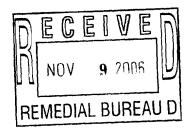
Final Report



New York State Department of Health

September 2006 Quarterly Ground Water Monitoring Report

David Axelrod Institute Site (Site No.:401031) Albany, New York

October 2006

Environmental Resources Management 5788 Widewaters Parkway Dewitt, New York 13214

Indie of Contents

TABLE OF CONTENTS

1.0	INTRODUCTION	1-1
2. 0	GROUND WATER SAMPLING	2-1
3.0	ANALYTICAL RESULTS	3-1
4.0	GROUND WATER ELEVATÍONS	4- 1
5. 0	CONCLUSIONS	5 -1

APPENDICES

A F	FIGURES
-----	----------------

- **B** TABLES
- C GROUND WATER SAMPLING RECORDS
- D DATA VALADATION REPORT
- E LABORATORY ANALYTICAL REPORT

1.0 INTRODUCTION

This report presents the data from the September 2006 ground water sampling activities at the Axelrod Institute Site located at 120 New Scotland Avenue in Albany, New York (the "Site"). A site location map is included as Figure 1, Attachment A. The Site has been identified by the New York State Department of Environmental Conservation (NYSDEC) as an inactive hazardous waste site (Site Identification No. 401031).

The Site was previously part of a quarterly ground water monitoring program pursuant to an Order on Consent, Index No. A4-0304-93-07, entered into between the New York State Department of Health (NYSDOH) and the NYSDEC effective 27 August 1993 (the "Consent Order"). In a letter dated 8 October 2003, Environmental Resources Management (ERM) proposed modifications to the Consent Order and presented a redefined scope of work for the Site. The NYSDOH and the NYSDEC agreed to the proposal, which includes monitoring and sampling the wells every fifth quarter and the submission of follow-up letter reports to the NYSDOH. The most recent ground water sampling event and follow-up report preparation were conducted pursuant to the agreed upon modifications to the Consent Order.

2.0 GROUND WATER SAMPLING

Pursuant to the NYSDEC-approved monitoring plan, ERM is collecting groundwater samples at the Site every fifth quarter. The first round of ground water sampling at the Site was conducted in December 2003, followed by the second round of sample collection in March 2005. This report presents the results of the third round of sampling. The final round of sampling will be in December 2007.

On 7 September 2006, ERM collected the quarterly ground water samples from three shallow ground water monitoring wells, MW-8S, MW-9S, and MW-11S, located at the Site. In September 2004, ERM visited the Site in an attempt to locate monitoring well MW-10S, which was previously buried beneath a large snowbank and could not be located during the December 2003 sampling event. ERM could not locate MW-10S during the September 2004 visit to the Site. Based on the well's location in the facility parking lot, ERM concluded that the well was destroyed as a result of plowing operations at the Site. A site layout map showing the locations of the three sampled shallow ground water monitoring wells is included as Figure 2, Attachment A.

An ERM geologist collected static water level measurements and well depth measurements from the shallow monitoring wells using an electronic water level indicator, which was washed with a Liquinox solution and rinsed with distilled water between measurement locations. The reference point used for all water level measurements was the top of the well casing.

Prior to sampling, a minimum of three well volumes was purged from each well and various field parameters, including temperature, pH, turbidity, specific conductivity, oxidationreduction potential, and dissolved oxygen, were collected from each well using a YSI multi-meter.

Monitoring wells MW-8S, MW-9S and MW-11S were sampled using dedicated disposable bailers. A blind field duplicate was collected at MW-9S. All samples were transferred into clean, laboratory-supplied containers and placed into a chilled, thermally insulated cooler immediately after collection. Samples were delivered to the project laboratory by ERM personnel within 3hours of sample collection and chain of custody procedures were followed during all sample handling and transport.

Ground water samples collected on 7 September 2006 were analyzed by Adirondack Environmental Laboratories, Inc. (Adirondack) in Albany, New York. Adirondack is a New York State Department of Health-approved environmental laboratory.

3.0 ANALYTICAL RESULTS

Ground water samples collected from the monitoring wells were analyzed for Target Compound List Volatile Organic Compounds (TCL VOCs) by USEPA Method 8260B in accordance with the 1995 NYSDEC Analytical Services Protocol (ASP) Category B deliverable guidelines. A sample summary table is included as Table 1, Attachment B. Ground water sampling records are included in Attachment C. Validated analytical sample results along with the Data Validation Review performed by ERM's in-house chemist are included as Attachment D. A copy of the laboratory analytical report is included as Attachment E.

VOC's were not detected in the ground water samples collected from shallow monitoring wells MW-8S and MW-9S on 7 September 2006. One VOC, methyl tert-butyl ether (MTBE), was detected in the ground water sample collected from shallow ground water monitoring well MW-11S at a concentration of 19J micrograms per liter (μ g/L). The J denotes the value is estimated; however, this concentration is above the NYSDEC Ambient Water Quality Guidance Value for MTBE, which is 10 μ g/L.

4.0 GROUND WATER ELEVATIONS

ERM previously collected well elevations for MW-8S, MW-9S, and MW-11S during the 22 December 2003 sampling event. These well elevations, along with the 7 September 2006 depth-to-water measurements for each well, were used to calculate relative ground water elevations for the Site (Table 2, Attachment B). A ground water contour map (Figure 2, Attachment A) was compiled using the water level data for the three sampled shallow monitoring wells.

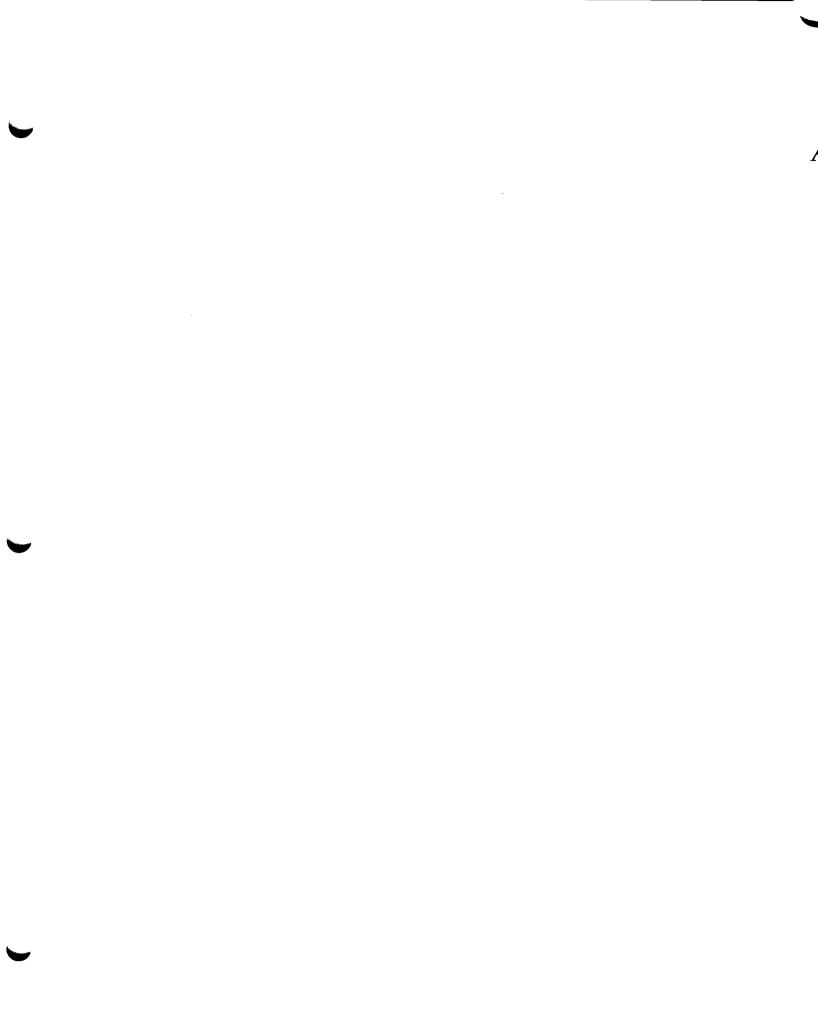
The ground water contour map indicates that the flow direction of shallow ground water on 7 September 2006 was generally South from MW-9S, North from MW-11S, and West from MW-8S. This direction of water flow is towards the location of the original contaminant disposal location, which is acting as a type of sink for the surrounding upgradient areas. Therefore, it is unlikely that there will be migration of the contaminants since the contaminated area has the lowest localized elevation.

5.0 CONCLUSIONS

Pursuant to a modified Consent Order agreed upon by the NYSDOH and the NYSDEC, ERM collected ground water samples from shallow monitoring wells MW-8S, MW-9S, and MW-11S on 7 September 2006. ERM has also prepared this letter report to the NYSDOH in accordance with the agreed upon provisions of the redefined scope of work.

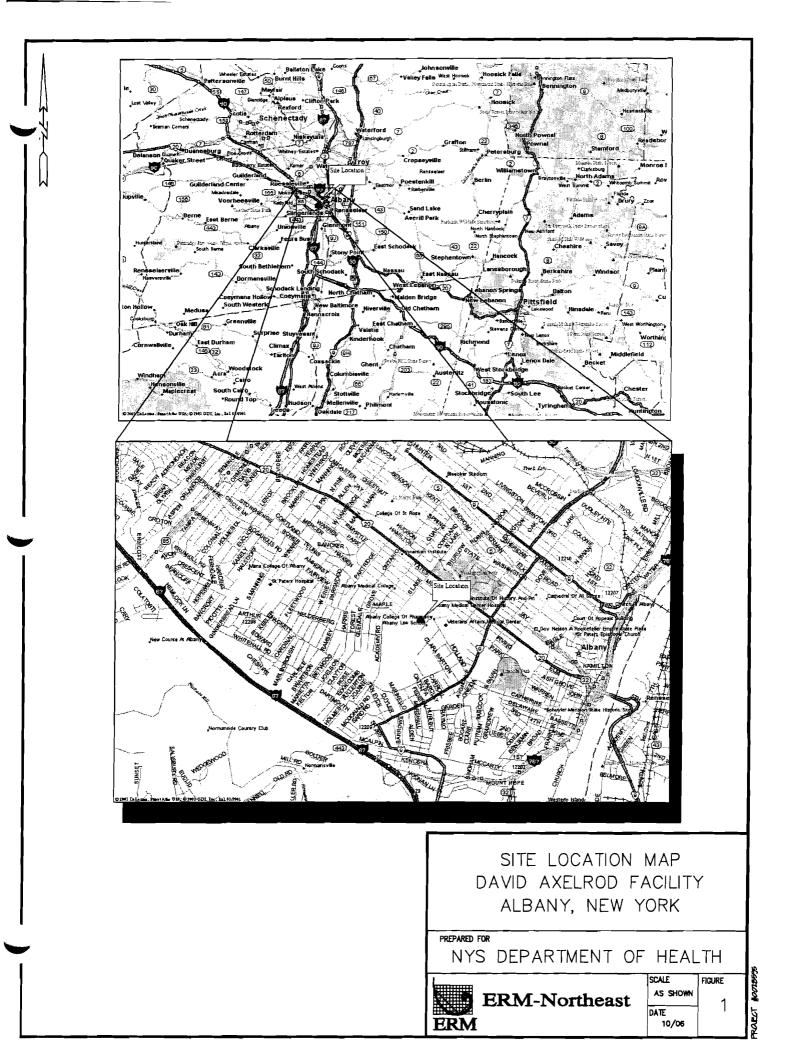
Laboratory analytical data from the 7 September 2006 sampling event indicate that MTBE was detected in the ground water sample collected from shallow ground water monitoring well MW-11S at a concentration below the NYSDEC Ambient Water Quality Guidance Value. VOCs were not detected in the other sampled shallow monitoring wells located at the Site.

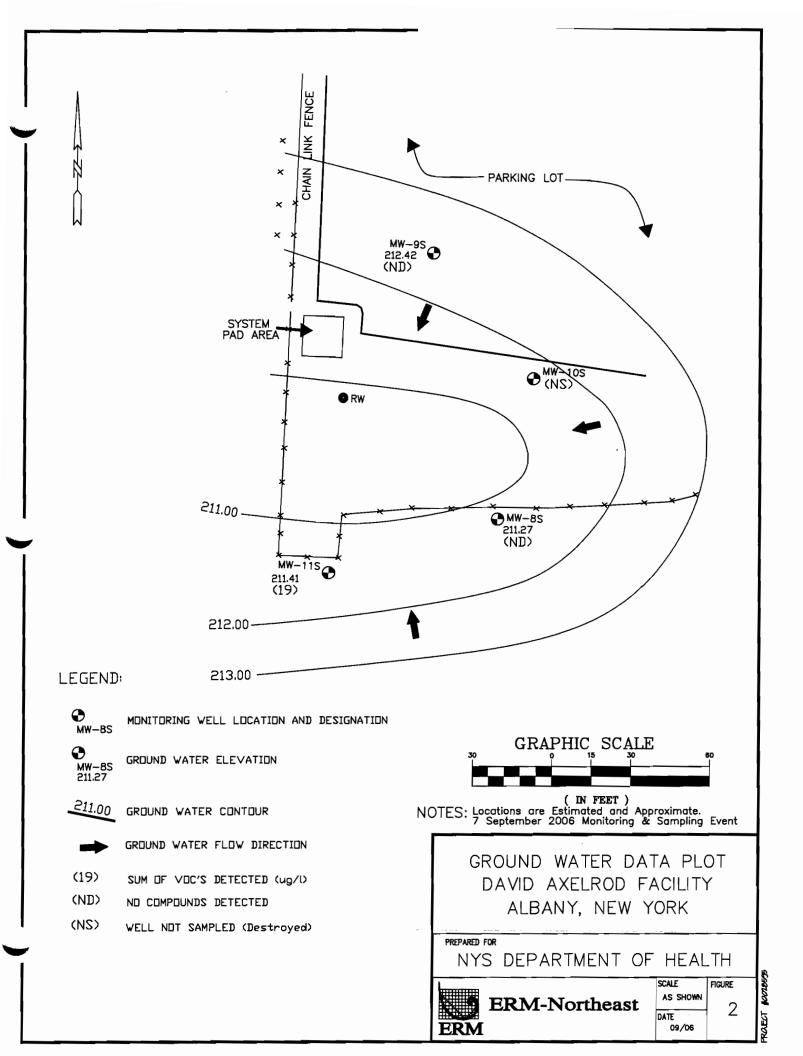
ERM repaired the well cover and associated road box for monitoring well MW-8 on 6 September 2006. In addition, ERM repaired the concrete base associated with monitoring well MW-11S and replaced the lock for monitoring well MW-11S on 6 September 2006.



ATTACHMENT A FIGURES

Т





ATTACHMENT B TABLES

TABLE 1 SUMMARY OF DETECTED VOC's AXELROD FACILITY ALBANY, NEW YORK ERM PROJECT NUMBER 0028595

Sample Location NYSDEC MW-8S	NYSDEC	MW-8S	Se-WM	MW-10S	MW-11S	MW-8S	Se-WM	MW-10S	MW-11S
Date Sampled Standard 12/22/20	Standard	12/22/2003	12/22/2003	12/22/2003	12/22/2003	3/2/2005	3/2/2005	3/2/2005	3/2/2005
TCL VOCs (ug/L)									
Methyl tery-butyl ether	10	0.0	0.0	SN	0.0	0.0	0.0	NS	2.1
Total VOCs	10	0.0	0.0	NS	0.0	0.0	0.0	NS	2.1

MW-11S 9/7/2006		19]	19]
MW-10S 9/7/2006		NS	NS
MW-9S 9/7/2006		0.0	0.0
MW-8S 9/7/2006		0.0	0.0
NYSDEC Standard		10	10
Sample Location Date Sampled	TCL VOCs (ug/L)	Methyl tery-butyl ether	Total VOCs

NOTES:

NYSDEC Standards - NYSDEC Ambient Water Quality Standards - TOGS 1.1.1

TCL VOCs = Target Compound List Volatile Organic Compounds.

ug/L = micrograms per liter.

Bold Text - Above NYSDEC Standard

J = estimated value

- Only those analytes that were detected in at least one sample are presented.

- All samples analyzed for TCL VOCs by EPA Method 8260B. - MW-10S was not sampled (NS) since the well was destroyed.

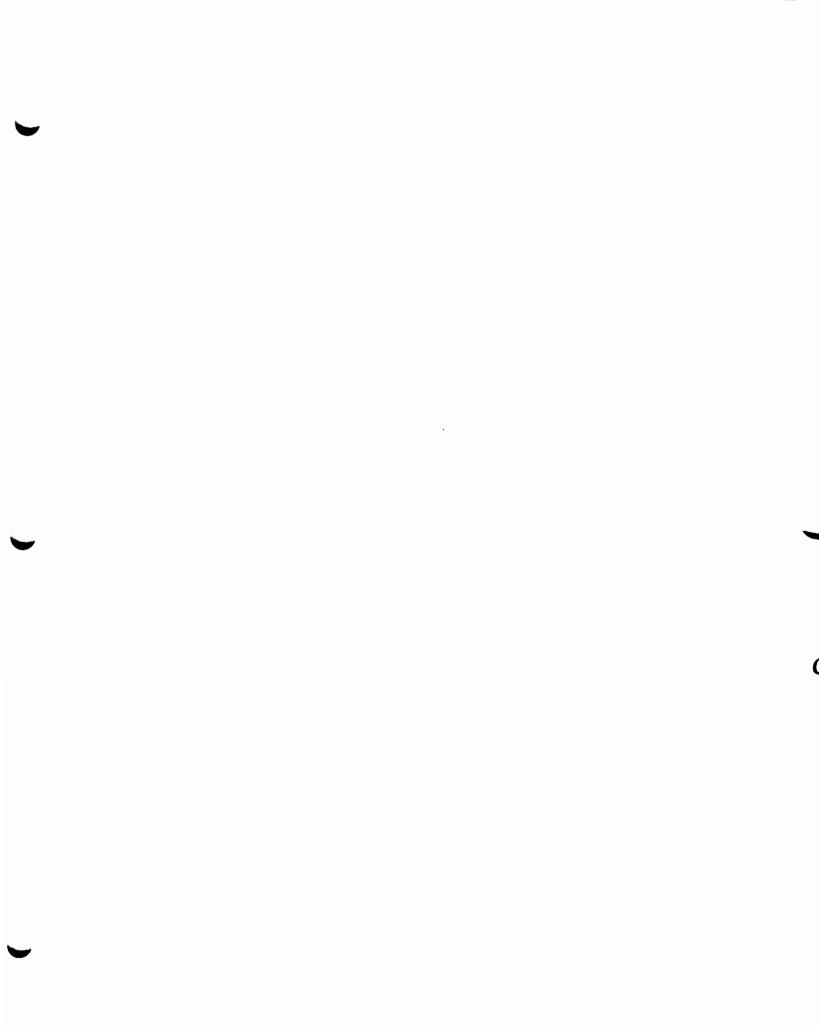
TABLE 2SUMMARY OF GROUND WATER ELEVATION DATAAXELROD FACILITYALBANY, NEW YORKERM PROJECT NUMBER 0028595

Well Location	MW-8S	MW-9S	MW-105	MW-115
Elevation at Top of Casing	216.42	219.64	218.59	219.39
Total Depth of Well	17.92	19.75	NM	16.22
Screen Length	10	15	10	10
Date				
12/22/2003	211.74	213.24	NM	212.17
3/2/2005	211.40	213.00	NM	211.54
9/7/2006	211.27	212.42	NM	211.41

NOTES:

- All measurements reported in feet.

NM = Not measured (well was destroyed).



ATTACHMENT C GROUND WATER SAMPLING RECORDS

GROUND WATER SAMPLING RECORD

SITE		Fa	cility			DATE	9	17 06		_
	JECT NUMBE	_	0053							
			MW-1		9 <u>706</u>)	Time ()	7	ime Offsite	
	LID:		<u>W - 85</u>					ŗ		
SAM	IPLERS :	Davi	<u>d</u> W.	Mye	<u>rs</u>	8:	50		3:00	_
										_
	Depth of well ((from to	op of casi	ng)			.95	Tim	e: 9:00	.,
:	Static water lev	vel (fro	m top of c	asing) .	••••••	<u>5</u>	15	Tim	e: <u>9:00</u>	<u>)</u>
	Water level aft	er purg	ging (from	top of ca	asing)		.77	Tim	e: 1/: 45	-
	Water level bei	fore sai	npling (fr	om top c	of casing	;) <u>5</u>	. 26	Tim	e: <u>11:55</u>	
Pure	ging Method	l:		We	ell Volu	ıme Calcula	tion:	1 vo	olume	3 volumes
•	Airlift		ow-Flow Pu			1.80 ft. of wa				= 6.3 gal.
X	Bailer Dedicated	Pe	eristaltic Pu	np 3	3 in. well:	ft. of wa	ter x 0.36			=gal.
	Submersible	D	ed. Pump		in. well:		ter x 0.65			=gal.
	Volume of w	ater rem	oved	e	o in. well:	ft. of wa	ter x 1.47		gal. x 3	=gal.
	~8	ater rem	gal.	>3 vo	lumes: ye	s 🖌 no		purged dr	y? yes	no L
			0							
Field	d Tests:			T 1					TTOC	
Г		pН	Cond.	Turb.	DO	Temp. C F	DEP	SAL	TDS	ORP
ł	units Initial	-	mg/cm	NTU	% 8/2	F	•	-	g/L	mV
ŀ	1 Volume									
ľ	2 Volumes									
	3 Volumes	6.8	2.318		37.1	19.4°C	_	~		14.7
Sam	pling									
	Time of Sample	e Colle	ction.	11:5:	٢					
	Time of Sample	c conc	cuon.		<u> </u>					
	Collection Met			Ana	lyses:	-	ical Me			
-	<u>``</u>	ble baile	r	<u> </u>	<u> </u>	DCs - 8260	<u>X</u>	503.1	Othe	er
-	Teflon b	ed pump				OCs etals	Á	SP Le	vel B	
-		sible Pun				CB/Pest		<u> </u>	<u>u</u> =	
-		w Sampl	-			NA				
-	Other:				Ot	her				
Obe	ervations									
	Weather/Temp	oratur	o d		1 1.			.(]	1 7	6-75°F
	Sample Descrip		c		Cloude) light t	van	able w	Na - 1	8-13 F
	Free Pro	· ·		no V	<u>arow n</u>	<u>clondy</u> scribe				
		Sheen?		$no \nu$	•	scribe				
			·		•		d a	11		
Com	ments:		yes 🖌		. ue	scribe <u>Swe</u>	4 Sm			
	~	oad	Box ro	paired	9	606				
	R	eplace	haller	cord	Next	visit.				

GROUND WATER SAMPLING RECORD

SITI			cility			DATE	<u> </u>	7 06		
-	DJECT NUMBE		0053							
			MW-"	15 (090	706)	T:	2	T		
			<u>W-95</u>	1. 0			Onsite:	11	ime Offsite:	
SAN	MPLERS :	Davi	d le.	Mye	ers_	8:	20		13:00	-
									<u> </u>	-
	Depth of well	(from t	op of casi	ng)			.76	Time	9:05	
	Static water le	vel (fro	m top of c	asing) .		······ <u>^</u>	.22	Time	20:05	_
	Water level af	ter purg	ging (from	top of c	asing)		8.85	Time	: 10:00	
	Water level be						5.80		10:30	
Pui	ging Method	1:		We	ell Volu	ume Calcula	ation:	1 vol	ume 3	volumes
	Airlift	L	ow-Flow Pu	mp	2 in. well:	12.54 ft. of wa	ter x 0.16 -	- 2.0	gal. x 3 =	6.0 gal.
X	Bailer (dedicat	ea) Pe	eristaltic Pur	np	3 in. well:	ft. of wa	ter x 0.36 -	-	gal. x 3 =	gal.
	Submersible		ed. Pump		4 in. well:	ft. of wa	ter x 0.65 =	=	gal. x 3 =	gal.
					6 in. well:	ft. of wa	ter x 1.47 =	=	gal. x 3 =	gal.
	Volume of w	_		_						_
	^	-1	gal.	>3 vo	lumes: ye	no no		purged dry	? yes	no
Fiel	ld Tests:									
rie	lu Tests.	pH	Cond.	Turb.	DO	Temp.	DEP	SAL	TDS	ORP
	units	- <u> </u>	mg/cm	NTU	% _4-	C F	-		g/L	mV
	Initial								0,	
	1 Volume									
	2 Volumes									
	3 Volumes	6.52	2.617		30.3	15.900	_	_	~	28.8
San	npling									
	Time of Sampl	e Colle	ction:	10:30						
	Callestian Mat	h			1	A malast	ical Mai	had		
	Collection Met	noo: celeo bie baile	_	Ana	alyses:	•	ical Met		Other	
			r			DCs - 8260 OCs	<u> </u>	503.1	Other	
	Teflon t	ed pump				etals	10	Level	8	
		sible Pun				CB/Pest	1121	Leve	<u> </u>	
		ow Sampl	-			NA				
	Other:	Jw Jamp	ing			her				_
	Ouler.				0					
Obs	servations									
			~	1.					A	-0-
	Weather/Tem	peratur	e: Pa	Ally C	Southe	1 light 4	- upor	the win	J 70 -	755
	Weather/Tem	-		Ally C	Loude		- vanto	uble win	d, 70°-	75-6-
	Sample Descri	ption:	ligh			cloudy_	- varia	<u>ible win</u>	<u>, 70°-</u>	-757
	Sample Descri Free Pr	ption: oduct?	jigh yes	no 🗸	de	<u>cloudy</u> scribe	- vana	ible win	<u></u>	.75
	Sample Descri Free Pr	ption: oduct? Sheen?	yes yes		de de	scribe	- varb	ible win	<u></u>	-75
	Sample Descrij Free Pr	ption: oduct?	yes yes	no 🗸	de de	<u>cloudy</u> scribe	- vanb	uble win	<u></u>	
Com	Sample Descri Free Pr	ption: oduct? Sheen?	yes yes	no <u> </u>	de de	scribe			<u></u>	
Com	Sample Descrij Free Pr	ption: oduct? Sheen?	yes yes	no <u> </u>	de de de	scribe			<u></u>	

GROUND WATER SAMPLING RECORD

SIT			cility			DATE		1706		
	DJECT NUMBE	· · · ·	0053							
		<u>4x -</u>	MW-		10.106) Time (maita	т:.	me Offsite:	
	LL ID : MPLERS :		W-115					11		
SAN		Jani	<u>a w.</u>	Mye	22	8.	20		13:00	
	Depth of well ((from t	op of casi	ng)			. 16	Time:	8:55	
	Static water lev	vel (fro	m top of c	asing) .			.98	Time:	8:55	
	Water level aft	er purg	ging (from	n top of c	asing) .		.20	Time:	11:00	
	Water level be	fore sa	mpling (fr	om top o	of casing	;) []	1.55	Time:	11:25	
Pu	rging Method	l:		We	ell Volu	ıme Calcula	ation:	1 vol	ume 3	volumes
1 ui	Airlift		ow-Flow Pu			8.18 ft. of wa				3.9 gal.
X	Bailer (dedicate		eristaltic Pu		3 in. well:		ter x 0.36		gal. x 3 =	
	Submersible	D	ed. Pump		in. well:		ter x 0.65		gal. x 3 =	gal.
	Volume of w	ater rem	oved:	Ċ	6 in. well:	ft. of wa	ter x 1.47		gal. x 3 =	gal.
		5	gal.	>3 vo	lumes: ye	s no		purged dry?	yes	no 🖵
F1e.	ld Tests:	рH	Cond.	Turb.	DO	Temp.	DEP	SAL	TDS	ORP
	units	<u>-</u>	mg/cm	NTU	28/1-	C F	-		g/L	mV
	Initial				1-07 -				<u> </u>	
	1 Volume									
	2 Volumes									
		652	2.617	1	30.3	16.5°C			-	28.8
San	2 Volumes 3 Volumes	6-52 7.04	2.617- 0.788	}	30-3 48.0	16.5°C	-			28.8 99.6
San	2 Volumes	•	0.788	11:25	48.0	16.5°C	-	-	-	
San	2 Volumes 3 Volumes npling Time of Sample	e Colle	0.788		48 .0		ical Me	thod:	-	
San	2 Volumes 3 Volumes npling Time of Sample Collection Met	e Colle	0. 788 ction:		48.0		tical Me		- Other	
San	2 Volumes 3 Volumes npling Time of Sample Collection Met	e Colle hod: ble baile	0. 788 ction:		48 .0	Analyt	<u>×</u>	503.1	LI	
San	2 Volumes 3 Volumes npling Time of Sample Collection Met Dedicate Teflon b Dedicate	e Colle hod: bie baile ailer ed pump	0.788 ction:		48. 0	Analyt DCs - 8260 OCs etals	<u>×</u>		LI	
San	2 Volumes 3 Volumes npling Time of Sample Collection Met <u>X</u> Disposa Teflon b Dedicate Submers	e Colle hod: ble baile ailer ed pump sible Pur	0.788 ction: r		48. 0	Analyt DCs - 8260 OCs etals B/Pest	<u>×</u>	503.1	Other	
San	2 Volumes 3 Volumes a Volumes npling Time of Sample Collection Met Disposa Teflon b Dedicate Submers Low-Flo	e Colle hod: ble baile ailer ed pump sible Pur	0.788 ction: r		48 .۵ ↓ vc ↓ vc	Analyt DCs - 8260 OCs etals B/Pest NA	<u>×</u>	503.1	Other	
	2 Volumes 3 Volumes a Volumes Time of Sample Collection Met Disposa Teflon b Dedicate Submere Low-Flo Other:	e Colle hod: ble baile ailer ed pump sible Pur	0.788 ction: r		48 .۵ ↓ vc ↓ vc	Analyt DCs - 8260 OCs etals B/Pest	<u>×</u>	503.1	Other	
	2 Volumes 3 Volumes a Volumes	e Colle hog: be baile ailer ed pump sible Pur w Samp	ction: r np ling		48 .۵ ↓ vc ↓ vc	Analyt DCs - 8260 OCs etals IB/Pest NA her	 	503.1	Other	
	2 Volumes 3 Volumes a Volumes Time of Sample Collection Met Dispose Teflon b Dedicate Submer Low-Flo Other: Servations Weather/Temp	e Colle hod: be baile ailer ed pump sible Pur w Samp 	ction: r np ling		48 .۵ ↓ vc ↓ vc	Analyt DCs - 8260 OCs etals IB/Pest NA her	 	503.1	Other	
	2 Volumes 3 Volumes a Volumes	e Colle hog: be baile ailer ed pump sible Pur w Samp w Samp 	o. 788 ction: r np ling re:	Ana	48.0 ilyses: VC SV MI PC MI Or Ioudy	Analyt DCs - 8260 OCs etals CB/Pest NA her 	 	503.1	Other	
	2 Volumes 3 Volumes a Volumes	e Colle hod: be baile ailer ed pump sible Pur w Samp peratur otion: oduct?	c. 788 ction: r np ling re:	Ana	48.0 alyses: VC SV MI PC MI Out de	Analyt DCs - 8260 OCs etals IB/Pest NA her ight + 	 	503.1	Other	
	2 Volumes 3 Volumes a Volumes b Volumes a Volumes a Volumes b Volumes a Volumes	e Colle hod: be baile ailer ed pump sible Pur sible Pur sible Pur ov Samp overatur otion: oduct? Sheen?	ction: r p np ling re: yes yes	Ana Hy c no /	48.0 alyses: VC SV M PC M Con de de	Analyt DCs - 8260 OCs etals CB/Pest NA her <u>light</u>	 	503.1	Other	
Obs	2 Volumes 3 Volumes a Volumes a Volumes Time of Sample Collection Met Dedicate Submers Low-Flo Other: Servations Weather/Temp Sample Descrip Free Pro	e Colle hod: be baile ailer ed pump sible Pur w Samp peratur otion: oduct?	ction: r p np ling re: yes yes	Ana	48.0 alyses: VC SV M PC M Con de de	Analyt DCs - 8260 OCs etals IB/Pest NA her ight +	 	503.1	Other	
Obs	2 Volumes 3 Volumes a Volumes a Volumes a Volumes a Volumes a Volumes Collection Met Bisposa Teflon b Dedicate Submer Low-Flo Other: Servations Weather/Temp Sample Descrip Free Pro- Sample Descrip	e Colle hod: be baile ailer ed pump sible Pur ow Samp oeratur otion: oduct? Sheen? Odor?	ction: r p np ling re: yes yes	Ana Hy c no /	48.0 alyses: VC SV M PC M Con de de	Analyt DCs - 8260 OCs etals CB/Pest NA her <u>light</u> + escribe escribe	 	503.1	Other	
Obs	2 Volumes 3 Volumes a Volumes a Volumes Time of Sample Collection Met Dedicate Submers Low-Flo Other: Servations Weather/Temp Sample Descrip Free Pro	e Colle hod: be baile ailer ed pump sible Pur ow Samp oeratur otion: oduct? Sheen? Odor?	ction: r p np ling re: yes yes	Ana Hy c no /	48.0 alyses: VC SV M PC M Con de de	Analyt DCs - 8260 OCs etals CB/Pest NA her <u>light</u>	As	503.1	Other	

I

ATTACHMENT D DATA VALIDATION REPORT

DATA VALIDATION REPORT AXELROD FACILITY ALBANY, NEW YORK GROUND WATER SAMPLE ANALYSES ENVIRONMENTAL RESOURCES MANAGEMENT (ERM) PROJECT NUMBER 0055131 ADIRONDACK ENVIRONMENTAL SERVICES, INC. JOB NUMBER 060907030

Deliverables:

The above referenced data package for three (3) ground water samples, one (1) blind field duplicate sample, and one (1) trip blank contains all required deliverables as stipulated under the 2000 New York State Department of Environmental Conservation (NYSDEC) Analytical Services Protocol (ASP) for Category B deliverables. The sample specific analysis included Target Compound List (TCL) Volatile Organic Compounds (VOC) analyzed by United States Environmental Protection Agency (USEPA) SW-846 Method 8260B. The samples were analyzed following "Test Methods for Evaluation Solid Waste, USEPA SW-846, Third Edition, September 1986, with revisions". The data have been validated according to the protocols and quality control (QC) requirements of the ASP, the National Functional Guidelines for Organic Data Review (October 1999), the USEPA Region II Data Review Standard Operating Procedure (SOP) Number HW-24, Revision 1, June 1999: Validating Volatile Organic Compounds by SW-846 Method 8260B, and the reviewer's professional judgment.

