

REPORT

Focused Remedial Investigation Report

Volume 2 of 3

Alcan Aluminum Corporation
Oswego, New York

~~January 2004~~

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BLASLAND, BOUCK & LEE, INC.
engineers & scientists

***Focused Remedial
Investigation Report***

Volume 2 of 3

**Alcan Aluminum Corporation
Oswego, New York**

January 2004

Sediment Analytical Data Reports

SDG #020823ALCAN
8/22/02

BBL[®]
BLASLAND, BOUCK & LEE, INC.
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DATA REVIEW FOR
ALCAN ALUMINUM CORPORATION
OSWEGO, NY

SDG# 020823ALCAN

SEDIMENT SAMPLING
PCB, TOC, ORGANIC CONTENT
AND SPECIFIC GRAVITY ANALYSES

Analyses performed by:

Northeast Analytical, Inc.
Schenectady, New York

Review performed by:



Blasland, Bouck & Lee, Inc.
Syracuse, New York

Summary

The following is an assessment of the data package for SDG# 020823ALCAN for sampling at the ALCAN Aluminum Corporation Site in Oswego, NY.- Included with this assessment are the data review check sheets used in the review of the package and corrected sample results. Analyses were performed on the following samples:

Sample ID	Lab ID	Matrix	Sample Date	Analysis				
				VOA	BNA	PCB	TOC	MISC ²
OU1SD11 (0-0.5')	AF06809	sediment	08/22/02			x	x	
OU1SD11 (0.5-1')	AF06810	sediment	08/22/02			x	x	
OU1SD11 (1-1.5')	AF06811	sediment	08/22/02			x	x	
OU1SD11 (1.5-2')	AF06812	sediment	08/22/02			x	x	
OU1SD11 (2-2.5')	AF06813	sediment	08/22/02			x	x	
OU1SD11 (2.5-3') ¹	AF06814	sediment	08/22/02			x	x	
OU1SD11 (3-3.5')	AF06815	sediment	08/22/02			x	x	
OU1SD11 (3.5-4')	AF06816	sediment	08/22/02			x	x	
OU1SD11 (4-4.6')	AF068017	sediment	08/22/02			x	x	
OU1SD DUP1	AF06818	sediment	08/22/02			x	x	
OU1SD10 (0-0.5')	AF06819	sediment	08/22/02			x	x	
OU1SD10 (0.5-1')	AF06820	sediment	08/22/02			x	x	
OU1SD10 (1-1.6')	AF06821	sediment	08/22/02			x	x	
OU1SD09 (0-0.5')	AF06822	sediment	08/22/02			x	x	x
OU1SD09 (0.5-1')	AF06823	sediment	08/22/02			x	x	x
OU1SD09 (1-1.5')	AF06824	sediment	08/22/02			x	x	x
OU1SD09 (1.5-2')	AF06825	sediment	08/22/02			x	x	x
OU1SD09 (2-2.5')	AF06826	sediment	08/22/02			x	x	x
OU1SD09 (2.5-2.7')	AF06827	sediment	08/22/02			x	x	x
OU1SDRB01	AF06828	sediment	08/22/02			x		

1 MS/MSD analysis performed on sample

2 Miscellaneous parameters include: Percent organic content and specific gravity.

PCB ANALYSES

Introduction

Analyses were performed according to USEPA SW-846 Method 8082 as referenced in NYSDEC-ASP.

The data review process is an evaluation of data on a technical basis rather than a determination of contract compliance. As such, the standards against which the data are being weighed may differ from those specified in the analytical method. It is assumed that the data package represents the best efforts of the laboratory and had already been subjected to adequate and sufficient quality review prior to submission. During the review process, laboratory qualified and unqualified data are verified against the supporting documentation. Based on this evaluation, qualifier codes may be added, deleted, or modified by the data reviewer. Results are qualified with the following codes in accordance with National Functional Guidelines:

- U The compound was analyzed for but not detected. The associated value is the compound quantitation limit.
- J The compound was positively identified; however, the associated numerical value is an estimated concentration only.
- B The compound has been found in the sample as well as its associated blank, its presence in the sample may be suspect.
- N The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification.
- JN The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification. The associated numerical value is an estimated concentration only.
- E The compound was quantitated above the calibration range.
- D Concentration is based on a diluted sample analysis.
- C Identification confirmed by GC/MS.
- UJ The compound was not detected above the reported sample quantitation limit. However, the reported limit is approximate and may or may not represent the actual limit of quantitation.
- R The sample results are rejected.

Two facts should be noted by all data users. First, the "R" flag means that the associated value is unusable. In other words, due to significant QC problems, the analysis is invalid and provides no information as to whether the compound is present or not. "R" values should not appear on data tables because they cannot be relied upon, even as a last resort. The second fact to keep in mind is that no compound concentration, even if it has passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data but any value potentially contains error.

Data Assessment

1. Holding Time

The specified holding times for PCB analyses under NYSASP are 5 days from sample receipt to extraction and 40 days to analysis. The technical holding times for soils are 14 days from sample collection to extraction and 40 days to analysis.

All samples were extracted and analyzed within the technical holding time.

2. Blank Contamination

Quality assurance blanks (i.e., method, field, or rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Field and rinse blanks measure contamination of samples during field operations.

No Aroclors were detected in the method or rinse blanks.

3. System Performance

System performance and column resolution were acceptable.

4. Calibration

Satisfactory instrument calibration is established to insure that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of acceptable performance at the beginning of an experimental sequence. The continuing calibration verifies that the instrument daily performance is satisfactory.

4.1 Initial Calibration

A maximum RSD of 20% is allowed. The initial calibration was within the specified limit for all Aroclors.

4.2 Continuing Calibration

A maximum %D of 15 is allowed. All continuing calibration standards were within the specified limit.

5. Surrogates / System Monitoring Compounds

All samples to be analyzed for organic compounds are spiked with surrogate compounds prior to sample preparation to evaluate overall laboratory performance and efficiency of the analytical technique.

Recoveries for both surrogates were below control limits in sample OU1SD11 (2.5-3'). Data have been qualified as estimated in sample OU1SD11 (2.5-3') based on the recoveries. Recovery for one surrogate was below control limits in samples OU1SD11 (1.5-2'), OU1SD10 (0.5-1'), OU1SD10 (1-1.6') and OU1SD09 (1-1.5'). Since recoveries for the remaining surrogates were within control limits, no data have been qualified based on the deviations. Surrogates were diluted beyond the range of quantitation in samples OU1SD11 (2.5-3') MS and OU1SD11 (2.5-3') MSD. No data have been qualified based on the diluted surrogates. All other surrogate recoveries were within control limits.

6. Compound Identification

The retention times of all quantitated peaks must fall within the calculated retention time windows for both the primary and confirmation columns.

Based on the difference in quantitated results from the two analytical columns, data for Aroclor 1260 have been qualified as estimated with a potential high bias in samples OU1SD11 (0-0.5'), OU1SD11 (0.5-1'), OU1SD11 (1-1.5'), OU1SD11 (1.5-2'), OU1SD11 (2-2.5'), OU1SD DUP1, OU1SD10 (0-0.5'), OU1SD10 (0.5-1'), OU1SD10 (1-1.6'), OU1SD09 (0-0.5'), OU1SD09 (0.5-1') and OU1SD09 (1-1.5').

7. Matrix Spike/Matrix Spike Duplicate

Matrix spike and matrix spike duplicate data are used to assess the precision and accuracy of the analytical method independent of matrix interferences.

The matrix spike and matrix spike duplicate recoveries and relative percent difference between recoveries were within control limits.

8. Matrix Spike Blank

The matrix spike blank recovery was within control limits.

9. Field Duplicates

Results for duplicate samples are summarized as follows:

Sample ID/ Duplicate ID	Analyte	Sample Result	Duplicate Result	RPD
OU1SD11 (2-2.5') / OU1SD DUP 1	Aroclor 1242	35.0	30.8	12.8%
	Aroclor 1260	8.5	6.52	26.3%

The duplicate results are acceptable.

10. General Comments

Aroclor 1221 was reported as present in samples OU1SD11 (0-0.5'), OU1SD11 (0.5-1'), OU1SD11 (1-1.5'), OU1SD11 (1.5-2'), OU1SD11 (2-2.5'), OU1SD11 (2.5-3'), OU1SD11 (3-3.5'), OU1SD11 (3.5-4'), OU1SD DUP1, OU1SD10 (0-0.5'), OU1SD10 (0.5-1'), OU1SD10 (1-1.6'), OU1SD09 (0-0.5'), OU1SD09 (0.5-1') and OU1SD09 (1-1.5'). An examination of the sample chromatograms showed no pattern match for this Aroclor. Data for Aroclor 1221 have, therefore, been qualified as undetected in the listed samples.

11. System Performance and Overall Assessment

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines listed in the analytical method.

Data Validation Checklist

PCB Data Validation Checklist

	YES	NO	NA
<u>Data Completeness and Deliverables</u>			
Have any missing deliverables been received and added to the data package?	<u> </u>	<u> X </u>	<u> </u>
Is there a narrative or cover letter present?	<u> X </u>	<u> </u>	<u> </u>
Are the sample numbers included in the narrative?	<u> X </u>	<u> </u>	<u> </u>
Are the sample chain-of-custodies present?	<u> X </u>	<u> </u>	<u> </u>
Do the chain-of-custodies indicate any problems with sample receipt or sample condition?	<u> </u>	<u> X </u>	<u> </u>
<u>Holding Times</u>			
Have any holding times been exceeded?	<u> </u>	<u> X </u>	<u> </u>
<u>Surrogate Recovery</u>			
Are the surrogate recovery forms present?	<u> X </u>	<u> </u>	<u> </u>
Are all samples listed on the surrogate recovery form?	<u> X </u>	<u> </u>	<u> </u>
Were recoveries of any surrogate outside control limits for any sample or blank?	<u> X </u>	<u> </u>	<u> </u>
If yes, were the samples reanalyzed?	<u> </u>	<u> X </u>	<u> </u>
Are there any transcription/calculation errors between the raw data and the summary form?	<u> </u>	<u> X </u>	<u> </u>
<u>Matrix Spikes</u>			
Is there a matrix spike recovery form present?	<u> X </u>	<u> </u>	<u> </u>
Were matrix spikes analyzed at the required frequency?	<u> X </u>	<u> </u>	<u> </u>
How many spike recoveries were outside of QC limits?			
<u> 0 </u> out of <u> 2 </u>			
How many RPDs for matrix spike and matrix spike duplicate were outside of QC limits?			
<u> 0 </u> out of <u> 1 </u>			
<u>Blanks</u>			
Is a method blank summary form present?	<u> X </u>	<u> </u>	<u> </u>
Has a method blank been extracted for each set of samples or for each 20 samples, whichever is more frequent?	<u> X </u>	<u> </u>	<u> </u>
Do any method/instrument blanks have positive results?	<u> </u>	<u> X </u>	<u> </u>
Are field/rinse blanks associated with every sample?	<u> X </u>	<u> </u>	<u> </u>
Do any field/rinse blanks have positive results?	<u> </u>	<u> X </u>	<u> </u>

PCB Data Validation Checklist - Page 2

	YES	NO	NA
<u>Calibration and GC Performance</u>			
Are the following chromatograms and integration reports present?			
peak resolution check	<u> </u>	<u> X </u>	<u> </u>
Aroclor 1016/1260	<u> X </u>	<u> </u>	<u> </u>
Aroclors 1221, 1232, 1242, 1248, and 1254	<u> X </u>	<u> </u>	<u> </u>
Is a calibration summary form present and complete for each analytical sequence?	<u> X </u>	<u> </u>	<u> </u>
Are there any transcription/calculation errors between the raw data and the forms?	<u> </u>	<u> X </u>	<u> </u>
Are the initial calibration %RSD within acceptable limits for all analytes?	<u> X </u>	<u> </u>	<u> </u>
Is the resolution between any two adjacent peaks in the resolution check mixture > 60%?	<u> </u>	<u> </u>	<u> X </u>
Have all samples been injected within a 12 hour period beginning with the injection of a calibration standard?	<u> X </u>	<u> </u>	<u> </u>
Is a continuing calibration summary form present and complete for each continuing standard analyzed?	<u> X </u>	<u> </u>	<u> </u>
Are there any transcription/calculation errors between the raw data and the form?	<u> </u>	<u> X </u>	<u> </u>
Are all continuing calibration standard %D within acceptable limits?	<u> X </u>	<u> </u>	<u> </u>
<u>Analytical Sequence</u>			
Is an analytical sequence summary form present and complete for each column and each period of analyses?	<u> X </u>	<u> </u>	<u> </u>
Was the proper analytical sequence followed?	<u> X </u>	<u> </u>	<u> </u>
<u>Cleanup Efficiency Verification</u>			
Are percent recoveries of the compounds used to check the efficiency of the cleanup procedure within QC limits?	<u> X </u>	<u> </u>	<u> </u>
<u>PCB Identification</u>			
Are RT of sample compounds within the established RT windows?	<u> X </u>	<u> </u>	<u> </u>
Were all positively identified compounds confirmed on a second column?	<u> X </u>	<u> </u>	<u> </u>
Was GC/MS confirmation provided when required?	<u> </u>	<u> </u>	<u> X </u>
Were there any false negatives?	<u> </u>	<u> X </u>	<u> </u>

PCB Data Validation Checklist - Page 3

	YES	NO	NA
<u>Compound Quantitation and Reported Detection Limits</u>			
Are there any transcription/calculation errors in the Form 1 results?	<u> X </u>	<u> </u>	<u> </u>
Are the reporting limits adjusted to reflect sample dilutions and, for soils, sample moisture?	<u> X </u>	<u> </u>	<u> </u>
<u>Chromatogram Quality</u>			
Were the baselines stable?	<u> X </u>	<u> </u>	<u> </u>
Were any electronegative displacement (negative peaks) or unusual peaks detected?	<u> </u>	<u> X </u>	<u> </u>
<u>Field Duplicates</u>			
Were field duplicates submitted with the samples?	<u> X </u>	<u> </u>	<u> </u>

**PCB Qualifier Summary
Holding Time and Surrogates**

Sample ID	Holding Time*	Surrogates*			
		TCX-1	TCX-2	DCB-1	DCB-2
OU1SD11 (0-0.5')					
OU1SD11 (0.5-1')					
OU1SD11 (1-1.5')					
OU1SD11 (1.5-2')					↓
OU1SD11 (2-2.5')					
OU1SD11 (2.5-3')		↓	↓	↓	↓
OU1SD11 (2.5-3') MS		D	D	D	D
OU1SD11 (2.5-3') MSD		D	D	D	D
OU1SD11 (3-3.5')					
OU1SD11 (3.5-4')					
OU1SD11 (4-4.6')					
OU1SD DUP1					
OU1SD10 (0-0.5')					
OU1SD10 (0.5-1')					↓
OU1SD10 (1-1.6')					↓
OU1SD09 (0-0.5')					
OU1SD09 (0.5-1')					
OU1SD09 (1-1.5')					↓
OU1SD09 (1.5-2')					
OU1SD09 (2-2.5')					
OU1SD09 (2.5-2.7')					
OU1SDRB01					

Surrogates:

TCX Tetrachloro-m-xylene
DCB Decachlorobiphenyl
na Not applicable

Qualifiers:

D Surrogate diluted out
↑ Recovery high
↓ Recovery low

* Unless otherwise noted, all parameters are within specified limits.

PCB Calibration Summary

Instrument: GC05

Column: DB-5

Date:	8/26/02- 8/27/02	8/27/02	8/27/02	8/27/02	8/27/02	8/27/02	8/27/02	8/27/02
Time:		1152	1226	1300	1336	1410	1445	1520
	Initial Cal.	Cont Cal.	Cont Cal.	Cont Cal.	Cont Cal.	Cont Cal.	Cont Cal.	Cont Cal.
	%RSD	%D	%D	%D	%D	%D	%D	%D
Aroclor 1016	--*	ok						
Aroclor 1221	--*		ok					
Aroclor 1232	--*			ok				
Aroclor 1242	--*				ok			
Aroclor 1248	--*					ok		
Aroclor 1254	--*						ok	
Aroclor 1260	--*							ok
Tetrachloro-m-xylene	ok							
Decachlorobiphenyl	ok							
Affected Samples:								

* Single-point standard analyzed

PCB Calibration Summary - Page 2

Date:	9/07/02	9/07/02	9/28/02	9/29/02	9/29/02	9/29/02	9/30/02	
Time:	1552	2149	2052	0504	1315	2127	0155	
	Cont Cal.	Cont Cal.	Cont Cal.	Cont Cal.	Cont Cal.	Cont Cal.	Cont Cal.	Cont Cal.
	%D	%D	%D	%D	%D	%D	%D	%D
Aroclor 1016	ok							
Aroclor 1221		ok	ok					
Aroclor 1232				ok				
Aroclor 1242					ok			
Aroclor 1248						ok		
Aroclor 1254							ok	
Aroclor 1260								
Tetrachloro-m-xylene								
Decachlorobiphenyl								
Affected Samples:								

PCB Calibration Summary - Page 3

Instrument: GC11

Column: DB-1

Date:	9/6/02, 9/8/02- 9/10/02	9/10/02	9/10/02	9/10/02	9/10/02	9/10/02	9/10/02	9/10/02
Time:		0232	0311	0350	0430	0548	0628	1245
	Initial Cal.	Cont Cal.	Cont Cal.	Cont Cal.	Cont Cal.	Cont Cal.	Cont Cal.	Cont Cal.
	%RSD	%D	%D	%D	%D	%D	%D	%D
Aroclor 1016	--*	ok						
Aroclor 1221	--*		ok					
Aroclor 1232	--*			ok				
Aroclor 1242	--*				ok			
Aroclor 1248	--*							ok
Aroclor 1254	--*					ok		
Aroclor 1260	--*						ok	
Tetrachloro-m-xylene	ok							
Decachlorobiphenyl	ok							
Affected Samples:								

* Single-point standard analyzed

PCB Calibration Summary - Page 4

[illegible]

PCB Calibration Summary - Page 5

Instrument: GC19F

Column: DB-1

Date:	9/13/02-9/14/02	9/14/02	9/14/02	9/14/02	9/14/02	9/14/02	9/14/02	9/14/02
Time:		1312	1344	1416	1448	1520	1552	1624
	Initial Cal.	Cont Cal.	Cont Cal.	Cont Cal.	Cont Cal.	Cont Cal.	Cont Cal.	Cont Cal.
	%RSD	%D	%D	%D	%D	%D	%D	%D
Aroclor 1016	--*	ok						
Aroclor 1221	--*		ok					
Aroclor 1232	--*			ok				
Aroclor 1242	--*				ok			
Aroclor 1248	--*					ok		
Aroclor 1254	--*						ok	
Aroclor 1260	--*							ok
Tetrachloro-m-xylene	ok							
Decachlorobiphenyl	ok							
Affected Samples:								

* Single-point standard analyzed

PCB Calibration Summary - Page 6

Date:	9/27/02	9/27/02	9/28/02	9/28/02				
Time:	1737	2351	0531	1146				
	Cont Cal.	Cont Cal.	Cont Cal.	Cont Cal.	Cont Cal.	Cont Cal.	Cont Cal.	Cont Cal.
	%D	%D	%D	%D	%D	%D	%D	%D
Aroclor 1016				ok				
Aroclor 1221								
Aroclor 1232								
Aroclor 1242								
Aroclor 1248	ok							
Aroclor 1254		ok						
Aroclor 1260			ok					
Tetrachloro-m-xylene								
Decachlorobiphenyl								
Affected Samples:								

* Single-point standard analyzed

Corrected Sample Analysis Data Sheets

SUPPLEMENTAL PARAMETERS

Introduction

Analyses were performed according to the following method:

Total Organic Carbon

EPA Lloyd Kahn

The data review process is intended to evaluate data on a technical basis. It is assumed that the data package represents the best efforts of the laboratory and has already been subjected to adequate quality review prior to submission for review.

During the review process, laboratory data are verified against the supporting documentation. Based on this evaluation, qualifier codes may be added, modified or deleted by the data reviewer. Results are qualified with the following codes in accordance with the National Functional Guidelines.

- < The material was analyzed for, but was not detected. The associated value is the sample reporting limit.
- J The associated value is an estimated quantity.
- R The sample results are rejected.

Two facts should be noted by all data users. First, the "R" flag means that the associated value is unusable. In other words, due to significant QC problems, the analysis is invalid and provides no information as to whether the compound is present or not. "R" values should not appear on data tables because they cannot be relied upon, even as a last resort. The second fact to keep in mind is that no compound concentration, even if it has passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data but any value potentially contains error.

Data Assessment

1. Holding Times

The method-specified holding time for TOC analysis is 14 days from collection
All samples were analyzed within the specified holding time.

2. Calibration

All initial and continuing calibration standards were acceptable.

3. Blank Contamination

No TOC was reported in the method blank.

4. Laboratory Control Sample (LCS)

The laboratory control sample recovery was acceptable.

5. Matrix Spike/Matrix Spike Duplicate/Laboratory Duplicate

The matrix spike recovery and laboratory duplicate results were acceptable.

6. Field Duplicates

Results for duplicate samples are summarized as follows:

Sample ID/ Duplicate ID	Analyte	Sample Result	Duplicate Result	RPD
OU1SD11 (2-2.5') / OU1SD DUP 1	TOC	120000	104000	14.3%

The duplicate results are acceptable.

7 Overall Assessment

Other than for any deviations mentioned in this report, the analyses of the samples were in conformance with method specifications.

Data Validation Checklist

Supplemental Data Review Checklist

	YES	NO	NA
<u>Data Completeness</u>			
Is there a narrative or cover letter present?	<u>X</u>	<u> </u>	<u> </u>
Are the samples numbers included in the narrative?	<u> </u>	<u>X</u>	<u> </u>
Are the methods utilized notated?	<u>X</u>	<u> </u>	<u> </u>
Are the sample chain-of-custodies present?	<u>X</u>	<u> </u>	<u> </u>
Do the chain-of-custodies indicate any problems with sample receipt or sample condition?	<u> </u>	<u>X</u>	<u> </u>
<u>Holding Times</u>			
Have any holding times been exceeded?	<u> </u>	<u>X</u>	<u> </u>
<u>Laboratory Duplicates</u>			
Were duplicates analyzed and were the relative percent differences between results within acceptable limits?	<u>X</u>	<u> </u>	<u> </u>
<u>Laboratory Control Samples</u>			
Were LCS analyzed and were recoveries within acceptable limits?	<u>X</u>	<u> </u>	<u> </u>
<u>Blanks</u>			
Has a method blank been analyzed for each set of samples or for each 20 samples?	<u>X</u>	<u> </u>	<u> </u>
Do any have results above the reporting limit?	<u> </u>	<u>X</u>	<u> </u>
Do any field/rinse blanks have positive results?	<u> </u>	<u> </u>	<u>X</u>
<u>Calibration</u>			
Are calibrations acceptable?	<u>X</u>	<u> </u>	<u> </u>
<u>Raw Data</u>			
Is raw data present and complete for all samples and QC?	<u>X</u>	<u> </u>	<u> </u>
<u>Compound Quantitation and Reported Limits</u>			
Are the reporting limits adjusted to reflect sample dilutions, and for soils, sample moisture?	<u>X</u>	<u> </u>	<u> </u>

Corrected Sample Analysis Data Sheets

Laboratory Narrative

Sample Compliance Report

SAMPLE COMPLIANCE REPORT

Sample Delivery Group	Sampling Date	ASP Protocol	Sample ID	Matrix	Compliance ¹				Noncompliance
					VOA	BNA	PCB	TOC	
020823ALCAN	8/22/02	2000	OU1SD11 (0-0.5')	sediment	--	--	no	yes	PCB - ID, %D
020823ALCAN	8/22/02	2000	OU1SD11 (0.5-1')	sediment	--	--	no	yes	PCB - ID, %D
020823ALCAN	8/22/02	2000	OU1SD11 (1-1.5')	sediment	--	--	no	yes	PCB - ID, %D
020823ALCAN	8/22/02	2000	OU1SD11 (1.5-2')	sediment	--	--	no	yes	PCB - ID, %D
020823ALCAN	8/22/02	2000	OU1SD11 (2-2.5')	sediment	--	--	no	yes	PCB - ID, %D
020823ALCAN	08/22/02	2000	OU1SD11 (2.5-3')	sediment	--	--	no	yes	PCB - ID, surr
020823ALCAN	08/22/02	2000	OU1SD11 (3-3.5')	sediment	--	--	no	yes	PCB - ID
020823ALCAN	08/22/02	2000	OU1SD11 (3.5-4')	sediment	--	--	no	yes	PCB - ID
020823ALCAN	08/22/02	2000	OU1SD11 (4-4.6')	sediment	--	--	yes	yes	
020823ALCAN	08/22/02	2000	OU1SD DUP1	sediment	--	--	no	yes	PCB - ID, %D
020823ALCAN	08/22/02	2000	OU1SD10 (0-0.5')	sediment	--	--	no	yes	PCB - ID, %D
020823ALCAN	08/22/02	2000	OU1SD10 (0.5-1')	sediment	--	--	no	yes	PCB - ID, %D
020823ALCAN	08/22/02	2000	OU1SD10 (1-1.6')	sediment	--	--	no	yes	PCB - ID, %D
020823ALCAN	08/22/02	2000	OU1SD09 (0-0.5')	sediment	--	--	no	yes	PCB - ID, %D
020823ALCAN	08/22/02	2000	OU1SD09 (0.5-1')	sediment	--	--	no	yes	PCB - ID, %D
020823ALCAN	08/22/02	2000	OU1SD09 (1-1.5')	sediment	--	--	no	yes	PCB - ID, %D
020823ALCAN	08/22/02	2000	OU1SD09 (1.5-2')	sediment	--	--	yes	yes	
020823ALCAN	08/22/02	2000	OU1SD09 (2-2.5')	sediment	--	--	yes	yes	
020823ALCAN	08/22/02	2000	OU1SD09 (2.5-2.7')	sediment	--	--	yes	yes	
020823ALCAN	8/22/02	2000	OU1SDRB01	sediment	--	--	yes	yes	

1 Samples which are compliant with no added validation qualifiers are listed as "yes". Samples which are non-compliant or which have added qualifiers are listed as "no". A "no" designation does not necessarily indicate that the data have been rejected or are otherwise unusable.

1D-1¹
PCB ANALYSIS DATA SHEET

Northeast Analytical Inc.

ELAP ID No.:

11078

SDG No.:

020823ALCAN

CLIENT ID:

OU1SD11 (0-0.5)

Matrix:

SEDIMENT

LAB SAMPLE ID:

AF06809

Sample wt/vol:

1.32702 (g)

LAB FILE ID:

AF06809

% Moisture:

87.3

DATE RECEIVED:

8/23/2002

Extraction :

SW 846 METHOD 3545 (ASE)

DATE EXTRACTED:

9/3/2002

Conc. Extract Volume:

50000 (µL)

DATE ANALYZED:

9/27/2002

Injection Volume:

1.2 (µL)

DILUTION FACTOR:

1

Method:

SW-846 8082 (PCB)

SULFUR CLEANUP:

YES

GC Column : J&W, NARROWBORE CAPILLARY, DB-1, 30M; ID:0.25mm

NEA Form ID: S:\FORMS\CATB\SOIL_GC_19F_091302AL.XLS

NEA File ID: S:\CERT02\02080102_GC19F_8082S.XI

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/g)	Q
12674-11-2	Aroclor 1016	0.754	U
11104-28-2	Aroclor 1221	1.19 0.754	U U
11141-16-5	Aroclor 1232	0.754	U
53469-21-9	Aroclor 1242	1.43	U
12672-29-6	Aroclor 1248	0.754	U
11097-69-1	Aroclor 1254	0.754	U
11096-82-5	Aroclor 1260	1.19	U J

- i Aroclor 1221 is being used to report an altered PCB pattern exhibited by the sample.
Actual Aroclor 1221 is not present in the sample, but is reported to more accurately quantify PCB present in sample that has undergone environmental alteration.
- ii Aroclor 1242 is being reported as the best Aroclor match.
The sample exhibits an altered PCB pattern.
- iii Aroclor 1260 is being reported as the best Aroclor match.
The sample exhibits an altered PCB pattern.

1D-1¹
PCB ANALYSIS DATA SHEET

Northeast Analytical Inc.

ELAP ID No.:

11078

SDG No.:

020823ALCAN

Matrix:

SEDIMENT

CLIENT ID:

OU1SD11 (0.5-1)

Sample wt/vol:

1.43771 (g)

LAB SAMPLE ID:

AF06810

% Moisture:

86.2

LAB FILE ID:

AF06810

Extraction :

SW 846 METHOD 3545 (ASE)

DATE RECEIVED:

8/23/2002

Conc. Extract Volume:

50000 (µL)

DATE EXTRACTED:

9/3/2002

Injection Volume:

1.2 (µL)

DATE ANALYZED:

9/27/2002

Method:

SW-846 8082 (PCB)

DILUTION FACTOR:

1

SULFUR CLEANUP:

YES

GC Column : J&W, NARROWBORE CAPILLARY, DB-1, 30M; ID:0.25mm

NEA Form ID: S:\FORMS\CAT\SOIL_GC_19F_091302AL.XLS

NEA File ID: S:\CERT02\02080102_GC19F_8082S.XI

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/g)	Q
12674-11-2	Aroclor 1016	0.696	U
11104-28-2	Aroclor 1221	1.72 0.696	X LL
11141-16-5	Aroclor 1232	0.696	U
53469-21-9	Aroclor 1242	2.78	X
12672-29-6	Aroclor 1248	0.696	U
11097-69-1	Aroclor 1254	0.696	U
11096-82-5	Aroclor 1260	2.01	X P J

- i Aroclor 1221 is being used to report an altered PCB pattern exhibited by the sample.
Actual Aroclor 1221 is not present in the sample, but is reported to more accurately quantify PCB present in sample that has undergone environmental alteration.
- ii Aroclor 1242 is being reported as the best Aroclor match.
The sample exhibits an altered PCB pattern.
- iii Aroclor 1260 is being reported as the best Aroclor match.
The sample exhibits an altered PCB pattern.

¹ Form based upon NYS-DEC Form 1-CLP-PEST

1D-1¹
PCB ANALYSIS DATA SHEET

Northeast Analytical Inc.

ELAP ID No.: 11078	SDG No.: 020823ALCAN
Matrix: SEDIMENT	CLIENT ID: OU1SD11 (1-1.5)
Sample wt/vol: 1.58752 (g)	LAB SAMPLE ID: AF06811
% Moisture: 84.5	LAB FILE ID: AF06811
Extraction: SW 846 METHOD 3545 (ASE)	DATE RECEIVED: 8/23/2002
Conc. Extract Volume: 50000 (µL)	DATE EXTRACTED: 9/3/2002
Injection Volume: 1.2 (µL)	DATE ANALYZED: 9/27/2002
Method: SW-846 8082 (PCB)	DILUTION FACTOR: 1
	SULFUR CLEANUP: YES

GC Column: J&W, NARROWBORE CAPILLARY, DB-1, 30M; ID: 0.25mm

NEA Form ID: S:\FORMS\CATB\SOIL_GC_19F_091302AL.XLS

NEA File ID: S:\CERT02\02080102_GC19F_8082S.XI

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/g)	Q
12674-11-2	Aroclor 1016	0.630	U
11104-28-2	Aroclor 1221	1.03 0.630	U U
11141-16-5	Aroclor 1232	0.630	U
53469-21-9	Aroclor 1242	2.89	U
12672-29-6	Aroclor 1248	0.630	U
11097-69-1	Aroclor 1254	0.630	U
11096-82-5	Aroclor 1260	1.80	U J

- i Aroclor 1221 is being used to report an altered PCB pattern exhibited by the sample.
Actual Aroclor 1221 is not present in the sample, but is reported to more accurately quantify PCB present in sample that has undergone environmental alteration.
- ii Aroclor 1242 is being reported as the best Aroclor match.
The sample exhibits an altered PCB pattern.
- iii Aroclor 1260 is being reported as the best Aroclor match.
The sample exhibits an altered PCB pattern.

¹ Form based upon NYS-DEC Form 1-CLP-PEST

1D-1¹
PCB ANALYSIS DATA SHEET

Northeast Analytical Inc.

ELAP ID No.: 11078	SDG No.: 020823ALCAN
Matrix: SEDIMENT	CLIENT ID: OU1SD11 (1.5-2)
Sample wt/vol: 1.71876 (g)	LAB SAMPLE ID: AF06812
% Moisture: 83.9	LAB FILE ID: AF06812
Extraction : SW 846 METHOD 3545 (ASE)	DATE RECEIVED: 8/23/2002
Conc. Extract Volume: 50000 (µL)	DATE EXTRACTED: 9/3/2002
Injection Volume: 1.2 (µL)	DATE ANALYZED: 9/28/2002
Method: SW-846 8082 (PCB)	DILUTION FACTOR: 1
	SULFUR CLEANUP: YES

GC Column : J&W, NARROWBORE CAPILLARY, DB-1, 30M; ID:0.25mm

NEA Form ID: S:\FORMS\CATB\ISOIL_GC_19F_091302AL.XLS

NEA File ID: S:\CERT02\02080102_GC19F_8082S.XI

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/g)	Q
12674-11-2	Aroclor 1016	0.582	U
11104-28-2	Aroclor 1221	2.37 0.582	U <i>XP</i>
11141-16-5	Aroclor 1232	0.582	U
53469-21-9	Aroclor 1242	9.66	U <i>X</i>
12672-29-6	Aroclor 1248	0.582	U
11097-69-1	Aroclor 1254	0.582	U
11096-82-5	Aroclor 1260	3.08	U <i>XP</i>

- i Aroclor 1221 is being used to report an altered PCB pattern exhibited by the sample.
Actual Aroclor 1221 is not present in the sample, but is reported to more accurately quantify PCB present in sample that has undergone environmental alteration.
- ii Aroclor 1242 is being reported as the best Aroclor match.
The sample exhibits an altered PCB pattern.
- iii Aroclor 1260 is being reported as the best Aroclor match.
The sample exhibits an altered PCB pattern.

1D-1¹
PCB ANALYSIS DATA SHEET

Northeast Analytical Inc.

ELAP ID No. : 11078

Matrix : SEDIMENT

Sample wt/vol : 2.06672 (g)

% Moisture : 80.1

Extraction : SW 846 METHOD 3545 (ASE)

Conc. Extract Volume : 50000 (µL)

Injection Volume : 1.2 (µL)

Method : SW-846 8082 (PCB)

SDG No. : 020823ALCAN

CLIENT ID : OU1SD11 (2-2.5)

LAB SAMPLE ID : AF06813

LAB FILE ID : AF06813

DATE RECEIVED : 8/23/2002

DATE EXTRACTED : 9/3/2002

DATE ANALYZED : 9/28/2002

DILUTION FACTOR : 5

SULFUR CLEANUP : YES

GC Column : J&W, NARROWBORE CAPILLARY, DB-1, 30M; ID:0.25mm

NEA Form ID: S:\FORMS\CATB\SOIL_GC_19F_091302AL.XLS

NEA File ID: S:\CERT02\02080102_GC19F_8082S.XI

CAS NO.	COMPOUND	CONCENTRATION UNITS:	Q
		(µg/g)	
12674-11-2	Aroclor 1016	2.42	U
11104-28-2	Aroclor 1221	20.8 2.42	XP U
11141-16-5	Aroclor 1232	2.42	U
53469-21-9	Aroclor 1242	35.0	U
12672-29-6	Aroclor 1248	2.42	U
11097-69-1	Aroclor 1254	2.42	U
11096-82-5	Aroclor 1260	8.50	XP U

- i Aroclor 1221 is being used to report an altered PCB pattern exhibited by the sample.
Actual Aroclor 1221 is not present in the sample, but is reported to more accurately quantify PCB present in sample that has undergone environmental alteration.
- ii Aroclor 1242 is being reported as the best Aroclor match.
The sample exhibits an altered PCB pattern.
- iii Aroclor 1260 is being reported as the best Aroclor match.
The sample exhibits an altered PCB pattern.

¹ Form based upon NYS-DEC Form 1-CLP-PEST

1D-1¹
PCB ANALYSIS DATA SHEET

Northeast Analytical Inc.

ELAP ID No.:

11078

SDG No.:

020823ALCAN

CLIENT ID:

OU1SD11 (2.5-3)

Matrix:

SEDIMENT

LAB SAMPLE ID:

AF06814

Sample wt/vol:

4.10974 (g)

LAB FILE ID:

AF06814

% Moisture:

60.5

DATE RECEIVED:

8/23/2002

Extraction :

SW 846 METHOD 3545 (ASE)

DATE EXTRACTED:

9/3/2002

Conc. Extract Volume:

50000 (µL)

DATE ANALYZED:

9/28/2002

Injection Volume:

1.2 (µL)

DILUTION FACTOR:

1

Method:

SW-846 8082 (PCB)

SULFUR CLEANUP:

YES

GC Column : J&W, NARROWBORE CAPILLARY, DB-1, 30M; ID:0.25mm

NEA Form ID: S:\FORMS\CATB\SOIL_GC_19F_091302AL XLS

NEA File ID: S:\CERT02\02080102_GC19F_8082S XI

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/g)	Q
12674-11-2	Aroclor 1016	0.243	µ U J
11104-28-2	Aroclor 1221	2.04 0.243	µ U J
11141-16-5	Aroclor 1232	0.243	µ U J
53469-21-9	Aroclor 1242	1.57	µ J
12672-29-6	Aroclor 1248	0.243	µ U J
11097-69-1	Aroclor 1254	0.243	µ U J
11096-82-5	Aroclor 1260	0.243	µ U J

- i Aroclor 1221 is being used to report an altered PCB pattern exhibited by the sample.
Actual Aroclor 1221 is not present in the sample, but is reported to more accurately quantify PCB present in sample that has undergone environmental alteration.
- ii Aroclor 1242 is being reported as the best Aroclor match.
The sample exhibits an altered PCB pattern.

¹ Form based upon NYS-DEC Form 1-CLP-PEST

FORM I-CLP-PCB (NEA)

000091

1D-1¹
PCB ANALYSIS DATA SHEET

Northeast Analytical Inc.

ELAP ID No.:

11078

SDG No.:

020823ALCAN

CLIENT ID:

OU1SD11 (3-3.5)

Matrix:

SEDIMENT

LAB SAMPLE ID:

AF06815

Sample wt/vol:

5.49136 (g)

LAB FILE ID:

AF06815

% Moisture:

47.2

DATE RECEIVED:

8/23/2002

Extraction :

SW 846 METHOD 3545 (ASE)

DATE EXTRACTED:

9/3/2002

Conc. Extract Volume:

50000 (µL)

DATE ANALYZED:

9/28/2002

Injection Volume:

1.2 (µL)

DILUTION FACTOR:

1

Method:

SW-846 8082 (PCB)

SULFUR CLEANUP:

YES

GC Column : J&W, NARROWBORE CAPILLARY, DB-1, 30M; ID:0.25mm

NEA Form ID: S:\FORMS\CATB\SOIL_GC_19F_091302AL.XLS

NEA File ID: S:\CERT02\02080102_GC19F_8082S.XI

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/g)	Q
12674-11-2	Aroclor 1016	0.182	U
11104-28-2	Aroclor 1221	1.19 0.182	U U
11141-16-5	Aroclor 1232	0.182	U
53469-21-9	Aroclor 1242	0.258	U
12672-29-6	Aroclor 1248	0.182	U
11097-69-1	Aroclor 1254	0.182	U
11096-82-5	Aroclor 1260	0.182	U

- i Aroclor 1221 is being used to report an altered PCB pattern exhibited by the sample.
 Actual Aroclor 1221 is not present in the sample, but is reported to more accurately quantify PCB present in sample that has undergone environmental alteration.
- ii Aroclor 1242 is being reported as the best Aroclor match.
 The sample exhibits an altered PCB pattern.

¹ Form based upon NYS-DEC Form 1-CLP-PEST

1D-1¹
PCB ANALYSIS DATA SHEET

Northeast Analytical Inc.

SDG No.:

020823ALCAN

ELAP ID No.:

11078

CLIENT ID:

OU1SD11 (3.5-4)

Matrix:

SEDIMENT

LAB SAMPLE ID:

AF06816

Sample wt/vol:

8.02077 (g)

LAB FILE ID:

AF06816

% Moisture:

25.6

DATE RECEIVED:

8/23/2002

Extraction :

SW 846 METHOD 3545 (ASE)

DATE EXTRACTED:

9/3/2002

Conc. Extract Volume:

50000 (µL)

DATE ANALYZED:

9/28/2002

Injection Volume:

1.2 (µL)

DILUTION FACTOR:

1

Method:

SW-846 8082 (PCB)

SULFUR CLEANUP:

YES

GC Column : J&W, NARROWBORE CAPILLARY, DB-1, 30M; ID:0.25mm

NEA Form ID : S:\FORMS\CATB\SOIL_GC_19F_091302AL.XLS

NEA File ID : S:\CERT02\02080102_GC19F_8082S.XI

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/g)	Q
12674-11-2	Aroclor 1016	0.125	U
11104-28-2	Aroclor 1221	0.530 0.125	U <i>AP U</i>
11141-16-5	Aroclor 1232	0.125	U
53469-21-9	Aroclor 1242	0.125	U
12672-29-6	Aroclor 1248	0.125	U
11097-69-1	Aroclor 1254	0.125	U
11096-82-5	Aroclor 1260	0.736	U <i>if</i>

- i Aroclor 1221 is being used to report an altered PCB pattern exhibited by the sample.
Actual Aroclor 1221 is not present in the sample, but is reported to more accurately quantify PCB present in sample that has undergone environmental alteration.
- ii Aroclor 1260 is being reported as the best Aroclor match.
The sample exhibits an altered PCB pattern.

1D-1¹
PCB ANALYSIS DATA SHEET

Northeast Analytical Inc.

ELAP ID No.:	11078	SDG No.:	020823ALCAN
Matrix:	SEDIMENT	CLIENT ID:	OU1SD11 (4-4.6)
Sample wt/vol:	8.57124 (g)	LAB SAMPLE ID:	AF06817
% Moisture:	17.9	LAB FILE ID:	AF06817
Extraction :	SW 846 METHOD 3545 (ASE)	DATE RECEIVED:	8/23/2002
Conc. Extract Volume:	50000 (μL)	DATE EXTRACTED:	9/3/2002
Injection Volume:	1.2 (μL)	DATE ANALYZED:	9/28/2002
Method:	SW-846 8082 (PCB)	DILUTION FACTOR:	1
		SULFUR CLEANUP:	YES

GC Column : J&W, NARROWBORE CAPILLARY, DB-1, 30M; ID:0.25mm

NEA Form ID: S:\FORMS\CATB\SOIL_GC_19F_091302AL.XLS

NEA File ID: S:\CERT02\02080102_GC19F_8082S.XI

CAS NO.	COMPOUND	CONCENTRATION UNITS: (μg/g)	Q
12674-11-2	Aroclor 1016	0.117	U
11104-28-2	Aroclor 1221	0.117	U
11141-16-5	Aroclor 1232	0.117	U
53469-21-9	Aroclor 1242	0.117	U
12672-29-6	Aroclor 1248	0.117	U
11097-69-1	Aroclor 1254	0.117	U
11096-82-5	Aroclor 1260	0.117	U

¹ Form based upon NYS-DEC Form 1-CLP-PEST

FORM I-CLP-PCB (NEA)

1D-1¹
PCB ANALYSIS DATA SHEET

Northeast Analytical Inc.

SDG No.:

020823ALCAN

ELAP ID No.:

11078

CLIENT ID:

OU1SD DUP1

Matrix:

SEDIMENT

LAB SAMPLE ID:

AF06818

Sample wt/vol:

2.01454 (g)

LAB FILE ID:

AF06818

% Moisture:

80.1

DATE RECEIVED:

8/23/2002

Extraction :

SW 846 METHOD 3545 (ASE)

DATE EXTRACTED:

9/3/2002

Conc. Extract Volume:

50000 (µL)

DATE ANALYZED:

9/28/2002

Injection Volume:

1.2 (µL)

DILUTION FACTOR:

5

Method:

SW-846 8082 (PCB)

SULFUR CLEANUP:

YES

GC Column : J&W, NARROWBORE CAPILLARY, DB-1, 30M; ID:0.25mm

NEA Form ID: S:\FORMS\CATB\SOIL_GC_19F_091302AL.XLS

NEA File ID: S:\CERT02\02080102_GC19F_8082S.XI

CAS NO.	COMPOUND	CONCENTRATION UNITS:	Q
		(µg/g)	
12674-11-2	Aroclor 1016	2.48	U
11104-28-2	Aroclor 1221	14.8 2.48	NP U
11141-16-5	Aroclor 1232	2.48	U
53469-21-9	Aroclor 1242	30.8	NP
12672-29-6	Aroclor 1248	2.48	U
11097-69-1	Aroclor 1254	2.48	U
11096-82-5	Aroclor 1260	6.52	NP J

- i Aroclor 1221 is being used to report an altered PCB pattern exhibited by the sample.
Actual Aroclor 1221 is not present in the sample, but is reported to more accurately quantify PCB present in sample that has undergone environmental alteration.
- ii Aroclor 1242 is being reported as the best Aroclor match.
The sample exhibits an altered PCB pattern.
- iii Aroclor 1260 is being reported as the best Aroclor match.
The sample exhibits an altered PCB pattern.

¹ Form based upon NYS-DEC Form 1-CLP-PEST

1D-1¹
PCB ANALYSIS DATA SHEET

Northeast Analytical Inc.

ELAP ID No.:

11078

SDG No.:

020823ALCAN

CLIENT ID:

OU1SD10 (0-0.5)

Matrix:

SEDIMENT

LAB SAMPLE ID:

AF06819

Sample wt/vol:

1.35454 (g)

LAB FILE ID:

AF06819

% Moisture:

86.6

DATE RECEIVED:

8/23/2002

Extraction :

SW 846 METHOD 3545 (ASE)

DATE EXTRACTED:

9/3/2002

Conc. Extract Volume:

50000 (µL)

DATE ANALYZED:

9/28/2002

Injection Volume:

1.2 (µL)

DILUTION FACTOR:

1

Method:

SW-846 8082 (PCB)

SULFUR CLEANUP:

YES

GC Column : J&W, NARROWBORE CAPILLARY, DB-1, 30M; ID:0.25mm

NEA Form ID: S:\FORMS\CATB\SOIL_GC_19F_091302AL.XLS

NEA File ID: S:\CERT02\02080102_GC19F_8082S.XI

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/g)	Q
12674-11-2	Aroclor 1016	0.738	U
11104-28-2	Aroclor 1221	4.53 0.738	U X
11141-16-5	Aroclor 1232	0.738	U
53469-21-9	Aroclor 1242	4.00	U X
12672-29-6	Aroclor 1248	0.738	U
11097-69-1	Aroclor 1254	0.738	U
11096-82-5	Aroclor 1260	1.86	U X

- i Aroclor 1221 is being used to report an altered PCB pattern exhibited by the sample.
Actual Aroclor 1221 is not present in the sample, but is reported to more accurately quantify PCB present in sample that has undergone environmental alteration.
- ii Aroclor 1242 is being reported as the best Aroclor match.
The sample exhibits an altered PCB pattern.
- iii Aroclor 1260 is being reported as the best Aroclor match.
The sample exhibits an altered PCB pattern.
- iv It is not possible to distinguish if Aroclor 1242 or Aroclor 1248 was the original Aroclor in this sample that exhibits a highly altered PCB pattern. To better quantify total PCBs, Aroclor 1242 is being reported.

¹ Form based upon NYS-DEC Form 1-CLP-PEST

1D-1¹
PCB ANALYSIS DATA SHEET

Northeast Analytical Inc.

ELAP ID No.:

11078

SDG No.:

020831ALCAN

CLIENT ID:

OU1SD18 (0.5-1)

Matrix:

SEDIMENT

LAB SAMPLE ID:

AF07368

Sample wt/vol:

6.12513 (g)

LAB FILE ID:

AF07368

% Moisture:

41.9

DATE RECEIVED:

8/31/2002

Extraction :

SW 846 METHOD 3545 (ASE)

DATE EXTRACTED:

9/13/2002

Conc. Extract Volume:

50000 (µL)

DATE ANALYZED:

10/9/2002

Injection Volume:

1.3 (µL)

DILUTION FACTOR:

1

Method:

SW-846 8082 (PCB)

SULFUR CLEANUP:

YES

GC Column : J&W, NARROWBORE CAPILLARY, DB-1, 30M: ID:0.25mm

NEA Form ID: S:\FORMS\CATB\SOIL_GC_07_100702.XLS

NEA File ID: S:\CERT02\02090011_GC7_8082SED.

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/g)	Q
12674-11-2	Aroclor 1016	0.163	U
11104-28-2	Aroclor 1221	0.163	U
11141-16-5	Aroclor 1232	0.163	U
53469-21-9	Aroclor 1242	0.163	U
12672-29-6	Aroclor 1248	0.473	U
11097-69-1	Aroclor 1254	0.163	U
11096-82-5	Aroclor 1260	0.163	U

i Aroclor 1248 is being reported as the best Aroclor match.

The sample exhibits an altered PCB pattern.

ii It is not possible to distinguish if Aroclor 1242 or Aroclor 1248 was the original Aroclor in this sample that exhibits a highly altered PCB pattern. To better quantify total PCBs, Aroclor 1248 is being reported.

¹ Form based upon NYS-DEC Form 1-CLP-PEST

FORM I-CLP-PCB (NEA)

000140

1D-1¹
PCB ANALYSIS DATA SHEET

Northeast Analytical Inc.

ELAP ID No.: 11078 Matrix: SEDIMENT Sample wt/vol: 8.45474 (g) % Moisture: 20.3 Extraction: SW 846 METHOD 3545 (ASE) Conc. Extract Volume: 50000 (µL) Injection Volume: 1.3 (µL) Method: SW-846 8082 (PCB)	SDG No.: 020831ALCAN CLIENT ID: OU1SD18 (1-1.4) LAB SAMPLE ID: AF07369 LAB FILE ID: AF07369 DATE RECEIVED: 8/31/2002 DATE EXTRACTED: 9/20/2002 DATE ANALYZED: 10/9/2002 DILUTION FACTOR: 1 SULFUR CLEANUP: YES
---	--

GC Column: J&W, NARROWBORE CAPILLARY, DB-1, 30M; ID:0.25mm

NEA Form ID S:\FORMS\CAT\SOIL_GC_07_100702.XLS

NEA File ID S:\CERT02\02090011_GC7_8082SED

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/g)	Q
12674-11-2	Aroclor 1016	0.118	✓ UJ
11104-28-2	Aroclor 1221	0.118	✓ UJ
11141-16-5	Aroclor 1232	0.118	✓ UJ
53469-21-9	Aroclor 1242	0.118	✓ UJ
12672-29-6	Aroclor 1248	0.118	✓ UJ
11097-69-1	Aroclor 1254	0.118	✓ UJ
11096-82-5	Aroclor 1260	0.118	✓ UJ

¹ Form based upon NYS-DEC Form 1-CLP-PEST

FORM I-CLP-PCB (NEA)

1D-1¹
PCB ANALYSIS DATA SHEET

Northeast Analytical Inc.

ELAP ID No.:

11078

SDG No.:

020831ALCAN

CLIENT ID:

OU1SD17 (0-0.5)

Matrix:

SEDIMENT

LAB SAMPLE ID:

AF07370

Sample wt/vol:

5.21418 (g)

LAB FILE ID:

AF07370

% Moisture:

50.3

DATE RECEIVED:

8/31/2002

Extraction :

SW 846 METHOD 3545 (ASE)

DATE EXTRACTED:

9/13/2002

Conc. Extract Volume:

50000 (µL)

DATE ANALYZED:

10/9/2002

Injection Volume:

1.3 (µL)

DILUTION FACTOR:

30

Method:

SW-846 8082 (PCB)

SULFUR CLEANUP:

YES

GC Column : J&W, NARROWBORE CAPILLARY, DB-1, 30M; ID:0.25mm

NEA Form ID: S:\FORMS\CATB\SOIL_GC_07_100702.XLS

NEA File ID: S:\CERT02\02090011_GC7_8082SED.

CAS NO.	COMPOUND	CONCENTRATION UNITS:	Q
		(µg/g)	
12674-11-2	Aroclor 1016	5.75	U
11104-28-2	Aroclor 1221	5.75	U
11141-16-5	Aroclor 1232	5.75	U
53469-21-9	Aroclor 1242	119	X
12672-29-6	Aroclor 1248	5.75	U
11097-69-1	Aroclor 1254	5.75	U
11096-82-5	Aroclor 1260	7.61	APJ

- i Aroclor 1242 is being reported as the best Aroclor match.
The sample exhibits an altered PCB pattern.
- ii Aroclor 1260 is being reported as the best Aroclor match.
The sample exhibits an altered PCB pattern.

