m-xylene	18	15		QC Limits
Decachlorobiphenyl	18	20		30 - 150 %
Tetrachloro-m -xylene	18	17		30 - 150 %
Decachlorobiphenyl	18	20		30 - 150 % 30 - 150 %
	Tetrachloro-m-xylene Decachlorobiphenyl Tetrachloro-m-xylene	Tetrachloro-m-xylene 18 Decachlorobiphenyl 18 Tetrachloro-m-xylene 18	Tetrachloro-m-xylene 18 15 Decachlorobiphenyl 18 20 Tetrachloro-m-xylene 18 17	Tetrachloro-m-xylene 18 15 85 % Decachlorobiphenyl 18 20 108 % Tetrachloro-m-xylene 18 17 91 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3545. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Results are reported on a dry weight basis.

- BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- Non-target analyte. Result is based on a single mid-range calibration standard.
- Confirmatory column quantification.



Field ID: Project:

Laboratory ID:

Client:

Sampled:

Received:

Extracted:

Analyzed:

Cleaned Up:

87113-58

08-31-05 09:50

09-02-05 18:30

09-13-05 17:00

09-14-05 10:00

DND Lewis Chemical/2004-301 **Environmental Strategies & Management** Matrix: Container:

Soil

Preservation:

250 mt Glass Cool

QC Batch ID: Instrument ID:

PB-2250-P GC-6 HP 5890

Sample Weight:

16 g

Final Volume: Percent Solids:

Dilution Factor:

1 mL 76

09-20-05 12:51 Analyst:

CAS Number	Analyte	Concentration Notes		
12674-11-2	Aroclor 1016	The second secon	Units	Reporting Limi
11104-28-2	Aroclor 1221	BRL	ug/Kg	100
11141-16-5	Aroclor 1232	BRL	ug/Kg	100
53469-21-9		BRL	ug/Kg	100
12672-29-6	Aroclor 1242	BRL	ug/Kg	100
	Aroclor 1248	1,600 e 2C (1,200)*	ug/Kg	100
11097-69-1	Aroclor 1254	BRL	ug/Kg	
11096-82-5	Aroclor 1260	BRL	-	100
37324-23-5	Aroclor 1262	BRL	ug/Kg	100
11100-14-4	Aroclor 1268 *	BRL	ug/Kg	100
C Surrounds Co.		DKL	ug/Kg	100

QC Surrogate	Compound	Splked	Measured	Recovery	
First	Tetrachloro-m-xylene	17	16	92 %	QC Limits
Column	Decachlorobiphenyl	17	20	114 %	30 - 150 %
Second	Tetrachloro-m -xylene	17	11	64 %	30 - 150 %
Column	Decachlorobiphenyl	17	18	103 %	30 - 150 % 30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3545. Cleanup performed by EPA Method 3660B and EPA Method 3665A

Results are reported on a dry weight basis.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

Non-target analyte. Result is based on a single mid-range calibration standard.

Confirmatory column quantification.

Concentration reported from second column

Indicates concentration exceeded calibration range for the analyte.



Field ID: IIA03M

Project: DND Lewis Chemical/2004-301

Client: Environmental Strategies & Management

Laboratory ID: 87113-58RA1 Sampled: 08-31-05 09:50 Received: 09-02-05 18:30

09-13-05 17:00 Extracted: Cleaned Up: 09-14-05 10:00 Analyzed: 09-20-05 14:26

Analyst: **CRL** Matrix: Container: Soil

250 ml. Glass

Preservation: Cool

QC Batch ID: Instrument ID:

Dilution Factor:

PB-2250-P GC-6 HP 5890

Sample Weight: 16 g Final Volume: 1 mL Percent Solids:

76 5

CAS Number	Analyte	Consequently		
12674-11-2	Aroclor 1016	Concentration Notes	Units	Reporting Limit
11104-28-2	Aroclor 1221	BRL	ug/Kg	500
11141-16-5	Aroclor 1232	BRL	ug/Kg	500
3469-21-9	Aroclor 1242	BRL	ug/Kg	500
12672-29-6	Aroclor 1248	BRL	ug/Kg	500
11097-69-1	Aroclor 1254	1,700 2C (1,300)*	ug/Kg	500
1096-82-5	Aroclor 1260	BRL	ug/Kg	500
7324-23-5	Aroclor 1262	BRL	ug/Kg	500
1100-14-4	Aroclor 1268 [†]	BRL	ug/Kg	500
C Surrogate Cor		BRL	ug/Kg	500

2C Surrogate	Compound	Spiked	Measured	Recovery	The Property of the Parket of
First	Tetrachloro-m-xylene	17	15	87 %	QC Limits
Column	Decachlorobiphenyl	17	21	118 %	30 - 150 %
Second	Tetrachloro-m-xylene	17	14	80 %	30 - 150 %
Column	Decachlorobiphenyl	17	16	93 %	30 - 150 %
		-	1 .0	33 K	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3545. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Results are reported on a dry weight basis.

- Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be BRL reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- Non-target analyte. Result is based on a single mid-range calibration standard.
- Confirmatory column quantification
- Concentration remarked from second ant ...



Field ID: IIA05M

Project: DND Lewis Chemical/2004-301

Client: **Environmental Strategies & Management**

Laboratory ID: 87113-59 Sampled: 08-31-05 08:50 Received: 09-02-05 18:30 Extracted: 09-13-05 17:00 09-14-05 10:00 Cleaned Up: Analyzed: 09-18-05 14:09

Analyst: CRL Matrix: Container: Soil

250 mL Glass

Preservation: Cool

QC Batch ID: Instrument ID:

PB-2254-P GC-6 HP 5890

Sample Weight: 15 g Final Volume: 1 mL Percent Solids: **79**

Dilution Factor:	1	

CAS Number	Analyte	Concentration Notes	(8.4.14)	
12674-11-2	Aroclor 1016		Units	Reporting Limit
11104-28-2	Aroclor 1221	BRL	ug/Kg	99
11141-16-5		BRL	ug/Kg	99
	Aroclor 1232	BRL	ug/Kg	99
53469-21-9	Aroclor 1242	BRL	ug/Kg	
12672-29-6	Aroclor 1248	830 2C (820)*	- No. 1	99
11097-69-1	Aroclor 1254	10107	ug/Kg	99
11096-82-5	Aroclor 1260	BRL	ug/Kg	99
37324-23-5	Aroclor 1262	BRL	ug/Kg	99
		BRL	ug/Kg	99
11100-14-4	Aroclor 1268	BRL	ug/Kg	99

QC Surrogate Compound		Spiked	Measured	Recovery	OC limits
First	Tetrachloro-m-xylene	16	12	74 %	30 - 150 %
Column	Decachlorobiphenyl	16	16	100 %	30 - 150 %
Second	Tetrachloro-m -xylene	16	13	82 %	30 - 150 %
Column	Decachlorobiphenyl	16	16	94 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3545. Cleanup performed by EPA Method 3660B and EPA Method 3665A

Results are reported on a dry weight basis.

- BRI Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution,
- Non-target analyte. Result is based on a single mid-range calibration standard.
- Confirmatory column quantification.
- 2C Concentration reported from second column



Field ID: 11A05D

Project:

DND Lewis Chemical/2004-301

Client:

Environmental Strategies & Management

Laboratory ID: 87113-60

Sampled: Received: Extracted:

08-31-05 09:00 09-02-05 18:30 09-13-05 17:00

Cleaned Up: Analyzed:

09-14-05 10:00 09-18-05 14:44

Analyst:

CRL

Matrix: Container:

Soil

Cool

250 mL Glass

QC Batch ID: Instrument ID:

Preservation:

PB-2254-P GC-6 HP 5890

Sample Weight: Final Volume:

15 g 1 mL

Percent Solids: Dilution Factor:

68

CAS Number	Analyte	Concentration Notes	T1	
12674-11-2	Aroclor 1016		Units	Reporting Limit
11104-28-2	Aroclor 1221	BRL	ug/Kg	120
11141-16-5	Aroclor 1232	BRL	ug/Kg	120
53469-21-9	Aroclor 1242	BRL	ug/Kg	120
12672-29-6	Aroclor 1248	BRL	ug/Kg	120
11097-69-1	Aroclor 1254	BRL	ug/Kg	120
11096-82-5	Aroclor 1260	BRL	ug/Kg	120
37324-23-5	Aroclor 1262	BRL	ug/Kg	120
11100-14-4	Aroclor 1268 *	BRL	ug/Kg	120
	7 (100) 1200	BRL	ug/Kg	120

QC Surrogate	Compound	Spiked	Measured	THE ADVANCE OF THE PARTY.	120
First	Tetrachloro-m-xvlene	Spincu	weasured	Recovery	QC Limits
	The british the same of the sa	19	13	65 %	30 - 150 %
Column	Decachlorobiphenyl	19	19	95 %	
Second	Tetrachloro-m -xylene	10	14		30 - 150 %
Column		1 13	14	70 %	30 - 150 %
Cordiniii	Decachlorobiphenyl	19	18	94 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3545. Cleanup performed by EPA Method 36608 and EPA Method 3665A.