The validation report pertains to the following samples:

<u>Samples</u>	<u>QC Samples</u>
AX-MW-8S (090706)	AX-DUPE (090706) – Blind Field Duplicate of sample AX-MW-9S (090706)
AX-MW-95 (090706) AX-MW-115 (090706)	AX-TB (090706) - Trip Blank AX-MW-9S (090706) MS/MSD (selected by laboratory)

Volatiles

The following items/criteria were reviewed for this report:

- Case narrative and deliverables compliance
- Holding times and sample preservation (including pH and temperature)

- Surrogate Compound recoveries, summary and data
- Matrix Spike/Matrix Spike Duplicate (MS/MSD) results, recoveries, summary and data
- Laboratory Check Sample (LCS), recoveries, summary and data
- Method blank summary and data
- Gas Chromatography (GC)/Mass Spectroscopy (MS) tuning and performance
- Initial and continuing calibration summaries and data
- Internal standard areas, retention times, summary and data
- Trip Blank results
- Blind Field Duplicate sample results
- Organic analysis data sheets (Form I)
- GC/MS chromatograms, mass spectra and quantitation reports
- Quantitation/detection limits
- Qualitative and quantitative compound identification

The items listed above were technically and contractually in compliance with SW-846 protocols with the exceptions discussed in the text below. The data have been validated according to the procedures outlined above and qualified accordingly.

- Typically a Matrix Spike/Matrix Spike Duplicate (MS/MSD) set is collected and submitted to the laboratory per twenty field samples collected. In this case, no MS/MSD was collected or submitted to the laboratory. The laboratory analyzed the MS/MSD on sample MW-9S (090706) from this deliverable. No qualification of the sample data is required.
- The following table lists compounds that exceeded 30 percent relative standard deviation (%RSD) for relative response factors (RRF) in the initial calibration (ICAL). Associated field samples are also listed. Positive results for these compounds in associated samples are considered estimated and flagged "J". All non-detect results for the compound of interest in the appropriate samples are flagged "UJ".

Calibration	Compound	Deficiency	Associated Samples
ICAL 09/08/06 12:24-13:29	2-Hexanone	%RSD=31.1	All samples
12.24-13.29	Methyl t-butyl ether	%RSD=34.6	All samples
	1,2-Dibromo-3-chloropropane	%RSD=31.8	All samples

Calibration	Compound	Deficiency	Associated Samples
	1,2,4-Trichlorobenzene	%RSD=35.7	All samples

Package Summary:

All data are valid and usable with qualifications as noted in this review.

Signed:

Dated: 13 October 2006

Melissa A. McGinnis Project Scientist

1

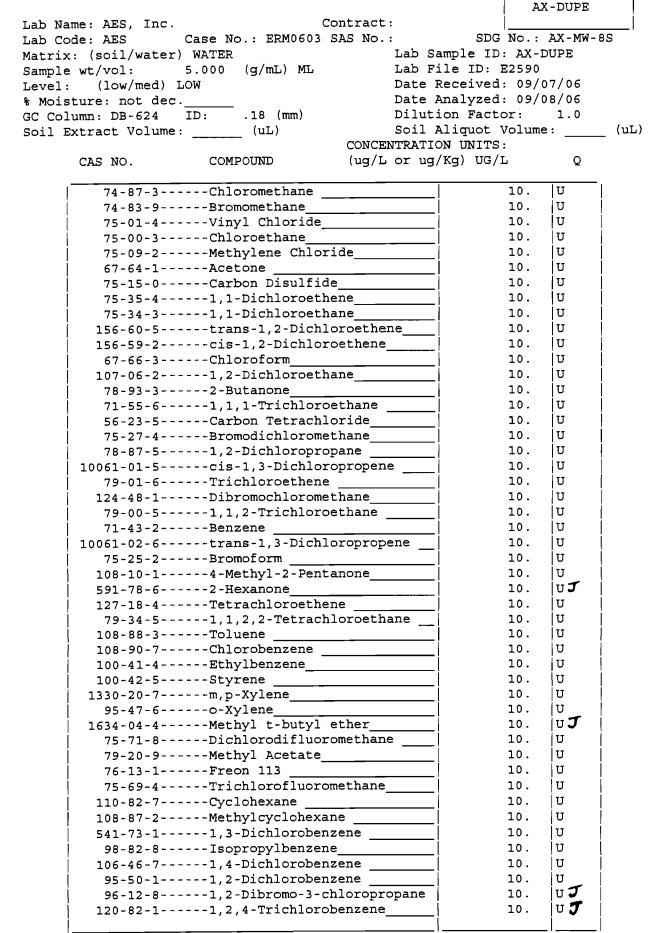
VOLATILE ORGANICS ANALYSIS DATA SHEET

Jame: AES, Inc. Contra	ict:	AX-MW-85
Code: AES Case No.: ERM0603 SAS 1		- AX - MW - 8
	Lab Sample ID: AX	
e wt/vol: 5.000 (g/mL) ML		
: (low/med) LOW	Date Received: 09	
sture: not dec Dlumn: DB-624 ID: .18 (mm)	Date Analyzed: 0	
	Dilution Factor:	
Extract Volume: (uL)	Soil Aliquot Volu	1me:
	CENTRATION UNITS:	
CAS NO. COMPOUND (ug	/L or ug/Kg) UG/L	Q
74-87-3Chloromethane	10	UU
74-83-9Bromomethane	10	ា
75-01-4Vinyl Chloride	10	U
75-00-3Chloroethane		!
75-09-2Methylene Chloride		
67-64-1Acetone		
75-15-0Carbon Disulfide	10.	
75-35-41,1-Dichloroethene_		
75-34-31,1-Dichloroethane		
156-60-5trans-1,2-Dichloroet		
156-59-2cis-1,2-Dichloroethe		
67-66-3Chloroform	10.	υ
107-06-21,2-Dichloroethane	10.	U U
78-93-32-Butanone	10.	U
71-55-61,1,1.1-Trichloroethar	le 10.	υ
56-23-5Carbon Tetrachloride		υ
75-27-4Bromodichloromethane		υ
78-87-51,2-Dichloropropane		υ
10061-01-5cis-1,3-Dichloroprop		
79-01-6Trichloroethene		
124-48-1Dibromochloromethane		
79-00-51, 1, 2-Trichloroethar		
71-43-2Benzene	10.	
10061-02-6trans-1,3-Dichlorop		
75-25-2Bromoform	10.	1 1
108-10-14-Methyl-2-Pentanone		
591-78-62-Hexanone	10.	
127-18-4Tetrachloroethene		
79-34-51,1,2,2-Tetrachloroe		
108-88-3Toluene	10.	
108-90-7Chlorobenzene	10.	
100-41-4Ethylbenzene		
100-42-5Styrene		
1330-20-7m,p-Xylene	10.	!!!
95-47-6o-Xylene	10.	
1634-04-4Methyl t-butyl ether		
75-71-8Dichlorodifluorometh		ט
79-20-9Methyl Acetate	10.	υ
76-13-1Freon 113	10.	ט ו
75-69-4Trichlorofluorometha	ne 10.	ju j
110-82-7Cyclohexane		
108-87-2Methylcyclohexane		
541-73-11,3-Dichlorobenzene		
98-82-8Isopropylbenzene		
106-46-71,4-Dichlorobenzene		
95-50-11,2-Dichlorobenzene	10.	_
96-12-81,2-Dibromo-3-chloro 120-82-11,2,4-Trichlorobenze		
	ne 10.	υJ

L

Name: AES, Inc. Contract:		AX-MV	
Code: AES Case No.: ERM0603 SAS No.:	SDG	No.: AX	
rix: (soil/water) WATER La	ab Sample ID:	AX-MW-S	9S
ole wt/vol: 5.000 (g/mL) ML La	ab File ID: E	2587	
el: (low/med) LOW Da	ate Received:	09/07/0	06
Distance and data	ate Analyzed:	09/08/0	06
	ilution Facto		. 0
Extract Volume: (uL) So	oil Aliquot V	olume:	
	RATION UNITS:		
CAS NO. COMPOUND (ug/L or	r ug/Kg) UG/L	,	Q
		10	,
74-87-3Chloromethane		10. U	
74-83-9Bromomethane	!	10. U	1
75-01-4Vinyl Chloride	!	10. U	
75-00-3Chloroethane	!	10. U	
75-09-2Methylene Chloride		10. U	
67-64-1Acetone		10. U	
75-15-0Carbon Disulfide		10. U	
75-35-41,1-Dichloroethene		10. U	
75-34-31,1-Dichloroethane		10. U	
156-60-5trans-1,2-Dichloroethene		10. U	
156-59-2cis-1,2-Dichloroethene		10. U	
67-66-3Chloroform	i	10. U	Í
107-06-21,2-Dichloroethane		10. U	i
78-93-32-Butanone		10. U	1
71-55-61,1,1-Trichloroethane		10. U	
56-23-5Carbon Tetrachloride		10. U	ĺ
75-27-4Bromodichloromethane		10. U	ł
78-87-51,2-Dichloropropane		10. U	
10061-01-5cis-1,3-Dichloropropene		10. U	
79-01-6Trichloroethene		10. U	
124-48-1Dibromochloromethane		10. U	
79-00-51,1,2-Trichloroethane		10. U	
71-43-2Benzene		10. U	ļ
10061-02-6trans-1,3-Dichloropropene		10. U	
75-25-2Bromoform		10. U	
108-10-14-Methyl-2-Pentanone		10. U	-
591-78-62-Hexanone		10. U	J
127-18-4Tetrachloroethene		10. U	
79-34-51,1,2,2-Tetrachloroethane		10. U	
108-88-3Toluene		10. U	ļ
108-90-7Chlorobenzene		10. U	
100-41-4Ethylbenzene		10. U	
100-42-5Styrene		10. U	
1330-20-7m,p-Xylene	!	10. U	
95-47-6o-Xylene		10. U	
1634-04-4Methyl t-butyl ether		10. U	J
75-71-8Dichlorodifluoromethane		10. U	
79-20-9Methyl Acetate		10. U	
76-13-1Freon 113		10. U	ĺ
75-69-4Trichlorofluoromethane		10. U	i
110-82-7Cyclohexane		10. U	i
108-87-2Methylcyclohexane		10. U	i
541-73-11, 3-Dichlorobenzene		10. U	
98-82-8Isopropylbenzene		10. U	
106-46-71,4-Dichlorobenzene		10. U	
95-50-11,2-Dichlorobenzene		10. U	+
96-12-81,2-Dibromo-3-chloropropa 120-82-11,2,4-Trichlorobenzene		10. U	_
1 170-87-11 7 4-171CD OCODEDZEDE		10. U	

Sample wt/vol: 5.000 (g/mL) ML L Level: (low/med) LOW D % Moisture: not dec D GC Column: DB-624 ID: .18 (mm) D Soil Extract Volume: (uL) S CONCENT	ab Sample ID: ab File ID: E ate Received: ate Analyzed: ilution Facto oil Aliquot V RATION UNITS: r ug/Kg) UG/I	AX-M 22588 09/0 09/0 07: 701ume 10. 10. 10. 10. 10. 10. 10. 10.	W-115 7/06 8/06 1.0
Matrix: (soil/water) WATER L Sample wt/vol: 5.000 (g/mL) ML L Level: (low/med) LOW D & Moisture: not dec. D GC Column: DB-624 ID: .18 (mm) D Soil Extract Volume: (uL) S CONCENT CAS NO. COMPOUND (ug/L o 74-87-3Chloromethane	ab Sample ID: ab File ID: E ate Received: ate Analyzed: ilution Facto oil Aliquot V RATION UNITS: r ug/Kg) UG/I	AX-M 22588 09/0 09/0 07: 701ume 10. 10. 10. 10. 10. 10. 10. 10.	W-115 7/06 8/06 1.0 : U U U U U U U U U U U U U U U U
Sample wt/vol: 5.000 (g/mL) ML L Level: (low/med) LOW D Moisture: not dec. D GC Column: DB-624 ID: .18 (mm) D Soil Extract Volume: (uL) S CONCENT CONCENT CAS NO. COMPOUND (ug/L o 74-87-3Chloromethane	ab File ID: E ate Received: ate Analyzed: ilution Facto oil Aliquot V RATION UNITS: r ug/Kg) UG/I	22588 09/0 09/08 07: Volume 10. 10. 10. 10. 10. 10. 10. 10. 10. 10.	7/06 8/06 1.0 2 0 0 0 0 0 0 0 0 0 0 0 0 0
Level: (low/med) LOW D Moisture: not dec D GC Column: DB-624 ID: .18 (mm) D Soil Extract Volume: (uL) S CONCENT CAS NO. COMPOUND (ug/L o 74-87-3Chloromethane 74-83-9Bromomethane 75-01-4Vinyl Chloride 75-00-3Chloroethane 75-09-2Methylene Chloride 75-15-0Carbon Disulfide 75-35-41, 1-Dichloroethene 75-35-41, 1-Dichloroethene 75-35-41, 2-Dichloroethene 156-60-5cis-1, 2-Dichloroethene 107-06-21, 2-Dichloroethane 75-25-61, 1, 1-Trichloroethane 75-27-4Bromodichloromethane 75-27-4Bromodichloromethane 10061-01-5cis-1, 3-Dichloropropane 10061-01-5cis-1, 3-Dichloropropane 10061-01-5cis-1, 3-Dichloropropane 10061-02-6Trichloroethane 75-25-2Benzene 10061-02-6Trichloroethane 75-25-2Bromoform 10061-02-6Trichloroethane 71-43-2Benzene 10061-02-6Trichloroethane 75-25-2Bromoform 108-10-14-Methyl-2-Pentanone 108-10-14-Methyl-2-Pentanone 108-10-14-Methyl-2-Pentanone 107-18-4Tetrachloroethene	ate Received: ate Analyzed: ilution Facto oil Aliquot V RATION UNITS: r ug/Kg) UG/I	10. 10. 10. 10. 10. 10. 10. 10. 10. 10.	B/06 1.0 2 V V V V V V V V V V V V V
* Moisture: not dec. D GC Column: DB-624 ID: .18 (mm) D Soil Extract Volume: (uL) S CONCENT CAS NO. COMPOUND (ug/L o 74-87-3 Tomomethane Tomomethane Tomomethane 74-87-3 Particle Tomomethane Tomomethane 74-87-3 Tomomethane Tomomethane Tomomethane 74-83-9 Particle Tomomethane Tomomethane 75-01-4 Vinyl Chloride Tomomethane Tomomethane 75-01-4 Tomomethane Tomomethane Tomomethane 75-01-4 No. COMPOUND (ug/L o 75-01-4 Tomomethane Tomomethane Tomomethane 75-05-1 Colorothane Tomomethane Tomomethane Tomomethane 75-05-2 Tomomethane Tomomethane	ate Analyzed: ilution Facto oil Aliquot V RATION UNITS: r ug/Kg) UG/I	10. 10. 10. 10. 10. 10. 10. 10. 10. 10.	B/06 1.0 2 V V V V V V V V V V V V V
GC Column: DB-624 ID: .18 (mm) D Soil Extract Volume:	ilution Facto oil Aliquot V RATION UNITS: r ug/Kg) UG/I	<pre>>r: /olume 10. 10. 10. 10. 10. 10. 10. 10. 10. 10.</pre>	1.0 Q U U U U U U U U U U U U U
Soil Extract Volume: (uL) S CAS NO. COMPOUND (ug/L o 74-87-3Chloromethane 74-83-9Bromomethane 74-83-9Chloromethane 74-83-9Bromomethane 75-01-4Vinyl Chloride 75-00-3Chloroethane 75-00-3Chloroethane 75-09-2Methylene Chloride 75-09-2Methylene Chloride 75-09-2Methylene Chloride 75-15-0Carbon Disulfide 75-35-41, 1-Dichloroethane 75-35-41, 1-Dichloroethane 75-35-41, 1-Dichloroethane 156-60-5Carbon Disulfide 75-35-41, 1, 1-Dichloroethane 156-59-2Carbon Tetrachloroethane 107-06-2	oil Aliquot V RATION UNITS: r ug/Kg) UG/I 	Volume 10. 10. 10. 10. 10. 10. 10. 10.	Q U U U U U U U U U U U U U U U U U U
Soil Extract Volume: (uL) S CAS NO. COMPOUND (ug/L o 74-87-3Chloromethane 74-83-9Bromomethane 74-83-9Chloromethane 74-83-9Bromomethane 75-01-4Vinyl Chloride 75-00-3Chloroethane 75-00-3Chloroethane 75-09-2Methylene Chloride 75-09-2Methylene Chloride 75-09-2Methylene Chloride 75-15-0Carbon Disulfide 75-35-41, 1-Dichloroethane 75-35-41, 1-Dichloroethane 75-35-41, 1-Dichloroethane 156-60-5Carbon Disulfide 75-35-41, 1, 1-Dichloroethane 156-59-2Carbon Tetrachloroethane 107-06-2	oil Aliquot V RATION UNITS: r ug/Kg) UG/I 	Volume 10. 10. 10. 10. 10. 10. 10. 10.	Q U U U U U U U U U U U U U U U U U U
CAS NO. COMPOUND (ug/L o 74-87-3Chloromethane	RATION UNITS: r ug/Kg) UG/I 	10. 10. 10. 10. 10. 10. 10. 10. 10. 10.	Q U U U U U U U U U U U U U U U
74-87-3Chloromethane 74-83-9Bromomethane 75-01-4Vinyl Chloride 75-00-3Chloroethane 75-09-2Methylene Chloride 67-64-1Acetone 75-35-41, 1-Dichloroethene 75-35-41, 1-Dichloroethene 75-35-41, 1-Dichloroethene 75-6		10. 10. 10. 10. 10. 10. 10. 10. 10. 10.	0 0 0 0 0 0 0 0 0 0 0 0
74-87-3Chloromethane 74-83-9Bromomethane 75-01-4Vinyl Chloride 75-00-3Chloroethane 75-09-2Methylene Chloride 67-64-1Acetone 75-15-0Carbon Disulfide 75-35-41,1-Dichloroethane 156-60-5trans-1,2-Dichloroethane 156-60-5cis-1,2-Dichloroethane 156-60-5cis-1,2-Dichloroethane 156-60-3Chloroform 107-06-21,2-Dichloroethane 78-93-32-Butanone 71-55-61,1,1-Trichloroethane 75-27-4Bromodichloromethane 78-87-51,2-Dichloropropane 10061-01-5cis-1,3-Dichloropropane 10061-01-5cis-1,3-Dichloropropane 10061-01-5cis-1,3-Dichloropropane 10061-01-5cis-1,3-Dichloropropane 10061-01-5cis-1,3-Dichloropropane 10061-02-6Trichloroethane 79-00-51,1,2-Trichloroethane 71-43-2Benzene 10061-02-6		10. 10. 10. 10. 10. 10. 10. 10. 10. 10.	0 0 0 0 0 0 0 0 0 0 0 0
74-83-9Bromomethane 75-01-4Vinyl Chloride 75-00-3Chloroethane 75-09-2Methylene Chloride 67-64-1Acetone 75-15-0Carbon Disulfide 75-35-41,1-Dichloroethene 75-34-31,1-Dichloroethane 156-60-5trans-1,2-Dichloroethene 156-59-2cis-1,2-Dichloroethene 67-66-3Chloroform 107-06-21,2-Dichloroethane 78-93-32-Butanone 71-55-61,1,1-Trichloroethane 75-27-4Bromodichloromethane 78-87-51,2-Dichloropropane 10061-01-5cis-1,3-Dichloropropane 10061-01-5cis-1,3-Dichloropropane 124-48-1Dibromochloromethane 79-00-51,1,2-Trichloroethane 71-43-2Benzene 10061-02-6		10. 10. 10. 10. 10. 10. 10. 10. 10.	UUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUU
75-01-4Vinyl Chloride		10. 10. 10. 10. 10. 10. 10. 10.	บ บบ บบ บบ บบ บ
75-00-3Chloroethane 75-09-2Methylene Chloride 67-64-1Acetone 75-15-0Carbon Disulfide 75-35-41,1-Dichloroethene 75-34-31,1-Dichloroethene 156-60-5trans-1,2-Dichloroethene 156-59-2cis-1,2-Dichloroethene 67-66-3Chloroform 107-06-21,2-Dichloroethane 78-93-32-Butanone 71-55-61,1,1-Trichloroethane 75-27-4Bromodichloromethane 75-27-4Bromodichloropropane 10061-01-5cis-1,3-Dichloropropane 10061-01-5cis-1,3-Dichloropropane 124-48-1Dibromochloromethane 79-00-51,1,2-Trichloroethane 71-43-2Benzene 10061-02-6		10. 10. 10. 10. 10. 10. 10.	บ บ บ บ บ บ
75-09-2Methylene Chloride		10. 10. 10. 10. 10. 10.	บ บ บ บ บ
67-64-1Acetone 75-15-0Carbon Disulfide 75-35-41,1-Dichloroethene 75-34-31,1-Dichloroethene 156-60-5trans-1,2-Dichloroethene 156-59-2cis-1,2-Dichloroethene 67-66-3Chloroform 107-06-21,2-Dichloroethane 78-93-32-Butanone 71-55-61,1,1-Trichloroethane 56-23-5Carbon Tetrachloride 75-27-4Bromodichloromethane 78-87-51,2-Dichloropropane 10061-01-5cis-1,3-Dichloropropene 79-01-6Trichloroethene 124-48-1Dibromochloromethane 79-00-51,1,2-Trichloroethane 71-43-2Benzene 10061-02-6trans-1,3-Dichloropropene 75-25-2Bromoform 108-10-14-Methyl-2-Pentanone 591-78-62-Hexanone 127-18-4Tetrachloroethene		10. 10. 10. 10. 10.	บ บ บ บ
75-15-0Carbon Disulfide 75-35-41,1-Dichloroethene 75-34-31,1-Dichloroethene 156-60-5trans-1,2-Dichloroethene 156-59-2cis-1,2-Dichloroethene 67-66-3Chloroform 107-06-21,2-Dichloroethane 78-93-32-Butanone 71-55-61,1,1-Trichloroethane 75-27-4Bromodichloromethane 78-87-51,2-Dichloropropane 10061-01-5cis-1,3-Dichloropropene 79-01-6Trichloroethane 79-00-51,1,2-Trichloroethane 79-00-5Benzene 10061-02-6Benzene		10. 10. 10. 10.	บ บ บ
75-15-0Carbon Disulfide 75-35-41,1-Dichloroethene 75-34-31,1-Dichloroethene 156-60-5trans-1,2-Dichloroethene 156-59-2cis-1,2-Dichloroethene 67-66-3Chloroform 107-06-21,2-Dichloroethane 78-93-32-Butanone 71-55-61,1,1-Trichloroethane 75-27-4Bromodichloromethane 78-87-51,2-Dichloropropane 10061-01-5cis-1,3-Dichloropropene 79-01-6Trichloroethane 79-00-51,1,2-Trichloroethane 79-00-5Benzene 10061-02-6Benzene		10. 10. 10.	บ บ
75-35-41,1-Dichloroethene		10. 10.	υ
75-34-31, 1-Dichloroethane 156-60-5trans-1, 2-Dichloroethene 156-59-2cis-1, 2-Dichloroethene 67-66-3Chloroform 107-06-21, 2-Dichloroethane 78-93-32-Butanone 71-55-61, 1, 1-Trichloroethane 56-23-5Carbon Tetrachloride 75-27-4Bromodichloromethane 78-87-51, 2-Dichloropropane 10061-01-5cis-1, 3-Dichloropropene 79-01-6Trichloroethane 79-00-51, 1, 2-Trichloroethane 71-43-2Benzene 10061-02-6trans-1, 3-Dichloropropene 71-43-2Benzene 10061-02-6Trichloroethane 71-43-2Benzene 10061-02-6		10.	! !
156-60-5trans-1,2-Dichloroethene 156-59-2cis-1,2-Dichloroethene 67-66-3Chloroform 107-06-21,2-Dichloroethane 78-93-32-Butanone 71-55-61,1,1-Trichloroethane 56-23-5Carbon Tetrachloride 75-27-4Bromodichloromethane 78-87-51,2-Dichloropropane 10061-01-5cis-1,3-Dichloropropene 79-01-6Trichloroethane 79-00-51,1,2-Trichloroethane 71-43-2Benzene 10061-02-6trans-1,3-Dichloropropene 71-43-2Benzene 10061-02-6trans-1,3-Dichloropropene 71-43-2Benzene 10061-02-6		_	! !
156-59-2cis-1,2-Dichloroethene 67-66-3Chloroform 107-06-21,2-Dichloroethane 78-93-32-Butanone 71-55-61,1,1-Trichloroethane 56-23-5Carbon Tetrachloride 75-27-4Bromodichloromethane 78-87-51,2-Dichloropropane 10061-01-5cis-1,3-Dichloropropene 79-01-6Trichloroethene 124-48-1Dibromochloromethane 79-00-51,1,2-Trichloroethane 79-00-5		_	10
67-66-3Chloroform	İ	10.	ט
107-06-21, 2-Dichloroethane 78-93-32-Butanone 71-55-61, 1, 1-Trichloroethane 56-23-5Carbon Tetrachloride 75-27-4Bromodichloromethane 78-87-51, 2-Dichloropropane 10061-01-5cis-1, 3-Dichloropropene 79-01-6Trichloroethane 79-00-51, 1, 2-Trichloroethane 79-00-5Benzene 10061-02-6Benzene 10061-02-6Benzene 10061-02-6Benzene 10061-02-6Benzene 108-10-14-Methyl-2-Pentanone 591-78-62-Hexanone 127-18-4Tetrachloroethene		10.	ט ו
78-93-32-Butanone		10.	ן ט ע ו
71-55-61,1,1-Trichloroethane 56-23-5Carbon Tetrachloride 75-27-4Bromodichloromethane 78-87-51,2-Dichloropropane 10061-01-5cis-1,3-Dichloropropene 79-01-6Trichloroethene 124-48-1Dibromochloromethane 79-00-51,1,2-Trichloroethane 71-43-2Benzene 10061-02-6Trians-1,3-Dichloropropene 75-25-2Bromoform 108-10-14-Methyl-2-Pentanone 591-78-62-Hexanone 127-18-4Tetrachloroethene		10.	ן טן ט ו
56-23-5Carbon Tetrachloride	!		
75-27-4Bromodichloromethane 78-87-51,2-Dichloropropane 10061-01-5cis-1,3-Dichloropropene 79-01-6Trichloroethene 124-48-1Dibromochloromethane 79-00-51,1,2-Trichloroethane 71-43-2Benzene 10061-02-6trans-1,3-Dichloropropen 75-25-2Bromoform 108-10-14-Methyl-2-Pentanone 591-78-62-Hexanone 127-18-4Tetrachloroethene		10.	U
78-87-51,2-Dichloropropane 10061-01-5cis-1,3-Dichloropropene 79-01-6Trichloroethene 124-48-1Dibromochloromethane 79-00-51,1,2-Trichloroethane 71-43-2Benzene 10061-02-6trans-1,3-Dichloropropen 75-25-2Bromoform 108-10-14-Methyl-2-Pentanone 591-78-6Tetrachloroethene		10.	U
10061-01-5cis-1,3-Dichloropropene 79-01-6Trichloroethene 124-48-1Dibromochloromethane 79-00-51,1,2-Trichloroethane 71-43-2Benzene 10061-02-6trans-1,3-Dichloropropen 75-25-2Bromoform 108-10-14-Methyl-2-Pentanone 591-78-6Tetrachloroethene		10.	U
79-01-6Trichloroethene 124-48-1Dibromochloromethane 79-00-51,1,2-Trichloroethane 71-43-2Benzene 10061-02-6trans-1,3-Dichloropropen 75-25-2Bromoform 108-10-14-Methyl-2-Pentanone 591-78-62-Hexanone 127-18-4Tetrachloroethene		10.	U
124-48-1Dibromochloromethane 79-00-51,1,2-Trichloroethane 71-43-2Benzene 10061-02-6trans-1,3-Dichloropropen 75-25-2Bromoform 108-10-14-Methyl-2-Pentanone 591-78-62-Hexanone 127-18-4Tetrachloroethene		10.	U
124-48-1Dibromochloromethane 79-00-51,1,2-Trichloroethane 71-43-2Benzene 10061-02-6trans-1,3-Dichloropropen 75-25-2Bromoform 108-10-14-Methyl-2-Pentanone 591-78-62-Hexanone 127-18-4Tetrachloroethene		10.	ט
79-00-51,1,2-Trichloroethane 71-43-2Benzene 10061-02-6trans-1,3-Dichloropropen 75-25-2Bromoform 108-10-14-Methyl-2-Pentanone 591-78-62-Hexanone 127-18-4Tetrachloroethene		10.	ט
10061-02-6trans-1,3-Dichloropropen 75-25-2Bromoform 108-10-14-Methyl-2-Pentanone 591-78-62-Hexanone 127-18-4Tetrachloroethene		10.	ט
10061-02-6trans-1,3-Dichloropropen 75-25-2Bromoform 108-10-14-Methyl-2-Pentanone 591-78-62-Hexanone 127-18-4Tetrachloroethene		10.	ט
75-25-2Bromoform 108-10-14-Methyl-2-Pentanone 591-78-62-Hexanone 127-18-4Tetrachloroethene	e	10.	ט
108-10-14-Methyl-2-Pentanone 591-78-62-Hexanone 127-18-4Tetrachloroethene		10.	ט
591-78-62-Hexanone 127-18-4Tetrachloroethene		10.	υ İ
127-18-4Tetrachloroethene	—i	10.	บ ป
		10.	υ
		10.	ש
		10.	υ
108-88-3Toluene		10.	υ
100-41-4Ethylbenzene		10.	υ
100-41-4EthylDenzene	i	10.	ט ט
100-42-5Styrene			
1330-20-7m,p-Xylene		10.	U
95-47-6o-Xylene		10.	
1634-04-4Methyl t-butyl ether	I	19.	ש
75-71-8Dichlorodifluoromethane		10.	U
79-20-9Methyl Acetate		10.	ש
76-13-1Freon 113		10.	ש
75-69-4Trichlorofluoromethane		10.	U
110-82-7Cyclohexane		10.	ט
108-87-2Methylcyclohexane		10.	υ
541-73-11, 3-Dichlorobenzene		10.	ט ו
98-82-8Isopropylbenzene		10.	ט ו
106-46-71,4-Dichlorobenzene		10.	υ
95-50-11,2-Dichlorobenzene		10.	ן ט
96-12-81,2-Dibromo-3-chloroprop		10.	υ ΄
96-12-81,2-Dibromo-3-Chioroprop 120-82-11,2,4-Trichlorobenzene		10.	υ σ



ł

.