¹ Form based upon NYS-DEC Form 1-CLP-PEST

1D-1¹
PCB ANALYSIS DATA SHEET

Northeast Analytical Inc.

ELAP ID No.:

11078

SDG No.:

020831ALCAN

CLIENT ID:

OU1SD17 (0.5-0.8)

Matrix:

SEDIMENT

LAB SAMPLE ID:

AF07371

Sample wt/vol:

6.86319 (g)

LAB FILE ID:

AF07371

% Moisture:

32.7

DATE RECEIVED:

8/31/2002

Extraction :

SW 846 METHOD 3545 (ASE)

DATE EXTRACTED:

9/20/2002

Conc. Extract Volume:

50000 (µL)

DATE ANALYZED:

10/9/2002

Injection Volume:

1.3 (µL)

DILUTION FACTOR:

5

Method:

SW-846 8082 (PCB)

SULFUR CLEANUP:

YES

GC Column : J&W, NARROWBORE CAPILLARY, DB-1, 30M; ID:0.25mm

NEA Form ID : S:\FORMS\CATB\SOIL_GC_07_100702.XLS

NEA File ID : S:\CERT02\02090011_GC7_8082SED.

CAS NO.	COMPOUND	CONCENTRATION UNITS:	Q
		(µg/g)	
12674-11-2	Aroclor 1016	0.728	X UJ
11104-28-2	Aroclor 1221	0.728	X UJ
11141-16-5	Aroclor 1232	0.728	X UJ
53469-21-9	Aroclor 1242	15.1	X J
12672-29-6	Aroclor 1248	0.728	X UJ
11097-69-1	Aroclor 1254	0.728	X UJ
11096-82-5	Aroclor 1260	1.84	X P J

i Aroclor 1242 is being reported as the best Aroclor match.

The sample exhibits an altered PCB pattern.

ii Aroclor 1260 is being reported as the best Aroclor match.

The sample exhibits an altered PCB pattern.

1D-1¹
PCB ANALYSIS DATA SHEET

Northeast Analytical Inc.

ELAP ID No.:

11078

SDG No.:

020831ALCAN

CLIENT ID:

OU1SD21 (0-0.5)

Matrix:

SEDIMENT

LAB SAMPLE ID:

AF07372

Sample wt/vol:

2.47243 (g)

LAB FILE ID:

AF07372

% Moisture:

76.4

DATE RECEIVED:

8/31/2002

Extraction :

SW 846 METHOD 3545 (ASE)

DATE EXTRACTED:

9/13/2002

Conc. Extract Volume:

50000 (µL)

DATE ANALYZED:

10/9/2002

Injection Volume:

1.3 (µL)

DILUTION FACTOR:

40

Method:

SW-846 8082 (PCB)

SULFUR CLEANUP:

YES

GC Column : J&W, NARROWBORE CAPILLARY, DB-1, 30M; ID:0.25mm

NEA Form ID : S:\FORMS\CATB\SOIL_GC_07_100702.XLS

NEA File ID : S:\CERT02\02090011_GC7_8082SED.

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/g)	Q
12674-11-2	Aroclor 1016	16.2	U
11104-28-2	Aroclor 1221	16.2	U
11141-16-5	Aroclor 1232	16.2	U
53469-21-9	Aroclor 1242	321	X
12672-29-6	Aroclor 1248	16.2	U
11097-69-1	Aroclor 1254	16.2	U
11096-82-5	Aroclor 1260	20.0	ALP

- i Aroclor 1242 is being reported as the best Aroclor match.
The sample exhibits an altered PCB pattern.
- ii Aroclor 1260 is being reported as the best Aroclor match.
The sample exhibits an altered PCB pattern.

1D-1¹
PCB ANALYSIS DATA SHEET

Northeast Analytical Inc.

SDG No.:

020831ALCAN

ELAP ID No.:

11078

CLIENT ID:

OU1SD21 (0.5-1)

Matrix:

SEDIMENT

LAB SAMPLE ID:

AF07373

Sample wt/vol:

3.25485 (g)

LAB FILE ID:

AF07373

% Moisture:

68.8

DATE RECEIVED:

8/31/2002

Extraction :

SW 846 METHOD 3545 (ASE)

DATE EXTRACTED:

9/13/2002

Conc. Extract Volume:

50000 (µL)

DATE ANALYZED:

10/9/2002

Injection Volume:

1.3 (µL)

DILUTION FACTOR:

3

Method:

SW-846 8082 (PCB)

SULFUR CLEANUP:

YES

GC Column : J&W, NARROWBORE CAPILLARY, DB-1, 30M; ID:0.25mm

NEA Form ID: S:\FORMS\CATB\SOIL_GC_07_100702.XLS

NEA File ID: S:\CERT02\02090011_GC7_8082SED

CAS NO.	COMPOUND	CONCENTRATION UNITS:	Q
		(µg/g)	
12674-11-2	Aroclor 1016	0.922	U
11104-28-2	Aroclor 1221	0.922	U
11141-16-5	Aroclor 1232	0.922	U
53469-21-9	Aroclor 1242	0.922	U
12672-29-6	Aroclor 1248	21.5	X, IR, P
11097-69-1	Aroclor 1254	0.922	U
11096-82-5	Aroclor 1260	1.61	HP

- i Aroclor 1248 is being reported as the best Aroclor match.
The sample exhibits an altered PCB pattern.
- ii Aroclor 1260 is being reported as the best Aroclor match.
The sample exhibits an altered PCB pattern.
- iii It is not possible to distinguish if Aroclor 1242 or Aroclor 1248 was the original Aroclor in this sample that exhibits a highly altered PCB pattern. To better quantify total PCBs, Aroclor 1248 is being reported.

1D-1¹
PCB ANALYSIS DATA SHEET

Northeast Analytical Inc.

SDG No.:

020831ALCAN

ELAP ID No.:

11078

CLIENT ID:

OU1SDDUP5

Matrix:

SEDIMENT

LAB SAMPLE ID:

AF07374

Sample wt/vol:

3.82451 (g)

LAB FILE ID:

AF07374

% Moisture:

63.2

DATE RECEIVED:

8/31/2002

Extraction :

SW 846 METHOD 3545 (ASE)

DATE EXTRACTED:

9/13/2002

Conc. Extract Volume:

50000 (µL)

DATE ANALYZED:

10/9/2002

Injection Volume:

1.3 (µL)

DILUTION FACTOR:

2

Method:

SW-846 8082 (PCB)

SULFUR CLEANUP:

YES

GC Column : J&W, NARROWBORE CAPILLARY, DB-1, 30M; ID:0.25mm

NEA Form ID: S:\FORMS\CATB\SOIL_GC_07_100702.XLS

NEA File ID: S:\CERT02\02090011_GC7_8082SED

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/g)	Q
12674-11-2	Aroclor 1016	0.523	U
11104-28-2	Aroclor 1221	0.523	U
11141-16-5	Aroclor 1232	0.523	U
53469-21-9	Aroclor 1242	0.523	U
12672-29-6	Aroclor 1248	17.5	17.5
11097-69-1	Aroclor 1254	0.523	U
11096-82-5	Aroclor 1260	1.32	1.32

- i Aroclor 1248 is being reported as the best Aroclor match.
The sample exhibits an altered PCB pattern.
- ii Aroclor 1260 is being reported as the best Aroclor match.
The sample exhibits an altered PCB pattern.
- iii It is not possible to distinguish if Aroclor 1242 or Aroclor 1248 was the original Aroclor in this sample that exhibits a highly altered PCB pattern. To better quantify total PCBs, Aroclor 1248 is being reported.

1D-1¹
PCB ANALYSIS DATA SHEET

Northeast Analytical Inc.	SDG No.:	020831ALCAN
ELAP ID No.:	11078	CLIENT ID: OU1SDRB06
Matrix:	WATER	LAB SAMPLE ID: AF07375
Sample wt/vol:	1.020 (L)	LAB FILE ID: AF07375R
% Moisture:		DATE RECEIVED: 8/31/02
Extraction :	CLLE	DATE EXTRACTED: 9/5/02
Conc. Extract Volume:	5000 (µL)	DATE ANALYZED: 10/15/02
Injection Volume:	0.4 (µL)	DILUTION FACTOR: 1
Method:	SW-846 8082 PCB	SULFUR CLEANUP: YES

GC Column : J&W, NARROWBORE CAPILLARY, DB-1, 30M; ID: 0.25mm

NEA Form ID: S:\FORMS\CATB\H2O_GC11_100202

NEA File ID: S:\CERT02\02090011_GC11.XLS 1D-1-

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L)	Q
12674-11-2	Aroclor 1016	0.0250	U
11104-28-2	Aroclor 1221	0.0250	U
11141-16-5	Aroclor 1232	0.0250	U
53469-21-9	Aroclor 1242	0.0250	U
12672-29-6	Aroclor 1248	0.0250	U
11097-69-1	Aroclor 1254	0.0250	U
11096-82-5	Aroclor 1260	0.0250	U

NORTHEAST ANALYTICAL

ENVIRONMENTAL LAB SERVICES

2190 Technology Drive, Schenectady, NY 12308

(518) 346-4592 • FAX: (518) 381-6055

CERTIFICATE OF ANALYSIS

09/18/2002

ALCAN ALUMINUM CORPORATION

OSWEGO WORKS, PO BOX 28

448 COUNTY ROUTE 1A

OSWEGO, NY 13126

CONTACT: DAVID NEUNER

MATRIX : SEDIMENT **PROJECT:** ALCAN FOCUSED RI/FS SEDIMENTS
DATE RECEIVED: 08/31/2002 **TIME:** 11:59 **LOCATION:** OSWEGO, NY
SAMPLED BY: R. KUHN **LAB ELAP #:** 11078
CUSTOMER PO: N/A

NEA ID	CUSTOMER ID	METHOD	DATE SAMPLED	TIME SAMPLED	RESULTS	PQL	UNITS	DATE ANALYZED
Total Organic Carbon								
AF07357	OU1SD24 (0-0.5)	EPA Lloyd Kahn	08/30/2002	08:30	78100	1560	mg/kg	09/17/2002
AF07358	OU1SD24 (0.5-1)	EPA Lloyd Kahn	08/30/2002	08:30	14100	516	mg/kg	09/17/2002
AF07359	OU1SD24 (1-1.5)	EPA Lloyd Kahn	08/30/2002	08:30	8690	517	mg/kg	09/17/2002
AF07360	OU1SD23 (0-0.5)	EPA Lloyd Kahn	08/30/2002	09:00	176000	6970	mg/kg	09/17/2002
AF07361	OU1SD23 (0.5-1)	EPA Lloyd Kahn	08/30/2002	09:00	46200	1380	mg/kg	09/18/2002
AF07362	OU1SD23 (1-1.5)	EPA Lloyd Kahn	08/30/2002	09:00	15500	1110	mg/kg	09/18/2002
AF07363	OU1SD23 (1.5-2.1)	EPA Lloyd Kahn	08/30/2002	09:00	4070	575	mg/kg	09/18/2002
AF07365	OU1SD22 (0-0.5)	EPA Lloyd Kahn	08/30/2002	09:30	38400	1060	mg/kg	09/18/2002
AF07366	OU1SD22 (0.5-1)	EPA Lloyd Kahn	08/30/2002	09:30	14900	543	mg/kg	09/18/2002
AF07367	OU1SD18 (0-0.5)	EPA Lloyd Kahn	08/30/2002	11:00	95100	1170	mg/kg	09/18/2002
AF07368	OU1SD18 (0.5-1)	EPA Lloyd Kahn	08/30/2002	11:00	24400	732	mg/kg	09/18/2002
AF07369	OU1SD18 (1-1.4)	EPA Lloyd Kahn	08/30/2002	11:00	1150	812	mg/kg	09/18/2002
AF07370	OU1SD17 (0-0.5)	EPA Lloyd Kahn	08/30/2002	14:30	76700	2650	mg/kg	09/18/2002
AF07371	OU1SD17 (0.5-0.8)	EPA Lloyd Kahn	08/30/2002	14:30	46800	987	mg/kg	09/18/2002
AF07372	OU1SD21 (0-0.5)	EPA Lloyd Kahn	08/30/2002	15:00	456000	6620	mg/kg	09/18/2002
AF07373	OU1SD21 (0.5-1)	EPA Lloyd Kahn	08/30/2002	15:00	280000	4790	mg/kg	09/18/2002
AF07374	OU1SDDUP5	EPA Lloyd Kahn	08/30/2002	N/A	297000	4250	mg/kg	09/18/2002

Note: ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL

PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample

AUTHORIZED SIGNATURE:



Northeast Analytical, Inc.

Robert E. Wagner, Laboratory Director

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Page 1 of 1

000717

NORTHEAST ANALYTICAL

ENVIRONMENTAL LAB SERVICES

2190 Technology Drive, Schenectady, NY 12308

(518) 346-4592 • FAX: (518) 381-6055

CERTIFICATE OF ANALYSIS

10/02/2002

ALCAN ALUMINUM CORPORATION

OSWEGO WORKS, PO BOX 28

448 COUNTY ROUTE 1A

OSWEGO, NY 13126

CONTACT: DAVID NEUNER

MATRIX : WATER

PROJECT: ALCAN FOCUSED RI/FS SEDIMENTS

DATE RECEIVED: 08/31/2002 TIME: 11:59

LOCATION: OSWEGO, NY

SAMPLED BY: R. KUHN

LAB ELAP #: 11078

CUSTOMER PO: N/A

NEA ID	CUSTOMER ID	METHOD	DATE SAMPLED	TIME SAMPLED	RESULTS	PQL	UNITS	DATE ANALYZED
Total Organic Carbon								
AF07375	OUI5DRB06	EPA 415.1	08/30/2002	16:30	ND	0.966	mg/L	09/05/2002

Note: ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL

PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample

AUTHORIZED SIGNATURE:



Northeast Analytical, Inc.

Robert E. Wagner, Laboratory Director

NORTHEAST ANALYTICAL

ENVIRONMENTAL LAB SERVICES

2190 Technology Drive, Schenectady, NY 12308

(518) 346-4592 • FAX: (518) 381-6055

CERTIFICATE OF ANALYSIS

09/30/2002

ALCAN ALUMINUM CORPORATION

OSWEGO WORKS, PO BOX 28

448 COUNTY ROUTE 1A

OSWEGO, NY 13126

CONTACT: DAVID NEUNER

MATRIX : SEDIMENT

DATE SAMPLED: 08/30/2002

DATE RECEIVED: 08/31/2002 **TIME:** 11:59

PROJECT: ALCAN FOCUSED RI/FS SEDIMENTS

SAMPLED BY: R. KUHN

LOCATION: OSWEGO, NY

CUSTOMER PO #: N/A

LAB ELAP #: 11078

NEA ID	CUSTOMER ID	METHOD	RESULTS	DATE ANALYZED
Specific Gravity 20°C				
AF07360	OU1SD23 (0-0.5)	ASTM D854-00	1.56	09/26/2002
AF07361	OU1SD23 (0.5-1)	ASTM D854-00	2.13	09/26/2002
AF07362	OU1SD23 (1-1.5)	ASTM D854-00	2.68	09/26/2002
AF07363	OU1SD23 (1.5-2.1)	ASTM D854-00	2.72	09/30/2002
AF07364	OU1SDGSDUP3	ASTM D854-00	2.56	09/30/2002
AF07370	OU1SD17 (0-0.5)	ASTM D854-00	2.29	09/30/2002
AF07371	OU1SD17 (0.5-0.8)	ASTM D854-00	2.47	09/30/2002

Note: ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL

PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample

AUTHORIZED SIGNATURE:



Northeast Analytical, Inc.

Robert E. Wagner, Laboratory Director

000718

(518) 346-4592 • FAX: (518) 381-6055

09/11/2002

CONTACT: DAVID NEUNER

CUSTOMER PO: N/A

Percent Organic Content

PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample

John P.N. Cron

Robert E. Wagner, Laboratory Director

NY STATE DEPARTMENT OF HEALTH CERTIFIED LAB

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000723

October 28, 2002

Sample Delivery Group Case Narrative

This sample delivery group consists of sediment samples and associated aqueous rinse blank sample received for analysis on August 31, 2002 and includes assigned Sample Delivery Group: 020831ALCAN. The samples are from Project Name: ALCAN OUI Sediment Investigation, Project Location: ALCAN, Oswego, NY. The samples were delivered to an NEA representative via FEDEX delivery service on August 31, 2002. All samples were received by the laboratory intact and within holding times.

This sample delivery group consists of the following samples:

<u>NEA Sample ID:</u>	<u>Client Sample ID:</u>
AF07357	OU1SD24 (0-0.5)
AF07358	OU1SD24 (0.5-1)
AF07359	OU1SD24 (1-1.5)
AF07360	OU1SD23 (0-0.5)
AF07361	OU1SD23 (0.5-1)
AF07362	OU1SD23 (1-1.5)
AF07363	OU1SD23 (1.5-2.1)
AF07364	OU1SDGSDUP3
AF07365	OU1SD22 (0-0.5)
AF07366	OU1SD22 (0.5-1)
AF07367	OU1SD18 (0-0.5)
AF07368	OU1SD18 (0.5-1)
AF07369	OU1SD18 (1-1.4)
AF07370	OU1SD17 (0-0.5)
AF07371	OU1SD17 (0.5-0.8)
AF07372	OU1SD21 (0-0.5)
AF07373	OU1SD21 (0.5-1)
AF07374	OU1SDDUP5
AF07375	OU1SDRB06

PCB Analysis EPA Method 8082/SURCO Cleanup Method

Analysis for PCB Aroclors was performed by EPA Method 8082 with secondary GC column confirmation analysis. The Accelerated Solvent Extraction Method (EPA 3545) was employed for the sediment samples and the Continuous Liquid Liquid Extraction Method (EPA 3520C) was employed for the aqueous rinse blank samples.

An Alumina Column Extract Cleanup/Separation procedure developed by Dr. James Pagano of the State University College at Oswego (SUNY-ERC Method) was employed for the samples. This cleanup procedure was performed to reduce chromatographic interference from petroleum hydrocarbons and polychlorinated terphenyls (PCTs) known to be present at the study site. Reference chromatograms for PCT and the PCT Surrogate "Sentinel" are provided for visual comparison to actual samples for assessment of PCT breakthrough during the Alumina column cleanup process.

The following technical and administrative items were noted for the analysis:

- 1.) The percent recoveries for both TCMX and DCBP surrogate compounds were diluted out for several samples due to the high concentration of PCB contained in the samples (please see Form 2 for details).
- 2.) The percent recovery for the DCBP surrogate was below lab-established limits for samples (NEA ID: AF07373 and AF07374) for the primary G.C. Column analysis and secondary confirmation G.C. column analysis. (please see Form 2 for details).

000004

- 3.) The percent difference between the concentrations for the Primary and Secondary G.C. column exceeded the protocol default limit (25%) for several samples. The affected concentration results were flagged (P) on the associated Form 1. Please see Forms 10 and Forms 1 for details for the samples.
- 4.) Aroclor quantitation notes (footnotes: "i", "ii", and "iii") were applied to several samples to denote that altered Aroclor patterns were observed, and to describe the total Aroclor quantitation scheme that was employed for the samples. Please see Forms 1 for details.

Total Organic Carbon Analysis

Analysis for TOC was performed by US-EPA Lloyd Kahn Method for sediment samples and USEPA 415.1 for the aqueous rinse blank sample. The following technical and administrative items were noted for the analysis:

All quality assurance parameters were met for the analysis.

Qualifier Summary:

I. CLP Standard Organic and Inorganic analysis qualifiers were used for all analyses.

This Case Narrative was prepared by,



William A. Kotas
Quality Assurance Officer

S:\forms\carb\casen\102802B.doc

Sediment Analytical Data Reports

**SDG #020906ALCAN
9/3/02 through 9/5/02**

BBL[®]
BLASLAND, BOUCK & LEE, INC.
engineers & scientists

DATA REVIEW FOR
ALCAN ALUMINUM CORPORATION
OSWEGO, NY

SDG# 020906ALCAN

SEDIMENT SAMPLING
PCB, TOC, ORGANIC CONTENT,
SPECIFIC GRAVITY, DRO and GRO ANALYSES

Analyses performed by:

Northeast Analytical, Inc.
Schenectady, New York

Review performed by:



Blasland, Bouck & Lee, Inc.
Syracuse, New York

Summary

The following is an assessment of the data package for SDG# 020906ALCAN for sampling at the ALCAN Aluminum Corporation Site in Oswego, NY. Included with this assessment are the data review check sheets used in the review of the package and corrected sample results. Analyses were performed on the following samples:

Sample ID	Lab ID	Matrix	Sample Date	Analysis				
				VOA	BNA	PCB	TOC	MISC
OU1SD20 (0-0.5') ¹	AF07495	sediment	09/03/02			x	x	x ³
OU1SD20 (0.5-0.7')	AF07496	sediment	09/03/02			x	x	x ³
OU1SD19 (0-0.5')	AF07497	sediment	09/03/02			x	x	
OU1SD19 (0.5-1.0')	AF07498	sediment	09/03/02			x	x	
OU1SD19 (1.0-1.5')	AF07499	sediment	09/03/02			x	x	
OU1SD19 (1.5-2.0')	AF07500	sediment	09/03/02			x	x	
OU1SD15 (0-0.5')	AF07501	sediment	09/03/02			x	x	
OU1SD15 (0.5-1.0')	AF07502	sediment	09/03/02			x	x	
OU1SD DUP6	AF07503	sediment	09/03/02			x	x	
OU1SDRB07	AF07511	water	09/03/02			x	x	
OU3SD17 (0-0.5')	AF07504	sediment	09/04/02			x		x ²
OU3SD17 (0.5-1.1')	AF07505	sediment	09/04/02			x		x ²
OU3SD18 (0-0.5')	AF07506	sediment	09/04/02			x		x ²
OU3SD18 (0.5-1.0')	AF07507	sediment	09/04/02			x		x ²
OU3SD19 (0-0.5')	AF07508	sediment	09/04/02			x		x ²
OU3SD19 (0.5-1.0')	AF07509	sediment	09/04/02			x		x ²
OU3SD12	AF07510	sediment	09/04/02			x	x	
OU3SDRB01	AF07512	water	09/04/02			x	x	x ²
OU3SD13	AF07513	sediment	09/05/02			x	x	x ³
OU1SD14	AF07515	sediment	09/05/02			x		
OU3SD15 ¹	AF07516	sediment	09/05/02			x	x	x ³
OU3SD DUP1	AF07517	sediment	09/05/02			x	x	
OU3SD16	AF07518	sediment	09/05/02			x	x	
OU3SD20	AF07519	sediment	09/05/02			x	x	
OU3SD11	AF07520	sediment	09/05/02			x	x	
OU3SD09	AF07521	sediment	09/05/02			x	x	x ³
OU3SD21	AF07522	sediment	09/05/02			x	x	
OU3SD08	AF07523	sediment	09/05/02			x	x	
OU3SD07	AF07524	sediment	09/05/02			x	x	

Sample ID	Lab ID	Matrix	Sample Date	Analysis				
				VOA	BNA	PCB	TOC	MISC ²
OU3SDRB02	AF07525	water	09/05/02			x	x	

- 1 MS/MSD analysis performed on sample
- 2 Miscellaneous parameters include: DRO and GRO
- 3 Miscellaneous parameters include: percent organic content and specific gravity.

PCB ANALYSES

Introduction

Analyses were performed according to USEPA SW-846 Method 8082 as referenced in NYSDEC-ASP.

The data review process is an evaluation of data on a technical basis rather than a determination of contract compliance. As such, the standards against which the data are being weighed may differ from those specified in the analytical method. It is assumed that the data package represents the best efforts of the laboratory and had already been subjected to adequate and sufficient quality review prior to submission. During the review process, laboratory qualified and unqualified data are verified against the supporting documentation. Based on this evaluation, qualifier codes may be added, deleted, or modified by the data reviewer. Results are qualified with the following codes in accordance with National Functional Guidelines:

- U The compound was analyzed for but not detected. The associated value is the compound quantitation limit.
- J The compound was positively identified; however, the associated numerical value is an estimated concentration only.
- B The compound has been found in the sample as well as its associated blank, its presence in the sample may be suspect.
- N The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification.
- JN The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification. The associated numerical value is an estimated concentration only.
- E The compound was quantitated above the calibration range.
- D Concentration is based on a diluted sample analysis.
- C Identification confirmed by GC/MS.
- UJ The compound was not detected above the reported sample quantitation limit. However, the reported limit is approximate and may or may not represent the actual limit of quantitation.
- R The sample results are rejected.

Two facts should be noted by all data users. First, the "R" flag means that the associated value is unusable. In other words, due to significant QC problems, the analysis is invalid and provides no information as to whether the compound is present or not. "R" values should not appear on data tables because they cannot be relied upon, even as a last resort. The second fact to keep in mind is that no compound concentration, even if it has passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data but any value potentially contains error.

Data Assessment

1. Holding Time

The specified holding times for PCB analyses under NYSASP are 5 days from sample receipt to extraction and 40 days to analysis. The technical holding times for soils are 14 days from sample collection to extraction and 40 days to analysis.

All samples were extracted and analyzed within the technical holding time.

2. Blank Contamination

Quality assurance blanks (i.e., method, field, or rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Field and rinse blanks measure contamination of samples during field operations.

No Aroclors were detected in the method or rinse blanks.

3. System Performance

System performance and column resolution were acceptable.

4. Calibration

Satisfactory instrument calibration is established to insure that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of acceptable performance at the beginning of an experimental sequence. The continuing calibration verifies that the instrument daily performance is satisfactory.

4.1 Initial Calibration

A maximum RSD of 20% is allowed. The initial calibration was within the specified limit for all Aroclors.

4.2 Continuing Calibration

A maximum %D of 15 is allowed. All continuing calibration standards were within the specified limit.

5. Surrogates / System Monitoring Compounds

All samples to be analyzed for organic compounds are spiked with surrogate compounds prior to sample preparation to evaluate overall laboratory performance and efficiency of the analytical technique.

Recovery for one surrogate was below control limits in samples OU3SD19 (0.5-1.0'), OU3SD07, OU3SDRB01 and OU3SDRB02. Since recoveries for the remaining surrogates were within control limits, no data have been qualified based on the deviations. Surrogates were diluted beyond the range of quantitation in samples OU1SD20 (0-0.5') MS, OU1SD20 (0-0.5') MSD, OU1SD20 (0-0.5'), OU3SD15 MS and OU3SD17 MSD. No data have been qualified based on the diluted surrogates. All other surrogate recoveries were within control limits.

6. Compound Identification

The retention times of all quantitated peaks must fall within the calculated retention time windows for both the primary and confirmation columns.

Based on the differences between quantitated results for the two analytical columns, data for Aroclor 1242 in samples OU3SD08 and data for Aroclor 1248 in samples OU1SD19 (0-0.5'), OU1SD19 (0.5-1'), OU1SD19 (1-1.5') and OU1SD17 (0.5-1') have been qualified as estimated with a potential high bias.

7. Matrix Spike/Matrix Spike Duplicate

Matrix spike and matrix spike duplicate data are used to assess the precision and accuracy of the analytical method independent of matrix interferences.

Two MS/MSD sets were included with the samples.

The matrix spike and matrix spike duplicate relative percent difference between recoveries was above control limits for Aroclor 1242 in one of the MS/MSD sets. Since no Aroclor 1242 was detected in the associated sample, no data have been qualified based on the deviation. All other matrix spike and matrix spike duplicate recoveries and relative percent difference between recoveries were within control limits.

8. Matrix Spike Blank

The matrix spike blank recoveries were within control limits.

9. Field Duplicates

Results for duplicate samples are summarized as follows:

Sample ID/ Duplicate ID	Analyte	Sample Result	Duplicate Result	RPD
OU1SD19 (0-0.5') / OU1SD DUP6	Aroclor 1242	ND	36.3	NA
	Aroclor 1248	25.9	ND	NA
	Aroclor 1260	3.4	5.45	46.3%

ND not detected.

NA Analyte not detected in sample and/or duplicate. RPD not applicable.

The duplicate results are acceptable.

10. General Comments

Aroclor 1221 was reported as present in sample OU1SD15 (0-0.5'). An examination of the sample chromatograms showed no pattern match for this Aroclor. Data for Aroclor 1221 have, therefore, been qualified as undetected in the listed samples.

11. System Performance and Overall Assessment

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines listed in the analytical method.

Data Validation Checklist

PCB Data Validation Checklist

	YES	NO	NA
<u>Data Completeness and Deliverables</u>			
Have any missing deliverables been received and added to the data package?	<u> </u>	<u> X </u>	<u> </u>
Is there a narrative or cover letter present?	<u> X </u>	<u> </u>	<u> </u>
Are the sample numbers included in the narrative?	<u> X </u>	<u> </u>	<u> </u>
Are the sample chain-of-custodies present?	<u> X </u>	<u> </u>	<u> </u>
Do the chain-of-custodies indicate any problems with sample receipt or sample condition?	<u> </u>	<u> X </u>	<u> </u>
<u>Holding Times</u>			
Have any holding times been exceeded?	<u> </u>	<u> X </u>	<u> </u>
<u>Surrogate Recovery</u>			
Are the surrogate recovery forms present?	<u> X </u>	<u> </u>	<u> </u>
Are all samples listed on the surrogate recovery form?	<u> X </u>	<u> </u>	<u> </u>
Were recoveries of any surrogate outside control limits for any sample or blank?	<u> X </u>	<u> </u>	<u> </u>
If yes, were the samples reanalyzed?	<u> </u>	<u> X </u>	<u> </u>
Are there any transcription/calculation errors between the raw data and the summary form?	<u> </u>	<u> X </u>	<u> </u>
<u>Matrix Spikes</u>			
Is there a matrix spike recovery form present?	<u> X </u>	<u> </u>	<u> </u>
Were matrix spikes analyzed at the required frequency?	<u> X </u>	<u> </u>	<u> </u>
How many spike recoveries were outside of QC limits?			
<u> 0 </u> out of <u> 4 </u>			
How many RPDs for matrix spike and matrix spike duplicate were outside of QC limits?			
<u> 1 </u> out of <u> 2 </u>			
<u>Blanks</u>			
Is a method blank summary form present?	<u> X </u>	<u> </u>	<u> </u>
Has a method blank been extracted for each set of samples or for each 20 samples, whichever is more frequent?	<u> X </u>	<u> </u>	<u> </u>
Do any method/instrument blanks have positive results?	<u> </u>	<u> X </u>	<u> </u>
Are field/rinse blanks associated with every sample?	<u> X </u>	<u> </u>	<u> </u>
Do any field/rinse blanks have positive results?	<u> </u>	<u> X </u>	<u> </u>

PCB Data Validation Checklist - Page 2

	YES	NO	NA
<u>Calibration and GC Performance</u>			
Are the following chromatograms and integration reports present?			
peak resolution check	<u> </u>	<u> X </u>	<u> </u>
Aroclor 1016/1260	<u> X </u>	<u> </u>	<u> </u>
Aroclors 1221, 1232, 1242, 1248, and 1254	<u> X </u>	<u> </u>	<u> </u>
Is a calibration summary form present and complete for each analytical sequence?	<u> X </u>	<u> </u>	<u> </u>
Are there any transcription/calculation errors between the raw data and the forms?	<u> </u>	<u> X </u>	<u> </u>
Are the initial calibration %RSD within acceptable limits for all analytes?	<u> X </u>	<u> </u>	<u> </u>
Is the resolution between any two adjacent peaks in the resolution check mixture > 60%?	<u> </u>	<u> </u>	<u> X </u>
Have all samples been injected within a 12 hour period beginning with the injection of a calibration standard?	<u> X </u>	<u> </u>	<u> </u>
Is a continuing calibration summary form present and complete for each continuing standard analyzed?	<u> X </u>	<u> </u>	<u> </u>
Are there any transcription/calculation errors between the raw data and the form?	<u> </u>	<u> X </u>	<u> </u>
Are all continuing calibration standard %D within acceptable limits?	<u> X </u>	<u> </u>	<u> </u>
<u>Analytical Sequence</u>			
Is an analytical sequence summary form present and complete for each column and each period of analyses?	<u> X </u>	<u> </u>	<u> </u>
Was the proper analytical sequence followed?	<u> X </u>	<u> </u>	<u> </u>
<u>Cleanup Efficiency Verification</u>			
Are percent recoveries of the compounds used to check the efficiency of the cleanup procedure within QC limits?	<u> X </u>	<u> </u>	<u> </u>
<u>PCB Identification</u>			
Are RT of sample compounds within the established RT windows?	<u> X </u>	<u> </u>	<u> </u>
Were all positively identified compounds confirmed on a second column?	<u> X </u>	<u> </u>	<u> </u>
Was GC/MS confirmation provided when required?	<u> </u>	<u> </u>	<u> X </u>
Were there any false negatives?	<u> </u>	<u> X </u>	<u> </u>

PCB Data Validation Checklist - Page 3

	YES	NO	NA
<u>Compound Quantitation and Reported Detection Limits</u>			
Are there any transcription/calculation errors in the Form 1 results?	<u>X</u>	<u> </u>	<u> </u>
Are the reporting limits adjusted to reflect sample dilutions and, for soils, sample moisture?	<u>X</u>	<u> </u>	<u> </u>
<u>Chromatogram Quality</u>			
Were the baselines stable?	<u>X</u>	<u> </u>	<u> </u>
Were any electronegative displacement (negative peaks) or unusual peaks detected?	<u> </u>	<u>X</u>	<u> </u>
<u>Field Duplicates</u>			
Were field duplicates submitted with the samples?	<u>X</u>	<u> </u>	<u> </u>

**PCB Qualifier Summary
Holding Time and Surrogates**

Sample ID	Holding Time*	Surrogates*			
		TCX-1	TCX-2	DCB-1	DCB-2
OU1SD20 (0-0.5')		D	D	D	D
OU1SD20 (0-0.5') MS		D	D	D	D
OU1SD20 (0-0.5') MSD		D	D	D	D
OU1SD20 (0.5-0.7')					
OU1SD19 (0-0.5')					
OU1SD19 (0.5-1.0')					
OU1SD19 (1.0-1.5')					
OU1SD19 (1.5-2.0')					
OU1SD15 (0-0.5')					
OU1SD15 (0.5-1.0')					
OU1SD DUP6					
OU1SDRB07					
OU3SD17 (0-0.5')					
OU3SD17 (0.5-1.1')					
OU3SD18 (0-0.5')					
OU3SD18 (0.5-1.0')					
OU3SD19 (0-0.5')					
OU3SD19 (0.5-1.0')					I
OU3SD12					
OU3SDRB01			I		
OU3SD13					
OU1SD14					
OU3SD15					
OU3SD15 MS		D	D	D	D
OU3SD15 MSD		D	D	D	D
OU3SD DUP1					
OU3SD16					
OU3SD20					
OU3SD11					
OU3SD09					
OU3SD21					
OU3SD08					

Sample ID	Holding Time*	Surrogates*			
		TCX-1	TCX-2	DCB-1	DCB-2
OU3SD07		↓			
OU3SDRB02		↓	↓		

Surrogates:

TCX Tetrachloro-m-xylene

DCB Decachlorobiphenyl

na Not applicable

Qualifiers:

D Surrogate diluted out

↑ Recovery high

↓ Recovery low

* Unless otherwise noted, all parameters are within specified limits.

PCB Calibration Summary

Instrument: GC11
 Column: DB-1

Date:	10/01/02-10/03/02	10/03/02	10/03/02	10/03/02	10/03/02	10/03/02	10/03/02	10/03/02
Time:		1439	1518	1557	1636	1720	1459	1838
	Initial Cal.	Cont Cal.	Cont Cal.	Cont Cal.	Cont Cal.	Cont Cal.	Cont Cal.	Cont Cal.
	%RSD	%D	%D	%D	%D	%D	%D	%D
Aroclor 1016	--*	ok						
Aroclor 1221	--*		ok					
Aroclor 1232	--*			ok				
Aroclor 1242	--*				ok			
Aroclor 1248	--*					ok		
Aroclor 1254	--*						ok	
Aroclor 1260	--*							ok
Tetrachloro-m-xylene	ok							
Decachlorobiphenyl	ok							
Affected Samples:								

* Single-point standard analyzed

PCB Calibration Summary - Page 2

[illegible]

PCB Calibration Summary - Page 3

Instrument: GC18F

Column: DB-1

Date:	10/08/02- 10/10/02	10/10/02	10/10/02	10/10/02	10/10/02	10/10/02	10/10/02	10/10/02
Time:		0508	0540	0612	0644	0716	0748	0820
	Initial Cal.	Cont Cal.	Cont Cal.	Cont Cal.	Cont Cal.	Cont Cal.	Cont Cal.	Cont Cal.
	%RSD	%D	%D	%D	%D	%D	%D	%D
Aroclor 1016	--*	ok						
Aroclor 1221	--*		ok					
Aroclor 1232	--*			ok				
Aroclor 1242	--*				ok			
Aroclor 1248	--*					ok		
Aroclor 1254	--*						ok	
Aroclor 1260	--*							ok
Tetrachloro-m-xylene	ok							
Decachlorobiphenyl	ok							
Affected Samples:								

* Single-point standard analyzed

PCB Calibration Summary - Page 4

[illegible]

PCB Calibration Summary - Page 5

Instrument: GC07

Column: DB-1

Date:	10/05/02- 10/8/02	10/08/02	10/08/02	10/08/02	10/08/02	10/08/02	10/08/02	10/08/02
Time:		0628	0702	0737	0811	0845	0919	0953
	Initial Cal.	Cont Cal.	Cont Cal.	Cont Cal.	Cont Cal.	Cont Cal.	Cont Cal.	Cont Cal.
	%RSD	%D	%D	%D	%D	%D	%D	%D
Aroclor 1016	--*	ok						
Aroclor 1221	--*		ok					
Aroclor 1232	--*			ok				
Aroclor 1242	--*				ok			
Aroclor 1248	--*					ok		
Aroclor 1254	--*						ok	
Aroclor 1260	--*							ok
Tetrachloro-m-xylene	ok							
Decachlorobiphenyl	ok							
Affected Samples:								

* Single-point standard analyzed

PCB Calibration Summary - Page 6

Date:	10/10/02	10/10/02	10/11/02	10/11/02	10/11/02	10/11/02		
Time:	1718	2334	0549	0806	1347	1515		
	Cont Cal.	Cont Cal.	Cont Cal.	Cont Cal.	Cont Cal.	Cont Cal.	Cont Cal.	Cont Cal.
	%D	%D	%D	%D	%D	%D	%D	%D
Aroclor 1016								
Aroclor 1221	ok							
Aroclor 1232		ok						
Aroclor 1242			ok					
Aroclor 1248				ok				
Aroclor 1254					ok			
Aroclor 1260						ok		
Tetrachloro-m-xylene								
Decachlorobiphenyl								
Affected Samples:								

PCB Calibration Summary - Page 7

Instrument: GC05

Column: DB-5

Date:	8/26/02- 8/27/02	8/27/02	8/27/02	8/27/02	8/27/02	8/27/02	8/27/02	8/27/02
Time:		1152	1226	1300	1336	1410	1445	1520
	Initial Cal.	Cont Cal.	Cont Cal.	Cont Cal.	Cont Cal.	Cont Cal.	Cont Cal.	Cont Cal.
	%RSD	%D	%D	%D	%D	%D	%D	%D
Aroclor 1016	--*	ok						
Aroclor 1221	--*		ok					
Aroclor 1232	--*			ok				
Aroclor 1242	--*				ok			
Aroclor 1248	--*					ok		
Aroclor 1254	--*						ok	
Aroclor 1260	--*							ok
Tetrachloro-m-xylene	ok							
Decachlorobiphenyl	ok							
Affected Samples:								

* Single-point standard analyzed

PCB Calibration Summary - Page 8

[illegible]

Corrected Sample Analysis Data Sheets

DIESEL RANGE ORGANICS (DRO)
AND GASOLINE RANGE ORGANICS (GRO)

Introduction

Analyses were performed according to USEPA SW-846 Method 8015 (semi-volatile fraction).

The data review process is an evaluation of data on a technical basis rather than a determination of contract compliance. As such, the standards against which the data are being weighed may differ from those specified in the analytical method. It is assumed that the data package represents the best efforts of the laboratory and had already been subjected to adequate and sufficient quality review prior to submission.

During the review process, laboratory qualified and unqualified data are verified against the supporting documentation. Based on this evaluation, qualifier codes may be added, deleted, or modified by the data reviewer. Results are qualified with the following codes in accordance with National Functional Guidelines:

- < The compound was analyzed for but not detected. The associated value is the analyte reporting limit.
- J The compound was positively identified; however, the associated numerical value is an estimated concentration only.
- B The compound has been found in the sample as well as its associated blank, its presence in the sample may be suspect.
- N The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification.
- JN The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification. The associated numerical value is an estimated concentration only.
- E The compound was quantitated above the calibration range.
- D Concentration is based on a diluted sample analysis.
- R The sample results are rejected.

Two facts should be noted by all data users. First, the "R" flag means that the associated value is unusable. In other words, due to significant QC problems, the analysis is invalid and provides no information as to whether the compound is present or not. "R" values should not appear on data tables because they cannot be relied upon, even as a last resort. The second fact to keep in mind is that no compound concentration, even if it has passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data but any value potentially contains error.

Data Assessment

1. Holding Time

The technical holding times for 8015-extractable analysis are 14 days from sample collection to extraction and 40 days to analysis.

All samples were extracted and analyzed within the specified holding times.

2. Blank Contamination

Quality assurance blanks (i.e., method, field, or rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Field and rinse blanks measure contamination of samples during field operations.

No target compounds were detected in the method or rinse blanks.

3. System Performance

System performance and column resolution were acceptable.

4. Calibration

Satisfactory instrument calibration is established to insure that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of acceptable performance at the beginning of an experimental sequence. The continuing calibration verifies that the instrument daily performance is satisfactory.

4.1 Initial Calibration

A maximum RSD of 20% is allowed. The initial calibration was within the specified limit.

4.2 Continuing Calibration

A maximum %D of 15 is allowed. All continuing calibrations were within the specified limit.

5. Surrogates / System Monitoring Compounds

All samples to be analyzed for diesel range organics are spiked with surrogate compounds prior to sample preparation to evaluate overall laboratory performance and efficiency of the analytical technique.

Recoveries for both DRO surrogates were above control limits in samples OU3SD17 (0-0.5'), OU3SD17 (0.5-1.1'), OU3SD18 (0-0.5'), OU3SD18 (0.5-1.0'),

OU3SD19 (0-0.5') and OU3SD19 (0.5-1.0'). Positive data in the listed samples have been qualified as estimated based on the recoveries. All GRO surrogate recoveries were within control limits.

6. Compound Identification

The retention times of all quantitated peaks must fall within the established retention time windows.

All quantitated peaks fell in the defined retention time window.

7. Matrix Spike/Matrix Spike Duplicate

Matrix spike blank data is used to assess the precision and accuracy of the analytical method independent of matrix interferences.

No matrix spike/matrix spike duplicate was included with the samples in this data set.

8. Laboratory Control Sample (LCS)

The LCS recoveries were within control limits.

9. Field Duplicates

No field duplicates were included with the samples in this data set.

10. System Performance and Overall Assessment

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines listed in the analytical method.

Data Validation Checklist

Data Validation Checklist

	YES	NO	NA
<u>Data Completeness and Deliverables</u>			
Have any missing deliverables been received and added to the data package?	<u> </u>	<u> X </u>	<u> </u>
Is there a narrative or cover letter present?	<u> X </u>	<u> </u>	<u> </u>
Are the sample numbers included in the narrative?	<u> X </u>	<u> </u>	<u> </u>
Are the sample chain-of-custodies present?	<u> X </u>	<u> </u>	<u> </u>
Do the chain-of-custodies indicate any problems with sample receipt or sample condition?	<u> </u>	<u> X </u>	<u> </u>
<u>Holding Times</u>			
Have any holding times been exceeded?	<u> </u>	<u> X </u>	<u> </u>
<u>Matrix Spikes</u>			
Is there a matrix spike recovery form present?	<u> </u>	<u> X </u>	<u> </u>
Were matrix spikes analyzed at the required frequency?	<u> </u>	<u> </u>	<u> X </u>
How many spike recoveries were outside of QC limits?			
<u> NA </u> out of <u> NA </u>			
How many RPDs for matrix spike and matrix spike duplicate were outside of QC limits?			
<u> NA </u> out of <u> NA </u>			
<u>Blanks</u>			
Is a method blank summary form present?	<u> X </u>	<u> </u>	<u> </u>
Has a method blank been analyzed for each set of samples or for each 20 samples, whichever is more frequent?	<u> X </u>	<u> </u>	<u> </u>
Do any method or instrument blanks have positive results?	<u> </u>	<u> X </u>	<u> </u>
Are there field/rinse blanks associated with every sample?	<u> X </u>	<u> </u>	<u> </u>
Do any field/rinse blanks have positive results?	<u> </u>	<u> X </u>	<u> </u>
<u>Calibration and GC Performance</u>			
Are the initial calibration chromatograms and integration reports present?	<u> X </u>	<u> </u>	<u> </u>
Is a calibration summary form present and complete for each analytical sequence?	<u> X </u>	<u> </u>	<u> </u>
Are there any transcription/calculation errors between the raw data and the forms?	<u> </u>	<u> X </u>	<u> </u>
Are the %RSD for the initial calibration within specified limits for all analytes?	<u> X </u>	<u> </u>	<u> </u>

1D-1¹
PCB ANALYSIS DATA SHEET

Northeast Analytical Inc.

ELAP ID No.:

11078

SDG No.:

020823ALCAN

CLIENT ID:

OU1SD10 (0.5-1)

Matrix:

SEDIMENT

LAB SAMPLE ID:

AF06820

Sample wt/vol:

1.42156 (g)

LAB FILE ID:

AF06820

% Moisture:

85.9

DATE RECEIVED:

8/23/2002

Extraction :

SW 846 METHOD 3545 (ASE)

DATE EXTRACTED:

9/3/2002

Conc. Extract Volume:

50000 (µL)

DATE ANALYZED:

9/28/2002

Injection Volume:

1.2 (µL)

DILUTION FACTOR:

1

Method:

SW-846 8082 (PCB)

SULFUR CLEANUP:

YES

GC Column : J&W, NARROWBORE CAPILLARY, DB-1, 30M; ID:0.25mm

NEA Form ID: S:\FORMS\CATB\SOIL_GC_19F_091302AL.XLS

NEA File ID: S:\CERT02\02080102_GC19F_8082S.XI

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/g)	Q
12674-11-2	Aroclor 1016	0.703	U
11104-28-2	Aroclor 1221	4.46 0.703	PL
11141-16-5	Aroclor 1232	0.703	U
53469-21-9	Aroclor 1242	6.33	W
12672-29-6	Aroclor 1248	0.703	U
11097-69-1	Aroclor 1254	0.703	U
11096-82-5	Aroclor 1260	2.79	PL

- i Aroclor 1221 is being used to report an altered PCB pattern exhibited by the sample.
Actual Aroclor 1221 is not present in the sample, but is reported to more accurately quantify PCB present in sample that has undergone environmental alteration.
- ii Aroclor 1242 is being reported as the best Aroclor match.
The sample exhibits an altered PCB pattern.
- iii Aroclor 1260 is being reported as the best Aroclor match.
The sample exhibits an altered PCB pattern.
- iv It is not possible to distinguish if Aroclor 1242 or Aroclor 1248 was the original Aroclor in this sample that exhibits a highly altered PCB pattern. To better quantify total PCBs, Aroclor 1242 is being reported.

¹ Form based upon NYS-DEC Form 1-CLP-PEST

FORM I-CLP-PCB (NEA)

1D-1¹
PCB ANALYSIS DATA SHEET

Northeast Analytical Inc.

ELAP ID No.:

11078

SDG No.:

020823ALCAN

CLIENT ID:

OU1SD10 (1-1.6)

Matrix:

SEDIMENT

LAB SAMPLE ID:

AF06821

Sample wt/vol:

2.09729 (g)

LAB FILE ID:

AF06821

% Moisture:

79.4

DATE RECEIVED:

8/23/2002

Extraction :

SW 846 METHOD 3545 (ASE)

DATE EXTRACTED:

9/3/2002

Conc. Extract Volume:

50000 (µL)

DATE ANALYZED:

9/28/2002

Injection Volume:

1.2 (µL)

DILUTION FACTOR:

5

Method:

SW-846 8082 (PCB)

SULFUR CLEANUP:

YES

GC Column : J&W, NARROWBORE CAPILLARY, DB-1, 30M; ID:0.25mm

NEA Form ID: S:\FORMS\CATB\SOIL_GC_19F_091302AL.XLS

NEA File ID: S:\CERT02\02080102_GC19F_8082S.XI

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/g)	Q
12674-11-2	Aroclor 1016	2.38	U
11104-28-2	Aroclor 1221	6.21 2.38	U XPL
11141-16-5	Aroclor 1232	2.38	U
53469-21-9	Aroclor 1242	32.1	U XPL
12672-29-6	Aroclor 1248	2.38	U
11097-69-1	Aroclor 1254	2.38	U
11096-82-5	Aroclor 1260	10.2	U XPL

- i Aroclor 1221 is being used to report an altered PCB pattern exhibited by the sample.
Actual Aroclor 1221 is not present in the sample, but is reported to more accurately quantify PCB present in sample that has undergone environmental alteration.
- ii Aroclor 1242 is being reported as the best Aroclor match.
The sample exhibits an altered PCB pattern.
- iii Aroclor 1260 is being reported as the best Aroclor match.
The sample exhibits an altered PCB pattern.
- iv It is not possible to distinguish if Aroclor 1242 or Aroclor 1248 was the original Aroclor in this sample that exhibits a highly altered PCB pattern. To better quantify total PCBs, Aroclor 1242 is being reported.

¹ Form based upon NYS-DEC Form 1-CLP-PEST

FORM I-CLP-PCB (NEA)

1D-1[†]
PCB ANALYSIS DATA SHEET

Northeast Analytical Inc.

ELAP ID No.:

11078

SDG No.:

020823ALCAN

CLIENT ID:

OU1SD09 (0-0.5)

Matrix:

SEDIMENT

LAB SAMPLE ID:

AF06822

Sample wt/vol:

1.5496 (g)

LAB FILE ID:

AF06822

% Moisture:

85.3

DATE RECEIVED:

8/23/2002

Extraction :

SW 846 METHOD 3545 (ASE)

DATE EXTRACTED:

9/3/2002

Conc. Extract Volume:

50000 (µL)

DATE ANALYZED:

9/28/2002

Injection Volume:

1.2 (µL)

DILUTION FACTOR:

1

Method:

SW-846 8082 (PCB)

SULFUR CLEANUP:

YES

GC Column : J&W, NARROWBORE CAPILLARY, DB-1, 30M; ID:0.25mm

NEA Form ID: S:\FORMS\CATB\SOIL_GC_19F_091302AL.XLS

NEA File ID: S:\CERT02\02080102_GC19F_8082S.XI

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/g)	Q
12674-11-2	Aroclor 1016	0.645	U
11104-28-2	Aroclor 1221	2.45 0.645	AP U
11141-16-5	Aroclor 1232	0.645	U
53469-21-9	Aroclor 1242	3.21	U
12672-29-6	Aroclor 1248	0.645	U
11097-69-1	Aroclor 1254	0.645	U
11096-82-5	Aroclor 1260	1.57	U

- i Aroclor 1221 is being used to report an altered PCB pattern exhibited by the sample.
Actual Aroclor 1221 is not present in the sample, but is reported to more accurately quantify PCB present in sample that has undergone environmental alteration.
- ii Aroclor 1242 is being reported as the best Aroclor match.
The sample exhibits an altered PCB pattern.
- iii Aroclor 1260 is being reported as the best Aroclor match.
The sample exhibits an altered PCB pattern.
- iv It is not possible to distinguish if Aroclor 1242 or Aroclor 1248 was the original Aroclor in this sample that exhibits a highly altered PCB pattern. To better quantify total PCBs, Aroclor 1242 is being reported.

[†] Form based upon NYS-DEC Form 1-CLP-PEST

FORM I-CLP-PCB (NEA)

1D-1¹
PCB ANALYSIS DATA SHEET

Northeast Analytical Inc.