Results are reported on a dry weight basis.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

Non-target analyte. Result is based on a single mid-range calibration standard.



Field ID: Project:

HA07S

DND Lewis Chemical/2004-301

Matrix: Container: Soil

Client:

Environmental Strategies & Management

250 mL Glass

Preservation:

Cool

Laboratory ID: Sampled:

08-31-05 08:15

QC Batch ID: Instrument ID: PB-2254-P GC-6 HP 5890

Received: Extracted: 09-02-05 18:30 09-13-05 17:00

Sample Weight:

15 g

Cleaned Up:

09-14-05 10:00

Final Volume:

1 mL

Analyzed:

09-18-05 15:19

Percent Solids: Dilution Factor:

85 1

Analyst:

CRL

CAS Number	Analyte	Concentration Notes	Units	Paradica ()
12674-11-2	Aroclor 1016	BRL	40.01 C. 20 00 00 00 00 00 00 00 00 00 00 00 00	Reporting Limit
11104-28-2	Aroclor 1221		ug/Kg	92
11141-16-5	Aroclor 1232	BRL	ug/Kg	92
53469-21-9	Aroclor 1242	BRL	ug/Kg	92
12672-29-6		BRL	ug/Kg	92
	Aroclor 1248	2,200 e 1C (1,800)*	ug/Kg	92
11097-69-1	Arocior 1254	BRL	ug/Kg	92
11096-82-5	Araclar 1260	BRL	ug/Kg	92
37324-23-5	Aroclor 1262	BRL	ug/Kg	92
11100-14-4	Aroclor 1268 [†]	BRL	ug/Kg	92

2000

QC Surrogate	Compound	Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m -xylene	15	9	58 %	30 - 150 %
Column	Decachlorobiphenyl	15	16	108 %	30 - 150 %
Second	Tetrachloro-m -xylene	15	10	66 %	30 - 150 %
Column	Decachlorobiphenyl	15	21	136 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).
Sample extraction performed by EPA Method 3545. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Results are reported on a dry weight basis.

- BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- Non-target analyte. Result is based on a single mid-range calibration standard.
- Confirmatory column quantification.
- IC Concentration reported from first column
- Indicates concentration exceeded calibration range for the analyte.



Field ID:

Project:

DND Lewis Chemical/2004-301

Client:

Environmental Strategies & Management

Laboratory ID: Sampled: Received:

87113-61RA1 08-31-05 08:15 09-02-05 18:30 09-13-05 17:00

Extracted: Cleaned Up: Analyzed:

09-14-05 10:00 09-19-05 22:29

Analyst:

CRL

Matrix:

Soil

Container: Preservation: 250 mL Glass Cool

QC Batch ID: Instrument ID:

PB-2254-P GC-6 HP 5890

Sample Weight: Final Volume:

15 g 1 mL

Percent Solids: 85 Dilution Factor:

2000

CAS Number	Analyte	Concentration Notes	P. P. Carlo	
12674-11-2	Aroclor 1016	1 (19)163	Units	Reporting Limi
11104-28-2	Aroclor 1221	BRI.	ug/Kg	460
11141-16-5	Aroclor 1232	BRL	ug/Kg	460
3469-21-9	Aroclor 1242	BRL	ug/Kg	460
12672-29-6		BRL	ug/Kg	460
111111111111111111111111111111111111111	Aroclor 1248	2,600 2C (2,400)*	ug/Kg	460
11097-69-1	Aroclor 1254	BRL	ug/Kg	460
1096-82-5	Aroclor 1260	BRL		
37324-23-5	Aroclor 1262 T	BRL	ug/Kg	460
11100-14-4	Aroclor 1268		ug/Kg	460
		BRL	ug/Kg	460

QC Surrogate Compound Spiked Measured Recovery QC Limits First Tetrachloro-m-xylene 15 10 30 - 150 % Column Decachlorobiphenyl 15 16 104 % 30 - 150 % Tetrachloro-m-xylene Second 15 14 93 % 30 - 150 % Column Decachlorobiphenyl 15 20 134 % 30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3545. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Results are reported on a dry weight basis.

Report Notations:

Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

Non-target analyte. Result is based on a single mid-range calibration standard.

Confirmatory column quantification.

Concentiation reported from second column.



Field ID: IIA07M Project: DND Lewis Chemical/2004-301 Matrix: Soil Client: Environmental Strategies & Management Container: 250 mL Glass Preservation: Laboratory ID: Cool 87113-62 QC Batch ID: Sampled: 08-31-05 08:20 PB-2254-P Received: Instrument ID: 09-02-05 18:30 GC-6 HP 5890 Extracted: Sample Weight: 09-13-05 17:00 16 g Cleaned Up: 09-14-05 10:00 Final Volume: 1 mL Analyzed: 09-18-05 15:54 Percent Solids: 80 Analyst: Dilution Factor: CRL

CAS Number	Analyte			
12674-11-2	Aroclor 1016	Concentration Notes	Units	Reporting Limit
11104-28-2	Aroclor 1221	BRL	ug/Kg	
11141-16-5	Aroclor 1232	BRL	ug/Kg	95
53469-21-9	Aroclor 1242	BRL	ug/Kg	95
12672-29-6	Aroclor 1248	BRL	ug/Kg	95
11097-69-1	Aroclor 1254	BRL	ug/Kg	95
11096-82-5	Aroclor 1260	BRL	ug/Kg	95
37324-23-5	Aroclor 1262 1	BRL	ug/Kg	95
1100-14-4	Aroclor 1268 T	BRL	ug/Kg	95
C Surrogate Cor		BRL	ug/Kg	95

QC Surrogate Co	mpound	Called	Lancing Company		ug/kg 95
	Tetrachloro-m -xylene	Shirea	Measured	Recovery	OC Limits
Column		16	12	73 %	The state of the s
6	Decachlorobiphenyl	16	16	101 %	30 - 150 %
	Tetrachloro-m-xylene	16	13		30 - 150 %
Column De	Decachlorobiphenyl	16	12	81 %	30 - 150 %
lethod Reference:		16	16	98 %	30 - 150 %

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3545. Cleanup performed by EPA Method 3660B and EPA Method 3665A. Results are reported on a dry weight basis.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution

Non-target analyte: Result is based on a single mid-range calibration standard.



Field ID:

ESM15:

08-31-05 11:50

Project:

DND Lewis Chemical/2004-301

Environmental Strategies & Management

Client:

Laboratory ID: 87113-63

Sampled: Received:

09-02-05 18:30 Extracted: 09-13-05 17:00 Cleaned Up: 09-14-05 10:00

Analyzed: Analyst:

09-18-05 16:29 CRL

Matrix: Container:

Soil

250 mL Glass Cool

Preservation: QC Batch ID:

PB-2254-P

Instrument ID: Sample Weight:

GC-6 HP 5890 15 g

Final Volume: 1 mL Percent Solids: 88 Dilution Factor: 1

CAS Number	Analyte	Concentration Notes	Units	Beneather their
12674-11-2	Aroclor 1016	The state of the s		Reporting Limit
11104-28-2	Aroclor 1221	BRL	ug/Kg	88
11141-16-5	Aroclor 1232	BRL	ug/Kg	88
53469-21-9	Aroclor 1232	BRL	ug/Kg	88
12672-29-6	Contract of the contract of th	BRL	ug/Kg	88
	Aroclor 1248	440 1C (430)*	ug/Kg	88
11097-69-1	Aroclor 1254	BRL	ug/Kg	88
11096-82-5	Aroclor 1260	BRL	ug/Kg	88
37324-23-5	Aroclor 1262	BRL	ug/Kg	88
11100-14-4	Aroclor 1268 1	BRL	ug/Kg	88

QC Surrogate	Compound	Spiked	Measured	Recovery	OC Limits
First	Tetrachloro-m-xylene	15	13	91 %	30 - 150 %
Column	Decachlorobiphenyl	15	17	114 %	30 - 150 %
Second	Tetrachloro-m-xylene	15	15	101 %	30 - 150 %
Column	Decachlorobiphenyl	15	16	108 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996). Sample extraction performed by EPA Method 3545. Cleanup performed by EPA Method 3660B and EPA Method 3665A Results are reported on a dry weight basis

- BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution
- Non-target analyte. Result is based on a single mid-range calibration standard
- Confirmatory column quantification.
- Сопсеннацоги геропеа полития согании



Field ID:	IIIF03S	, the same of the	
Project:	DND Lewis Chemical/2004-301	Matrix:	Soil
Client:	Environmental Strategies & Management	Container:	250 mL Glass
Laboratory ID:	87113-64	Preservation:	Coof
Sampled:	09-01-05 08:50	QC Batch ID:	PB-2254-P
Received:	09-02-05 18:30	Instrument ID:	GC-6 HP 5890
Extracted:	09-13-05 17:00	Sample Weight:	15 g
Cleaned Up:	09-14-05 10:00	Final Volume:	1 mL
Analyzed:	09-18-05 17:04	Percent Solids:	91
Analyst:	CRL	Dilution Factor:	1

CAS Number	Analyte	Company of the compan		
12674-11-2	Aroclor 1016	Concentration Notes	Units	Reporting Limit
11104-28-2	Aroclor 1221	BRL	ug/Kg	88
11141-16-5	Aroclor 1232	BRL	ug/Kg	88
53469-21-9	Aroclor 1242	BRL	ug/Kg	88
12672-29-6	Aroclor 1248	BRL	ug/Kg	88
11097-69-1	Aroclor 1254	2,600 e 2C (2,100)*	ug/Kg	88
11096-82-5	Aroclor 1260	BRL	ug/Kg	88
37324-23-5	Aroclor 1262	BRL	ug/Kg	88
11100-14-4	Aroclor 1268	BRL	ug/Kg	88
C Surrogate Cor		BRL	ug/Kg	88

QC Surrogate	Compound	Spiked	Was to the W	Water water was a second	18/18 00
First		spikeo	Measured	Recovery	QC Limits
Column	Tetrachloro-m-xylene	15	10	71 %	The state of the s
	Decachlorobiphenyl	15	12	84 %	30 - 150 %
Second	Tetrachloro-m-xylene	15	12		30 - 150 %
Column	Decachlorobiphenyl	15	12	80 %	30 - 150 %
	- Decacritorobiphenyi	15	12	79 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).
Sample extraction performed by EPA Method 3545. Cleanup performed by EPA Method 36608 and EPA Method 3665A.