ATTACHMENT E LABORATORY ANALYTICAL REPORT



Experience is the solution

314 North Pearl Street • Albany, New York 12207 • (518) 434-4546 • Fax (518) 434-0891

GEDDE

SEP 2 8 2006

E

By_

ERM - Northeast, Inc. 5788 Widewaters Parkway Dewitt, New York 13214

Attention: David W. Myers



Experience is the solution

314 North Pearl Street • Albany, New York 12207 • (518) 434-4546 • Fax (518) 434-0891

TITLE PAGE

On September 7, 2006 five water samples were received by Adirondack Environmental Services, Inc. from ERM at the Axelrod Institute site. These samples were analyzed for Volatile Organics in accordance with methodology as detailed by the contract. The project was completed on September 26, 2006.

Laboratory Manager

Date: 9/26/06



Experience is the solution

314 North Pearl Street • Albany, New York 12207 • (518) 434-4546 • Fax (518) 434-0891

SAMPLE DATA

SUMMARY PACKAGE

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

*VOA *BNA *PCB *Pest *Metals *Other Customer Laboratory GC/MS GC GC Sample GC/MS CN Sample Code Method Method Method Method Code 060907030-001 Х AX-MW-9S 060907030-002 Х AX-MW-11S X AX-MW-8S 060907030-003 Х AX-DUPE 060907030-004 060907030-005 Х AX-TB

SAMPLE IDENTIFICATION AND ANALYTICAL REQUIREMENT SUMMARY

000001

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE PREPARATION AND ANALYSIS SUMMARY VOLATILE (VOA) ANALYSES

Laboratory		Date	Date Rec'd	Date	Date
Sample ID	Matrix	Collected	at Lab	Extracted	Analyzed
060907030-001	WATER	9/7/06	9/7/06	N/A	9/8/06
060907030-002	WATER	9/7/06	9/7/06	N/A	9/8/06
060907030-003	WATER	9/7/06	9/7/06	N/A	9/8/06
060907030-004	WATER	9/7/06	9/7/06	N/A	9/8/06
060907030-005	WATER	9/7/06	9/7/06	N/A	9/8/06





Experience is the solution

314 North Pearl Street • Albany, New York 12207 • (518) 434-4546 • Fax (518) 434-0891

Case Narrative

Client: ERM – Axelrod Institute

Case: ERM 0603

SDG: AX-MW-8S

Sample ID	Laboratory Sample ID	Date Received	<u>VTSR</u>	<u>Matrix</u>
AX-MW-9S AX-MW-11S AX-MW-8S AX-DUPE AX-TB	060907030-001 060907030-002 060907030-003 060907030-004 060907030-005	09/07/06 09/07/06 09/07/06 09/07/06 09/07/06	12:22 12:22 12:22 12:22 12:22 12:22	Water Water Water Water Water

Volatile Organics

- 1) The samples were analyzed using EPA Method 8260 following the criteria for EPA CLP.
- 2) The samples received on 9/7/06 had a temperature of 6 °C.
- 3) The water samples were preserved with HCl to a pH of less than 2. All samples were analyzed within the required holding times.
- 4) The %RSD's for the compounds Carbon Tetrachloride and 1,2,4-Trichlorobenzene in the initial calibration analyzed on 9/8/06 were outside the criteria established by the method. The %RSD's for these compounds were 24.7 % and 35.7 %, respectively. According to the protocol, two volatile organic compounds may exceed the %RSD limit of 20.5 % as long as the %RSD is less than 40 % and the RRF is above 0.010. The %RSD was below 40 % and the RRF was greater than 0.010 for these compounds.
- 5) Sample AX-MW-9S (AES sample number 060907030-001) was used for the matrix spike and matrix spike duplicate analysis. All recoveries were within acceptable limits.
- 6) The column used in Instrument E for analysis was an RTX-624, 20 meters long with an internal diameter of 0.18 mm. The trap used for this instrument is a VOCARB 4000 with Carbopack C&B / Carboxen 1000 & 1001.

000003



Experience is the solution

314 North Pearl Street • Albany, New York 12207 • (518) 434-4546 • Fax (518) 434-0891

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

Laboratory Manager

Date: 9/26/06

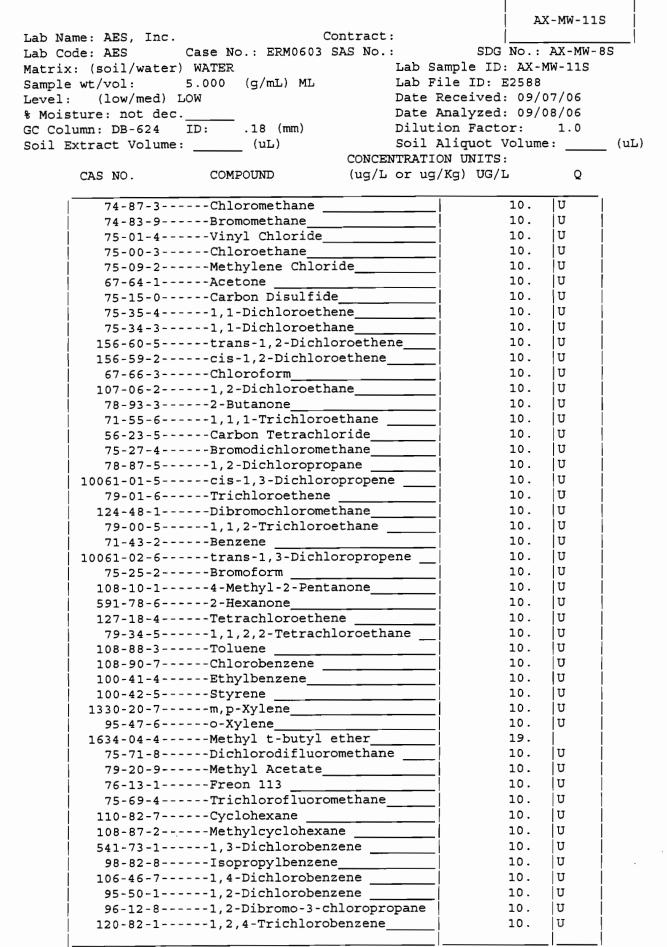


N	Cor	troat.		AX-	-MW-85
Name: AES, inc.		tract:			V ML DO
	Case No.: ERM0603 SA				X-MW-8S
ix: (soil/water) WATER		nple ID:		V-85
	5.000 (g/mL) ML	Lab Fil	le ID: E		
l: (low/med)	LOW		eceived:		
isture: not dec	·	Date A	nalyzed:	09/08	3/06
olumn: DB-624	 ID: .18 (mm)	Dilutio	on Facto:	r:	1.0
Extract Volume		Soil A	liquot Vo	olume:	:
		CONCENTRATION	UNITS:		
CAS NO.	COMPOUND	(ug/L or ug/I	(a) UG/L		Q
		·			~
74-87-3	Chloromethane			10.	υ
	December				ט ו
	Vinyl Chloride				υ
	Chloroethane				υ
1	Methylene Chlorid	ie			U
	Acetone				υ
	Carbon Disulfide_				υ
	1,1-Dichloroether				υ
75-34-3	1,1-Dichloroethar	ne	:	10.	U
156-60-5	trans-1,2-Dichlor	oethene	:	10.	U
156-59-2	cis-1,2-Dichloroe	thene	:	10.	υ
	Chloroform		:	10.	υ
	1,2-Dichloroethar	ne		!	υ
1	2-Butanone				U
	1,1,1-Trichloroet	hane			υ
	Carbon Tetrachlor				U
	Bromodichlorometh				U
	1,2-Dichloropropa			10.	U
	cis-1,3-Dichlorop				υ
79-01-6	Trichloroethene _			10.	U
124-48-1	Dibromochlorometh	nane	:	10.	U
79-00-5	1,1,2-Trichloroet	hane	:	10.	U
71-43-2	Benzene		:	10.	U
10061-02-6	trans-1,3-Dichlor	opropene	:	10.	U
1	Bromoform	<u></u>	:	10. j	υ
	4-Methyl-2-Pentar	none	:	10.	υİ
	2-Hexanone			10.	U
	Tetrachloroethene	<u>,</u>		10.	υ
	1,1,2,2-Tetrachlo			10.	υ
				10.	υ
	Chlorobenzene				U U
	Ethylbenzene				U
100-42-5	Styrene			10.	U
	m,p-Xylene			10.	U
95-47-6	o-Xylene	-		10.	U
	Methyl t-butyl et			7.	J
	Dichlorodifluorom	methane	:	10.	υ
79-20-9	Methyl Acetate		:	10.	υ
j 76-13-1	Freon 113		:	10.	ע
75-69-4	Trichlorofluorome	thane	:	10.	υ
	Cyclohexane			10.	υİ
	Methylcyclohexane			10.	υİ
	1,3-Dichlorobenze			10.	υ
	Isopropylbenzene			10.	บ บ
	1,4-Dichlorobenze				U
	1,2-Dichlorobenze				Ŭ
	1,2-Dibromo-3-chl				U
120-82-1	1,2,4-Trichlorobe	enzene	:	10.	υļ
T C C C C C C C C C C C C C C C C C C C					

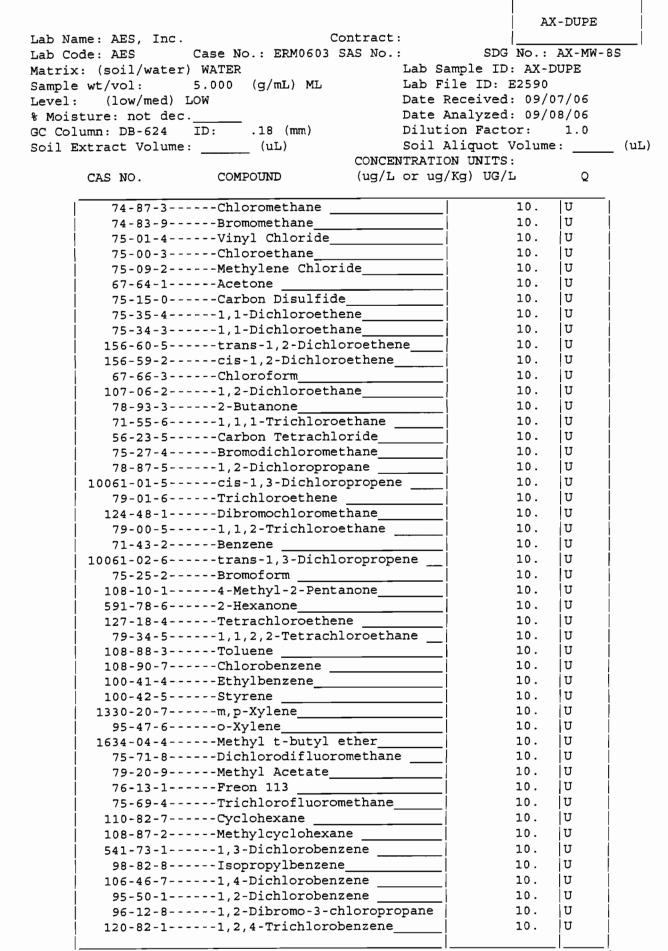
t

Name: AES, Inc. Contract:	ļ	AX-MV	≬-9 S
Name: AES, Inc. Contract: Code: AES Case No.: ERM0603 SAS No.:	SDC	No.: AX-	- MW - 89
	Sample ID: File ID: E		0
	Received:		16
	Analyzed: ion Facto		
	Aliquot V		(Ľ
CONCENTRATI			~
CAS NO. COMPOUND (ug/L or ug	J/Kg) UG/L		Q
74-87-3Chloromethane	I	10. U	<u> </u>
74-83-9Bromomethane	- 1		
75-01-4Vinyl Chloride	-	10. U	
75-00-3Chloroethane	-	10. U	
75-09-2Methylene Chloride		10. U	1
67-64-1Acetone	-	10. U	
75-15-0Carbon Disulfide		10. U	
75-35-41,1-Dichloroethene		10. U	
75-34-31,1-Dichloroethane		10. U	
156-60-5trans-1,2-Dichloroethene		10. U	
156-59-2cis-1,2-Dichloroethene		10. U	
67-66-3Chloroform		10. U	
107-06-21,2-Dichloroethane		10. U	
78-93-32-Butanone		10. U	
71-55-61,1,1-Trichloroethane	_	10. U	
56-23-5Carbon Tetrachloride		10. U	
75-27-4Bromodichloromethane		10. U	
78-87-51,2-Dichloropropane		10. U	
10061-01-5cis-1,3-Dichloropropene		10. U	
79-01-6Trichloroethene		10. U	ĺ
124-48-1Dibromochloromethane		10. JU	i
79-00-51,1,2-Trichloroethane		10. JU	
71-43-2Benzene		10. U	
10061-02-6trans-1, 3-Dichloropropene	- :	10. U	
75-25-2Bromoform		10. U	Í
108-10-14-Methyl-2-Pentanone		10. U	
591-78-62-Hexanone		10. U	i i
127-18-4Tetrachloroethene		10. U	İ
79-34-51,1,2,2-Tetrachloroethane	• !	10. U	
108-88-3Toluene	• !	10. U	
108-90-7Chlorobenzene	- !	10. U	
100-41-4Ethylbenzene	• !	10. U	i
100-42-5Styrene	• •	10. U	
1330-20-7m,p-Xylene	• !	10. U	
95-47-6o-Xylene		10. U	
1634-04-4Methyl t-butyl ether	• •	10. U	
75-71-8Dichlorodifluoromethane		10. U	
79-20-9Methyl Acetate		10. U	
76-13-1Freon 113	• !	10. U	
75-69-4Trichlorofluoromethane	• !		
	•!		
110-82-7Cyclohexane	• !	10. U	
108-87-2Methylcyclohexane	• !	10. U	
541-73-11,3-Dichlorobenzene	•	10. U	
98-82-8Isopropylbenzene		10. U	
	1	10. U	
106-46-71,4-Dichlorobenzene			
106-46-71,4-Dichlorobenzene 95-50-11,2-Dichlorobenzene		10. U	
106-46-71,4-Dichlorobenzene		10. U 10. U 10. U	





1A



Lab Na	ame: AES, Inc		Contract:		AX-	15
		Case No.: ERM0603		SDG	No.: A	X-MW-8S
	x: (soil/wate:			ample ID:		
		5.000 (g/mL) ML				
	: (low/med)			Received:		/06
	sture: not dec			Analyzed:	•	
		ID: .18 (mm)	Dilut			1.0
		e: (uL)		Aliquot V		
		(uz)	CONCENTRATI			
	CAS NO	COMPOUND	(ug/L or ug			Q
	CAD NO.	COMPOUND		, ng, 00, 1		¥
	74-87-3-	Chloromethane		.	10.	υ
	74-83-9-	Bromomethane		•		υ
	75-01-4-	Vinyl Chloride				ບ
	75-00-3-	Chloroethane				ן ט ע
	75-09-2-	Methylene Chlor	ide			ט ו
			106	.		
		Acetone			!	ט ע
						ט ע
	/5-35-4-	1,1-Dichloroeth				ן ט
	75-34-3-	1,1-Dichloroeth	ane		!	ט
	156-60-5-	trans-1,2-Dichl	oroethene	.		U
	156-59-2-	cis-1,2-Dichlor	oetnene	.		U
	67-66-3-	Chloroform		.ļ		υļ
	107-06-2-	1,2-Dichloroeth	ane	.		י די
	78-93-3-	2-Butanone	-	.	!	υ
	71-55-6-	l,l,l-Trichlord	ethane			ט
	56-23-5-	Carbon Tetrachl	oride	.	!	ט
		Bromodichlorome			10.	ן ט
		1,2-Dichloropro			10.	ט
	10061-01-5	cis-1,3-Dichlor	opropene		10.	ע
	79-01-6-	Trichloroethene			10.	ע
	124-48-1	Dibromochlorome	thane		10.	ע
	79-00-5-	1,1,2-Trichlord	ethane		10.	ט
	71-43-2-	Benzene		1	10.	ບ
	10061-02-6-	trans-1,3-Dichl	oropropene	1	10.	υİ
		Bromoform			10.	י די
		4-Methyl-2-Pent			10.	υİ
		2-Hexanone			10. j	υİ
		Tetrachloroethe			10.	υİ
		1,1,2,2-Tetrach		i		υί
	108-88-3	Toluene				υΪ
	108-90-7	Chlorobenzene				υ
	100-41-4	Ethylbenzene				ບ
	100-42-5-	Styrene				υİ
	1330-20-7	m,p-Xylene		1		υ
				1		υ
	1634-04-4	O-Xylene Methyl t-butyl	ether			υ
		Dichlorodifluor				Ū
		Methyl Acetate		1		υ
		Freon 113		1		υ
		Trichlorofluorc	methane	1		
				1		ט ט
		-		1		
		Methylcyclohexa		1	!	
		1,3-Dichloroben		1	!	U
		Isopropylbenzen				U
		1,4-Dichloroben		1		U
		1,2-Dichloroben		1		U
		1,2-Dibromo-3-c		!		υļ
	120-82-1	1,2,4-Trichloro	benzene		10.	U

WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: AES, Inc.

Contract:

Lab Code: AES Case No.: ERM0603 SAS No.: SDG No.: AX-MW-85

	EPA	SMC1	SMC2	SMC3	OTHER	TOT
	SAMPLE NO.	(TOL) #	(BFB)#	(DCE) #		
					======	===
1		91	88	103		0
2		94	92	105		Ō
3		100	94	100		0
4		103	92	108		0
5	AX-DUPE	105	97	106		0
6	AX-TB	98	91	103		0
7	AX-MW-95 MS	102	96	107		0
8	AX-MW-95 MSD	95	88	109		0
9	VMSB	94	90	111		0
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22			[
23					!	
24						
25						
26					[
27						
28						
29						
30	I				I	
				~	• • • • • • • • • • • • • • • • • • •	
SMC	Cl (TOL) = Tolu	lene-d8			LIMITS 8-110))
SMC		ofluorc	benzene	•	6-115)	
SMC		Dichlor		-	6-114)	
2		2201101		(/	/	

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

page 1 of 1

FORM II VOA-1

ЗA

WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: AES, Inc. Contract:

Lab Code: AES Case No.: ERM0603 SAS No.: SDG No.: AX-MW-8S

Matrix Spike - EPA Sample No.: AX-MW-9S

	SPIKE	SAMPLE	MS	MS	QC
	ADDED	CONCENTRATION	CONCENTRATION	8	LIMITS
COMPOUND	(UG/L)	(UG/L)	(UG/L)	REC #	REC.
				======	======
1,1-Dichloroethene	50.	0.	39.	78	61-145
Trichloroethene	50.	0.	48.	96	71-120
Benzene	50.	0.	48.	96	76-127
Toluene	50.	0.	53.	106	76-125
Chlorobenzene	50.	0.	52.	104	75-130
					İ

_	SPIKE	MSD	MSD			
	ADDED	CONCENTRATION	₽	융	QC L	IMITS
COMPOUND	(UG/L)	(UG/L)	REC #	RPD #	RPD	REC.
	=========	=================	======	======	======	======
1,1-Dichloroethene	50.	39.	78	0	14	61-145
Trichloroethene	50.	48.	96	0	14	71-120
Benzene	50.	48.	96	0	11	76-127
Toluene	50.	48.	96	10	13	76-125
Chlorobenzene	50.	49.	98	6	13	75-130
					İ	

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

* Values outside of QC limits

RPD: 0 out of 5 outside limits Spike Recovery: 0 out of 10 outside limits

COMMENTS:

FORM III VOA-1

3A WATER VOLATILE MATRIX SPIKE BLANK RECOVERY

LAB NAME Adirondack Environmental		CONTRACT:				
LAB CODE: AES	Case No.: ERM 0603	SAS No.:	SDG No.:	AX-MW-8S		
Matrix Spike - EPA	Sample No.: Blank	Level:(Low/Med)	Low			

	Spike	Sample	MS	MS	QC
Compound	Added	Conc.	Conc.	%	Limits
	ug/L	ug/L	ug/L	REC. #	REC.
1,1 Dichloroethene	50	0	39	79	61-145
Trichloroethene	50	0	49	99	71-120
Benzene	50	0	49	98	76-127
Toluene	50	0	51	102	76-125
Chlorobenzene	50	0	51	102	75-130

Column used to flag recovery values

* Values outside of required QC limits

Spike Recovery 0 out of 5 outside limits

Comments:

FORM III VOA

4A VOLATILE METHOD BLANK SUMMARY EPA SAMPLE NO.

Lab Name: AES, Inc.Contract:VBLK01Lab Code: AESCase No.: ERM0603 SAS No.:SDG No.: AX-MW-8SLab File ID: EB414Lab Sample ID: VBLK01Date Analyzed:09/08/06Time Analyzed:GC Column: DE-624ID: .18 (mm)Heated Purge: (Y/N) NInstrument ID:H5973 E

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

	EPA	LAB	LAB	TIME
	SAMPLE NO.	SAMPLE ID	FILE ID	ANALYZED
		=======================================	======================================	=========================
1	AX-MW-9S	AX-MW-9S	E2587	14:42
2	AX-MW-11S	AX-MW-11S	E2588	15:06
3	AX-MW-8S	AX-MW-85	E2589	15:30
4	AX-DUPE	AX-DUPE	E2590	15:54
5	AX-TB	AX-TB	E2591	16:18
6	AX-MW-9S MS	AX-MW-95 MS	E2592	16:44
7	AX-MW-9S MSD	AX-MW-95 MSD	E2593	17:08
8	VMSB	VMSB	E2594	17:32
9			İ	İİ
10				
11		·		
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				

COMMENTS:

page 1 of 1

FORM IV VOA

1A

	VBLK01	
Lab Name: AES, Inc. Contract:		1
Lab Code: AES Case No.: ERM0603 SAS No.:		-85
Matrix: (soil/water) WATER Lab Sa	ample ID: VBLK01	
Sample wt/vol: 5.000 (g/mL) ML Lab F:	ile ID: EB414	
Level: (low/med) LOW Date 1		
<pre>% Moisture: not dec Date # GC Column: DB-624 ID: .18 (mm) Dilut:</pre>	Analyzed: 09/08/06	
GC Column: DB-624 ID: .18 (mm) Dilut:	ion Factor: 1.0	(-)
	Aliquot Volume:	(uL)
CONCENTRATIO		
CAS NO. COMPOUND (ug/L or ug,	/Kg) UG/L Q	
74-87-3Chloromethane	10. U	- 1
74-83-9Bromomethane	10. U	Ì
75-01-4Vinyl Chloride	10. U	
75-00-3Chloroethane	10. U	
75-09-2Methylene Chloride	10. U	
67-64-1Acetone	10. U	
75-15-0Carbon Disulfide	10. U	
75-35-41,1-Dichloroethene	10. U	Ì
75-34-31,1-Dichloroethane	10. U	
156-60-5trans-1,2-Dichloroethene	10. U	
156-59-2cis-1,2-Dichloroethene	10. U	
67-66-3Chloroform	10. U	
107-06-21,2-Dichloroethane	10. U	
78-93-32-Butanone	10. U	
71-55-61,1,1-Trichloroethane	10. U	Ì
56-23-5Carbon Tetrachloride	10. U	
75-27-4Bromodichloromethane	10. U	Ì
78-87-51,2-Dichloropropane	10. U	
10061-01-5cis-1,3-Dichloropropene		Ì
79-01-6Trichloroethene	i	Ì
124-48-1Dibromochloromethane	10. U	1
79-00-51,1,2-Trichloroethane	! !	
71-43-2Benzene	10. U	ĺ
10061-02-6trans-1, 3-Dichloropropene	10. U	
75-25-2Bromoform		1 I
108-10-14-Methyl-2-Pentanone	10. U	i
591-78-62-Hexanone	10. U	i
127-18-4Tetrachloroethene	j 10. ju	İ
79-34-51,1,2,2-Tetrachloroethane	10. U	ĺ
108-88-3Toluene	10. U	1
108-90-7Chlorobenzene	10. U	1
100-41-4Ethylbenzene	10. U	
100-42-5Styrene	10. U	
1330-20-7m,p-Xylene	10. U	
95-47-6o-Xylene	10. U	
1634-04-4Methyl t-butyl ether	10. U	
75-71-8Dichlorodifluoromethane	10. U	
79-20-9Methyl Acetate	10. U	1
76-13-1Freon 113	10. U	
75-69-4Trichlorofluoromethane	10. U	
110-82-7Cyclohexane	10. U	
108-87-2Methylcyclohexane	10. U	
541-73-11,3-Dichlorobenzene	10. U	
98-82-8Isopropylbenzene	10. U	
106-46-71,4-Dichlorobenzene		
95-50-11,2-Dichlorobenzene	10. U	
96-12-81,2-Dibromo-3-chloropropane		
120-82-11,2,4-Trichlorobenzene	10. U	

8A VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: AES, Inc.Contract:Lab Code: AESCase No.: ERM0603 SAS No.:SDG No.: AX-MW-8SLab File ID (Standard): ES411Date Analyzed: 09/08/06Instrument ID: H5973 ETime Analyzed: 11:37GC Column: DB-624ID: .18 (mm)Heated Purge: (Y/N) N

		IS1 (BCM)		IS2 (DFB)		IS3 (CBZ)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	================================		======	===============	=======	================	======
	12 HOUR STD	25530.	4.21	142998.	5.45	66948.	8.39
	UPPER LIMIT	51060.	4.71	285996.	5.95	133896.	8.89
	LOWER LIMIT	12765.	3.71	71499.	4.95	33474.	7.89
				*********	=======	*******	======
	EPA SAMPLE						
	NO.						
				==========	======		=======
1	VBLK01	29697.	4.22	166491.	5.46	81098.	8.40
2	AX-MW-95	27947.	4.21	153373.	5.45	74918.	8.40
3	AX-MW-11S	26705.	4.21	148785.	5.46	68883.	8.40
4	AX-MW-85	26254.	4.21	151168.	5.45	71074.	8.40
5	AX-DUPE	24998.	4.22	142924.	5.45	66050.	8.40
6	AX - TB	24789.	4.21	142520.	5.46	67687.	8.40
7	AX-MW-95 MS	26596.	4.21	150256.	5.45	67965.	8.40
8	AX-MW-95 MSD	26818.	4.21	152697.	5.45	73273.	8.40
9	VMSB	25444.	4.21	151433.	5.45	72674.	8.40
10							
11							
12							
13			!				
14							
15			!				
16				!			
17							
18							
19							
20							
21			I				
22							

IS1 (BCM) = Bromochloromethane
IS2 (DFB) = 1,4-Difluorobenzene
IS3 (CBZ) = Chlorobenzene-d5

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

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

page 1 of 1

FORM VIII VOA

SAMPLE DATA

PACKAGE



Experience is the solution

314 North Pearl Street • Albany, New York 12207 • (518) 434-4546 • Fax (518) 434-0891

Case Narrative

Client: ERM – Axelrod Institute

Case: ERM 0603

SDG: AX-MW-8S

Sample ID	Laboratory Sample ID	Date Received	<u>VTSR</u>	<u>Matrix</u>
AX-MW-9S AX-MW-11S AX-MW-8S AX-DUPE AX-TB	060907030-001 060907030-002 060907030-003 060907030-004 060907030-005	09/07/06 09/07/06 09/07/06 09/07/06 09/07/06	12:22 12:22 12:22 12:22 12:22	Water Water Water Water Water
AA-ID	000707050-005	02/07/00	12.22	Tr ater

Volatile Organics

- 1) The samples were analyzed using EPA Method 8260 following the criteria for EPA CLP.
- 2) The samples received on 9/7/06 had a temperature of 6 °C.
- 3) The water samples were preserved with HCl to a pH of less than 2. All samples were analyzed within the required holding times.
- 4) The %RSD's for the compounds Carbon Tetrachloride and 1,2,4-Trichlorobenzene in the initial calibration analyzed on 9/8/06 were outside the criteria established by the method. The %RSD's for these compounds were 24.7 % and 35.7 %, respectively. According to the protocol, two volatile organic compounds may exceed the %RSD limit of 20.5 % as long as the %RSD is less than 40 % and the RRF is above 0.010. The %RSD was below 40 % and the RRF was greater than 0.010 for these compounds.
- 5) Sample AX-MW-9S (AES sample number 060907030-001) was used for the matrix spike and matrix spike duplicate analysis. All recoveries were within acceptable limits.
- 6) The column used in Instrument E for analysis was an RTX-624, 20 meters long with an internal diameter of 0.18 mm. The trap used for this instrument is a VOCARB 4000 with Carbopack C&B / Carboxen 1000 & 1001.