ELAP ID No.:

11078

SDG No.:

020823ALCAN

CLIENT ID:

OU1SD09 (0.5-1)

Matrix:

SEDIMENT

LAB SAMPLE ID:

AF06823

Sample wt/vol:

1.43167 (g)

LAB FILE ID:

AF06823

% Moisture:

86.0

DATE RECEIVED:

8/23/2002

Extraction :

SW 846 METHOD 3545 (ASE)

DATE EXTRACTED:

9/3/2002

Conc. Extract Volume:

50000 (µL)

DATE ANALYZED:

9/28/2002

Injection Volume:

1.2 (µL)

DILUTION FACTOR:

1

Method:

SW-846 8082 (PCB)

SULFUR CLEANUP:

YES

GC Column : J&W. NARROWBORE CAPILLARY, DB-1, 30M; ID:0.25mm

NEA Form ID: S:\FORMS\CATB\SOIL_GC_19F_091302AL.XLS

NEA File ID: S:\CERT02\02080102_GC19F_8082S.XI

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/g)	Q
12674-11-2	Aroclor 1016	0.698	U
11104-28-2	Aroclor 1221	1.89 0.698	U <i>PL</i>
11141-16-5	Aroclor 1232	0.698	U
53469-21-9	Aroclor 1242	3.07	<i>KW</i>
12672-29-6	Aroclor 1248	0.698	U
11097-69-1	Aroclor 1254	0.698	U
11096-82-5	Aroclor 1260	1.70	<i>HP J</i>

- i Aroclor 1221 is being used to report an altered PCB pattern exhibited by the sample.
Actual Aroclor 1221 is not present in the sample, but is reported to more accurately quantify PCB present in sample that has undergone environmental alteration.
- ii Aroclor 1242 is being reported as the best Aroclor match.
The sample exhibits an altered PCB pattern.
- iii Aroclor 1260 is being reported as the best Aroclor match.
The sample exhibits an altered PCB pattern.
- iv It is not possible to distinguish if Aroclor 1242 or Aroclor 1248 was the original Aroclor in this sample that exhibits a highly altered PCB pattern. To better quantify total PCBs, Aroclor 1242 is being reported.

¹ Form based upon NYS-DEC Form 1-CLP-PEST

FORM I-CLP-PCB (NEA)

1D-1¹
PCB ANALYSIS DATA SHEET

Northeast Analytical Inc.

ELAP ID No.:

11078

SDG No.:

020823ALCAN

CLIENT ID:

OU1SD09 (1-1.5)

Matrix:

SEDIMENT

LAB SAMPLE ID:

AF06824

Sample wt/vol:

2.30853 (g)

LAB FILE ID:

AF06824

% Moisture:

78.3

DATE RECEIVED:

8/23/2002

Extraction :

SW 846 METHOD 3545 (ASE)

DATE EXTRACTED:

9/3/2002

Conc. Extract Volume:

50000 (µL)

DATE ANALYZED:

9/28/2002

Injection Volume:

1.2 (µL)

DILUTION FACTOR:

1

Method:

SW-846 8082 (PCB)

SULFUR CLEANUP:

YES

GC Column : J&W, NARROWBORE CAPILLARY, DB-1, 30M; ID:0.25mm

NEA Form ID: S:\FORMS\CATB\SOIL_GC_19F_091302AL.XLS

NEA File ID: S:\CERT02\02080102_GC19F_8082S.XI

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/g)	Q
12674-11-2	Aroclor 1016	0.433	U
11104-28-2	Aroclor 1221	4.13 0.433	1P U
11141-16-5	Aroclor 1232	0.433	U
53469-21-9	Aroclor 1242	4.99	1P U
12672-29-6	Aroclor 1248	0.433	U
11097-69-1	Aroclor 1254	0.433	U
11096-82-5	Aroclor 1260	1.76	1P U

- i Aroclor 1221 is being used to report an altered PCB pattern exhibited by the sample.
Actual Aroclor 1221 is not present in the sample, but is reported to more accurately quantify PCB present in sample that has undergone environmental alteration.
- ii Aroclor 1242 is being reported as the best Aroclor match.
The sample exhibits an altered PCB pattern.
- iii Aroclor 1260 is being reported as the best Aroclor match.
The sample exhibits an altered PCB pattern.
- iv It is not possible to distinguish if Aroclor 1242 or Aroclor 1248 was the original Aroclor in this sample that exhibits a highly altered PCB pattern. To better quantify total PCBs, Aroclor 1242 is being reported.

¹ Form based upon NYS-DEC Form 1-CLP-PEST

FORM I-CLP-PCB (NEA)

1D-1¹
PCB ANALYSIS DATA SHEET

Northeast Analytical Inc.

SDG No.:

020823ALCAN

ELAP ID No.:

11078

CLIENT ID:

OU1SD09 (1.5-2)

Matrix:

SEDIMENT

LAB SAMPLE ID:

AF06825

Sample wt/vol:

5.22759 (g)

LAB FILE ID:

AF06825

% Moisture:

50.4

DATE RECEIVED:

8/23/2002

Extraction :

SW 846 METHOD 3545 (ASE)

DATE EXTRACTED:

9/3/2002

Conc. Extract Volume:

50000 (µL)

DATE ANALYZED:

9/28/2002

Injection Volume:

1.2 (µL)

DILUTION FACTOR:

1

Method:

SW-846 8082 (PCB)

SULFUR CLEANUP:

YES

GC Column : J&W, NARROWBORE CAPILLARY, DB-1, 30M; ID:0.25mm

NEA Form ID: S:\FORMS\CATB\SOIL_GC_19F_091302AL.XLS

NEA File ID: S:\CERT02\02080102_GC19F_8082S.XI

CAS NO.	COMPOUND	CONCENTRATION UNITS:	Q
		(µg/g)	
12674-11-2	Aroclor 1016	0.191	U
11104-28-2	Aroclor 1221	0.191	U
11141-16-5	Aroclor 1232	0.191	U
53469-21-9	Aroclor 1242	0.191	U
12672-29-6	Aroclor 1248	0.191	U
11097-69-1	Aroclor 1254	0.191	U
11096-82-5	Aroclor 1260	0.191	U

¹ Form based upon NYS-DEC Form 1-CLP-PEST

FORM I-CLP-PCB (NEA)

1D-1¹
PCB ANALYSIS DATA SHEET

Northeast Analytical Inc.

ELAP ID No.:

11078

SDG No.:

020823ALCAN

CLIENT ID:

OU1SD09 (2-2.5)

Matrix:

SEDIMENT

LAB SAMPLE ID:

AF06826

Sample wt/vol:

6.4299 (g)

LAB FILE ID:

AF06826

% Moisture:

39.2

DATE RECEIVED:

8/23/2002

Extraction :

SW 846 METHOD 3545 (ASE)

DATE EXTRACTED:

9/3/2002

Conc. Extract Volume:

50000 (µL)

DATE ANALYZED:

9/28/2002

Injection Volume:

1.2 (µL)

DILUTION FACTOR:

1

Method:

SW-846 8082 (PCB)

SULFUR CLEANUP:

YES

GC Column : J&W, NARROWBORE CAPILLARY, DB-1, 30M; ID:0.25mm

NEA Form ID: S:\FORMS\CATB\SOIL_GC_19F_091302AL.XLS

NEA File ID: S:\CERT02\02080102_GC19F_8082S.XI

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/g)	Q
12674-11-2	Aroclor 1016	0.156	U
11104-28-2	Aroclor 1221	0.156	U
11141-16-5	Aroclor 1232	0.156	U
53469-21-9	Aroclor 1242	0.156	U
12672-29-6	Aroclor 1248	0.156	U
11097-69-1	Aroclor 1254	0.156	U
11096-82-5	Aroclor 1260	0.156	U

¹ Form based upon NYS-DEC Form 1-CLP-PEST

FORM I-CLP-PCB (NEA)

1D-1¹
PCB ANALYSIS DATA SHEET

Northeast Analytical Inc.

ELAP ID No.:

11078

SDG No.:

020823ALCAN

CLIENT ID:

OU1SD09 (2.5-2.7)

Matrix:

SEDIMENT

LAB SAMPLE ID:

AF06827

Sample wt/vol:

7.6501 (g)

LAB FILE ID:

AF06827

% Moisture:

23.8

DATE RECEIVED:

8/23/2002

Extraction :

SW 846 METHOD 3545 (ASE)

DATE EXTRACTED:

9/3/2002

Conc. Extract Volume:

50000 (µL)

DATE ANALYZED:

9/28/2002

Injection Volume:

1.2 (µL)

DILUTION FACTOR:

1

Method:

SW-846 8082 (PCB)

SULFUR CLEANUP:

YES

GC Column : J&W, NARROWBORE CAPILLARY, DB-1, 30M; ID:0.25mm

NEA Form ID: S:\FORMS\CATB\SOIL_GC_19F_091302AL.XLS

NEA File ID: S:\CERT02\02080102_GC19F_8082S.XI

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/g)	Q
12674-11-2	Aroclor 1016	0.131	U
11104-28-2	Aroclor 1221	0.131	U
11141-16-5	Aroclor 1232	0.131	U
53469-21-9	Aroclor 1242	0.131	U
12672-29-6	Aroclor 1248	0.131	U
11097-69-1	Aroclor 1254	0.131	U
11096-82-5	Aroclor 1260	0.131	U

¹ Form based upon NYS-DEC Form 1-CLP-PEST

FORM I-CLP-PCB (NEA)

000212

1D-1¹
PCB ANALYSIS DATA SHEET

Northeast Analytical Inc.	SDG No.:	020823ALCAN
ELAP ID No.: 11078	CLIENT ID:	OU1SDRB01
Matrix: WATER	LAB SAMPLE ID:	AF06828
Sample wt/vol: 1.030 (L)	LAB FILE ID:	AF06828
% Moisture:	DATE RECEIVED:	8/23/02
Extraction : CLLE	DATE EXTRACTED:	8/27/02
Conc. Extract Volume: 5000 (µL)	DATE ANALYZED:	9/11/02
Injection Volume: 0.4 (µL)	DILUTION FACTOR:	1
Method: SW-846 8082 PCB	SULFUR CLEANUP:	YES

GC Column : J&W, NARROWBORE CAPILLARY, DB-1, 30M; ID: 0.25mm

NEA Form ID : S:\FORMS\CAT6\H2O_GC11_090902

NEA File ID : S:\CERT02\02080102_GC11_8082W.XLS 1D-1-

CAS NO.	COMPOUND	CONCENTRATION UNITS:	Q
		(µg/L)	
12674-11-2	Aroclor 1016	0.0250	U
11104-28-2	Aroclor 1221	0.0250	U
11141-16-5	Aroclor 1232	0.0250	U
53469-21-9	Aroclor 1242	0.0250	U
12672-29-6	Aroclor 1248	0.0250	U
11097-69-1	Aroclor 1254	0.0250	U
11096-82-5	Aroclor 1260	0.0250	U

¹ Form based upon Form 1-CLP-PEST

NORTHEAST ANALYTICAL

ENVIRONMENTAL LAB SERVICES

2190 Technology Drive, Schenectady, NY 12308

(518) 346-4592 • FAX: (518) 381-6055

CERTIFICATE OF ANALYSIS

09/05/2002

ALCAN ALUMINUM CORPORATION

OSWEGO WORKS, PO BOX 28

448 COUNTY ROUTE 1A

OSWEGO, NY 13126

CONTACT: DAVID NEUNER


MATRIX : SEDIMENT **PROJECT:** ALCAN OU1 SEDIMENT INVESTIGATION
DATE RECEIVED: 08/23/2002 **TIME:** 10:30 **LOCATION:** OSWEGO, NY
SAMPLED BY: R. KUHN **LAB ELAP #:** 11078
CUSTOMER PO: N/A

NEA ID	CUSTOMER ID	METHOD	DATE SAMPLED	TIME SAMPLED	RESULTS	PQL	UNITS	DATE ANALYZED
Total Organic Carbon								
AF06809	OU1SD11 (0-0.5)	EPA Lloyd Kahn	08/22/2002	11:30	104000	800	mg/kg	09/04/2002
AF06810	OU1SD11 (0.5-1)	EPA Lloyd Kahn	08/22/2002	11:30	99100	1120	mg/kg	09/04/2002
AF06811	OU1SD11 (1-1.5)	EPA Lloyd Kahn	08/22/2002	11:30	76500	691	mg/kg	09/04/2002
AF06812	OU1SD11 (1.5-2)	EPA Lloyd Kahn	08/22/2002	11:30	78600	787	mg/kg	09/04/2002
AF06813	OU1SD11 (2-2.5)	EPA Lloyd Kahn	08/22/2002	11:30	120000	1050	mg/kg	09/04/2002
AF06814	OU1SD11 (2.5-3)	EPA Lloyd Kahn	08/22/2002	11:30	64300	1200	mg/kg	09/04/2002
AF06815	OU1SD11 (3-3.5)	EPA Lloyd Kahn	08/22/2002	11:30	43000	564	mg/kg	09/04/2002
AF06816	OU1SD11 (3.5-4)	EPA Lloyd Kahn	08/22/2002	11:30	9350	313	mg/kg	09/04/2002
AF06817	OU1SD11 (4-4.6)	EPA Lloyd Kahn	08/22/2002	11:30	3860	267	mg/kg	09/04/2002
AF06818	OU1SD DUPI	EPA Lloyd Kahn	08/22/2002	11:30	104000	1450	mg/kg	09/04/2002
AF06819	OU1SD10 (0-0.5)	EPA Lloyd Kahn	08/22/2002	12:15	73200	1730	mg/kg	09/04/2002
AF06820	OU1SD10 (0.5-1)	EPA Lloyd Kahn	08/22/2002	12:15	73700	1840	mg/kg	09/04/2002
AF06821	OU1SD10 (1-1.6)	EPA Lloyd Kahn	08/22/2002	12:15	92900	1260	mg/kg	09/04/2002
AF06822	OU1SD09 (0-0.5)	EPA Lloyd Kahn	08/22/2002	14:00	89700	2880	mg/kg	09/04/2002
AF06823	OU1SD09 (0.5-1)	EPA Lloyd Kahn	08/22/2002	14:00	74100	2030	mg/kg	09/04/2002
AF06824	OU1SD09 (1-1.5)	EPA Lloyd Kahn	08/22/2002	14:00	81200	2570	mg/kg	09/04/2002
AF06825	OU1SD09 (1.5-2)	EPA Lloyd Kahn	08/22/2002	14:00	44000	441	mg/kg	09/04/2002
AF06826	OU1SD09 (2-2.5)	EPA Lloyd Kahn	08/22/2002	14:00	13900	413	mg/kg	09/04/2002
AF06827	OU1SD09 (2.5-2.7)	EPA Lloyd Kahn	08/22/2002	14:00	5700	272	mg/kg	09/04/2002

Note: ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL.

PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample

AUTHORIZED SIGNATURE:



Northeast Analytical, Inc.

Robert E. Wagner, Laboratory Director

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NY STATE DEPARTMENT OF HEALTH CERTIFIED LAB

Page 1 of 1

000694

NORTHEAST ANALYTICAL

ENVIRONMENTAL LAB SERVICES

2190 Technology Drive, Schenectady, NY 12308

(518) 346-4592 • FAX: (518) 381-6055

CERTIFICATE OF ANALYSIS

09/26/2002

ALCAN ALUMINUM CORPORATION

OSWEGO WORKS, PO BOX 28

448 COUNTY ROUTE 1A

OSWEGO, NY 13126

CONTACT: DAVID NEUNER

MATRIX : WATER **PROJECT:** ALCAN OU1 SEDIMENT INVESTIGATION
DATE RECEIVED: 08/23/2002 **TIME:** 10:30 **LOCATION:** OSWEGO, NY
SAMPLED BY: R. KUHN **LAB ELAP #:** 11078
CUSTOMER PO: N/A

NEA ID	CUSTOMER ID	METHOD	DATE SAMPLED	TIME SAMPLED	RESULTS	PQL	UNITS	DATE ANALYZED
Total Organic Carbon								
AF06828	OUI5DRB01	EPA 415.1	08/22/2002	17:00	ND	0.966	mg/L	09/05/2002

Note: ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL

PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample

AUTHORIZED SIGNATURE:

Northeast Analytical, Inc.

Robert E. Wagner, Laboratory Director



NORTHEAST ANALYTICAL

ENVIRONMENTAL LAB SERVICES

2190 Technology Drive, Schenectady, NY 12308

(518) 346-4592 • FAX: (518) 381-6055

CERTIFICATE OF ANALYSIS

09/03/2002

ALCAN ALUMINUM CORPORATION

OSWEGO WORKS, PO BOX 28

448 COUNTY ROUTE 1A

OSWEGO, NY 13126

CONTACT: DAVID NEUNER

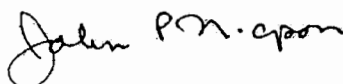
MATRIX : SEDIMENT PROJECT: ALCAN OUI SEDIMENT INVESTIGATION
DATE RECEIVED: 08/23/2002 TIME: 10:30 LOCATION: OSWEGO, NY
SAMPLED BY: R. KUHN LAB ELAP #: 11078
CUSTOMER PO: N/A

NEA ID	CUSTOMER ID	METHOD	DATE SAMPLED	TIME SAMPLED	RESULTS	PQL	UNITS	DATE ANALYZED
Percent Organic Content								
AF06822	OUI SD09 (0-0.5)	ASTM D2974	08/22/2002	14:00	17.9	N/A	%	08/30/2002
AF06823	OUI SD09 (0.5-1)	ASTM D2974	08/22/2002	14:00	16.5	N/A	%	08/30/2002
AF06824	OUI SD09 (1-1.5)	ASTM D2974	08/22/2002	14:00	19.5	N/A	%	08/30/2002
AF06825	OUI SD09 (1.5-2)	ASTM D2974	08/22/2002	14:00	9.69	N/A	%	08/30/2002
AF06826	OUI SD09 (2-2.5)	ASTM D2974	08/22/2002	14:00	4.30	N/A	%	08/30/2002
AF06827	OUI SD09 (2.5-2.7)	ASTM D2974	08/22/2002	14:00	1.89	N/A	%	08/30/2002

Note: ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL

PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample

AUTHORIZED SIGNATURE:



Northeast Analytical, Inc.

Robert E. Wagner, Laboratory Director

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Page 1 of 1

NY STATE DEPARTMENT OF HEALTH CERTIFIED LAB

000699

NORTHEAST ANALYTICAL



ENVIRONMENTAL LAB SERVICES

2190 Technology Drive, Schenectady, NY 12308

(518) 346-4592 • FAX: (518) 381-6055

CERTIFICATE OF ANALYSIS

09/19/2002

ALCAN ALUMINUM CORPORATION

OSWEGO WORKS, PO BOX 28

448 COUNTY ROUTE 1A

OSWEGO, NY 13126

CONTACT: DAVID NEUNER

MATRIX : SEDIMENT

DATE SAMPLED: 08/22/2002

DATE RECEIVED: 08/23/2002 TIME: 10:30

PROJECT: ALCAN OU1 SEDIMENT INVESTIGATION

SAMPLED BY: R. KUHN

LOCATION: OSWEGO, NY

CUSTOMER PO #: N/A

LAB ELAP #: 11078

NEA ID	CUSTOMER ID	METHOD	RESULTS	DATE ANALYZED
Specific Gravity 20°C				
AF06822	OU1SD09 (0-0.5)	ASTM D854-00	2.27	09/18/2002
AF06823	OU1SD09 (0.5-1)	ASTM D854-00	2.23	09/18/2002
AF06824	OU1SD09 (1-1.5)	ASTM D854-00	1.99	09/18/2002
AF06825	OU1SD09 (1.5-2)	ASTM D854-00	2.33	09/18/2002
AF06826	OU1SD09 (2-2.5)	ASTM D854-00	2.59	09/18/2002
AF06827	OU1SD09 (2.5-2.7)	ASTM D854-00	2.66	09/18/2002

Note: ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL

PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample

AUTHORIZED SIGNATURE:

Northeast Analytical, Inc.

Robert E. Wagner, Laboratory Director

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Page 1 of 1

000700

October 10, 2002

Sample Delivery Group Case Narrative

This sample delivery group consists of sediment samples and associated aqueous rinse blank sample received for analysis on August 23, 2002 and includes assigned Sample Delivery Group: 020823ALCAN. The samples are from Project Name: ALCAN OUI Sediment Investigation, Project Location: ALCAN, Oswego, NY. The samples were delivered to the lab via FEDEX delivery service on August 23, 2002. All samples were received by the laboratory intact and within holding times.

This sample delivery group consists of the following samples:

<u>NEA Sample ID:</u>	<u>Client Sample ID:</u>
AF06809	OU1SD11 (0-0.5)
AF06810	OU1SD11 (0.5-1)
AF06811	OU1SD11 (1-1.5)
AF06812	OU1SD11 (1.5-2)
AF06813	OU1SD11 (2-2.5)
AF06814	OU1SD11 (2.5-3)
AF06815	OU1SD11 (3-3.5)
AF06816	OU1SD11 (3.5-4)
AF06817	OU1SD11 (4-4.6)
AF06818	OU1SD DUP1
AF06819	OU1SD10 (0-0.5)
AF06820	OU1SD10 (0.5-1)
AF06821	OU1SD10 (1-1.6)
AF06822	OU1SD09 (0-0.5)
AF06823	OU1SD09 (0.5-1)
AF06824	OU1SD09 (1-1.5)
AF06825	OU1SD09 (1.5-2)
AF06826	OU1SD09 (2-2.5)
AF06827	OU1SD09 (2.5-2.7)
AF06828	OU1SDRB01

PCB Analysis EPA Method 8082/SURCO Cleanup Method

Analysis for PCB Aroclors was performed by EPA Method 8082 with secondary GC column confirmation analysis. The Accelerated Solvent Extraction Method (EPA 3545) was employed for the soil samples and the Continuous Liquid Liquid Extraction Method (EPA 3520C) was employed for the aqueous rinse blank sample.

An Alumina Column Extract Cleanup/Separation procedure developed by Dr. James Pagano of the State University College at Oswego (SUNY-ERC Method) was employed for the samples. This cleanup procedure was performed to reduce chromatographic interference from petroleum hydrocarbons and polychlorinated terphenyls (PCTs) known to be present at the study site. Reference chromatograms for PCT and the PCT Surrogate "Sentinel" are provided for visual comparison to actual samples for assessment of PCT breakthrough during the Alumina column cleanup process.

The following technical and administrative items were noted for the analysis:

- 1.) The percent recoveries for both TCMX and DCBP surrogate compounds were below lab-established limits for the Laboratory Control Spike sample (NEA ID: AF06814L) possibly due to over-activated Alumina adsorption during the cleanup process. The Aroclor recoveries for both GC columns were within limits for this sample.

000004

- 2.) The percent recovery for the DCBP surrogate was below lab-established limits for the secondary confirmation G.C. column analysis for several samples due to sample matrix interference (please see Form 2 for details).
- 3.) The percent difference between the concentrations for the Primary and Secondary G.C. column exceeded the protocol default limit (25%) for several samples. The affected concentration results were flagged (P) on the associated Form 1. Please see Forms 10 and Forms 1 for details for the samples.
- 4.) Aroclor quantitation notes (footnotes: "i", "ii", and "iii") were applied to several samples to denote that altered Aroclor patterns were observed, and to describe the total Aroclor quantitation scheme that was employed for the samples. Please see Forms 1 for details.

Total Organic Carbon Analysis

Analysis for TOC was performed by US-EPA Lloyd Kahn Method for sediment samples and USEPA 415.1 for the aqueous rinse blank sample. The following technical and administrative items were noted for the analysis:

All quality assurance parameters were met for the analysis.

Qualifier Summary:

I. CLP Standard Organic and Inorganic analysis qualifiers were used for all analyses.

This Case Narrative was prepared by,



William A. Ketas
Quality Assurance Officer

S:\forms\catb\casen\101002C.doc

Sediment Analytical Data Reports

SDG #020828ALCAN

8/26/02

8/27/02

DATA REVIEW FOR
ALCAN ALUMINUM CORPORATION
OSWEGO, NY

SDG# 020828ALCAN

SEDIMENT SAMPLING
PCB, TOC, ORGANIC CONTENT
AND SPECIFIC GRAVITY ANALYSES

Analyses performed by:

Northeast Analytical, Inc.
Schenectady, New York

Review performed by:



Blasland, Bouck & Lee, Inc.
Syracuse, New York

Summary

The following is an assessment of the data package for SDG# 020828ALCAN for sampling at the ALCAN Aluminum Corporation Site in Oswego, NY. Included with this assessment are the data review check sheets used in the review of the package and corrected sample results. Analyses were performed on the following samples:

Sample ID	Lab ID	Matrix	Sample Date	Analysis				
				VOA	BNA	PCB	TOC	MISC ²
OU1SD01 (0-0.5') ¹	AF06999	sediment	08/26/02			x	x	
OU1SD01 (0.5-1.0')	AF07000	sediment	08/26/02			x	x	
OU1SD01 (1.0-1.5')	AF07001	sediment	08/26/02			x	x	
OU1SD01 (1.5-1.9')	AF07002	sediment	08/26/02			x	x	
OU1SD02 (0-0.5')	AF07003	sediment	08/26/02			x	x	x
OU1SD02 (0.5-1.0')	AF07004	sediment	08/26/02			x	x	x
OU1SD02 (1.0-1.5')	AF07005	sediment	08/26/02			x	x	x
OU1SD02 (1.5-2.1')	AF07006	sediment	08/26/02			x	x	x
OU1SD DUP2	AF07007	sediment	08/26/02			x	x	x
OU1SDRB02	AF07008	water	08/26/02			x	x	x
OU1SD04 (0-0.5')	AF07009	sediment	08/27/02			x	x	x
OU1SD04 (0.5-1')	AF07010	sediment	08/27/02			x	x	x
OU1SD04 (1-1.2')	AF07011	sediment	08/27/02			x	x	x
OU1SD03 (0-0.5')	AF07012	sediment	08/27/02			x	x	x
OU1SD03 (0.5-1')	AF07013	sediment	08/27/02			x	x	x
OU1SD03 (1-1.3')	AF07014	sediment	08/27/02			x	x	x
OU1SD05 (0-0.5')	AF07015	sediment	08/27/02			x	x	x
OU1SD05 (0.5-1.0')	AF07016	sediment	08/27/02			x	x	x
OU1SD05 (1-1.5')	AF07017	sediment	08/27/02			x	x	x
OU1SD05 (1.5-2')	AF07018	sediment	08/27/02			x	x	x
OU1SD08 (0-0.5')	AF07023	sediment	08/27/02			x	x	x
OU1SD08 (0.5-1')	AF07024	sediment	08/27/02			x	x	x
OU1SD08 (1-1.5')	AF07025	sediment	08/27/02			x	x	x
OU1SD08 (1.5-2')	AF07026	sediment	08/27/02			x	x	x
OU1SD07 (0-0.5') ¹	AF07028	sediment	08/27/02			x	x	
OU1SD07 (0.5-1')	AF07029	sediment	08/27/02			x	x	
OU1SD07 (1-1.5')	AF07030	sediment	08/27/02			x	x	
OU1SD7 (1.5-1.7')	AF07031	sediment	08/27/02			x	x	
OU1SD DUP3	AF07032	sediment	08/27/02			x	x	

Sample ID	Lab ID	Matrix	Sample Date	Analysis				
				VOA	BNA	PCB	TOC	MISC ²
OU1SD06 (0-0.5')	AF07033	sediment	08/27/02			x	x	
OU1SD06 (0.5-1')	AF07034	sediment	08/27/02			x	x	
OU1SD06 (1-1.5')	AF07035	sediment	08/27/02			x	x	
OU1SD06 (1.5-2')	AF07036	sediment	08/27/02			x	x	
OU1SD RB03	AF07040	water	08/27/02			x	x	

1 MS/MSD analysis performed on sample

2 Miscellaneous parameters include: Percent organic content and specific gravity.

PCB ANALYSES

Introduction

Analyses were performed according to USEPA SW-846 Method 8082 as referenced in NYSDEC-ASP.

The data review process is an evaluation of data on a technical basis rather than a determination of contract compliance. As such, the standards against which the data are being weighed may differ from those specified in the analytical method. It is assumed that the data package represents the best efforts of the laboratory and had already been subjected to adequate and sufficient quality review prior to submission. During the review process, laboratory qualified and unqualified data are verified against the supporting documentation. Based on this evaluation, qualifier codes may be added, deleted, or modified by the data reviewer. Results are qualified with the following codes in accordance with National Functional Guidelines:

- U The compound was analyzed for but not detected. The associated value is the compound quantitation limit.
- J The compound was positively identified; however, the associated numerical value is an estimated concentration only.
- B The compound has been found in the sample as well as its associated blank, its presence in the sample may be suspect.
- N The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification.
- JN The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification. The associated numerical value is an estimated concentration only.
- E The compound was quantitated above the calibration range.
- D Concentration is based on a diluted sample analysis.
- C Identification confirmed by GC/MS.
- UJ The compound was not detected above the reported sample quantitation limit. However, the reported limit is approximate and may or may not represent the actual limit of quantitation.
- R The sample results are rejected.

Two facts should be noted by all data users. First, the "R" flag means that the associated value is unusable. In other words, due to significant QC problems, the analysis is invalid and provides no information as to whether the compound is present or not. "R" values should not appear on data tables because they cannot be relied upon, even as a last resort. The second fact to keep in mind is that no compound concentration, even if it has passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data but any value potentially contains error.

Data Assessment

1. Holding Time

The specified holding times for PCB analyses under NYSASP are 5 days from sample receipt to extraction and 40 days to analysis. The technical holding times for soils are 14 days from sample collection to extraction and 40 days to analysis.

All samples were extracted and analyzed within the technical holding time with the exception of samples OU1SD06 (1-1.5') and OU1SD06 (1.5-2'). Data have been qualified as estimated in these samples based on the holding time violation.

2. Blank Contamination

Quality assurance blanks (i.e., method, field, or rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Field and rinse blanks measure contamination of samples during field operations.

No Aroclors were detected in the method or rinse blanks.

3. System Performance

System performance and column resolution were acceptable.

4. Calibration

Satisfactory instrument calibration is established to insure that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of acceptable performance at the beginning of an experimental sequence. The continuing calibration verifies that the instrument daily performance is satisfactory.

4.1 Initial Calibration

A maximum RSD of 20% is allowed. The initial calibration was within the specified limit for all Aroclors.

4.2 Continuing Calibration

A maximum %D of 15 is allowed. All continuing calibration standards were within the specified limit.

5. Surrogates / System Monitoring Compounds

All samples to be analyzed for organic compounds are spiked with surrogate compounds prior to sample preparation to evaluate overall laboratory performance and efficiency of the analytical technique.

Recoveries for both surrogates on one column were below control limits in sample OU1SD01 (0.5-1'). Since data was reported from the other column, no Aroclors have been qualified based on the recoveries. Recovery for one surrogate was below control limits in samples OU1SD02 (0-0.5'), OU1SD02 (1.5-2.1'), OU1SD DUP2, OU1SD04 (0.5-1'), OU1SD03 (0.5-1'), OU1SD01 (0-0.5'), OU1SD02 (0.5-1.0'), OU1SD02 (1.0-1.5'), OU1SD08 (0-0.5'), OU1SD08 (0.5-1') and OU1SD RB02. Since recoveries for the remaining surrogates were within control limits, no data have been qualified based on the deviations. Surrogates were diluted beyond the range of quantitation in samples OU1SD01 (0-0.5') MS, OU1SD01 (0-0.5') MSD, OU1SD03 (0-0.5'), OU1SD05 (0.5-1.0'), OU1SD05 (1-1.5'), OU1SD07 (0-0.5') MS, OU1SD07 (0-0.5') MSD, OU1SD06 (0-0.5') and OU1SD06 (0.5-1'). No data have been qualified based on the diluted surrogates. All other surrogate recoveries were within control limits.

6. Compound Identification

The retention times of all quantitated peaks must fall within the calculated retention time windows for both the primary and confirmation columns.

Based on the difference in quantitated results from the two analytical columns, data for Aroclor 1242 in samples OU1SD04 (1-1.2') and OU1SD05 (0-0.5') and data for Aroclor 1260 in samples OU1SD01 (0-0.5'), OU1SD01 (0.5-1'), OU1SD01 (1-1.5'), OU1SD02 (0-0.5'), OU1SD02 (0.5-1'), OU1SD02 (1-1.5'), OU1SD02 (1.5-2.1'), OU1SD DUP2, OU1SD04 (0.5-1'), OU1SD03 (0-0.5'), OU1SD03 (1-1.3'), OU1SD05 (0.5-1'), OU1SD05 (1-1.5'), OU1SD05 (1.5-2'), OU1SD08 (0-0.5'), OU1SD08 (0.5-1') and OU1SD07 (0-0.5') have been qualified as estimated with a potential high bias.

7. Matrix Spike/Matrix Spike Duplicate

Matrix spike and matrix spike duplicate data are used to assess the precision and accuracy of the analytical method independent of matrix interferences.

The matrix spike and matrix spike duplicate recoveries and relative percent difference between recoveries were within control limits.

8. Matrix Spike Blank

The matrix spike blank recovery was within control limits.

9. Field Duplicates

Results for duplicate samples are summarized as follows:

Sample ID/ Duplicate ID	Analyte	Sample Result	Duplicate Result	RPD
OU1SD01 (1-1.5') / OU1SD DUP2	Aroclor 1248	7.45	10.2	31.1%
	Aroclor 1260	2.15	2.91	30.0%
OU1SD07 (0.5-1') / OU1SD DUP3	Aroclor 1242	2.06	1.35	41.6%

The duplicate results are acceptable.

10. General Comments

Aroclor 1221 was reported as present in samples OU1SD01 (1-1.5'), OU1SD02 (0-0.5'), OU1SD02 (0.5-1'), OU1SD02 (1-1.5'), OU1SD02 (1.5-2.1'), OU1SD DUP2, OU1SD04 (0-0.5'), OU1SD04 (0.5-1'), OU1SD03 (0-0.5'), OU1SD03 (0.5-1'), OU1SD03 (1-1.3'), OU1SD05 (0.5-1'), OU1SD05 (1-1.5'), OU1SD05 (1.5-2'), OU1SD08 (0-0.5'), OU1SD08 (0.5-1'), OU1SD08 (1-1.5'), OU1SD07 (0-0.5'), OU1SD07 (0.5-1'), OU1SD DUP3, OU1SD06 (0-0.5'), OU1SD06 (0.5-1'), OU1SD06 (1-1.5') and OU1SD06 (1.5-2'). An examination of the sample chromatograms showed no pattern match for this Aroclor. Data for Aroclor 1221 have, therefore, been qualified as undetected in the listed samples.

11. System Performance and Overall Assessment

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines listed in the analytical method.

Data Validation Checklist

PCB Data Validation Checklist

	YES	NO	NA
<u>Data Completeness and Deliverables</u>			
Have any missing deliverables been received and added to the data package?	<u> </u>	<u> X </u>	<u> </u>
Is there a narrative or cover letter present?	<u> X </u>	<u> </u>	<u> </u>
Are the sample numbers included in the narrative?	<u> X </u>	<u> </u>	<u> </u>
Are the sample chain-of-custodies present?	<u> X </u>	<u> </u>	<u> </u>
Do the chain-of-custodies indicate any problems with sample receipt or sample condition?	<u> </u>	<u> X </u>	<u> </u>
<u>Holding Times</u>			
Have any holding times been exceeded?	<u> X </u>	<u> </u>	<u> </u>
<u>Surrogate Recovery</u>			
Are the surrogate recovery forms present?	<u> X </u>	<u> </u>	<u> </u>
Are all samples listed on the surrogate recovery form?	<u> X </u>	<u> </u>	<u> </u>
Were recoveries of any surrogate outside control limits for any sample or blank?	<u> X </u>	<u> </u>	<u> </u>
If yes, were the samples reanalyzed?	<u> </u>	<u> X </u>	<u> </u>
Are there any transcription/calculation errors between the raw data and the summary form?	<u> </u>	<u> X </u>	<u> </u>
<u>Matrix Spikes</u>			
Is there a matrix spike recovery form present?	<u> X </u>	<u> </u>	<u> </u>
Were matrix spikes analyzed at the required frequency?	<u> X </u>	<u> </u>	<u> </u>
How many spike recoveries were outside of QC limits?			
<u> 0 </u> out of <u> 4 </u>			
How many RPDs for matrix spike and matrix spike duplicate were outside of QC limits?			
<u> 0 </u> out of <u> 2 </u>			
<u>Blanks</u>			
Is a method blank summary form present?	<u> X </u>	<u> </u>	<u> </u>
Has a method blank been extracted for each set of samples or for each 20 samples, whichever is more frequent?	<u> X </u>	<u> </u>	<u> </u>
Do any method/instrument blanks have positive results?	<u> </u>	<u> X </u>	<u> </u>
Are field/rinse blanks associated with every sample?	<u> X </u>	<u> </u>	<u> </u>
Do any field/rinse blanks have positive results?	<u> </u>	<u> X </u>	<u> </u>

PCB Data Validation Checklist - Page 2

	YES	NO	NA
<u>Calibration and GC Performance</u>			
Are the following chromatograms and integration reports present?			
peak resolution check	<u> </u>	<u> X </u>	<u> </u>
Aroclor 1016/1260	<u> X </u>	<u> </u>	<u> </u>
Aroclors 1221, 1232, 1242, 1248, and 1254	<u> X </u>	<u> </u>	<u> </u>
Is a calibration summary form present and complete for each analytical sequence?	<u> X </u>	<u> </u>	<u> </u>
Are there any transcription/calculation errors between the raw data and the forms?	<u> </u>	<u> X </u>	<u> </u>
Are the initial calibration %RSD within acceptable limits for all analytes?	<u> X </u>	<u> </u>	<u> </u>
Is the resolution between any two adjacent peaks in the resolution check mixture > 60%?	<u> </u>	<u> </u>	<u> X </u>
Have all samples been injected within a 12 hour period beginning with the injection of a calibration standard?	<u> X </u>	<u> </u>	<u> </u>
Is a continuing calibration summary form present and complete for each continuing standard analyzed?	<u> X </u>	<u> </u>	<u> </u>
Are there any transcription/calculation errors between the raw data and the form?	<u> </u>	<u> X </u>	<u> </u>
Are all continuing calibration standard %D within acceptable limits?	<u> X </u>	<u> </u>	<u> </u>
<u>Analytical Sequence</u>			
Is an analytical sequence summary form present and complete for each column and each period of analyses?	<u> X </u>	<u> </u>	<u> </u>
Was the proper analytical sequence followed?	<u> X </u>	<u> </u>	<u> </u>
<u>Cleanup Efficiency Verification</u>			
Are percent recoveries of the compounds used to check the efficiency of the cleanup procedure within QC limits?	<u> X </u>	<u> </u>	<u> </u>
<u>PCB Identification</u>			
Are RT of sample compounds within the established RT windows?	<u> X </u>	<u> </u>	<u> </u>
Were all positively identified compounds confirmed on a second column?	<u> X </u>	<u> </u>	<u> </u>
Was GC/MS confirmation provided when required?	<u> </u>	<u> </u>	<u> X </u>
Were there any false negatives?	<u> </u>	<u> X </u>	<u> </u>

PCB Data Validation Checklist - Page 3

	YES	NO	NA
<u>Compound Quantitation and Reported Detection Limits</u>			
Are there any transcription/calculation errors in the Form 1 results?	<u>X</u>	<u> </u>	<u> </u>
Are the reporting limits adjusted to reflect sample dilutions and, for soils, sample moisture?	<u>X</u>	<u> </u>	<u> </u>
<u>Chromatogram Quality</u>			
Were the baselines stable?	<u>X</u>	<u> </u>	<u> </u>
Were any electronegative displacement (negative peaks) or unusual peaks detected?	<u> </u>	<u>X</u>	<u> </u>
<u>Field Duplicates</u>			
Were field duplicates submitted with the samples?	<u>X</u>	<u> </u>	<u> </u>

PCB Qualifier Summary
Holding Time and Surrogates

Sample ID	Holding Time*	Surrogates*			
		TCX-1	TCX-2	DCB-1	DCB-2
OU1SD01 (0-0.5')					↓
OU1SD01 (0-0.5') MS		D	D	D	D
OU1SD01 (0-0.5') MSD		D	D	D	D
OU1SD01 (0.5-1.0')		↓	↓		↓
OU1SD01 (1.0-1.5')					
OU1SD01 (1.5-1.9')					
OU1SD02 (0-0.5')					↓
OU1SD02 (0.5-1.0')					↓
OU1SD02 (1.0-1.5')					↓
OU1SD02 (1.5-2.1')					↓
OU1SD DUP2					↓
OU1SDRB02					↓
OU1SD04 (0-0.5')					
OU1SD04 (0.5-1')					↓
OU1SD04 (1-1.2')					
OU1SD03 (0-0.5')		D	D	D	D
OU1SD03 (0.5-1')					↓
OU1SD03 (1-1.3')					
OU1SD05 (0-0.5')					
OU1SD05 (0.5-1.0')		D	D	D	D
OU1SD05 (1-1.5')		D	D	D	D
OU1SD05 (1.5-2')					
OU1SD08 (0-0.5')					↓
OU1SD08 (0.5-1')					↓
OU1SD08 (1-1.5')					
OU1SD08 (1.5-2')					
OU1SD07 (0-0.5')					
OU1SD07 (0-0.5') MS		D	D	D	D
OU1SD07 (0-0.5') MSD		D	D	D	D
OU1SD07 (0.5-1')					
OU1SD07 (1-1.5')					
OU1SD7 (1.5-1.7')					

Sample ID	Holding Time*	Surrogates*			
		TCX-1	TCX-2	DCB-1	DCB-2
OU1SD DUP3					
OU1SD06 (0-0.5')		D	D	D	D
OU1SD06 (0.5-1')		D	D	D	D
OU1SD06 (1-1.5')	+10				
OU1SD06 (1.5-2')	+10				
OU1SD RB03					

Surrogates:

TCX Tetrachloro-m-xylene

DCB Decachlorobiphenyl

na Not applicable

Qualifiers:

D Surrogate diluted out

! Recovery high

! Recovery low

* Unless otherwise noted, all parameters are within specified limits.

PCB Calibration Summary

Instrument: GC05
 Column: DB-5

Date:	8/26/02- 8/27/02	8/27/02	8/27/02	8/27/02	8/27/02	8/27/02	8/27/02	8/27/02
Time:		1152	1226	1300	1336	1410	1445	1520
	Initial Cal.	Cont Cal.	Cont Cal.	Cont Cal.	Cont Cal.	Cont Cal.	Cont Cal.	Cont Cal.
	%RSD	%D	%D	%D	%D	%D	%D	%D
Aroclor 1016	--*	ok						
Aroclor 1221	--*		ok					
Aroclor 1232	--*			ok				
Aroclor 1242	--*				ok			
Aroclor 1248	--*					ok		
Aroclor 1254	--*						ok	
Aroclor 1260	--*							ok
Tetrachloro-m-xylene	ok							
Decachlorobiphenyl	ok							
Affected Samples:								

* Single-point standard analyzed

PCB Calibration Summary - Page 2

Date:	9/25/02	9/25/02	9/25/02	9/26/02	9/27/02	9/27/02	9/28/02	9/28/02
Time:	0128	0855	1706	0118	1232	2044	0411	1223
	Cont Cal.	Cont Cal.	Cont Cal.	Cont Cal.	Cont Cal.	Cont Cal.	Cont Cal.	Cont Cal.
	%D	%D	%D	%D	%D	%D	%D	%D
Aroclor 1016			ok					ok
Aroclor 1221				ok				
Aroclor 1232								
Aroclor 1242								
Aroclor 1248					ok			
Aroclor 1254	ok					ok		
Aroclor 1260		ok					ok	
Tetrachloro-m-xylene								
Decachlorobiphenyl								
Affected Samples:								

PCB Calibration Summary - Page 3

[illegible]

PCB Calibration Summary - Page 4

Instrument: GC19B

Column: DB-1

Date:	8/30/02-8/31/02	8/31/02	8/31/02	8/31/02	8/31/02	8/31/02	8/31/02	8/31/02
Time:		0902	0934	1006	1040	1112	1144	1216
	Initial Cal.	Cont Cal.	Cont Cal.	Cont Cal.	Cont Cal.	Cont Cal.	Cont Cal.	Cont Cal.
	%RSD	%D	%D	%D	%D	%D	%D	%D
Aroclor 1016	--*	ok						
Aroclor 1221	--*		ok					
Aroclor 1232	--*			ok				
Aroclor 1242	--*				ok			
Aroclor 1248	--*					ok		
Aroclor 1254	--*						ok	
Aroclor 1260	--*							ok
Tetrachloro-m-xylene	ok							
Decachlorobiphenyl	ok							
Affected Samples:								

* Single-point standard analyzed

PCB Calibration Summary - Page 5

[illegible]

PCB Calibration Summary - Page 6

Instrument: GC19F

Column: DB-1

Date:	9/13/02- 9/14/02	9/14/02	9/14/02	9/14/02	9/14/02	9/14/02	9/14/02	9/14/02
Time:		1312	1344	1416	1448	1520	1552	1624
	Initial Cal.	Cont Cal.	Cont Cal.	Cont Cal.	Cont Cal.	Cont Cal.	Cont Cal.	Cont Cal.
	%RSD	%D	%D	%D	%D	%D	%D	%D
Aroclor 1016	--*	ok						
Aroclor 1221	--*		ok					
Aroclor 1232	--*			ok				
Aroclor 1242	--*				ok			
Aroclor 1248	--*					ok		
Aroclor 1254	--*						ok	
Aroclor 1260	--*							ok
Tetrachloro-m-xylene	ok							
Decachlorobiphenyl	ok							
Affected Samples:								

* Single-point standard analyzed

PCB Calibration Summary - Page 7

[illegible]

PCB Calibration Summary - Page 8

[illegible]

PCB Calibration Summary - Page 9

Instrument: GC11

Column: DB-1

Date:	10/01/02- 10/03/02	10/03/02	10/03/02	10/03/02	10/03/02	10/03/02	10/03/02	10/03/02
Time:		1439	1518	1557	1636	1720	1759	1838
	Initial Cal.	Cont Cal.	Cont Cal.	Cont Cal.	Cont Cal.	Cont Cal.	Cont Cal.	Cont Cal.
	%RSD	%D	%D	%D	%D	%D	%D	%D
Aroclor 1016	--*	ok						
Aroclor 1221	--*		ok					
Aroclor 1232	--*			ok				
Aroclor 1242	--*				ok			
Aroclor 1248	--*					ok		
Aroclor 1254	--*						ok	
Aroclor 1260	--*							ok
Tetrachloro-m-xylene	ok							
Decachlorobiphenyl	ok							
Affected Samples:								

* Single-point standard analyzed

PCB Calibration Summary - Page 10

[illegible]

PCB Calibration Summary - Page 11

Corrected Sample Analysis Data Sheets

SUPPLEMENTAL PARAMETERS

Introduction

Analyses were performed according to the following method:

Total Organic Carbon

EPA

Lloyd Kahn

The data review process is intended to evaluate data on a technical basis. It is assumed that the data package represents the best efforts of the laboratory and has already been subjected to adequate quality review prior to submission for review.

During the review process, laboratory data are verified against the supporting documentation. Based on this evaluation, qualifier codes may be added, modified or deleted by the data reviewer. Results are qualified with the following codes in accordance with the National Functional Guidelines.

- < The material was analyzed for, but was not detected. The associated value is the sample reporting limit.
- J The associated value is an estimated quantity.
- R The sample results are rejected.

Two facts should be noted by all data users. First, the "R" flag means that the associated value is unusable. In other words, due to significant QC problems, the analysis is invalid and provides no information as to whether the compound is present or not. "R" values should not appear on data tables because they cannot be relied upon, even as a last resort. The second fact to keep in mind is that no compound concentration, even if it has passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data but any value potentially contains error.

Data Assessment

1. Holding Times

The method-specified holding time for TOC analysis is 14 days from collection
All samples were analyzed within the specified holding time.

2. Calibration

All initial and continuing calibration standards were acceptable.

3. Blank Contamination

No TOC was reported in the method or rinse blanks.

4. Laboratory Control Sample (LCS)

The laboratory control sample recovery was acceptable.

5. Matrix Spike/Matrix Spike Duplicate/Laboratory Duplicate

The matrix spike recovery and laboratory duplicate results were acceptable.

6. Field Duplicates

Results for duplicate samples are summarized as follows:

Sample ID/ Duplicate ID	Analyte	Sample Result	Duplicate Result	RPD
OU1SD01 (1-1.5') / OU1SD DUP2	TOC	92300	108000	15.7%
OU1SD07 (0.5-1') / OU1SD DUP3	TOC	410000	392000	4.5%

The duplicate results are acceptable.

7 Overall Assessment

Other than for any deviations mentioned in this report, the analyses of the samples were in conformance with method specifications.

Data Validation Checklist

Supplemental Data Review Checklist

	YES	NO	NA
<u>Data Completeness</u>			
Is there a narrative or cover letter present?	<u> X </u>	<u> </u>	<u> </u>
Are the samples numbers included in the narrative?	<u> </u>	<u> X </u>	<u> </u>
Are the methods utilized notated?	<u> X </u>	<u> </u>	<u> </u>
Are the sample chain-of-custodies present?	<u> X </u>	<u> </u>	<u> </u>
Do the chain-of-custodies indicate any problems with sample receipt or sample condition?	<u> </u>	<u> X </u>	<u> </u>
<u>Holding Times</u>			
Have any holding times been exceeded?	<u> </u>	<u> X </u>	<u> </u>
<u>Laboratory Duplicates</u>			
Were duplicates analyzed and were the relative percent differences between results within acceptable limits?	<u> X </u>	<u> </u>	<u> </u>
<u>Laboratory Control Samples</u>			
Were LCS analyzed and were recoveries within acceptable limits?	<u> X </u>	<u> </u>	<u> </u>
<u>Blanks</u>			
Has a method blank been analyzed for each set of samples or for each 20 samples?	<u> X </u>	<u> </u>	<u> </u>
Do any have results above the reporting limit?	<u> </u>	<u> X </u>	<u> </u>
Do any field/rinse blanks have positive results?	<u> </u>	<u> X </u>	<u> </u>
<u>Calibration</u>			
Are calibrations acceptable?	<u> X </u>	<u> </u>	<u> </u>
<u>Raw Data</u>			
Is raw data present and complete for all samples and QC?	<u> X </u>	<u> </u>	<u> </u>
<u>Compound Quantitation and Reported Limits</u>			
Are the reporting limits adjusted to reflect sample dilutions, and for soils, sample moisture?	<u> X </u>	<u> </u>	<u> </u>

Corrected Sample Analysis Data Sheets

Laboratory Narrative

Sample Compliance Report

SAMPLE COMPLIANCE REPORT

Sample Delivery Group	Sampling Date	ASP Protocol	Sample ID	Matrix	Compliance ¹				Noncompliance
					VOA	BNA	PCB	TOC	
020828ALCAN	08/26/02	2000	OU1SD01 (0-0.5') ¹	sediment	--	--	no	yes	PCB - %D
020828ALCAN	08/26/02	2000	OU1SD01 (0.5-1.0')	sediment	--	--	no	yes	PCB - surr ² , %D
020828ALCAN	08/26/02	2000	OU1SD01 (1.0-1.5')	sediment	--	--	no	yes	PCB - ID, %D
020828ALCAN	08/26/02	2000	OU1SD01 (1.5-1.9')	sediment	--	--	yes	yes	
020828ALCAN	08/26/02	2000	OU1SD02 (0-0.5')	sediment	--	--	no	yes	PCB - ID, %D
020828ALCAN	08/26/02	2000	OU1SD02 (0.5-1.0')	sediment	--	--	no	yes	PCB - ID, %D
020828ALCAN	08/26/02	2000	OU1SD02 (1.0-1.5')	sediment	--	--	no	yes	PCB - ID, %D
020828ALCAN	08/26/02	2000	OU1SD02 (1.5-2.1')	sediment	--	--	no	yes	PCB - ID, %D
020828ALCAN	08/26/02	2000	OU1SD DUP2	sediment	--	--	no	yes	PCB - ID, %D
020828ALCAN	08/26/02	2000	OU1SDRB02	water	--	--	yes	yes	
020828ALCAN	08/27/02	2000	OU1SD04 (0-0.5')	sediment	--	--	no	yes	PCB - ID
020828ALCAN	08/27/02	2000	OU1SD04 (0.5-1')	sediment	--	--	no	yes	PCB - ID, %D
020828ALCAN	08/27/02	2000	OU1SD04 (1-1.2')	sediment	--	--	no	yes	PCB - %D
020828ALCAN	08/27/02	2000	OU1SD03 (0-0.5')	sediment	--	--	no	yes	PCB - ID, %D
020828ALCAN	08/27/02	2000	OU1SD03 (0.5-1')	sediment	--	--	no	yes	PCB - ID
020828ALCAN	08/27/02	2000	OU1SD03 (1-1.3')	sediment	--	--	no	yes	PCB - ID, %D
020828ALCAN	08/27/02	2000	OU1SD05 (0-0.5')	sediment	--	--	no	yes	PCB - %D
020828ALCAN	08/27/02	2000	OU1SD05 (0.5-1.0')	sediment	--	--	no	yes	PCB - ID, %D
020828ALCAN	08/27/02	2000	OU1SD05 (1-1.5')	sediment	--	--	no	yes	PCB - ID, %D
020828ALCAN	08/27/02	2000	OU1SD05 (1.5-2')	sediment	--	--	no	yes	PCB - ID, %D
020828ALCAN	08/27/02	2000	OU1SD08 (0-0.5')	sediment	--	--	no	yes	PCB - ID, %D
020828ALCAN	08/27/02	2000	OU1SD08 (0.5-1')	sediment	--	--	no	yes	PCB - ID, %D

Sample Delivery Group	Sampling Date	ASP Protocol	Sample ID	Matrix	Compliance ¹				Noncompliance
					VOA	BNA	PCB	TOC	
020828ALCAN	08/27/02	2000	OU1SD08 (1-1.5')	sediment	--	--	no	yes	PCB - ID
020828ALCAN	08/27/02	2000	OU1SD08 (1.5-2')	sediment	--	--	yes	yes	
020828ALCAN	08/27/02	2000	OU1SD07 (0-0.5') ¹	sediment	--	--	no	yes	PCB - ID, %D
020828ALCAN	08/27/02	2000	OU1SD07 (0.5-1')	sediment	--	--	no	yes	PCB - ID
020823ALCAN	08/27/02	2000	OU1SD07 (1-1.5')	sediment	--	--	yes	yes	
020823ALCAN	08/27/02	2000	OU1SD7 (1.5-1.7')	sediment	--	--	yes	yes	
020823ALCAN	08/27/02	2000	OU1SD DUP3	sediment	--	--	no	yes	PCB - ID
020823ALCAN	08/27/02	2000	OU1SD06 (0-0.5')	sediment	--	--	no	yes	PCB - ID
020823ALCAN	08/27/02	2000	OU1SD06 (0.5-1')	sediment	--	--	no	yes	PCB - ID
020823ALCAN	08/27/02	2000	OU1SD06 (1-1.5')	sediment	--	--	no	yes	PCB - holding time, ID
020823ALCAN	08/27/02	2000	OU1SD06 (1.5-2')	sediment	--	--	no	yes	PCB - holding time, ID
020823ALCAN	08/27/02	2000	OU1SD RB03	water	--	--	yes	yes	

- 1 Samples which are compliant with no added validation qualifiers are listed as "yes". Samples which are non-compliant or which have added qualifiers are listed as "no". A "no" designation does not necessarily indicate that the data have been rejected or are otherwise unusable.
- 2 The deviation resulted in no qualification of the data.