Results are reported on a dry weight basis.

- Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be BRL reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution
- Non-target analyte. Result is based on a single mid-range calibration standard.
- Confirmatory column quantification.
- 2C Concentration reported from second column
- Indicates concentration exceeded calibration range for the analyte.



Field ID: Project:

Sampled:

Received:

Extracted:

Cleaned Up:

Laboratory ID:

Client:

IIIF03S

87113-64RA1

09-01-05 08:50

09-02-05 18:30

09-13-05 17:00

09-14-05 10:00

09-19-05 23:04

DND Lewis Chemical/2004-301 **Environmental Strategies & Management** Matrix: Container: Soil

250 mL Glass

Preservation:

Cool

QC Batch ID: Instrument ID: PB-2254-P GC-6 HP 5890

Sample Weight:

15 g 1 mL

Final Volume: Percent Solids:

91

Dilution Factor: 5

Analyzed: Analyst: **CRL**

CAS Number	Analyte	Concentration Notes	Units	Reporting Limi
12674-11-2	Aroclor 1016	BRL	ug/Kg	440
11104-28-2	Aroclor 1221	BRL	ug/Kg	440
11141-16-5	Aroclor 1232	BRL	ug/Kg	440
53469-21-9	Aroclor 1242	BRL	ug/Kg	440
12672-29-6	Aroclor 1248	2,700 2C (2,300)*	ug/Kg	440
11097-69-1	Aroclor 1254	BRL	ug/Kg	440
11096-82-5	Aroclor 1260	BRL	ug/Kg	440
37324-23-5	Aroclor 1262	BRL	ug/Kg	440
11100-14-4	Aroclor 1268 1	BRL	ug/Kg	440

2,000

OC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m-xylene	15	10	71 %	30 - 150 %
Column	Decachlorobiphenyl	15	11	75 %	30 - 150 %
Second	Tetrachloro-m-xylene	15	12	86 %	30 - 150 %
Column	Decachlorobiphenyl	15	12	82 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3545. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Results are reported on a dry weight basis.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution

- Non-target analyte. Result is based on a single mid-range calibration standard
- Confirmatory column quantification
- Concentration reported from second colon:



Field ID:

IIIF03M

Project:

DND Lewis Chemical/2004-301

Client:

Environmental Strategies & Management

Laboratory ID: Sampled:

87113-65

09-01-05 09:00

Received: 09-02-05 18:30 Extracted: 09-13-05 17:00 Cleaned Up: 09-14-05 10:00 Analyzed: 09-18-05 17:39

Analyst:

CRL

Matrix: Container:

Soil

250 mL Glass Cool

Preservation: QC Batch ID:

PB-2254-P

Instrument ID: Sample Weight:

GC-6 HP 5890 16 g

Final Volume: Percent Solids: Dilution Factor:

1 mL 74

CAS Number	Analyte	Concentration Notes	1	
12674-11-2	Aroclor 1016	TOTO (Units	Reporting Limit
11104-28-2	Aroclor 1221	BRL	ug/Kg	100
11141-16-5	Aroclor 1232	BRL	ug/Kg	100
53469-21-9	Aroclor 1242	BRL	ug/Kg	100
12672-29-6	Aroclor 1248	BRL	ug/Kg	100
11097-69-1	Aroclor 1254	BRL	ug/Kg	100
1096-82-5	Aroclor 1260	BRL	ug/Kg	100
37324-23-5	Aroclor 1260	BRL	ug/Kg	100
1100-14-4	Aroclor 1262	BRL	ug/Kg	100
1100-14-4	Alocior 1268	BRL	ug/Kg	100

	QC Limits
npound Spiked Measured Recovery Tetrachloro-m-xylene 17 11 61 %	
11 61 %	30 - 150 %
15 90 %	30 - 150 %
12 68 %	30 - 150 %
	30 - 150 %
1	2 68 % 6 91 %

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3545. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Results are reported on a dry weight basis.

Report Notations:

Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution

Non-target analyte. Result is based on a single mid-range calibration standard.



CRL

EPA Method 8082 Polychlorinated Biphenyls (PCBs) by GC/ECD

Field ID: IIIF03D Matrix: Project: Soil DND Lewis Chemical/2004-301 Container: 250 ml. Glass Client: **Environmental Strategies & Management** Preservation: Cool Laboratory ID: 87113-66 QC Batch ID: PB-2254-P Sampled: 09-01-05 09:10 Instrument ID: GC-6 HP 5890 09-02-05 18:30 Received: Sample Weight: Extracted: 15 g 09-13-05 17:00 Final Volume: Cleaned Up: 1 mL 09-14-05 10:00 Percent Solids: 85 Analyzed: 09-18-05 18:14 Dilution Factor:

CAS Number	Analyte	Concentration Notes		
12674-11-2	Aroclor 1016	TAMES .	Units	Reporting Limi
11104-28-2	Aroclor 1221	BRL SRL	ug/Kg	91
11141-16-5	Aroclor 1232	BRL	ug/Kg	91
53469-21-9	Aroclor 1242	BRL	ug/Kg	91
12672-29-6	Aroclor 1248	BRL	ug/Kg	91
11097-69-1	Aroclor 1254	BRL	ug/Kg	91
11096-82-5	Aroclor 1260	BRL	ug/Kg	91
37324-23-5	Aroclor 1262 [†]	BRL	ug/Kg	91
11100-14-4	Aroclor 1268 1	BRL	ug/Kg	91
	71100101 1200	BRL	ug/Kg	01

1

Compound	Spiked	Measured	Desire and the second	717/1999
Tetrachloro m solono				QC Limits
	15	14	91 %	30 - 150 %
Decachlorobiphenyl	15	16	109 %	
Tetrachloro-m-vylene	1.5	10	The state of the s	30 - 150 %
	13	15	101 %	30 - 150 %
Column Decachlorobiphenyl	15	16	105 %	30 150 %
	Compound Tetrachloro-m-xylene Decachlorobiphenyl Tetrachloro-m-xylene Decachlorobiphenyl	Tetrachloro-m-xylene 15 Decachlorobiphenyl 15 Tetrachloro-m-xylene 15	Tetrachloro-m-xylene	Tetrachloro-m-xylene 15 14 91 % Decachlorobiphenyl 15 16 109 % Tetrachloro-m-xylene 15 15 101 %

Method Reference:

Analyst:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3545. Cleanup performed by EPA Method 3660B and EPA Method 3665A. Results are reported on a dry weight basis.

Report Notations:

Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution

Non-target analyte. Result is based on a single mid-range calibration standard



Trace Metals

Field ID:

87113-67

Project:

Sampled:

DND Lewis Chemical/2004-301

Client: Laboratory ID: Environmental Strategies & Management, Inc.

Matrix: Container: Soil

250 mL Glass

Preservation:

Cool

Percent Solids:

Received:

08-31-05 11:55 09-02-05 18:30

Analysis Method EPA 6010B1 EPA 7471A2

OC Batch ID MB-0702-S MP-1856-S

Prep Method Prepared EPA 3050B 09-14-05 11:50 EPA 7471A 09-15-05 09:00

Sample Weight 0.5 g 0.6 g

instrument ID ICP-1 PE 3000 CVAA-1 PE FIMS

Analyst DRW MWR

CAS Number	Analyte	Concentration Notes	Units	Reporting Limit	DF	Colored 1	
7440-38-2	Arsenic, Total	A-16.		welvorring runni	Ur	Analyzed	Method
7440-39-3	111111111111111111111111111111111111111	5.1	mg/Kg	1.1	1	09-14-05 21:17	EPA 6010B
	Barium, Total	80	mg/Kg	23	1	09-14-05 21:17	EPA 6010B
7440-43-9	Cadmium, Total	1.6	mg/Kg	0.56	1	09-14-05 21:17	EPA 6010B
7440-47-3	Chromium, Total	20	mg/Kg	11	1	09-14-05 21:17	EPA 6010B
7439-92-1	Lead, Total	670	mg/Kg	11	1	09-14-05 21:17	
7439-97-6	Mercury, Total	3.3	mg/Kg	0.39	10	09-15-05 17:02	EPA 6010B
7782-49-2	Selenium, Total	BRL	mg/Kg	1.1	10		EPA 7471A
7440-22-4	Silver, Total	BRL		-		09-14-05 21:17	EPA 6010B
Anthod Balance	T	DRL	mg/Kg	5.6	1	09-14-05 21:17	EPA 6010B

300 600

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Results are reported on a dry weight basis.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution

Dilution Factor.