314 North Pearl Street • Albany, New York 12207 • (518) 434-4546 • Fax (518) 434-0891

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

Laboratory Manager

Date: 9/26/06





314 North Pearl Street Albany, New York 12207 518-434-4546/434-0891 FAX

CHAIN OF CUSTODY RECORD

"xperience is the solution

A full service analytical research laboratory offering solutions to environmental concerns

lient Name:			Address:			•				1		
ERM	- Northe d. W. M	ast	5788	, Wide	ewaters	Park	سمع	-	Ven	<i>:</i> #:	N.Y. I	3214
Send Report To:	1		Project Nar	ne (Location)	stitute		Sam	elers: (I	Names))		
Dawin	d w. m	yers	Axer					Da	d:u	<u>u.</u>]	Nyers	
lient Phone No	:	Client Fax No:		PD N	umber:		Sam	olens: (l	Signature	λ	Nyers Nyers	
								<u>U</u> n			nijero	
AES		Client	• Lasatian		Date	Time A=a.m.	<u>Sampi</u> Matrix	Graft Graft	Number of Cont's		Analunia Danul	
Sample Number	-	Sample Identification -95(0907)			Sampled 9 7/06	P=p.m.		X		Noc	Analysis Requi	
									-			
		1-115 (09			9/1/06	11:25 P		×	1		5 826	
		J- 85 (040			9/7/06	11:55 P	L	<u> </u>	2		5 826	
00Y	Ax - 31	me (0907	مد)		9/7/06	1:00 P	L	X		VO	(s 826	0
005	Ax - TE	<u>3 (090706</u>)		9/7/06				V	Tr	ip Blan	k
						A P					1	
						A						
		_				A						
						P A						
						P						
						A						
						A						
	 	_				P A		+				
						P A						
						Р						
						A P						
ES Work Order	· #:			CC Report	To / Special Inst	ructions/Re	marks:					
	59070	120			* As	PI]	P	X	i.		_
		720		4	V 112	Le	ver	D.	Ψe		rables	· [
rnaround Time	: Request:	Normal										
2 Bay	D 5 Day	\wedge		Clie	n+							
inquished by:	Signature)	1			y: (Signature)						Date/Time	
elinquished by:	(Signature)	igus_		Received b	y: (Signature)	_					Date/Time	
				Beert to		_						
elinquished by:	(Signature)			Received to	or Laboratory by MA	ali	Λ			9/2	Date/Time	122
	Temperature		6	PROPE	RLY PRESERVED	. 00-			RECEIVED	WITHIN	HOLDING TIMES	;
Am Notes:	nbient or (Chilled	Note	. (Y) N			Notes	. (Y	N	
NUTEA.	<u> </u>		NULE	••				NULES	·			
	WHITE - La	th Copy		YELLOW -	Sampler Copy			P	INK - Go	nerator Co	עחו	

Adirondack Environmental Services, Inc	ł.	2207	9
Adirondack Er	314 N. Pearl St.	Albany, NY 12207	(518) 434-4546

CHAIN-OF-CUSTODY RECORD

Page 1 of 1

WorkOrder: 060907030

Client:

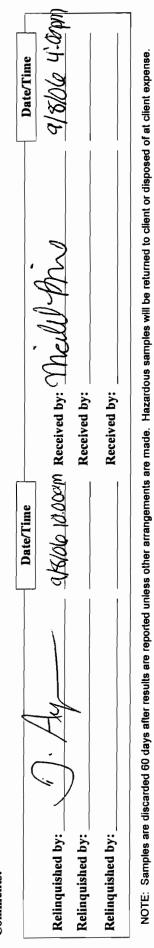
ERM	TEL:	(315) 445
5788 Widewaters Parkway	FAX:	(315) 445
Dewitt, NY 13214	ProjectNo:	Axeirod In
	;	

nstitute 5-2554 5-2543 ö

07-Sep-06

_						
A_8260_WATI		A	A	A	A	A
Bottle 7						
Collection Date		9/7/2006	9/7/2006	9/7/2006	9/7/2006	9/1/2006
Matrix		Water	Water	Water	Water	Water
ClientSampID		AX-TB (090706)	AX-DUPE (090706)	AX-MW-8S (090706)	AX-MW-11S (090706)	AX-MW-9S (090706)
Sample ID		060907030-005	060907030-004	060907030-003	060907030-002	060907030-001
	ClientSampID Matrix	CilentSampID Matrix Collection Date	CilentSampID Matrix Collection Date -005 AX-TB (090706) Water 9/7/2006	CilentSampID Matrix Collection Date -005 AX-TB (090706) Water 9/7/2006 -004 AX-DUPE (090706) Water 9/7/2006	CilentSampID Matrix Collection Date -005 AX-TB (090706) Water 9/7/2006 -004 AX-DUPE (090706) Water 9/7/2006 -003 AX-MW-8S (090706) Water 9/7/2006	CilentSampID Matrix Collection Date -005 AX-TB (090706) Water 9/7/2006 -004 AX-DUPE (090706) Water 9/7/2006 -003 AX-MWBS (090706) Water 9/7/2006 -002 AX-MW11S (090706) Water 9/7/2006

Comments:



Bottle Type: L-Liter V-Voa S-Soil Jar O-Orbo T-Tedlar B-Brass P-Plastic OT-Other

VOLATILE ORGANICS

ANALYSIS

QC

٠

SUMMARY

WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: AES, Inc.

Contract:

Lab Code: AES Case No.: ERM0603 SAS No.: SDG No.: AX-MW-8S

		-	-			
	EPA	SMC1	SMC2	SMC3	OTHER	TOT
	SAMPLE NO.	(TOL)#	(BFB)#	(DCE)#		OUT
			======		=====	===
1	VBLK01	91	88	103		0
2	AX-MW-95	94	92	105		0
3	AX-MW-11S	100	94	100		0
4	AX-MW-85	103	92	108		0
5	AX-DUPE	105	97	106		0
6	AX-TB	98	91	103		0
7	AX-MW-95 MS	102	96	107		0
8	AX-MW-95 MSD	95	88	109		0
9	VMSB	94	90	111		0
10						i i
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						!
27						!
28						
29						!
30						
50					I	
				00	LIMITS	3
SMC	Cl (TOL) = Tolu	ene-d8		-	88-110)	
SMC			benzene		86-115)	

5 SMC3 (DCE) = 1, 2-Dichloroethane-d4 (76-114) # Column to be used to flag recovery values * Values outside of contract required QC limits

D System Monitoring Compound diluted out

page 1 of 1

000023

3A

WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: AES, Inc. Contract:

Lab Code: AES Case No.: ERM0603 SAS No.: SDG No.: AX-MW-8S

Matrix Spike - EPA Sample No.: AX-MW-9S

	SPIKE	SAMPLE	MS	MS	QC
	ADDED	CONCENTRATION	CONCENTRATION	8	LIMITS
COMPOUND	(UG/L)	(UG/L)	(UG/L)	REC #	REC.
**********************	=========	***********		=====	======
1,1-Dichloroethene	50.	0.	39.	78	61-145
Trichloroethene	50.	0.	48.	96	71-120
Benzene	50.	0.	48.	96	76-127
Toluene	50.	0.	53.	106	76-125
Chlorobenzene	50.	0.	52.	104	75-130
					İ

	SPIKE MSD		MSD			
	ADDED	CONCENTRATION	8	₽	QC L	IMITS
COMPOUND	(UG/L)	(UG/L)	REC #	RPD #	RPD	REC.
	=========			=====	======	======
1,1-Dichloroethene	50.	39.	78	0	14	61-145
Trichloroethene	50.	48.	96	0	14	71-120
Benzene	50.	48.	96	0	11	76-127
Toluene	50.	48.	96	10	13	76-125
Chlorobenzene	50.	49.	98	6	13	75-130
						İ

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

* Values outside of QC limits

RPD: 0 out of 5 outside limits Spike Recovery: 0 out of 10 outside limits

COMMENTS:

FORM III VOA-1

3A WATER VOLATILE MATRIX SPIKE BLANK RECOVERY

LAB NAME Adirond	lack Environmental	CONTRACT:				
LAB CODE: AES	Case No.: ERM 0603	SAS No.:	SDG No.:	AX-MW-8S		
Matrix Spike - EPA S	Sample No.: Blank	Level:(Low/Med)	Low			

	Spike	Sample	MS	MS	QC
Compound	Added	Conc.	Conc.	%.	Limits
	ug/L	ug/L	ug/L	REC. #	REC.
1,1 Dichloroethene	50	0	39	79	61-145
Trichloroethene	50	0	49	99	71-120
Benzene	50	0	49	98	76-127
Toluene	50	0	51	102	76-125
Chlorobenzene	50	0	51	102	75-130

Column used to flag recovery values

* Values outside of required QC limits

Spike Recovery 0 out of 5 outside limits

Comments:

FORM III VOA

000025

VOLATILE METHOD BLANK SUMMARY

Lab Name: AES, Inc.	Contract	VBLK01
Lab Code: AES	Case No.: ERM0603 SAS No.	: SDG No.: AX-MW-8S
Lab File ID: EB414		Lab Sample ID: VBLK01
Date Analyzed:	09/08/06	Time Analyzed: 13:54
GC Column: DB-624	ID: .18 (mm)	Heated Purge: (Y/N) N
Instrument ID:	H5973 E	

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

	EPA	LAB	LAB	TIME
	SAMPLE NO.	SAMPLE ID	FILE ID	ANALYZED
		========================	=================	===========
1	AX-MW-95	AX-MW-9S	E2587	14:42
2	AX-MW-11S	AX-MW-11S	E2588	15:06
3	AX-MW-85	AX-MW-85	E2589	15:30
4	AX-DUPE	AX-DUPE	E2590	15:54
5	AX – TB	AX-TB	E2591	16:18
6	AX-MW-95 MS	AX-MW-95 MS	E2592	16:44
7	AX-MW-95 MSD	AX-MW-95 MSD	E2593	17:08
8	VMSB	VMSB	E2594	17:32
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				
301				

COMMENTS:

5A VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK BROMOFLUOROBENZENE (BFB)

Lab Name: AES, Inc.	Contract:			
Lab Code: AES Case No.: ERM0603	SAS No.: SDG No.: AX-MW-8S			
Lab File ID: ET409	BFB Injection Date: 09/08/06			
Instrument ID.: H5973 E	BFB Injection Time: 10:29			
GC Column: DB-624 ID: .18 (mm)	Heated Purge: (Y/N) N			

m/e	ION ABUNDANCE CRITERIA	<pre>% RELATIVE ABUNDANCE</pre>
=====	***************************************	
50	15.0 - 40.0% of mass 95	34.8
75	30.0 - 60.0% of mass 95	58.0
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.2
173	Less than 2.0% of mass 174	1.3 (1.4)1
174	50.0 - 120.0% of mass 95	96.0
175	5.0 - 9.0 % of mass 174	7.8 (8.1)1
176	95.0 - 101.0% of mass 174	92.7 (96.6)1
177	5.0 - 9.0% of mass 176	6.9 (7.4)2
ii		

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA	LAB	LAB	DATE	TIME
	SAMPLE NO.	SAMPLE ID	FILE ID	ANALYZED	ANALYZED
Í					
1	VSTD020	VSTD020	ES410	09/08/06	11:14
2	VSTD050	VSTD050	ES411	09/08/06	11:37
3	VSTD100	VSTD100	ES412	09/08/06	12:01
4	VSTD200	VSTD200	ES413	09/08/06	12:24
5	VSTD010	VSTD010	ES415	09/08/06	13:29
6	VBLK01	VBLK01	EB414	09/08/06	13:54
7	AX-MW-95	AX-MW-95	E2587	09/08/06	14:42
8	AX-MW-11S	AX-MW-11S	E2588	09/08/06	15:06
9	AX-MW-85	AX-MW-85	E2589	09/08/06	15:30
10	AX-DUPE	AX-DUPE	E2590	09/08/06	15:54
11	AX-TB	AX-TB	E2591	09/08/06	16:18
12	AX-MW-9S MS	AX-MW-95 MS	E2592	09/08/06	16:44
13	AX-MW-95 MSD	AX-MW-95 MSD	E2593	09/08/06	17:08
14	VMSB	VMSB	E2594	09/08/06	17:32
15					
17					
18					
19					
20					
21					
22					

page 1 of 1



VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: AES, Inc.Contract:Lab Code: AESCase No.: ERM0603 SAS No.:SDG No.: AX-MW-8SLab File ID (Standard): ES411Date Analyzed: 09/08/06Instrument ID: H5973 ETime Analyzed: 11:37GC Column: DB-624ID: .18 (mm)Heated Purge: (Y/N) N

		IS1 (BCM)	IS2 (DFB)			IS3 (CBZ)		
		AREA #	RT #	AREA #	RT #	AREA #	RT #	
			======	********	=======		=======	
	12 HOUR STD	25530.	4.21	142998.	5.45	66948.	8.39	
	UPPER LIMIT	51060.	4.71	285996.	5.95	133896.	8.89	
	LOWER LIMIT	12765.	3.71	71499.	4.95	33474.	7.89	
	==================	*********			======			
	EPA SAMPLE							
	NO.							
	************	********		==========	=======		======	
1	VBLK01	29697.	4.22	166491.	5.46	81098.	8.40	
2	AX-MW-9S	27947.	4.21	153373.	5.45	74918.	8.40	
3	AX-MW-11S	26705.	4.21	148785.	5.46	68883.	8.40	
4	AX-MW-85	26254.	4.21	151168.	5.45	71074.	B.40	
5	AX-DUPE	24998.	4.22	142924.	5.45	66050.	8.40	
6	AX - TB	24789.	4.21	142520.	5.46	67687.	8.40	
7	AX-MW-95 MS	26596.	4.21	150256.	5.45	67965.	8.40	
8	AX-MW-95 MSD	26818.	4.21	152697.	5.45	73273.	8.40	
9	VMSB	25444.	4.21	151433.	5.45	72674.	8.40	
10								
11							·]	
12								
13								
14								
15								
16			<u>`</u>					
17								
18								
19								
20								
21								
22								

IS1 (BCM) = Bromochloromethane
IS2 (DFB) = 1,4-Difluorobenzene
IS3 (CBZ) = Chlorobenzene-d5

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

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

page 1 of 1

FORM VIII VOA

Volatile Organics Instrument Detection Limits - Instrument E

Date Performed:

8/19/05

Analyte	E IDL01	E IDL02	E IDL03	E IDL04	E IDL05	E IDL06	E IDL07	STD DEV	IDL
1,1,1-Trichloroethane	21.11	21.32	19.83	19.59	18.86	19.57	22.62	1.3114	4.122
1,1,2,2-Tetrachloroethane	22.32	20.53	20.39	19.98	20.18	20.99	22.77	1.0937	3.438
1,1,2-Trichloroethane	23.23	22.05	21.46	22.76	20.10	20.59	23.54	1.2806	4.025
1,1-Dichloroethane	19.80	19.64	19.65	19.06	18.01	18.94	21.89	1.1928	3.749
1,1-Dichloroethene	20.80	19.60	18.62	21.20	17.85	19.19	20.63	1.3063	4.106
1,2,4-Trichlorobenzene	16.34	17.46	15.38	15.77	17.85	17.79	18.83	1.2104	3.804
<u> </u>	22.38	22.08		21.23	21.23		-	1.3739	
1,2-Dibromoethane	19.34		20.46		19.54	22.68	24.69	0.9759	4.318
1,2-Dichlorobenzene		19.70		18.66		19.91	21.42		3.067
1,2-Dichloroethane	20.38	20.82	19.73 20.13	20.32	18.37	18.82	22.60	1.3933	4.379
1,2-Dichloropropane	21.82	22.30		21.22	20.32	19.92	23.17	1.2248	3.849
1,3-Dichlorobenzene	19.38	19.70	18.80	18.59	19.61	20.43	21.70	1.0545	3.314
1,4-Dichlorobenzene	18.39	18.83	17.89	17.98	18.99	19.45	20.94	1.0488	3.296
2-Butanone	17.87	18.66	18.95	19.18	16.78	18.34	20.27	1.0925	3.434
2-Hexanone	17.75	15.27	15.20	16.63	15.17	16.07	18.73	1.3930	4.378
4-Methyl-2-pentanone	17.16	15.69	15.76	15.63	15.38	16.03	17.33	0.7803	2.452
Acetone	18.56	17.68	20.29	21.38	20.75	21.42	21.71	1.5540	4.884
Benzene	22.10	20.99	20.45	19.70	19.22	19.75	22.70	1.3038	4.098
Bromodichloromethane	21.22	20.86	20.22	19.17	18.95	18.83	22.30	1.3155	4.135
Bromoform	21.59	20.23	20.78	19.30	18.10	19.48	18.22	1.2892	4.052
Bromomethane	43.88	37.69	38.61	39.62	36.67	40.03	44.35	2.9545	9.286
Carbon disulfide	21.39	20.28	20.80	20.85	18.79	18.88	22.60	1.3546	4.258
Carbon tetrachloride	20.29	20.59	18.35	18.68	17.99_	18.48	16.24	1.4615	4.594
<u>'hlorobenzene</u>	21.95	21.51	21.20	19.76	20.05	20.24	21.89	0.9119	2.866
Chloroethane	25.14	28.88	25.83	25.19	25.86	24.37	30.37	2.2211	6.981
Chloroform	20.54	20.13	19.55	19.92	18.76	19.54	22.73	1.2599	3.960
Chloromethane	22.31	22.59	21.82	21.42	20.11	21.59	24.14	1.2337	3.878
cis-1,2-Dichloroethene	19.89	18.76	17.36	18.13	16.83	17.38	18.69	1.0529	3.309
cis-1,3-Dichloropropene	21.62	21.46	21.14	20.08	18.93	20.53	23.26	1.3586	4.270
Cyclohexane	16.75	18.29	18.24	18.88	18.42	18.75	20.37	1.0707	3.365
Dibromochloromethane	21.36	21.01	20.48	20.10	10.00	<u> </u>			2 5 2 2
Dichlorodifluoromethane					18.99	20.37	22.60	1.1242	3.533
	20.73	21.62	20.90	21.62	21.42	20.37	22.60 23.36	1.1242 0.8869	2.787
Ethylbenzene	20.73 20.94	21.62 20.71							
Ethylbenzene Isopropylbenzene	20.94 19.16	20.71 19.85	20.90 20.15 18.56	21.62 19.51 19.39	21.42 19.40 19.56	22.24 21.01 20.29	23.36 21.75 21.75	0.8869 0.8537 1.0180	2.787
Ethylbenzene	20.94	20.71	20.90 20.15	21.62 19.51	21.42 19.40	22.24 21.01	23.36 21.75	0.8869 0.8537	2.787 2.683
Ethylbenzene Isopropylbenzene	20.94 19.16	20.71 19.85	20.90 20.15 18.56	21.62 19.51 19.39	21.42 19.40 19.56	22.24 21.01 20.29	23.36 21.75 21.75	0.8869 0.8537 1.0180	2.787 2.683 3.200
Ethylbenzene Isopropylbenzene m,p-Xylene	20.94 19.16 43.31	20.71 19.85 41.90	20.90 20.15 18.56 42.04	21.62 19.51 19.39 39.70	21.42 19.40 19.56 40.24	22.24 21.01 20.29 40.44	23.36 21.75 21.75 39.95	0.8869 0.8537 1.0180 1.3456	2.787 2.683 3.200 4.229
Ethylbenzene Isopropylbenzene m,p-Xylene Methyl Acetate Methyl Cyclohexane Methyl tert-butyl ether	20.94 19.16 43.31 22.19	20.71 19.85 41.90 20.57	20.90 20.15 18.56 42.04 18.23	21.62 19.51 19.39 39.70 19.31 18.77 19.14	21.42 19.40 19.56 40.24 19.86	22.24 21.01 20.29 40.44 21.20	23.36 21.75 21.75 39.95 22.05	0.8869 0.8537 1.0180 1.3456 1.4566	2.787 2.683 3.200 4.229 4.578
Ethylbenzene Isopropylbenzene m,p-Xylene Methyl Acetate Methyl Cyclohexane Methyl tert-butyl ether Methylene chloride	20.94 19.16 43.31 22.19 19.22 19.44 18.08	20.71 19.85 41.90 20.57 21.45	20.90 20.15 18.56 42.04 18.23 19.08	21.62 19.51 19.39 39.70 19.31 18.77	21.42 19.40 19.56 40.24 19.86 19.75	22.24 21.01 20.29 40.44 21.20 20.54	23.36 21.75 21.75 39.95 22.05 22.87	0.8869 0.8537 1.0180 1.3456 1.4566 1.4865	2.787 2.683 3.200 4.229 4.578 4.672
Ethylbenzene Isopropylbenzene m,p-Xylene Methyl Acetate Methyl Cyclohexane Methyl tert-butyl ether	20.94 19.16 43.31 22.19 19.22 19.44 18.08 21.11	20.71 19.85 41.90 20.57 21.45 19.37 21.08 20.68	20.90 20.15 18.56 42.04 18.23 19.08 18.97 21.12 20.79	21.62 19.51 19.39 39.70 19.31 18.77 19.14	21.42 19.40 19.56 40.24 19.86 19.75 19.62	22.24 21.01 20.29 40.44 21.20 20.54 19.29	23.36 21.75 21.75 39.95 22.05 22.87	0.8869 0.8537 1.0180 1.3456 1.4566 1.4865 1.4046	2.787 2.683 3.200 4.229 4.578 4.672 4.415
Ethylbenzene Isopropylbenzene m,p-Xylene Methyl Acetate Methyl Cyclohexane Methyl tert-butyl ether Methylene chloride o-Xylene Styrene	20.94 19.16 43.31 22.19 19.22 19.44 18.08	20.71 19.85 41.90 20.57 21.45 19.37 21.08 20.68 21.05	20.90 20.15 18.56 42.04 18.23 19.08 18.97 21.12	21.62 19.51 19.39 39.70 19.31 18.77 19.14 18.71	21.42 19.40 19.56 40.24 19.86 19.75 19.62 20.66	22.24 21.01 20.29 40.44 21.20 20.54 19.29 18.40	23.36 21.75 21.75 39.95 22.05 22.87 22.98	0.8869 0.8537 1.0180 1.3456 1.4566 1.4865 1.4046 1.4236	2.787 2.683 3.200 4.229 4.578 4.672 4.415 4.790
Ethylbenzene Isopropylbenzene m,p-Xylene Methyl Acetate Methyl Cyclohexane Methyl tert-butyl ether Methylene chloride o-Xylene	20.94 19.16 43.31 22.19 19.22 19.44 18.08 21.11	20.71 19.85 41.90 20.57 21.45 19.37 21.08 20.68	20.90 20.15 18.56 42.04 18.23 19.08 18.97 21.12 20.79	21.62 19.51 19.39 39.70 19.31 18.77 19.14 18.71 19.96	21.42 19.40 19.56 40.24 19.86 19.75 19.62 20.66 19.86	22.24 21.01 20.29 40.44 21.20 20.54 19.29 18.40 20.85	23.36 21.75 21.75 39.95 22.05 22.87 22.98 22.64	0.8869 0.8537 1.0180 1.3456 1.4566 1.4566 1.4865 1.4046 1.4236 0.9198	2.787 2.683 3.200 4.229 4.578 4.672 4.415 4.790 2.891
Ethylbenzene Isopropylbenzene m,p-Xylene Methyl Acetate Methyl Cyclohexane Methyl tert-butyl ether Methylene chloride o-Xylene Styrene	20.94 19.16 43.31 22.19 19.22 19.44 18.08 21.11 22.59	20.71 19.85 41.90 20.57 21.45 19.37 21.08 20.68 21.05	20.90 20.15 18.56 42.04 18.23 19.08 18.97 21.12 20.79 21.52	21.62 19.51 19.39 39.70 19.31 18.77 19.14 18.71 19.96 21.02	21.42 19.40 19.56 40.24 19.86 19.75 19.62 20.66 19.86 20.44	22.24 21.01 20.29 40.44 21.20 20.54 19.29 18.40 20.85 21.32	23.36 21.75 21.75 39.95 22.05 22.87 22.98 22.64 23.01	0.8869 0.8537 1.0180 1.3456 1.4566 1.4865 1.4046 1.4236 0.9198 0.9155	2.787 2.683 3.200 4.229 4.578 4.672 4.415 4.790 2.891 2.877
Ethylbenzene Isopropylbenzene m,p-Xylene Methyl Acetate Methyl Cyclohexane Methyl tert-butyl ether Methylene chloride o-Xylene Styrene Tetrachloroethene	20.94 19.16 43.31 22.19 19.22 19.44 18.08 21.11 22.59 21.16	20.71 19.85 41.90 20.57 21.45 19.37 21.08 20.68 21.05 20.76	20.90 20.15 18.56 42.04 18.23 19.08 18.97 21.12 20.79 21.52 20.62	21.62 19.51 19.39 39.70 19.31 18.77 19.14 18.71 19.96 21.02 19.33	21.42 19.40 19.56 40.24 19.86 19.75 19.62 20.66 19.86 20.44 19.60	22.24 21.01 20.29 40.44 21.20 20.54 19.29 18.40 20.85 21.32 20.79	23.36 21.75 21.75 39.95 22.05 22.87 22.98 22.64 23.01 22.34	0.8869 0.8537 1.0180 1.3456 1.4566 1.4865 1.4046 1.4236 0.9198 0.9155 0.9994	2.787 2.683 3.200 4.229 4.578 4.672 4.415 4.790 2.891 2.877 3.141
Ethylbenzene Isopropylbenzene m,p-Xylene Methyl Acetate Methyl Cyclohexane Methyl tert-butyl ether Methylene chloride o-Xylene Styrene Tetrachloroethene Toluene	20.94 19.16 43.31 22.19 19.22 19.44 18.08 21.11 22.59 21.16 21.42	20.71 19.85 41.90 20.57 21.45 19.37 21.08 20.68 21.05 20.76 20.16	20.90 20.15 18.56 42.04 18.23 19.08 18.97 21.12 20.79 21.52 20.62 20.03	21.62 19.51 19.39 39.70 19.31 18.77 19.14 18.71 19.96 21.02 19.33 19.04	21.42 19.40 19.56 40.24 19.86 19.75 19.62 20.66 19.86 20.44 19.60 19.54	22.24 21.01 20.29 40.44 21.20 20.54 19.29 18.40 20.85 21.32 20.79 19.93	23.36 21.75 21.75 39.95 22.05 22.87 22.98 22.64 23.01 22.34 21.22	0.8869 0.8537 1.0180 1.3456 1.4566 1.4865 1.4046 1.4236 0.9198 0.9155 0.9994 0.8576	2.787 2.683 3.200 4.229 4.578 4.672 4.415 4.790 2.891 2.877 3.141 2.695
Ethylbenzene Isopropylbenzene m,p-Xylene Methyl Acetate Methyl Cyclohexane Methyl tert-butyl ether Methylene chloride o-Xylene Styrene Tetrachloroethene Toluene trans-1,2-Dichloroethene	20.94 19.16 43.31 22.19 19.22 19.44 18.08 21.11 22.59 21.16 21.42 17.95	20.71 19.85 41.90 20.57 21.45 19.37 21.08 20.68 21.05 20.76 20.16 20.57	20.90 20.15 18.56 42.04 18.23 19.08 18.97 21.12 20.79 21.52 20.62 20.03 21.01	21.62 19.51 19.39 39.70 19.31 18.77 19.14 18.71 19.96 21.02 19.33 19.04 19.42	21.42 19.40 19.56 40.24 19.86 19.75 19.62 20.66 19.86 20.44 19.60 19.54 17.88	22.24 21.01 20.29 40.44 21.20 20.54 19.29 18.40 20.85 21.32 20.79 19.93 20.88	23.36 21.75 21.75 39.95 22.05 22.87 22.98 22.64 23.01 22.34 21.22 21.33	0.8869 0.8537 1.0180 1.3456 1.4566 1.4865 1.4046 1.4236 0.9198 0.9155 0.9994 0.8576 1.4600	2.787 2.683 3.200 4.229 4.578 4.672 4.415 4.790 2.891 2.877 3.141 2.695 4.589 4.833
Ethylbenzene Isopropylbenzene m,p-Xylene Methyl Acetate Methyl Cyclohexane Methyl tert-butyl ether Methylene chloride o-Xylene Styrene Tetrachloroethene Toluene trans-1,2-Dichloroethene trans-1,3-Dichloropropene	20.94 19.16 43.31 22.19 19.22 19.44 18.08 21.11 22.59 21.16 21.42 17.95 23.96	20.71 19.85 41.90 20.57 21.45 19.37 21.08 20.68 21.05 20.76 20.16 20.57 22.53	20.90 20.15 18.56 42.04 18.23 19.08 18.97 21.12 20.79 21.52 20.62 20.03 21.01 22.07 20.87	21.62 19.51 19.39 39.70 19.31 18.77 19.14 18.71 19.96 21.02 19.33 19.04 19.42 22.17 19.55	21.42 19.40 19.56 40.24 19.86 19.75 19.62 20.66 19.86 20.44 19.60 19.54 17.88 20.99	22.24 21.01 20.29 40.44 21.20 20.54 19.29 18.40 20.85 21.32 20.79 19.93 20.88 21.84 20.84	23.36 21.75 21.75 39.95 22.05 22.87 22.98 22.64 23.01 22.34 21.22 21.33 25.57 22.84	0.8869 0.8537 1.0180 1.3456 1.4566 1.4865 1.4046 1.4236 0.9198 0.9155 0.9994 0.8576 1.4600 1.5377 1.3372	2.787 2.683 3.200 4.229 4.578 4.672 4.415 4.790 2.891 2.877 3.141 2.695 4.589 4.833 4.203
Ethylbenzene Isopropylbenzene m,p-Xylene Methyl Acetate Methyl Cyclohexane Methyl tert-butyl ether Methylene chloride o-Xylene Styrene Tetrachloroethene Toluene trans-1,2-Dichloroethene trans-1,3-Dichloropropene Trichloroethene	20.94 19.16 43.31 22.19 19.22 19.44 18.08 21.11 22.59 21.16 21.42 17.95 23.96 22.31	20.71 19.85 41.90 20.57 21.45 19.37 21.08 20.68 21.05 20.76 20.16 20.57 22.53 21.53	20.90 20.15 18.56 42.04 18.23 19.08 18.97 21.12 20.79 21.52 20.62 20.03 21.01 22.07	21.62 19.51 19.39 39.70 19.31 18.77 19.14 18.71 19.96 21.02 19.33 19.04 19.42 22.17	21.42 19.40 19.56 40.24 19.86 19.75 19.62 20.66 19.86 20.44 19.60 19.54 17.88 20.99 19.21	22.24 21.01 20.29 40.44 21.20 20.54 19.29 18.40 20.85 21.32 20.79 19.93 20.88 21.84	23.36 21.75 21.75 39.95 22.05 22.87 22.98 22.64 23.01 22.34 21.22 21.33 25.57	0.8869 0.8537 1.0180 1.3456 1.4566 1.4865 1.4046 1.4236 0.9198 0.9155 0.9994 0.8576 1.4600 1.5377	2.787 2.683 3.200 4.229 4.578 4.672 4.415 4.790 2.891 2.877 3.141 2.695 4.589 4.833