1D-1¹
PCB ANALYSIS DATA SHEET

Northeast Analytical Inc.		SDG No.:	020828ALCAN
ELAP ID No.:	11078	CLIENT ID:	OU1SD01 (0'-0.5')
Matrix:	SEDIMENT	LAB SAMPLE ID:	AF06999
Sample wt/vol:	2 71261 (g)	LAB FILE ID:	AF06999
% Moisture:	74.0	DATE RECEIVED:	8/28/2002
Extraction :	SW 846 METHOD 3545 (ASE)	DATE EXTRACTED:	9/7/2002
Conc. Extract Volume:	50000 (µL)	DATE ANALYZED:	9/27/2002
Injection Volume:	1.2 (µL)	DILUTION FACTOR:	1
Method:	SW-846 8082 (PCB)	SULFUR CLEANUP:	YES

GC Column : J&W, NARROWBORE CAPILLARY, DB-1, 30M; ID:0.25mm

NEA Form ID: S:\FORMS\CATB\SOIL_GC_19F_091302AL.XLS

NEA File ID: S:\CERT02\02080123_8082A.XLS 1D-1-1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/g)	Q
12674-11-2	Aroclor 1016	0.358	U
11104-28-2	Aroclor 1221	0.358	U, P
11141-16-5	Aroclor 1232	0.358	U
53469-21-9	Aroclor 1242	0.358	U
12672-29-6	Aroclor 1248	1.79	U
11097-69-1	Aroclor 1254	0.358	U
11096-82-5	Aroclor 1260	0.783	P

i Aroclor 1248 is being reported as the best Aroclor match.

The sample exhibits an altered PCB pattern.

- ii It is not possible to distinguish if Aroclor 1242 or Aroclor 1248 was the original Aroclor in this sample
- ii that exhibits a highly altered PCB pattern. To better quantify total PCBs, Aroclor 1248 is being reported.

1D-1¹
PCB ANALYSIS DATA SHEET

Northeast Analytical Inc.

SDG No.:

020828ALCAN

ELAP ID No.:

11078

CLIENT ID:

OU1SD01 (0.5'-1.0')

Matrix:

SEDIMENT

LAB SAMPLE ID:

AF07000

Sample wt/vol:

2.47748 (g)

LAB FILE ID:

AF07000

% Moisture:

76.3

DATE RECEIVED:

8/28/2002

Extraction :

SW 846 METHOD 3545 (ASE)

DATE EXTRACTED:

9/7/2002

Conc. Extract Volume:

100000 (µL)

DATE ANALYZED:

9/27/2002

Injection Volume:

1.2 (µL)

DILUTION FACTOR:

1

Method:

SW-846 8082 (PCB)

SULFUR CLEANUP:

YES

GC Column : J&W, NARROWBORE CAPILLARY, DB-1, 30M; ID:0.25mm

NEA Form ID: S:\FORMS\CATB\SOIL_GC_19F_091302AL.XLS

NEA File ID: S:\CERT02\02080123_8082A.XLS 1D-1-2

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/g)	Q
12674-11-2	Aroclor 1016	0.404	U
11104-28-2	Aroclor 1221	0.404	U, P
11141-16-5	Aroclor 1232	0.404	U
53469-21-9	Aroclor 1242	0.404	U
12672-29-6	Aroclor 1248	2.57 3.18	X, U
11097-69-1	Aroclor 1254	0.404	U
11096-82-5	Aroclor 1260	0.965	X, P

- i Aroclor 1248 is being reported as the best Aroclor match.
The sample exhibits an altered PCB pattern.
- ii Aroclor 1260 is being reported as the best Aroclor match.
The sample exhibits an altered PCB pattern.
- iii It is not possible to distinguish if Aroclor 1242 or Aroclor 1248 was the original Aroclor in this sample that exhibits a highly altered PCB pattern. To better quantify total PCBs, Aroclor 1248 is being reported.

¹ Form based upon NYS-DEC Form 1-CLP-PEST

FORM I-CLP-PCB (NEA)

000052

1D-1¹
PCB ANALYSIS DATA SHEET

Northeast Analytical Inc.

SDG No.:

020828ALCAN

ELAP ID No.:

11078

CLIENT ID:

OU1SD01 (1.0'-1.5')

Matrix:

SEDIMENT

LAB SAMPLE ID:

AF07001

Sample wt/vol:

4.21454 (g)

LAB FILE ID:

AF07001

% Moisture:

58.7

DATE RECEIVED:

8/28/2002

Extraction :

SW 846 METHOD 3545 (ASE)

DATE EXTRACTED:

9/7/2002

Conc. Extract Volume:

50000 (µL)

DATE ANALYZED:

9/24/2002

Injection Volume:

1.2 (µL)

DILUTION FACTOR:

2

Method:

SW-846 8082 (PCB)

SULFUR CLEANUP:

YES

GC Column : J&W, NARROWBORE CAPILLARY, DB-1, 30M; ID:0.25mm

NEA Form ID: S:\FORMS\CAT\SOIL_GC_19_083002.XLS

NEA File ID: S:\CERT02\02080123_8082A_1.XLS 1D

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/g)	Q
12674-11-2	Aroclor 1016	0.475	U
11104-28-2	Aroclor 1221	0.632 0.475	U <i>1, P U</i>
11141-16-5	Aroclor 1232	0.475	U
53469-21-9	Aroclor 1242	0.475	U
12672-29-6	Aroclor 1248	7.45	U <i>U, U, P</i>
11097-69-1	Aroclor 1254	0.475	U
11096-82-5	Aroclor 1260	2.15	P <i>J</i>

- i Aroclor 1221 is being used to report an altered PCB pattern exhibited by the sample.
Actual Aroclor 1221 is not present in the sample, but is reported to more accurately quantify PCB present in sample that has undergone environmental alteration.
- ii Aroclor 1248 is being reported as the best Aroclor match.
The sample exhibits an altered PCB pattern.
- iii It is not possible to distinguish if Aroclor 1242 or Aroclor 1248 was the original Aroclor in this sample that exhibits a highly altered PCB pattern. To better quantify total PCBs, Aroclor 1248 is being reported.

¹ Form based upon NYS-DEC Form 1-CLP-PEST

FORM I-CLP-PCB (NEA)

000062

1D-1¹
PCB ANALYSIS DATA SHEET

Northeast Analytical Inc.

SDG No.:

020828ALCAN

ELAP ID No.:

11078

CLIENT ID:

OU1SD01 (1.5'-1.9')

Matrix:

SEDIMENT

LAB SAMPLE ID:

AF07002

Sample wt/vol:

6.17584 (g)

LAB FILE ID:

AF07002

% Moisture:

39.5

DATE RECEIVED:

08/28/2002

Extraction :

SW 846 METHOD 3545 (ASE)

DATE EXTRACTED:

09/07/2002

Conc. Extract Volume:

50000 (µL)

DATE ANALYZED:

09/25/2002

Injection Volume:

1.2 (µL)

DILUTION FACTOR:

1

Method:

SW-846 8082 (PCB)

SULFUR CLEANUP:

YES

GC Column : J&W, NARROWBORE CAPILLARY, DB-5 MS, 30M; ID: 0.25mm

NEA Form ID: S:\FORMS\CATB\SOIL_GC_05_082602.XLS

NEA File ID: S:\CERT02\02080123_8082B.XLS 1D-1-

CAS NO.	COMPOUND	CONCENTRATION UNITS:	Q
		(µg/g)	
12674-11-2	Aroclor 1016	0.162	U
11104-28-2	Aroclor 1221	0.162	U
11141-16-5	Aroclor 1232	0.162	U
53469-21-9	Aroclor 1242	0.162	U
12672-29-6	Aroclor 1248	0.162	U
11097-69-1	Aroclor 1254	0.162	U
11096-82-5	Aroclor 1260	0.162	U

¹ Form based upon NYS-DEC Form 1-CLP-PEST

1D-1¹ PCB ANALYSIS DATA SHEET

Northeast Analytical Inc.

ELAP ID No.:	11078	SDG No.:	020828ALCAN
Matrix:	SEDIMENT	CLIENT ID:	OU1SD02 (0'-0.5')
Sample wt/vol:	4.07271 (g)	LAB SAMPLE ID:	AF07003
% Moisture:	62.6	LAB FILE ID:	AF07003
Extraction :	SW 846 METHOD 3545 (ASE)	DATE RECEIVED:	8/28/2002
Conc. Extract Volume:	50000 (µL)	DATE EXTRACTED:	9/7/2002
Injection Volume:	1.2 (µL)	DATE ANALYZED:	9/24/2002
Method:	SW-846 8082 (PCB)	DILUTION FACTOR:	1
		SULFUR CLEANUP:	YES

GC Column : J&W, NARROWBORE CAPILLARY, DB-1, 30M; ID:0.25mm

NEA Form ID: S:\FORMS\CATB\SOIL_GC_19_083002.XLS

NEA File ID: S:\CERT02\02080123_8082A_1.XLS 1D

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/g)	Q
12674-11-2	Aroclor 1016	0.246	U
11104-28-2	Aroclor 1221	0.613 0.246	U A.P.L.
11141-16-5	Aroclor 1232	0.246	U
53469-21-9	Aroclor 1242	2.47	U A.P.
12672-29-6	Aroclor 1248	0.246	U
11097-69-1	Aroclor 1254	0.246	U
11096-82-5	Aroclor 1260	0.812	U A.P.J.

- i Aroclor 1221 is being used to report an altered PCB pattern exhibited by the sample.
Actual Aroclor 1221 is not present in the sample, but is reported to more accurately quantify PCB present in sample that has undergone environmental alteration.
- ii Aroclor 1242 is being reported as the best Aroclor match.
The sample exhibits an altered PCB pattern.
- iii Aroclor 1260 is being reported as the best Aroclor match.
The sample exhibits an altered PCB pattern.

1D-1¹ PCB ANALYSIS DATA SHEET

Northeast Analytical Inc.

SDG No.:

020828ALCAN

ELAP ID No.:

11078

CLIENT ID:

OU1SD02 (0.5'-1.0')

Matrix:

SEDIMENT

LAB SAMPLE ID:

AF07004

Sample wt/vol:

3.25642 (g)

LAB FILE ID:

AF07004

% Moisture:

68.9

DATE RECEIVED:

8/28/2002

Extraction :

SW 846 METHOD 3545 (ASE)

DATE EXTRACTED:

9/7/2002

Conc. Extract Volume:

100000 (µL)

DATE ANALYZED:

9/27/2002

Injection Volume:

1.2 (µL)

DILUTION FACTOR:

2.5

Method:

SW-846 8082 (PCB)

SULFUR CLEANUP:

YES

GC Column : J&W, NARROWBORE CAPILLARY, DB-1, 30M; ID:0.25mm

NEA Form ID: S:\FORMS\CATB\SOIL_GC_19F_091302AL.XLS

NEA File ID: S:\CERT02\02080123_8082A.XLS 1D-1-3

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/g)	Q
12674-11-2	Aroclor 1016	0.768	U
11104-28-2	Aroclor 1221	22.1 0.768	U U
11141-16-5	Aroclor 1232	0.768	U
53469-21-9	Aroclor 1242	37.1 37.2	U U
12672-29-6	Aroclor 1248	0.768	U
11097-69-1	Aroclor 1254	0.768	U
11096-82-5	Aroclor 1260	2.00	U U

- i Aroclor 1221 is being used to report an altered PCB pattern exhibited by the sample.
Actual Aroclor 1221 is not present in the sample, but is reported to more accurately quantify PCB present in sample that has undergone environmental alteration.
- ii Aroclor 1242 is being reported as the best Aroclor match.
The sample exhibits an altered PCB pattern.
- iii Aroclor 1260 is being reported as the best Aroclor match.
The sample exhibits an altered PCB pattern.

1D-1¹
PCB ANALYSIS DATA SHEET

Northeast Analytical Inc.

SDG No.:

020828ALCAN

ELAP ID No.:

11078

CLIENT ID:

OU1SD02 (1.0'-1.5')

Matrix:

SEDIMENT

LAB SAMPLE ID:

AF07005

Sample wt/vol:

6.90855 (g)

LAB FILE ID:

AF07005

% Moisture:

32.7

DATE RECEIVED:

8/28/2002

Extraction :

SW 846 METHOD 3545 (ASE)

DATE EXTRACTED:

9/7/2002

Conc. Extract Volume:

100000 (µL)

DATE ANALYZED:

9/27/2002

Injection Volume:

1.2 (µL)

DILUTION FACTOR:

2

Method:

SW-846 8082 (PCB)

SULFUR CLEANUP:

YES

GC Column : J&W, NARROWBORE CAPILLARY, DB-1, 30M; ID:0.25mm

NEA Form ID: S:\FORMS\CATB\SOIL_GC_19F_091302AL.XLS

NEA File ID: S:\CERT02\02080123_8082A.XLS 1D-1-4

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/g)	Q
12674-11-2	Aroclor 1016	0.290	U
11104-28-2	Aroclor 1221	5.56 0.290	U U
11141-16-5	Aroclor 1232	0.290	U
53469-21-9	Aroclor 1242	9.97	U U
12672-29-6	Aroclor 1248	0.290	U
11097-69-1	Aroclor 1254	0.290	U
11096-82-5	Aroclor 1260	2.13	U U

- i Aroclor 1221 is being used to report an altered PCB pattern exhibited by the sample.
Actual Aroclor 1221 is not present in the sample, but is reported to more accurately quantify PCB present in sample that has undergone environmental alteration.
- ii Aroclor 1242 is being reported as the best Aroclor match.
The sample exhibits an altered PCB pattern.

1D-1¹
PCB ANALYSIS DATA SHEET

Northeast Analytical Inc.

ELAP ID No.:

11078

Matrix:

SEDIMENT

Sample wt/vol:

5.29976 (g)

% Moisture:

48.5

Extraction :

SW 846 METHOD 3545 (ASE)

Conc. Extract Volume:

50000 (μL)

Injection Volume:

1.2 (μL)

Method:

SW-846 8082 (PCB)

SDG No.:

020828ALCAN

CLIENT ID:

OU1SD02 (1.5'-2.1')

LAB SAMPLE ID:

AF07006

LAB FILE ID:

AF07006

DATE RECEIVED:

8/28/2002

DATE EXTRACTED:

9/7/2002

DATE ANALYZED:

9/24/2002

DILUTION FACTOR:

1

SULFUR CLEANUP:

YES

GC Column : J&W, NARROWBORE CAPILLARY, DB-1, 30M; ID:0.25mm

NEA Form ID: S:\FORMS\CAT\SOIL_GC_19_083002.XLS

NEA File ID: S:\CERT02\02080123_8082A_1.XLS 1D

CAS NO.	COMPOUND	CONCENTRATION UNITS: (μg/g)	Q
12674-11-2	Aroclor 1016	0.189	U
11104-28-2	Aroclor 1221	0.264 0.189	U <i>Al, P, C</i>
11141-16-5	Aroclor 1232	0.189	U
53469-21-9	Aroclor 1242	0.189	U
12672-29-6	Aroclor 1248	3.18	U <i>ix, P</i>
11097-69-1	Aroclor 1254	0.189	U
11096-82-5	Aroclor 1260	0.686	U <i>iii, P, J</i>

- i Aroclor 1221 is being used to report an altered PCB pattern exhibited by the sample.
Actual Aroclor 1221 is not present in the sample, but is reported to more accurately quantify PCB present in sample that has undergone environmental alteration.
- ii Aroclor 1248 is being reported as the best Aroclor match.
The sample exhibits an altered PCB pattern.
- iii Aroclor 1260 is being reported as the best Aroclor match.
The sample exhibits an altered PCB pattern.
- iv It is not possible to distinguish if Aroclor 1242 or Aroclor 1248 was the original Aroclor in this sample that exhibits a highly altered PCB pattern. To better quantify total PCBs, Aroclor 1248 is being reported.

1D-1¹
PCB ANALYSIS DATA SHEET

Northeast Analytical Inc.

ELAP ID No. :

11078

SDG No. :

020828ALCAN

CLIENT ID :

OU1SD DUP2

Matrix :

SEDIMENT

LAB SAMPLE ID :

AF07007

Sample wt/vol :

3.35859 (g)

LAB FILE ID :

AF07007

% Moisture :

67.9

DATE RECEIVED :

8/28/2002

Extraction :

SW 846 METHOD 3545 (ASE)

DATE EXTRACTED :

9/7/2002

Conc. Extract Volume :

50000 (µL)

DATE ANALYZED :

9/24/2002

Injection Volume :

1.2 (µL)

DILUTION FACTOR :

2

Method :

SW-846 8082 (PCB)

SULFUR CLEANUP :

YES

GC Column : J&W, NARROWBORE CAPILLARY, DB-1, 30M; ID:0.25mm

NEA Form ID: S:\FORMS\CAT\SOIL_GC_19_083002.XLS

NEA File ID: S:\CERT02\02080123_8082A_1.XLS 1D

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/g)	Q
12674-11-2	Aroclor 1016	0.596	U
11104-28-2	Aroclor 1221	0.796 0.596	U X, P, L
11141-16-5	Aroclor 1232	0.596	U
53469-21-9	Aroclor 1242	0.596	U
12672-29-6	Aroclor 1248	10.2	ii, iv, P
11097-69-1	Aroclor 1254	0.596	U
11096-82-5	Aroclor 1260	2.91	iii, P

- i Aroclor 1221 is being used to report an altered PCB pattern exhibited by the sample.
Actual Aroclor 1221 is not present in the sample, but is reported to more accurately quantify PCB present in sample that has undergone environmental alteration.
- ii Aroclor 1248 is being reported as the best Aroclor match.
The sample exhibits an altered PCB pattern.
- iii Aroclor 1260 is being reported as the best Aroclor match.
The sample exhibits an altered PCB pattern.
- iv It is not possible to distinguish if Aroclor 1242 or Aroclor 1248 was the original Aroclor in this sample that exhibits a highly altered PCB pattern. To better quantify total PCBs, Aroclor 1248 is being reported.

¹ Form based upon NYS-DEC Form 1-CLP-PEST

1D-1¹
PCB ANALYSIS DATA SHEET

Northeast Analytical Inc.

ELAP ID No. :

11078

SDG No. :

020828ALCAN

CLIENT ID :

OU1SD04 (0-0.5)

Matrix :

SEDIMENT

LAB SAMPLE ID :

AF07009

Sample wt/vol :

1.55334 (g)

LAB FILE ID :

AF07009

% Moisture :

85.5

DATE RECEIVED :

8/28/2002

Extraction :

SW 846 METHOD 3545 (ASE)

DATE EXTRACTED :

9/7/2002

Conc. Extract Volume :

50000 (µL)

DATE ANALYZED :

9/30/2002

Injection Volume :

1.2 (µL)

DILUTION FACTOR :

1

Method :

SW-846 8082 (PCB)

SULFUR CLEANUP :

YES

GC Column : J&W, NARROWBORE CAPILLARY, DB-1, 30M; ID:0.25mm

NEA Form ID: S:\FORMS\CATB\SOIL_GC_19F_091302AL.XLS

NEA File ID: S:\CERT02\02090123_8082A.XLS 1D-1-5

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/g)	Q
12674-11-2	Aroclor 1016	0.644	U
11104-28-2	Aroclor 1221	0.833 0.644	U U
11141-16-5	Aroclor 1232	0.644	U
53469-21-9	Aroclor 1242	2.78	U
12672-29-6	Aroclor 1248	0.644	U
11097-69-1	Aroclor 1254	0.644	U
11096-82-5	Aroclor 1260	0.644	U

- i Aroclor 1221 is being used to report an altered PCB pattern exhibited by the sample.
Actual Aroclor 1221 is not present in the sample, but is reported to more accurately quantify PCB present in sample that has undergone environmental alteration.
- ii Aroclor 1242 is being reported as the best Aroclor match.
The sample exhibits an altered PCB pattern.

1D-1¹
PCB ANALYSIS DATA SHEET

Northeast Analytical Inc.

ELAP ID No.:

11078

SDG No.:

020828ALCAN

CLIENT ID:

OU1SD04 (0.5-1)

Matrix:

SEDIMENT

LAB SAMPLE ID:

AF07010

Sample wt/vol:

4.38512 (g)

LAB FILE ID:

AF07010

% Moisture:

56.9

DATE RECEIVED:

8/28/2002

Extraction :

SW 846 METHOD 3545 (ASE)

DATE EXTRACTED:

9/7/2002

Conc. Extract Volume:

50000 (µL)

DATE ANALYZED:

9/24/2002

Injection Volume:

1.2 (µL)

DILUTION FACTOR:

1

Method:

SW-846 8082 (PCB)

SULFUR CLEANUP:

YES

GC Column : J&W, NARROWBORE CAPILLARY, DB-1, 30M; ID:0.25mm

NEA Form ID: S:\FORMS\CATB\SOIL_GC_19_083002.XLS

NEA File ID: S:\CERT02\02080123_8082A_1.XLS 1D

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/g)	Q
12674-11-2	Aroclor 1016	0.228	U
11104-28-2	Aroclor 1221	1.23 0.228	U U
11141-16-5	Aroclor 1232	0.228	U
53469-21-9	Aroclor 1242	7.12	U
12672-29-6	Aroclor 1248	0.228	U
11097-69-1	Aroclor 1254	0.228	U
11096-82-5	Aroclor 1260	1.06	U U

- i Aroclor 1221 is being used to report an altered PCB pattern exhibited by the sample.
Actual Aroclor 1221 is not present in the sample, but is reported to more accurately quantify PCB present in sample that has undergone environmental alteration.
- ii Aroclor 1242 is being reported as the best Aroclor match.
The sample exhibits an altered PCB pattern.

1D-1¹
PCB ANALYSIS DATA SHEET

Northeast Analytical Inc.

SDG No.:

020828ALCAN

ELAP ID No.:

11078

CLIENT ID:

OU1SD04 (1-1.2)

Matrix:

SEDIMENT

LAB SAMPLE ID:

AF07011

Sample wt/vol:

7.31735 (g)

LAB FILE ID:

AF07011

% Moisture:

27.4

DATE RECEIVED:

8/28/2002

Extraction :

SW 846 METHOD 3545 (ASE)

DATE EXTRACTED:

9/7/2002

Conc. Extract Volume:

50000 (µL)

DATE ANALYZED:

9/24/2002

Injection Volume:

1.2 (µL)

DILUTION FACTOR:

1

Method:

SW-846 8082 (PCB)

SULFUR CLEANUP:

YES

GC Column : J&W, NARROWBORE CAPILLARY, DB-1, 30M; ID:0.25mm

NEA Form ID: S:\FORMS\CATB\SOIL_GC_19_083002.XLS

NEA File ID: S:\CERT02\02080123_8082A_1.XLS 1D

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/g)	Q
12674-11-2	Aroclor 1016	0.137	U
11104-28-2	Aroclor 1221	0.137	U
11141-16-5	Aroclor 1232	0.137	U
53469-21-9	Aroclor 1242	0.205	K.P.J
12672-29-6	Aroclor 1248	0.137	U
11097-69-1	Aroclor 1254	0.137	U
11096-82-5	Aroclor 1260	0.137	U

- i Aroclor 1242 is being reported as the best Aroclor match.
The sample exhibits an altered PCB pattern.

¹ Form based upon NYS-DEC Form 1-CLP-PEST

FORM I-CLP-PCB (NEA)

1D-1¹
PCB ANALYSIS DATA SHEET

Northeast Analytical Inc.

SDG No.:

020828ALCAN

ELAP ID No.:

11078

CLIENT ID:

OU1SD03 (0-0.5)

Matrix:

SEDIMENT

LAB SAMPLE ID:

AF07012

Sample wt/vol:

1.75752 (g)

LAB FILE ID:

AF07012

% Moisture:

83.1

DATE RECEIVED:

8/28/2002

Extraction :

SW 846 METHOD 3545 (ASE)

DATE EXTRACTED:

9/7/2002

Conc. Extract Volume:

50000 (µL)

DATE ANALYZED:

9/24/2002

Injection Volume:

1.2 (µL)

DILUTION FACTOR:

10

Method:

SW-846 8082 (PCB)

SULFUR CLEANUP:

YES

GC Column : J&W, NARROWBORE CAPILLARY, DB-1, 30M; ID:0.25mm

NEA Form ID: S:\FORMS\CATB\SOIL_GC_19_083002.XLS

NEA File ID: S:\CERT02\02080123_8082A_1.XLS 1D

CAS NO.	COMPOUND	CONCENTRATION UNITS:	Q
		(µg/g)	
12674-11-2	Aroclor 1016	5.69	U
11104-28-2	Aroclor 1221	145 5.69	KP U
11141-16-5	Aroclor 1232	5.69	U
53469-21-9	Aroclor 1242	136	X
12672-29-6	Aroclor 1248	5.69	U
11097-69-1	Aroclor 1254	5.69	U
11096-82-5	Aroclor 1260	15.0	11.8 J

- i Aroclor 1221 is being used to report an altered PCB pattern exhibited by the sample.
Actual Aroclor 1221 is not present in the sample, but is reported to more accurately quantify PCB present in sample that has undergone environmental alteration.
- ii Aroclor 1242 is being reported as the best Aroclor match.
The sample exhibits an altered PCB pattern.
- iii Aroclor 1260 is being reported as the best Aroclor match.
The sample exhibits an altered PCB pattern.

1D-1¹
PCB ANALYSIS DATA SHEET

Northeast Analytical Inc.

ELAP ID No.:

11078

SDG No.:

020828ALCAN

CLIENT ID:

OU1SD03 (0.5-1)

Matrix:

SEDIMENT

LAB SAMPLE ID:

AF07013

Sample wt/vol:

2.19343 (g)

LAB FILE ID:

AF07013

% Moisture:

78.5

DATE RECEIVED:

8/28/2002

Extraction :

SW 846 METHOD 3545 (ASE)

DATE EXTRACTED:

9/7/2002

Conc. Extract Volume:

50000 (µL)

DATE ANALYZED:

9/25/2002

Injection Volume:

1.2 (µL)

DILUTION FACTOR:

2

Method:

SW-846 8082 (PCB)

SULFUR CLEANUP:

YES

GC Column : J&W, NARROWBORE CAPILLARY, DB-1, 30M; ID:0.25mm

NEA Form ID: S:\FORMS\CATB\SOIL_GC_19_083002.XLS

NEA File ID: S:\CERT02\02080123_8082A_1.XLS 1D

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/g)	Q
12674-11-2	Aroclor 1016	0.912	U
11104-28-2	Aroclor 1221	35.0 0.912	KPU
11141-16-5	Aroclor 1232	0.912	U
53469-21-9	Aroclor 1242	20.8	X
12672-29-6	Aroclor 1248	0.912	U
11097-69-1	Aroclor 1254	0.912	U
11096-82-5	Aroclor 1260	2.93	P

- i Aroclor 1221 is being used to report an altered PCB pattern exhibited by the sample.
Actual Aroclor 1221 is not present in the sample, but is reported to more accurately quantify PCB present in sample that has undergone environmental alteration.
- ii Aroclor 1242 is being reported as the best Aroclor match.
The sample exhibits an altered PCB pattern.

¹ Form based upon NYS-DEC Form 1-CLP-PEST

1D-1¹
PCB ANALYSIS DATA SHEET

Northeast Analytical Inc.

ELAP ID No.:

11078

SDG No.:

020828ALCAN

CLIENT ID:

OU1SD03 (1-1.3)

Matrix:

SEDIMENT

LAB SAMPLE ID:

AF07014

Sample wt/vol:

2.86529 (g)

LAB FILE ID:

AF07014

% Moisture:

72.3

DATE RECEIVED:

8/28/2002

Extraction :

SW 846 METHOD 3545 (ASE)

DATE EXTRACTED:

9/7/2002

Conc. Extract Volume:

50000 (µL)

DATE ANALYZED:

9/25/2002

Injection Volume:

1.2 (µL)

DILUTION FACTOR:

5

Method:

SW-846 8082 (PCB)

SULFUR CLEANUP:

YES

GC Column : J&W, NARROWBORE CAPILLARY, DB-1, 30M; ID:0.25mm

NEA Form ID: S:\FORMS\CAT\B\SOIL_GC_19_083002.XLS

NEA File ID: S:\CERT02\02080123_8082A_1.XLS 1D

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/g)	Q
12674-11-2	Aroclor 1016	1.74	U
11104-28-2	Aroclor 1221	18.5 1.74	X U
11141-16-5	Aroclor 1232	1.74	U
53469-21-9	Aroclor 1242	28.1	X
12672-29-6	Aroclor 1248	1.74	U
11097-69-1	Aroclor 1254	1.74	U
11096-82-5	Aroclor 1260	5.86	Wt. PJ

- i Aroclor 1221 is being used to report an altered PCB pattern exhibited by the sample.
Actual Aroclor 1221 is not present in the sample, but is reported to more accurately quantify PCB present in sample that has undergone environmental alteration.
- ii Aroclor 1242 is being reported as the best Aroclor match.
The sample exhibits an altered PCB pattern.
- iii Aroclor 1260 is being reported as the best Aroclor match.
The sample exhibits an altered PCB pattern.

1D-1¹
PCB ANALYSIS DATA SHEET

Northeast Analytical Inc.

ELAP ID No.:	11078	SDG No.:	020828ALCAN
Matrix:	SEDIMENT	CLIENT ID:	OU1SD05 (0-0.5)
Sample wt/vol:	2.25444 (g)	LAB SAMPLE ID:	AF07015
% Moisture:	78.7	LAB FILE ID:	AF07015
Extraction :	SW 846 METHOD 3545 (ASE)	DATE RECEIVED:	8/28/2002
Conc. Extract Volume:	50000 (µL)	DATE EXTRACTED:	9/7/2002
Injection Volume:	1.2 (µL)	DATE ANALYZED:	9/25/2002
Method:	SW-846 8082 (PCB)	DILUTION FACTOR:	1
		SULFUR CLEANUP:	YES

GC Column : J&W, NARROWBORE CAPILLARY, DB-1, 30M; ID:0.25mm

NEA Form ID: S:\FORMS\CATB\SOIL_GC_19_083002.XLS

NEA File ID: S:\CERT02\02080123_8082A_1.XLS 1D

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/g)	Q
12674-11-2	Aroclor 1016	0.444	U
11104-28-2	Aroclor 1221	0.444	U
11141-16-5	Aroclor 1232	0.444	U
53469-21-9	Aroclor 1242	0.676	<i>KPJ</i>
12672-29-6	Aroclor 1248	0.444	U
11097-69-1	Aroclor 1254	0.444	U
11096-82-5	Aroclor 1260	0.444	U

- i Aroclor 1242 is being reported as the best Aroclor match.
The sample exhibits an altered PCB pattern.

1D-1¹
PCB ANALYSIS DATA SHEET

Northeast Analytical Inc.

SDG No.:

020828ALCAN

ELAP ID No.:

11078

CLIENT ID:

OU1SD05 (0.5-1)

Matrix:

SEDIMENT

LAB SAMPLE ID:

AF07016

Sample wt/vol:

2.64211 (g)

LAB FILE ID:

AF07016

% Moisture:

74.6

DATE RECEIVED:

8/28/2002

Extraction :

SW 846 METHOD 3545 (ASE)

DATE EXTRACTED:

9/7/2002

Conc. Extract Volume:

50000 (µL)

DATE ANALYZED:

9/25/2002

Injection Volume:

1.2 (µL)

DILUTION FACTOR:

10

Method:

SW-846 8082 (PCB)

SULFUR CLEANUP:

YES

GC Column : J&W, NARROWBORE CAPILLARY, DB-1, 30M; ID:0.25mm

NEA Form ID: S:\FORMS\CATB\SOIL_GC_19_083002.XLS

NEA File ID: S:\CERT02\02080123_8082A_1.XLS 1D

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/g)	Q
12674-11-2	Aroclor 1016	3.78	U
11104-28-2	Aroclor 1221	102 3.78	X P U
11141-16-5	Aroclor 1232	3.78	U
53469-21-9	Aroclor 1242	118	X
12672-29-6	Aroclor 1248	3.78	U
11097-69-1	Aroclor 1254	3.78	U
11096-82-5	Aroclor 1260	16.1	X P J

- i Aroclor 1221 is being used to report an altered PCB pattern exhibited by the sample.
Actual Aroclor 1221 is not present in the sample, but is reported to more accurately quantify PCB present in sample that has undergone environmental alteration.
- ii Aroclor 1242 is being reported as the best Aroclor match.
The sample exhibits an altered PCB pattern.
- iii Aroclor 1260 is being reported as the best Aroclor match.
The sample exhibits an altered PCB pattern.

¹ Form based upon NYS-DEC Form 1-CLP-PEST

1D-1¹
PCB ANALYSIS DATA SHEET

Northeast Analytical Inc.

SDG No.:

020828ALCAN

ELAP ID No.:

11078

CLIENT ID:

OU1SD05 (1-1.5)

Matrix:

SEDIMENT

LAB SAMPLE ID:

AF07017

Sample wt/vol:

2.14868 (g)

LAB FILE ID:

AF07017

% Moisture:

80.2

DATE RECEIVED:

8/28/2002

Extraction :

SW 846 METHOD 3545 (ASE)

DATE EXTRACTED:

9/7/2002

Conc. Extract Volume:

50000 (µL)

DATE ANALYZED:

9/25/2002

Injection Volume:

1.2 (µL)

DILUTION FACTOR:

10

Method:

SW-846 8082 (PCB)

SULFUR CLEANUP:

YES

GC Column : J&W, NARROWBORE CAPILLARY, DB-1, 30M; ID:0.25mm

NEA Form ID: S:\FORMS\CATB\SOIL_GC_19_083002.XLS

NEA File ID: S:\CERT02\02080123_8082A_1.XLS 1D

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/g)	Q
12674-11-2	Aroclor 1016	4.65	U
11104-28-2	Aroclor 1221	65.4 4.65	1, P U
11141-16-5	Aroclor 1232	4.65	U
53469-21-9	Aroclor 1242	109	U
12672-29-6	Aroclor 1248	4.65	U
11097-69-1	Aroclor 1254	4.65	U
11096-82-5	Aroclor 1260	14.2	U

- i Aroclor 1221 is being used to report an altered PCB pattern exhibited by the sample.
Actual Aroclor 1221 is not present in the sample, but is reported to more accurately quantify PCB present in sample that has undergone environmental alteration.
- ii Aroclor 1242 is being reported as the best Aroclor match.
The sample exhibits an altered PCB pattern.

¹ Form based upon NYS-DEC Form 1-CLP-PEST

FORM I-CLP-PCB (NEA)

1D-1¹
PCB ANALYSIS DATA SHEET

Northeast Analytical Inc.

SDG No.:

020828ALCAN

ELAP ID No.:

11078

CLIENT ID:

OU1SD05 (1.5-2)

Matrix:

SEDIMENT

LAB SAMPLE ID:

AF07018

Sample wt/vol:

1.50762 (g)

LAB FILE ID:

AF07018

% Moisture:

85.7

DATE RECEIVED:

8/28/2002

Extraction :

SW 846 METHOD 3545 (ASE)

DATE EXTRACTED:

9/7/2002

Conc. Extract Volume:

50000 (µL)

DATE ANALYZED:

9/25/2002

Injection Volume:

1.2 (µL)

DILUTION FACTOR:

2

Method:

SW-846 8082 (PCB)

SULFUR CLEANUP:

YES

GC Column : J&W, NARROWBORE CAPILLARY, DB-1, 30M; ID:0.25mm

NEA Form ID: S:\FORMS\CAT\SOIL_GC_19_083002.XLS

NEA File ID: S:\CERT02\02080123_8082A_1.XLS 1D

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/g)	Q
12674-11-2	Aroclor 1016	1.33	U
11104-28-2	Aroclor 1221	24.5 1.33	U U
11141-16-5	Aroclor 1232	1.33	U
53469-21-9	Aroclor 1242	30.4	U
12672-29-6	Aroclor 1248	1.33	U
11097-69-1	Aroclor 1254	1.33	U
11096-82-5	Aroclor 1260	5.98	U J

- i Aroclor 1221 is being used to report an altered PCB pattern exhibited by the sample.
Actual Aroclor 1221 is not present in the sample, but is reported to more accurately quantify PCB present in sample that has undergone environmental alteration.
- ii Aroclor 1242 is being reported as the best Aroclor match.
The sample exhibits an altered PCB pattern.

¹ Form based upon NYS-DEC Form 1-CLP-PEST

FORM I-CLP-PCB (NEA)

000216

1D-1¹
PCB ANALYSIS DATA SHEET

Northeast Analytical Inc.		SDG No.:	020828ALCAN
ELAP ID No.:	11078	CLIENT ID:	OU1SD RB02
Matrix:	WATER	LAB SAMPLE ID:	AF07008
Sample wt/vol:	1.040 (L)	LAB FILE ID:	AF07008R
% Moisture:		DATE RECEIVED:	8/28/02
Extraction :	CLLE	DATE EXTRACTED:	8/29/02
Conc. Extract Volume:	5000 (µL)	DATE ANALYZED:	10/15/02
Injection Volume:	0.4 (µL)	DILUTION FACTOR:	1
Method:	SW-846 8082 PCB	SULFUR CLEANUP:	YES

GC Column : J&W, NARROWBORE CAPILLARY, DB-1, 30M; ID: 0.25mm

NEA Form ID: S:\FORMS\CATB\H2O_GC11_100202.

NEA File ID: S:\CERT02\02080123_GC11_8082W.XLS 1D-1-

CAS NO.	COMPOUND	CONCENTRATION UNITS:	Q
		(µg/L)	
12674-11-2	Aroclor 1016	0.0250	U
11104-28-2	Aroclor 1221	0.0250	U
11141-16-5	Aroclor 1232	0.0250	U
53469-21-9	Aroclor 1242	0.0250	U
12672-29-6	Aroclor 1248	0.0250	U
11097-69-1	Aroclor 1254	0.0250	U
11096-82-5	Aroclor 1260	0.0250	U

1D-1¹
PCB ANALYSIS DATA SHEET

Northeast Analytical Inc.

ELAP ID No.:

11078

SDG No.:

020828ALCAN

CLIENT ID:

OU1SD08 (0-0.5)

Matrix:

SEDIMENT

LAB SAMPLE ID:

AF07023

Sample wt/vol:

6.17771 (g)

LAB FILE ID:

AF07023

% Moisture:

38.3

DATE RECEIVED:

8/28/2002

Extraction :

SW 846 METHOD 3545 (ASE)

DATE EXTRACTED:

9/10/2002

Conc. Extract Volume:

50000 (µL)

DATE ANALYZED:

9/26/2002

Injection Volume:

1.2 (µL)

DILUTION FACTOR:

1

Method:

SW-846 8082 (PCB)

SULFUR CLEANUP:

YES

GC Column : J&W, NARROWBORE CAPILLARY, DB-1, 30M; ID:0.25mm

NEA Form ID: S:\FORMS\CATB\SOIL_GC_19F_091302AL.XLS

NEA File ID: S:\CERT02\02080123_8082C.XLS 1D-1-

CAS NO.	COMPOUND	CONCENTRATION UNITS:	Q
		(µg/g)	
12674-11-2	Aroclor 1016	0.162	U
11104-28-2	Aroclor 1221	1.26 0.162	1.1
11141-16-5	Aroclor 1232	0.162	U
53469-21-9	Aroclor 1242	0.983	1.1
12672-29-6	Aroclor 1248	0.162	U
11097-69-1	Aroclor 1254	0.162	U
11096-82-5	Aroclor 1260	0.185	1.1, 1.5

- i Aroclor 1221 is being used to report an altered PCB pattern exhibited by the sample.
Actual Aroclor 1221 is not present in the sample, but is reported to more accurately quantify PCB present in sample that has undergone environmental alteration.
- ii Aroclor 1242 is being reported as the best Aroclor match.
The sample exhibits an altered PCB pattern.
- iii Aroclor 1260 is being reported as the best Aroclor match.
The sample exhibits an altered PCB pattern.

¹ Form based upon NYS-DEC Form 1-CLP-PEST

FORM I-CLP-PCB (NEA)

000060

1D-1¹ PCB ANALYSIS DATA SHEET

Northeast Analytical Inc.

ELAP ID No.:

11078

Matrix:

SEDIMENT

Sample wt/vol:

1.68201 (g)

% Moisture:

83.3

Extraction :

SW 846 METHOD 3545 (ASE)

Conc. Extract Volume:

50000 (µL)

Injection Volume:

1.2 (µL)

Method:

SW-846 8082 (PCB)

SDG No.:

020828ALCAN

CLIENT ID:

OU1SD08 (0.5-1)

LAB SAMPLE ID:

AF07024

LAB FILE ID:

AF07024

DATE RECEIVED:

8/28/2002

DATE EXTRACTED:

9/10/2002

DATE ANALYZED:

9/26/2002

DILUTION FACTOR:

1

SULFUR CLEANUP:

YES

GC Column : J&W, NARROWBORE CAPILLARY, DB-1, 30M; ID:0.25mm

NEA Form ID: S:\FORMS\CATB\SOIL_GC_19F_091302AL.XLS

NEA File ID: S:\CERT02\02080123_8082C.XLS 1D-1-

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/g)	Q
12674-11-2	Aroclor 1016	0.594	U
11104-28-2	Aroclor 1221	0.74 0.534	X, P, U
11141-16-5	Aroclor 1232	0.594	U
53469-21-9	Aroclor 1242	1.38	X, W
12672-29-6	Aroclor 1248	0.594	U
11097-69-1	Aroclor 1254	0.594	U
11096-82-5	Aroclor 1260	1.45	iii, P, U

- i Aroclor 1221 is being used to report an altered PCB pattern exhibited by the sample.
Actual Aroclor 1221 is not present in the sample, but is reported to more accurately quantify PCB present in sample that has undergone environmental alteration.
- ii Aroclor 1242 is being reported as the best Aroclor match.
The sample exhibits an altered PCB pattern.
- iii Aroclor 1260 is being reported as the best Aroclor match.
The sample exhibits an altered PCB pattern.
- iv It is not possible to distinguish if Aroclor 1242 or Aroclor 1248 was the original Aroclor in this sample that exhibits a highly altered PCB pattern. To better quantify total PCBs, Aroclor 1242 is being reported.

1D-1¹ PCB ANALYSIS DATA SHEET

Northeast Analytical Inc.

SDG No.:

020828ALCAN

ELAP ID No.:

11078

CLIENT ID:

OU1SD08 (1-1.5)

Matrix:

SEDIMENT

LAB SAMPLE ID:

AF07025

Sample wt/vol:

2.74041 (g)

LAB FILE ID:

AF07025

% Moisture:

72.9

DATE RECEIVED:

8/28/2002

Extraction :

SW 846 METHOD 3545 (ASE)

DATE EXTRACTED:

9/10/2002

Conc. Extract Volume:

50000 (µL)

DATE ANALYZED:

9/26/2002

Injection Volume:

1.2 (µL)

DILUTION FACTOR:

1

Method:

SW-846 8082 (PCB)

SULFUR CLEANUP:

YES

GC Column : J&W, NARROWBORE CAPILLARY, DB-1, 30M; ID:0.25mm

NEA Form ID: S:\FORMS\CATB\SOIL_GC_19F_091302AL.XLS

NEA File ID: S:\CERT02\02080123_8082C.XLS 1D-1-

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/g)	Q
12674-11-2	Aroclor 1016	0.365	U
11104-28-2	Aroclor 1221	0.713 0.365	1 L
11141-16-5	Aroclor 1232	0.365	U
53469-21-9	Aroclor 1242	0.365	U
12672-29-6	Aroclor 1248	0.365	U
11097-69-1	Aroclor 1254	0.365	U
11096-82-5	Aroclor 1260	0.365	U

- i Aroclor 1221 is being used to report an altered PCB pattern exhibited by the sample. Actual Aroclor 1221 is not present in the sample, but is reported to more accurately quantify PCB present in sample that has undergone environmental alteration.

1D-1¹
PCB ANALYSIS DATA SHEET

Northeast Analytical Inc.

ELAP ID No.:

11078

Matrix:

SEDIMENT

Sample wt/vol:

3.37236 (g)

% Moisture:

66.9

Extraction :

SW 846 METHOD 3545 (ASE)

Conc. Extract Volume:

50000 (µL)

Injection Volume:

1.2 (µL)

Method:

SW-846 8082 (PCB)

SDG No.:

020828ALCAN

CLIENT ID:

OU1SD08 (1.5-2)

LAB SAMPLE ID:

AF07026

LAB FILE ID:

AF07026

DATE RECEIVED:

8/28/2002

DATE EXTRACTED:

9/10/2002

DATE ANALYZED:

9/26/2002

DILUTION FACTOR:

1

SULFUR CLEANUP:

YES

GC Column : J&W, NARROWBORE CAPILLARY, DB-1, 30M; ID:0.25mm

NEA Form ID: S:\FORMS\CATB\SOIL_GC_19F_091302AL.XLS

NEA File ID: S:\CERT02\02080123_8082C.XLS 1D-1-

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/g)	Q
12674-11-2	Aroclor 1016	0.296	U
11104-28-2	Aroclor 1221	0.296	U
11141-16-5	Aroclor 1232	0.296	U
53469-21-9	Aroclor 1242	0.296	U
12672-29-6	Aroclor 1248	0.296	U
11097-69-1	Aroclor 1254	0.296	U
11096-82-5	Aroclor 1260	0.296	U

¹ Form based upon NYS-DEC Form 1-CLP-PEST

FORM I-CLP-PCB (NEA)

000089

1D-1¹ PCB ANALYSIS DATA SHEET

Northeast Analytical Inc.

ELAP ID No. :

11078

SDG No. :

020828ALCAN

CLIENT ID :

OU1SD07 (0-0.5)

Matrix :

SEDIMENT

LAB SAMPLE ID :

AF07028

Sample wt/vol :

1.06532 (g)

LAB FILE ID :

AF07028

% Moisture :

89.5

DATE RECEIVED :

8/28/2002

Extraction :

SW 846 METHOD 3545 (ASE)

DATE EXTRACTED :

9/10/2002

Conc. Extract Volume :

50000 (µL)

DATE ANALYZED :

9/26/2002

Injection Volume :

1.2 (µL)

DILUTION FACTOR :

3

Method :

SW-846 8082 (PCB)

SULFUR CLEANUP :

YES

GC Column : J&W, NARROWBORE CAPILLARY, DB-1, 30M; ID:0.25mm

NEA Form ID: S:\FORMS\CATB\SOIL_GC_19F_091302AL.XLS

NEA File ID: S:\CERT02\02080123_8082C.XLS 1D-1-

CAS NO.	COMPOUND	CONCENTRATION UNITS:	Q
		(µg/g)	
12674-11-2	Aroclor 1016	2.82	U
11104-28-2	Aroclor 1221	35.2 2.82	U <i>K, P U</i>
11141-16-5	Aroclor 1232	2.82	U
53469-21-9	Aroclor 1242	31.6	<i>U</i>
12672-29-6	Aroclor 1248	2.82	U
11097-69-1	Aroclor 1254	2.82	U
11096-82-5	Aroclor 1260	3.07	<i>U, P U</i>

- i Aroclor 1221 is being used to report an altered PCB pattern exhibited by the sample.
Actual Aroclor 1221 is not present in the sample, but is reported to more accurately quantify PCB present in sample that has undergone environmental alteration.
- ii Aroclor 1242 is being reported as the best Aroclor match.
The sample exhibits an altered PCB pattern.
- iii Aroclor 1260 is being reported as the best Aroclor match.
The sample exhibits an altered PCB pattern.

1D-1¹
PCB ANALYSIS DATA SHEET

Northeast Analytical Inc.

ELAP ID No.:

11078

SDG No.:

020828ALCAN

CLIENT ID:

OU1SD07 (0.5-1)

Matrix:

SEDIMENT

LAB SAMPLE ID:

AF07029

Sample wt/vol:

1.77202 (g)

LAB FILE ID:

AF07029

% Moisture:

82.7

DATE RECEIVED:

8/28/2002

Extraction :

SW 846 METHOD 3545 (ASE)

DATE EXTRACTED:

9/10/2002

Conc. Extract Volume:

50000 (µL)

DATE ANALYZED:

9/27/2002

Injection Volume:

1.2 (µL)

DILUTION FACTOR:

1

Method:

SW-846 8082 (PCB)

SULFUR CLEANUP:

YES

GC Column : J&W, NARROWBORE CAPILLARY, DB-1, 30M; ID:0.25mm

NEA Form ID: S:\FORMS\CATB\SOIL_GC_19F_091302AL.XLS

NEA File ID: S:\CERT02\02080123_8082C.XLS 1D-1-

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/g)	Q
12674-11-2	Aroclor 1016	0.564	U
11104-28-2	Aroclor 1221	6.43 0.564	KP U
11141-16-5	Aroclor 1232	0.564	U
53469-21-9	Aroclor 1242	2.06	ii
12672-29-6	Aroclor 1248	0.564	U
11097-69-1	Aroclor 1254	0.564	U
11096-82-5	Aroclor 1260	0.564	U

- i Aroclor 1221 is being used to report an altered PCB pattern exhibited by the sample.
Actual Aroclor 1221 is not present in the sample, but is reported to more accurately quantify PCB present in sample that has undergone environmental alteration.
- ii Aroclor 1242 is being reported as the best Aroclor match.
The sample exhibits an altered PCB pattern.

1D-1¹
PCB ANALYSIS DATA SHEET

Northeast Analytical Inc.