Massachusetts DEP EPH Method Extractable Petroleum Hydrocarbons by GC/FID

Aromatic Dilution Factor: 1

Yes

Yes

Field ID: IA03M Matrix: Soil Project: DND Lewis Chemical/2004-301 Container: 120 mL Amber Glass Client: Environmental Strategies & Management, Inc. Preservation: Cool Laboratory ID: 87113-68 QC Batch ID: EP-2144-M Sampled: 08-30-05 09:25 Instrument ID: GC-9 Agilent 6890 Received: 09-02-05 18:30 Sample Weight: 15 g Extracted: 09-13-05 15:00 Final Volume: 1 mL Analyzed (AL): 09-17-05 19:57 % Solids: 82 Analyzed (AR): 09-17-05 20:42 Aliphatic Dilution Factor: Analyst: MM

			Aromatic Dilution Factor: 1				
EPH Ranges			Cond	entration Note	s Units	Reporting Limi	
n-C9 to n-C18 Aliphatic Hydrocarbons +				BRL	mg/Kg	36	
ri-C19 to n-C36	Aliphatic Hydrocarbons f			61	mg/Kg	36	
n-C11 to n-C22	Aromatic Hydrocarbons 10			BRL	mg/Kg	36	
Unadjusted n-C	11 to n-C22 Aromatic Hyd	mcarbons !		43			
CAS Number		OCH MAIS		43	mg/Kg	36	
91-20-3	Analyte		Conc	entration Note	Units	Reporting Limit	
91-20-3	Naphthalene			BRL	mg/Kg	0.59	
	2-Methylnaphthalene			BRL	mg/Kg	0.59	
85-01-8	Phenanthrene			0.64	mg/Kg	0.59	
83-32-9	Acenaphthene			BRL	mg/Kg	0.59	
208-96-8	Acenaphthylene			BRL		0.59	
86-73-7	Fluorene		BRL		mg/Kg mg/Kg	0.59	
120-12-7	Anthracene			BRL		0.59	
206-44-0	Fluoranthene			1.0		0.59	
129-00-0	Pyrene		0.91		mg/Kg mg/Kg	0.59	
56-55-3	Benzo[a]anthracene		BRL		mg/Kg	0.59	
218-01-9	Chrysene		0.64		mg/Kg	0.59	
205-99-2	Benzo[b]fluoranthene			0.66	mg/Kg	0.59	
207-08-9	Benzo[k]fluoranthene			BRL	mg/Kg	0.59	
50-32-8	Benzo[a]pyrene			0.63	mg/Kg	0.59	
193-39-5	Indeno[1,2,3-c,d]pyrene			BRL		0.59	
53-70-3	Dibenzo[a,h]anthracene			BRL	mg/Kg mg/Kg	0.59	
101212	Sunzole Lipscylein		1	DRL		0.39	
QC Surrogate Co	ompound	Spiked	Measured	Recovery	ing Ag		
Fractionation: 2-Fluorobiphenyl		3.2	2.4	77 %		Limits	
	2-Bromonaphthalene	3.2	1.9	61 %		140 %	
Extraction:	Chloro-octadecane	3.2	2.6	82 %		140 %	
	ortho-Terphenyl	3.2	2.5	80 %		140 %	
	Orato-respiretty)		6.2	00 %		40 - 140 %	

QA/QC Certification

- 1. Were all QA/QC procedures required by the method followed?
- 2. Were all performance/acceptance standards for the required QA/QC procedures achieved?

3. Were any significant modifications made to the method, as specified in Section 11.3.1.1?

Method non-conformances indicated above are detailed below on this data report, or in the accompanying project narrative and project quality control report. Release of this data is authorized by the accompanying signed project cover letter. The accompanying cover letter, project narrative and quality control report are considered part of this data report-

Method Reference:

Method for the Determination of Extractable Petroleum Hydrocarbons, MA DEP (Revision 1.1, 2004).

Sample extraction performed by microwave accelerated solvent extraction technique. Results are reported on a dry weight basis

- Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution
- Hydrocarbon range data excludes concentrations of any surrogate(s) and/or internal standards eluting in that range.
- n-C11 to n-C22 Aromatic Hydrocarbons range data excludes the method target analyte concentrations.



Massachusetts DEP EPH Method Extractable Petroleum Hydrocarbons by GC/FID

Field ID: 1805D

Project: DND Lewis Chemical/2004-301

Client: Environmental Strategies & Management, Inc.

Laboratory ID: Sampled: 08-30-05 11:00 Received: 09-02-05 18:30 Extracted: 09-13-05 15:00 Analyzed (AL): 09-17-05 21:26 Analyzed (AR): 09-17-05 22:10

Analyst: MM Matrix:

Container: 120 mL Amber Glass

Preservation: Cool

QC Batch ID: EP-2144-M

Instrument ID: GC-9 Agilent 6890

Sample Weight: 15 g Final Volume: 1 mL % Solids: 88 Allphatic Dilution Factor: 1

Aromatic Dilution Factor: 1

EPH Ranges	Concentration Notes	Units	Reporting Limit
n-C9 to n-C18 Aliphatic Hydrocarbons	BRL	mg/Kg	33
n-C19 to n-C36 Aliphatic Hydrocarbons	BRL	mg/Kg	33
n-C11 to n-C22 Aromatic Hydrocarbons † 0	BRL	mg/Kg	33
Unadjusted n-C11 to n-C22 Aromatic Hydrocarbons 1	BRL	mg/Kg	33

CAS Number	Analyte	Concentration Notes	Units	Reporting Limit
91-20-3	Naphthalene	BRL	mg/Kg	0.55
91-57-6	2-Methylnaphthalene	BRL	mg/Kg	0.55
85-01-8	Phenanthrene	BRL	mg/Kg	0.55
83-32-9	Acenaphthene	BRL	mg/Kg	0.55
208-96-8	Acenaphthylene	BRL	mg/Kg	0.55
86-73-7	Fluorene	BRL	mg/Kg	0.55
120-12-7	Anthracene	BRL	mg/Kg	0.55
206-44-0	Fluoranthene	BRL	mg/Kg	0.55
129-00-0	Pyrene	BRL	mg/Kg	0.55
56-55-3	Benzo[a]anthracene	BRL	mg/Kg	0.55
218-01-9	Chrysene	BRL	mg/Kg	0.55
205-99-2	Benzo[b]fluoranthene	BRL	mg/Kg	0.55
207-08-9	Benzo[k]fluoranthene	BRL	mg/Kg	0.55
50-32-8	Benzo[a]pyrene	BRL	mg/Kg	0.55
193-39-5	Indeno[1,2,3-c,d]pyrene	BRL	mg/Kg	0.55
53-70-3	Dibenzo[a,h]anthracene	BRL	mg/Kg	0.55
191-24-2	Benzo[g,h,i]perylene	BRL	mg/kg	0.55

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
Fractionation:	2-Fluorobiphenyl	3.0	2.5	84 %	40 - 140 %
	2-Bromonaphthalene	3.0	1.5	52 %	40 - 140 %
Extraction:	Chloro-octadecane	3.0	2.6	89 %	40 - 140 %
	ortho-Terphenyl	3.0	2.6	89 %	40 - 140 %

QA/QC Certification

- 1 Were all QA/QC procedures required by the method followed?
- 2. Were all performance/acceptance standards for the required QA/QC procedures achieved?

Yes

3. Were any significant modifications made to the method, as specified in Section 11.3.1.1?

Yes

Method non-conformances indicated above are detailed below on this data report, or in the accompanying project narrative and project quality control report. Release of this data is authorized by the accompanying signed project cover letter. The accompanying cover letter, project narrative and quality control report are considered part of this data report.

Method Reference:

Method for the Determination of Extractable Petroleum Hydrocarbons, MA DEP (Revision 1.1, 2004).

Sample extraction performed by microwave accelerated solvent extraction technique. Results are reported on a dry weight basis.

- Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution
- Hydrocarbon range data excludes concentrations of any surrogate(s) and/or internal standards eluting in that range
- n-C11 to n-C22 Aromatic Hydrocarbons range data excludes the method target analyte concentrations



Massachusetts DEP EPH Method Extractable Petroleum Hydrocarbons by GC/FID

Field ID:

ESM15

Project:

DND Lewis Chemical/2004-301

Client:

Environmental Strategies & Management, Inc.