Reviewed by QA Manager:

Clthah Ha 9/2/25

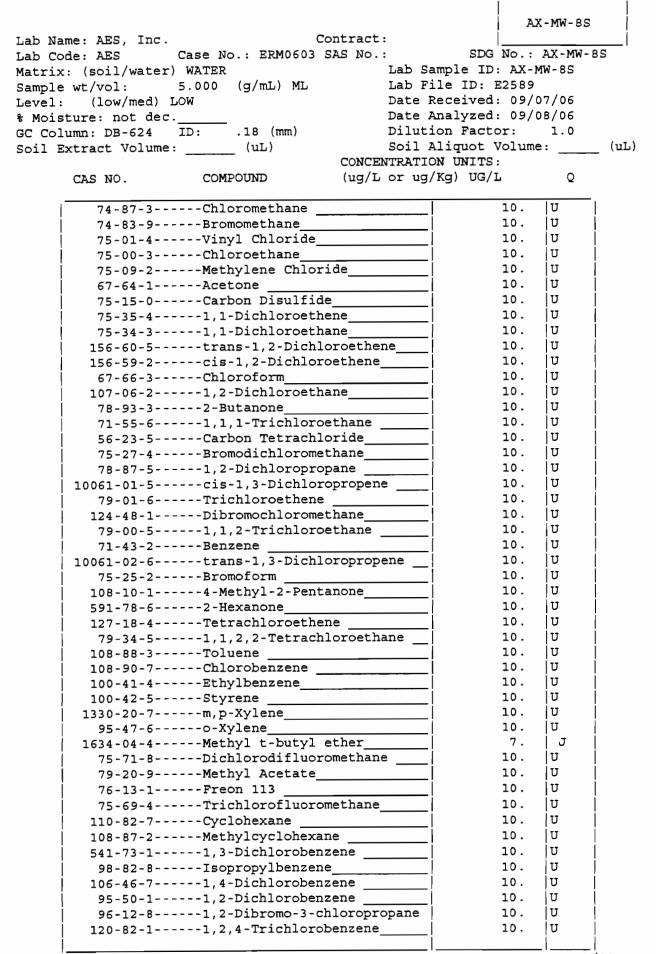
Date:

SAMPLE

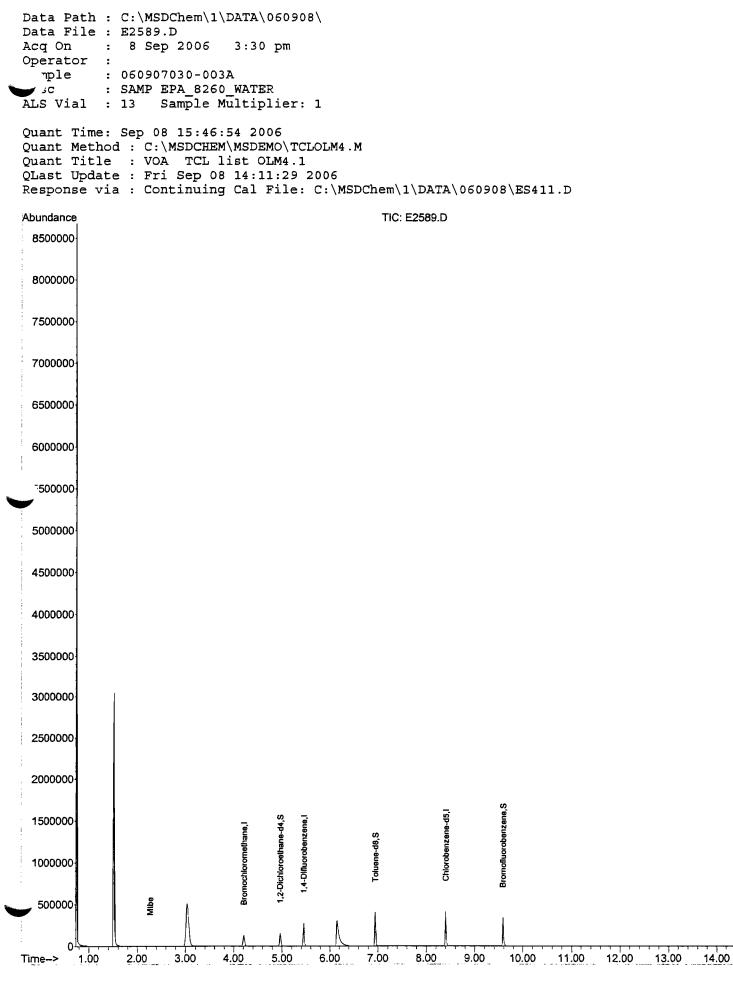
DATA



1 A I

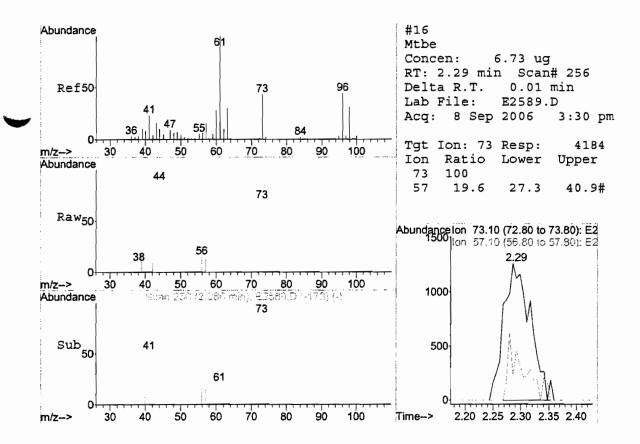


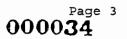
^{3/90}00031



Data Path : C:\MSDChem\1\DATA\060908\ Data File : E2589.D Acg On : 8 Sep 2006 3:30 pm Operator : >le : 060907030-003A : : SAMP EPA_8260_WATER ALS Vial : 13 Sample Multiplier: 1 Quant Time: Sep 08 15:46:54 2006 Quant Method : C:\MSDCHEM\MSDEMO\TCLOLM4.M Quant Title : VOA TCL list OLM4.1 QLast Update : Fri Sep 08 14:11:29 2006 Response via : Continuing Cal File: C:\MSDChem\1\DATA\060908\ES411.D R.T. QION Response Conc Units Dev(Min) Internal Standards 1) Bromochloromethane4.211282625450.00 ug0.0026) 1,4-Difluorobenzene5.4511415116850.00 ug0.0044) Chlorobenzene-d58.401177107450.00 ug0.00 System Monitoring Compounds 4.96 65 135072 53.97 ug 6.94 98 198339 51.33 ug 9.58 95 88952 46.24 ug 24) 1,2-Dichloroethane-d4 0.00 45) Toluene-d8 0.00 56) Bromofluorobenzene 0.00 Target Compounds Ovalue 2.29 73 4184 6.73 ug # 75 16) Mtbe _____

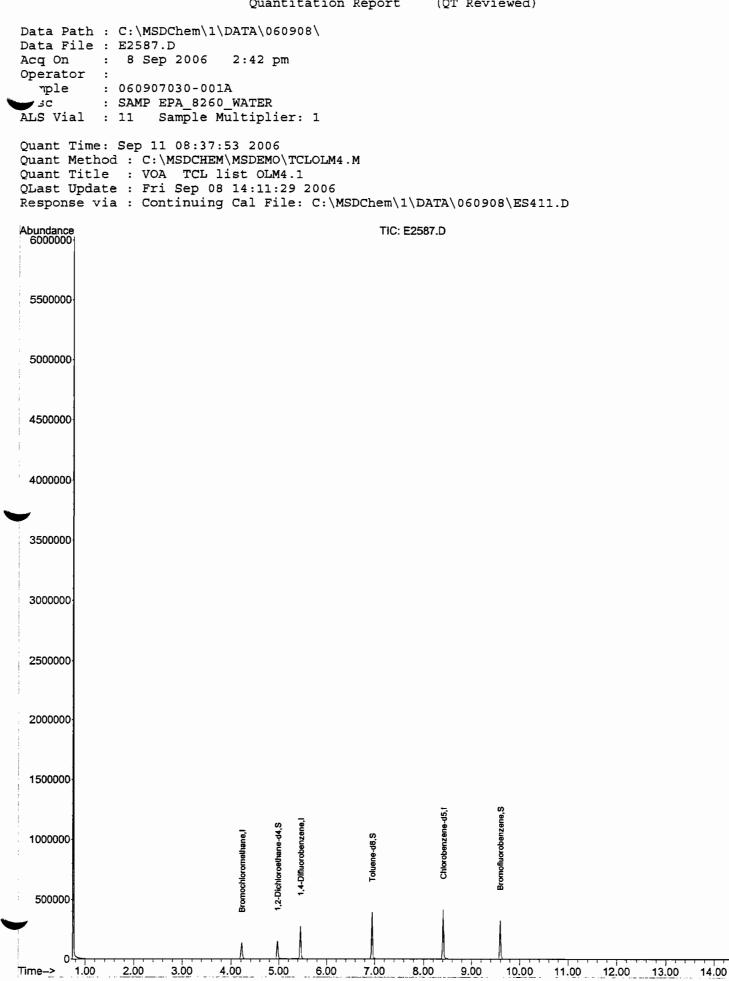
(#) = qualifier out of range (m) = manual integration (+) = signals summed





1A

VOL	ATILE ORGANICS ANALYSIS	S DATA SHEET			
					!
	-		A	X-MW-95	
Lab Name: AES, In		ntract:			
	Case No.: ERM0603 SA				
Matrix: (soil/wat	er) WATER	Lab Samp]	le ID: AX-I	MW - 95	
	5.000 (g/mL) ML		ID: E2587		
Level: (low/med			eived: 09/		
Devel: (10w/med					
<pre>% Moisture: not d</pre>	ec		lyzed: 09/		
	ID: .18 (mm)		Factor:		
Soil Extract Volu	me: (uL)		uot Volum	e:	(uL
		CONCENTRATION U			
CAS NO.	COMPOUND	(ug/L or ug/Kg)	UG/L	Q	
74-87-3	Chloromethane		10.	U	
74-83-9	Bromomethane		10.	υ	
75-01-4	Vinyl Chloride		10.	1 1	
75-00-3	Chloroethane		10.		
75-00-3	Chloroethane				
/3-09-2	Methylene Chioric	¹⁶	10.		
67-64-1	Acetone		10.	U	
75-15-0	Carbon Disulfide_		10.	υ	
75-35-4	Carbon Disulfide 1,1-Dichloroether	ne	10.	U	
75-34-3	1,1-Dichloroethar	ne	10.	U	
156-60-5	trans-1,2-Dichlor	oethene	10.	ט ו	
156-59-2	cis-1,2-Dichloroe	thene	10.		
67-66-3	Chloroform		10.		
	1,2-Dichloroethar		10.	1 1	
107-06-2	i,2-bichioroethan	······································			
78-93-3	2-Butanone	·	10.		
71-55-6	l,l,l-Trichloroet	hane	10.	U	
56-23-5	Carbon Tetrachlor	ide	10.	ט]	
75-27-4	Bromodichlorometh	ane	10.	ט	
	l,2-Dichloropropa		10.	υ	
1 10061-01-5	cis-1,3-Dichlorop	ropene	10.	ט ו	
	Trichloroethene		10.	: :	
/ /9-01-8				U	
124-48-1	Dibromochlorometh	ane	10.	U	
79-00-5	l,1,2-Trichloroet	hane	10.		
	Benzene		10.	U	
10061-02-6	trans-1,3-Dichlor	opropene	10.	ש	
75-25-2	Bromoform		10.	ט ו	
108-10-1	4-Methyl-2-Pentar	ione	10.	υ	
	2-Hexanone		10.	ίυ Í	
127-18-4	Tetrachloroethene		10.	U	
79-34-5	1,1,2,2-Tetrachlc	proetnane	10.	U	
108-88-3	Toluene		10.	ט	
108-90-7	Chlorobenzene		10.	ט	
100-41-4	Ethylbenzene		10.	υ	
100-42-5	Styrene		10.	υ	
1330-20-7	m,p-Xylene		10.	υ	
95-47-6	o-Xylene		10.	UU I	
1634-04-4	Methyl t-butyl et	her	10.	υ	
				1 1	
	Dichlorodifluorom		10.	U	
79-20-9	Methyl Acetate		10.	ט	
76-13-1	Freon 113		10.	υ	
75-69-4	Trichlorofluorome	thane	10.	υ	
110-82-7	Cyclohexane		10.	ט ו	
	Methylcyclohexane		10.	υ	
				1 1	
541-73-1	1,3-Dichlorobenze	ne	10.	U	
	Isopropylbenzene_		10.	υ	
	l,4-Dichlorobenze		10.	υ	
	1,2-Dichlorobenze		10.	υ	
	1,2-Dibromo-3-chl		10.	υ	
	1,2,4-Trichlorobe		10.	υ	
120-82-1			10.		
				· / ·	



Page: 2 000036

Data Path : C:\MSDChem\l\DATA\060 Data File : E2587.D Acq On : 8 Sep 2006 2:42 pm Operator : ````Dle : 060907030-001A : SAMP EPA_8260_WATER ALS Vial : 11 Sample Multiplie					
Quant Time: Sep 11 08:37:53 2006 Quant Method : C:\MSDCHEM\MSDEMO\'		4 14			
Quant Method : C: (MSDCHEM (MSDEMO) Quant Title : VOA TCL list OLM4		± . M			
QLast Update : Fri Sep 08 14:11:2	9 2006	-			
Response via : Continuing Cal File	a: C:\]	MSDChe	m\l\DATA\0	60908\ES411.D	
Internal Standards	R.T.		Response	Conc Units D	ev(Min)
1) Bromochloromethane	4.21	128	27947	50.00 ug	0.00
26) 1,4-Difluorobenzene	5.45	114	153373	50.00 ug	0.00
44) Chlorobenzene-d5	8.40	117	74918	50.00 ug	0.00
System Monitoring Compounds					
24) 1.2-Dichloroethane-d4	4.97	65	139571	52.39 ug	0.00
45) Toluene-d8	6.94	9B	191670	47.06 ug	0.00
56) Bromofluorobenzene	9.58	95	93298	46.01 ug	0.00
Target Compounds					Qvalue
(#) = qualifier out of range (m)	= manu	al in	tegration	(+) = signals	summed

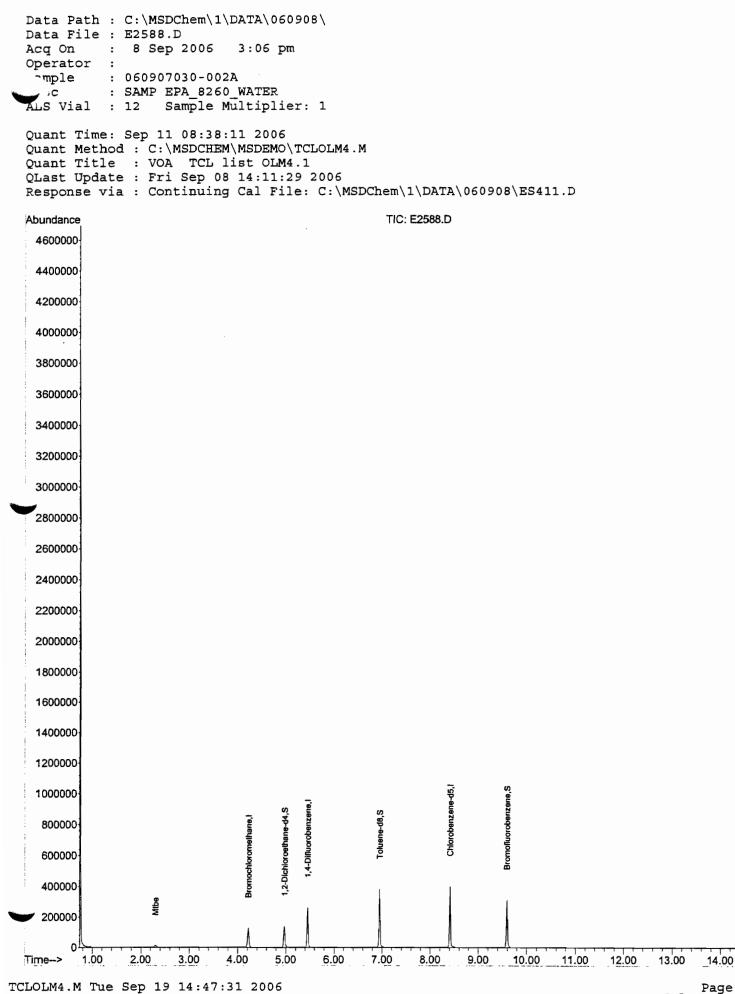
Ľ

_____]

1A

	AX	-MW-11S
Lab Name: AES, Inc. Contract:	l	
Lab Code: AES Case No.: ERM0603 SAS No.: SDC	3 NO.: /	AX-MW-85
Matrix: (soil/water) WATER Lab Sample II		W-115
Sample wt/vol: 5.000 (g/mL) ML Lab File ID:		- /
Level: (low/med) LOW Date Received		
Level: (low/med) Low Date Received % Moisture: not dec Date Analyzed GC Column: DB-624 ID: .18 (mm) Dilution Fact		
GC Column: DB-624 ID: .18 (mm) Dilution Fact		
Soil Extract Volume: (uL) Soil Aliquot		: (0
CONCENTRATION UNITS		•
CAS NO. COMPOUND (ug/L or ug/Kg) UG,	<u>ل</u> /	Q
	10	
74-87-3Chloromethane	10.	υ
74-83-9Bromomethane	10.	טן
75-01-4Vinyl Chloride		ן טן
75-00-3Chloroethane		ן ען
75-09-2Methylene Chloride	10.	ן טן
67-64-1Acetone	10.	ן טן
75-15-0Carbon Disulfide	10.	ן טן
75-35-41,1-Dichloroethene	10.	ן טן
75-34-31,1-Dichloroethane	10.	ן טן
156-60-5trans-1,2-Dichloroethene	10.	ט
156-59-2cis-1,2-Dichloroethene	10.	ט ו
67-66-3Chloroform	10.	ן טן
107-06-21,2-Dichloroethane	10.	ן ט
78-93-32-Butanone	10.	ט
71-55-61,1,1-Trichloroethane	10.	U
56-23-5Carbon Tetrachloride	10.	U
75-27-4Bromodichloromethane	10.	U
78-87-51,2-Dichloropropane	10.	טן שן
10061-01-5cis-1,3-Dichloropropene	10.	ש
79-01-6Trichloroethene	10.	ט ו
124-48-1Dibromochloromethane	10.	ט
79-00-51,1,2-Trichloroethane	10.	ט
71-43-2Benzene	10.	ט ו
10061-02-6trans-1,3-Dichloropropene	10.	ט
75-25-2Bromoform	10.	ט
108-10-14-Methyl-2-Pentanone	10.	ט
591-78-62-Hexanone	10.	ט
127-18-4Tetrachloroethene	10.	ש
79-34-51,1,2,2-Tetrachloroethane	10.	ש
108-88-3Toluene	10.	ט
108-90-7Chlorobenzene	10.	ט
100-41-4Ethylbenzene	10.	υ
100-42-5Styrene	10.	ט
1330-20-7m,p-Xylene	10.	υ
95-47-6o-Xylene	10.	ט
1634-04-4Methyl t-butyl ether	19.	
75-71-8Dichlorodifluoromethane	10.	ש
79-20-9Methyl Acetate	10.	ש
76-13-1Freon 113	10.	ט ו
75-69-4Trichlorofluoromethane	10.	υ
110-82-7Cyclohexane	10.	υ
108-87-2Methylcyclohexane	10.	ט
541-73-11,3-Dichlorobenzene	10.	ט
98-82-8Isopropylbenzene	10.	ש .
106-46-71,4-Dichlorobenzene	10.	ט
95-50-11,2-Dichlorobenzene	10.	ט ו
96-12-81,2-Dibromo-3-chloropropane	10.	טן ש
120-82-11,2,4-Trichlorobenzene	10.	ט ו
		ii
FORM I VOA		3/90

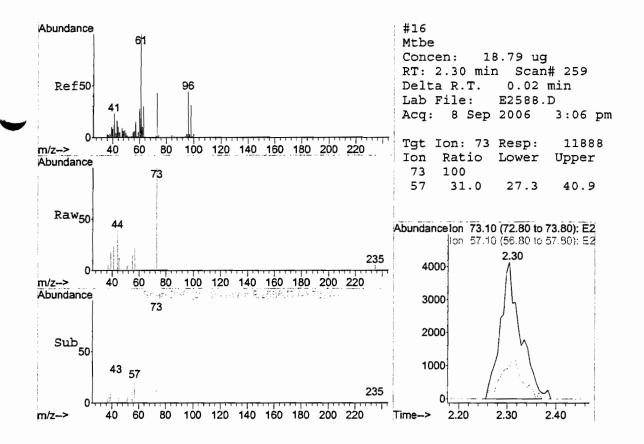
000038



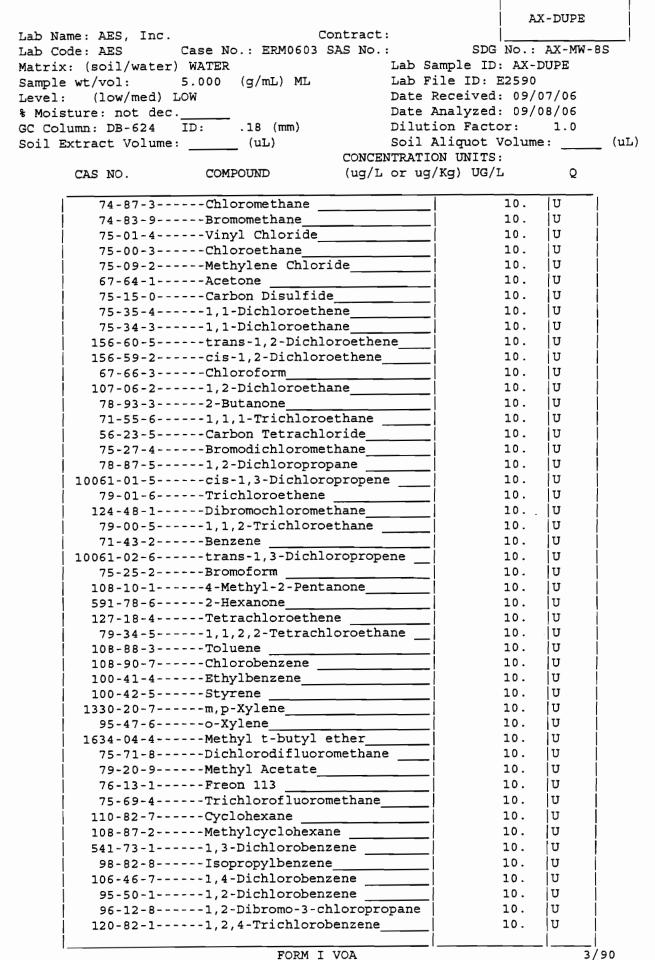


Data Path : C:\MSDChem\1\DATA\060 Data File : E2588.D	908\				
Acq On : 8 Sep 2006 3:06 pm Operator :	ı				
le : 060907030-002A					
: SAMP EPA_8260_WATER ALS Vial : 12 Sample Multiplie					
ALS Vial : 12 Sample Multiplie	r: 1				
Quant Time: Sep 11 08:38:11 2006					
Quant Method : C:\MSDCHEM\MSDEMO\	TCLOLM4	4.M			
Quant Title : VOA TCL list OLM4	.1				
QLast Update : Fri Sep 08 14:11:2	9 2006				
Response via : Continuing Cal Fil	e: C:\1	MSDChe	m\1\DATA\0	60908\ES411.	D
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Bromochloromethane	4.21	128	26705	50.00 ug	0.00
26) 1,4-Difluorobenzene	5.46	114	148785	50.00 ug	0.00
44) Chlorobenzene-d5	8.40	117	68883	50.00 ug	0.00
System Monitoring Compounds					
24) 1,2-Dichloroethane-d4	4.96	65	126962	49.87 ug	0.00
45) Toluene-d8	6.94	98	186890	49.91 ug	0.00
45) Toluene-d856) Bromofluorobenzene	9.58	95	87759	47.07 ug	0.00
Target Compounds					Qvalue
				18.79 ug	

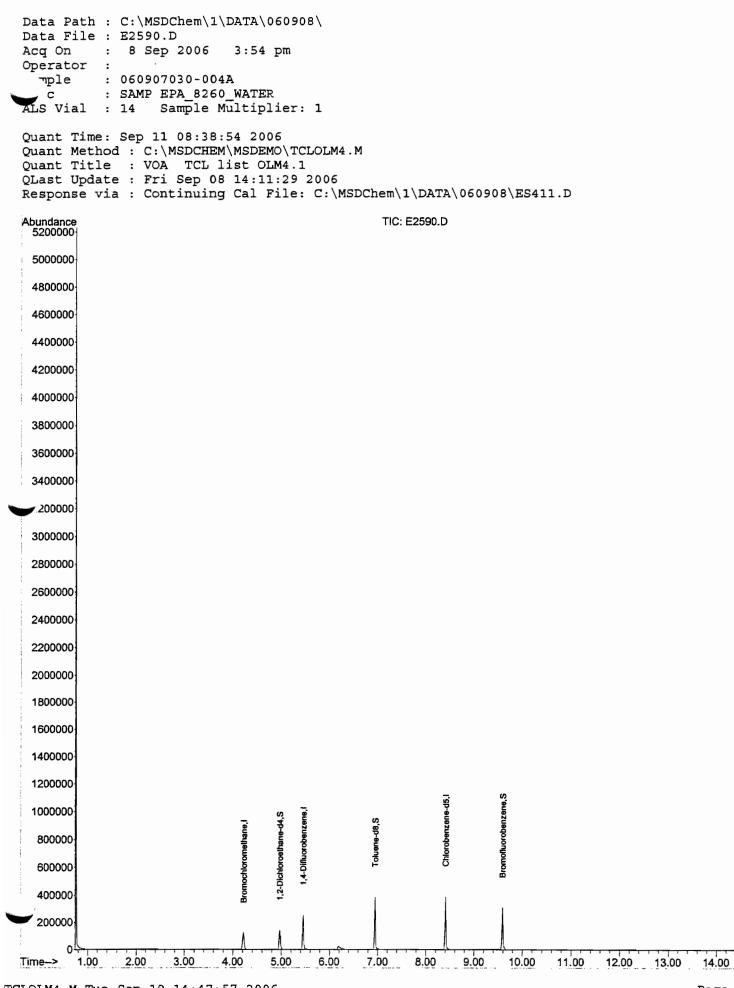
(#) = qualifier out of range (m) = manual integration (+) = signals summed



1A



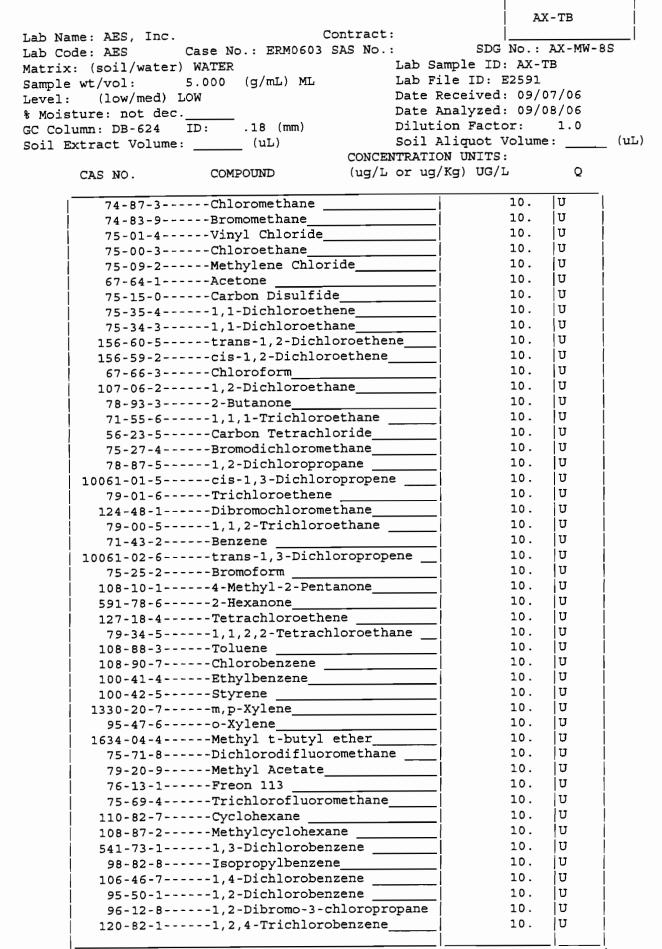
000042



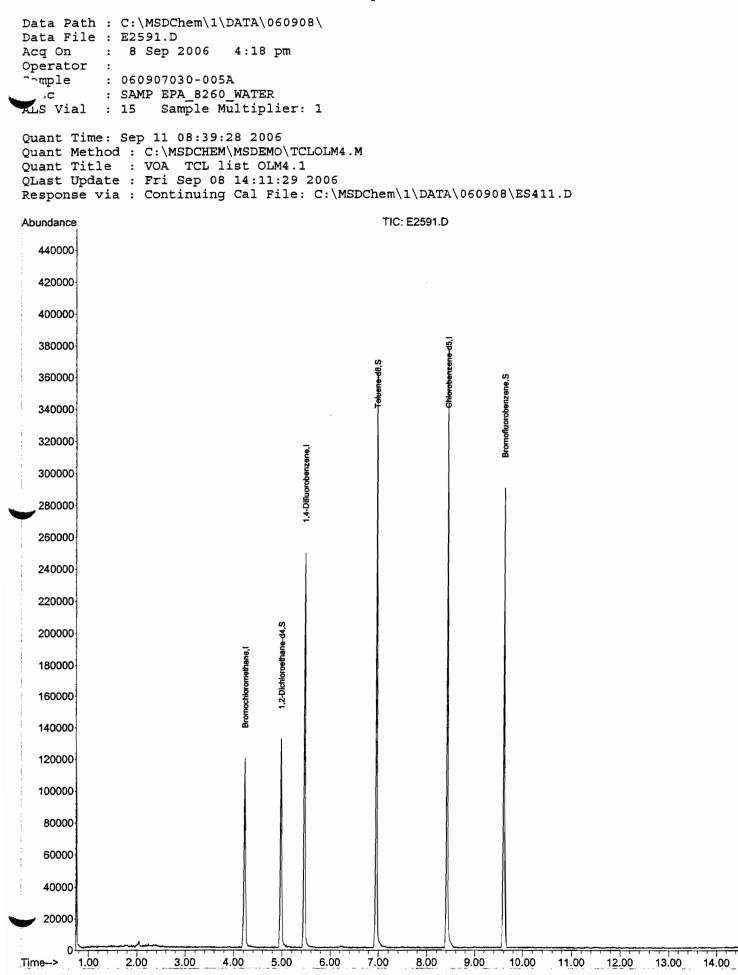
000043

Data Path : C:\MSDChem\1\DATA\060 Data File : E2590.D Acq On : 8 Sep 2006 3:54 pm Operator :	r: 1	4 . M			
Quant Title : VOA TCL list OLM4					
QLast Update : Fri Sep 08 14:11:2	9 2006				
Response via : Continuing Cal File	€: C:\N	MSDChe	m\1\DATA\0	60908\ES411	.D
Internal Standards	R.T.	QION	Response	Conc Units	Dev(Min)
1) Bromochloromethane	4.22	128	24998	50.00 uq	0.00
26) 1,4-Difluorobenzene	5.45	114	142924	50.00 ug	0.00
44) Chlorobenzene-d5	8.40	117	66050	50.00 ug	0.00
System Monitoring Compounds 24) 1,2-Dichloroethane-d4	4 06	65	126205	E3 00 mg	0 00
45) Toluene-d8	4.90	65	187742	53.00 ug	0.00
56) Bromofluorobenzene	9 58	95	86340	48 30 ug	0.00
56) Bromorradiobenzene	2.50		00540	40.50 ug	0.00
Target Compounds					Qvalue
(#) = qualifier out of range (m)	= manu	ual in	tegration	(+) = signal	ls summed