ELAP ID No.:

11078

SDG No.:

020828ALCAN

CLIENT ID:

OU1SD07 (1-1.5)

Matrix:

SEDIMENT

LAB SAMPLE ID:

AF07030

Sample wt/vol:

2.1526 (g)

LAB FILE ID:

AF07030

% Moisture:

78.7

DATE RECEIVED:

8/28/2002

Extraction :

SW 846 METHOD 3545 (ASE)

DATE EXTRACTED:

9/10/2002

Conc. Extract Volume:

50000 (µL)

DATE ANALYZED:

9/27/2002

Injection Volume:

1.2 (µL)

DILUTION FACTOR:

1

Method:

SW-846 8082 (PCB)

SULFUR CLEANUP:

YES

GC Column : J&W, NARROWBORE CAPILLARY, DB-1, 30M; ID:0.25mm

NEA Form ID: S:\FORMS\CATB\SOIL_GC_19F_091302AL.XLS

NEA File ID: S:\CERT02\02080123_8082C.XLS 1D-1-

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/g)	Q
12674-11-2	Aroclor 1016	0.465	U
11104-28-2	Aroclor 1221	0.465	U
11141-16-5	Aroclor 1232	0.465	U
53469-21-9	Aroclor 1242	0.465	U
12672-29-6	Aroclor 1248	0.465	U
11097-69-1	Aroclor 1254	0.465	U
11096-82-5	Aroclor 1260	0.465	U

¹ Form based upon NYS-DEC Form 1-CLP-PEST

1D-1¹
PCB ANALYSIS DATA SHEET

Northeast Analytical Inc.

ELAP ID No.:

11078

SDG No.:

020828ALCAN

CLIENT ID:

OU1SD07 (1.5-1.7)

Matrix:

SEDIMENT

LAB SAMPLE ID:

AF07031

Sample wt/vol:

3.64998 (g)

LAB FILE ID:

AF07031

% Moisture:

65.0

DATE RECEIVED:

8/28/2002

Extraction :

SW 846 METHOD 3545 (ASE)

DATE EXTRACTED:

9/10/2002

Conc. Extract Volume:

50000 (µL)

DATE ANALYZED:

9/27/2002

Injection Volume:

1.2 (µL)

DILUTION FACTOR:

1

Method:

SW-846 8082 (PCB)

SULFUR CLEANUP:

YES

GC Column : J&W, NARROWBORE CAPILLARY, DB-1, 30M; ID:0.25mm

NEA Form ID: S:\FORMS\CATB\SOIL_GC_19F_091302AL.XLS

NEA File ID: S:\CERT02\02080123_8082C.XLS 1D-1-

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/g)	Q
12674-11-2	Aroclor 1016	0.274	U
11104-28-2	Aroclor 1221	0.274	U
11141-16-5	Aroclor 1232	0.274	U
53469-21-9	Aroclor 1242	0.274	U
12672-29-6	Aroclor 1248	0.274	U
11097-69-1	Aroclor 1254	0.274	U
11096-82-5	Aroclor 1260	0.274	U

¹ Form based upon NYS-DEC Form 1-CLP-PEST

1D-1¹
PCB ANALYSIS DATA SHEET

Northeast Analytical Inc.

ELAP ID No.:

11078

SDG No.:

020828ALCAN

CLIENT ID:

OU1SD DUP3

Matrix:

SEDIMENT

LAB SAMPLE ID:

AF07032

Sample wt/vol:

1.86422 (g)

LAB FILE ID:

AF07032

% Moisture:

82.5

DATE RECEIVED:

8/28/2002

Extraction :

SW 846 METHOD 3545 (ASE)

DATE EXTRACTED:

9/10/2002

Conc. Extract Volume:

50000 (µL)

DATE ANALYZED:

9/27/2002

Injection Volume:

1.2 (µL)

DILUTION FACTOR:

1

Method:

SW-846 8082 (PCB)

SULFUR CLEANUP:

YES

GC Column : J&W, NARROWBORE CAPILLARY, DB-1, 30M; ID:0.25mm

NEA Form ID: S:\FORMS\CATB\SOIL_GC_19F_091302AL.XLS

NEA File ID: S:\CERT02\02080123_8082C.XLS 1D-1-

CAS NO.	COMPOUND	CONCENTRATION UNITS:	Q
		(µg/g)	
12674-11-2	Aroclor 1016	0.536	U
11104-28-2	Aroclor 1221	5.35 0.536	U <i>XPL</i>
11141-16-5	Aroclor 1232	0.536	U
53469-21-9	Aroclor 1242	1.35	U
12672-29-6	Aroclor 1248	0.536	U
11097-69-1	Aroclor 1254	0.536	U
11096-82-5	Aroclor 1260	0.536	U

- i Aroclor 1221 is being used to report an altered PCB pattern exhibited by the sample.
Actual Aroclor 1221 is not present in the sample, but is reported to more accurately quantify PCB present in sample that has undergone environmental alteration.
- ii Aroclor 1242 is being reported as the best Aroclor match.
The sample exhibits an altered PCB pattern.

¹ Form based upon NYS-DEC Form 1-CLP-PEST

FORM I-CLP-PCB (NEA)

1D-1¹
PCB ANALYSIS DATA SHEET

Northeast Analytical Inc.

ELAP ID No.:

11078

SDG No.:

020828ALCAN

CLIENT ID:

OU1SD06 (0-0.5)

Matrix:

SEDIMENT

LAB SAMPLE ID:

AF07033

Sample wt/vol:

3.07499 (g)

LAB FILE ID:

AF07033

% Moisture:

71.1

DATE RECEIVED:

8/28/2002

Extraction :

SW 846 METHOD 3545 (ASE)

DATE EXTRACTED:

9/10/2002

Conc. Extract Volume:

50000 (µL)

DATE ANALYZED:

9/27/2002

Injection Volume:

1.2 (µL)

DILUTION FACTOR:

100

Method:

SW-846 8082 (PCB)

SULFUR CLEANUP:

YES

GC Column : J&W, NARROWBORE CAPILLARY, DB-1, 30M; ID:0.25mm

NEA Form ID: S:\FORMS\CATB\SOIL_GC_19F_091302AL.XLS

NEA File ID: S:\CERT02\02080123_8082C.XLS 1D-1.

CAS NO.	COMPOUND	CONCENTRATION UNITS:	Q
		(µg/g)	
12674-11-2	Aroclor 1016	32.5	U
11104-28-2	Aroclor 1221	444 32.5	K/P U
11141-16-5	Aroclor 1232	32.5	U
53469-21-9	Aroclor 1242	223	X
12672-29-6	Aroclor 1248	32.5	U
11097-69-1	Aroclor 1254	32.5	U
11096-82-5	Aroclor 1260	32.5	U

- i Aroclor 1221 is being used to report an altered PCB pattern exhibited by the sample.
Actual Aroclor 1221 is not present in the sample, but is reported to more accurately quantify PCB present in sample that has undergone environmental alteration.
- ii Aroclor 1242 is being reported as the best Aroclor match.
The sample exhibits an altered PCB pattern.

1D-1¹
PCB ANALYSIS DATA SHEET

Northeast Analytical Inc.

ELAP ID No.:

11078

Matrix:

SEDIMENT

Sample wt/vol:

1.63002 (g)

% Moisture:

84.2

Extraction :

SW 846 METHOD 3545 (ASE)

Conc. Extract Volume:

50000 (µL)

Injection Volume:

1.2 (µL)

Method:

SW-846 8082 (PCB)

SDG No.:

020828ALCAN

CLIENT ID:

OU1SD06 (0.5-1)

LAB SAMPLE ID:

AF07034

LAB FILE ID:

AF07034

DATE RECEIVED:

8/28/2002

DATE EXTRACTED:

9/10/2002

DATE ANALYZED:

9/27/2002

DILUTION FACTOR:

10

SULFUR CLEANUP:

YES

GC Column : J&W, NARROWBORE CAPILLARY, DB-1, 30M; ID:0.25mm

NEA Form ID: S:\FORMS\CATB\SOIL_GC_19F_091302AL.XLS

NEA File ID: S:\CERT02\02080123_8082C.XLS 1D-1-

CAS NO.	COMPOUND	CONCENTRATION UNITS:	Q
		(µg/g)	
12674-11-2	Aroclor 1016	6.14	U
11104-28-2	Aroclor 1221	416 6.14	X U
11141-16-5	Aroclor 1232	6.14	U
53469-21-9	Aroclor 1242	42.8	X
12672-29-6	Aroclor 1248	6.14	U
11097-69-1	Aroclor 1254	6.14	U
11096-82-5	Aroclor 1260	6.14	U

- i Aroclor 1221 is being used to report an altered PCB pattern exhibited by the sample.
Actual Aroclor 1221 is not present in the sample, but is reported to more accurately quantify PCB present in sample that has undergone environmental alteration.
- ii Aroclor 1242 is being reported as the best Aroclor match.
The sample exhibits an altered PCB pattern.

1D-1¹
PCB ANALYSIS DATA SHEET

Northeast Analytical Inc.

ELAP ID No.:

11078

SDG No.:

020828ALCAN

CLIENT ID:

OU1SD06 (1-1.5)

Matrix:

SEDIMENT

LAB SAMPLE ID:

AF07035

Sample wt/vol:

1.68918 (g)

LAB FILE ID:

AF07035

% Moisture:

83.9

DATE RECEIVED:

8/28/2002

Extraction :

SW 846 METHOD 3545 (ASE)

DATE EXTRACTED:

9/20/2002

Conc. Extract Volume:

50000 (µL)

DATE ANALYZED:

9/27/2002

Injection Volume:

1.2 (µL)

DILUTION FACTOR:

3

Method:

SW-846 8082 (PCB)

SULFUR CLEANUP:

YES

GC Column : J&W, NARROWBORE CAPILLARY, DB-1, 30M; ID:0.25mm

NEA Form ID: S:\FORMS\CATB\SOIL_GC_19F_091302AL.XLS

NEA File ID: S:\CERT02\02080123_8082C.XLS 1D-1.

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/g)	Q
12674-11-2	Aroclor 1016	1.78	µg/g
11104-28-2	Aroclor 1221	48.51.78	XPL
11141-16-5	Aroclor 1232	1.78	µg/g
53469-21-9	Aroclor 1242	14.6	µg/g
12672-29-6	Aroclor 1248	1.78	µg/g
11097-69-1	Aroclor 1254	1.78	µg/g
11096-82-5	Aroclor 1260	1.78	µg/g

- i Aroclor 1221 is being used to report an altered PCB pattern exhibited by the sample.
Actual Aroclor 1221 is not present in the sample, but is reported to more accurately quantify PCB present in sample that has undergone environmental alteration.
- ii Aroclor 1242 is being reported as the best Aroclor match.
The sample exhibits an altered PCB pattern.

1D-1¹
PCB ANALYSIS DATA SHEET

Northeast Analytical Inc.

ELAP ID No.:

11078

SDG No.:

020828ALCAN

CLIENT ID:

OU1SD06 (1.5-2)

Matrix:

SEDIMENT

LAB SAMPLE ID:

AF07036

Sample wt/vol:

1.7067 (g)

LAB FILE ID:

AF07036

% Moisture:

83.9

DATE RECEIVED:

8/28/2002

Extraction :

SW 846 METHOD 3545 (ASE)

DATE EXTRACTED:

9/20/2002

Conc. Extract Volume:

50000 (µL)

DATE ANALYZED:

9/27/2002

Injection Volume:

1.2 (µL)

DILUTION FACTOR:

1

Method:

SW-846 8082 (PCB)

SULFUR CLEANUP:

YES

GC Column : J&W, NARROWBORE CAPILLARY, DB-1, 30M; ID:0.25mm

NEA Form ID: S:\FORMS\CATB\SOIL_GC_19F_091302AL.XLS

NEA File ID: S:\CERT02\02080123_8082C.XLS 1D-1-

CAS NO.	COMPOUND	CONCENTRATION UNITS:	Q
		(µg/g)	
12674-11-2	Aroclor 1016	0.586	Y UJ
11104-28-2	Aroclor 1221	3.35 0.586	XPL
11141-16-5	Aroclor 1232	0.586	Y UJ
53469-21-9	Aroclor 1242	0.586	Y UJ
12672-29-6	Aroclor 1248	0.586	Y UJ
11097-69-1	Aroclor 1254	0.586	Y UJ
11096-82-5	Aroclor 1260	0.586	Y UJ

i Aroclor 1221 is being used to report an altered PCB pattern exhibited by the sample.

Actual Aroclor 1221 is not present in the sample, but is reported to more accurately quantify PCB present in sample that has undergone environmental alteration.

1D-1¹
PCB ANALYSIS DATA SHEET

Northeast Analytical Inc.		SDG No.:	020828ALCAN
ELAP ID No.:	11078	CLIENT ID:	OU1SD RB03
Matrix:	WATER	LAB SAMPLE ID:	AF07040
Sample wt/vol:	1.080 (L)	LAB FILE ID:	AF07040R
% Moisture:		DATE RECEIVED:	8/28/02
Extraction :	CLLE	DATE EXTRACTED:	8/29/02
Conc. Extract Volume:	5000 (µL)	DATE ANALYZED:	10/15/02
Injection Volume:	0.4 (µL)	DILUTION FACTOR:	1
Method:	SW-846 8082 PCB	SULFUR CLEANUP:	YES

GC Column : J&W, NARROWBORE CAPILLARY, DB-1, 30M; ID: 0.25mm

NEA Form ID: S:\FORMS\CAT\BH2O_GC11_100202.

NEA File ID: S:\CERT02\02080123_GC11_8082W.XLS 1D-1-2

CAS NO.	COMPOUND	CONCENTRATION UNITS:	Q
		(µg/L)	
12674-11-2	Aroclor 1016	0.0250	U
11104-28-2	Aroclor 1221	0.0250	U
11141-16-5	Aroclor 1232	0.0250	U
53469-21-9	Aroclor 1242	0.0250	U
12672-29-6	Aroclor 1248	0.0250	U
11097-69-1	Aroclor 1254	0.0250	U
11096-82-5	Aroclor 1260	0.0250	U

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ENVIRONMENTAL LAB SERVICES

2190 Technology Drive, Schenectady, NY 12308

(518) 346-4592 • FAX: (518) 381-6055

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09/11/2002

ALCAN ALUMINUM CORPORATION

OSWEGO WORKS, PO BOX 28

448 COUNTY ROUTE 1A

OSWEGO, NY 13126

CONTACT: DAVID NEUNER

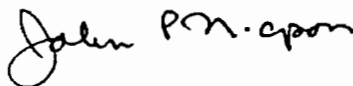
MATRIX : SEDIMENT PROJECT: OU1 SEDIMENT INVESTIGATION
DATE RECEIVED: 08/28/2002 TIME: 10:30 LOCATION: OSWEGO, NY
SAMPLED BY: J. GUTKOWSKI LAB ELAP #: 11078
CUSTOMER PO: N/A

NEA ID	CUSTOMER ID	METHOD	DATE SAMPLED	TIME SAMPLED	RESULTS	PQL	UNITS	DATE ANALYZED
Total Organic Carbon								
AF06999	OU1SD01 (0'-0.5')	EPA Lloyd Kahn	08/26/2002	09:30	65600	2290	mg/kg	09/07/2002
AF07000	OU1SD01 (0.5'-1.0')	EPA Lloyd Kahn	08/26/2002	09:30	110000	1480	mg/kg	09/06/2002
AF07001	OU1SD01 (1.0'-1.5')	EPA Lloyd Kahn	08/26/2002	09:30	92300	745	mg/kg	09/06/2002
AF07002	OU1SD01 (1.5'-1.9')	EPA Lloyd Kahn	08/26/2002	09:30	22800	384	mg/kg	09/06/2002
AF07003	OU1SD02 (0'-0.5')	EPA Lloyd Kahn	08/26/2002	11:30	51300	505	mg/kg	09/06/2002
AF07004	OU1SD02 (0.5'-1.0')	EPA Lloyd Kahn	08/26/2002	11:30	33100	950	mg/kg	09/06/2002
AF07005	OU1SD02 (1.0'-1.5')	EPA Lloyd Kahn	08/26/2002	11:30	21600	288	mg/kg	09/06/2002
AF07006	OU1SD02 (1.5'-2.1')	EPA Lloyd Kahn	08/26/2002	11:30	77000	786	mg/kg	09/06/2002
AF07007	OU1SD DUP2	EPA Lloyd Kahn	08/26/2002	N/A	108000	1000	mg/kg	09/06/2002
AF07009	OU1SD04 (0-0.5)	EPA Lloyd Kahn	08/27/2002	09:00	141000	3030	mg/kg	09/06/2002
AF07010	OU1SD04 (0.5-1)	EPA Lloyd Kahn	08/27/2002	09:00	75800	910	mg/kg	09/06/2002
AF07011	OU1SD04 (1-1.2)	EPA Lloyd Kahn	08/27/2002	09:00	11900	325	mg/kg	09/06/2002
AF07012	OU1SD03 (0-0.5)	EPA Lloyd Kahn	08/27/2002	09:30	50900	1370	mg/kg	09/06/2002
AF07013	OU1SD03 (0.5-1)	EPA Lloyd Kahn	08/27/2002	09:30	334000	7160	mg/kg	09/06/2002
AF07014	OU1SD03 (1-1.3)	EPA Lloyd Kahn	08/27/2002	09:30	161000	1330	mg/kg	09/06/2002
AF07015	OU1SD05 (0-0.5)	EPA Lloyd Kahn	08/27/2002	10:30	188000	1780	mg/kg	09/06/2002
AF07016	OU1SD05 (0.5-1)	EPA Lloyd Kahn	08/27/2002	10:30	628000	5970	mg/kg	09/07/2002
AF07017	OU1SD05 (1-1.5)	EPA Lloyd Kahn	08/27/2002	10:30	446000	6410	mg/kg	09/07/2002
AF07018	OU1SD05 (1.5-2)	EPA Lloyd Kahn	08/27/2002	10:30	437000	9730	mg/kg	09/07/2002

Note: ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL

PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample

AUTHORIZED SIGNATURE:



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Robert E. Wagner, Laboratory Director

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000685

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ENVIRONMENTAL LAB SERVICES

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09/12/2002

ALCAN ALUMINUM CORPORATION

OSWEGO WORKS, PO BOX 28

448 COUNTY ROUTE 1A

OSWEGO, NY 13126

CONTACT: DAVID NEUNER

MATRIX : SEDIMENT **PROJECT:** OU1 SEDIMENT INVESTIGATION
DATE RECEIVED: 08/28/2002 **TIME:** 10:30 **LOCATION:** OSWEGO, NY
SAMPLED BY: R. KUHN **LAB ELAP #:** 11078
CUSTOMER PO: N/A

NEA ID	CUSTOMER ID	METHOD	DATE SAMPLED	TIME SAMPLED	RESULTS	PQL	UNITS	DATE ANALYZED
Total Organic Carbon								
AF07019	OU1SD05 (2-2.5)	EPA Lloyd Kahn	08/27/2002	10:30	450000	9670	mg/kg	09/07/2002
AF07020	OU1SD05 (2.5-3)	EPA Lloyd Kahn	08/27/2002	10:30	384000	6100	mg/kg	09/07/2002
AF07021	OU1SD05 (3-3.5)	EPA Lloyd Kahn	08/27/2002	10:30	308000	5320	mg/kg	09/07/2002
AF07022	OU1SD05 (3.5-4.2)	EPA Lloyd Kahn	08/27/2002	10:30	315000	6140	mg/kg	09/07/2002
AF07023	OU1SD08 (0-0.5)	EPA Lloyd Kahn	08/27/2002	12:30	11100	1050	mg/kg	09/09/2002
AF07024	OU1SD08 (0.5-1)	EPA Lloyd Kahn	08/27/2002	12:30	230000	3850	mg/kg	09/09/2002
AF07025	OU1SD08 (1-1.5)	EPA Lloyd Kahn	08/27/2002	12:30	212000	2590	mg/kg	09/09/2002
AF07026	OU1SD08 (1.5-2)	EPA Lloyd Kahn	08/27/2002	12:30	156000	2290	mg/kg	09/09/2002
AF07028	OU1SD07 (0-0.5)	EPA Lloyd Kahn	08/27/2002	13:00	419000	17900	mg/kg	09/09/2002
AF07029	OU1SD07 (0.5-1)	EPA Lloyd Kahn	08/27/2002	13:00	410000	3920	mg/kg	09/09/2002
AF07030	OU1SD07 (1-1.5)	EPA Lloyd Kahn	08/27/2002	13:00	340000	4590	mg/kg	09/09/2002
AF07031	OU1SD07 (1.5-1.7)	EPA Lloyd Kahn	08/27/2002	13:00	145000	2320	mg/kg	09/09/2002
AF07032	OU1SD DUP3	EPA Lloyd Kahn	08/27/2002	N/A	392000	5230	mg/kg	09/09/2002
AF07033	OU1SD06 (0-0.5)	EPA Lloyd Kahn	08/27/2002	14:00	123000	3290	mg/kg	09/09/2002
AF07034	OU1SD06 (0.5-1)	EPA Lloyd Kahn	08/27/2002	14:00	471000	7660	mg/kg	09/09/2002
AF07035	OU1SD06 (1-1.5)	EPA Lloyd Kahn	08/27/2002	14:00	577000	10900	mg/kg	09/09/2002
AF07036	OU1SD06 (1.5-2)	EPA Lloyd Kahn	08/27/2002	14:00	454000	6190	mg/kg	09/09/2002
AF07037	OU1SD06 (2-2.5)	EPA Lloyd Kahn	08/27/2002	14:00	538000	5630	mg/kg	09/09/2002
AF07038	OU1SD06 (2.5-3)	EPA Lloyd Kahn	08/27/2002	14:00	417000	17800	mg/kg	09/09/2002
AF07039	OU1SD06 (3-3.5)	EPA Lloyd Kahn	08/27/2002	14:00	499000	15300	mg/kg	09/09/2002

Note: ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL

PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample

AUTHORIZED SIGNATURE:



Northeast Analytical, Inc.

Robert E. Wagner, Laboratory Director

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ENVIRONMENTAL LAB SERVICES

2190 Technology Drive, Schenectady, NY 12308

(518) 346-4592 • FAX: (518) 381-6055

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10/03/2002

ALCAN ALUMINUM CORPORATION

OSWEGO WORKS, PO BOX 28

448 COUNTY ROUTE 1A

OSWEGO, NY 13126

CONTACT: DAVID NEUNER

MATRIX : WATER **PROJECT:** OU1 SEDIMENT INVESTIGATION
DATE RECEIVED: 08/28/2002 **TIME:** 10:30 **LOCATION:** OSWEGO, NY
SAMPLED BY: J. GUTKOWSKI **LAB ELAP #:** 11078
CUSTOMER PO: N/A

NEA ID	CUSTOMER ID	METHOD	DATE SAMPLED	TIME SAMPLED	RESULTS	PQL	UNITS	DATE ANALYZED
Total Organic Carbon								
AF07008	OU1SD RB02	EPA 415.1	08/26/2002	12:00	ND	0.966	mg/L	09/05/2002
AF07040	OU1SD RB03	EPA 415.1	08/27/2002	15:00	ND	0.966	mg/L	09/05/2002

Note: ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL

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000668

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ALCAN ALUMINUM CORPORATION

OSWEGO WORKS, PO BOX 28

448 COUNTY ROUTE 1A

OSWEGO, NY 13126

CONTACT: DAVID NEUNER

MATRIX : SEDIMENT **PROJECT:** OU1 SEDIMENT INVESTIGATION
DATE RECEIVED: 08/28/2002 **TIME:** 10:30 **LOCATION:** OSWEGO, NY
SAMPLED BY: J. GUTKOWSKI **LAB ELAP #:** 11078
CUSTOMER PO: N/A

NEA ID	CUSTOMER ID	METHOD	DATE SAMPLED	TIME SAMPLED	RESULTS	PQL	UNITS	DATE ANALYZED
Percent Organic Content								
AF07003	OU1SD02 (0'-0.5')	ASTM D2974	08/26/2002	11:30	7.93	N/A	%	09/06/2002
AF07004	OU1SD02 (0.5'-1.0')	ASTM D2974	08/26/2002	11:30	8.81	N/A	%	09/06/2002
AF07005	OU1SD02 (1.0'-1.5')	ASTM D2974	08/26/2002	11:30	3.67	N/A	%	09/06/2002
AF07006	OU1SD02 (1.5'-2.1')	ASTM D2974	08/26/2002	11:30	15.2	N/A	%	09/06/2002
AF07012	OU1SD03 (0-0.5)	ASTM D2974	08/27/2002	09:30	35.6	N/A	%	09/06/2002
AF07013	OU1SD03 (0.5-1)	ASTM D2974	08/27/2002	09:30	52.2	N/A	%	09/06/2002
AF07014	OU1SD03 (1-1.3)	ASTM D2974	08/27/2002	09:30	33.1	N/A	%	09/06/2002
AF07015	OU1SD05 (0-0.5)	ASTM D2974	08/27/2002	10:30	51.5	N/A	%	09/06/2002
AF07016	OU1SD05 (0.5-1)	ASTM D2974	08/27/2002	10:30	67.7	N/A	%	09/06/2002
AF07017	OU1SD05 (1-1.5)	ASTM D2974	08/27/2002	10:30	66.2	N/A	%	09/06/2002
AF07018	OU1SD05 (1.5-2)	ASTM D2974	08/27/2002	10:30	74.0	N/A	%	09/06/2002
AF07019	OU1SD05 (2-2.5)	ASTM D2974	08/27/2002	10:30	68.4	N/A	%	09/06/2002
AF07020	OU1SD05 (2.5-3)	ASTM D2974	08/27/2002	10:30	62.1	N/A	%	09/06/2002
AF07021	OU1SD05 (3-3.5)	ASTM D2974	08/27/2002	10:30	44.7	N/A	%	09/06/2002
AF07022	OU1SD05 (3.5-4.2)	ASTM D2974	08/27/2002	10:30	53.5	N/A	%	09/06/2002
AF07023	OU1SD08 (0-0.5)	ASTM D2974	08/27/2002	12:30	4.64	N/A	%	09/06/2002
AF07024	OU1SD08 (0.5-1)	ASTM D2974	08/27/2002	12:30	47.4	N/A	%	09/06/2002
AF07025	OU1SD08 (1-1.5)	ASTM D2974	08/27/2002	12:30	35.8	N/A	%	09/06/2002
AF07026	OU1SD08 (1.5-2)	ASTM D2974	08/27/2002	12:30	26.6	N/A	%	09/06/2002
AF07027	OU1SDGS DUPI	ASTM D2974	08/27/2002	N/A	6.44	N/A	%	09/06/2002

Note: ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL

PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample

AUTHORIZED SIGNATURE:



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Robert E. Wagner, Laboratory Director

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09/09/2002

ALCAN ALUMINUM CORPORATION

OSWEGO WORKS, PO BOX 28

448 COUNTY ROUTE 1A

OSWEGO, NY 13126

CONTACT: DAVID NEUNER

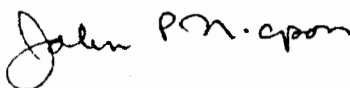
MATRIX : SEDIMENT **PROJECT:** OU1 SEDIMENT INVESTIGATION
DATE RECEIVED: 08/28/2002 **TIME:** 10:30 **LOCATION:** OSWEGO, NY
SAMPLED BY: J. GUTKOWSKI **LAB ELAP #:** 11078
CUSTOMER PO: N/A

NEA ID	CUSTOMER ID	METHOD	DATE SAMPLED	TIME SAMPLED	RESULTS	PQL	UNITS	DATE ANALYZED
Percent Organic Content								
AF07003	OU1SD02 (0'-0.5')	ASTM D2974	08/26/2002	11:30	7.93	N/A	%	09/06/2002
AF07004	OU1SD02 (0.5'-1.0')	ASTM D2974	08/26/2002	11:30	8.81	N/A	%	09/06/2002
AF07005	OU1SD02 (1.0'-1.5')	ASTM D2974	08/26/2002	11:30	3.67	N/A	%	09/06/2002
AF07006	OU1SD02 (1.5'-2.1')	ASTM D2974	08/26/2002	11:30	15.2	N/A	%	09/06/2002
AF07012	OU1SD03 (0-0.5)	ASTM D2974	08/27/2002	09:30	35.6	N/A	%	09/06/2002
AF07013	OU1SD03 (0.5-1)	ASTM D2974	08/27/2002	09:30	52.2	N/A	%	09/06/2002
AF07014	OU1SD03 (1-1.3)	ASTM D2974	08/27/2002	09:30	33.1	N/A	%	09/06/2002
AF07015	OU1SD05 (0-0.5)	ASTM D2974	08/27/2002	10:30	51.5	N/A	%	09/06/2002
AF07016	OU1SD05 (0.5-1)	ASTM D2974	08/27/2002	10:30	67.7	N/A	%	09/06/2002
AF07017	OU1SD05 (1-1.5)	ASTM D2974	08/27/2002	10:30	66.2	N/A	%	09/06/2002
AF07018	OU1SD05 (1.5-2)	ASTM D2974	08/27/2002	10:30	74.0	N/A	%	09/06/2002
AF07019	OU1SD05 (2-2.5)	ASTM D2974	08/27/2002	10:30	68.4	N/A	%	09/06/2002
AF07020	OU1SD05 (2.5-3)	ASTM D2974	08/27/2002	10:30	62.1	N/A	%	09/06/2002
AF07021	OU1SD05 (3-3.5)	ASTM D2974	08/27/2002	10:30	44.7	N/A	%	09/06/2002
AF07022	OU1SD05 (3.5-4.2)	ASTM D2974	08/27/2002	10:30	53.5	N/A	%	09/06/2002
AF07023	OU1SD08 (0-0.5)	ASTM D2974	08/27/2002	12:30	4.64	N/A	%	09/06/2002
AF07024	OU1SD08 (0.5-1)	ASTM D2974	08/27/2002	12:30	47.4	N/A	%	09/06/2002
AF07025	OU1SD08 (1-1.5)	ASTM D2974	08/27/2002	12:30	35.8	N/A	%	09/06/2002
AF07026	OU1SD08 (1.5-2)	ASTM D2974	08/27/2002	12:30	26.6	N/A	%	09/06/2002
AF07027	OU1SDGS DUP1	ASTM D2974	08/27/2002	N/A	6.44	N/A	%	09/06/2002

Note: ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL

PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample

AUTHORIZED SIGNATURE:



Northeast Analytical, Inc.

Robert E. Wagner, Laboratory Director

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09/24/2002

ALCAN ALUMINUM CORPORATION
OSWEGO WORKS, PO BOX 28
448 COUNTY ROUTE 1A
OSWEGO, NY 13126
CONTACT: DAVID NEUNER

MATRIX : SEDIMENT

DATE SAMPLED: 08/26/2002

DATE RECEIVED: 08/28/2002 TIME: 10:30

PROJECT: OU1 SEDIMENT INVESTIGATION

SAMPLED BY: J. GUTKOWSKI

LOCATION: OSWEGO, NY

CUSTOMER PO #: N/A

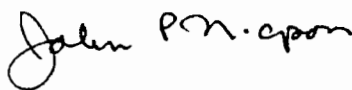
LAB ELAP #: 11078

NEA ID	CUSTOMER ID	METHOD	RESULTS	DATE ANALYZED
Specific Gravity 20°C				
AF07003	OU1SD02 (0'-0.5')	ASTM D854-00	2.49	09/19/2002
AF07004	OU1SD02 (0.5'-1.0')	ASTM D854-00	2.48	09/19/2002
AF07005	OU1SD02 (1.0'-1.5')	ASTM D854-00	2.55	09/19/2002
AF07006	OU1SD02 (1.5'-2.1')	ASTM D854-00	2.38	09/23/2002
AF07012	OU1SD03 (0-0.5)	ASTM D854-00	1.99	09/19/2002
AF07013	OU1SD03 (0.5-1)	ASTM D854-00	1.89	09/19/2002
AF07014	OU1SD03 (1-1.3)	ASTM D854-00	2.13	09/23/2002
AF07015	OU1SD05 (0-0.5)	ASTM D854-00	1.90	09/23/2002
AF07016	OU1SD05 (0.5-1)	ASTM D854-00	1.32	09/23/2002
AF07017	OU1SD05 (1-1.5)	ASTM D854-00	1.56	09/23/2002
AF07018	OU1SD05 (1.5-2)	ASTM D854-00	1.51	09/23/2002
AF07019	OU1SD05 (2-2.5)	ASTM D854-00	1.67	09/23/2002
AF07020	OU1SD05 (2.5-3)	ASTM D854-00	1.67	09/23/2002
AF07021	OU1SD05 (3-3.5)	ASTM D854-00	1.79	09/23/2002
AF07022	OU1SD05 (3.5-4.2)	ASTM D854-00	2.10	09/23/2002
AF07023	OU1SD08 (0-0.5)	ASTM D854-00	2.47	09/23/2002
AF07024	OU1SD08 (0.5-1)	ASTM D854-00	1.94	09/23/2002
AF07025	OU1SD08 (1-1.5)	ASTM D854-00	1.99	09/23/2002
AF07026	OU1SD08 (1.5-2)	ASTM D854-00	2.43	09/24/2002
AF07027	OU1SDGS DUPI	ASTM D854-00	2.54	09/24/2002

Note: ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL

PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample

AUTHORIZED SIGNATURE:



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ENVIRONMENTAL LAB SERVICES

2190 Technology Drive, Schenectady, NY 12308

(518) 346-4592 • FAX: (518) 381-6055

CERTIFICATE OF ANALYSIS

09/24/2002

ALCAN ALUMINUM CORPORATION

OSWEGO WORKS, PO BOX 28

448 COUNTY ROUTE 1A

OSWEGO, NY 13126

CONTACT: DAVID NEUNER

MATRIX : SEDIMENT

DATE SAMPLED: 08/26/2002

DATE RECEIVED: 08/28/2002 TIME: 10:30

PROJECT: OU1 SEDIMENT INVESTIGATION

SAMPLED BY: J. GUTKOWSKI

LOCATION: OSWEGO, NY

CUSTOMER PO #: N/A

LAB ELAP #: 11078

NEA ID	CUSTOMER ID	METHOD	RESULTS	DATE ANALYZED
Specific Gravity 20°C				
AF07003	OU1SD02 (0'-0.5')	ASTM D854-00	2.49	09/19/2002
AF07004	OU1SD02 (0.5'-1.0')	ASTM D854-00	2.48	09/19/2002
AF07005	OU1SD02 (1.0'-1.5')	ASTM D854-00	2.55	09/19/2002
AF07006	OU1SD02 (1.5'-2.1')	ASTM D854-00	2.38	09/23/2002
AF07012	OU1SD03 (0-0.5)	ASTM D854-00	1.99	09/19/2002
AF07013	OU1SD03 (0.5-1)	ASTM D854-00	1.89	09/19/2002
AF07014	OU1SD03 (1-1.3)	ASTM D854-00	2.13	09/23/2002
AF07015	OU1SD05 (0-0.5)	ASTM D854-00	1.90	09/23/2002
AF07016	OU1SD05 (0.5-1)	ASTM D854-00	1.32	09/23/2002
AF07017	OU1SD05 (1-1.5)	ASTM D854-00	1.56	09/23/2002
AF07018	OU1SD05 (1.5-2)	ASTM D854-00	1.51	09/23/2002
AF07019	OU1SD05 (2-2.5)	ASTM D854-00	1.67	09/23/2002
AF07020	OU1SD05 (2.5-3)	ASTM D854-00	1.67	09/23/2002
AF07021	OU1SD05 (3-3.5)	ASTM D854-00	1.79	09/23/2002
AF07022	OU1SD05 (3.5-4.2)	ASTM D854-00	2.10	09/23/2002
AF07023	OU1SD08 (0-0.5)	ASTM D854-00	2.47	09/23/2002
AF07024	OU1SD08 (0.5-1)	ASTM D854-00	1.94	09/23/2002
AF07025	OU1SD08 (1-1.5)	ASTM D854-00	1.99	09/23/2002
AF07026	OU1SD08 (1.5-2)	ASTM D854-00	2.43	09/24/2002
AF07027	OU1SDGS DUP1	ASTM D854-00	2.54	09/24/2002

Note: ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL

PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample

AUTHORIZED SIGNATURE:



Northeast Analytical, Inc.

Robert E. Wagner, Laboratory Director

000669

October 7, 2002

Sample Delivery Group Case Narrative

This sample delivery group consists of sediment samples received for Polychlorinated Biphenyl (PCB) analysis on August 23, 2002 and includes assigned Sample Delivery Group: 020828ALCAN. The samples are from Project Name: ALCAN OU1 Sediment Investigation, Project Location: ALCAN, Oswego, NY. The samples were delivered to the lab via FEDEX delivery service on August 28, 2002. All samples were received by the laboratory intact and within holding times.

This sample delivery group consists of the following samples:

<u>NEA Sample ID:</u>	<u>Client Sample ID:</u>
AF06999	OU1SD01 (0'-0.5')
AF07000	OU1SD01 (0.5'-1.0')
AF07001	OU1SD01 (1.0'-1.5')
AF07002	OU1SD01 (1.5'-1.9')
AF07003	OU1SD02 (0'-0.5')
AF07004	OU1SD02 (0.5'-1.0')
AF07005	OU1SD02 (1.0'-1.5')
AF07006	OU1SD02 (1.5'-2.1')
AF07007	OU1SD DUP2
AF07009	OU1SD04 (0-0.5)
AF07010	OU1SD04 (0.5-1)
AF07011	OU1SD04 (1-1.2)
AF07012	OU1SD03 (0-0.5)
AF07013	OU1SD03 (0.5-1)
AF07014	OU1SD03 (1-1.3)
AF07015	OU1SD05 (0-0.5)
AF07016	OU1SD05 (0.5-1)
AF07017	OU1SD05 (1-1.5)
AF07018	OU1SD05 (1.5-2)

PCB Analysis EPA Method 8082/SURCO Cleanup Method

Analysis for PCB Aroclors was performed by EPA Method 8082 with secondary GC column confirmation analysis. The Accelerated Solvent Extraction Method (EPA 3545) was employed for the sediment samples.

An Alumina Column Extract Cleanup/Separation procedure developed by Dr. James Pagano of the State University College at Oswego (SUNY-ERC Method) was employed for the samples. This cleanup procedure was performed to reduce chromatographic interference from petroleum hydrocarbons and polychlorinated terphenyls (PCTs) known to be present at the study site. Reference chromatograms for PCT and the PCT Surrogate "Sentinel" are provided for visual comparison to actual samples for assessment of PCT breakthrough during the Alumina column cleanup process.

The following technical and administrative items were noted for the analysis:

- 1.) The percent recovery for both TCMX and DCBP surrogate compounds were diluted several samples due to the high concentration of PCB contained in the samples. Please see Form 2- Surrogate Recovery for details.
- 2.) The DCBP surrogate percent recovery was below lab-established limits for the secondary G.C. column analysis for several samples due to chromatographic interference from the sample matrix. Please see Form 2 for details.
- 3.) The percent difference between the concentrations for the Primary and Secondary G.C. column exceeded the protocol default limit (25%) for several samples. The affected concentration results

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were flagged (P) on the associated Form 1. Please see Forms 10 and Forms 1 for details for each sample.

- 4.) Aroclor quantitation notes (footnotes: "i", "ii" and "iii") were applied to samples in this delivery group to denote that altered Aroclor patterns were observed and to describe the Total Aroclor quantitation scheme that was employed for each samples.
- 5.) Samples (NEA ID: AF07000, AF07004, and AF07005) were re-processed through the Alumina Column procedure using 0.5 mL of the sample extract instead of the usual 1.0 mL due to PCT breakthrough observed in the initial analysis of the samples.

Qualifier Summary:

I. CLP Organic analysis qualifiers were used for all Organics analyses.

This Case Narrative was prepared by,



William A. Kotas

Quality Assurance Officer

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October 23, 2002

Sample Delivery Group Case Narrative

This sample delivery group consists of sediment samples and associated aqueous rinse blank samples received for analysis on August 28, 2002 and includes assigned Sample Delivery Group: 020828ALCAN. The samples are from Project Name: ALCAN OUI Sediment Investigation, Project Location: ALCAN, Oswego, NY. The samples were delivered to the lab via FEDEX delivery service on August 28, 2002. All samples were received by the laboratory intact and within holding times.

Note: Samples AF07019, AF07020, AF07021, AF07022, AF07037, AF07038, and AF07039 were placed on hold by the client, no analytical results for PCB analysis are provided for these samples in this data summary report.

This sample delivery group consists of the following samples:

<u>NEA Sample ID:</u>	<u>Client Sample ID:</u>
AF07023	OU1SD08 (0-0.5)
AF07024	OU1SD08 (0.5-1)
AF07025	OU1SD08 (1-1.5)
AF07026	OU1SD08 (1.5-2)
AF07027	OU1SDGS DUP1
AF07028	OU1SD07 (0-0.5)
AF07029	OU1SD07 (0.5-1)
AF07030	OU1SD07 (1-1.5)
AF07031	OU1SD07 (1.5-1.7)
AF07032	OU1SD DUP3
AF07033	OU1SD06 (0-0.5)
AF07034	OU1SD06 (0.5-1)
AF07035	OU1SD06 (1-1.5)
AF07036	OU1SD06 (1.5-2)
AF07037	OU1SD06 (2-2.5)
AF07038	OU1SD06 (2.5-3)
AF07039	OU1SD06 (3-3.5)
AF07040	OU1SD RB03

PCB Analysis EPA Method 8082/SURCO Cleanup Method

Analysis for PCB Aroclors was performed by EPA Method 8082 with secondary GC column confirmation analysis. The Accelerated Solvent Extraction Method (EPA 3545) was employed for the sediment samples and the Continuous Liquid Liquid Extraction Method (EPA 3520C) was employed for the aqueous rinse blank samples.

An Alumina Column Extract Cleanup/Separation procedure developed by Dr. James Pagano of the State University College at Oswego (SUNY-ERC Method) was employed for the samples. This cleanup procedure was performed to reduce chromatographic interference from petroleum hydrocarbons and polychlorinated terphenyls (PCTs) known to be present at the study site. Reference chromatograms for PCT and the PCT Surrogate "Sentinel" are provided for visual comparison to actual samples for assessment of PCT breakthrough during the Alumina column cleanup process.

The following technical and administrative items were noted for the analysis:

- 1.) The percent recoveries for both TCMX and DCBP surrogate compounds were diluted out for several samples due to the high concentration of PCB contained in the samples (please see Form 2 for details).

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- 2.) The percent recovery for the DCBP surrogate was below lab-established limits for the secondary confirmation G.C. column analysis for several samples due to sample matrix interference (please see Form 2 for details).
- 3.) The percent difference between the concentrations for the Primary and Secondary G.C. column exceeded the protocol default limit (25%) for several samples. The affected concentration results were flagged (P) on the associated Form 1. Please see Forms 10 and Forms 1 for details for the samples.
- 4.) Aroclor quantitation notes (footnotes: "i", "ii", and "iii") were applied to several samples to denote that altered Aroclor patterns were observed, and to describe the total Aroclor quantitation scheme that was employed for the samples. Please see Forms 1 for details.

Total Organic Carbon Analysis

Analysis for TOC was performed by US-EPA Lloyd Kahn Method for sediment samples and USEPA 415.1 for the aqueous rinse blank sample. The following technical and administrative items were noted for the analysis:

All quality assurance parameters were met for the analysis.

Qualifier Summary:

I. CLP Standard Organic and Inorganic analysis qualifiers were used for all analyses.

This Case Narrative was prepared by,



William A. Kotas
Quality Assurance Officer

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Sediment Analytical Data Reports

SDG #020830ALCAN

8/28/02

8/29/02

DATA REVIEW FOR
ALCAN ALUMINUM CORPORATION
OSWEGO, NY

SDG# 020830ALCAN

SEDIMENT SAMPLING
PCB, TOC, ORGANIC CONTENT,
SPECIFIC GRAVITY, DRO and GRO ANALYSES

Analyses performed by:

Northeast Analytical, Inc.
Schenectady, New York

Review performed by:



Blasland, Bouck & Lee, Inc.
Syracuse, New York

Summary

The following is an assessment of the data package for SDG# 020830ALCAN for sampling at the ALCAN Aluminum Corporation Site in Oswego, NY. Included with this assessment are the data review check sheets used in the review of the package and corrected sample results. Analyses were performed on the following samples:

Sample ID	Lab ID	Matrix	Sample Date	Analysis				
				VOA	BNA	PCB	TOC	MISC ²
OU1SD25 (0-0.5') ¹	AF07115	sediment	08/28/02			x	x	
OU1SD25 (0.5-1')	AF07116	sediment	08/28/02			x	x	
OU1SD25 (1.0-1.5')	AF07117	sediment	08/28/02			x	x	
OU1SD25 (1.5-2.0')	AF07118	sediment	08/28/02			x	x	
OU1SD12 (0-0.5')	AF07121	sediment	08/28/02			x	x	x
OU1SD12 (0.5-1.0')	AF07122	sediment	09/28/02			x	x	x
OU1SD12 (1.0-1.4')	AF07123	sediment	08/28/02			x	x	x
OU1SD13 (0-0.5')	AF07124	sediment	08/28/02			x	x	
OU1SD13 (0.5-1.0')	AF07125	sediment	08/28/02			x	x	
OU1SD13 (1.0-1.5')	AF07126	sediment	08/28/02			x	x	
OU1SD13 (1.5-2.0')	AF07127	sediment	08/28/02			x	x	
OU1SDRB04	AF07129	water	08/28/02			x	x	
OU1SD14 (0-0.5')	AF07130	sediment	08/29/02			x	x	x
OU1SD14 (0.5-1')	AF07131	sediment	08/29/02			x	x	x
OU1SD14 (1-1.5')	AF07132	sediment	08/29/02			x	x	x
OU1SD14 (1.5-2')	AF07133	sediment	08/29/02			x	x	x
OU1SD16 (0-0.5')	AF07137	sediment	08/29/02			x	x	x
OU1SD16 (0.5-1') ¹	AF07138	sediment	08/29/02			x	x	x
OU1SDDUP4	AF07140	sediment	08/29/02			x	x	
OU1SDRB05	AF07141	water	08/29/02			x	x	

1 MS/MSD analysis performed on sample

2 Miscellaneous parameters include: percent organic content and specific gravity.

PCB ANALYSES

Introduction

Analyses were performed according to USEPA SW-846 Method 8082 as referenced in NYSDEC-ASP.

The data review process is an evaluation of data on a technical basis rather than a determination of contract compliance. As such, the standards against which the data are being weighed may differ from those specified in the analytical method. It is assumed that the data package represents the best efforts of the laboratory and had already been subjected to adequate and sufficient quality review prior to submission. During the review process, laboratory qualified and unqualified data are verified against the supporting documentation. Based on this evaluation, qualifier codes may be added, deleted, or modified by the data reviewer. Results are qualified with the following codes in accordance with National Functional Guidelines:

- U The compound was analyzed for but not detected. The associated value is the compound quantitation limit.
- J The compound was positively identified; however, the associated numerical value is an estimated concentration only.
- B The compound has been found in the sample as well as its associated blank, its presence in the sample may be suspect.
- N The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification.
- JN The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification. The associated numerical value is an estimated concentration only.
- E The compound was quantitated above the calibration range.
- D Concentration is based on a diluted sample analysis.
- C Identification confirmed by GC/MS.
- UJ The compound was not detected above the reported sample quantitation limit. However, the reported limit is approximate and may or may not represent the actual limit of quantitation.
- R The sample results are rejected.

Two facts should be noted by all data users. First, the "R" flag means that the associated value is unusable. In other words, due to significant QC problems, the analysis is invalid and provides no information as to whether the compound is present or not. "R" values should not appear on data tables because they cannot be relied upon, even as a last resort. The second fact to keep in mind is that no compound concentration, even if it has passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data but any value potentially contains error.

Data Assessment

1. Holding Time

The specified holding times for PCB analyses under NYSASP are 5 days from sample receipt to extraction and 40 days to analysis. The technical holding times for soils are 14 days from sample collection to extraction and 40 days to analysis.

All samples were extracted and analyzed within the technical holding time.

2. Blank Contamination

Quality assurance blanks (i.e., method, field, or rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Field and rinse blanks measure contamination of samples during field operations.

No Aroclors were detected in the method or rinse blanks.

3. System Performance

System performance and column resolution were acceptable.

4. Calibration

Satisfactory instrument calibration is established to insure that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of acceptable performance at the beginning of an experimental sequence. The continuing calibration verifies that the instrument daily performance is satisfactory.

4.1 Initial Calibration

A maximum RSD of 20% is allowed. The initial calibration was within the specified limit for all Aroclors.

4.2 Continuing Calibration

A maximum %D of 15 is allowed. All continuing calibration standards were within the specified limit.

5. Surrogates / System Monitoring Compounds

All samples to be analyzed for organic compounds are spiked with surrogate compounds prior to sample preparation to evaluate overall laboratory performance and efficiency of the analytical technique.

Recovery for one surrogate was below control limits in samples OU1SD25 (0-0.5'), OU1SD12 (0-0.5'), OU1SD25 (0.5-1.0'), OU1SD25 (1.0-1.5'), OU1SD14 (1-1.5'), OU1SD14 (1.5-2') and OU1SDRB05. Since recoveries for the remaining surrogates were within control limits, no data have been qualified based on the deviations. Surrogates were diluted beyond the range of quantitation in samples OU1SD25 (0-0.5') MS, OU1SD25 (0-0.5') MSD, OU1SD25 (1.5-2.0'), OU1SD16 (0.5-1') MS and OU1SD16 (0.5-1') MSD. No data have been qualified based on the diluted surrogates. All other surrogate recoveries were within control limits.

6. Compound Identification

The retention times of all quantitated peaks must fall within the calculated retention time windows for both the primary and confirmation columns.

Based on the differences between quantitated results for the two analytical columns, data for Aroclor 1260 in samples OU1SD25 (0-0.5'), OU1SD25 (0.5-1'), OU1SD25 (1-1.5'), OU1SD25 (1.5-2'), OU1SD12 (0-0.5'), OU1SD13 (0-0.5'), OU1SD13 (0.5-1'), OU1SD14 (0.5-1'), OU1SD14 (1-1.5'), OU1SD14 (1.5-2'), OU1SD16 (0-0.5'), OU1SD16 (0.5-1') and OU1SDDUP4 have been qualified as estimated with a potential high bias.

7. Matrix Spike/Matrix Spike Duplicate

Matrix spike and matrix spike duplicate data are used to assess the precision and accuracy of the analytical method independent of matrix interferences.

Two MS/MSD sets were included with the samples.

The matrix spike and matrix spike duplicate recoveries and relative percent difference between recoveries were within control limits.

8. Matrix Spike Blank

The matrix spike blank recoveries were within control limits.

9. Field Duplicates

Results for duplicate samples are summarized as follows:

Sample ID/ Duplicate ID	Analyte	Sample Result	Duplicate Result	RPD
OU1SD16 (0.5-1') / OU1SD DUP4	Aroclor 1242	1.99	1.82	8.9%

Sample ID/ Duplicate ID	Analyte	Sample Result	Duplicate Result	RPD
OU1SD16 (0.5-1') / OU1SD DUP4	Aroclor 1260	0.163	0.220	29.8%

The duplicate results are acceptable.

10. General Comments

Aroclor 1221 was reported as present in samples OU1SD25 (0.5-1'), OU1SD25 (1-1.5'), OU1SD25 (1.5-2'), OU1SD12 (0-0.5'), OU1SD12 (0.5-1'), OU1SD13 (0-0.5'), OU1SD13 (0.5-1'), OU1SD13 (1-1.5'), OU1SD14 (0-0.5'), OU1SD14 (0.5-1'), OU1SD14 (1-1.5'), OU1SD14 (1.5-2'), OU1SD16 (0-0.5'), OU1SD16 (0.5-1') and OU1SD DUP4. An examination of the sample chromatograms showed no pattern match for this Aroclor. Data for Aroclor 1221 have, therefore, been qualified as undetected in the listed samples.

11. System Performance and Overall Assessment

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines listed in the analytical method.