Laboratory ID: Sampled:

87113-70 08-31-05 11:40 09-02-05 18:30

Received: Extracted: Analyzed (AL):

09-13-05 15:00 09-17-05 22:54 Analyzed (AR): 09-17-05 23:39

Analyst:

MM

Soil

Container: Preservation: 120 mL Amber Glass Cool

QC Batch ID:

EP-2144-M

Instrument ID: Sample Weight:

GC-9 Agilent 6890 15 g

Final Volume:

1 ml

% Solids:

88

Aliphatic Dilution Factor: 1 Aromatic Dilution Factor:

EPH Ranges				Aromatic Dilution Fa	dor: 1	
	All-V-II-II-V		Con	centration Notes	Units	Reporting Limi
D C19 to n C30	Aliphatic Hydrocarbons 1			56		
n-C19 to n-C36 Aliphatic Hydrocarbons 1			120	mg/Kg mg/Kg	34	
The second districts of the second	Aromatic Hydrocarbons †			98	mg/Kg	34
Unadjusted n-0	11 to n-C22 Aromatic Hyd	frocarbons *		100		34
CAS Number	Analyte		1 2		mg/Kg	34
91-20-3	Naphthalene		Conc	centration Notes	Units	Reporting Limit
91-57-6	2-Methylnaphthalene		-	BRL	mg/Kg	0.56
85-01-8	Phenanthrene			BRL	mg/Kg	0.56
83-32-9	Acenaphthene	-		BRL	mg/Kg	0.56
208-96-8	Acenaphthylene			BRL	mg/Kg	0.56
86-73-7	Fluorene			BRL		0.56
120-12-7	Anthracene			BRL		0.56
206-44-0	Fluoranthene		-	BRL		0.56
129-00-0	Pyrene			BRL	mg/Kg	0.56
56-55-3	Benzo[a]anthracene			BRL		0.56
218-01-9	Chrysene		BRL		mg/Kg	0.56
205-99-2	Benzo[b]fluoranthene		BRL		mg/Kg	0.56
207-08-9	Benzo[k]fluoranthene		BRL		mg/Kg	0.56
50-32-8	Benzo[a]pyrene		BRL		mg/Kg	0.56
193-39-5	Indeno[1,2,3-c,d]pyrene		BRL		mg/Kg	0.56
3-70-3	Dibenzo[a,h]anthracene		-	BRL	mg/Kg	0.56
191.74.7	Ronzola h ilnonilano		1	BRL		0.56
VC C	the state of the s		1	DRI	mgrkig	น้อย
C Surrogate Co		Spiked	Measured	Recovery	l nc	Limits
ractionation:	2-Fluorobiphenyl	3.0	2.4	80 %	1.00	140 %
	2-Bromonaphthalene	3.0	2.0	66 %		140 %
xtraction:	Chloro-octadecane	3.0	2.1	69 %		
	ortho-Terphenyl	3.0	2.2 75 %		40 - 140 % 40 - 140 %	

QA/QC Certification

- Were all QA/QC procedures required by the method followed?
- Were all performance/acceptance standards for the required QA/QC procedures achieved?
- 3. Were any significant modifications made to the method, as specified in Section 11.3.1.1?

Yes Yes

Method non-conformances indicated above are detailed below on this data report, or in the accompanying project narrative and project quality control report. Release of this data is authorized by the accompanying signed project cover letter. The accompanying cover letter, project narrative and quality control report are considered part of this data report.

Method Reference:

Method for the Determination of Extractable Petroleum Hydrocarbons, MA DEP (Revision 1.1, 2004).

- Sample extraction performed by microwave accelerated solvent extraction technique. Results are reported on a dry weight basis Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution
- Hydrocarbon range data excludes concentrations of any surrogate(s) and/or internal standards eluting in that range.
- n-C11 to n-C22 Aromatic Hydrocarbons range data excludes the method target analyte concentrations.



Toxicity Characteristic Leaching Procedure (TCLP) Trace Metals

Field ID:

IIIE02

Project:

DND Lewis: Chemical/2004-301

Client:

Environmental Strategies & Management, Inc.

Matrix:

TCLP Leachate

Container: Preservation: 120 mL Glass Cool

Laboratory ID:

Sampled: Received: 87113-71

08-31-05 09:30

09-02-05 18:30

Date Leached:

09-13-05 16:00

TCLP Fluid:

Analysis Method
EPA 6010B1
EPA 7470A2

OC Batch ID MB-1690-W MP-1746-W

Prep Method **EPA 3010A** EPA 7470A

Prepared 09-15-05 10:17 09-19-05 10:00 Sample Volume 50 mL 25 mL

Instrument ID Analyst ICP-1 PE Optima 3000 MWR CVAA-1 PE FIMS DRW

CAS Number	Analyte	Concentration Notes	Units	PCPA Design	Reporting Unit	rir	4 3 5 7 7 1	
7440-38-2			731175	KCKA DIMI	Reporting Limit	DF	Analyzed	Method
	Arsenic	BRL	mg/L	5.0	0.3	10	09-15-05 17:06	EPA 60108
7440-39-3	Barium	BRL	mg/L	100.0	2	10	09-15-05 17:06	EPA 60108
7440-43-9	Cadmium	BRL	mg/L	1.0	0.05	10	09-15-05 17:06	EPA 6010B
7440-47-3	Chromium	BRL	mg/L	5.0	0.1	10	09-15-05 17:06	EPA 6010B
7439-92-1	Lead	BRL	mg/L	5.0	0.3	10	09-15-05 17:06	EPA 60108
7439-97-6	Mercury	BRL	mg/L	0.2	0.0002	1	09-19-05 14:57	EPA 7470A ²
7782-49-2	Selenium	BRL	mg/L	1.0	0.3	10	09-15-05 17:06	EPA 6010B
7440-22-4	Silver	BRL	mg/L	5.0	0.1	10	09-15-05 17:06	EPA 6010B

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996). Sample leached in accordance with EPA Method 1311 prior to determinative analysis

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

RCRA Limit indicates maximum concentration of contaminant under the TCLP Rule, as specified

at 40 C.F.R. 261 24, Table 1

DF Dilution Factor.



TCLP Matrix Spike Trace Metals

Field ID: Project:	IIIE02 DND Lewis Chemical/2004-301	Laboratory ID:	Parent Sample	Matrix Spike 87113-71MS
Client: Matrix:	Environmental Strategies & Management, Inc. TCLP Leachate		08-31-05 09:30 09-02-05 18:30	08-31-05 09:30 09-02-05 18:30
Container: Preservation:	120 mL Glass Cool	Leached: TCLP Fluid:	09-13-05 16:00	09-13-05 16:00

Method	OC Batch ID	Prep Method	Prepared	Volume	DF	Analyzed	Instrument ID	Analyst
EPA 6010B	MB-1690-W	EPA 3010A	09-15-05 10:17	50 mL	10	09-15-05 17:10	ICP-1 PE Optima 3000	MWR
EPA 7470A	MP-1746-W	EPA 7470A	09-19-05 10:00	25 mL	1	09-19-05 15:16	CVAA-1 PE FIMS	DRW

CAS Number	Analyte	Unspiked Sample (mg/L)	MS Spiked (mg/L)	MS Measured (mg/L)	MS Recovery	QC Limits	Method
7440-38-2	Arsenic	BRL	5 0	5,4	108 %	75-125%	EPA 60108
7440-39-3	Barium	BRL	5.0	5,5	106 %	75-125%	EPA 6010B
7440-43-9	Cadmium	BRL	1.0	1.1	105 %	75-125%	EPA 6010B
7440-47-3	Chromium	BRL	1.0	1,1	105 %	75-125%	EPA 6010B
7439-92-1	Lead	BRL	5.0	5,1	103 %	75-125%	EPA 6010B
7439-97-6	Mercury	BRL	0.0010	0.0010	89 %	75-125%	EPA 7470A
7782-49-2	Selenium	BRL	5.0	5.2	104 %	75-125%	EPA 6010B
7440-22-4	Silver	BRL	1.0	1.0	106 %	75-125%	EPA 6010B

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996). Sample leached in accordance with EPA Method 1311 prior to determinative analysis.

Report Notations: BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

DF Dilution Factor.