1 A



^{3/90} 000045



Data Path : C:\MSDChem\1\DATA\0609 Data File : E2591.D Acq On : 8 Sep 2006 4:18 pm Operator : " "Dle : 060907030-005A : SAMP EPA_8260_WATER ALS Vial : 15 Sample Multiplier Quant Time: Sep 11 08:39:28 2006 Quant Method : C:\MSDCHEM\MSDEMO\T Quant Title : VOA TCL list OLM4.	: 1 CLOLM	4 . M			
QLast Update : Fri Sep 08 14:11:29					
Response via : Continuing Cal File		MSDChe	m\1\DATA\0	60908\E5411	.D
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Bromochloromethane	4.21	128	24789	50.00 ug	0.00
26) 1,4-Difluorobenzene	5.46	114	142520	50.00 ug	0.00
44) Chlorobenzene-d5	8.40	117	67687	50.00 ug	0.00
System Monitoring Compounds					
24) 1,2-Dichloroethane-d4	4.97	65	121783	51.53 ug	0.00
45) Toluene-d8	6.94	98	180307	49.00 ug	0.00
56) Bromofluorobenzene	9.58	95	83267	45.45 ug	0.00
Target Compounds					Qvalue
(#) = qualifier out of range (m)	= manı	ual in	tegration	(+) = signal	ls summed

STANDARDS

DATA

VOLATILE ORGAN	CS INI	TIAL CA	LIBRATI	ON DATA			
ab Name: AES, Inc.			ract:				
ab Code: AES Case No.	ERM06	03 SAS 1	No.:	:	SDG No.	: AX-MW	-85
Instrument ID: H5973 E Ca	alibrat	ion Date	e(s): 0;	9/08/06	09	/08/06	
Heated Purge: (Y/N) N Ca	alibrat	ion Time	es:	13:29		12:24	
BC Column: DB-624 ID: 18	3 (mm)						
LAB FILE ID: RRF010		5	RRF0	20 = ES4	10		1
RRF050= ES411 RRF100	- EC41	5	DDED	00- ES4	13		
$\frac{RRF050=E5411}{RRF100}$	<u>, 1569 - 1</u>	<u>د</u>		<u> </u>	<u> </u>	i	 %
				 	000000		RSD
					RRF200		
	======	======	=======		======	======	=====
Chloromethane	4.069	4.191	4.250	4.231	4.998	4.348	8.5
Bromomethane	* 1.183	1.096	1.054	1.149	1.325	1.161	9.0
Bromomethane Vinyl Chloride	* 3.300	3.647	3.683	3.585	4.138	3.671	8.2
Methylene Chloride	2.207	2.348	2.035	2.052	2.404	2.209	7.6
Acetone	.863	.740	.705	.718	.769	.759	8.3
Carbon Disulfide	5.974	6.735	6.645	6.742	7.806	6.780	9.7
1,1-Dichloroethene	1.872	2.170	2.199	2.136	2.447	2.165	9.4
1,1-Dichloroethane	\$ 5.172	6.609	6.325	6.627	7.922	6.531	
trans-1,2-Dichloroethene						2.449	
cis-1,2-Dichloroethene	4 673	5 4 0 4	5 581	5 944	6 924	5.705	
	* 6.152		6.867		7 934	7.013	
Chloroform 3	- 0.192	1 7 767				7.917	
1,2-Dichloroethane	6.906						
2-Butanone	1.700	1.525				1.768	
1.1.1-Trichloroethane	* .84/	1 1.001	.883	1.050	1.191	.995	
Carbon Tetrachloride	* .472	.469	.500	.722	.761	.585	
Bromodichloromethane	• .732	.863	.847		1.037		
1,2-Dichloropropane	.427	.498	.492		.586	.507	
cis-1,3-Dichloropropene	• .438	.429	.386	.550	.593	.479	
Trichloroethene	• .390	.461	.489	.517	.553	.482	
		.562		.604	.652	.573	10.1
		.339			.369		
Benzene	* 1.274	1.557	1.545	1.646	1.807	1.566	12.4
trans-1, 3-Dichloropropene _'	.445	.401	.399	.489	.559	.459	14.7
Bromoform	• .407	.481	.465	.526	.598	.495	14.4
4-Methyl-2-Pentanone						1.550	
2-Hexanone	.599	458	.683	1.000	.940		•
	k 900	1.105				1.066	
	* .970						
	* 2.031		2.297			2.446	
	* 2.330	2.856	2.551			2.711	
	1.134	1.411	1.344			1.395	
	* 2.002		2.407			2.584	
m,p-Xylene	3.806		4.295			4.656	
	* 1.092	1.523	1.498			1.469	
Methyl t-butyl ether	3.073	2.755	1.185	1.980	3.186	2.436	
Dichlorodifluoromethane	. 922	1.123	.964	1.037	1.225	1.054	11.6
Methyl Acetate	2.578	2.653	2.607	2.370	2.502	2.542	4.3
Freon 113	1.892	2.256	2.051	2.124	2.491	2.163	10.4
Trichlorofluoromethane	4.128		4.612			4.578	6.9
Cyclohexane	.487		.664				
Methylcyclohexane	.588	•					
	1.754		2.100			2.227	
		•	4.719				
Isopropylbenzene							
	1.846						
	1.667						
1,2-Dibromo-3-chloropropane							•
	* .410						
Toluene-d8	2.656						
Bromofluorobenzene	1.268	1.407	1.353	1.386	1.459	1.375	5.2
1,2-Dichloroethane-d4	4.711	4.919	4.767			4.676	4.0
Bromofluorobenzene	1.268 4.711	1.407 4.919	1.353 4.767	1.386 4.466	1.459 4.519	1.375	5

6A

FORM VI VOA

000049

^{3/90}

```
Data Path : C:\MSDChem\1\DATA\060908\
Data File : ES415.D
Acq On : 8 Sep 2006 1:29 pm
Operator :
^~mple : VSTD010
;c :
ALS Vial : 8 Sample Multiplier: 1
```

Quant Time: Sep 25 10:25:56 2006 Quant Method : C:\MSDCHEM\MSDEMO\TCLOLM4.M Quant Title : VOA TCL list OLM4.1 QLast Update : Fri Sep 08 13:12:57 2006 Response via : Initial Calibration

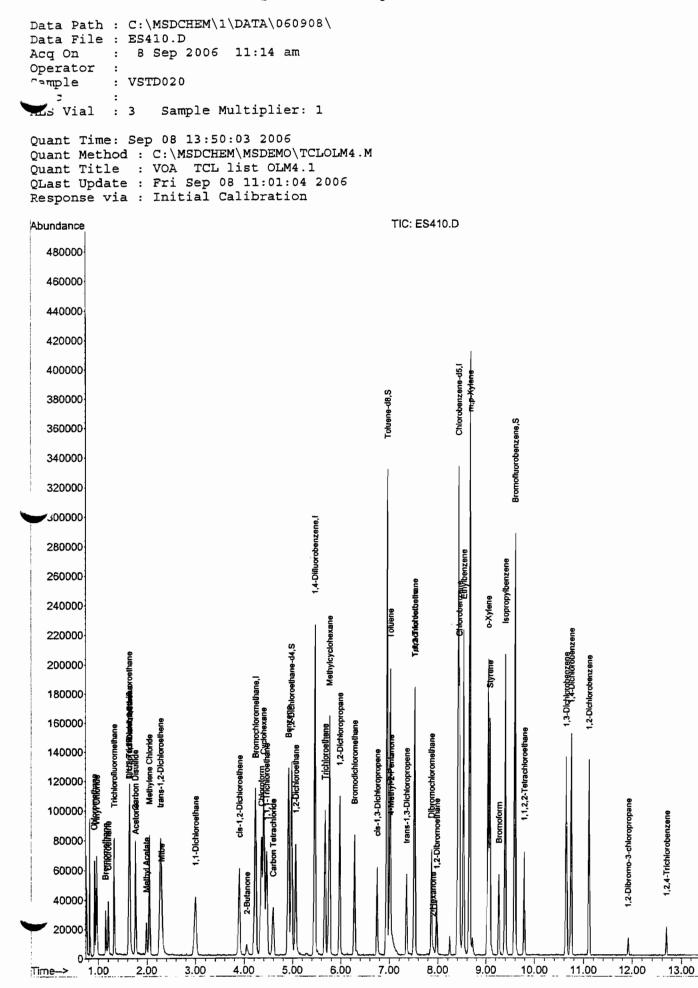
Abundance 380000					TIC: E	S415.D)					
360000												
340000								Ŋ				
320000					I	ļ	1 - 02 - 1	Bromofluorobenzene,S				
300000					Toluene d0,5		unionenzene us,	Bromofluo				
280000	,				01	đ	5	I				
260000				1,4-Difluorobenzene,I								
240000				1,4-Diflu								
220000				}			e					
200000							m.p-Xylene					
180000			vioromethane, I 1,2-Dichloroethane-d4, S									
160000			Bromochloromethane, I									
140000			Bromochlo 1,2					Î				
120000	thane			oxane	l Oluene schronettizeree		Ethylbenzenð nev overar lene Isopropylbenzene		inzene ene			
100000			ø	<u>Trichloroett Re</u> hytcyckohexane 1.2-Dichloropropane omodichloromethane		Ð	Sty Pe ňialene - Isopro	lane	1.3.2.DiCHOV806828ne 1,2-Dichlorobenzene			
80000	Rigene oftuoromethane Disufficie Disufficie Dichloroethene	Ø	,2-Dichloroethene Christiange Tetrachloride Benzene 1,2-Dichloroethane	Trichloroett RAB hylcycl 1,2-Dichloropropane Bromodichloromethane	loropropen chloroprop	oromethane	Sty	achloroeth	1.3-0i 1,2-0i	propane	euezu	
60000	VirityContectione VirityContectione VirityContectione VirityContectione VirityContectione VirityContectione VirityContectione VirityContectione VirityContectione VirityContectione VirityContectione VirityContectione VirityContectione VirityContectione VirityContectione	1,1-Dichloroethane	dis-1,2-Dichloroethene one -1,5/1-frict/66/00-ehrean Carbon Tetrachloride -1,2-Dichloroethane	Trici 1,2 Bromo	cis-1,3-Dichloropropene 		Bromoform	1,1,2,2-Tetrachloroethane		1,2-Dibromo-3-chloropropane	1,2,4-Trichlorobenzen	
40000	Bindonol Acetone Mathy/ Acc	1,1-Dici	2-Butanone Carbor Heptane		t- t-Metnyl-Z-	zHexagonຄົບໃຫຍ່ດີສີ່ແອງເວ	Bro	-		1,2-Dibron	1,2,4-T	
20000		A	Hep							I		
0 Time>	1.00 2.00	3.00	4.00 5.00	6.00	7.00	<u>-1741</u> 8.00	9.00	10.00	البالب 11.00	<u></u>	13.00	14.00
TCLOLM4 M	Mon Sep 2	5 10:2										Dage 3

Page: 3 000050

Data Path : C:\MSDChem\1\DATA\0605 Data File : ES415.D Acq On : 8 Sep 2006 1:29 pm Operator : Tole : VSTD010 : ALS Vial : 8 Sample Multiplier: Quant Time: Sep 25 10:25:56 2006 Quant Method : C:\MSDCHEM\MSDEMO\7 Quant Title : VOA TCL list OLM4. QLast Update : Fri Sep 08 13:12:57 Response via : Initial Calibration	1 TCLOLM4 1 7 2006					
Internal Standards	R.T.	QION	Response	Conc Units	Dev ((Min)
 Bromochloromethane 1,4-Difluorobenzene Chlorobenzene-d5 	4.21 5.45 8.40	128 114 117	22969 130140 59386	50.00 ug 50.00 ug 50.00 ug		0.00 0.00 0.00
System Monitoring Compounds 24) 1,2-Dichloroethane-d4 45) Toluene-d8 56) Bromofluorobenzene	4.96 6.94 9.58	65 98 95	108196 157739 75295	50.30 ug 47.31 ug 45.11 ug		0.00 0.00 0.00
Target Compounds					Ova	lue
 2) Dichlorodifluoromethane 3) Chloromethane 4) Vinyl Chloride 	1.62 0.92	85 50	4234 18691	8.78 ug 9.46 ug	208 # #	1 87
5) Bromomethane	1.14	96	15159 5434 7480	10.63 ug		92 95 98
7) Trichlorofluoromethane	1.32 1.64	101 96	18963 8601	9.15 ug 8.74 ug	#	82 91
) 1,1,2-Trichloro-1,2,2-trif) Carbon Disulfide 12) Acetone 	1.76	76	27444	8.83 uq		98 100
13) Methyl Acetate	1.9B	43	11843	11.94 ug 9.92 ug 9.98 ug		98
14) Methylene Chloride 15) trans-1,2-Dichloroethene	2.04	84	10138	9.98 ug 9.29 ug	#	96 89
16) Mtbe	2.20		14118m		π	69
18) 1,1-Dichloroethane	2.99	63	23759	7.88 ug		98
20) cis-1,2-Dichloroethene	3.89	61	21465	8.28 ug		87
22) Chloroform 23) Cyclohexane	4.34 4.39	83 84	28260 12664	8.79 ug 7.74 ug	#	95 67
25) 1,2-Dichloroethane	5.05	62	31725	8.73 ug		87
27) 2-Butanone	4.07	43	7811m	10.17 ug		
28) 1,1,1-Trichloroethane 29) Carbon Tetrachloride	4.45 4.59	97 117	22048 12294	8.47 ug 8.22 ug		98 85
30) Benzene	4.90	78	33171	8.14 ug		100
31) Heptane	5.16	43	272	52.55 ug	#	39
32) Trichloroethene33) Methylcyclohexane	5.66 5.75	130 83	10158 15307	7.99 ug 8.41 ug		97 85
34) 1,2-Dichloropropane	5.97	63	11112	8.39 ug		92
35) Bromodichloromethane	6.27	83	19048	8.27 ug		88
36) cis-1,3-Dichloropropene	6.74 7.35	75 75	11398 11593	9.43 ug 10.70 ug		98 98
3B) trans-1,3-Dichloropropene 40) 1,1,2-Trichloroethane	7.52	83	6969	8.04 ug		92
41) Dibromochloromethane	7.87	129	12953	8.68 ug		85
<pre>42) 1,2-Dibromoethane</pre>	7.97	107	8837	8.03 ug		94
43) Bromoform	9.26 7.06	173 43	10599 16878m	8.26 ug 9.84 ug		97
46) 4-Methyl-2-Pentanone 47) Toluene	7.08	43 92	24118	8.22 ug		87
8) Tetrachloroethene	7.51	164	10692	8.36 ug		95
(19) 2-Hexanone	7.91	43	7117m	8.67 ug		0.7
50) Chlorobenzene 51) Ethylbenzene	8.42 8.52	112 106	27670 13468	8.51 ug 8.12 ug		91 100
52) m,p-Xylene	8.64	91	90421	16.39 ug		89

Data Path : C:\MSDChem\1\DATA\060 Data File : ES415.D Acq On : 8 Sep 2006 1:29 pm Operator : "ple : VSTD010 : : ALS Vial : 8 Sample Multiplier	1					
Quant Time: Sep 25 10:25:56 2006 Quant Method : C:\MSDCHEM\MSDEMO\ Quant Title : VOA TCL list OLM4 QLast Update : Fri Sep 08 13:12:5 Response via : Initial Calibratio Internal Standards	.1 7 2006 n		Response	Conc Units	s Dev (Min)
<pre>53) o-Xylene 54) Styrene 55) Isopropylbenzene 57) 1,1,2,2-Tetrachloroethane 58) 1,3-Dichlorobenzene 59) 1,4-Dichlorobenzene 60) 1,2-Dichlorobenzene 61) 1,2-Dibromo-3-chloropropan 62) 1,2,4-Trichlorobenzene</pre>	9.06 9.39 9.78 10.64 10.74 11.11 11.92	106 104 105 83 146 146 146 157	23779 40435 11526 20827 21923 19797 2009m	8.97 ug 7.98 ug 8.04 ug 8.09 ug 11.89 ug	#	78 97 96 91 92

(#) = qualifier out of range (m) = manual integration (+) = signals summed



000053^{Page: 3}

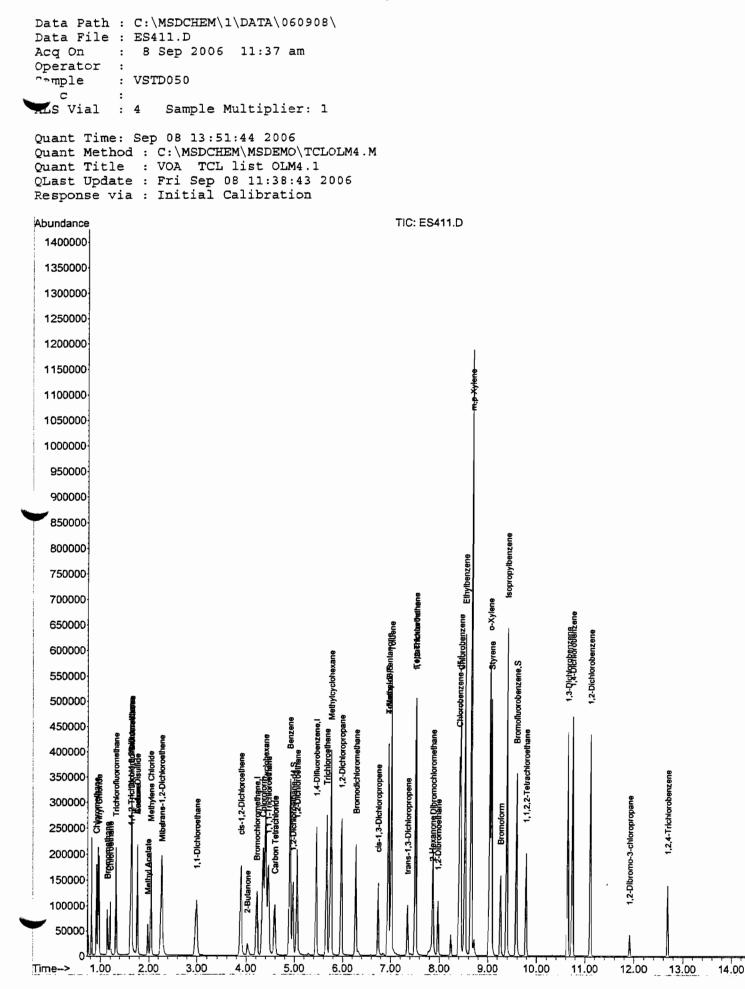
14.00

Data Path : C:\MSDCHEM\1\DATA\0 Data File : ES410.D Acq On : 8 Sep 2006 11:14 Operator : Comple : VSTD020						
: ALS Vial : 3 Sample Multipli	er: 1					
Quant Time: Sep 08 13:50:03 200 Quant Method : C:\MSDCHEM\MSDEM Quant Title : VOA TCL list OL QLast Update : Fri Sep 08 11:01 Response via : Initial Calibrat	O\TCLOLM4 M4.1 :04 2006	4.M				
Internal Standards	R.T.	QION	Response	Conc Units	Dev	(Min)
1) Bromochloromethane	4.21	128	23103	50.00 ug		0.00
26) 1,4-Difluorobenzene	5.45	114	128948	50.00 ug 50.00 ug		0.00
44) Chlorobenzene-d5	8.40	117	55927	50.00 ug		0.00
System Monitoring Compounds		~ -		53 40 mm		0 00
24) 1,2-Dichloroethane-d4	4.96	65	113642	53.49 ug 52.23 ug		0.00 0.00
45) Toluene-d8	6.94	98 95	159727 78671	52.23 ug 52.62 ug		0.00
56) Bromofluorobenzene	9.57	95	10011	52.02 ug		0.00
To wash Compounds					Ovi	alue
Target Compounds 2) Dichlorodifluoromethane	1.62	85	10375	26.40 ug		
3) Chloromethane	0.92		38728	22.71 ug		90
4) Vinyl Chloride	0.97			23.94 ug		93
5) Bromomethane	1.14		10132	24.76 ug		92
6) Chloroethane		64	15638	26.05 ug		91
7) Trichlorofluoromethane	1.32	64 101	43371	24.76 ug 26.05 ug 23.50 ug	#	84
9) 1,1-Dichloroethene	1.64		20055	25.27 ug		99
0) 1,1,2-Trichloro-1,2,2-tri	f 1.62	101	20850			96
1) Carbon Disulfide	1.76	76	62242	24.93 ug		100
12) Acetone	1.77	10	6020	20.23 ug		90
13) Methyl Acetate	1.98	43	24515	17.44 ug		96
14) Methylene Chloride	2.04	84	21702	27.47 ug		97
15) trans-1,2-Dichloroethene				23.17 ug		
16) Mtbe	2.30			16.40 ug		96
18) 1,1-Dichloroethane	2.99		61071	24.26 ug		97
20) cis-1,2-Dichloroethene	3.89	61	49944	22.53 ug		85
22) Chloroform	4.33		66018	24.79 ug	щ	98
23) Cyclohexane	4.39		32458	22.50 ug 23.81 ug	#	63 91
25) 1,2-Dichloroethane	5.05		71772 14096	19.22 ug		82
27) 2-Butanone 28) 1,1,1-Trichloroethane	4.04 4.44		51638	22.84 ug		100
28) 1,1,1-Trichioroethane 29) Carbon Tetrachloride	4.44		24167	18.04 ug		97
30) Benzene	4.90		80296	24.25 ug		100
32) Trichloroethene	5.66		23795	23.19 ug		97
33) Methylcyclohexane	5.75		38367	24.71 ug		B4
34) 1,2-Dichloropropane	5.97	63	25682	23.38 ug		99
35) Bromodichloromethane	6.27	83	44529	23.81 ug		89
36) cis-1,3-Dichloropropene	6.75		22138	20.10 ug		92
38) trans-1,3-Dichloropropene	7.35		20658	18.02 ug		97
40) 1,1,2-Trichloroethane	7.52		17510	24.75 ug		94
41) Dibromochloromethane	7.86		28969	23.67 ug		92
42) 1,2-Dibromoethane	7.97		21674 24813	23.18 ug 22.30 ug		95 99
43) Bromoform	9.26		24813	19.32 ug		89
46) 4-Methyl-2-Pentanone	7.03 7.01		29324 56910	24.71 ug		89
47) Toluene	7.51		24723	24.71 ug 24.45 ug		97
48) Tetrachloroethene	7.90		10238m	11.54 ug		21
9) 2-Hexanone 50) Chlorobenzene	8.42		63901	25.19 ug		90
51) Ethylbenzene	8.51		31571	24.38 ug		92
51) m,p-Xylene	8.64		208236	48.06 ug		90
53) o-Xylene	9.03		34064	22.53 ug	#	72
20, 0				5		



Data Path : C:\MSDCHEM\1\DATA\060 Data File : ES410.D Acq On : 8 Sep 2006 11:14 an Operator : Cole : VSTD020 : ALS Vial : 3 Sample Multiplier	n					
Quant Time: Sep 08 13:50:03 2006 Quant Method : C:\MSDCHEM\MSDEMO\ Quant Title : VOA TCL list OLM4 QLast Update : Fri Sep 08 11:01:0 Response via : Initial Calibratic	1.1 4 2006	4.M				
Internal Standards	R.T.	QION	Response	Conc Units	Dev(Mi	n)
	9.06	104	57979	22.75 ug		 94
55) Isopropylbenzene	9.39	105	102202	22.39 ug		98
57) 1,1,2,2-Tetrachloroethane	9.78	83	23935	22.96 ug		99
58) 1,3-Dichlorobenzene	10.63	146	44973	20.60 ug	#	90
59) 1,4-Dichlorobenzene						94
60) 1,2-Dichlorobenzene						96
61) 1,2-Dibromo-3-chloropropan					# .	79
62) 1,2,4-Trichlorobenzene	12.6B	180	5150m	9.71 ug		

(#) = qualifier out of range (m) = manual integration (+) = signals summed

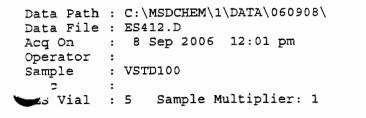


Page: 3

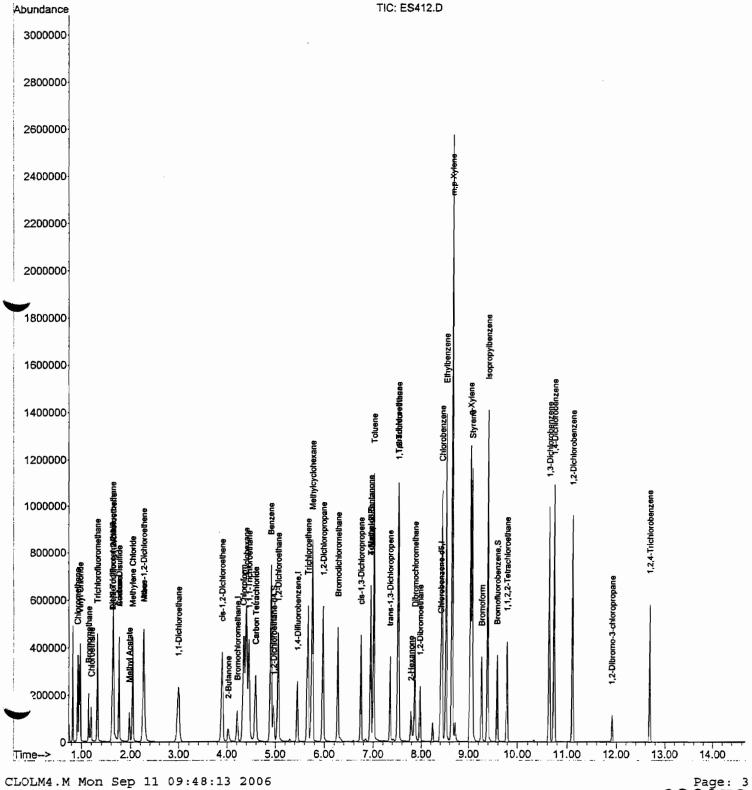
Data H Acq Or Operat ~ mole ALS V: Quant Quant Quant Quant OLast	Path : C:\MSDCHEM\1\DATA\0609 File : ES411.D h : 8 Sep 2006 11:37 am tor : e : VSTD050 : ial : 4 Sample Multiplier: Time: Sep 08 13:51:44 2006 Method : C:\MSDCHEM\MSDEMO\T Title : VOA TCL list OLM4. Update : Fri Sep 08 11:38:43 hse via : Initial Calibration	1 CLOLM4 1 2006	L . M				
Inter	rnal Standards	R.T.	QION	Response	Conc Units	Dev	(Min)
			100		E0 00 mg		
1)	Bromochloromethane	4.21	128	25530	50.00 ug		0.00
26)	1,4-Difluorobenzene Chlorobenzene-d5	2.42 D 20	117	66948	50.00 ug		0.00
44)	Chlorobenzene-us	0.39	11/	00040	50.00 ug		0.00
Gueta	em Monitoring Compounds						
24)	1,2-Dichloroethane-d4	4.96	65	121690	51.84 ug		0.00
45)	Toluene-d8	6.94	98	181970	49.71 ug		0.00
	Bromofluorobenzene	9.57	95	90594	49.71 ug 50.62 ug		0.00
507					-		
Targe	et Compounds					Qv	alue
2)	Dichlorodifluoromethane Chloromethane Vinyl Chloride	1.62	85	24615	56.68 ug	#	1
3)	Chloromethane	0.92	50	108496	57.57 ug		90
4)	Vinyl Chloride	0.97	62	94025	60.42 ug		97
5)	Bromomethane	1.14	96	26898	59.48 ug		99
6)	Chloroethane	1.20	64	45408	68.45 ug		94
7)	Trichlorofluoromethane	1.31	101	117734	57.74 ug	#	83
9)	1,1-Dichloroethene	1.64	96	56139	64.00 ug		94
⁻ 0)	1,1,2-Trichloro-1,2,2-trif	1.62	101	52356	58.69 ug		98
)	Vinyl Chloride Bromomethane Chloroethane Trichlorofluoromethane 1,1-Dichloroethene 1,1,2-Trichloro-1,2,2-trif Carbon Disulfide	1.76	76	169653	61.50 ug		100
121	Acetone	1./0	43	TOOOO	40.20 uy		20
13)	Methyl Acetate Methylene Chloride trans-1,2-Dichloroethene	1.97	43	66561	42.85 ug		94
14)	Methylene Chloride	2.04	84	51958	59.52 ug	ш	91
15)	trans-1,2-Dichloroethene	2.27	96 73	60776	58.21 ug	Ŧ	85
	Mtbe				17.64 ug		100
18)	1,1-Dichloroethane			161472	58.05 ug 58.15 ug		87
	cis-1,2-Dichloroethene	3.89 4.34	61 83	142488 175318	59.57 ug		99
	Chloroform Cyclohexane	4.39	84	94924	59.55 ug	#	72
	1,2-Dichloroethane	5.05	62	199545	-	π	90
	2-Butanone	4.02	43	42166	51.84 ug		82
27)	1,1,1-Trichloroethane	4.45	97	126319	50.39 ug		98
29)	Carbon Tetrachloride	4.59		71476	48.11 ug		96
	Benzene	4.90	78	220929			100
	Trichloroethene	5.66	130	69913	61.44 ug		97
	Methylcyclohexane	5.75	83	101746	59.09 ug		87
	1,2-Dichloropropane	5.96	63	70310	57.72 ug		99
	Bromodichloromethane	6.27		121153	58.43 ug		88
	cis-1,3-Dichloropropene	6.75		55222m			
	trans-1,3-Dichloropropene	7.35		57116m	44.92 ug		
	1,1,2-Trichloroethane	7.52	83	47542	60.59 ug		91
	Dibromochloromethane	7.86		78923	58.15 ug		95
	1,2-Dibromoethane	7.96		60851	58.68 ug		99
	Bromoform	9.26	173	66464			98 70
	4-Methyl-2-Pentanone	6.95	43 92	104075	57.28 ug 55.78 ug		70 87
47)		7.00 7.51	92 164	153784 65813	54.38 ug		98
48)		7.51 7.84	164 43	45702	43.04 ug		68
	2-Hexanone	7.84 8.42		45702	43.04 ug 56.24 ug		90
	Chlorobenzene	8.42 8.51	106	89956	58.04 ug	#	90 91
	Ethylbenzene m,p-Xylene	8.63 8.63	91	575093	110.87 ug	π	90
	o-Xylene	9.03	106	100289	55.40 ug	#	74
) (((•					.,	_