Data Validation Checklist

PCB Data Validation Checklist

	YES	NO	NA
<u>Data Completeness and Deliverables</u>			
Have any missing deliverables been received and added to the data package?	<u> </u>	<u> X </u>	<u> </u>
Is there a narrative or cover letter present?	<u> X </u>	<u> </u>	<u> </u>
Are the sample numbers included in the narrative?	<u> X </u>	<u> </u>	<u> </u>
Are the sample chain-of-custodies present?	<u> X </u>	<u> </u>	<u> </u>
Do the chain-of-custodies indicate any problems with sample receipt or sample condition?	<u> </u>	<u> X </u>	<u> </u>
<u>Holding Times</u>			
Have any holding times been exceeded?	<u> </u>	<u> X </u>	<u> </u>
<u>Surrogate Recovery</u>			
Are the surrogate recovery forms present?	<u> X </u>	<u> </u>	<u> </u>
Are all samples listed on the surrogate recovery form?	<u> X </u>	<u> </u>	<u> </u>
Were recoveries of any surrogate outside control limits for any sample or blank?	<u> X </u>	<u> </u>	<u> </u>
If yes, were the samples reanalyzed?	<u> </u>	<u> X </u>	<u> </u>
Are there any transcription/calculation errors between the raw data and the summary form?	<u> </u>	<u> X </u>	<u> </u>
<u>Matrix Spikes</u>			
Is there a matrix spike recovery form present?	<u> X </u>	<u> </u>	<u> </u>
Were matrix spikes analyzed at the required frequency?	<u> X </u>	<u> </u>	<u> </u>
How many spike recoveries were outside of QC limits?			
<u> 0 </u> out of <u> 4 </u>			
How many RPDs for matrix spike and matrix spike duplicate were outside of QC limits?			
<u> 0 </u> out of <u> 2 </u>			
<u>Blanks</u>			
Is a method blank summary form present?	<u> X </u>	<u> </u>	<u> </u>
Has a method blank been extracted for each set of samples or for each 20 samples, whichever is more frequent?	<u> X </u>	<u> </u>	<u> </u>
Do any method/instrument blanks have positive results?	<u> </u>	<u> X </u>	<u> </u>
Are field/rinse blanks associated with every sample?	<u> X </u>	<u> </u>	<u> </u>
Do any field/rinse blanks have positive results?	<u> </u>	<u> X </u>	<u> </u>

PCB Data Validation Checklist - Page 2

	YES	NO	NA
<u>Calibration and GC Performance</u>			
Are the following chromatograms and integration reports present?			
peak resolution check	<u> </u>	<u> X </u>	<u> </u>
Aroclor 1016/1260	<u> X </u>	<u> </u>	<u> </u>
Aroclors 1221, 1232, 1242, 1248, and 1254	<u> X </u>	<u> </u>	<u> </u>
Is a calibration summary form present and complete for each analytical sequence?	<u> X </u>	<u> </u>	<u> </u>
Are there any transcription/calculation errors between the raw data and the forms?	<u> </u>	<u> X </u>	<u> </u>
Are the initial calibration %RSD within acceptable limits for all analytes?	<u> X </u>	<u> </u>	<u> </u>
Is the resolution between any two adjacent peaks in the resolution check mixture > 60%?	<u> </u>	<u> </u>	<u> X </u>
Have all samples been injected within a 12 hour period beginning with the injection of a calibration standard?	<u> X </u>	<u> </u>	<u> </u>
Is a continuing calibration summary form present and complete for each continuing standard analyzed?	<u> X </u>	<u> </u>	<u> </u>
Are there any transcription/calculation errors between the raw data and the form?	<u> </u>	<u> X </u>	<u> </u>
Are all continuing calibration standard %D within acceptable limits?	<u> X </u>	<u> </u>	<u> </u>
<u>Analytical Sequence</u>			
Is an analytical sequence summary form present and complete for each column and each period of analyses?	<u> X </u>	<u> </u>	<u> </u>
Was the proper analytical sequence followed?	<u> X </u>	<u> </u>	<u> </u>
<u>Cleanup Efficiency Verification</u>			
Are percent recoveries of the compounds used to check the efficiency of the cleanup procedure within QC limits?	<u> X </u>	<u> </u>	<u> </u>
<u>PCB Identification</u>			
Are RT of sample compounds within the established RT windows?	<u> X </u>	<u> </u>	<u> </u>
Were all positively identified compounds confirmed on a second column?	<u> X </u>	<u> </u>	<u> </u>
Was GC/MS confirmation provided when required?	<u> </u>	<u> </u>	<u> X </u>
Were there any false negatives?	<u> </u>	<u> X </u>	<u> </u>

PCB Data Validation Checklist - Page 3

	YES	NO	NA
<u>Compound Quantitation and Reported Detection Limits</u>			
Are there any transcription/calculation errors in the Form 1 results?	<u>X</u>	<u> </u>	<u> </u>
Are the reporting limits adjusted to reflect sample dilutions and, for soils, sample moisture?	<u>X</u>	<u> </u>	<u> </u>
<u>Chromatogram Quality</u>			
Were the baselines stable?	<u>X</u>	<u> </u>	<u> </u>
Were any electronegative displacement (negative peaks) or unusual peaks detected?	<u> </u>	<u>X</u>	<u> </u>
<u>Field Duplicates</u>			
Were field duplicates submitted with the samples?	<u>X</u>	<u> </u>	<u> </u>

**PCB Qualifier Summary
Holding Time and Surrogates**

Sample ID	Holding Time*	Surrogates*			
		TCX-1	TCX-2	DCB-1	DCB-2
OU1SD25 (0-0.5')					↓
OU1SD25 (0-0.5') MS		D	D	D	D
OU1SD25 (0-0.5') MSD		D	D	D	D
OU1SD25 (0.5-1')					↓
OU1SD25 (1.0-1.5')					↓
OU1SD25 (1.5-2.0')		D	D	D	D
OU1SD12 (0-0.5')		↓			
OU1SD12 (0.5-1.0')					
OU1SD12 (1.0-1.4')					
OU1SD13 (0-0.5')					
OU1SD13 (0.5-1.0')					
OU1SD13 (1.0-1.5')					
OU1SD13 (1.5-2.0')					
OU1SDRB04					
OU1SD14 (0-0.5')					
OU1SD14 (0.5-1')					
OU1SD14 (1-1.5')					↓
OU1SD14 (1.5-2')					↓
OU1SD16 (0-0.5')					
OU1SD16 (0.5-1')					
OU1SD16 (0.5-1') MS		D	D	D	D
OU1SD16 (0.5-1') MSD		D	D	D	D
OU1SDDUP4					
OU1SDRB05		↓	↓		

Surrogates:

TCX Tetrachloro-m-xylene
DCB Decachlorobiphenyl
na Not applicable

Qualifiers:

D Surrogate diluted out
↑ Recovery high
↓ Recovery low

* Unless otherwise noted, all parameters are within specified limits.

PCB Calibration Summary

Instrument: GC5

Column: DB-5

Date:	8/26/02- 8/27/02	8/27/02	8/27/02	8/27/02	8/27/02	8/27/02	8/27/02	8/27/02
Time:		1152	1226	1300	1336	1410	1445	1520
	Initial Cal.	Cont Cal.	Cont Cal.	Cont Cal.	Cont Cal.	Cont Cal.	Cont Cal.	Cont Cal.
	%RSD	%D	%D	%D	%D	%D	%D	%D
Aroclor 1016	--*	ok						
Aroclor 1221	--*		ok					
Aroclor 1232	--*			ok				
Aroclor 1242	--*				ok			
Aroclor 1248	--*					ok		
Aroclor 1254	--*						ok	
Aroclor 1260	--*							ok
Tetrachloro-m-xylene	ok							
Decachlorobiphenyl	ok							
Affected Samples:								

* Single-point standard analyzed

PCB Calibration Summary - Page 2

[illegible]

PCB Calibration Summary - Page 3

[illegible]

PCB Calibration Summary - Page 4

Instrument: GC19F

Column: DB-1

Date:	9/13/02-9/14/02	9/14/02	9/14/02	9/14/02	9/14/02	9/14/02	9/14/02	9/14/02
Time:		1312	1344	1416	1448	1520	1552	1624
	Initial Cal.	Cont Cal.	Cont Cal.	Cont Cal.	Cont Cal.	Cont Cal.	Cont Cal.	Cont Cal.
	%RSD	%D	%D	%D	%D	%D	%D	%D
Aroclor 1016	--*	ok						
Aroclor 1221	--*		ok					
Aroclor 1232	--*			ok				
Aroclor 1242	--*				ok			
Aroclor 1248	--*					ok		
Aroclor 1254	--*						ok	
Aroclor 1260	--*							ok
Tetrachloro-m-xylene	ok							
Decachlorobiphenyl	ok							
Affected Samples:								

* Single-point standard analyzed

PCB Calibration Summary - Page 5

Date:	10/01/02	10/02/02	10/02/02	10/02/02	10/02/02	10/02/02		
Time:	1836	0050	0704	0846	1809	2349		
	Cont Cal.	Cont Cal.	Cont Cal.	Cont Cal.	Cont Cal.	Cont Cal.	Cont Cal.	Cont Cal.
	%D	%D	%D	%D	%D	%D	%D	%D
Aroclor 1016					ok			
Aroclor 1221						ok		
Aroclor 1232	ok							
Aroclor 1242		ok						
Aroclor 1248			ok					
Aroclor 1254				ok				
Aroclor 1260								
Tetrachloro-m-xylene								
Decachlorobiphenyl								
Affected Samples:								

PCB Calibration Summary - Page 6

Instrument: GC11

Column: DB-1

Date:	10/01/02-10/03/02	10/03/02	10/03/02	10/03/02	10/03/02	10/03/02	10/03/02	10/03/02
Time:		1439	1518	1557	1636	1720	1759	1838
	Initial Cal.	Cont Cal.	Cont Cal.	Cont Cal.	Cont Cal.	Cont Cal.	Cont Cal.	Cont Cal.
	%RSD	%D	%D	%D	%D	%D	%D	%D
Aroclor 1016	--*	ok						
Aroclor 1221	--*		ok					
Aroclor 1232	--*			ok				
Aroclor 1242	--*				ok			
Aroclor 1248	--*					ok		
Aroclor 1254	--*						ok	
Aroclor 1260	--*							ok
Tetrachloro-m-xylene	ok							
Decachlorobiphenyl	ok							
Affected Samples:								

* Single-point standard analyzed

PCB Calibration Summary - Page 7

[illegible]

PCB Calibration Summary - Page 8

Instrument: GC07

Column: DB-1

Date:	10/05/02- 10/08/02	10/08/02	10/08/02	10/08/02	10/08/02	10/08/02	10/08/02	10/08/02
Time:		0628	0702	0737	0811	0845	0919	0953
	Initial Cal.	Cont Cal.	Cont Cal.	Cont Cal.	Cont Cal.	Cont Cal.	Cont Cal.	Cont Cal.
	%RSD	%D	%D	%D	%D	%D	%D	%D
Aroclor 1016	--*	ok						
Aroclor 1221	--*		ok					
Aroclor 1232	--*			ok				
Aroclor 1242	--*				ok			
Aroclor 1248	--*					ok		
Aroclor 1254	--*						ok	
Aroclor 1260	--*							ok
Tetrachloro-m-xylene	ok							
Decachlorobiphenyl	ok							
Affected Samples:								

* Single-point standard analyzed

PCB Calibration Summary - Page 9

[illegible]

Corrected Sample Analysis Data Sheets

SUPPLEMENTAL PARAMETERS

Introduction

Analyses were performed according to the following method:

Total Organic Carbon

EPA

Lloyd Kahn

The data review process is intended to evaluate data on a technical basis. It is assumed that the data package represents the best efforts of the laboratory and has already been subjected to adequate quality review prior to submission for review.

During the review process, laboratory data are verified against the supporting documentation. Based on this evaluation, qualifier codes may be added, modified or deleted by the data reviewer. Results are qualified with the following codes in accordance with the National Functional Guidelines.

- < The material was analyzed for, but was not detected. The associated value is the sample reporting limit.
- J The associated value is an estimated quantity.
- R The sample results are rejected.

Two facts should be noted by all data users. First, the "R" flag means that the associated value is unusable. In other words, due to significant QC problems, the analysis is invalid and provides no information as to whether the compound is present or not. "R" values should not appear on data tables because they cannot be relied upon, even as a last resort. The second fact to keep in mind is that no compound concentration, even if it has passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data but any value potentially contains error.

Data Assessment

1. Holding Times

The method-specified holding time for TOC analysis is 14 days from collection
All samples were analyzed within the specified holding time.

2. Calibration

All initial and continuing calibration standards were acceptable.

3. Blank Contamination

No TOC was reported in the method or rinse blanks.

4. Laboratory Control Sample (LCS)

The laboratory control sample recoveries were acceptable.

5. Matrix Spike/Matrix Spike Duplicate/Laboratory Duplicate

The matrix spike recovery and laboratory duplicate results were acceptable.

6. Field Duplicates

Results for duplicate samples are summarized as follows:

Sample ID/ Duplicate ID	Analyte	Sample Result	Duplicate Result	RPD
OU1SD16 (0.5-1') / OU1SD DUP4	TOC	30300	30100	0.7%

The duplicate results are acceptable.

7 Overall Assessment

Other than for any deviations mentioned in this report, the analyses of the samples were in conformance with method specifications.

Data Validation Checklist

Supplemental Data Review Checklist

	YES	NO	NA
<u>Data Completeness</u>			
Is there a narrative or cover letter present?	<u>X</u>	<u> </u>	<u> </u>
Are the samples numbers included in the narrative?	<u> </u>	<u>X</u>	<u> </u>
Are the methods utilized notated?	<u>X</u>	<u> </u>	<u> </u>
Are the sample chain-of-custodies present?	<u>X</u>	<u> </u>	<u> </u>
Do the chain-of-custodies indicate any problems with sample receipt or sample condition?	<u> </u>	<u>X</u>	<u> </u>
<u>Holding Times</u>			
Have any holding times been exceeded?	<u> </u>	<u>X</u>	<u> </u>
<u>Laboratory Duplicates</u>			
Were duplicates analyzed and were the relative percent differences between results within acceptable limits?	<u>X</u>	<u> </u>	<u> </u>
<u>Laboratory Control Samples</u>			
Were LCS analyzed and were recoveries within acceptable limits?	<u>X</u>	<u> </u>	<u> </u>
<u>Blanks</u>			
Has a method blank been analyzed for each set of samples or for each 20 samples?	<u>X</u>	<u> </u>	<u> </u>
Do any have results above the reporting limit?	<u> </u>	<u>X</u>	<u> </u>
Do any field/rinse blanks have positive results?	<u> </u>	<u>X</u>	<u> </u>
<u>Calibration</u>			
Are calibrations acceptable?	<u>X</u>	<u> </u>	<u> </u>
<u>Raw Data</u>			
Is raw data present and complete for all samples and QC?	<u>X</u>	<u> </u>	<u> </u>
<u>Compound Quantitation and Reported Limits</u>			
Are the reporting limits adjusted to reflect sample dilutions, and for soils, sample moisture?	<u>X</u>	<u> </u>	<u> </u>

Corrected Sample Analysis Data Sheets

Laboratory Narrative

Sample Compliance Report

SAMPLE COMPLIANCE REPORT

Sample Delivery Group	Sampling Date	ASP Protocol	Sample ID	Matrix	Compliance ¹					Noncompliance
					VOA	BNA	PCB	TOC	MISC	
020830ALCAN	08/28/02	2000	OU1SD25 (0-0.5')	sediment	--	--	no	yes	--	PCB - %D
020830ALCAN	08/28/02	2000	OU1SD25 (0.5-1')	sediment	--	--	no	yes	--	PCB - ID, %D
020830ALCAN	08/28/02	2000	OU1SD25 (1.0-1.5')	sediment	--	--	no	yes	--	PCB - ID, %D
020830ALCAN	08/28/02	2000	OU1SD25 (1.5-2.0')	sediment	--	--	no	yes	--	PCB - ID, %D
020830ALCAN	08/28/02	2000	OU1SD12 (0-0.5')	sediment	--	--	no	yes	--	PCB - ID, %D, surr ²
020830ALCAN	09/28/02	2000	OU1SD12 (0.5-1.0')	sediment	--	--	no	yes	--	PCB - ID
020830ALCAN	08/28/02	2000	OU1SD12 (1.0-1.4')	sediment	--	--	yes	yes	--	
020830ALCAN	08/28/02	2000	OU1SD13 (0-0.5')	sediment	--	--	no	yes	--	PCB - ID, %D
020830ALCAN	08/28/02	2000	OU1SD13 (0.5-1.0')	sediment	--	--	no	yes	--	PCB - ID, %D
020860ALCAN	08/28/02	2000	OU1SD13 (1.0-1.5')	sediment	--	--	no	yes	--	PCB - ID
020830ALCAN	08/28/02	2000	OU1SD13 (1.5-2.0')	sediment	--	--	yes	yes	--	
020830ALCAN	08/28/02	2000	OU1SDRB04	water	--	--	yes	yes	--	
020830ALCAN	08/29/02	2000	OU1SD14 (0-0.5')	sediment	--	--	no	yes	--	PCB - ID
020830ALCAN	08/29/02	2000	OU1SD14 (0.5-1')	sediment	--	--	no	yes	--	PCB - ID, %D
020830ALCAN	08/29/02	2000	OU1SD14 (1-1.5')	sediment	--	--	no	yes	--	PCB - ID, %D, surr ²
020830ALCAN	08/29/02	2000	OU1SD14 (1.5-2')	sediment	--	--	no	yes	--	PCB - ID, %D, surr ²
020830ALCAN	08/29/02	2000	OU1SD16 (0-0.5')	sediment	--	--	no	yes	--	PCB - ID, %D
020830ALCAN	08/29/02	2000	OU1SD16 (0.5-1')	sediment	--	--	no	yes	--	PCB - ID, %D
020830ALCAN	08/29/02	2000	OU1SDDUP4	sediment	--	--	no	yes	--	PCB - ID, %D
020830ALCAN	08/29/02	2000	OU1SDRB05	water	--	--	no	yes	--	PCB - surr ²

- 1 Samples which are compliant with no added validation qualifiers are listed as "yes". Samples which are non-compliant or which have added qualifiers are listed as "no". A "no" designation does not necessarily indicate that the data have been rejected or are otherwise unusable.
- 2 The deviation resulted in no qualification of the data.

1D-1¹

PCB ANALYSIS DATA SHEET

Northeast Analytical Inc.

ELAP ID No.:

11078

SDG No.:

020830ALCAN

CLIENT ID:

OU1SD25 (0-0.5')

Matrix:

SEDIMENT

LAB SAMPLE ID:

AF07115

Sample wt/vol:

3.22541 (g)

LAB FILE ID:

AF07115

% Moisture:

68.4

DATE RECEIVED:

8/30/2002

Extraction :

SW 846 METHOD 3545 (ASE)

DATE EXTRACTED:

9/10/2002

Conc. Extract Volume:

50000 (µL)

DATE ANALYZED:

10/1/2002

Injection Volume:

1.2 (µL)

DILUTION FACTOR:

1

Method:

SW-846 8082 (PCB)

SULFUR CLEANUP:

YES

GC Column : J&W, NARROWBORE CAPILLARY, DB-1, 30M; ID:0.25mm

NEA Form ID: S:\FORMS\CATB\SOIL_GC_19F_091302AL.XLS

NEA File ID: S:\CERT02\02080137_GC19F_8082SEC

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/g)	Q
12674-11-2	Aroclor 1016	0.310	U
11104-28-2	Aroclor 1221	0.310	U
11141-16-5	Aroclor 1232	0.310	U
53469-21-9	Aroclor 1242	0.609	X, M
12672-29-6	Aroclor 1248	0.310	U
11097-69-1	Aroclor 1254	0.310	U
11096-82-5	Aroclor 1260	0.438	X, P, J

- i Aroclor 1242 is being reported as the best Aroclor match.
The sample exhibits an altered PCB pattern.
- ii Aroclor 1260 is being reported as the best Aroclor match.
The sample exhibits an altered PCB pattern.
- iii It is not possible to distinguish if Aroclor 1242 or Aroclor 1248 was the original Aroclor in this sample that exhibits a highly altered PCB pattern. To better quantify total PCBs, Aroclor 1242 is being reported.

¹ Form based upon NYS-DEC Form 1-CLP-PEST

FORM I-CLP-PCB (NEA)

000065

1D-1¹
PCB ANALYSIS DATA SHEET

Northeast Analytical Inc.

SDG No.:

020830ALCAN

ELAP ID No.:

11078

CLIENT ID:

OU1SD25 (0.5-1.0')

Matrix:

SEDIMENT

LAB SAMPLE ID:

AF07116

Sample wt/vol:

2.82902 (g)

LAB FILE ID:

AF07116

% Moisture:

71.8

DATE RECEIVED:

8/30/2002

Extraction :

SW 846 METHOD 3545 (ASE)

DATE EXTRACTED:

9/10/2002

Conc. Extract Volume:

50000 (µL)

DATE ANALYZED:

10/1/2002

Injection Volume:

1.2 (µL)

DILUTION FACTOR:

1

Method:

SW-846 8082 (PCB)

SULFUR CLEANUP:

YES

GC Column : J&W, NARROWBORE CAPILLARY, DB-1, 30M; ID:0.25mm

NEA Form ID: S:\FORMS\CATB\SOIL_GC_19F_091302AL.XLS

NEA File ID: S:\CERT02\02080137_GC19F_8082SEC

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/g)	Q
12674-11-2	Aroclor 1016	0.354	U
11104-28-2	Aroclor 1221	0.747 0.354	X U
11141-16-5	Aroclor 1232	0.354	U
53469-21-9	Aroclor 1242	1.84	X, W
12672-29-6	Aroclor 1248	0.354	U
11097-69-1	Aroclor 1254	0.354	U
11096-82-5	Aroclor 1260	0.812	X, P, S

- i Aroclor 1221 is being used to report an altered PCB pattern exhibited by the sample.
Actual Aroclor 1221 is not present in the sample, but is reported to more accurately quantify PCB present in sample that has undergone environmental alteration.
- ii Aroclor 1242 is being reported as the best Aroclor match.
The sample exhibits an altered PCB pattern.
- iii Aroclor 1260 is being reported as the best Aroclor match.
The sample exhibits an altered PCB pattern.
- iv It is not possible to distinguish if Aroclor 1242 or Aroclor 1248 was the original Aroclor in this sample that exhibits a highly altered PCB pattern. To better quantify total PCBs, Aroclor 1242 is being reported.

¹ Form based upon NYS-DEC Form 1-CLP-PEST

FORM I-CLP-PCB (NEA)

000074

1D-1¹
PCB ANALYSIS DATA SHEET

Northeast Analytical Inc.

ELAP ID No.:

11078

SDG No.:

020830ALCAN

CLIENT ID:

OU1SD25 (1.0-1.5')

Matrix:

SEDIMENT

LAB SAMPLE ID:

AF07117

Sample wt/vol:

3.76888 (g)

LAB FILE ID:

AF07117

% Moisture:

64.0

DATE RECEIVED:

8/30/2002

Extraction :

SW 846 METHOD 3545 (ASE)

DATE EXTRACTED:

9/10/2002

Conc. Extract Volume:

50000 (µL)

DATE ANALYZED:

10/1/2002

Injection Volume:

1.2 (µL)

DILUTION FACTOR:

3

Method:

SW-846 8082 (PCB)

SULFUR CLEANUP:

YES

GC Column : J&W, NARROWBORE CAPILLARY, DB-1, 30M; ID:0.25mm

NEA Form ID: S:\FORMS\CATB\SOIL_GC_19F_091302AL.XLS

NEA File ID: S:\CERT02\02080137_GC19F_8082SEC

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/g)	Q
12674-11-2	Aroclor 1016	0.796	U
11104-28-2	Aroclor 1221	7.84 0.796	X U
11141-16-5	Aroclor 1232	0.796	U
53469-21-9	Aroclor 1242	14.5 14.6	X
12672-29-6	Aroclor 1248	0.796	U
11097-69-1	Aroclor 1254	0.796	U
11096-82-5	Aroclor 1260	3.07	X, P J

- i Aroclor 1221 is being used to report an altered PCB pattern exhibited by the sample.
Actual Aroclor 1221 is not present in the sample, but is reported to more accurately quantify PCB present in sample that has undergone environmental alteration.
- ii Aroclor 1242 is being reported as the best Aroclor match.
The sample exhibits an altered PCB pattern.
- iii Aroclor 1260 is being reported as the best Aroclor match.
The sample exhibits an altered PCB pattern.

¹ Form based upon NYS-DEC Form 1-CLP-PEST

1D-1¹
PCB ANALYSIS DATA SHEET

Northeast Analytical Inc.

SDG No.:

020830ALCAN

ELAP ID No.:

11078

CLIENT ID:

OU1SD25 (1.5-2.0')

Matrix:

SEDIMENT

LAB SAMPLE ID:

AF07118

Sample wt/vol:

4.98188 (g)

LAB FILE ID:

AF07118

% Moisture:

51.1

DATE RECEIVED:

8/30/2002

Extraction :

SW 846 METHOD 3545 (ASE)

DATE EXTRACTED:

9/10/2002

Conc. Extract Volume:

50000 (μL)

DATE ANALYZED:

10/1/2002

Injection Volume:

1.2 (μL)

DILUTION FACTOR:

20

Method:

SW-846 8082 (PCB)

SULFUR CLEANUP:

YES

GC Column : J&W, NARROWBORE CAPILLARY, DB-1, 30M; ID:0.25mm

NEA Form ID: S:\FORMS\CATB\SOIL_GC_19F_091302AL.XLS

NEA File ID: S:\CERT02\02080137_GC19F_8082SEC

CAS NO.	COMPOUND	CONCENTRATION UNITS: (μg/g)	Q
12674-11-2	Aroclor 1016	4.01	U
11104-28-2	Aroclor 1221	63.6 4.01	X, P, U
11141-16-5	Aroclor 1232	4.01	U
53469-21-9	Aroclor 1242	70.5	X
12672-29-6	Aroclor 1248	4.01	U
11097-69-1	Aroclor 1254	4.01	U
11096-82-5	Aroclor 1260	10.5	X, P, U

- i Aroclor 1221 is being used to report an altered PCB pattern exhibited by the sample.
Actual Aroclor 1221 is not present in the sample, but is reported to more accurately quantify PCB present in sample that has undergone environmental alteration.
- ii Aroclor 1242 is being reported as the best Aroclor match.
The sample exhibits an altered PCB pattern.
- iii Aroclor 1260 is being reported as the best Aroclor match.
The sample exhibits an altered PCB pattern.

¹ Form based upon NYS-DEC Form 1-CLP-PEST

1D-1¹
PCB ANALYSIS DATA SHEET

Northeast Analytical Inc.

ELAP ID No. :

11078

SDG No. :

020830ALCAN

CLIENT ID :

OU1SD12 (0-0.5')

Matrix :

SEDIMENT

LAB SAMPLE ID :

AF07121

Sample wt/vol :

1.14895 (g)

LAB FILE ID :

AF07121

% Moisture :

89.0

DATE RECEIVED :

8/30/2002

Extraction :

SW 846 METHOD 3545 (ASE)

DATE EXTRACTED :

9/10/2002

Conc. Extract Volume :

50000 (µL)

DATE ANALYZED :

10/2/2002

Injection Volume :

1.2 (µL)

DILUTION FACTOR :

1

Method :

SW-846 8082 (PCB)

SULFUR CLEANUP :

YES

GC Column : J&W, NARROWBORE CAPILLARY, DB-1, 30M; ID:0.25mm

NEA Form ID: S:\FORMS\CATB\SOIL_GC_19F_091302AL.XLS

NEA File ID: S:\CERT02\02080137_GC19F_8082SEC

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/g)	Q
12674-11-2	Aroclor 1016	0.870	U
11104-28-2	Aroclor 1221	1.46 0.87	A.P.U.
11141-16-5	Aroclor 1232	0.870	U
53469-21-9	Aroclor 1242	3.82	U
12672-29-6	Aroclor 1248	0.870	U
11097-69-1	Aroclor 1254	0.870	U
11096-82-5	Aroclor 1260	2.39	U, P.J.

- i Aroclor 1221 is being used to report an altered PCB pattern exhibited by the sample.
Actual Aroclor 1221 is not present in the sample, but is reported to more accurately quantify PCB present in sample that has undergone environmental alteration.
- ii Aroclor 1242 is being reported as the best Aroclor match.
The sample exhibits an altered PCB pattern.
- iii Aroclor 1260 is being reported as the best Aroclor match.
The sample exhibits an altered PCB pattern.

¹ Form based upon NYS-DEC Form 1-CLP-PEST

1D-1¹
PCB ANALYSIS DATA SHEET

Northeast Analytical Inc.

SDG No.:

020830ALCAN

ELAP ID No.:

11078

CLIENT ID:

OU1SD12 (0.5-1.0')

Matrix:

SEDIMENT

LAB SAMPLE ID:

AF07122

Sample wt/vol:

4.53257 (g)

LAB FILE ID:

AF07122

% Moisture:

58.4

DATE RECEIVED:

8/30/2002

Extraction :

SW 846 METHOD 3545 (ASE)

DATE EXTRACTED:

9/10/2002

Conc. Extract Volume:

50000 (µL)

DATE ANALYZED:

10/2/2002

Injection Volume:

1.2 (µL)

DILUTION FACTOR:

1

Method:

SW-846 8082 (PCB)

SULFUR CLEANUP:

YES

GC Column : J&W, NARROWBORE CAPILLARY, DB-1, 30M; ID:0.25mm

NEA Form ID: S:\FORMS\CATB\SOIL_GC_19F_091302AL.XLS

NEA File ID: S:\CERT02\02080137_GC19F_8082SEC

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/g)	Q
12674-11-2	Aroclor 1016	0.221	U
11104-28-2	Aroclor 1221	0.303 0.221	U U
11141-16-5	Aroclor 1232	0.221	U
53469-21-9	Aroclor 1242	0.290	U
12672-29-6	Aroclor 1248	0.221	U
11097-69-1	Aroclor 1254	0.221	U
11096-82-5	Aroclor 1260	0.221	U

- i Aroclor 1221 is being used to report an altered PCB pattern exhibited by the sample.
 Actual Aroclor 1221 is not present in the sample, but is reported to more accurately quantify PCB present in sample that has undergone environmental alteration.
- ii Aroclor 1242 is being reported as the best Aroclor match.
 The sample exhibits an altered PCB pattern.

¹ Form based upon NYS-DEC Form 1-CLP-PEST

1D-1¹
PCB ANALYSIS DATA SHEET

Northeast Analytical Inc.

ELAP ID No.:

11078

SDG No.:

020830ALCAN

CLIENT ID:

OU1SD12 (1.0-1.4')

Matrix:

SEDIMENT

LAB SAMPLE ID:

AF07123

Sample wt/vol:

7.54814 (g)

LAB FILE ID:

AF07123

% Moisture:

31.3

DATE RECEIVED:

8/30/2002

Extraction :

SW 846 METHOD 3545 (ASE)

DATE EXTRACTED:

9/10/2002

Conc. Extract Volume:

50000 (µL)

DATE ANALYZED:

10/2/2002

Injection Volume:

1.2 (µL)

DILUTION FACTOR:

1

Method:

SW-846 8082 (PCB)

SULFUR CLEANUP:

YES

GC Column : J&W, NARROWBORE CAPILLARY, DB-1, 30M; ID:0.25mm

NEA Form ID: S:\FORMS\CATB\SOIL_GC_19F_091302AL.XLS

NEA File ID: S:\CERT02\02080137_GC19F_8082SEC

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/g)	Q
12674-11-2	Aroclor 1016	0.132	U
11104-28-2	Aroclor 1221	0.132	U
11141-16-5	Aroclor 1232	0.132	U
53469-21-9	Aroclor 1242	0.132	U
12672-29-6	Aroclor 1248	0.132	U
11097-69-1	Aroclor 1254	0.132	U
11096-82-5	Aroclor 1260	0.132	U

¹ Form based upon NYS-DEC Form 1-CLP-PEST

FORM I-CLP-PCB (NEA)

000123

1D-1¹
PCB ANALYSIS DATA SHEET

Northeast Analytical Inc.

ELAP ID No.:

11078

SDG No.:

020830ALCAN

CLIENT ID:

OU1SD13 (0-0.5')

Matrix:

SEDIMENT

LAB SAMPLE ID:

AF07124

Sample wt/vol:

0.709616 (g)

LAB FILE ID:

AF07124

% Moisture:

93.3

DATE RECEIVED:

8/30/2002

Extraction :

SW 846 METHOD 3545 (ASE)

DATE EXTRACTED:

9/10/2002

Conc. Extract Volume:

50000 (µL)

DATE ANALYZED:

10/2/2002

Injection Volume:

1.2 (µL)

DILUTION FACTOR:

1

Method:

SW-846 8082 (PCB)

SULFUR CLEANUP:

YES

GC Column : J&W, NARROWBORE CAPILLARY, DB-1, 30M; ID:0.25mm

NEA Form ID: S:\FORMS\CATB\SOIL_GC_19F_091302AL.XLS

NEA File ID: S:\CERT02\02080137_GC19F_8082SEC

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/g)	Q
12674-11-2	Aroclor 1016	1.41	U
11104-28-2	Aroclor 1221	2.40 1.41	KP U
11141-16-5	Aroclor 1232	1.41	U
53469-21-9	Aroclor 1242	6.76	U
12672-29-6	Aroclor 1248	1.41	U
11097-69-1	Aroclor 1254	1.41	U
11096-82-5	Aroclor 1260	3.99	U PJ

- i Aroclor 1221 is being used to report an altered PCB pattern exhibited by the sample.
Actual Aroclor 1221 is not present in the sample, but is reported to more accurately quantify PCB present in sample that has undergone environmental alteration.
- ii Aroclor 1242 is being reported as the best Aroclor match.
The sample exhibits an altered PCB pattern.
- iii Aroclor 1260 is being reported as the best Aroclor match.
The sample exhibits an altered PCB pattern.

1D-1¹
PCB ANALYSIS DATA SHEET

Northeast Analytical Inc.

ELAP ID No.:

11078

SDG No.:

020830ALCAN

CLIENT ID:

OU1SD13 (0.5-1.0')

Matrix:

SEDIMENT

LAB SAMPLE ID:

AF07125

Sample wt/vol:

1.48986 (g)

LAB FILE ID:

AF07125

% Moisture:

85.8

DATE RECEIVED:

8/30/2002

Extraction :

SW 846 METHOD 3545 (ASE)

DATE EXTRACTED:

9/10/2002

Conc. Extract Volume:

50000 (µL)

DATE ANALYZED:

10/2/2002

Injection Volume:

1.2 (µL)

DILUTION FACTOR:

1

Method:

SW-846 8082 (PCB)

SULFUR CLEANUP:

YES

GC Column : J&W, NARROWBORE CAPILLARY, DB-1, 30M; ID:0.25mm

NEA Form ID: S:\FORMS\CATB\SOIL_GC_19F_091302AL.XLS

NEA File ID: S:\CERT02\02080137_GC19F_8082SET

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/g)	Q
12674-11-2	Aroclor 1016	0.671	U
11104-28-2	Aroclor 1221	3.84 0.671	U U
11141-16-5	Aroclor 1232	0.671	U
53469-21-9	Aroclor 1242	14.0 14.3	U U
12672-29-6	Aroclor 1248	0.671	U
11097-69-1	Aroclor 1254	0.671	U
11096-82-5	Aroclor 1260	1.37	U, P, J

- i Aroclor 1221 is being used to report an altered PCB pattern exhibited by the sample.
Actual Aroclor 1221 is not present in the sample, but is reported to more accurately quantify PCB present in sample that has undergone environmental alteration.
- ii Aroclor 1242 is being reported as the best Aroclor match.
The sample exhibits an altered PCB pattern.
- iii Aroclor 1260 is being reported as the best Aroclor match.
The sample exhibits an altered PCB pattern.

1D-1¹
PCB ANALYSIS DATA SHEET

Northeast Analytical Inc.

SDG No.:

020830ALCAN

ELAP ID No.:

11078

CLIENT ID:

OU1SD13 (1.0-1.5')

Matrix:

SEDIMENT

LAB SAMPLE ID:

AF07126

Sample wt/vol:

2.61904 (g)

LAB FILE ID:

AF07126

% Moisture:

74.6

DATE RECEIVED:

8/30/2002

Extraction :

SW 846 METHOD 3545 (ASE)

DATE EXTRACTED:

9/10/2002

Conc. Extract Volume:

50000 (µL)

DATE ANALYZED:

10/2/2002

Injection Volume:

1.2 (µL)

DILUTION FACTOR:

1

Method:

SW-846 8082 (PCB)

SULFUR CLEANUP:

YES

GC Column : J&W, NARROWBORE CAPILLARY, DB-1, 30M; ID:0.25mm

NEA Form ID: S:\FORMS\CATB\SOIL_GC_19F_091302AL.XLS

NEA File ID: S:\CERT02\02080137_GC19F_8082SET

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/g)	Q
12674-11-2	Aroclor 1016	0.382	U
11104-28-2	Aroclor 1221	0.754 0.382	X U
11141-16-5	Aroclor 1232	0.382	U
53469-21-9	Aroclor 1242	0.965	X
12672-29-6	Aroclor 1248	0.382	U
11097-69-1	Aroclor 1254	0.382	U
11096-82-5	Aroclor 1260	0.382	U

- i Aroclor 1221 is being used to report an altered PCB pattern exhibited by the sample.
Actual Aroclor 1221 is not present in the sample, but is reported to more accurately quantify PCB present in sample that has undergone environmental alteration.
- ii Aroclor 1242 is being reported as the best Aroclor match.
The sample exhibits an altered PCB pattern.

¹ Form based upon NYS-DEC Form 1-CLP-PEST

FORM I-CLP-PCB (NEA)

1D-1¹
PCB ANALYSIS DATA SHEET

Northeast Analytical Inc.

ELAP ID No.:

11078

SDG No.:

020830ALCAN

CLIENT ID:

OU1SD13 (1.5-2.0')

Matrix:

SEDIMENT

LAB SAMPLE ID:

AF07127

Sample wt/vol:

6.24888 (g)

LAB FILE ID:

AF07127

% Moisture:

41.1

DATE RECEIVED:

8/30/2002

Extraction :

SW 846 METHOD 3545 (ASE)

DATE EXTRACTED:

9/10/2002

Conc. Extract Volume:

50000 (µL)

DATE ANALYZED:

10/2/2002

Injection Volume:

1.2 (µL)

DILUTION FACTOR:

1

Method:

SW-846 8082 (PCB)

SULFUR CLEANUP:

YES

GC Column : J&W, NARROWBORE CAPILLARY, DB-1, 30M; ID:0.25mm

NEA Form ID: S:\FORMS\CATB\SOIL_GC_19F_091302AL.XLS

NEA File ID: S:\CERT02\02080137_GC19F_8082SEC

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/g)	Q
12674-11-2	Aroclor 1016	0.160	U
11104-28-2	Aroclor 1221	0.160	U
11141-16-5	Aroclor 1232	0.160	U
53469-21-9	Aroclor 1242	0.160	U
12672-29-6	Aroclor 1248	0.160	U
11097-69-1	Aroclor 1254	0.160	U
11096-82-5	Aroclor 1260	0.160	U

¹ Form based upon NYS-DEC Form 1-CLP-PEST

FORM I-CLP-PCB (NEA)

1D-1¹
PCB ANALYSIS DATA SHEET

Northeast Analytical Inc.

ELAP ID No.:

11078

SDG No.:

020830ALCAN

CLIENT ID:

OU1SDRB04

Matrix:

WATER

LAB SAMPLE ID:

AF07129

Sample wt/vol:

1.080 (L)

LAB FILE ID:

AF07129R

% Moisture:

DATE RECEIVED:

8/30/02

Extraction :

CLLE

DATE EXTRACTED:

9/3/02

Conc. Extract Volume:

5000 (µL)

DATE ANALYZED:

10/15/02

Injection Volume:

0.4 (µL)

DILUTION FACTOR:

1

Method:

SW-846 8082 PCB

SULFUR CLEANUP:

YES

GC Column : J&W, NARROWBORE CAPILLARY, DB-1, 30M; ID: 0.25mm

NEA Form ID: S:\FORMS\CAT\H2O_GC11_100202

NEA File ID: S:\CERT02\02080137_GC11_8082W.XLS 1D-1.

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L)	Q
12674-11-2	Aroclor 1016	0.0250	U
11104-28-2	Aroclor 1221	0.0250	U
11141-16-5	Aroclor 1232	0.0250	U
53469-21-9	Aroclor 1242	0.0250	U
12672-29-6	Aroclor 1248	0.0250	U
11097-69-1	Aroclor 1254	0.0250	U
11096-82-5	Aroclor 1260	0.0250	U

1D-1¹
PCB ANALYSIS DATA SHEET

Northeast Analytical Inc.

SDG No.:

020830ALCAN

ELAP ID No.:

11078

CLIENT ID:

OU1SD14 (0-0.5')

Matrix:

SEDIMENT

LAB SAMPLE ID:

AF07130

Sample wt/vol:

0.798755 (g)

LAB FILE ID:

AF07130

% Moisture:

92.2

DATE RECEIVED:

8/30/2002

Extraction :

SW 846 METHOD 3545 (ASE)

DATE EXTRACTED:

9/10/2002

Conc. Extract Volume:

50000 (µL)

DATE ANALYZED:

10/2/2002

Injection Volume:

1.2 (µL)

DILUTION FACTOR:

1

Method:

SW-846 8082 (PCB)

SULFUR CLEANUP:

YES

GC Column : J&W, NARROWBORE CAPILLARY, DB-1, 30M; ID:0.25mm

NEA Form ID: S:\FORMS\CATB\SOIL_GC_19F_091302AL.XLS

NEA File ID: S:\CERT02\02080137_GC19F_8082SEC

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/g)	Q
12674-11-2	Aroclor 1016	1.25	U
11104-28-2	Aroclor 1221	2.79 1.25	X P U
11141-16-5	Aroclor 1232	1.25	U
53469-21-9	Aroclor 1242	8.65	X
12672-29-6	Aroclor 1248	1.25	U
11097-69-1	Aroclor 1254	1.25	U
11096-82-5	Aroclor 1260	4.00	X P

- i Aroclor 1221 is being used to report an altered PCB pattern exhibited by the sample.
Actual Aroclor 1221 is not present in the sample, but is reported to more accurately quantify PCB present in sample that has undergone environmental alteration.
- ii Aroclor 1242 is being reported as the best Aroclor match.
The sample exhibits an altered PCB pattern.
- iii Aroclor 1260 is being reported as the best Aroclor match.
The sample exhibits an altered PCB pattern.

¹ Form based upon NYS-DEC Form 1-CLP-PEST

FORM I-CLP-PCB (NEA)

1D-1¹
PCB ANALYSIS DATA SHEET

Northeast Analytical Inc.

SDG No.:

020830ALCAN

ELAP ID No.:

11078

CLIENT ID:

OU1SD14 (0.5-1')

Matrix:

SEDIMENT

LAB SAMPLE ID:

AF07131

Sample wt/vol:

1.07664 (g)

LAB FILE ID:

AF07131

% Moisture:

89.6

DATE RECEIVED:

8/30/2002

Extraction :

SW 846 METHOD 3545 (ASE)

DATE EXTRACTED:

9/10/2002

Conc. Extract Volume:

50000 (µL)

DATE ANALYZED:

10/2/2002

Injection Volume:

1.2 (µL)

DILUTION FACTOR:

2

Method:

SW-846 8082 (PCB)

SULFUR CLEANUP:

YES

GC Column : J&W, NARROWBORE CAPILLARY, DB-1, 30M; ID:0.25mm

NEA Form ID: S:\FORMS\CATB\SOIL_GC_19F_091302AL.XLS

NEA File ID: S:\CERT02\02080137_GC19F_8082SEC

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/g)	Q
12674-11-2	Aroclor 1016	1.86	U
11104-28-2	Aroclor 1221	3.36 1.86	U X
11141-16-5	Aroclor 1232	1.86	U
53469-21-9	Aroclor 1242	23.5	U X
12672-29-6	Aroclor 1248	1.86	U
11097-69-1	Aroclor 1254	1.86	U
11096-82-5	Aroclor 1260	7.31	U X, P

- i Aroclor 1221 is being used to report an altered PCB pattern exhibited by the sample.
Actual Aroclor 1221 is not present in the sample, but is reported to more accurately quantify PCB present in sample that has undergone environmental alteration.
- ii Aroclor 1242 is being reported as the best Aroclor match.
The sample exhibits an altered PCB pattern.
- iii Aroclor 1260 is being reported as the best Aroclor match.
The sample exhibits an altered PCB pattern.

¹ Form based upon NYS-DEC Form 1-CLP-PEST

1D-1¹
PCB ANALYSIS DATA SHEET

Northeast Analytical Inc.

ELAP ID No.:

11078

SDG No.:

020830ALCAN

CLIENT ID:

OU1SD14 (1-1.5')

Matrix:

SEDIMENT

LAB SAMPLE ID:

AF07132

Sample wt/vol:

1.40343 (g)

LAB FILE ID:

AF07132

% Moisture:

87.2

DATE RECEIVED:

8/30/2002

Extraction :

SW 846 METHOD 3545 (ASE)

DATE EXTRACTED:

9/10/2002

Conc. Extract Volume:

50000 (µL)

DATE ANALYZED:

10/2/2002

Injection Volume:

1.2 (µL)

DILUTION FACTOR:

3

Method:

SW-846 8082 (PCB)

SULFUR CLEANUP:

YES

GC Column : J&W, NARROWBORE CAPILLARY, DB-1, 30M; ID:0.25mm

NEA Form ID: S:\FORMS\CATB\SOIL_GC_19F_091302AL.XLS

NEA File ID: S:\CERT02\02080137_GC19F_8082SEC

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/g)	Q
12674-11-2	Aroclor 1016	2.14	U
11104-28-2	Aroclor 1221	3.31 2.14	U 1.1
11141-16-5	Aroclor 1232	2.14	U
53469-21-9	Aroclor 1242	25.2	U 1.1
12672-29-6	Aroclor 1248	2.14	U
11097-69-1	Aroclor 1254	2.14	U
11096-82-5	Aroclor 1260	8.79	U 1.1, 1.5

- i Aroclor 1221 is being used to report an altered PCB pattern exhibited by the sample.
Actual Aroclor 1221 is not present in the sample, but is reported to more accurately quantify PCB present in sample that has undergone environmental alteration.
- ii Aroclor 1242 is being reported as the best Aroclor match.
The sample exhibits an altered PCB pattern.
- iii Aroclor 1260 is being reported as the best Aroclor match.
The sample exhibits an altered PCB pattern.

1D-1¹
PCB ANALYSIS DATA SHEET

Northeast Analytical Inc.

SDG No.:

020830ALCAN

ELAP ID No.:

11078

CLIENT ID:

OU1SD14 (1.5-2')

Matrix:

SEDIMENT

LAB SAMPLE ID:

AF07133

Sample wt/vol:

1.39807 (g)

LAB FILE ID:

AF07133

% Moisture:

86.3

DATE RECEIVED:

8/30/2002

Extraction :

SW 846 METHOD 3545 (ASE)

DATE EXTRACTED:

9/10/2002

Conc. Extract Volume:

50000 (μL)

DATE ANALYZED:

10/2/2002

Injection Volume:

1.2 (μL)

DILUTION FACTOR:

4

Method:

SW-846 8082 (PCB)

SULFUR CLEANUP:

YES

GC Column : J&W, NARROWBORE CAPILLARY, DB-1, 30M; ID:0.25mm

NEA Form ID: S:\FORMS\CATB\SOIL_GC_19F_091302AL.XLS

NEA File ID: S:\CERT02\02080137_GC19F_8082SEC

CAS NO.	COMPOUND	CONCENTRATION UNITS: (μg/g)	Q
12674-11-2	Aroclor 1016	2.86	U
11104-28-2	Aroclor 1221	41.7 2.86	X U
11141-16-5	Aroclor 1232	2.86	U
53469-21-9	Aroclor 1242	41.3	X
12672-29-6	Aroclor 1248	2.86	U
11097-69-1	Aroclor 1254	2.86	U
11096-82-5	Aroclor 1260	14.0	11.1 P J

- i Aroclor 1221 is being used to report an altered PCB pattern exhibited by the sample.
Actual Aroclor 1221 is not present in the sample, but is reported to more accurately quantify PCB present in sample that has undergone environmental alteration.
- ii Aroclor 1242 is being reported as the best Aroclor match.
The sample exhibits an altered PCB pattern.
- iii Aroclor 1260 is being reported as the best Aroclor match.
The sample exhibits an altered PCB pattern.

¹ Form based upon NYS-DEC Form 1-CLP-PEST

1D-1¹
PCB ANALYSIS DATA SHEET

Northeast Analytical Inc.

ELAP ID No.:

11078

SDG No.:

020830ALCAN

CLIENT ID:

OU1SD16 (0-0.5')

Matrix:

SEDIMENT

LAB SAMPLE ID:

AF07137

Sample wt/vol:

2.46651 (g)

LAB FILE ID:

AF07137

% Moisture:

75.5

DATE RECEIVED:

8/30/2002

Extraction :

SW 846 METHOD 3545 (ASE)

DATE EXTRACTED:

9/12/2002

Conc. Extract Volume:

50000 (µL)

DATE ANALYZED:

10/2/2002

Injection Volume:

1.2 (µL)

DILUTION FACTOR:

1

Method:

SW-846 8082 (PCB)

SULFUR CLEANUP:

YES

GC Column : J&W, NARROWBORE CAPILLARY, DB-1, 30M; ID:0.25mm

NEA Form ID: S:\FORMS\CATB\SOIL_GC_19F_091302AL.XLS

NEA File ID: S:\CERT02\02080137_GC19F_8082SEC

CAS NO.	COMPOUND	CONCENTRATION UNITS:	Q
		(µg/g)	
12674-11-2	Aroclor 1016	0.405	U
11104-28-2	Aroclor 1221	1.11 0.405	1.11 U
11141-16-5	Aroclor 1232	0.405	U
53469-21-9	Aroclor 1242	6.51	1.11
12672-29-6	Aroclor 1248	0.405	U
11097-69-1	Aroclor 1254	0.405	U
11096-82-5	Aroclor 1260	0.779	1.11 U

- i Aroclor 1221 is being used to report an altered PCB pattern exhibited by the sample.
Actual Aroclor 1221 is not present in the sample, but is reported to more accurately quantify PCB present in sample that has undergone environmental alteration.
- ii Aroclor 1242 is being reported as the best Aroclor match.
The sample exhibits an altered PCB pattern.
- iii Aroclor 1260 is being reported as the best Aroclor match.
The sample exhibits an altered PCB pattern.

1D-1¹
PCB ANALYSIS DATA SHEET

Northeast Analytical Inc.

ELAP ID No.:

11078

SDG No.:

020830ALCAN

CLIENT ID:

OU1SD16 (0.5-1')

Matrix:

SEDIMENT

LAB SAMPLE ID:

AF07138

Sample wt/vol:

6.76899 (g)

LAB FILE ID:

AF07138

% Moisture:

36.2

DATE RECEIVED:

8/30/2002

Extraction :

SW 846 METHOD 3545 (ASE)

DATE EXTRACTED:

9/12/2002

Conc. Extract Volume:

50000 (µL)

DATE ANALYZED:

10/8/2002

Injection Volume:

1.3 (µL)

DILUTION FACTOR:

1

Method:

SW-846 8082 (PCB)

SULFUR CLEANUP:

YES

GC Column : J&W, NARROWBORE CAPILLARY, DB-1, 30M; ID:0.25mm

NEA Form ID: S:\FORMS\CATB\SOIL_GC_07_100702.XLS

NEA File ID: S:\CERT02\02080137_GC7_8082SED X

CAS NO.	COMPOUND	CONCENTRATION UNITS:	Q
		(µg/g)	
12674-11-2	Aroclor 1016	0.148	U
11104-28-2	Aroclor 1221	0.193 0.148	U <i>X, P, U</i>
11141-16-5	Aroclor 1232	0.148	U
53469-21-9	Aroclor 1242	1.99	U <i>X, W</i>
12672-29-6	Aroclor 1248	0.148	U
11097-69-1	Aroclor 1254	0.148	U
11096-82-5	Aroclor 1260	0.163	U <i>X, P, U</i>

- i Aroclor 1221 is being used to report an altered PCB pattern exhibited by the sample.
Actual Aroclor 1221 is not present in the sample, but is reported to more accurately quantify PCB present in sample that has undergone environmental alteration.
- ii Aroclor 1242 is being reported as the best Aroclor match.
The sample exhibits an altered PCB pattern.
- iii Aroclor 1260 is being reported as the best Aroclor match.
The sample exhibits an altered PCB pattern.
- iv It is not possible to distinguish if Aroclor 1242 or Aroclor 1248 was the original Aroclor in this sample that exhibits a highly altered PCB pattern. To better quantify total PCBs, Aroclor 1242 is being reported.

¹ Form based upon NYS-DEC Form 1-CLP-PEST

1D-1¹ PCB ANALYSIS DATA SHEET

Northeast Analytical Inc.