Toxicity Characteristic Leaching Procedure (TCLP) EPA Methods 1311 and 8260B Volatile Organics by GC/MS

Field ID:

IIIE02

Matrix:

TCLP Leachate

Project:

DND Lewis Chemical/2004-301

Container:

120 mL Amber Glass

Client:

Environmental Strategies & Management

Preservation:

Cool

Laboratory ID:

QC Batch ID:

VM4-3281-W

Sampled:

08-31-05 09:30

Instrument ID: Sample Volume: MS-4 HP 6890 25 mL

Received: Leached:

09-02-05 18:30 09-13-05 14:00

Dilution Factor: TCLP Fluid:

Analyzed: Analyst:

09-16-05 10:44 **KMC**

CAS Number	Analyte	Concentration	Units	RCRA Limit	Reporting Limi
75-01-4	Vinyl Chloride	BRL	mg/L	0.2	0.02
75-35-4	1,1-Dichloroethene	BRL	mg/L	0.7	0.01
78-93-3	2-Butanone (MEK)	BRL	mg/L	200,0	0.1
67-66-3	Chloroform	BRL	mg/L	6.0	0.01
56-23-5	Carbon Tetrachloride	BRL	mg/L	0.5	0.01
71-43-2	Benzene	BRL	mg/L	0.5	0.01
107-06-2	1.2-Dichloroethane	BRL	mg/L	0.5	0.01
79-01-6	Trichloroethene	BRL	mg/L	0.5	0.01
127-18-4	Tetrachloroethene	BRL	mg/L	0.7	0.01
108-90-7	Chlorobenzene	BRL	mg/L	100.0	0.01

QC Surrogate Compound	Spiked	Measured	Recovery	QC Limits
Dibromofluoromethane	0.010	0.009	87 %	70 - 130 %
1.2-Dichloroethane-d ₄	0.010	0.009	89 %	70 - 130 %
Toluene-d ₈	0.010	0.009	91 %	70 - 130 %
4-Bromofluorobenzene	0.010	0.009	94 %	70 - 130 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996). Sample leached in accordance with EPA Method 1311 prior to determinative analysis.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

RCRA Limit indicates maximum concentration of contaminant under the TCLP Rule, as specified at 40 C F.R. 261 24, Table 1.



TCLP Matrix Spike EPA Method 8260B

			Parent Sample	Matrix Spike
Field ID:	IIIE02	Laboratory ID:	87113-71	87113-71MS
Project:	DND Lewis Chemical/2004-301	Sampled:	08-31-05 09:30	08-31-05 09:30
Client:	Environmental Strategies & Management	, Received:	09-02-05 18:30	09-02-05 18:30
Matrix:	TCLP Leachate	Leached:	09-13-05 14:00	09-13-05 14:00
Container:	120 mL Glass	Analyzed:	09-16-05 10:44	09-16-05 10:44
Preservation:	Cool	Analyst:	кмс	KMC
		QC Batch ID:	VM4-3281-W	VM4-3281-W
		Instrument ID:	MS-4 HP 6890	MS-4 HP 6890
		Sample Volume:	25 mL	25 mL
		Dilution Factor:	1	1
		TCLP Fluid:	1	1

Analyte	Unspiked Sample	MS Spiked (ms/L)	MS Measured (mg/L)	MS Recovery	QC Limits
Vinyl Chloride	BRL	0.010	0.011	111 %	70 - 130 %
1,1-Dichloroethene	BRL	0.010	0.011	108 %	70 - 130 %
2-Butanone (MEK)	BRL	0.020	0.021	105 %	70 - 130 %
Chloroform	BRL	0.010	0.011	106 %	70 - 130 %
Carbon Tetrachloride	8RL	0.010	0.011	108 %	70 - 130 %
Benzene	BRL	0.010	0.011	105 %	70 - 130 %
1,2-Dichloroethane	BRL	0.010	0.011	109 %	70 - 130 %
Trichloroethene	BRL	0.010	0.012	116 %	70 - 130 %
Tetrachloroethene	BRL	0.010	0.012	122 %	70 - 130 %
Chlorobenzene	BRL	0.010	0.010	100 %	70 - 130 %
npound	64 6764	Surrogat	e Recovery	STANKS.	QC Limits
thane	87%	0.010	0.009	88%	70 - 130 %
ie-d4	89%	0.010	0.010	100%	70 - 130 %
THE RESERVE TO SERVE THE PERSON NAMED IN COLUMN TO SERVE THE PERSO	91%	0.010	0.009	94%	70 - 130 %
izene	94%	0.010	0.009	94%	70 - 130 %
	Vinyl Chloride 1,1-Dichloroethene 2-Butanone (MEK) Chloroform Carbon Tetrachloride Benzene 1,2-Dichloroethane Trichloroethene Tetrachloroethene	Vinyl Chloride BRL 1,1-Dichloroethene BRL 2-Butanone (MEK) BRL Chloroform BRL Carbon Tetrachloride BRL Benzene BRL 1,2-Dichloroethane BRL Trichloroethene BRL Tetrachloroethene BRL Chlorobenzene BRL mpound thane 87% med4 89% 91%	Vinyl Chloride	Spiked Measured (mg/L) (mg/L)	Vinyl Chloride BRL 0.010 0.011 111 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996). Sample leached in accordance with EPA Method 1311 prior to determinative analysis.

Report Notations: BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reflectly, quantified under restrict laborator, operating conditions. Popular limits are adjusted for sample size and dilution



Project Narrative

Project: Client: DND Lewis Chemical/2004-301

Environmental Strategies & Management, Inc.

Lab ID:

87113

Received: 09-

09-02-05 18:30

A. Documentation and Client Communication

The following documentation discrepancies, and client changes or amendments were noted for this project:

1. Project 87113 was reported with the depths omitted from the sample identifications, per Lisa Flynn, 09-06-05.

B. Method Modifications, Non-Conformances and Observations

The sample(s) in this project were analyzed by the references analytical method(s), and no method modifications, non-conformances or analytical issues were noted, except as indicated below:

- 1. EPA 8082 Non-conformance: Samples 87113-31, -32, -35, -37, -40, -58, -61 and -64. Reported results for selected analyte exceeded the high standard of the associated calibration curve. Results are estimated. Samples were re-analyzed and reported with all analytes within calibration.
- 2. EPA 8082 Non-conformance: Samples 87113-34 and -55. Samples had surrogate recoveries outside recommended limits due to required sample dilution.
- 3. EPA 8082 Note: Samples 87113-31, -32, -34, -35, -37, -40, -49, -55, -61, and -64. Samples were diluted prior to analysis. Dilution was required to keep all target analytes within calibration.
- 4 . EPA 8260B Non-conformance: Samples 87113-08, -09, -10, -17, -23 and -28. Laboratory control sample (LCS) analyte Dichlorofluoromethane and p-Isopropyltoluene were above recommended recovery limits for QC batch VM2-2773-5.
- 5. EPA 8260B Non-conformance: Samples 87113-19 through -22 and -24 through -27. Laboratory control sample (LCS) analyte 1,2-Dichloroethane was above recommended recovery limits for QC batch VM1-1659-E.
- 6. EPA 8260B Note: Sample 87113-20. Sample was diluted prior to analysis. Dilution was required due to presence of non-target analyte interference.
- FPA 8260B Note: Samples 87113-01, -02, -06, -11 through -13, and -16. Samples were diluted prior to analysis. Dilution was required to keep all target analytes within calibration.

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Set Characteristics 3 · O C C Receipt Temperature. 103486 Shipping/Airbit Number General Chamberry NOTE: All samples submitted subject to Standard Terms and Conditions on reverse hereof. Custody Seal Number 25 ž O Jan Maddigas CHAIN-OF-CUSTODY RECORD Method of Shummerr (9) (WM Courier | Express Meti | Filideral Express | UPS | Hand | | 9/2/05/430 Time 9/2/05 6:30 Time mes Metada MONTE MONTE MINORITA 3311 KIR Man Maddigan TISSE 1954 916 ANALYSIS REQUEST BOSTA Peak STANGE PARES OF FIND BOOK 1 505 18K #120F ige t 100 E1250 WHEN EDELIN HAY PETROPE TENENTS Many regulatory programs and EPA methods require project speci c.QC Project specific OC includee Sample Duplicates, Marti Spikes, and or Marins Spike Duplicates. Laboratory QC is not p. sject specific unless prearranged Project specific QC is samp 28 are charged on a per sample basis Each MS, MSD and 3 ampte Duplicate requires an additional sample aliquot. WHE. BLEWIELE 990140 XXC4N Selection of QC Sample CHAIN-OF-CUSTODY RECORD AND WORK ORDER LABORATORY NUMBER (Lab Use Only) TPlease use sample: Dr 6asa FAX to: 528-245-9957 Project Specific QC TURNAROUND CL-87A (DARD (10 Business Days)

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RU! H (RAN(Ru: requires Rush Authorization Number) BILLING DATA QUAL TY OBJECTIVES 51A 528 Projev : Specific OC Required ☐ Pun hase Order No.:
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☐ GM (Quote: Preservation C F ease Email to: purcha Mai & Spore Diposcate Sar ple Duplicate HDPN CE H ∴ Mat x Spike □ MCP GW-1/S-1 □ PWS Form Deliverables BURE PERSONS TI MWRA Container(s) 228 Main Street, P.O. Box +200
Buzzardo Bay, MA 02522
Telephone (508) 759-441 = FAX (508) 759-4475
www.groundwaterianslylical.com easily so BTURNINGS Regulatory Program 03.766 184 West Train St □ MCP GW-2/5-2 C Dredge Material - Wastin Disposal C Drimlang Water 508-385-9980 T Wastewater DINY STARS INSTRUCTIONS: Use separate line for each container (except replicates) Standard Detar TA. 12 \$2 B DCT Matrix City | State / Zip. CHIMONG WATER REMARKS / SPECIAL INSTRUCTIONS 111 FOS D' (17 M ESMB-2 (05") 10:50 111 (030) 113-14" 10:40 111.00 AT 1816 10 9:46 ILLEOZILIE-71 9.15 MEO3S (0-6" GROUNDWATER ANALYTICAL DUD Lans Chemenal EN16/4-8' SAMPLE 1 Callohan 1100 E03 /// Dupy 10E-400E 75 Project Maruger. Project Number: 14.33 25.6 18/18/13:30 12:40 Samplet Name Michael Sept. 9.30 اعرا 3MU Sampling 1 1

GROUNDWATER ANALYTICAL	228 Main Street, P.O. Box 1200 Buzzards BW, MA 05252 Telephone (508) 759-441 * FAX (508) 759-4478: www.groundhealteranalyticall.com	CHAIN-OF-CUSTODY RECORD AND WORK ORDER					Ne 103483	
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Groundwater Analytical, Inc P.O. Box 1200 228 Main Street Buzzards Bay, MA 02532

Telephone (508) 759-4441 FAX (508) 759-4475 www.groundwateranalytical.com

October 12, 2005

Mr. Joe Callahan Environmental Strategies & Management, Inc. 184 West Main Street Norton, MA 02766

LABORATORY REPORT

Project:

DND Lewis Chemical/2004-301

Lab ID:

87813

Received:

09-02-05

Dear Joe:

Enclosed are the analytical results for the above referenced project. The project was processed for Standard turnaround.