Data Path : C:\MSDCHEM\1\DATA\060 Data File : ES411.D Acq On : 8 Sep 2006 11:37 an Operator : Somple : VSTD050 : Somple : 4 Sample Multiplier	1					
Quant Time: Sep 08 13:51:44 2006 Quant Method : C:\MSDCHEM\MSDEMO\ Quant Title : VOA TCL list OLM4 QLast Update : Fri Sep 08 11:38:4 Response via : Initial Calibratic	.1 3 2006	. M				
Internal Standards	R.T.	QIon	Response	Conc Units	Dev (Min)
55) Isopropylbenzene 57) 1,1,2,2-Tetrachloroethane	9.38 9.78 10.63 10.73 11.10 11.92	105 83 146 146 146 157	69677 140605 149212 136255 8231	57.83 ug 55.83 ug 53.81 ug 53.73 ug 54.41 ug 47.04 ug	#	99 98 90 96 97 83

(#) = qualifier out of range (m) = manual integration (+) = signals summed



Quant Time: Sep 08 13:53:03 2006 Quant Method : C:\MSDCHEM\MSDEMO\TCLOLM4.M Quant Title : VOA TCL list OLM4.1 QLast Update : Fri Sep 08 11:38:43 2006 Response via : Initial Calibration



000059

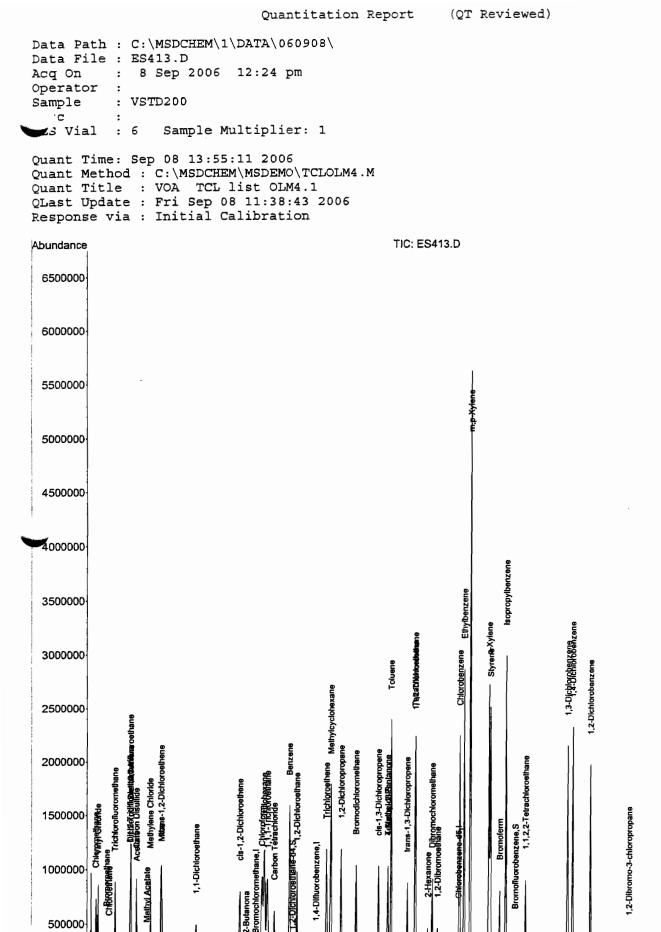
CLOLM4.M Mon Sep 11 09:48:13 2006

-		-			
Data Path : C:\MSDCHEM\1\DATA\060	90B\				
$D_{2} + 2$ $E_{1} = -2$ $E_{2} = -2$					
Acg On : 8 Sep 2006 12:01 pm					
Acq On : 8 Sep 2006 12:01 pm Operator :					
Simple : VSTD100					
:					
Ars Vial : 5 Sample Multiplier	: 1				
Quant Time: Sep 08 13:53:03 2006					
Quant Method : C:\MSDCHEM\MSDEMO\'	TCLOLM4	- 191			
Quant Title : VOA TCL list OLM4 QLast Update : Fri Sep 08 11:38:43	3 2006				
Response via : Initial Calibration	n 2000				
-					
Internal Standards	R.T.	QION	Response	Conc Units	Dev(Min)
1) Bromochloromethane	4.21	128	26991	50.00 ug	0.00
26) 1,4-Difluorobenzene	5.45	114	143892	50.00 ug	0.00
26) 1,4-Difluorobenzene 44) Chlorobenzene-d5	8.39	117	66338	50.00 ug	0.00
System Monitoring Compounds		<u> </u>	100530	40 56	0 00
24) 1,2-Dichloroethane-d4	4.96	65	120532	48.56 ug	0.00
45) Toluene-d8	6.93	98	182940	50.44 ug	0.00
56) Bromofluorobenzene	9.5/	95	91920	51.04 ug	0.00
Terret Compounds					Qvalue
Target Compounds 2) Dichlorodifluoromethane	1.62	85	56000	121.96 ug	# 1
2) Chloromethane	0.92	50	228380	114.62 ug	
4) Vinvl Chloride	0.97	62	193536	117.64 ug	92
5) Bromomethane	1.14	96	62024	129.72 ug	93
 2) Dichioronatificoronatificoronation 3) Chloromethane 4) Vinyl Chloride 5) Bromomethane 6) Chloroethane 7) Trichlorofluoromethane 	1.20	64	65731	93.72 ug	93
7) Trichlorofluoromethane	1.31	101	241249	111.90 ug	# 84
9) 1,1-Dichloroethene	1.64	96	115305	124.34 ug	95
 9) 1,1-Dichloroethene 9) 1,1,2-Trichloro-1,2,2-trif) Carbon Disulfide 	1.62	101	114650	121.56 ug	100
	1.76	76	363924	124.77 ug	100
12) Acetone	1.76	43	38773	98.16 ug	96
 12) Acetone 13) Methyl Acetate 14) Methylene Chloride 15) trans-1,2-Dichloroethene 16) Mtbe 	1.97	43	127963	77.92 ug	95
14) Methylene Chloride	2.04	84	121043	120.03 ug	# 04
15) trans-1,2-Dichloroethene	2.20	96	131043	50 05 NG	# 04
16) Mtbe 18) 1,1-Dichloroethane	2.27	63	357753	121.64 ug	99
20) cis-1,2-Dichloroethene	3.89	61	320868	123.87 ug	# 84
22) Chloroform	4.33	83	376179	120.91 ug	
23) Cyclohexane	4.39	84	207920	-	# 70
25) 1,2-Dichloroethane	5.05	62	426757		90
27) 2-Butanone	4.03	43	94492	115.45 ug	85
28) 1,1,1-Trichloroethane	4.45	97	302275	119.84 ug	99
29) Carbon Tetrachloride	4.59	117	207910	139.08 ug	94
30) Benzene	4.90	78	473566	128.14 ug	100
32) Trichloroethene	5.66	130	148858		97
33) Methylcyclohexane	5.75	83	221613	127.90 ug 124.74 ug	89 99
34) 1,2-Dichloropropane	5.97 6.27	63 83	152891 266161	124.74 ug 127.56 ug	85
35) Bromodichloromethane36) cis-1,3-Dichloropropene	6.74	75	158243		97
38) trans-1,3-Dichloropropene	7.35	75	140732	109.98 ug	99
40) 1,1,2-Trichloroethane	7.52	83	99910	126.53 ug	95
41) Dibromochloromethane	7.86	129	173891	127.33 ug	93
42) 1,2-Dibromoethane	7.97	107	133772	128.20 ug	98
43) Bromoform	9.26	173	151460	121.99 ug	95
46) 4-Methyl-2-Pentanone	6.93	43	202686	-	64
47) Toluene	7.00	92	329175	120.49 ug	8 B
48) Tetrachloroethene	7.51	164	147585	123.07 ug	99
3) 2-Hexanone	7.78	43	132653	126.07 ug	B7
1) Chlorobenzene	8.42	112	357267		90 # 95
51) Ethylbenzene	8.51	106		123.57 ug 249.29 ug	# 85 89
52) m,p-Xylene	8.63 9.03	91 106	1281345 200950m	-	09
53) o-Xylene	2.03	100	2009500	112.01 49	

Data Path : C:\MSDCHEM\1\DATA\060908\ Data File : ES412.D Acq On : 8 Sep 2006 12:01 pm Operator : Sample : VSTD100 : 💓 Vial : 5 Sample Multiplier: 1 Quant Time: Sep 08 13:53:03 2006 Ouant Method : C:\MSDCHEM\MSDEMO\TCLOLM4.M Ouant Title : VOA TCL list OLM4.1 QLast Update : Fri Sep 08 11:38:43 2006 Response via : Initial Calibration R.T. QIon Response Conc Units Dev(Min) Internal Standards _____ 54) Styrene9.06104360440119.24 ug8955) Isopropylbenzene9.38105696103128.59 ug9857) 1,1,2,2-Tetrachloroethane9.7883143696116.19 ug9858) 1,3-Dichlorobenzene10.63146324044125.15 ug#8959) 1,4-Dichlorobenzene10.73146337673122.70 ug9460) 1,2-Dichlorobenzene11.10146297145119.75 ug9561) 1,2-Dibromo-3-chloropropan11.9215722776131.37 ug8962) 1,2,4-Trichlorobenzene12.6818064735m102.86 ug _____

(#) = qualifier out of range (m) = manual integration (+) = signals summed





8.00

7.00

10.00

11.00 12.00

9.00

13.00

14.00

1,2,4-Trichlorobenzene

'CLOLM4.M Mon Sep 11 09:48:17 2006

<u>3.00</u>

4.00

5.00

6.00

2.00

500000

Time->

1.00

Data Path : C:\MSDCHEM\1\DATA\06090 Data File : ES413.D	ОВ∖					
Acq On : 8 Sep 2006 12:24 pm						
Operator :						
Sample : VSTD200						
NG Vial : 6 Sample Multiplier:	1					
Quant Time: Sep 08 13:55:11 2006 Quant Method : C:\MSDCHEM\MSDEMO\TC Quant Title : VOA TCL list OLM4. QLast Update : Fri Sep 08 11:38:43 Response via : Initial Calibration	1	4.M				
Internal Standards				Conc Units		
1) Bromochloromethane	4.21	128	24310	50.00 ug 50.00 ug 50.00 ug		0.00
26) 1,4-Difluorobenzene	5.45	114	138922	50.00 ug		0.00
44) Chlorobenzene-d5	8.39	117	60137	50.00 ug		0.00
System Monitoring Compounds						
24) 1,2-Dichloroethane-d4	4.96	65	109846	49.14 ug 52.84 ug 54.59 ug		0.00
45) Toluene-d8	6.93	98	173735	52.84 ug		0.00
56) Bromofluorobenzene	9.57	95	87761	54.59 ug		0.00
Target Compounds					Ova	lue
2) Dichlorodifluoromethane	1.62	85	119112	288.03 ug	#	1
3) Chloromethane	0.92		486018	270.83 ug		90
4) Vinyl Chloride			402422	271.59 ug		92
5) Bromomethane 6) Chloroethane	1.14	96 64				90
6) Chioroethane7) Trichlorofluoromethane		101	112622 485100	249.83 ug	#	85
9) 1.1-Dichloroethene	1.64	96	485100 237968	201.72 49		94
-0) 1,1,2-Trichloro-1,2,2-trif	1.62	101	242270	285.20 ug		98
1) Carbon Disulfide	1.75	76	759030	288.94 ug		
12) Acetone	1.76	43	74781 243250 233727	210.21 ug		99
13) Methyl Acetate	1.97	43	243250	164.45 ug 281.19 ug		98
14) Methylene Chloride 15) trans-1,2-Dichloroethene	2.04	96	275527	277.12 ug	#	83
16) Mtbe		73			"	95
18) 1,1-Dichloroethane	2.99		770298	290.80 ug		99
20) cis-1,2-Dichloroethene	3.89	61	673256	288.57 ug	#	83
22) Chloroform	4.33	83	771466	275.31 ug	щ	99
23) Cyclohexane	4.39	84 62	426132 893757	280.74 ug 281.73 ug	#	68 90
25) 1,2-Dichloroethane 27) 2-Butanone	5.05 4.01	43	215192	272.33 ug		85
2B) 1,1,1-Trichloroethane	4.45	97	661667	271.70 ug		99
29) Carbon Tetrachloride	4.59	117	422848m	292.97 ug		
30) Benzene	4.90	78	1004191	281.44 ug		100
32) Trichloroethene	5.66 5.75		307271 458632	277.96 ug 274.16 ug		99 90
33) Methylcyclohexane 34) 1,2-Dichloropropane	5.97		325744	275.26 ug		99
35) Bromodichloromethane	6.27		576248	286.05 ug		87
36) cis-1,3-Dichloropropene	6.74		329253m	277.54 ug		
38) trans-1,3-Dichloropropene	7.35		310732m	251.53 ug		
40) 1,1,2-Trichloroethane	7.52		205325	269.34 ug		92
41) Dibromochloromethane42) 1,2-Dibromoethane	7.86 7.97		362208 254356	274.71 ug 252.47 ug		93 99
42) 1,2-DIDIONOECHANE 43) Bromoform	9.26	173	332081	277.05 ug		96
46) 4-Methyl-2-Pentanone	6.93	43	465098	284.96 ug		65
47) Toluene	7.00	92	692527	279.62 ug		86
48) Tetrachloroethene	7.51		296106	272.39 ug		98
9) 2-Hexanone	7.77 8.42		226221m 751530	237.17 ug 275.49 ug		92
O) Chlorobenzene51) Ethylbenzene	8.42 8.51		398678	275.49 ug 286.36 ug	#	92 81
52) m,p-Xylene	B.64		2739977	588.04 ug		88
53) o-Xylene	9.03	106	413840m	254.52 ug		

P	age:	1
00	age:	5.2

Data Path : C:\MSDCHEM\1\DATA\060 Data File : ES413.D Acq On : 8 Sep 2006 12:24 pm Operator : Sample : VSTD200 : Vial : 6 Sample Multiplier	n					
Quant Time: Sep 08 13:55:11 2006 Quant Method : C:\MSDCHEM\MSDEMO\ Quant Title : VOA TCL list OLM4 QLast Update : Fri Sep 08 11:38:4 Response via : Initial Calibratic	.1 3 2006	4.M				
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(M	lin)
55) Isopropylbenzene 57) 1,1,2,2-Tetrachloroethane	9.38 9.78	105 83	1205516m 303480	270.70 ug		99
 58) 1,3-Dichlorobenzene 59) 1,4-Dichlorobenzene 60) 1,2-Dichlorobenzene 61) 1,2-Dibromo-3-chloropropan 62) 1,2,4-Trichlorobenzene 	10.73 11.10 11.91	146 146 157	699642 630243 58425	280.45 ug 280.19 ug 371.74 ug		94 94

(#) = qualifier out of range (m) = manual integration (+) = signals summed

8A

Lab Name: AES, Inc.Contract:Lab Code: AESCase No.: ERM0603 SAS No.:SDG No.: AX-MW-8SLab File ID (Standard): ES411Date Analyzed: 09/08/06Instrument ID: H5973 ETime Analyzed: 11:37GC Column: DB-624ID: .18 (mm)Heated Purge: (Y/N) N

		IS1 (BCM)		IS2 (DFB)		IS3(CBZ)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
			=======				=======
	12 HOUR STD	25530.	4.21	142998.	5.45	66948.	8.39
	UPPER LIMIT	51060.	4.71	285996.	5.95	133896.	8.89
	LOWER LIMIT	12765.	3.71	71499.	4.95	33474.	7.89
	=========================		======		======		======
	EPA SAMPLE						
	NO.						
		===========	=======				
1	VBLK01	29697.	4.22	166491.	5.46	81098.	8.40
2	AX-MW-95	27947.	4.21	153373.	5.45	74918.	8.40
3	AX-MW-11S	26705.	4.21	148785.	5.46	68883.	8.40
4	AX-MW-8S	26254.	4.21	151168.	5.45	71074.	8.40
5	AX-DUPE	24998.	4.22	142924.	5.45	66050.	8.40
6	AX-TB	24789.	4.21	142520.	5.46	67687.	8.40
7	AX-MW-95 MS	26596.	4.21	150256.	5.45	67965.	8.40
8	AX-MW-95 MSD	26818.	4.21	152697.	5.45	73273.	8.40
9	VMSB	25444.	4.21	151433.	5.45	72674.	8.40
10							
11							
12							
13							
14							
15							
16							
17			[
18							
19							
20							
21							
22							

IS1 (BCM) = Bromochloromethane
IS2 (DFB) = 1,4-Difluorobenzene
IS3 (CBZ) = Chlorobenzene-d5

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

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

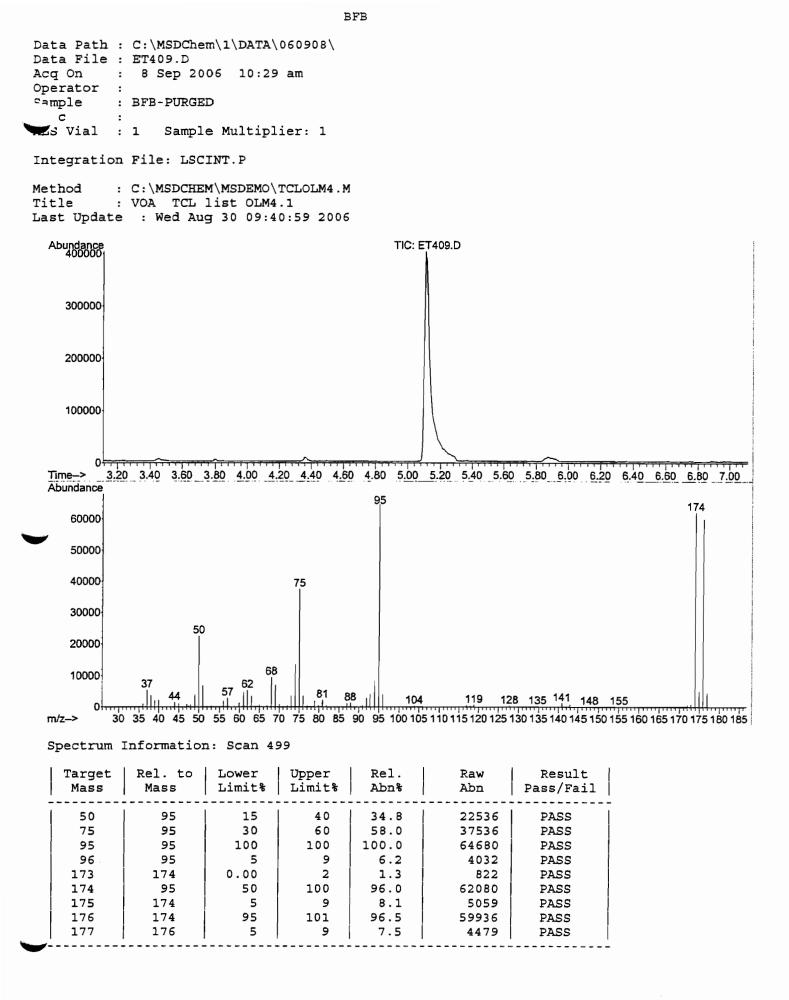
page 1 of 1

FORM VIII VOA

3/90

RAW QC

DATA



	VBLK01
Hub Humer Haby Life	ontract:
Lab Code: AES Case No.: ERM0603 S	AS No.: SDG No.: AX-MW-8S
Matrix: (soil/water) WATER	Lab Sample ID: VBLK01
Sample wt/vol: 5.000 (g/mL) ML	Lab File ID: EB414
Level: (low/med) LOW	Date Received:
<pre>% Moisture: not dec.</pre>	Date Analyzed: 09/08/06
GC Column: DB-624 ID: .18 (mm)	Dilution Factor: 1.0
Soil Extract Volume: (uL)	Soil Aliquot Volume: (uL)
	CONCENTRATION UNITS:
CAS NO. COMPOUND	(ug/L or ug/Kg) UG/L Q
74-87-3Chloromethane	10. U
74-83-9Bromomethane	10. U
75-01-4Vinyl Chloride	10. U
75-00-3Chloroethane	10. U
75-09-2Methylene Chlori	de10. U
67-64-1Acetone	10. U
75-15-0Carbon Disulfide	10. U
75-35-41 1-Dichloroethe	

75-15-0Carbon Disulfide	10. 10. 10. 10. 10. 10. 10. 10. 10. 10.	ט ט ט ט ט ט ט ט ט ט ט ט ט ט ט ט ט ט ט
75-35-41,1-Dichloroethene 75-34-31,1-Dichloroethane 156-60-5trans-1,2-Dichloroethene 156-59-2cis-1,2-Dichloroethene 67-66-3Chloroform 107-06-21,2-Dichloroethane 78-93-32-Butanone 71-55-61,1,1-Trichloroethane 56-23-5Carbon Tetrachloride 75-27-4Bromodichloromethane 78-87-51,2-Dichloropropane 10061-01-5cis-1,3-Dichloropropane 79-01-6Trichloroethane 79-00-51,1,2-Trichloroethane 79-00-5Benzene 10061-02-6Benzene 10061-02-6	10. 10. 10. 10. 10. 10. 10. 10. 10. 10.	a a a a a a a a a a a a a a a a a a a
75-34-31, 1-Dichloroethane	10. 10. 10. 10. 10. 10. 10. 10. 10. 10.	ם ממממ מממ מ מ מ מ מ מ מ מ מ מ מ מ מ מ
156-60-5trans-1, 2-Dichloroethene 156-59-2cis-1, 2-Dichloroethene 67-66-3Chloroform 107-06-21, 2-Dichloroethane 78-93-32-Butanone 71-55-61, 1, 1-Trichloroethane 56-23-5Carbon Tetrachloride 75-27-4Bromodichloromethane 78-87-51, 2-Dichloropropane 10061-01-5cis-1, 3-Dichloropropene 79-01-6Trichloroethene 124-48-1Dibromochloromethane 79-00-51, 1, 2-Trichloroethane 71-43-2Benzene 10061-02-6trans-1, 3-Dichloropropene 75-25-2Bromoform 108-10-14-Methyl-2-Pentanone 591-78-62-Hexanone 127-18-4Tetrachloroethene	10. 10. 10. 10. 10. 10. 10. 10. 10. 10.	ט ט ט ט ט ט ט ט ט ט ט ט ט ט ט ט ט ט ט
156-59-2cis-1,2-Dichloroethene	10. 10. 10. 10. 10. 10. 10. 10. 10. 10.	ם מ מ מ מ מ מ מ מ מ מ מ מ מ מ מ מ מ מ מ
67-66-3Chloroform 107-06-21,2-Dichloroethane 78-93-32-Butanone 71-55-61,1,1-Trichloroethane 56-23-5Carbon Tetrachloride 75-27-4Bromodichloromethane 78-87-51,2-Dichloropropane 10061-01-5cis-1,3-Dichloropropene 79-01-6Trichloroethane 79-00-51,1,2-Trichloroethane 79-00-5Benzene 10061-02-6Benzene 10061-02-6Benzene 10061-02-6Benzene 10061-02-6Benzene 10061-02-6Benzene 10061-02-6	10. 10. 10. 10. 10. 10. 10. 10. 10. 10.	ם ס ס ס ס ס ס ס ס ס ס ס ס ס ס ס ס ס ס ס
107-06-21,2-Dichloroethane 78-93-32-Butanone 71-55-61,1,1-Trichloroethane 56-23-5Carbon Tetrachloride 75-27-4Bromodichloromethane 78-87-51,2-Dichloropropane 10061-01-5cis-1,3-Dichloropropene 79-01-6Trichloroethane 79-00-51,1,2-Trichloroethane 79-00-51,3-Dichloropropene 10061-02-6Trichloroethane 71-43-2Benzene 10061-02-6trans-1,3-Dichloropropene 108-10-14-Methyl-2-Pentanone 591-78-62-Hexanone 127-18-4Tetrachloroethene 79-34-51,1,2,2-Tetrachloroethane	10. 10. 10. 10. 10. 10. 10. 10. 10. 10.	ט ט ט ט ט ט ט ט ט
78-93-32-Butanone 71-55-61,1,1-Trichloroethane 56-23-5Carbon Tetrachloride 75-27-4Bromodichloromethane 78-87-51,2-Dichloropropane 10061-01-5cis-1,3-Dichloropropene 79-01-6Trichloroethene 124-48-1Dibromochloromethane 79-00-51,1,2-Trichloroethane 71-43-2Benzene 10061-02-6trans-1,3-Dichloropropene 75-25-2Bromoform 108-10-14-Methyl-2-Pentanone 591-78-62-Hexanone 127-18-4Tetrachloroethene 79-34-51,1,2,2-Tetrachloroethane	10. 10. 10. 10. 10. 10. 10. 10. 10.	ט ט ט ט ט ט ט ט ט
71-55-61,1,1-Trichloroethane 56-23-5Carbon Tetrachloride 75-27-4Bromodichloromethane 78-87-51,2-Dichloropropane 10061-01-5cis-1,3-Dichloropropene 79-01-6Trichloroethene 124-48-1Dibromochloromethane 79-00-51,1,2-Trichloroethane 71-43-2Benzene 10061-02-6trans-1,3-Dichloropropene 75-25-2Bromoform 108-10-14-Methyl-2-Pentanone 591-78-62-Hexanone 127-18-4Tetrachloroethene 79-34-51,1,2,2-Tetrachloroethane	10. 10. 10. 10. 10. 10. 10. 10.	ช ช ช ช ช ช
56-23-5Carbon Tetrachloride	10. 10. 10. 10. 10. 10. 10.	บ บ บ บ บ บ
75-27-4Bromodichloromethane 78-87-51,2-Dichloropropane 10061-01-5cis-1,3-Dichloropropene 79-01-6Trichloroethene 124-48-1Dibromochloromethane 79-00-51,1,2-Trichloroethane 79-00-5Benzene 10061-02-6trans-1,3-Dichloropropene 75-25-2Bromoform 108-10-14-Methyl-2-Pentanone 591-78-62-Hexanone	10. 10. 10. 10. 10. 10. 10.	บ บ บ บ บ บ
78-87-51,2-Dichloropropane 10061-01-5cis-1,3-Dichloropropene 79-01-6Trichloroethene 124-48-1Dibromochloromethane 79-00-51,1,2-Trichloroethane 71-43-2Benzene 10061-02-6trans-1,3-Dichloropropene 108-10-14-Methyl-2-Pentanone 591-78-62-Hexanone 127-18-4Tetrachloroethene 79-34-51,1,2,2-Tetrachloroethane	10. 10. 10. 10. 10. 10.	ប ប ប ប
10061-01-5cis-1,3-Dichloropropene 79-01-6Trichloroethene 124-48-1Dibromochloromethane 79-00-51,1,2-Trichloroethane 71-43-2Benzene 10061-02-6trans-1,3-Dichloropropene 75-25-2Bromoform 108-10-14-Methyl-2-Pentanone 591-78-62-Hexanone 127-18-4Tetrachloroethene 79-34-51,1,2,2-Tetrachloroethane	10. 10. 10. 10. 10.	ט ט ט ט
79-01-6Trichloroethene 124-48-1Dibromochloromethane 79-00-51,1,2-Trichloroethane 71-43-2Benzene 10061-02-6trans-1,3-Dichloropropene 75-25-2Bromoform 108-10-14-Methyl-2-Pentanone 591-78-62-Hexanone 127-18-4Tetrachloroethene 79-34-51,1,2,2-Tetrachloroethane	10. 10. 10. 10. 10.	บ บ บ
124-48-1Dibromochloromethane 79-00-51,1,2-Trichloroethane 71-43-2Benzene 10061-02-6trans-1,3-Dichloropropene 75-25-2Bromoform 108-10-14-Methyl-2-Pentanone 591-78-62-Hexanone 127-18-4Tetrachloroethene 79-34-51,1,2,2-Tetrachloroethane	10. 10. 10. 10.	บ บ
79-00-51,1,2-Trichloroethane	10. 10. 10.	υ
71-43-2Benzene 10061-02-6trans-1,3-Dichloropropene 75-25-2Bromoform 108-10-14-Methyl-2-Pentanone 591-78-62-Hexanone 127-18-4Tetrachloroethene 79-34-51,1,2,2-Tetrachloroethane	10. 10.	
10061-02-6trans-1,3-Dichloropropene 75-25-2Bromoform 108-10-14-Methyl-2-Pentanone 591-78-62-Hexanone 127-18-4Tetrachloroethene 79-34-51,1,2,2-Tetrachloroethane	10.	10
75-25-2Bromoform 108-10-14-Methyl-2-Pentanone 591-78-62-Hexanone 127-18-4Tetrachloroethene 79-34-51,1,2,2-Tetrachloroethane		U
108-10-14-Methyl-2-Pentanone 591-78-62-Hexanone 127-18-4Tetrachloroethene 79-34-51,1,2,2-Tetrachloroethane		
591-78-62-Hexanone 127-18-4Tetrachloroethene 79-34-51,1,2,2-Tetrachloroethane	10.	
127-18-4Tetrachloroethene	10.	U
79-34-51,1,2,2-Tetrachloroethane	10.	U
	10.	U
	10.	U
108-88-3Toluene	10.	U
108-90-7Chlorobenzene	10.	U
100-41-4Ethylbenzene	10.	U
100-42-5Styrene	10.	υ
1330-20-7m,p-Xylene	10.	
95-47-6o-Xylene	10.	U
1634-04-4Methyl t-butyl ether	10.	U
75-71-8Dichlorodifluoromethane	10.	U
79-20-9Methyl Acetate	10.	U
76-13-1Freon 113	10.	ט
75-69-4Trichlorofluoromethane	10.	ט
110-82-7Cyclohexane	10.	υ
108-87-2Methylcyclohexane	10.	ש
541-73-11,3-Dichlorobenzene	10.	υ
98-82-8Isopropylbenzene	10.	υ
106-46-71,4-Dichlorobenzene	10.	U
	10.	υ
95-50-11,2-Dichlorobenzene 96-12-81,2-Dibromo-3-chloropropane	10.	U
120-82-11,2,4-Trichlorobenzene	10.	U