SDG No.:

020830ALCAN

ELAP ID No.:

11078

CLIENT ID:

OU1SDDUP4

Matrix:

SEDIMENT

LAB SAMPLE ID:

AF07140

Sample wt/vol:

6.91261 (g)

LAB FILE ID:

AF07140

% Moisture:

35.9

DATE RECEIVED:

8/30/2002

Extraction :

SW 846 METHOD 3545 (ASE)

DATE EXTRACTED:

9/12/2002

Conc. Extract Volume:

50000 (μL)

DATE ANALYZED:

10/2/2002

Injection Volume:

1.2 (μL)

DILUTION FACTOR:

1

Method:

SW-846 8082 (PCB)

SULFUR CLEANUP:

YES

GC Column : J&W, NARROWBORE CAPILLARY, DB-1, 30M; ID:0.25mm

NEA Form ID: S:\FORMS\CATB\SOIL_GC_19F_091302AL.XLS

NEA File ID: S:\CERT02\02080137_GC19F_8082SEC

CAS NO.	COMPOUND	CONCENTRATION UNITS: (μg/g)	Q
12674-11-2	Aroclor 1016	0.145	U
11104-28-2	Aroclor 1221	0.197 0.145	X, P U
11141-16-5	Aroclor 1232	0.145	U
53469-21-9	Aroclor 1242	1.70 1.82	X, W
12672-29-6	Aroclor 1248	0.145	U
11097-69-1	Aroclor 1254	0.145	U
11096-82-5	Aroclor 1260	0.220	iii, P J

- i Aroclor 1221 is being used to report an altered PCB pattern exhibited by the sample.
Actual Aroclor 1221 is not present in the sample, but is reported to more accurately quantify PCB present in sample that has undergone environmental alteration.
- ii Aroclor 1242 is being reported as the best Aroclor match.
The sample exhibits an altered PCB pattern.
- iii Aroclor 1260 is being reported as the best Aroclor match.
The sample exhibits an altered PCB pattern.
- iv It is not possible to distinguish if Aroclor 1242 or Aroclor 1248 was the original Aroclor in this sample that exhibits a highly altered PCB pattern. To better quantify total PCBs, Aroclor 1242 is being reported.

1D-1¹
PCB ANALYSIS DATA SHEET

Northeast Analytical Inc.		SDG No.:	020830ALCAN
ELAP ID No.:	11078	CLIENT ID:	OU1SDRB05
Matrix:	WATER	LAB SAMPLE ID:	AF07141
Sample wt/vol:	1.000 (L)	LAB FILE ID:	AF07141R
% Moisture:		DATE RECEIVED:	8/30/02
Extraction :	CLLE	DATE EXTRACTED:	9/3/02
Conc. Extract Volume:	5000 (µL)	DATE ANALYZED:	10/15/02
Injection Volume:	0.4 (µL)	DILUTION FACTOR:	1
Method:	SW-846 8082 PCB	SULFUR CLEANUP:	YES

GC Column : J&W, NARROWBORE CAPILLARY, DB-1, 30M; ID: 0.25mm

NEA Form ID: S:\FORMS\CAT6\H2O_GC11_100202

NEA File ID: S:\CERT02\02080137_GC11_8082W.XLS 1D-1-2

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L)	Q
12674-11-2	Aroclor 1016	0.0250	U
11104-28-2	Aroclor 1221	0.0250	U
11141-16-5	Aroclor 1232	0.0250	U
53469-21-9	Aroclor 1242	0.0250	U
12672-29-6	Aroclor 1248	0.0250	U
11097-69-1	Aroclor 1254	0.0250	U
11096-82-5	Aroclor 1260	0.0250	U

Form 1

TOTAL ORGANIC CARBON

Lab Name: Northeast Analytical, Inc.
Lab Code: NYS ELAP #11078
SDG Number: AF07115
Instrument ID: DC-80 / Boat Module / Horiba PIR 2000
Matrix: Sediment

S:\DATA02\TOC02080137.xls\Form 3 (2)

NEA Sample ID	Client Sample ID	Date Received	Date Analyzed	Average Concentration	Units	Concentration Qualifier	Qualifier
AF07115	OU1SD25 (0-0.5')	8/30/02	9/11/02	38300	mg/kg		
AF07116	OU1SD25 (0.5-1.0')	8/30/02	9/11/02	38200	mg/kg		
AF07117	OU1SD25 (1.0-1.5')	8/30/02	9/11/02	66000	mg/kg		
AF07118	OU1SD25 (1.5-2.0')	8/30/02	9/11/02	41200	mg/kg		
AF07119	OU1SD25 (2.0-2.5')	8/30/02	9/11/02	30900	mg/kg		
AF07120	OU1SD25 (2.5-3.1')	8/30/02	9/11/02	63200	mg/kg		
AF07121	OU1SD12 (0-0.5')	8/30/02	9/11/02	130000	mg/kg		
AF07122	OU1SD12 (0.5-1.0')	8/30/02	9/11/02	64200	mg/kg		
AF07123	OU1SD12 (1.0-1.4')	8/30/02	9/11/02	19600	mg/kg		
AF07124	OU1SD13 (0-0.5')	8/30/02	9/11/02	116000	mg/kg		
AF07125	OU1SD13 (0.5-1.0')	8/30/02	9/11/02	119000	mg/kg		
AF07126	OU1SD13 (1.0-1.5')	8/30/02	9/11/02	147000	mg/kg		
AF07127	OU1SD13 (1.5-2.0')	8/30/02	9/11/02	29800	mg/kg		
AF07128	OU1SD13 (2.0-2.2')	8/30/02	9/11/02	20700	mg/kg		
AF07130	OU1SD14 (0-0.5')	8/30/02	9/11/02	144000	mg/kg		
AF07131	OU1SD14 (0.5-1')	8/30/02	9/11/02	149000	mg/kg		
AF07132	OU1SD14 (1-1.5')	8/30/02	9/11/02	145000	mg/kg		
AF07133	OU1SD14 (1.5-2')	8/30/02	9/11/02	170000	mg/kg		
AF07134	OU1SD14 (2-2.5')	8/30/02	9/11/02	417000	mg/kg		
AF07135	OU1SD14 (2.5-3')	8/30/02	9/11/02	538000	mg/kg		

Form 1

Lab Name: Northeast Analytical, Inc.

Lab Code: **NYS ELAP #11078**

SDG Number: AF07136

Instrument ID: DC-80 / Boat Module / Horiba PIR 2000

Matrix: **Sediment**

S:\DATA02\TOC02080137A.xls]Form 3

[illegible]

000883

Form 1
TOTAL ORGANIC CARBON

Lab Name: Northeast Analytical, Inc.

Lab Code: NYS ELAP #11078

SDG Number: AF07115

Instrument ID: DC-80

Matrix: Water

S: DATA02\TOC02080137.xls]Form 3 (2)

[illegible]

NORTHEAST ANALYTICAL

ENVIRONMENTAL LAB SERVICES

2190 Technology Drive, Schenectady, NY 12308

(518) 346-4592 • FAX: (518) 381-6055

CERTIFICATE OF ANALYSIS

09/12/2002

ALCAN ALUMINUM CORPORATION

OSWEGO WORKS, PO BOX 28

448 COUNTY ROUTE 1A

OSWEGO, NY 13126

CONTACT: DAVID NEUNER

MATRIX : SEDIMENT **PROJECT:** OU1 SEDIMENT INVESTIGATION
DATE RECEIVED: 08/30/2002 **TIME:** 10:30 **LOCATION:** OSWEGO, NY
SAMPLED BY: J. GUTKOWSKI **LAB ELAP #:** 11078
CUSTOMER PO: N/A

NEA ID	CUSTOMER ID	METHOD	DATE SAMPLED	TIME SAMPLED	RESULTS	PQL	UNITS	DATE ANALYZED
Total Organic Carbon								
AF07115	OU1SD25 (0-0.5')	EPA Lloyd Kahn	08/28/2002	09:15	38300	1190	mg/kg	09/11/2002
AF07116	OU1SD25 (0.5-1.0')	EPA Lloyd Kahn	08/28/2002	09:15	38200	1150	mg/kg	09/11/2002
AF07117	OU1SD25 (1.0-1.5')	EPA Lloyd Kahn	08/28/2002	09:15	66000	1070	mg/kg	09/11/2002
AF07118	OU1SD25 (1.5-2.0')	EPA Lloyd Kahn	08/28/2002	09:15	41200	704	mg/kg	09/11/2002
AF07119	OU1SD25 (2.0-2.5')	EPA Lloyd Kahn	08/28/2002	09:15	30900	520	mg/kg	09/11/2002
AF07120	OU1SD25 (2.5-3.1')	EPA Lloyd Kahn	08/28/2002	09:15	63200	660	mg/kg	09/11/2002
AF07121	OU1SD12 (0-0.5')	EPA Lloyd Kahn	08/28/2002	10:45	130000	2930	mg/kg	09/11/2002
AF07122	OU1SD12 (0.5-1.0')	EPA Lloyd Kahn	08/28/2002	10:45	64200	628	mg/kg	09/11/2002
AF07123	OU1SD12 (1.0-1.4')	EPA Lloyd Kahn	08/28/2002	10:45	19600	375	mg/kg	09/11/2002
AF07124	OU1SD13 (0-0.5')	EPA Lloyd Kahn	08/28/2002	11:30	116000	4580	mg/kg	09/11/2002
AF07125	OU1SD13 (0.5-1.0')	EPA Lloyd Kahn	08/28/2002	11:30	119000	1790	mg/kg	09/11/2002
AF07126	OU1SD13 (1.0-1.5')	EPA Lloyd Kahn	08/28/2002	11:30	147000	1370	mg/kg	09/11/2002
AF07127	OU1SD13 (1.5-2.0')	EPA Lloyd Kahn	08/28/2002	11:30	29800	454	mg/kg	09/11/2002
AF07128	OU1SD13 (2.0-2.2')	EPA Lloyd Kahn	08/28/2002	11:30	20700	392	mg/kg	09/11/2002
AF07130	OU1SD14 (0-0.5')	EPA Lloyd Kahn	08/29/2002	09:00	144000	3330	mg/kg	09/11/2002
AF07131	OU1SD14 (0.5-1')	EPA Lloyd Kahn	08/29/2002	09:00	149000	3690	mg/kg	09/11/2002
AF07132	OU1SD14 (1-1.5')	EPA Lloyd Kahn	08/29/2002	09:00	145000	2450	mg/kg	09/11/2002
AF07133	OU1SD14 (1.5-2')	EPA Lloyd Kahn	08/29/2002	09:00	170000	1950	mg/kg	09/11/2002
AF07134	OU1SD14 (2-2.5')	EPA Lloyd Kahn	08/29/2002	09:00	417000	6650	mg/kg	09/11/2002
AF07135	OU1SD14 (2.5-3')	EPA Lloyd Kahn	08/29/2002	09:00	538000	14000	mg/kg	09/11/2002

Note: ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL

PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample

AUTHORIZED SIGNATURE:



Northeast Analytical, Inc.

Robert E. Wagner, Laboratory Director

NORTHEAST ANALYTICAL

ENVIRONMENTAL LAB SERVICES

2190 Technology Drive, Schenectady, NY 12308

(518) 346-4592 • FAX: (518) 381-6055

CERTIFICATE OF ANALYSIS

09/13/2002

ALCAN ALUMINUM CORPORATION
OSWEGO WORKS, PO BOX 28
448 COUNTY ROUTE 1A
OSWEGO, NY 13126
CONTACT: DAVID NEUNER

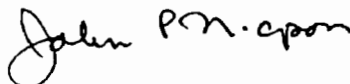
MATRIX : SEDIMENT PROJECT: OU1 SEDIMENT INVESTIGATION
DATE RECEIVED: 08/30/2002 TIME: 10:30 LOCATION: OSWEGO, NY
SAMPLED BY: J. GUTKOWSKI LAB ELAP #: 11078
CUSTOMER PO: N/A

NEA ID	CUSTOMER ID	METHOD	DATE SAMPLED	TIME SAMPLED	RESULTS	PQL	UNITS	DATE ANALYZED
Total Organic Carbon								
AF07136	OU1SD14 (3-3.5')	EPA Lloyd Kahn	08/29/2002	09:00	440000	10700	mg/kg	09/11/2002
AF07137	OU1SD16 (0-0.5')	EPA Lloyd Kahn	08/29/2002	11:30	282000	8640	mg/kg	09/11/2002
AF07138	OU1SD16 (0.5-1')	EPA Lloyd Kahn	08/29/2002	11:30	30300	1050	mg/kg	09/11/2002
AF07140	OU1SDDUP4	EPA Lloyd Kahn	08/29/2002	N/A	30100	751	mg/kg	09/11/2002

Note: ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL

PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample

AUTHORIZED SIGNATURE:



Northeast Analytical, Inc.

Robert E. Wagner, Laboratory Director

NORTHEAST ANALYTICAL

ENVIRONMENTAL LAB SERVICES

2190 Technology Drive, Schenectady, NY 12308

(518) 346-4592 • FAX: (518) 381-6055

CERTIFICATE OF ANALYSIS

10/02/2002

ALCAN ALUMINUM CORPORATION
OSWEGO WORKS, PO BOX 28
448 COUNTY ROUTE 1A
OSWEGO, NY 13126
CONTACT: DAVID NEUNER

MATRIX : WATER PROJECT: OU1 SEDIMENT INVESTIGATION
DATE RECEIVED: 08/30/2002 TIME: 10:30 LOCATION: OSWEGO, NY
SAMPLED BY: J. GUTKOWSKI LAB ELAP #: 11078
CUSTOMER PO: N/A

NEA ID	CUSTOMER ID	METHOD	DATE SAMPLED	TIME SAMPLED	RESULTS	PQL	UNITS	DATE ANALYZED
Total Organic Carbon								
AF07129	OU1SDRB04	EPA 415.1	08/28/2002	12:30	ND	0.966	mg/L	09/05/2002
AF07141	OU1SDRB05	EPA 415.1	08/29/2002	12:30	ND	0.966	mg/L	09/05/2002

Note: ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL

PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample

AUTHORIZED SIGNATURE:

Northeast Analytical, Inc.

Robert E. Wagner, Laboratory Director



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Page 1 of 1

000906

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CERTIFICATE OF ANALYSIS

09/26/2002

ALCAN ALUMINUM CORPORATION
OSWEGO WORKS, PO BOX 28
448 COUNTY ROUTE 1A
OSWEGO, NY 13126
CONTACT: DAVID NEUNER

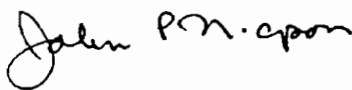
MATRIX : SEDIMENT DATE SAMPLED: 08/28/2002
DATE RECEIVED: 08/30/2002 TIME: 10:30 PROJECT: OU1 SEDIMENT INVESTIGATION
SAMPLED BY: J. GUTKOWSKI LOCATION: OSWEGO, NY
CUSTOMER PO #: N/A LAB ELAP #: 11078

NEA ID	CUSTOMER ID	METHOD	RESULTS	DATE ANALYZED
Specific Gravity 20°C				
AF07121	OU1SD12 (0-0.5')	ASTM D854-00	2.11	09/24/2002
AF07122	OU1SD12 (0.5-1.0')	ASTM D854-00	2.41	09/24/2002
AF07123	OU1SD12 (1.0-1.4')	ASTM D854-00	2.61	09/24/2002
AF07130	OU1SD14 (0-0.5')	ASTM D854-00	2.01	09/24/2002
AF07131	OU1SD14 (0.5-1')	ASTM D854-00	1.91	09/25/2002
AF07132	OU1SD14 (1-1.5')	ASTM D854-00	1.87	09/25/2002
AF07133	OU1SD14 (1.5-2')	ASTM D854-00	1.73	09/25/2002
AF07134	OU1SD14 (2-2.5')	ASTM D854-00	1.59	09/25/2002
AF07135	OU1SD14 (2.5-3')	ASTM D854-00	1.69	09/25/2002
AF07136	OU1SD14 (3-3.5')	ASTM D854-00	2.02	09/25/2002
AF07137	OU1SD16 (0-0.5')	ASTM D854-00	2.33	09/26/2002
AF07138	OU1SD16 (0.5-1')	ASTM D854-00	2.36	09/26/2002
AF07139	OU1SDGSDUP2	ASTM D854-00	2.41	09/26/2002

Note: ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL

PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample

AUTHORIZED SIGNATURE:



Northeast Analytical, Inc.

Robert E. Wagner, Laboratory Director

000907

NORTHEAST ANALYTICAL

ENVIRONMENTAL LAB SERVICES

2190 Technology Drive, Schenectady, NY 12308

(518) 346-4592 • FAX: (518) 381-6055

CERTIFICATE OF ANALYSIS

09/11/2002

ALCAN ALUMINUM CORPORATION
OSWEGO WORKS, PO BOX 28
448 COUNTY ROUTE 1A
OSWEGO, NY 13126
CONTACT: DAVID NEUNER

MATRIX : SEDIMENT **PROJECT:** OU1 SEDIMENT INVESTIGATION
DATE RECEIVED: 08/30/2002 **TIME:** 10:30 **LOCATION:** OSWEGO, NY
SAMPLED BY: J. GUTKOWSKI **LAB ELAP #:** 11078
CUSTOMER PO: N/A

NEA ID	CUSTOMER ID	METHOD	DATE SAMPLED	TIME SAMPLED	RESULTS	PQL	UNITS	DATE ANALYZED
Percent Organic Content								
AF07121	OU1SD12 (0-0.5')	ASTM D2974	08/28/2002	10:45	35.7	N/A	%	09/11/2002
AF07122	OU1SD12 (0.5-1.0')	ASTM D2974	08/28/2002	10:45	9.49	N/A	%	09/11/2002
AF07123	OU1SD12 (1.0-1.4')	ASTM D2974	08/28/2002	10:45	3.02	N/A	%	09/11/2002
AF07130	OU1SD14 (0-0.5')	ASTM D2974	08/29/2002	9:00	38.2	N/A	%	09/11/2002
AF07131	OU1SD14 (0.5-1')	ASTM D2974	08/29/2002	9:00	36.6	N/A	%	09/11/2002
AF07132	OU1SD14 (1-1.5')	ASTM D2974	08/29/2002	9:00	35.0	N/A	%	09/11/2002
AF07133	OU1SD14 (1.5-2')	ASTM D2974	08/29/2002	9:00	48.2	N/A	%	09/11/2002
AF07134	OU1SD14 (2-2.5')	ASTM D2974	08/29/2002	9:00	59.1	N/A	%	09/11/2002
AF07135	OU1SD14 (2.5-3')	ASTM D2974	08/29/2002	9:00	62.9	N/A	%	09/11/2002
AF07136	OU1SD14 (3-3.5')	ASTM D2974	08/29/2002	9:00	27.1	N/A	%	09/11/2002
AF07137	OU1SD16 (0-0.5')	ASTM D2974	08/29/2002	11:30	30.7	N/A	%	09/11/2002
AF07138	OU1SD16 (0.5-1')	ASTM D2974	08/29/2002	11:30	15.5	N/A	%	09/11/2002
AF07139	OU1SDGSDUP2	ASTM D2974	08/29/2002	N/A	14.8	N/A	%	09/11/2002

Note: ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL

PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample

AUTHORIZED SIGNATURE:



Northeast Analytical, Inc.

Robert E. Wagner, Laboratory Director

000908

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October 18, 2002

Sample Delivery Group Case Narrative

This sample delivery group consists of sediment samples and associated aqueous rinse blank samples received for analysis on August 30, 2002 and includes assigned Sample Delivery Group: 020830ALCAN. The samples are from Project Name: ALCAN OUI Sediment Investigation, Project Location: ALCAN, Oswego, NY. The samples were delivered to the lab via FEDEX delivery service on August 30, 2002. All samples were received by the laboratory intact and within holding times.

This sample delivery group consists of the following samples:

<u>NEA Sample ID:</u>	<u>Client Sample ID:</u>
AF07115	OU1SD25 (0-0.5')
AF07116	OU1SD25 (0.5-1.0')
AF07117	OU1SD25 (1.0-1.5')
AF07118	OU1SD25 (1.5-2.0')
AF07119	OU1SD25 (2.0-2.5')
AF07120	OU1SD25 (2.5-3.1')
AF07121	OU1SD12 (0-0.5')
AF07122	OU1SD12 (0.5-1.0')
AF07123	OU1SD12 (1.0-1.4')
AF07124	OU1SD13 (0-0.5')
AF07125	OU1SD13 (0.5-1.0')
AF07126	OU1SD13 (1.0-1.5')
AF07127	OU1SD13 (1.5-2.0')
AF07128	OU1SD13 (2.0-2.2')
AF07129	OU1SDRB04
AF07130	OU1SD14 (0-0.5')
AF07131	OU1SD14 (0.5-1')
AF07132	OU1SD14 (1-1.5')
AF07133	OU1SD14 (1.5-2')
AF07134	OU1SD14 (2-2.5')
AF07135	OU1SD14 (2.5-3')
AF07136	OU1SD14 (3-3.5')
AF07137	OU1SD16 (0-0.5')
AF07138	OU1SD16 (0.5-1')
AF07139	OU1SDGSDUP2
AF07140	OU1SDDUP4
AF07141	OU1SDRB05

PCB Analysis EPA Method 8082/SURCO Cleanup Method

Analysis for PCB Aroclors was performed by EPA Method 8082 with secondary GC column confirmation analysis. The Accelerated Solvent Extraction Method (EPA 3545) was employed for the soil samples and the Continuous Liquid Liquid Extraction Method (EPA 3520C) was employed for the aqueous rinse blank sample.

An Alumina Column Extract Cleanup/Separation procedure developed by Dr. James Pagano of the State University College at Oswego (SUNY-ERC Method) was employed for the samples. This cleanup procedure was performed to reduce chromatographic interference from petroleum hydrocarbons and polychlorinated terphenyls (PCTs) known to be present at the study site. Reference chromatograms for PCT and the PCT Surrogate "Sentinel" are provided for visual comparison to actual samples for assessment of PCT breakthrough during the Alumina column cleanup process.

000004

The following technical and administrative items were noted for the analysis:

- 1.) The percent recovery for the DCBP and/or TCMX surrogate was below lab-established limits for the primary or secondary confirmation G.C. column analysis for several samples. (please see Form 2 for details).
- 2.) The percent difference between the concentrations for the Primary and Secondary G.C. column exceeded the protocol default limit (25%) for several samples. The affected concentration results were flagged (P) on the associated Form 1. Please see Forms 10 and Forms 1 for details regarding the samples.
- 3.) Aroclor quantitation notes (footnotes: "i", "ii", and "iii") were applied to several samples to denote that altered Aroclor patterns were observed, and to describe the total Aroclor quantitation scheme that was employed for the samples. Please see Forms 1 for details.

Total Organic Carbon Analysis


Analysis for TOC was performed by US-EPA Lloyd Kahn Method for sediment samples and USEPA 415.1 for the aqueous rinse blank sample. The following technical and administrative items were noted for the analysis:

All quality assurance parameters were met for the analysis.

Qualifier Summary:

I. CLP Standard Organic and Inorganic analysis qualifiers were used for all analyses.

This Case Narrative was prepared by,



William A. Kotas

Quality Assurance Officer

S:\forms\catb\casen\101802A.doc

Sediment Analytical Data Reports

**SDG #020831ALCAN
8/30/02**

DATA REVIEW FOR
ALCAN ALUMINUM CORPORATION
OSWEGO, NY

SDG# 020831ALCAN

SEDIMENT SAMPLING
PCB, TOC, ORGANIC CONTENT
AND SPECIFIC GRAVITY ANALYSES

Analyses performed by:

Northeast Analytical, Inc.
Schenectady, New York

Review performed by:



Blasland, Bouck & Lee, Inc.
Syracuse, New York

Summary

The following is an assessment of the data package for SDG# 020831ALCAN for sampling at the ALCAN Aluminum Corporation Site in Oswego, NY. Included with this assessment are the data review check sheets used in the review of the package and corrected sample results. Analyses were performed on the following samples:

Sample ID	Lab ID	Matrix	Sample Date	Analysis				
				VOA	BNA	PCB	TOC	MISC ²
OU1SD24 (0-0.5')	AF06357	sediment	08/30/02			x	x	
OU1SD24 (0.5-1')	AF07358	sediment	08/30/02			x	x	
OU1SD24 (1-1.5')	AF07359	sediment	08/30/02			x	x	
OU1SD23 (0-0.5')	AF07360	sediment	08/30/02			x	x	x
OU1SD23 (0.5-1')	AF07361	sediment	08/30/02			x	x	x
OU1SD23 (1-1.5')	AF07362	sediment	08/30/02			x	x	x
OU1SD23 (1.5-2.1')	AF07363	sediment	08/30/02			x	x	x
OU1SD22 (0-0.5')	AF07365	sediment	08/30/02			x	x	
OU1SD22 (0.5-1')	AF07366	sediment	08/30/02			x	x	
OU1SD18 (0-0.5')	AF07367	sediment	08/30/02			x	x	
OU1SD18 (0.5-1')	AF07368	sediment	08/30/02			x	x	
OU1SD18 (1-1.4')	AF07369	sediment	08/30/02			x	x	
OU1SD17 (0-0.5')	AF07370	sediment	08/30/02			x	x	x
OU1SD17 (0.5-0.8') ¹	AF07371	sediment	08/30/02			x	x	x
OU1SD21 (0-0.5')	AF07372	sediment	08/30/02			x	x	
OU1SD21 (0.5-1')	AF07373	sediment	08/30/02			x	x	
OU1SD DUP5	AF07374	sediment	08/30/02			x	x	
OU1SDRB06	AF07375	water	08/30/02			x	x	

1 MS/MSD analysis performed on sample

2 Miscellaneous parameters include: Percent organic content and specific gravity.

PCB ANALYSES

Introduction

Analyses were performed according to USEPA SW-846 Method 8082 as referenced in NYSDEC-ASP.

The data review process is an evaluation of data on a technical basis rather than a determination of contract compliance. As such, the standards against which the data are being weighed may differ from those specified in the analytical method. It is assumed that the data package represents the best efforts of the laboratory and had already been subjected to adequate and sufficient quality review prior to submission. During the review process, laboratory qualified and unqualified data are verified against the supporting documentation. Based on this evaluation, qualifier codes may be added, deleted, or modified by the data reviewer. Results are qualified with the following codes in accordance with National Functional Guidelines:

- U The compound was analyzed for but not detected. The associated value is the compound quantitation limit.
- J The compound was positively identified; however, the associated numerical value is an estimated concentration only.
- B The compound has been found in the sample as well as its associated blank, its presence in the sample may be suspect.
- N The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification.
- JN The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification. The associated numerical value is an estimated concentration only.
- E The compound was quantitated above the calibration range.
- D Concentration is based on a diluted sample analysis.
- C Identification confirmed by GC/MS.
- UJ The compound was not detected above the reported sample quantitation limit. However, the reported limit is approximate and may or may not represent the actual limit of quantitation.
- R The sample results are rejected.

Two facts should be noted by all data users. First, the "R" flag means that the associated value is unusable. In other words, due to significant QC problems, the analysis is invalid and provides no information as to whether the compound is present or not. "R" values should not appear on data tables because they cannot be relied upon, even as a last resort. The second fact to keep in mind is that no compound concentration, even if it has passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data but any value potentially contains error.

Data Assessment

1. Holding Time

The specified holding times for PCB analyses under NYSASP are 5 days from sample receipt to extraction and 40 days to analysis. The technical holding times for soils are 14 days from sample collection to extraction and 40 days to analysis.

All samples were extracted and analyzed within the technical holding time with the exception of samples OU1SD18 (0-0.5'), OU1SD18 (1-1.4') and OU1SD17 (0.5-0.8'). Data have been qualified as estimated in the listed samples based on the holding time violation.

2. Blank Contamination

Quality assurance blanks (i.e., method, field, or rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Field and rinse blanks measure contamination of samples during field operations.

No Aroclors were detected in the method or rinse blanks.

3. System Performance

System performance and column resolution were acceptable.

4. Calibration

Satisfactory instrument calibration is established to insure that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of acceptable performance at the beginning of an experimental sequence. The continuing calibration verifies that the instrument daily performance is satisfactory.

4.1 Initial Calibration

A maximum RSD of 20% is allowed. The initial calibration was within the specified limit for all Aroclors.

4.2 Continuing Calibration

A maximum %D of 15 is allowed. All continuing calibration standards were within the specified limit.

5. Surrogates / System Monitoring Compounds

All samples to be analyzed for organic compounds are spiked with surrogate compounds prior to sample preparation to evaluate overall laboratory performance and efficiency of the analytical technique.

Recovery for one surrogate was below control limits in samples OU1SD21 (0.5-1') and OU1SDDUP5. Since recoveries for the remaining surrogates were within control limits, no data have been qualified based on the deviations. Surrogates were diluted beyond the range of quantitation in samples OU1SD17 (0.5-0.8') MS, OU1SD17 (0.5-0.8') MSD, OU1SD24 (0-0.5'), OU1SD23 (0-0.5'), OU1SD23 (0.5-1'), OU1SD22 (0-0.5'), OU1SD17 (0-0.5') and OU1SD21 (0-0.5'). No data have been qualified based on the diluted surrogates. All other surrogate recoveries were within control limits.

6. Compound Identification

The retention times of all quantitated peaks must fall within the calculated retention time windows for both the primary and confirmation columns.

Based on the difference in quantitated results between the two analytical columns, data for Aroclor 1248 in samples OU1SD24 (0.5-1'), OU1SD21 (0.5-1') and OU1SD DUP5 and data for Aroclor 1260 in samples OU1SD23 (0-0.5'), OU1SD22 (0.5-1'), OU1SD17 (0-0.5'), OU1SD17 (0.5-0.8') and OU1SD21 (0-0.5') have been qualified as estimated with a potential high bias.

7. Matrix Spike/Matrix Spike Duplicate

Matrix spike and matrix spike duplicate data are used to assess the precision and accuracy of the analytical method independent of matrix interferences.

The matrix spike and matrix spike duplicate recoveries and relative percent difference between recoveries were within control limits.

8. Matrix Spike Blank

The matrix spike blank recovery was within control limits.

9. Field Duplicates

Results for duplicate samples are summarized as follows:

Sample ID/ Duplicate ID	Analyte	Sample Result	Duplicate Result	RPD
OU1SD21 (0.5-1') / OU1SD DUP5	Aroclor 1248	21.5	17.5	20.5%
	Aroclor 1260	1.61	1.32	19.8%

The duplicate results are acceptable.

10. System Performance and Overall Assessment

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines listed in the analytical method.

Data Validation Checklist

PCB Data Validation Checklist

	YES	NO	NA
<u>Data Completeness and Deliverables</u>			
Have any missing deliverables been received and added to the data package?	<u> </u>	<u> X </u>	<u> </u>
Is there a narrative or cover letter present?	<u> X </u>	<u> </u>	<u> </u>
Are the sample numbers included in the narrative?	<u> X </u>	<u> </u>	<u> </u>
Are the sample chain-of-custodies present?	<u> X </u>	<u> </u>	<u> </u>
Do the chain-of-custodies indicate any problems with sample receipt or sample condition?	<u> </u>	<u> X </u>	<u> </u>
<u>Holding Times</u>			
Have any holding times been exceeded?	<u> X </u>	<u> </u>	<u> </u>
<u>Surrogate Recovery</u>			
Are the surrogate recovery forms present?	<u> X </u>	<u> </u>	<u> </u>
Are all samples listed on the surrogate recovery form?	<u> X </u>	<u> </u>	<u> </u>
Were recoveries of any surrogate outside control limits for any sample or blank?	<u> X </u>	<u> </u>	<u> </u>
If yes, were the samples reanalyzed?	<u> </u>	<u> X </u>	<u> </u>
Are there any transcription/calculation errors between the raw data and the summary form?	<u> </u>	<u> X </u>	<u> </u>
<u>Matrix Spikes</u>			
Is there a matrix spike recovery form present?	<u> X </u>	<u> </u>	<u> </u>
Were matrix spikes analyzed at the required frequency?	<u> X </u>	<u> </u>	<u> </u>
How many spike recoveries were outside of QC limits?			
<u> 0 </u> out of <u> 2 </u>			
How many RPDs for matrix spike and matrix spike duplicate were outside of QC limits?			
<u> 0 </u> out of <u> 1 </u>			
<u>Blanks</u>			
Is a method blank summary form present?	<u> X </u>	<u> </u>	<u> </u>
Has a method blank been extracted for each set of samples or for each 20 samples, whichever is more frequent?	<u> X </u>	<u> </u>	<u> </u>
Do any method/instrument blanks have positive results?	<u> </u>	<u> X </u>	<u> </u>
Are field/rinse blanks associated with every sample?	<u> X </u>	<u> </u>	<u> </u>
Do any field/rinse blanks have positive results?	<u> </u>	<u> X </u>	<u> </u>

PCB Data Validation Checklist - Page 2

	YES	NO	NA
<u>Calibration and GC Performance</u>			
Are the following chromatograms and integration reports present?			
peak resolution check	<u> </u>	<u> X </u>	<u> </u>
Aroclor 1016/1260	<u> X </u>	<u> </u>	<u> </u>
Aroclors 1221, 1232, 1242, 1248, and 1254	<u> X </u>	<u> </u>	<u> </u>
Is a calibration summary form present and complete for each analytical sequence?	<u> X </u>	<u> </u>	<u> </u>
Are there any transcription/calculation errors between the raw data and the forms?	<u> </u>	<u> X </u>	<u> </u>
Are the initial calibration %RSD within acceptable limits for all analytes?	<u> X </u>	<u> </u>	<u> </u>
Is the resolution between any two adjacent peaks in the resolution check mixture > 60%?	<u> </u>	<u> </u>	<u> X </u>
Have all samples been injected within a 12 hour period beginning with the injection of a calibration standard?	<u> X </u>	<u> </u>	<u> </u>
Is a continuing calibration summary form present and complete for each continuing standard analyzed?	<u> X </u>	<u> </u>	<u> </u>
Are there any transcription/calculation errors between the raw data and the form?	<u> </u>	<u> X </u>	<u> </u>
Are all continuing calibration standard %D within acceptable limits?	<u> X </u>	<u> </u>	<u> </u>
<u>Analytical Sequence</u>			
Is an analytical sequence summary form present and complete for each column and each period of analyses?	<u> X </u>	<u> </u>	<u> </u>
Was the proper analytical sequence followed?	<u> X </u>	<u> </u>	<u> </u>
<u>Cleanup Efficiency Verification</u>			
Are percent recoveries of the compounds used to check the efficiency of the cleanup procedure within QC limits?	<u> X </u>	<u> </u>	<u> </u>
<u>PCB Identification</u>			
Are RT of sample compounds within the established RT windows?	<u> X </u>	<u> </u>	<u> </u>
Were all positively identified compounds confirmed on a second column?	<u> X </u>	<u> </u>	<u> </u>
Was GC/MS confirmation provided when required?	<u> </u>	<u> </u>	<u> X </u>
Were there any false negatives?	<u> </u>	<u> X </u>	<u> </u>

PCB Data Validation Checklist - Page 3

	YES	NO	NA
<u>Compound Quantitation and Reported Detection Limits</u>			
Are there any transcription/calculation errors in the Form 1 results?	<u> </u>	<u> X </u>	<u> </u>
Are the reporting limits adjusted to reflect sample dilutions and, for soils, sample moisture?	<u> X </u>	<u> </u>	<u> </u>
<u>Chromatogram Quality</u>			
Were the baselines stable?	<u> X </u>	<u> </u>	<u> </u>
Were any electronegative displacement (negative peaks) or unusual peaks detected?	<u> </u>	<u> X </u>	<u> </u>
<u>Field Duplicates</u>			
Were field duplicates submitted with the samples?	<u> X </u>	<u> </u>	<u> </u>

PCB Qualifier Summary
Holding Time and Surrogates

Sample ID	Holding Time*	Surrogates*			
		TCX-1	TCX-2	DCB-1	DCB-2
OU1SD24 (0-0.5')		D	D	D	D
OU1SD24 (0.5-1')					
OU1SD24 (1-1.5')					
OU1SD23 (0-0.5')		D	D	D	D
OU1SD23 (0.5-1')		D	D	D	D
OU1SD23 (1-1.5')					
OU1SD23 (1.5-2.1')					
OU1SD22 (0-0.5')		D	D	D	D
OU1SD22 (0.5-1')					
OU1SD18 (0-0.5')	+6				
OU1SD18 (0.5-1')					
OU1SD18 (1-1.4')	+6				
OU1SD17 (0-0.5')		D	D	D	D
OU1SD17 (0.5-0.8')	+6				
OU1SD17 (0.5-0.8') MS		D	D	D	D
OU1SD17 (0.5-0.8') MSD		D	D	D	D
OU1SD21 (0-0.5')		D	D	D	D
OU1SD21 (0.5-1')				↓	↓
OU1SD DUP5				↓	↓
OU1SDRB06					

Surrogates:

TCX Tetrachloro-m-xylene
DCB Decachlorobiphenyl
na Not applicable

Qualifiers:

D Surrogate diluted out
↑ Recovery high
↓ Recovery low

* Unless otherwise noted, all parameters are within specified limits.

PCB Calibration Summary

Instrument: GC11
 Column: DB-1

Date:	10/01/02- 10/03/02	10/03/02	10/03/02	10/03/02	10/03/02	10/03/02	10/03/02	10/03/02
Time:		1439	1518	1557	1636	1720	1759	1838
	Initial Cal.	Cont Cal.	Cont Cal.	Cont Cal.	Cont Cal.	Cont Cal.	Cont Cal.	Cont Cal.
	%RSD	%D	%D	%D	%D	%D	%D	%D
Aroclor 1016	--*	ok						
Aroclor 1221	--*		ok					
Aroclor 1232	--*			ok				
Aroclor 1242	--*				ok			
Aroclor 1248	--*					ok		
Aroclor 1254	--*						ok	
Aroclor 1260	--*							ok
Tetrachloro-m-xylene	ok							
Decachlorobiphenyl	ok							
Affected Samples:								

* Single-point standard analyzed

PCB Calibration Summary - Page 2

[illegible]

PCB Calibration Summary - Page 3

Instrument: GC07

Column: DB-1

Date:	10/05/02- 10/08/02	10/08/02	10/08/02	10/08/02	10/08/02	10/08/02	10/08/02	10/08/02
Time:		0628	0702	0737	0811	0845	0919	0953
	Initial Cal.	Cont Cal.	Cont Cal.	Cont Cal.	Cont Cal.	Cont Cal.	Cont Cal.	Cont Cal.
	%RSD	%D	%D	%D	%D	%D	%D	%D
Aroclor 1016	--*	ok						
Aroclor 1221	--*		ok					
Aroclor 1232	--*			ok				
Aroclor 1242	--*				ok			
Aroclor 1248	--*					ok		
Aroclor 1254	--*						ok	
Aroclor 1260	--*							ok
Tetrachloro-m-xylene	ok							
Decachlorobiphenyl	ok							
Affected Samples:								

* Single-point standard analyzed

PCB Calibration Summary - Page 4

[illegible]

PCB Calibration Summary - Page 5

[illegible]

PCB Calibration Summary - Page 6

Instrument: GC05

Column: DB-5

Date:	8/26/02- 8/27/02	8/27/02	8/27/02	8/27/02	8/27/02	8/27/02	8/27/02	8/27/02
Time:		1152	1226	1300	1336	1410	1445	1520
	Initial Cal.	Cont Cal.	Cont Cal.	Cont Cal.	Cont Cal.	Cont Cal.	Cont Cal.	Cont Cal.
	%RSD	%D	%D	%D	%D	%D	%D	%D
Aroclor 1016	--*	ok						
Aroclor 1221	--*		ok					
Aroclor 1232	--*			ok				
Aroclor 1242	--*				ok			
Aroclor 1248	--*					ok		
Aroclor 1254	--*						ok	
Aroclor 1260	--*							ok
Tetrachloro-m-xylene	ok							
Decachlorobiphenyl	ok							
Affected Samples:								

* Single-point standard analyzed

PCB Calibration Summary - Page 7

[illegible]

Corrected Sample Analysis Data Sheets

SUPPLEMENTAL PARAMETERS

Introduction

Analyses were performed according to the following method:

Total Organic Carbon

EPA

Lloyd Kahn

The data review process is intended to evaluate data on a technical basis. It is assumed that the data package represents the best efforts of the laboratory and has already been subjected to adequate quality review prior to submission for review.

During the review process, laboratory data are verified against the supporting documentation. Based on this evaluation, qualifier codes may be added, modified or deleted by the data reviewer. Results are qualified with the following codes in accordance with the National Functional Guidelines.

- < The material was analyzed for, but was not detected. The associated value is the sample reporting limit.
- J The associated value is an estimated quantity.
- R The sample results are rejected.

Two facts should be noted by all data users. First, the "R" flag means that the associated value is unusable. In other words, due to significant QC problems, the analysis is invalid and provides no information as to whether the compound is present or not. "R" values should not appear on data tables because they cannot be relied upon, even as a last resort. The second fact to keep in mind is that no compound concentration, even if it has passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data but any value potentially contains error.

Data Assessment

1. Holding Times

The method-specified holding time for TOC analysis is 14 days from collection
All samples were analyzed within the specified holding time.

2. Calibration

All initial and continuing calibration standards were acceptable.

3. Blank Contamination

No TOC was reported in the method or rinse blanks.

4. Laboratory Control Sample (LCS)

The laboratory control sample recovery was acceptable.

5. Matrix Spike/Matrix Spike Duplicate/Laboratory Duplicate

No matrix spike/matrix spike duplicate was included with the samples in this data set.

6. Field Duplicates

Results for duplicate samples are summarized as follows:

Sample ID/ Duplicate ID	Analyte	Sample Result	Duplicate Result	RPD
OU1SD21 (0.5-1') / OU1SD DUP5	TOC	280000	297000	5.9%

The duplicate results are acceptable.

7 Overall Assessment

Other than for any deviations mentioned in this report, the analyses of the samples were in conformance with method specifications.

Data Validation Checklist

Supplemental Data Review Checklist

	YES	NO	NA
<u>Data Completeness</u>			
Is there a narrative or cover letter present?	<u>X</u>	<u> </u>	<u> </u>
Are the samples numbers included in the narrative?	<u> </u>	<u>X</u>	<u> </u>
Are the methods utilized notated?	<u>X</u>	<u> </u>	<u> </u>
Are the sample chain-of-custodies present?	<u>X</u>	<u> </u>	<u> </u>
Do the chain-of-custodies indicate any problems with sample receipt or sample condition?	<u> </u>	<u>X</u>	<u> </u>
<u>Holding Times</u>			
Have any holding times been exceeded?	<u> </u>	<u>X</u>	<u> </u>
<u>Laboratory Duplicates</u>			
Were duplicates analyzed and were the relative percent differences between results within acceptable limits?	<u>X</u>	<u> </u>	<u> </u>
<u>Laboratory Control Samples</u>			
Were LCS analyzed and were recoveries within acceptable limits?	<u>X</u>	<u> </u>	<u> </u>
<u>Blanks</u>			
Has a method blank been analyzed for each set of samples or for each 20 samples?	<u>X</u>	<u> </u>	<u> </u>
Do any have results above the reporting limit?	<u> </u>	<u>X</u>	<u> </u>
Do any field/rinse blanks have positive results?	<u> </u>	<u>X</u>	<u> </u>
<u>Calibration</u>			
Are calibrations acceptable?	<u>X</u>	<u> </u>	<u> </u>
<u>Raw Data</u>			
Is raw data present and complete for all samples and QC?	<u>X</u>	<u> </u>	<u> </u>
<u>Compound Quantitation and Reported Limits</u>			
Are the reporting limits adjusted to reflect sample dilutions, and for soils, sample moisture?	<u>X</u>	<u> </u>	<u> </u>

Corrected Sample Analysis Data Sheets

Laboratory Narrative

Sample Compliance Report

SAMPLE COMPLIANCE REPORT

Sample Delivery Group	Sampling Date	ASP Protocol	Sample ID	Matrix	Compliance ¹				Noncompliance
					VOA	BNA	PCB	TOC	
020831ALCAN	08/30/02	2000	OU1SD24 (0-0.5')	sediment	--	--	yes	yes	
020831ALCAN	08/30/02	2000	OU1SD24 (0.5-1')	sediment	--	--	no	yes	PCB - ID
020831ALCAN	08/30/02	2000	OU1SD24 (1-1.5')	sediment	--	--	yes	yes	
020831ALCAN	08/30/02	2000	OU1SD23 (0-0.5')	sediment	--	--	no	yes	PCB - ID
020831ALCAN	08/30/02	2000	OU1SD23 (0.5-1')	sediment	--	--	yes	yes	
020831ALCAN	08/30/02	2000	OU1SD23 (1-1.5')	sediment	--	--	yes	yes	
020831ALCAN	08/30/02	2000	OU1SD23 (1.5-2.1')	sediment	--	--	yes	yes	
020831ALCAN	08/30/02	2000	OU1SD22 (0-0.5')	sediment	--	--	yes	yes	
020831ALCAN	08/30/02	2000	OU1SD22 (0.5-1')	sediment	--	--	no	yes	PCB - ID
020831ALCAN	08/30/02	2000	OU1SD18 (0-0.5')	sediment	--	--	no	yes	PCB - holding time
020831ALCAN	08/30/02	2000	OU1SD18 (0.5-1')	sediment	--	--	yes	yes	
020831ALCAN	08/30/02	2000	OU1SD18 (1-1.4')	sediment	--	--	no	yes	PCB - holding time
020831ALCAN	08/30/02	2000	OU1SD17 (0-0.5')	sediment	--	--	no	yes	PCB - ID
020831ALCAN	08/30/02	2000	OU1SD17 (0.5-0.8') ¹	sediment	--	--	no	yes	PCB - holding time, ID
020831ALCAN	08/30/02	2000	OU1SD21 (0-0.5')	sediment	--	--	no	yes	PCB - ID
020831ALCAN	08/30/02	2000	OU1SD21 (0.5-1')	sediment	--	--	no	yes	PCB - surr ² , ID
020831ALCAN	08/30/02	2000	OU1SD DUP5	sediment	--	--	no	yes	PCB - surr ² , ID
020831ALCAN	08/30/02	2000	OU1SDRB06	water	--	--	yes	yes	

- 1 Samples which are compliant with no added validation qualifiers are listed as "yes". Samples which are non-compliant or which have added qualifiers are listed as "no". A "no" designation does not necessarily indicate that the data have been rejected or are otherwise unusable.
- 2 The deviation resulted in no qualification of the data.

1D-1¹
PCB ANALYSIS DATA SHEET

Northeast Analytical Inc.

SDG No.:

020831ALCAN

ELAP ID No.:

11078

CLIENT ID:

OU1SD24 (0-0.5)

Matrix:

SEDIMENT

LAB SAMPLE ID:

AF07357

Sample wt/vol:

6.93795 (g)

LAB FILE ID:

AF07357

% Moisture:

32.1

DATE RECEIVED:

8/31/2002

Extraction :

SW 846 METHOD 3545 (ASE)

DATE EXTRACTED:

9/13/2002

Conc. Extract Volume:

50000 (µL)

DATE ANALYZED:

10/8/2002

Injection Volume:

1.3 (µL)

DILUTION FACTOR:

10

Method:

SW-846 8082 (PCB)

SULFUR CLEANUP:

YES

GC Column : J&W, NARROWBORE CAPILLARY, DB-1, 30M; ID:0.25mm

NEA Form ID S:\FORMS\CATB\SOIL_GC_07_100702.XLS

NEA File ID S:\CERT02\02090011_GC7_8082SED.

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/g)	Q
12674-11-2	Aroclor 1016	1.44	U
11104-28-2	Aroclor 1221	1.44	U
11141-16-5	Aroclor 1232	1.44	U
53469-21-9	Aroclor 1242	1.44	U
12672-29-6	Aroclor 1248	49.1	X U P
11097-69-1	Aroclor 1254	1.44	U
11096-82-5	Aroclor 1260	12.0	X P

- i Aroclor 1248 is being reported as the best Aroclor match.
The sample exhibits an altered PCB pattern.
- ii Aroclor 1260 is being reported as the best Aroclor match.
The sample exhibits an altered PCB pattern.
- iii It is not possible to distinguish if Aroclor 1242 or Aroclor 1248 was the original Aroclor in this sample that exhibits a highly altered PCB pattern. To better quantify total PCBs, Aroclor 1248 is being reported.

1D-1¹
PCB ANALYSIS DATA SHEET

Northeast Analytical Inc.

ELAP ID No.:

11078

Matrix:

SEDIMENT

Sample wt/vol:

8.36812 (g)

% Moisture:

20.6

Extraction :

SW 846 METHOD 3545 (ASE)

Conc. Extract Volume:

50000 (μL)

Injection Volume:

1.3 (μL)

Method:

SW-846 8082 (PCB)

SDG No.:

020831ALCAN

CLIENT ID:

OU1SD24 (0.5-1)

LAB SAMPLE ID:

AF07358

LAB FILE ID:

AF07358

DATE RECEIVED:

8/31/2002

DATE EXTRACTED:

9/13/2002

DATE ANALYZED:

10/8/2002

DILUTION FACTOR:

1

SULFUR CLEANUP:

YES

GC Column : J&W, NARROWBORE CAPILLARY, DB-1, 30M; ID:0.25mm

NEA Form ID: S:\FORMS\CATB\SOIL_GC_07_100702.XLS

NEA File ID: S:\CERT02\02090011_GC7_8082SED

CAS NO.	COMPOUND	CONCENTRATION UNITS:	Q
		(μg/g)	
12674-11-2	Aroclor 1016	0.120	U
11104-28-2	Aroclor 1221	0.120	U
11141-16-5	Aroclor 1232	0.120	U
53469-21-9	Aroclor 1242	0.120	U
12672-29-6	Aroclor 1248	1.05	1.05 P J
11097-69-1	Aroclor 1254	0.120	U
11096-82-5	Aroclor 1260	0.267	0.267 P

- i Aroclor 1248 is being reported as the best Aroclor match.
The sample exhibits an altered PCB pattern.
- ii Aroclor 1260 is being reported as the best Aroclor match.
The sample exhibits an altered PCB pattern.
- iii It is not possible to distinguish if Aroclor 1242 or Aroclor 1248 was the original Aroclor in this sample that exhibits a highly altered PCB pattern. To better quantify total PCBs, Aroclor 1248 is being reported.

1D-1¹
PCB ANALYSIS DATA SHEET

Northeast Analytical Inc.

ELAP ID No.:	11078	SDG No.:	020831ALCAN
Matrix:	SEDIMENT	CLIENT ID:	OU1SD24 (1-1.5)
Sample wt/vol:	8.52777 (g)	LAB SAMPLE ID:	AF07359
% Moisture:	19.5	LAB FILE ID:	AF07359
Extraction :	SW 846 METHOD 3545 (ASE)	DATE RECEIVED:	8/31/2002
Conc. Extract Volume:	50000 (µL)	DATE EXTRACTED:	9/13/2002
Injection Volume:	1.3 (µL)	DATE ANALYZED:	10/9/2002
Method:	SW-846 8082 (PCB)	DILUTION FACTOR:	2
		SULFUR CLEANUP:	YES

GC Column : J&W, NARROWBORE CAPILLARY, DB-1, 30M; ID:0.25mm

NEA Form ID: S:\FORMS\CATB\SOIL_GC_07_100702.XLS

NEA File ID: S:\CERT02\02090011_GC7_8082SED

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/g)	Q
12674-11-2	Aroclor 1016	0.234	U
11104-28-2	Aroclor 1221	0.234	U
11141-16-5	Aroclor 1232	0.234	U
53469-21-9	Aroclor 1242	0.234	U
12672-29-6	Aroclor 1248	5.61	U <i>XHP</i>
11097-69-1	Aroclor 1254	0.234	U
11096-82-5	Aroclor 1260	1.99	U <i>X</i>

- i Aroclor 1248 is being reported as the best Aroclor match.
The sample exhibits an altered PCB pattern.
- ii Aroclor 1260 is being reported as the best Aroclor match.
The sample exhibits an altered PCB pattern.
- iii It is not possible to distinguish if Aroclor 1242 or Aroclor 1248 was the original Aroclor in this sample that exhibits a highly altered PCB pattern. To better quantify total PCBs, Aroclor 1248 is being reported.

¹ Form based upon NYS-DEC Form 1-CLP-PEST FORM I-CLP-PCB (NEA)

000068

1D-1¹
PCB ANALYSIS DATA SHEET

Northeast Analytical Inc.

ELAP ID No.:

11078

SDG No.:

020831ALCAN

CLIENT ID:

OU1SD23 (0-0.5)

Matrix:

SEDIMENT

LAB SAMPLE ID:

AF07360

Sample wt/vol:

4.53539 (g)

LAB FILE ID:

AF07360

% Moisture:

57.1

DATE RECEIVED:

8/31/2002

Extraction :

SW 846 METHOD 3545 (ASE)

DATE EXTRACTED:

9/13/2002

Conc. Extract Volume:

50000 (µL)

DATE ANALYZED:

10/9/2002

Injection Volume:

1.3 (µL)

DILUTION FACTOR:

200

Method:

SW-846 8082 (PCB)

SULFUR CLEANUP:

YES

GC Column : J&W, NARROWBORE CAPILLARY, DB-1, 30M, ID:0.25mm

NEA Form ID: S:\FORMS\CATB\SOIL_GC_07_100702.XLS

NEA File ID: S:\CERT02\02090011_GC7_8082SED.