This letter authorizes the release of the analytical results, and should be considered a part of this report. This report contains a sample receipt report detailing the samples received, a project narrative indicating project changes and non-conformances, a quality control report, and a statement of our state certifications.

The analytical results contained in this report meet all applicable NELAC standards, except as may be specifically noted, or described in the project narrative. This report may only be used or reproduced in its entirety.

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

Should you have any questions concerning this report, please do not hesitate to contact me.

Sincerely,

Eric H. Jerisen

Operations Manager

EH]/kal

Enclosures



Data Certification

ent:	Environme	ntal Strategies & Manag	gement, Inc.				Received:		09-02-05 18:3
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inis r	orm provides ce	ertifications for the follo	wing data set:						
PA 6	010B:	87813-01,-02,-03							
Sampl	e Matrices:	Groundwater ()	Soil/Sediment	(X) Drink	ing Wate	r ()	Other	()	
VCP S	SW-846	8260B ()	8151A	()	8330) ()	6010B	(X)	7470A/1A
Aetho	ods Used	8270C ()	8081A	()	VPF	1 ()	6020	()	9012A ²
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١.	Were all sam	ples received by the lab	oratory in a co	ondition con:	sistent w	/ith			
- :	that describe	d on the Chain-of-Custo	dy documenta	ition for the o	data set?				Yes
	More all CA	/OC pare and	al fau th 1	Cad as -1 -4					
•		/QC procedures require							
1		his report followed, incl parrative QC data that d							
	standards or		и постеесар	ргорпате рег	топпан	Je			Yes
	stariuarus or	guidenness							Tes
	Does the ana	alytical data included in	this report me	et all the req	uiremen	its			
		tive Certainty," as descr							
	•	AM VII A, Quality Assur							
		isition and Reporting of							Yes
).		H methods only: Was th			withou	t			
	significant m	odifications, as specified	d in Section 11	.3?			and a debt about		n/a
Α	response to que	estions E and F below is	required for "I	Presumptive	Certaint	y" status.			
.	Were all QC	performance standards	and recommer	ndations for t	he				
		thods achieved?							Yes
. !	Were results	for all analyte-list comp	ounds/elemen	ts for the spe	cified				
	method(s) rep	orted?							No
iA	ll No answers a	re addressed in the atta	ched Project N	Narrative.			· · · · · · · · · · · · · · · · · · ·		
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nalyi gnati	ure: d Name:	Eric H Jensen		Date:		02-01-0	Ü		



Sample Receipt Report

Project: DND Lewis Chemical/2004-301 Delivery: GWA Courier Temperature: 2.0'C

Client: Environmental Strategies & Management, Inc. Airbill: n/a Chain of Custody: Present

Lab ID: 87813 Lab Receipt: 09-02-05 Custody Seal(s): n/a

Táb ID	Field ID	- Aller	Matrix	Sampled	Method			**************************************	Notes	 The state of the s
87813-1	1IA035		Soil	8/31/05 9:40	EPA 6010B P	b Total				
Con 1D	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship			
C579570	250 mL Glass	n/a	n/a	None	n/a	n/a	n/a	į		

tab ID	Feld ID	Name of the second of the seco	Matrix	Sampled	Method			Apply and a second	Notes	
87813-2	IIA03S MS		Soil	8/31/05 9:40	EPA 6010B P	b Total				
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship			
 C579568	250 mL Glass	n/a	n/a	None	n/a	n/a	n/a	Ī		

Lab ID	Edin		Matrix	Sampled	Method				3 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
87813-3	IIA03S MSD		Soil	8/31/05 9:40	EPA 6010B F				
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	1	
C579569	250 mL Glass	n/a	n/a	None	n/a	n/a	n/a		



Dilution Factor.

Trace Metals

Field ID:	IIA03S				Matrix:		Soil	
Project:	DND Lewis Chemical	/2004-301			Container:	-	250 mL Glass	
Client:	Environmental Strates	ies & Management,	Inc.		Preservation		Cool	
Laboratory ID:	87813-01	· · · · · · · · · · · · · · · · · · ·			Percent Solid	ds:	95	
Sampled:	08-31-05 09:40							
Received:	09-02-05 18:30							· · · · · · · · · · · · · · · · · · ·
Analysis Method	QC Batch ID	Prep Method	<u>Prepar</u>	<u>ed</u>	Sample Weigh	t	Instrument ID	<u>Analyst</u>
EPA 6010B1	MB-0713-S	EPA 3050B	09-29-0	5 14:13	0.5 g		ICP-1 PE 3000	MWR
CAS Number	Analyte	Concentration	Notes		Reporting Limit	'DF	Analyzed	blehod
7439-92-1	Lead, Total	33		mg/Kg	10	1	10-03-05 12:08	EPA 6010B ¹
Method Reference:	Test Methods for Evalua Results are reported on	ating Solid Waste, US EP a dry weight basis.	A, SW-84	5, Third Editi	ion, Update III (1	996).		
Report Notations:	RR1 Indicates concen	tration, if any, is below	renorting I	imit for anal	vie. Reporting li	mit is t	he lowest concentra	ation that can be

reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.



Matrix Spike and Matrix Spike Duplicate Trace Metals

Field ID:	IIA03S					Parent San	nple	Matrix	Spike	Spike Duplic	cate	-
Project:	DND Lewis Cl	hemical/2004-	301	Laborator	y ID:	87813-01		87813	-02	87813-03		
Client:	Environmental	Strategies &	Managem:	Sampled:		08-31-05	09:40	08-31	-05 09:40	08-31-05 09	:40	
Matrix:	Soil			Received:		09-02-05	18:30	09-02	-05 18:30	09-02-05 18	:30	
Container:	250 mL Glass			% Solids:		95		95		95		
Preservation:	Cool											
Sample Type Matrix Spike	Method EPA 6010B	OC Batch ID MB-0713-S	Prep Meth EPA 3050		<u>Preparec</u> 09-29-05	-	Weight 0.5 g	<u>DF</u> 1	Analyzed 10-03-05 12:23	Instrument ICP-1 PE 3000	ID	<u>Analyst</u> .MWR
CAS Number	A STATE OF THE PARTY OF THE PAR	Unpiked	MS	J.S.	- AS	38 0	ASD Exercise	AS Geo	da direction	QSE	nis	Method
Section Control		FileRet	bieke.			inske	(mg/Kg)	l No.	W. 2000			
7439-92-1	Lead	33	510	540	99 %	520	560	102 9	2 %	75-125%	20 %	EPA 6010B

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, 5W-846, Third Edition, Update III (1996).

Results are reported on a dry weight basis.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

DF Dilution Factor.



Project Narrative

Project: DND Lewis Chemical/2004-301 Lab ID: 87813

Client: Environmental Strategies & Management, Inc. Received: 09-02-05 18:30

A. Documentation and Client Communication

The following documentation discrepancies, and client changes or amendments were noted for this project:

- 1. Project 87813 was processed for Standard Turnaround due 10-12-05, per Joe Callahan, 09-27-05.
- Sample 87112-57 was reassigned laboratory number 87813-01 and was analyzed for Total Lead. A Matrix Spike and Matix Spike Duplicate were performed as well.

B. Method Modifications, Non-Conformances and Observations

The sample(s) in this project were analyzed by the references analytical method(s), and no method modifications, non-conformances or analytical issues were noted, except as indicated below:

1. No method modifications, non-conformances or analytical issues were noted.

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Quality Assurance/Quality Control

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Method Blanks are used to assess the level of contamination present in the analytical system. Method Blanks consist of reagent water or an aliquot of sodium sulfate. Method Blanks are taken through all the appropriate steps of an analytical method. Sample data reported is not corrected for blank contamination.

Surrogate Compounds are used to assess the effectiveness of an analytical method in dealing with each sample matrix. Surrogate Compounds are organic compounds which are similar to the target analytes of interest in chemical behavior, but which are not normally found in environmental samples. Percent Recoveries are calculated for each Surrogate Compound.