Data Path : C:\MSDChem\1\DATA\060908\ Data File : EB414.D 8 Sep 2006 Acq On : 1:54 pm Operator : mple : VBLK : MBLK EPA_8260_WATER νC ALS Vial : 9 Sample Multiplier: 1 Quant Time: Sep 11 08:37:29 2006 Quant Method : C:\MSDCHEM\MSDEMO\TCLOLM4.M Quant Title : VOA TCL list OLM4.1 QLast Update : Fri Sep 08 14:11:29 2006 Response via : Continuing Cal File: C:\MSDChem\1\DATA\060908\ES411.D TIC: EB414.D Abundance 520000 500000 480000 Toluene-d8,S 460000 440000 hzene-d5, Bromofluorobenzene,S 420000 400000 380000 360000 1,4-Difluorobenzene,f 340000 320000 300000 280000 260000 240000 1,2-Dichloroethane-d4,S 220000 Bromochloromethane, I 200000 180000 160000 140000 120000 100000 80000 60000 40000 20000 n 6.00 8.00 9.00 10.00 13.00 14.00 2.00 3.00 4.00 5.00 7.00 11.00 12.00 Time-> 1.00

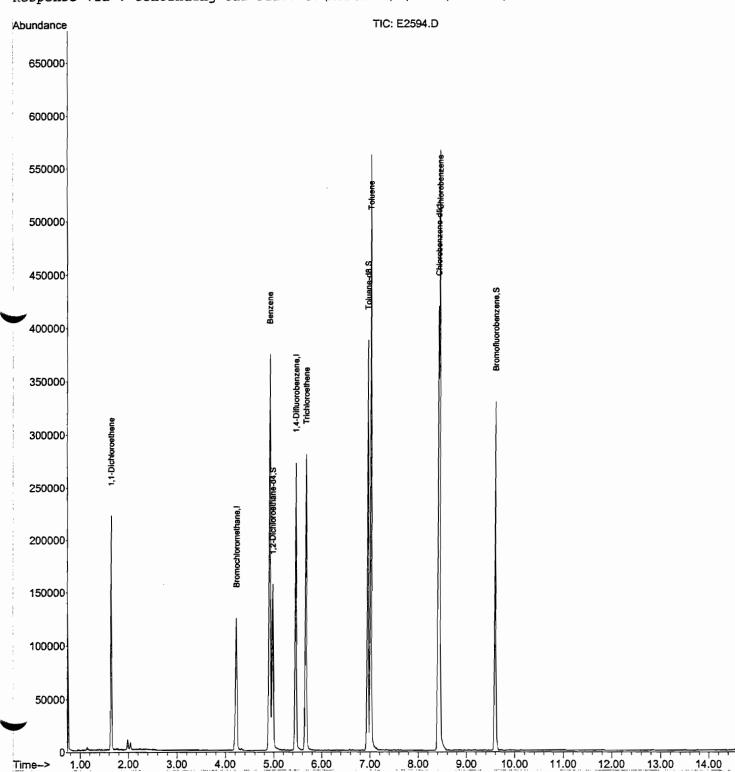
Data Path : C:\MSDChem\1\DATA\060 Data File : EB414.D Acq On : 8 Sep 2006 1:54 pm Operator : Comple : VBLK : MBLK EPA_8260_WATER ALS Vial : 9 Sample Multiplier	1				
Quant Time: Sep 11 08:37:29 2006 Quant Method : C:\MSDCHEM\MSDEMO\ Quant Title : VOA TCL list OLM4 QLast Update : Fri Sep 08 14:11:2 Response via : Continuing Cal Fil	.1 9 2006		m\1\DATA\0	60908\ES411.	D
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
 Bromochloromethane 1,4-Difluorobenzene Chlorobenzene-d5 	5.46	114	166491	50.00 ug	0.00
System Monitoring Compounds 24) 1,2-Dichloroethane-d4 45) Toluene-d8 56) Bromofluorobenzene	6.94	98	200349	45.44 ug	0.00
Target Compounds					Qvalue
(#) = qualifier out of range (m)	= manu	al in	tegration	(+) = signal	s summed

	v	ODAILDE (OKGANICS ANALI	DID DAIA					<u> </u>
							 VM	ISB	
Lab Nam	ne: AES,	Inc.		Contract	:				
Lab Cod	AES	Case	e No.: ERM0603	SAS No.	:	SDG	No.:	AX-MW-E	3S
		vater) WAT				ample ID			
Mallix:	(SOII/W	alei) MA	00 (g/mL) ML						
			00 (g/mu) ML				5259 4 00/0	7/06	
		ned) LOW				Received			
% Moist	ure: not	dec				Analyzed			
GC Colu	ımn: DB-6	524 ID:	.18 (mm)			ion Facto			
Soil Ex	tract Vo	lume:	(uL)		Soil A	Aliquot V	/olume	:	(uL)
				CONCE	NTRATIC	ON UNITS	:		
	CAS NO.	(COMPOUND	(uq/L	or ug/	/Kg) UG/I		Q	
	0110 110				2.	2.			
,-	74 - 97		Chloromethane				10.	ן ען	
	74-07	- 3					10.	υ	
	74-83	9	Bromomethane					! !	
	75-01	4)	Vinyl Chloride				10.	U	
	75-00)-3(Chloroethane				10.	υ	
	75-09)-2!	Methylene Chlo	ride			10.	U	
Í	67-64	-1/	Acetone				10.	ט	I
i	75-15) 0 - ز	Carbon Disulfi	de .			10.	υ	
l l			1,1-Dichloroet				39.	1	
			1,1-Dichloroet			1	10.	ίυ İ	
			trans-1,2-Dich				10.	UUUUUU	
1								! !	
			cis-1,2-Dichlo	roethene			10.	U U	
			Chloroform				10.	U	
			1,2-Dichloroet				10.	ט ו	
			2-Butanone				10.	ע ו	
Í	71-55	5-6	1,1,1-Trichlor	oethane			10.	ט	
i			Carbon Tetrach				10.	U U	
i			Bromodichlorom				10.	υ	
ł			1,2-Dichloropr				10.	iv i	
1			cis-1,3-Dichlo		e –		10.	υ	
			Trichloroethen				49.		
			Dibromochlorom			l	10.	ט ו	
			1,1,2-Trichlor				10.	υ	
[
			Benzene				49.		
			trans-1,3-Dich				10.	σ	
ĺ			Bromoform				10.	U	
i i	108-10)-1	4-Methyl-2-Pen	tanone			10.	ט ו	
			2-Hexanone				10.	ט ו	
	127-18	3-4'	Tetrachloroeth	ene			10.	ט ו	
Í	79-34	1-5:	1,1,2,2-Tetrac	hloroeth	ane		10.	ט ו	
i	108-88	3-3'	Toluene				51.		
i	108-90)-7(Chlorobenzene				51.	1 1	
j	100-41	1-4	Ethylbenzene				10.	U [
i			Styrene				10.	jυ j	
i	1330-20)-7!	m,p-Xylene			İ	10.	ju j	
{			o-Xylene				10.	U I	
	1634-04	1-4	Methyl t-butyl	ether			10.	υ	
			Dichlorodifluo		e		10.	U U	
ļ			Methyl Acetate		<u> </u>		10.	υ	
		3-1]					10.	U	
			Trichlorofluor	omethane			10.	U	
			Cyclohexane				10.	U	
			Methylcyclohex				10.	υ	
			1,3-Dichlorobe				10.	ט	
ĺ	98-82	2 - 8	Isopropylbenze	ne			10.	ט (
	106-46	5-7	1,4-Dichlorobe:	nzene			10.	U 1	
			1,2-Dichlorobe				10.	jυ j	
			1,2-Dibromo-3-				10.	υ	
			1,2,4-Trichlor	_			10.	ט ו	
	120 02		_,_,						

^{3/90}00071

Data Path : C:\MSDCHEM\1\DATA\060908\ Data File : E2594.D 8 Sep 2006 5:32 pm Acq On : Operator : mple : VMSB EPA_8260_WATER : LCS βC : 18 Sample Multiplier: 1 ALS Vial Quant Time: Sep 11 08:40:59 2006 Quant Method : C:\MSDCHEM\MSDEMO\TCLOLM4.M Quant Title : VOA TCL list OLM4.1

QLast Update : Fri Sep 08 17:00:32 2006 Response via : Continuing Cal File: C:\MSDChem\1\DATA\060908\ES411.D



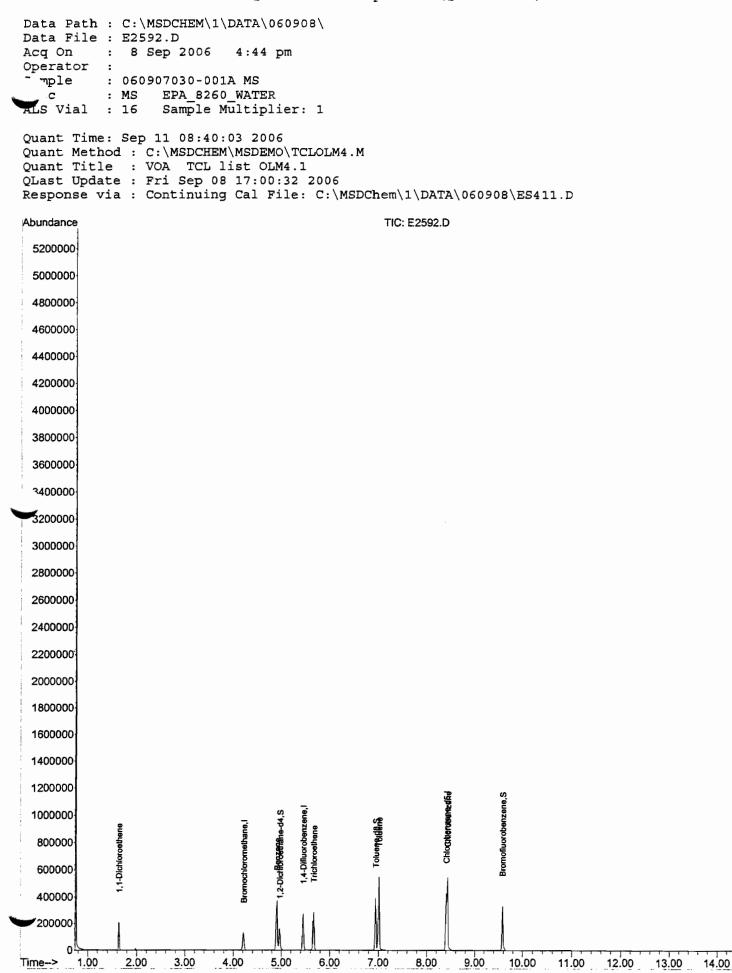
Quant Time: Sep 11 08:40:59 2006 Quant Method : C:\MSDCHEM\MSDEMO\TCLOLM4.M Quant Title : VOA TCL list OLM4.1 QLast Update : Fri Sep 08 17:00:32 2006 Response via : Continuing Cal File: C:\MSDChem\1\DATA\060908\ES411.D Internal Standards R.T. QIon Response Conc Units Dev(Min) 1) Bromochloromethane 4.21 128 25444 50.00 ug 0.00 26) 1,4-Difluorobenzene 5.45 114 151433 50.00 ug 0.00 26) 1,4-Difluorobenzene 5.45 114 151433 50.00 ug 0.00 44) Chlorobenzene-d5 8.40 117 72674 50.00 ug 0.00 System Monitoring Compounds 24) 1,2-Dichloroethane-d4 4.96 65 134618 55.50 ug 0.00 45) Toluene-d8 6.94 98 186477 47.20 ug 0.00 56) Bromofluorobenzene 9.58 95 88656 45.08 ug 0.00 56) Bromofluorobenzene 9.58 95 88656 45.08 ug 0.00 99 30) Benzene 4.90 78 230069 49.17 ug 100 32) Trichloroethene 1.64 96 130 73153 49.40 ug 97 47) Toluene 7.00 92 169468 50.76 ug 87 50) Chlorobenzene 8.42 112 189605 51.13 ug 91 91	Data Path : C:\MSDCHEM\1\DATA\0609 Data File : E2594.D Acq On : 8 Sep 2006 5:32 pm Operator : Cole : VMSB : LCS EPA_8260_WATER ALS Vial : 18 Sample Multiplier					
1) Bromochloromethane 4.21 128 25444 50.00 ug 0.00 26) 1,4-Difluorobenzene 5.45 114 151433 50.00 ug 0.00 44) Chlorobenzene-d5 8.40 117 72674 50.00 ug 0.00 System Monitoring Compounds 24) 1,2-Dichloroethane-d4 4.96 65 134618 55.50 ug 0.00 45) Toluene-d8 6.94 98 186477 47.20 ug 0.00 56) Bromofluorobenzene 9.58 95 88656 45.08 ug 0.00 Target Compounds Qvalue 9 1,1-Dichloroethene 1.64 96 44175 39.48 ug 99 30) Benzene 4.90 78 230069 49.17 ug 100 32) Trichloroethene 5.66 130 73153 49.40 ug 97 47) Toluene 7.00 92 169468 50.76 ug 87	Quant Method : C:\MSDCHEM\MSDEMO\T Quant Title : VOA TCL list OLM4. QLast Update : Fri Sep 08 17:00:32	1 2006		m\1\DATA\0	60908\ES411	.D
1) Bromochloromethane 4.21 128 2544 50.00 ug 0.00 26) 1,4-Difluorobenzene 5.45 114 151433 50.00 ug 0.00 44) Chlorobenzene-d5 8.40 117 72674 50.00 ug 0.00 System Monitoring Compounds 4.96 65 134618 55.50 ug 0.00 45) Toluene-d8 6.94 98 186477 47.20 ug 0.00 56) Bromofluorobenzene 9.58 95 88656 45.08 ug 0.00 7arget Compounds Qvalue 9 1,1-Dichloroethene 1.64 96 44175 39.48 ug 99 30) Benzene 4.90 78 230069 49.17 ug 100 32) Trichloroethene 5.66 130 73153 49.40 ug 97 47) Toluene 7.00 92 169468 50.76 ug 87		R.T.	QIon	Response	Conc Units	Dev(Min)
45) Toluene-d86.949818647747.20 ug0.0056) Bromofluorobenzene9.58958865645.08 ug0.00Target CompoundsQvalue9) 1,1-Dichloroethene1.64964417539.48 ug9930) Benzene4.907823006949.17 ug10032) Trichloroethene5.661307315349.40 ug9747) Toluene7.009216946850.76 ug87	 Bromochloromethane 1,4-Difluorobenzene Chlorobenzene-d5 System Monitoring Compounds	5.45 8.40	114 117	151433 72674	50.00 ug 50.00 ug	0.00 0.00
56) Bromofluorobenzene 9.58 95 88656 45.08 ug 0.00 Target Compounds Qvalue 9) 1,1-Dichloroethene 1.64 96 44175 39.48 ug 99 30) Benzene 4.90 78 230069 49.17 ug 100 32) Trichloroethene 5.66 130 73153 49.40 ug 97 47) Toluene 7.00 92 169468 50.76 ug 87	24) 1,2-Dichloroethane-d4	4.96	65	134618	55.50 ug	0.00
Target CompoundsQvalue9) 1,1-Dichloroethene1.64964417539.489930) Benzene4.907823006949.17ug10032) Trichloroethene5.661307315349.40ug9747) Toluene7.009216946850.76ug87						
9)1,1-Dichloroethene1.64964417539.48 ug9930)Benzene4.907823006949.17 ug10032)Trichloroethene5.661307315349.40 ug9747)Toluene7.009216946850.76 ug87	56) Bromofluorobenzene	9.58	95	88656	45.08 ug	0.00
30) Benzene4.907823006949.17 ug10032) Trichloroethene5.661307315349.40 ug9747) Toluene7.009216946850.76 ug87	Target Compounds					Qvalue
32) Trichloroethene5.661307315349.40 ug9747) Toluene7.009216946850.76 ug87	9) 1,1-Dichloroethene	1.64	96	44175	39.48 ug	99
	30) Benzene	4.90	78	230069	49.17 ug	100
	32) Trichloroethene	5.66	130	73153	49.40 ug	97
50, Chiolobenzene 6.42 112 165605 51.13 ug 91						
	50, Chrorobenzene				ug	

') = qualifier out of range (m) = manual integration (+) = signals summed

_

VOLATILE ORGANICS ANALYSIS DATA SHEET

		AX-MW	1-95 MS
Lab Name: AES, Inc. Contract:			
Lab Code: AES Case No.: ERM0603 SAS No.:		No.: AX	
	ab Sample ID:		95 MS
bumpae ne, teet	ab File ID: E		
Level: (low/med) LOW Da	ate Received:		
	ate Analyzed:		06
de coraliti pp ter le t	ilution Facto		. 0
	oil Aliquot V		(uL)
	RATION UNITS:		_
CAS NO. COMPOUND (ug/L o:	r ug/Kg) UG/L	i i i i i i i i i i i i i i i i i i i	Q
			<u> </u>
74-87-3Chloromethane	[10. U	
74-83-9Bromomethane		10. U	
75-01-4Vinyl Chloride		10. U	1
75-00-3Chloroethane		10. U	1
75-09-2Methylene Chloride		10. U	!
67-64-1Acetone		10. U	1
75-15-0Carbon Disulfide		10. U	
75-35-41,1-Dichloroethene		39. 10 T	T
75-34-31,1-Dichloroethane		10. ŭ 10. ŭ	
156-60-5trans-1,2-Dichloroethene			
156-59-2cis-1,2-Dichloroethene		10. U	
67-66-3Chloroform		10. JU	-
107-06-21,2-Dichloroethane	!		1
78-93-32-Butanone	{	10. U	
71-55-61,1,1-Trichloroethane		10. JU	1
56-23-5Carbon Tetrachloride		10. JU	
75-27-4Bromodichloromethane		10. JU	
78-87-51,2-Dichloropropane		10. U	
10061-01-5cis-1,3-Dichloropropene		48.	, l
79-01-6Trichloroethene		10. U	т I
79-00-51,1,2-Trichloroethane		10. U	1
71-43-2Benzene	!	48.	, l
10061-02-6trans-1,3-Dichloropropen		10. U	т
		10. U	
75-25-2Bromoform 108-10-14-Methyl-2-Pentanone	— —	10. U	
591-78-62-Hexanone	——	10. U	
127-18-4Tetrachloroethene	;	10. 10	
79-34-51,1,2,2-Tetrachloroethan		10. U	
108-88-3Toluene	~ _	53.	
108-90-7Chlorobenzene		52.	i
100-41-4Ethylbenzene		10. ju	τİ
100-42-5Styrene		10. U	J
1330-20-7m,p-Xylene		10. ju	J
95-47-6o-Xylene		10. ju	J
1634-04-4Methyl t-butyl ether		10. U	J
75-71-8Dichlorodifluoromethane		10. U	J
79-20-9Methyl Acetate		10. U	J
76-13-1Freon 113		10. U	J
75-69-4Trichlorofluoromethane		10. U	J
110-82-7Cyclohexane		10. U	J
108-87-2Methylcyclohexane		10. U	J
541-73-11,3-Dichlorobenzene		10. U	J
98-82-8Isopropylbenzene		10. ju	J
106-46-71,4-Dichlorobenzene		10. U	J
95-50-11,2-Dichlorobenzene		10. U	J
96-12-81,2-Dibromo-3-chloroprop	ane	10. U	
120-82-11,2,4-Trichlorobenzene		10. U	
FORM I VOA			3/90



Data Path : C:\MSDCHEM\1\DATA\060908\ Data File : E2592.D Acq On : 8 Sep 2006 4:44 pm Operator : : 060907030-001A MS : MS EPA_8260_WATER Yes Vial : 16 Sample Multiplier: 1 Quant Time: Sep 11 08:40:03 2006 Quant Method : C:\MSDCHEM\MSDEMO\TCLOLM4.M Quant Title : VOA TCL list OLM4.1 QLast Update : Fri Sep 08 17:00:32 2006 Response via : Continuing Cal File: C:\MSDChem\1\DATA\060908\ES411.D Internal Standards R.T. QIon Response Conc Units Dev(Min) _____ 1) Bromochloromethane4.211282659650.00 ug0.0026) 1,4-Difluorobenzene5.4511415025650.00 ug0.0044) Chlorobenzene-d58.401176796550.00 ug0.00 System Monitoring Compounds 4.96 65 135564 53.47 ug 6.94 98 188844 51.11 ug 9.58 95 88248 47.98 ug 24) 1,2-Dichloroethane-d4 0.00 45) Toluene-d8 45) Toluene-d8
 56) Bromofluorobenzene 0.00 0.00 Target Compounds Qvalue

 arget Compounds
 0

 9) 1,1-Dichloroethene
 1.64
 96
 45855
 39.20 ug

 30) Benzene
 4.90
 78
 224478
 48.35 ug

 32) Trichloroethene
 5.66
 130
 70355
 47.89 ug

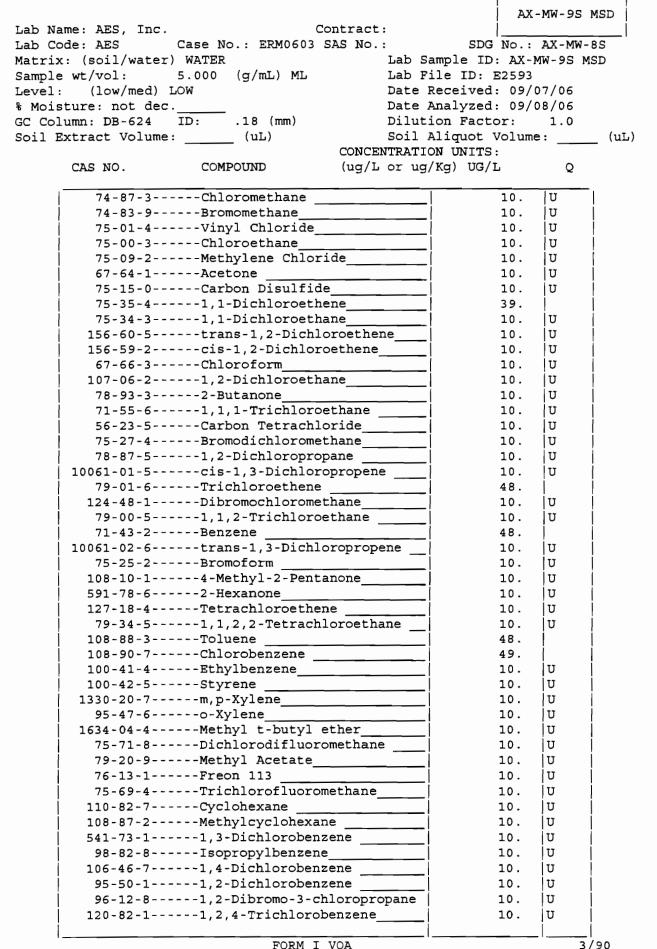
 47) Toluene
 7.00
 92
 163928
 52.50 ug

 50) Chlorobenzene
 8.42
 112
 181140
 52.23 ug

 91 100 97 86 91

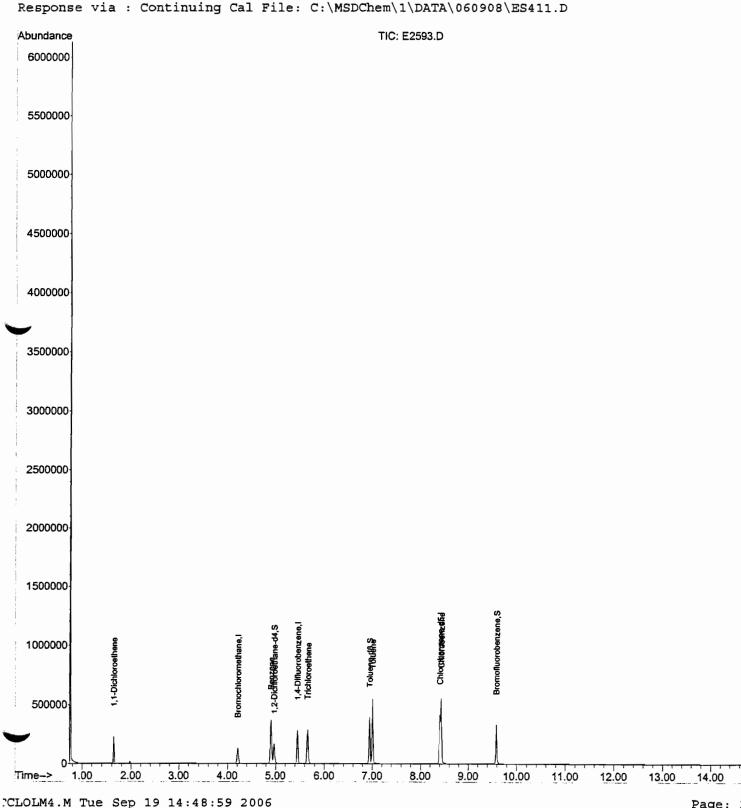
'") = qualifier out of range (m) = manual integration (+) = signals summed

VOLATILE ORGANICS ANALYSIS DATA SHEET



Data Path : C:\MSDCHEM\1\DATA\060908\ Data File : E2593.D Acq On : 8 Sep 2006 5:08 pm Operator : ^c ample : 060907030-001A MSD :c : MSD EPA_8260_WATER MLS Vial : 17 Sample Multiplier: 1 Quant Time: Sep 11 08:40:29 2006 Quant Method : C:\MSDCHEM\MSDEMO\TCLOLM4.M

Quant Title : VOA TCL list OLM4.1 QLast Update : Fri Sep 08 17:00:32 2006 Response via : Continuing Cal File: C:\MSDChem\1\DATA\060908\ES411.D



Page: 2 000078

Data Path : C:\MSDCHEM\1\DATA\060908\ Data File : E2593.D Acq On : 8 Sep 2006 5:08 pm Operator : Sample : 060907030-001A MSD : MSD EPA 8260 WATER Vial : 17 Sample Multiplier: 1 Quant Time: Sep 11 08:40:29 2006 Quant Method : C:\MSDCHEM\MSDEMO\TCLOLM4.M Quant Title : VOA TCL list OLM4.1 QLast Update : Fri Sep 08 17:00:32 2006 Response via : Continuing Cal File: C:\MSDChem\1\DATA\060908\ES411.D Internal Standards R.T. QION Response Conc Units Dev(Min) 1) Bromochloromethane4.211282681850.00 ug0.0026) 1,4-Difluorobenzene5.4511415269750.00 ug0.0044) Chlorobenzene-d58.401177327350.00 ug0.00 26) 1,4-Difluorobenzene 44) Chlorobenzene-d5 44) Chlorobenzene-d5 System Monitoring Compounds 24) 1,2-Dichloroethane-d4 4.96 65 139228 54.46 ug 0.00 6.94 98 189236 47.51 ug 45) Toluene-d8 0.00 56) Bromofluorobenzene 9.58 95 87464 44.11 ug 0.00 Target Compounds Qvalue 1.64 96 45795 38.83 ug 9) 1,1-Dichloroethene 97 30) Benzene 4.90 78 225643 47.82 ug 100 5.66 130 71982 48.21 ug 32) Trichloroethene 97 7.00 92 161707 48.04 ug # 47) Toluene 84 8.42 112 184367 49.31 ug 90 50) Chlorobenzene _____

(4) = qualifier out of range (m) = manual integration (+) = signals summed

CLP

SAMPLE CALCULATIONS FOR VOLATILE ORGANICS:

1) RRF of Trichloroethene from the VSTD050 analyzed on 9/8/06:

- = <u>area of Trichloroethene in std.</u> X <u>concentration of internal standard.</u> area of internal std concentration of standard
- $= \frac{69913}{142998} \quad x \quad \frac{50}{50} \quad = \quad 0.489$

2) Amount of Trichloroethene in sample AX-MW-9S MS (AES sample number 060907030-001 MS):

ug/L = <u>area of Trichloroethene in sample</u> x <u>amount of internal std. (ng)</u> area of internal standard in sample (ml of sample purged)(RRF)

 $= \frac{70355}{150256} \times \frac{(250)}{(5.0)(0.489)} = 47.9 \text{ ug/L}$

which is reported as 48 ug/L on the Form I for Volatile Organics

3) Calculation of spike recovery for Trichloroethene in sample AX-MW-9S Matrix Spike:

Percent spike recovery = <u>quantity determined by analysis</u> x 100 quantity added to sample

% recovery of Trichloroethene = (47.9 - 0.0) x 100 = 95.8 % 50.0

000080

Analyst	Date	Time	File ID	Sample ID	DF	рН	QA/QC Checks		
							Surrogate Check	Internal Std Check	Comments
-101-	9/4/06		ETYOP	BFB-puga	-ok	Save	ł		
				VSTOOD					
FBELDA	8-220		ESUID	VSTODADV	K_	h_{α}			
CK=	-22E		ESYII	V577050~	-yda	Heat			
" ?≍	-930		ESULA	VSTD100 V	<u> </u>	/			
nm>	-230			V570200 V	<u> </u>	Zsa	ved sta	00114	
ns=	-238		ESUI	VSTDORS			Saved	TCL6PT	-
25530			65415	VSMOID	\sim				·
42998		DX	EB414	VBCK			ok	oR	
66948			EB415	VBLK			ok	òR	
		DXI	E2587	0907030-HA		1	ok	OR	
		Dra	E2228	-àA			ok	ok	MTRE=19
-		DX3	E2589	-3A			ok	OR	MTBE=6
		DX4	E2590	-4A			ok	or	
		015	E2591	-5A			oR	ok	
			E2592	-IAM	S		OR	ok	
		240/6	Ga 593	-1 AM	Ω.		ok	ok	
		DV-		VMSB_			ok	OR	
		DXa		0908064-1A		1	oR	ok	met=19
									•
-									

REVIEW

000081

DATE

and water the task