Quality Control Report Laboratory Control Samples

Category: Metals
Matrix: Soil

Units: mg/Kg

Method Sample Type OC Batch ID Prep Method Prepared **Analyzed** Instrument ID <u>Analyst</u> 09-29-05 14:13 10-03-05 11:40 EPA 6010B MB-0713-SL EPA 3050B ICP-1 PE 3000 MWR **LCSD** EPA 6010B MB-0713-5L EPA 3050B 09-29-05 14:13 10-03-05 11:44 ICP-1 PE 3000 MWR

CAS Number	•	Es.		HSI) jikak	A CONTROL OF THE STATE OF THE S	- QC Lin		Method
		Measured F	Recovery Spiked	Measured	Recovery		16	RPD	1
7439-92-1 Lead	. 160	160	103% 160	160	102%	0%	80-120 %	30 %	EPA 60108

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Report Notations:

All calculations performed prior to rounding. Quality Control Limits are defined by the methodology, or alternatively based upon the historical average recovery plus or minus three standard deviation units.



Quality Control Report Method Blank

Category:	Metals					
Matrix:	Suit					
Analysis Method	OC Batch ID	Prep Method	<u>Prepared</u>	Sample Volume	Instrument ID	Analyst
EPA 6010B	MB-0713-SB	EPA 3050B	09-29-05 14:13	0.5 g	KCP-1 PE 3000	MWR
CAS Number	Audyle	Concentration	Notes Units	Reporting Limit)F Analyzed	Medical
7439-92-1	Lead		BRL mg/Kg	10	1 10-03-05 11:37	EPA 6010B
Method Reference:	Test Methods for Evalua	nting Solid Waste, US E	PA, SW-846, Third Edit	ion, Update III (1996	·).	
Report Notations:			•		is the lowest concentrature adjusted for sample s	
	DF Dilution Factor.					



Certifications and Approvals

Groundwater Analytical maintains environmental laboratory certification in a variety of states.

Copies of our current certificates may be obtained from our website:

http://www.groundwateranalytical.com/qualifications.htm

CONNECTICUT, Department of Health Services, PH-0586

Categories: Potable Water, Wastewater, Solid Waste and Soil

http://www.dph.state.ct.us/BRS/Environmental_Lab/OutStateLabList.htm

FLORIDA, Department of Health, Bureau of Laboratories, E87643

Categories: SDWA, CWA, RCRA/CERCLA http://www.floridadep.org/labs/qa/dohforms.htm

MAINE, Department of Human Services, MA103

Categories: Drinking Water and Wastewater

http://www.state.me.us/dhs/eng/water/Compliance.htm

MASSACHUSETTS, Department of Environmental Protection, M-MA-103

Categories: Potable Water and Non-Potable Water http://www.state.ma.us/dep/bspt/wes/files/certlabs.pdf

NEW HAMPSHIRE, Department of Environmental Services, 202703

Categories: Drinking Water and Wastewater

http://www.des.state.nh.us/asp/NHELAP/labsview.asp

NEW YORK, Department of Health, 11754

Categories: Potable Water, Non-Potable Water and Solid Waste

http://www.wadsworth.org/labcert/elap/comm.html

PENNSYLVANIA, Department of Environmental Protection, 68-665

Environmental Laboratory Registration (Non-drinking water and Non-wastewater)

http://www.dep.state.pa.us/Labs/Registered/

RHODE ISLAND, Department of Health, 54

Categories: Surface Water, Air, Wastewater, Potable Water, Sewage

http://www.healthri.org/labs/labsCT_MA.htm

U.S. Department of Agriculture, Soil Permit, S-53921

Foreign soil import permit

VERMONT, Department of Environmental Conservation, Water Supply Division

Category: Drinking Water

http://www.vermontdrinkingwater.org/wsops/labtable.PDF



July 10, 2006

Groundwater Analytical, Inc. P.O. Box 1200 228 Main Street Buzzards Bay, MA 02532

Telephone (508) 759-4441 FAX (508) 759-4475 www.groundwateranalytical.com

Mr. Joe Callahan Environmental Strategies & Management, Inc. 184 West Main Street Norton, MA 02766

LABORATORY REPORT

Project:

DND Lewis Chemical/2006-056

Lab ID:

96205

Received:

06-23-06

Dear loe:

Enclosed are the analytical results for the above referenced project. The project was processed for Standard turnaround.

This letter authorizes the release of the analytical results, and should be considered a part of this report. This report contains a sample receipt report detailing the samples received, a project narrative indicating project changes and non-conformances, a quality control report, and a statement of our state certifications.

The analytical results contained in this report meet all applicable NELAC standards, except as may be specifically noted, or described in the project narrative. This report may only be used or reproduced in its entirety.

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

Should you have any questions concerning this report, please do not hesitate to contact me.

Sincerely,

Eric H. Jensen Operations Manager

EHJ/ajh Enclosures



Sample Receipt Report

Project: DND Lewis Chemical/2006-056

Delivery: **GWA Courier**

Temperature: 000'C

Client: Environmental Strategies & Management, Inc. Airbill: n/a

Chain of Custody: Present

Lab ID: 96205

Lab Receipt: 06-23-06

Custody Seal(s): n/a

Lab 1D	Field ID		Matrix	Sampled	Method			Notes
96205-1	ES&M-01-X		Solid	6/21/06 12:00	Asbestos			
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	



EPA Method 600/R-93-116 **PLM Bulk Asbestos**

Project: DND Lewis Chemical/2006-056 Client:

Environmental Strategies & Management

Matrix:

Solid

Container(s): Received:

Plastic Bag 06-23-06 18:30

Lab ID:	96205-1	Sampled: 06-21-0	6 12:00	Analyze	d: 06-30-0 0	5 15:51	Analyst:	DRW
Sample Iden	itification		Non-Asbesto	s Material	Asbest	os Type	Asb Present	Content
Field ID:	ES&M-01-X	HAID: n/a	Other	45 %	Chrysotile	< 1 %	No	ND
Location:	n/a		Non-Fibrous	55 %				
Description:	Brown, Homogenous							
Comments:	were consistent with alte indices out of acceptable	ed exhibited optical properties which red chrysotile asbestos. Refractive range according to EPA Method 600/R s ashed at 460 degrees C. prior to						

Method Reference:

Method for the Determination of Asbestos in Bulk Building Materials, US EPA, EPA-600/R-93-116 (1993).

Report Notations:

Due to inherent limitations of Polarized Light Microscopy (PLM), fibers and/or bundles below the resolution of the light microscope (approximately < 0.25 microns in width) will not be detected. ND and TR samples should be confirmed by Transmission Electron Microscopy (TEM). This test report must not be used by the client to claim product cretification, approval, or endorsement by NVLAP, NIST, or any agency of the Federal Government. NVLAP Lab Code 200751-0

ND Not Detected HA Homogenous Area



Project Narrative

Project: Client:

DND Lewis Chemical/2006-056

Environmental Strategies & Management, Inc.

Lab ID:

96205

Received:

06-23-06 18:30

A. Documentation and Client Communication

The following documentation discrepancies, and client changes or amendments were noted for this project:

1. No documentation discrepancies, changes, or amendments were noted.

B. Method Modifications, Non-Conformances and Observations

The sample(s) in this project were analyzed by the references analytical method(s), and no method modifications, non-conformances or analytical issues were noted, except as indicated below:

1. No method modifications, non-conformances or analytical issues were noted.

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CONNECTICUT, Department of Health Services, PH-0586

Categories: Potable Water, Wastewater, Solid Waste and Soil

http://www.dph.state.ct.us/BRS/Environmental_Lab/OutStateLabList.htm

FLORIDA, Department of Health, Bureau of Laboratories, E87643

Categories: SDWA, CWA, RCRA/CERCLA http://www.floridadep.org/labs/qa/dohforms.htm

MAINE, Department of Human Services, MA103

Categories: Drinking Water and Wastewater

http://www.state.me.us/dhs/eng/water/Compliance.htm

MASSACHUSETTS, Department of Environmental Protection, M-MA-103

Categories: Potable Water and Non-Potable Water http://www.state.ma.us/dep/bspt/wes/files/certlabs.pdf

NEW HAMPSHIRE, Department of Environmental Services, 202703

Categories: Drinking Water and Wastewater

http://www.des.state.nh.us/asp/NHELAP/labsview.asp

NEW YORK, Department of Health, 11754

Categories: Potable Water, Non-Potable Water and Solid Waste

http://www.wadsworth.org/labcert/elap/comm.html

PENNSYLVANIA, Department of Environmental Protection, 68-665

Environmental Laboratory Registration (Non-drinking water and Non-wastewater) http://www.dep.state.pa.us/Labs/Registered/

RHODE ISLAND, Department of Health, 54

Categories: Surface Water, Air, Wastewater, Potable Water, Sewage

http://www.healthri.org/labs/labsCT_MA.htm

U.S. Department of Agriculture, Soil Permit, S-53921

Foreign soil import permit

VERMONT, Department of Environmental Conservation, Water Supply Division

Category: Drinking Water

http://www.vermontdrinkingwater.org/wsops/labtable.PDF