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/g)	Q
12674-11-2	Aroclor 1016	44.1	U
11104-28-2	Aroclor 1221	44.1	U
11141-16-5	Aroclor 1232	44.1	U
53469-21-9	Aroclor 1242	1210	X
12672-29-6	Aroclor 1248	44.1	U
11097-69-1	Aroclor 1254	44.1	U
11096-82-5	Aroclor 1260	65.3	AP

i Aroclor 1242 is being reported as the best Aroclor match.

The sample exhibits an altered PCB pattern.

ii Aroclor 1260 is being reported as the best Aroclor match.

The sample exhibits an altered PCB pattern.

1D-1¹
PCB ANALYSIS DATA SHEET

Northeast Analytical Inc.

ELAP ID No. :	11078	SDG No. :	020831ALCAN
Matrix :	SEDIMENT	CLIENT ID :	OU1SD23 (0.5-1)
Sample wt/vol :	7.02026 (g)	LAB SAMPLE ID :	AF07361
% Moisture :	33.0	LAB FILE ID :	AF07361
Extraction :	SW 846 METHOD 3545 (ASE)	DATE RECEIVED :	8/31/2002
Conc. Extract Volume :	50000 (µL)	DATE EXTRACTED :	9/13/2002
Injection Volume :	1.3 (µL)	DATE ANALYZED :	10/9/2002
Method :	SW-846 8082 (PCB)	DILUTION FACTOR :	10
		SULFUR CLEANUP :	YES

GC Column : J&W, NARROWBORE CAPILLARY, DB-1, 30M; ID:0.25mm

NEA Form ID: S:\FORMS\CATB\SOIL_GC_07_100702.XLS

NEA File ID: S:\CERT02\02090011_GC7_8082SED.

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/g)	Q
12674-11-2	Aroclor 1016	1.42	U
11104-28-2	Aroclor 1221	1.42	U
11141-16-5	Aroclor 1232	1.42	U
53469-21-9	Aroclor 1242	44.3	✓
12672-29-6	Aroclor 1248	1.42	U
11097-69-1	Aroclor 1254	1.42	U
11096-82-5	Aroclor 1260	4.30	✓

- i Aroclor 1242 is being reported as the best Aroclor match.
The sample exhibits an altered PCB pattern.
- ii Aroclor 1260 is being reported as the best Aroclor match.
The sample exhibits an altered PCB pattern.

1D-1¹
PCB ANALYSIS DATA SHEET

Northeast Analytical Inc.

ELAP ID No.:	11078	SDG No.:	020831ALCAN
Matrix:	SEDIMENT	CLIENT ID:	OU1SD23 (1-1.5)
Sample wt/vol:	8.2579 (g)	LAB SAMPLE ID:	AF07362
% Moisture:	21.9	LAB FILE ID:	AF07362
Extraction :	SW 846 METHOD 3545 (ASE)	DATE RECEIVED:	8/31/2002
Conc. Extract Volume:	50000 (µL)	DATE EXTRACTED:	9/13/2002
Injection Volume:	1.3 (µL)	DATE ANALYZED:	10/9/2002
Method:	SW-846 8082 (PCB)	DILUTION FACTOR:	1
		SULFUR CLEANUP:	YES

GC Column : J&W, NARROWBORE CAPILLARY, DB-1, 30M; ID:0.25mm

NEA Form ID : S:\FORMS\CATB\SOIL_GC_07_100702.XLS

NEA File ID : S:\CERT02\02090011_GC7_8082SED

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/g)	Q
12674-11-2	Aroclor 1016	0.121	U
11104-28-2	Aroclor 1221	0.121	U
11141-16-5	Aroclor 1232	0.121	U
53469-21-9	Aroclor 1242	0.890	U
12672-29-6	Aroclor 1248	0.121	U
11097-69-1	Aroclor 1254	0.121	U
11096-82-5	Aroclor 1260	0.125	U

- i Aroclor 1242 is being reported as the best Aroclor match.
The sample exhibits an altered PCB pattern.
- ii Aroclor 1260 is being reported as the best Aroclor match.
The sample exhibits an altered PCB pattern.

¹ Form based upon NYS-DEC Form 1-CLP-PEST

FORM I-CLP-PCB (NEA)

000095

1D-1¹
PCB ANALYSIS DATA SHEET

Northeast Analytical Inc.

SDG No.:

020831ALCAN

ELAP ID No.:

11078

CLIENT ID:

OU1SD23 (1.5-2.1)

Matrix:

SEDIMENT

LAB SAMPLE ID:

AF07363

Sample wt/vol:

8.50467 (g)

LAB FILE ID:

AF07363

% Moisture:

18.6

DATE RECEIVED:

8/31/2002

Extraction :

SW.846 METHOD 3545 (ASE)

DATE EXTRACTED:

9/13/2002

Conc. Extract Volume:

50000 (µL)

DATE ANALYZED:

10/9/2002

Injection Volume:

1.3 (µL)

DILUTION FACTOR:

1

Method:

SW-846 8082 (PCB)

SULFUR CLEANUP:

YES

GC Column : J&W, NARROWBORE CAPILLARY, DB-1, 30M; ID:0.25mm

NEA Form ID S:\FORMS\CATB\SOIL_GC_07_100702.XLS

NEA File ID S:\CERT02\02090011_GC7_8082SED.

CAS NO.	COMPOUND	CONCENTRATION UNITS:	Q
		(µg/g)	
12674-11-2	Aroclor 1016	0.118	U
11104-28-2	Aroclor 1221	0.118	U
11141-16-5	Aroclor 1232	0.118	U
53469-21-9	Aroclor 1242	0.596	U
12672-29-6	Aroclor 1248	0.118	U
11097-69-1	Aroclor 1254	0.118	U
11096-82-5	Aroclor 1260	0.118	U

- i Aroclor 1242 is being reported as the best Aroclor match.
The sample exhibits an altered PCB pattern.

¹ Form based upon NYS-DEC Form 1-CLP-PEST

1D-1¹
PCB ANALYSIS DATA SHEET

Northeast Analytical Inc.

SDG No.:

020831ALCAN

ELAP ID No.:

11078

CLIENT ID:

OU1SD22 (0-0.5)

Matrix:

SEDIMENT

LAB SAMPLE ID:

AF07365

Sample wt/vol:

8.7454 (g)

LAB FILE ID:

AF07365

% Moisture:

16.4

DATE RECEIVED:

8/31/2002

Extraction :

SW 846 METHOD 3545 (ASE)

DATE EXTRACTED:

9/13/2002

Conc. Extract Volume:

50000 (μL)

DATE ANALYZED:

10/9/2002

Injection Volume:

1.3 (μL)

DILUTION FACTOR:

10

Method:

SW-846 8082 (PCB)

SULFUR CLEANUP:

YES

GC Column : J&W, NARROWBORE CAPILLARY, DB-1, 30M; ID:0.25mm

NEA Form ID: S:\FORMS\CATB\SOIL_GC_07_100702.XLS

NEA File ID: S:\CERT02\02090011_GC7_8082SED.

CAS NO.	COMPOUND	CONCENTRATION UNITS: (μg/g)	Q
12674-11-2	Aroclor 1016	1.14	U
11104-28-2	Aroclor 1221	1.14	U
11141-16-5	Aroclor 1232	1.14	U
53469-21-9	Aroclor 1242	24.3	X
12672-29-6	Aroclor 1248	1.14	U
11097-69-1	Aroclor 1254	1.14	U
11096-82-5	Aroclor 1260	2.75	X/P

- i Aroclor 1242 is being reported as the best Aroclor match.
The sample exhibits an altered PCB pattern.
- ii Aroclor 1260 is being reported as the best Aroclor match.
The sample exhibits an altered PCB pattern.

¹ Form based upon NYS-DEC Form 1-CLP-PEST

FORM I-CLP-PCB (NEA)

000113

1D-1¹
PCB ANALYSIS DATA SHEET

Northeast Analytical Inc.

SDG No.:

020831ALCAN

ELAP ID No.:

11078

CLIENT ID:

OU1SD22 (0.5-1)

Matrix:

SEDIMENT

LAB SAMPLE ID:

AF07366

Sample wt/vol:

9.048 (g)

LAB FILE ID:

AF07366

% Moisture:

12.6

DATE RECEIVED:

8/31/2002

Extraction :

SW 846 METHOD 3545 (ASE)

DATE EXTRACTED:

9/13/2002

Conc. Extract Volume:

50000 (µL)

DATE ANALYZED:

10/9/2002

Injection Volume:

1.3 (µL)

DILUTION FACTOR:

5

Method:

SW-846 8082 (PCB)

SULFUR CLEANUP:

YES

GC Column : J&W, NARROWBORE CAPILLARY, DB-1, 30M; ID:0.25mm

NEA Form ID S:\FORMS\CATB\SOIL_GC_07_100702.XLS

NEA File ID S:\CERT02\02090011_GC7_8082SED

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/g)	Q
12674-11-2	Aroclor 1016	0.553	U
11104-28-2	Aroclor 1221	0.553	U
11141-16-5	Aroclor 1232	0.553	U
53469-21-9	Aroclor 1242	11.4	X
12672-29-6	Aroclor 1248	0.553	U
11097-69-1	Aroclor 1254	0.553	U
11096-82-5	Aroclor 1260	1.22	X P J

- i Aroclor 1242 is being reported as the best Aroclor match.
The sample exhibits an altered PCB pattern.
- ii Aroclor 1260 is being reported as the best Aroclor match.
The sample exhibits an altered PCB pattern.

¹ Form based upon NYS-DEC Form 1-CLP-PEST

1D-1¹
PCB ANALYSIS DATA SHEET

Northeast Analytical Inc.

ELAP ID No.:

11078

SDG No.:

020831ALCAN

CLIENT ID:

OU1SD18 (0-0.5)

Matrix:

SEDIMENT

LAB SAMPLE ID:

AF07367

Sample wt/vol:

3.8108 (g)

LAB FILE ID:

AF07367

% Moisture:

64.4

DATE RECEIVED:

8/31/2002

Extraction :

SW 846 METHOD 3545 (ASE)

DATE EXTRACTED:

9/20/2002

Conc. Extract Volume:

50000 (µL)

DATE ANALYZED:

10/9/2002

Injection Volume:

1.3 (µL)

DILUTION FACTOR:

1

Method:

SW-846 8082 (PCB)

SULFUR CLEANUP:

YES

GC Column : J&W, NARROWBORE CAPILLARY, DB-1, 30M; ID:0.25mm

NEA Form ID : S:\FORMS\CATB\SOIL_GC_07_100702.XLS

NEA File ID : S:\CERT02\02090011_GC7_8082SED

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/g)	Q
12674-11-2	Aroclor 1016	0.262	4.15
11104-28-2	Aroclor 1221	0.262	4.15
11141-16-5	Aroclor 1232	0.262	4.15
53469-21-9	Aroclor 1242	0.262	4.15
12672-29-6	Aroclor 1248	4.28	4.15
11097-69-1	Aroclor 1254	0.262	4.15
11096-82-5	Aroclor 1260	0.554	4.15

- i Aroclor 1248 is being reported as the best Aroclor match.
The sample exhibits an altered PCB pattern.
- ii Aroclor 1260 is being reported as the best Aroclor match.
The sample exhibits an altered PCB pattern.
- iii It is not possible to distinguish if Aroclor 1242 or Aroclor 1248 was the original Aroclor in this sample that exhibits a highly altered PCB pattern. To better quantify total PCBs, Aroclor 1248 is being reported.

Data Validation Checklist - Page 2

	YES	NO	NA
Have all samples been injected within a 12 hour period beginning with the injection of a calibration standard?	<u> X </u>	<u> </u>	<u> </u>
Is a continuing calibration summary form present and complete for each continuing standard analyzed?	<u> X </u>	<u> </u>	<u> </u>
Are there any transcription/calculation errors between the raw data and the form?	<u> </u>	<u> X </u>	<u> </u>
Are all the percent difference (%D) values for all continuing calibration standards within acceptable limits?	<u> X </u>	<u> </u>	<u> </u>
<u>Identification</u>			
Are RT of all quantitated peaks within the established RT windows?	<u> X </u>	<u> </u>	<u> </u>
Was confirmation provided when required?	<u> </u>	<u> </u>	<u> X </u>
Were there any false negatives?	<u> </u>	<u> X </u>	<u> </u>
<u>Compound Quantitation and Reported Detection Limits</u>			
Are there any transcription/calculation errors in the Form 1 results?	<u> </u>	<u> X </u>	<u> </u>
Are the reporting limits adjusted to reflect sample dilutions and, for soils, sample moisture?	<u> </u>	<u> </u>	<u> X </u>
<u>Chromatogram Quality</u>			
Were the baselines stable?	<u> X </u>	<u> </u>	<u> </u>
Were any electronegative displacement (negative peaks) or unusual peaks detected?	<u> </u>	<u> X </u>	<u> </u>
<u>Field Duplicates</u>			
Were field duplicates submitted with the samples?	<u> </u>	<u> X </u>	<u> </u>

DRO Qualifier Summary

Holding Time and Surrogates

[illegible]

Surrogates:
o-Terphenyl

Qualifiers:

D	Surrogate diluted
I	Recovery high
L	Recovery low

* Unless otherwise noted, all parameters are within specified limits.

GRO Qualifier Summary

Holding Time and Surrogates

[illegible]

Surrogates:
o-Terphenyl

Qualifiers:

D	Surrogate diluted
↑	Recovery high
↓	Recovery low

* Unless otherwise noted, all parameters are within specified limits.

DRO/GRO Sample Results

DRO Sample Results

Sample ID	Lab ID	DRO Results (ug/g)
OU3SD17 (0-0.5')	AF07504	2470
OU3SD17 (0.5-1.1')	AF07505	1120
OU3SD18 (0-0.5')	AF07506	1550
OU3SD18 (0.5-1.0')	AF07507	445
OU3SD19 (0-0.5')	AF07508	1380
OU3SD19 (0.5-1.0')	AF07509	1450

GRO Sample Results

Sample ID	Lab ID	DRO Results (ug/kg)
OU3SD17 (0-0.5')	AF07504	ND
OU3SD17 (0.5-1.1')	AF07505	ND
OU3SD18 (0-0.5')	AF07506	ND
OU3SD18 (0.5-1.0')	AF07507	ND
OU3SD19 (0-0.5')	AF07508	ND
OU3SD19 (0.5-1.0')	AF07509	ND

SUPPLEMENTAL PARAMETERS

Introduction

Analyses were performed according to the following method:

Total Organic Carbon	EPA	Lloyd Kahn
Diesel Range Organics	EPA	8015
Gasoline Range Organics	EPA	8015

The data review process is intended to evaluate data on a technical basis. It is assumed that the data package represents the best efforts of the laboratory and has already been subjected to adequate quality review prior to submission for review.

During the review process, laboratory data are verified against the supporting documentation. Based on this evaluation, qualifier codes may be added, modified or deleted by the data reviewer. Results are qualified with the following codes in accordance with the National Functional Guidelines.

- < The material was analyzed for, but was not detected. The associated value is the sample reporting limit.
- J The associated value is an estimated quantity.
- R The sample results are rejected.

Two facts should be noted by all data users. First, the "R" flag means that the associated value is unusable. In other words, due to significant QC problems, the analysis is invalid and provides no information as to whether the compound is present or not. "R" values should not appear on data tables because they cannot be relied upon, even as a last resort. The second fact to keep in mind is that no compound concentration, even if it has passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data but any value potentially contains error.

Data Assessment

1. Holding Times

The method-specified holding time for TOC analysis is 14 days from collection
All samples were analyzed within the specified holding time.

2. Calibration

All initial and continuing calibration standards were acceptable.

3. Blank Contamination

No TOC was reported in the method or rinse blanks.

4. Laboratory Control Sample (LCS)

The laboratory control sample recoveries were acceptable.

5. Matrix Spike/Matrix Spike Duplicate/Laboratory Duplicate

The matrix spike recovery and laboratory duplicate results were acceptable.

6. Field Duplicates

Results for duplicate samples are summarized as follows:

Sample ID/ Duplicate ID	Analyte	Sample Result	Duplicate Result	RPD
OU1SD19 (0-0.5') / OU1SD DUP6	TOC	57800	79800	32.0%

The duplicate results are acceptable.

7 Overall Assessment

Other than for any deviations mentioned in this report, the analyses of the samples were in conformance with method specifications.

Data Validation Checklist

Supplemental Data Review Checklist

	YES	NO	NA
<u>Data Completeness</u>			
Is there a narrative or cover letter present?	<u> X </u>	<u> </u>	<u> </u>
Are the samples numbers included in the narrative?	<u> </u>	<u> X </u>	<u> </u>
Are the methods utilized notated?	<u> X </u>	<u> </u>	<u> </u>
Are the sample chain-of-custodies present?	<u> X </u>	<u> </u>	<u> </u>
Do the chain-of-custodies indicate any problems with sample receipt or sample condition?	<u> </u>	<u> X </u>	<u> </u>
<u>Holding Times</u>			
Have any holding times been exceeded?	<u> </u>	<u> X </u>	<u> </u>
<u>Laboratory Duplicates</u>			
Were duplicates analyzed and were the relative percent differences between results within acceptable limits?	<u> X </u>	<u> </u>	<u> </u>
<u>Laboratory Control Samples</u>			
Were LCS analyzed and were recoveries within acceptable limits?	<u> X </u>	<u> </u>	<u> </u>
<u>Blanks</u>			
Has a method blank been analyzed for each set of samples or for each 20 samples?	<u> X </u>	<u> </u>	<u> </u>
Do any have results above the reporting limit?	<u> </u>	<u> X </u>	<u> </u>
Do any field/rinse blanks have positive results?	<u> </u>	<u> X </u>	<u> </u>
<u>Calibration</u>			
Are calibrations acceptable?	<u> X </u>	<u> </u>	<u> </u>
<u>Raw Data</u>			
Is raw data present and complete for all samples and QC?	<u> X </u>	<u> </u>	<u> </u>
<u>Compound Quantitation and Reported Limits</u>			
Are the reporting limits adjusted to reflect sample dilutions, and for soils, sample moisture?	<u> X </u>	<u> </u>	<u> </u>

Corrected Sample Analysis Data Sheets

Laboratory Narrative

Sample Compliance Report

SAMPLE COMPLIANCE REPORT

Sample Delivery Group	Sampling Date	ASP Protocol	Sample ID	Matrix	Compliance ¹					Noncompliance
					VOA	BNA	PCB	TOC	MISC	
020906ALCAN	09/03/02	2000	OU1SD20 (0-0.5')	sediment	--	--	yes	yes	yes	
020906ALCAN	09/03/02	2000	OU1SD20 (0.5-0.7')	sediment	--	--	yes	yes	yes	
020906ALCAN	09/03/02	2000	OU1SD19 (0-0.5')	sediment	--	--	no	yes	--	PCB - %D
020906ALCAN	09/03/02	2000	OU1SD19 (0.5-1.0')	sediment	--	--	no	yes	--	PCB - %D
020906ALCAN	09/03/02	2000	OU1SD19 (1.0-1.5')	sediment	--	--	no	yes	--	PCB - %D
020906ALCAN	09/03/02	2000	OU1SD19 (1.5-2.0')	sediment	--	--	yes	yes	--	
020906ALCAN	09/03/02	2000	OU1SD15 (0-0.5')	sediment	--	--	no	yes	--	PCB - ID
020906ALCAN	09/03/02	2000	OU1SD15 (0.5-1.0')	sediment	--	--	yes	yes	--	
020906ALCAN	09/03/02	2000	OU1SD DUP6	sediment	--	--	yes	yes	--	
020906ALCAN	09/03/02	2000	OU1SDRB07	water	--	--	yes	yes	--	
020906ALCAN	09/04/02	2000	OU3SD17 (0-0.5')	sediment	--	--	yes	--	no	DRO - Surr
020906ALCAN	09/04/02	2000	OU3SD17 (0.5-1.1')	sediment	--	--	no	--	no	PCB - %D DRO - Surr
020906ALCAN	09/04/02	2000	OU3SD18 (0-0.5')	sediment	--	--	yes	--	no	DRO - Surr
020906ALCAN	09/04/02	2000	OU3SD18 (0.5-1.0')	sediment	--	--	yes	--	no	DRO - Surr
020906ALCAN	09/04/02	2000	OU3SD19 (0-0.5')	sediment	--	--	yes	--	no	DRO - Surr
020906ALCAN	09/04/02	2000	OU3SD19 (0.5-1.0')	sediment	--	--	yes	--	no	DRO - Surr
020906ALCAN	09/04/02	2000	OU3SD12	sediment	--	--	yes	yes	--	
020906ALCAN	09/04/02	2000	OU3SDRB01	water	--	--	yes	yes	yes	
020906ALCAN	09/05/02	2000	OU3SD13	sediment	--	--	yes	yes	yes	
020906ALCAN	09/05/02	2000	OU1SD14	sediment	--	--	yes	--	--	
020906ALCAN	09/05/02	2000	OU3SD15	sediment	--	--	yes	yes	yes	
020906ALCAN	09/05/02	2000	OU3SD DUP1	sediment	--	--	yes	yes	--	

Sample Delivery Group	Sampling Date	ASP Protocol	Sample ID	Matrix	Compliance ¹					Noncompliance
					VOA	BNA	PCB	TOC	MISC	
020906ALCAN	09/05/02	2000	OU3SD16	sediment	--	--	yes	yes	--	
020906ALCAN	09/05/02	2000	OU3SD20	sediment	--	--	yes	yes	--	
020906ALCAN	09/05/02	2000	OU3SD11	sediment	--	--	yes	yes	--	
020906ALCAN	09/05/02	2000	OU3SD09	sediment	--	--	yes	yes	yes	
020906ALCAN	09/05/02	2000	OU3SD21	sediment	--	--	yes	yes	--	
020906ALCAN	09/05/02	2000	OU3SD08	sediment	--	--	no	yes	--	PCB - %D
020906ALCAN	09/05/02	2000	OU3SD07	sediment	--	--	yes	yes	--	
020906ALCAN	09/05/02	2000	OU3SDRB02	water	--	--	yes	yes	--	

- 1 Samples which are compliant with no added validation qualifiers are listed as "yes". Samples which are non-compliant or which have added qualifiers are listed as "no". A "no" designation does not necessarily indicate that the data have been rejected or are otherwise unusable.
- 2 The deviation resulted in no qualification of the data.

1D-1¹
PCB ANALYSIS DATA SHEET

Northeast Analytical Inc.		SDG No.:	020906ALCAN
ELAP ID No.:	11078	CLIENT ID:	OU1SD20 (0-0.5')
Matrix:	SEDIMENT	LAB SAMPLE ID:	AF07495
Sample wt/vol:	3.77866 (g)	LAB FILE ID:	AF07495
% Moisture:	63.0	DATE RECEIVED:	9/6/2002
Extraction :	SW 846 METHOD 3545 (ASE)	DATE EXTRACTED:	9/17/2002
Conc. Extract Volume:	50000 (µL)	DATE ANALYZED:	10/10/2002
Injection Volume:	1.3 (µL)	DILUTION FACTOR:	20
Method:	SW-846 8082 (PCB)	SULFUR CLEANUP:	YES

GC Column : J&W, NARROWBORE CAPILLARY, DB-1, 30M; ID:0.25mm

NEA Form ID: S:\FORMS\CATB\SOIL_GC_07_100702.XLS

NEA File ID: S:\CERT02\02090028_GC7_8082SED.X

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/g)	Q
12674-11-2	Aroclor 1016	5.29	U
11104-28-2	Aroclor 1221	5.29	U
11141-16-5	Aroclor 1232	5.29	U
53469-21-9	Aroclor 1242	5.29	U
12672-29-6	Aroclor 1248	100	A, H, P
11097-69-1	Aroclor 1254	5.29	U
11096-82-5	Aroclor 1260	7.83	A

- i Aroclor 1248 is being reported as the best Aroclor match.
The sample exhibits an altered PCB pattern.
- ii Aroclor 1260 is being reported as the best Aroclor match.
The sample exhibits an altered PCB pattern.
- iii It is not possible to distinguish if Aroclor 1242 or Aroclor 1248 was the original Aroclor in this sample that exhibits a highly altered PCB pattern. To better quantify total PCBs, Aroclor 1248 is being reported.

1D-1¹
PCB ANALYSIS DATA SHEET

Northeast Analytical Inc.

ELAP ID No.:

11078

Matrix:

SEDIMENT

Sample wt/vol:

7.0144 (g)

% Moisture:

32.5

Extraction :

SW 846 METHOD 3545 (ASE)

Conc. Extract Volume:

50000 (µL)

Injection Volume:

1.3 (µL)

Method:

SW-846 8082 (PCB)

SDG No.:

020906ALCAN

CLIENT ID:

OU1SD20 (0.5-0.7')

LAB SAMPLE ID:

AF07496

LAB FILE ID:

AF07496

DATE RECEIVED:

9/6/2002

DATE EXTRACTED:

9/17/2002

DATE ANALYZED:

10/10/2002

DILUTION FACTOR:

1

SULFUR CLEANUP:

YES

GC Column : J&W, NARROWBORE CAPILLARY, DB-1, 30M; ID:0.25mm

NEA Form ID: S:\FORMS\CATB\SOIL_GC_07_100702.XLS

NEA File ID: S:\CERT02\02090028_GC7_8082SED.X

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/g)	Q
12674-11-2	Aroclor 1016	0.143	U
11104-28-2	Aroclor 1221	0.143	U
11141-16-5	Aroclor 1232	0.143	U
53469-21-9	Aroclor 1242	0.143	U
12672-29-6	Aroclor 1248	1.21	X, X, P
11097-69-1	Aroclor 1254	0.143	U
11096-82-5	Aroclor 1260	0.143	U

- i Aroclor 1248 is being reported as the best Aroclor match.
The sample exhibits an altered PCB pattern.
- ii It is not possible to distinguish if Aroclor 1242 or Aroclor 1248 was the original Aroclor in this sample that exhibits a highly altered PCB pattern. To better quantify total PCBs, Aroclor 1248 is being reported.

1D-1¹
PCB ANALYSIS DATA SHEET

Northeast Analytical Inc.

ELAP ID No.:

11078

SDG No.:

020906ALCAN

CLIENT ID:

OU1SD19 (0-0.5')

Matrix:

SEDIMENT

LAB SAMPLE ID:

AF07497

Sample wt/vol:

4.96512 (g)

LAB FILE ID:

AF07497

% Moisture:

54.3

DATE RECEIVED:

9/6/2002

Extraction :

SW 846 METHOD 3545 (ASE)

DATE EXTRACTED:

9/17/2002

Conc. Extract Volume:

50000 (µL)

DATE ANALYZED:

10/10/2002

Injection Volume:

1.3 (µL)

DILUTION FACTOR:

4

Method:

SW-846 8082 (PCB)

SULFUR CLEANUP:

YES

GC Column : J&W, NARROWBORE CAPILLARY, DB-1, 30M; ID:0.25mm

NEA Form ID: S:\FORMS\CATB\SOIL_GC_07_100702.XLS

NEA File ID: S:\CERT02\02090028_GC7_8082SED.X

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/g)	Q
12674-11-2	Aroclor 1016	0.806	U
11104-28-2	Aroclor 1221	0.806	U
11141-16-5	Aroclor 1232	0.806	U
53469-21-9	Aroclor 1242	0.806	U
12672-29-6	Aroclor 1248	25.9	X, J, P, S
11097-69-1	Aroclor 1254	0.806	U
11096-82-5	Aroclor 1260	3.40	J

- i Aroclor 1248 is being reported as the best Aroclor match.
The sample exhibits an altered PCB pattern.
- ii Aroclor 1260 is being reported as the best Aroclor match.
The sample exhibits an altered PCB pattern.
- iii It is not possible to distinguish if Aroclor 1242 or Aroclor 1248 was the original Aroclor in this sample that exhibits a highly altered PCB pattern. To better quantify total PCBs, Aroclor 1248 is being reported.

1D-1¹
PCB ANALYSIS DATA SHEET

Northeast Analytical Inc.

ELAP ID No.:

11078

Matrix:

SEDIMENT

Sample wt/vol:

6.73143 (g)

% Moisture:

36.8

Extraction :

SW 846 METHOD 3545 (ASE)

Conc. Extract Volume:

50000 (µL)

Injection Volume:

1.3 (µL)

Method:

SW-846 8082 (PCB)

SDG No.:

020906ALCAN

CLIENT ID:

OU1SD19 (0.5-1.0')

LAB SAMPLE ID:

AF07498

LAB FILE ID:

AF07498

DATE RECEIVED:

9/6/2002

DATE EXTRACTED:

9/17/2002

DATE ANALYZED:

10/10/2002

DILUTION FACTOR:

1

SULFUR CLEANUP:

YES

GC Column : J&W, NARROWBORE CAPILLARY, DB-1, 30M; ID:0.25mm

NEA Form ID: S:\FORMS\CATB\SOIL_GC_07_100702.XLS

NEA File ID: S:\CERT02\02090028_GC7_8082SED.X

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/g)	Q
12674-11-2	Aroclor 1016	0.149	U
11104-28-2	Aroclor 1221	0.149	U
11141-16-5	Aroclor 1232	0.149	U
53469-21-9	Aroclor 1242	0.149	U
12672-29-6	Aroclor 1248	0.232	<i>1.1, 1.2, 1.3</i>
11097-69-1	Aroclor 1254	0.149	U
11096-82-5	Aroclor 1260	0.149	U

i Aroclor 1248 is being reported as the best Aroclor match.

The sample exhibits an altered PCB pattern.

ii It is not possible to distinguish if Aroclor 1242 or Aroclor 1248 was the original Aroclor in this sample that exhibits a highly altered PCB pattern. To better quantify total PCBs, Aroclor 1248 is being reported.

1D-1¹
PCB ANALYSIS DATA SHEET

Northeast Analytical Inc.

SDG No. :

020906ALCAN

ELAP ID No. :

11078

CLIENT ID :

OU1SD19 (1.0-1.5')

Matrix :

SEDIMENT

LAB SAMPLE ID :

AF07499

Sample wt/vol :

6.97225 (g)

LAB FILE ID :

AF07499

% Moisture :

30.4

DATE RECEIVED :

9/6/2002

Extraction :

SW 846 METHOD 3545 (ASE)

DATE EXTRACTED :

9/17/2002

Conc. Extract Volume :

50000 (μL)

DATE ANALYZED :

10/10/2002

Injection Volume :

1.3 (μL)

DILUTION FACTOR :

1

Method :

SW-846 8082 (PCB)

SULFUR CLEANUP :

YES

GC Column : J&W, NARROWBORE CAPILLARY, DB-1, 30M; ID:0.25mm

NEA Form ID: S:\FORMS\CAT\SOIL_GC_07_100702.XLS

NEA File ID: S:\CERT02\02090028_GC7_8082SED.X

CAS NO.	COMPOUND	CONCENTRATION UNITS: (μg/g)	Q
12674-11-2	Aroclor 1016	0.143	U
11104-28-2	Aroclor 1221	0.143	U
11141-16-5	Aroclor 1232	0.143	U
53469-21-9	Aroclor 1242	0.143	U
12672-29-6	Aroclor 1248	0.449	<i>Y, X, P, S</i>
11097-69-1	Aroclor 1254	0.143	U
11096-82-5	Aroclor 1260	0.143	U

i Aroclor 1248 is being reported as the best Aroclor match.

The sample exhibits an altered PCB pattern.

ii It is not possible to distinguish if Aroclor 1242 or Aroclor 1248 was the original Aroclor in this sample that exhibits a highly altered PCB pattern. To better quantify total PCBs, Aroclor 1248 is being reported.

1D-1¹
PCB ANALYSIS DATA SHEET

Northeast Analytical Inc.

ELAP ID No.:

11078

SDG No.:

020906ALCAN

CLIENT ID:

OU1SD19 (1.5-2.0')

Matrix:

SEDIMENT

LAB SAMPLE ID:

AF07500

Sample wt/vol:

7.72845 (g)

LAB FILE ID:

AF07500

% Moisture:

23.1

DATE RECEIVED:

9/6/2002

Extraction :

SW 846 METHOD 3545 (ASE)

DATE EXTRACTED:

9/17/2002

Conc. Extract Volume:

50000 (µL)

DATE ANALYZED:

10/10/2002

Injection Volume:

1.3 (µL)

DILUTION FACTOR:

1

Method:

SW-846 8082 (PCB)

SULFUR CLEANUP:

YES

GC Column : J&W, NARROWBORE CAPILLARY, DB-1, 30M; ID:0.25mm

NEA Form ID: S:\FORMS\CATB\SOIL_GC_07_100702.XLS

NEA File ID: S:\CERT02\02090028_GC7_8082SED.X

CAS NO.	COMPOUND	CONCENTRATION UNITS:	Q
		(µg/g)	
12674-11-2	Aroclor 1016	0.129	U
11104-28-2	Aroclor 1221	0.129	U
11141-16-5	Aroclor 1232	0.129	U
53469-21-9	Aroclor 1242	0.129	U
12672-29-6	Aroclor 1248	0.129	U
11097-69-1	Aroclor 1254	0.129	U
11096-82-5	Aroclor 1260	0.129	U

¹ Form based upon NYS-DEC Form 1-CLP-PEST

1D-1¹
PCB ANALYSIS DATA SHEET

Northeast Analytical Inc.

ELAP ID No.:

11078

SDG No.:

020906ALCAN

CLIENT ID:

OU1SD15 (0-0.5')

Matrix:

SEDIMENT

LAB SAMPLE ID:

AF07501

Sample wt/vol:

2.67377 (g)

LAB FILE ID:

AF07501

% Moisture:

73.6

DATE RECEIVED:

9/6/2002

Extraction :

SW 846 METHOD 3545 (ASE)

DATE EXTRACTED:

9/17/2002

Conc. Extract Volume:

50000 (μL)

DATE ANALYZED:

10/11/2002

Injection Volume:

1.3 (μL)

DILUTION FACTOR:

1

Method:

SW-846 8082 (PCB)

SULFUR CLEANUP:

YES

GC Column : J&W, NARROWBORE CAPILLARY, DB-1, 30M; ID:0.25mm

NEA Form ID: S:\FORMS\CATB\SOIL_GC_07_100702.XLS

NEA File ID: S:\CERT02\02090028_GC7_8082SED X

CAS NO.	COMPOUND	CONCENTRATION UNITS: (μg/g)	Q
12674-11-2	Aroclor 1016	0.374	U
11104-28-2	Aroclor 1221	0.487	X, P U
11141-16-5	Aroclor 1232	0.374	U
53469-21-9	Aroclor 1242	0.548	X, M
12672-29-6	Aroclor 1248	0.374	U
11097-69-1	Aroclor 1254	0.374	U
11096-82-5	Aroclor 1260	0.374	U

- i Aroclor 1221 is being used to report an altered PCB pattern exhibited by the sample.
Actual Aroclor 1221 is not present in the sample, but is reported to more accurately quantify PCB present in sample that has undergone environmental alteration.
- ii Aroclor 1242 is being reported as the best Aroclor match.
The sample exhibits an altered PCB pattern.
- iii It is not possible to distinguish if Aroclor 1242 or Aroclor 1248 was the original Aroclor in this sample that exhibits a highly altered PCB pattern. To better quantify total PCBs, Aroclor 1242 is being reported.

1D-1¹
PCB ANALYSIS DATA SHEET

Northeast Analytical Inc.

ELAP ID No.:

11078

SDG No.:

020906ALCAN

CLIENT ID:

OU1SD15 (0.5-1.0')

Matrix:

SEDIMENT

LAB SAMPLE ID:

AF07502

Sample wt/vol:

7.33538 (g)

LAB FILE ID:

AF07502

% Moisture:

33.1

DATE RECEIVED:

9/6/2002

Extraction :

SW 846 METHOD 3545 (ASE)

DATE EXTRACTED:

9/17/2002

Conc. Extract Volume:

50000 (µL)

DATE ANALYZED:

10/11/2002

Injection Volume:

1.3 (µL)

DILUTION FACTOR:

1

Method:

SW-846 8082 (PCB)

SULFUR CLEANUP:

YES

GC Column : J&W, NARROWBORE CAPILLARY, DB-1, 30M; ID:0.25mm

NEA Form ID: S:\FORMS\CATB\SOIL_GC_07_100702.XLS

NEA File ID: S:\CERT02\02090028_GC7_8082SED X

CAS NO.	COMPOUND	CONCENTRATION UNITS:	Q
		(µg/g)	
12674-11-2	Aroclor 1016	0.136	U
11104-28-2	Aroclor 1221	0.136	U
11141-16-5	Aroclor 1232	0.136	U
53469-21-9	Aroclor 1242	0.136	U
12672-29-6	Aroclor 1248	0.136	U
11097-69-1	Aroclor 1254	0.136	U
11096-82-5	Aroclor 1260	0.136	U

¹ Form based upon NYS-DEC Form 1-CLP-PEST

1D-1¹
PCB ANALYSIS DATA SHEET

Northeast Analytical Inc.

ELAP ID No.:

11078

SDG No.:

020906ALCAN

CLIENT ID:

OU1SD DUP6

Matrix:

SEDIMENT

LAB SAMPLE ID:

AF07503

Sample wt/vol:

4.69363 (g)

LAB FILE ID:

AF07503

% Moisture:

54.6

DATE RECEIVED:

9/6/2002

Extraction :

SW 846 METHOD 3545 (ASE)

DATE EXTRACTED:

9/17/2002

Conc. Extract Volume:

50000 (µL)

DATE ANALYZED:

10/11/2002

Injection Volume:

1.3 (µL)

DILUTION FACTOR:

5

Method:

SW-846 8082 (PCB)

SULFUR CLEANUP:

YES

GC Column : J&W, NARROWBORE CAPILLARY, DB-1, 30M; ID:0.25mm

NEA Form ID: S:\FORMS\CATB\SOIL_GC_07_100702.XLS

NEA File ID: S:\CERT02\02090028_GC7_8082SED.X

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/g)	Q
12674-11-2	Aroclor 1016	1.07	U
11104-28-2	Aroclor 1221	1.07	U
11141-16-5	Aroclor 1232	1.07	U
53469-21-9	Aroclor 1242	36.3	X
12672-29-6	Aroclor 1248	1.07	U
11097-69-1	Aroclor 1254	1.07	U
11096-82-5	Aroclor 1260	5.45	X

- i Aroclor 1242 is being reported as the best Aroclor match.
The sample exhibits an altered PCB pattern.
- ii Aroclor 1260 is being reported as the best Aroclor match.
The sample exhibits an altered PCB pattern.

1D-1¹
PCB ANALYSIS DATA SHEET

Northeast Analytical Inc.

ELAP ID No.: 11078

Matrix: SEDIMENT

Sample wt/vol: 4.29094 (g)

% Moisture: 59.0

Extraction : SW 846 METHOD 3545 (ASE)

Conc. Extract Volume: 50000 (µL)

Injection Volume: 1.3 (µL)

Method: SW-846 8082 (PCB)

SDG No.: 020906ALCAN

CLIENT ID: OU3SD17 (0-0.5')

LAB SAMPLE ID: AF07504

LAB FILE ID: AF07504

DATE RECEIVED: 9/6/2002

DATE EXTRACTED: 9/17/2002

DATE ANALYZED: 10/11/2002

DILUTION FACTOR: 1

SULFUR CLEANUP: YES

GC Column : J&W, NARROWBORE CAPILLARY, DB-1, 30M; ID:0.25mm

NEA Form ID: S:\FORMS\CATB\SOIL_GC_07_100702.XLS

NEA File ID: S:\CERT02\02090028_GC7_8082SED.X

CAS NO.	COMPOUND	CONCENTRATION UNITS:	Q
		(µg/g)	
12674-11-2	Aroclor 1016	0.233	U
11104-28-2	Aroclor 1221	0.233	U
11141-16-5	Aroclor 1232	0.233	U
53469-21-9	Aroclor 1242	0.411	<i>✓</i>
12672-29-6	Aroclor 1248	0.233	U
11097-69-1	Aroclor 1254	2.46	<i>✓</i>
11096-82-5	Aroclor 1260	2.47	<i>iii</i>

- i Aroclor 1242 is being used to report an altered PCB pattern exhibited by the sample.
Actual Aroclor 1242 is not present in the sample, but is reported to more accurately quantify PCB present in sample that has undergone environmental alteration.
- ii Aroclor 1254 is being used to report an altered PCB pattern exhibited by the sample.
Actual Aroclor 1254 is not present in the sample, but is reported to more accurately quantify PCB present in sample that has undergone environmental alteration.
- iii Aroclor 1260 is being reported as the best Aroclor match.
The sample exhibits an altered PCB pattern.

¹ Form based upon NYS-DEC Form 1-CLP-PEST

1D-1¹
PCB ANALYSIS DATA SHEET

Northeast Analytical Inc.

ELAP ID No.:	11078	SDG No.:	020906ALCAN
Matrix:	SEDIMENT	CLIENT ID:	OU3SD17 (0.5-1.1')
Sample wt/vol:	7.03852 (g)	LAB SAMPLE ID:	AF07505
% Moisture:	30.3	LAB FILE ID:	AF07505
Extraction :	SW 846 METHOD 3545 (ASE)	DATE RECEIVED:	9/6/2002
Conc. Extract Volume:	50000 (µL)	DATE EXTRACTED:	9/17/2002
Injection Volume:	1.3 (µL)	DATE ANALYZED:	10/11/2002
Method:	SW-846 8082 (PCB)	DILUTION FACTOR:	1
		SULFUR CLEANUP:	YES

GC Column : J&W, NARROWBORE CAPILLARY, DB-1, 30M; ID:0.25mm

NEA Form ID: S:\FORMS\CATB\SOIL_GC_07_100702.XLS

NEA File ID: S:\CERT02\02090028_GC7_8082SED.X

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/g)	Q
12674-11-2	Aroclor 1016	0.142	U
11104-28-2	Aroclor 1221	0.142	U
11141-16-5	Aroclor 1232	0.142	U
53469-21-9	Aroclor 1242	0.142	U
12672-29-6	Aroclor 1248	0.253	<i>X, W, P, S</i>
11097-69-1	Aroclor 1254	0.142	U
11096-82-5	Aroclor 1260	0.214	<i>X, P</i>

- i Aroclor 1248 is being reported as the best Aroclor match.
The sample exhibits an altered PCB pattern.
- ii Aroclor 1260 is being reported as the best Aroclor match.
The sample exhibits an altered PCB pattern.
- iii It is not possible to distinguish if Aroclor 1242 or Aroclor 1248 was the original Aroclor in this sample that exhibits a highly altered PCB pattern. To better quantify total PCBs, Aroclor 1248 is being reported.

1D-1¹
PCB ANALYSIS DATA SHEET

Northeast Analytical Inc.

ELAP ID No.:	11078	SDG No.:	020906ALCAN
Matrix:	SEDIMENT	CLIENT ID:	OU3SD18 (0-0.5')
Sample wt/vol:	3.77954 (g)	LAB SAMPLE ID:	AF07506
% Moisture:	64.4	LAB FILE ID:	AF07506
Extraction :	SW 846 METHOD 3545 (ASE)	DATE RECEIVED:	9/6/2002
Conc. Extract Volume:	50000 (µL)	DATE EXTRACTED:	9/17/2002
Injection Volume:	1.3 (µL)	DATE ANALYZED:	10/11/2002
Method:	SW-846 8082 (PCB)	DILUTION FACTOR:	1
		SULFUR CLEANUP:	YES

GC Column : J&W, NARROWBORE CAPILLARY, DB-1, 30M; ID:0.25mm

NEA Form ID: S:\FORMS\CATB\SOIL_GC_07_100702.XLS

NEA File ID: S:\CERT02\02090028_GC7_8082SED X

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/g)	Q
12674-11-2	Aroclor 1016	0.265	U
11104-28-2	Aroclor 1221	0.265	U
11141-16-5	Aroclor 1232	0.265	U
53469-21-9	Aroclor 1242	0.265	U
12672-29-6	Aroclor 1248	0.265	U
11097-69-1	Aroclor 1254	2.45	X
11096-82-5	Aroclor 1260	2.87	X/P

- i Aroclor 1254 is being used to report an altered PCB pattern exhibited by the sample.
Actual Aroclor 1254 is not present in the sample, but is reported to more accurately quantify PCB present in sample that has undergone environmental alteration.
- ii Aroclor 1260 is being reported as the best Aroclor match.
The sample exhibits an altered PCB pattern.

1D-1¹
PCB ANALYSIS DATA SHEET

Northeast Analytical Inc.

ELAP ID No.:	11078	SDG No.:	020906ALCAN
Matrix:	SEDIMENT	CLIENT ID:	OU3SD18 (0.5-1.0')
Sample wt/vol:	5.95577 (g)	LAB SAMPLE ID:	AF07507
% Moisture:	44.0	LAB FILE ID:	AF07507
Extraction :	SW 846 METHOD 3545 (ASE)	DATE RECEIVED:	9/6/2002
Conc. Extract Volume:	50000 (µL)	DATE EXTRACTED:	9/17/2002
Injection Volume:	1.3 (µL)	DATE ANALYZED:	10/11/2002
Method:	SW-846 8082 (PCB)	DILUTION FACTOR:	1
		SULFUR CLEANUP:	YES

GC Column : J&W, NARROWBORE CAPILLARY, DB-1, 30M; ID:0.25mm

NEA Form ID: S:\FORMS\CATB\SOIL_GC_07_100702.XLS

NEA File ID: S:\CERT02\02090028_GC7_8082SED.X

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/g)	Q
12674-11-2	Aroclor 1016	0.168	U
11104-28-2	Aroclor 1221	0.168	U
11141-16-5	Aroclor 1232	0.168	U
53469-21-9	Aroclor 1242	0.168	U
12672-29-6	Aroclor 1248	0.168	U
11097-69-1	Aroclor 1254	1.46	<i>X</i>
11096-82-5	Aroclor 1260	1.70	<i>X</i>

- i Aroclor 1254 is being used to report an altered PCB pattern exhibited by the sample.
 Actual Aroclor 1254 is not present in the sample, but is reported to more accurately quantify PCB present in sample that has undergone environmental alteration.
- ii Aroclor 1260 is being reported as the best Aroclor match.
 The sample exhibits an altered PCB pattern.

1D-1¹
PCB ANALYSIS DATA SHEET

Northeast Analytical Inc.

ELAP ID No.:

11078

SDG No.:

020906ALCAN

CLIENT ID:

OU3SD19 (0-0.5')

Matrix:

SEDIMENT

LAB SAMPLE ID:

AF07508

Sample wt/vol:

4.70884 (g)

LAB FILE ID:

AF07508

% Moisture:

55.6

DATE RECEIVED:

9/6/2002

Extraction :

SW 846 METHOD 3545 (ASE)

DATE EXTRACTED:

9/17/2002

Conc. Extract Volume:

50000 (µL)

DATE ANALYZED:

10/11/2002

Injection Volume:

1.3 (µL)

DILUTION FACTOR:

1

Method:

SW-846 8082 (PCB)

SULFUR CLEANUP:

YES

GC Column : J&W, NARROWBORE CAPILLARY, DB-1, 30M; ID:0.25mm

NEA Form ID: S:\FORMS\CATB\SOIL_GC_07_100702.XLS

NEA File ID: S:\CERT02\02090028_GC7_8082SED X

CAS NO.	COMPOUND	CONCENTRATION UNITS:	Q
		(µg/g)	
12674-11-2	Aroclor 1016	0.212	U
11104-28-2	Aroclor 1221	0.212	U
11141-16-5	Aroclor 1232	0.212	U
53469-21-9	Aroclor 1242	0.212	U
12672-29-6	Aroclor 1248	0.212	U
11097-69-1	Aroclor 1254	2.65	U
11096-82-5	Aroclor 1260	2.49	U

- i Aroclor 1254 is being used to report an altered PCB pattern exhibited by the sample.
Actual Aroclor 1254 is not present in the sample, but is reported to more accurately quantify PCB present in sample that has undergone environmental alteration.
- ii Aroclor 1260 is being reported as the best Aroclor match.
The sample exhibits an altered PCB pattern.

¹ Form based upon NYS-DEC Form 1-CLP-PEST

1D-1¹
PCB ANALYSIS DATA SHEET

Northeast Analytical Inc.

ELAP ID No.:

11078

SDG No.:

020906ALCAN

CLIENT ID:

OU3SD19 (0.5-1.0')

Matrix:

SEDIMENT

LAB SAMPLE ID:

AF07509

Sample wt/vol:

5.85503 (g)

LAB FILE ID:

AF07509

% Moisture:

45.4

DATE RECEIVED:

9/6/2002

Extraction :

SW 846 METHOD 3545 (ASE)

DATE EXTRACTED:

9/17/2002

Conc. Extract Volume:

50000 (µL)

DATE ANALYZED:

10/11/2002

Injection Volume:

1.3 (µL)

DILUTION FACTOR:

1

Method:

SW-846 8082 (PCB)

SULFUR CLEANUP:

YES

GC Column : J&W, NARROWBORE CAPILLARY, DB-1, 30M; ID:0.25mm

NEA Form ID: S:\FORMS\CATB\SOIL_GC_07_100702.XLS

NEA File ID: S:\CERT02\02090028_GC7_8082SED.X

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/g)	Q
12674-11-2	Aroclor 1016	0.171	U
11104-28-2	Aroclor 1221	0.171	U
11141-16-5	Aroclor 1232	0.171	U
53469-21-9	Aroclor 1242	0.401	i
12672-29-6	Aroclor 1248	0.171	U
11097-69-1	Aroclor 1254	3.70	U
11096-82-5	Aroclor 1260	2.98	U

- i Aroclor 1242 is being used to report an altered PCB pattern exhibited by the sample.
Actual Aroclor 1242 is not present in the sample, but is reported to more accurately quantify PCB present in sample that has undergone environmental alteration.
- ii Aroclor 1254 is being used to report an altered PCB pattern exhibited by the sample.
Actual Aroclor 1254 is not present in the sample, but is reported to more accurately quantify PCB present in sample that has undergone environmental alteration.
- iii Aroclor 1260 is being reported as the best Aroclor match.
The sample exhibits an altered PCB pattern.

¹ Form based upon NYS-DEC Form 1-CLP-PEST

FORM I-CLP-PCB (NEA)

1D-1¹
PCB ANALYSIS DATA SHEET

Northeast Analytical Inc.

ELAP ID No.: 11078

Matrix: SEDIMENT

Sample wt/vol: 6.83149 (g)

% Moisture: 35.7

Extraction : SW 846 METHOD 3545 (ASE)

Conc. Extract Volume: 50000 (µL)

Injection Volume: 1.3 (µL)

Method: SW-846 8082 (PCB)

SDG No.:

CLIENT ID:

LAB SAMPLE ID:

LAB FILE ID:

DATE RECEIVED:

DATE EXTRACTED:

DATE ANALYZED:

DILUTION FACTOR:

SULFUR CLEANUP:

020906ALCAN

OU3SD12

AF07510

AF07510

9/6/2002

9/17/2002

10/11/2002

1

YES

GC Column : J&W, NARROWBORE CAPILLARY, DB-1, 30M; ID:0.25mm

NEA Form ID: S:\FORMS\CATB\SOIL_GC_07_100702.XLS

NEA File ID: S:\CERT02\02090028_GC7_8082SED.X

CAS NO.	COMPOUND	CONCENTRATION UNITS:	Q
		(µg/g)	
12674-11-2	Aroclor 1016	0.146	U
11104-28-2	Aroclor 1221	0.146	U
11141-16-5	Aroclor 1232	0.146	U
53469-21-9	Aroclor 1242	0.146	U
12672-29-6	Aroclor 1248	0.146	U
11097-69-1	Aroclor 1254	0.146	U
11096-82-5	Aroclor 1260	0.146	U

¹ Form based upon NYS-DEC Form 1-CLP-PEST

1D-1¹
PCB ANALYSIS DATA SHEET

Northeast Analytical Inc.	SDG No.:	020906ALCAN
ELAP ID No.:	11078	CLIENT ID: OU1SDRB07
Matrix:	WATER	LAB SAMPLE ID: AF07511
Sample wt/vol:	1.080 (L)	LAB FILE ID: AF07511R
% Moisture:		DATE RECEIVED: 9/6/02
Extraction :	CLLE	DATE EXTRACTED: 9/10/02
Conc. Extract Volume:	5000 (µL)	DATE ANALYZED: 10/14/02
Injection Volume:	0.4 (µL)	DILUTION FACTOR: 1
Method:	SW-846 8082 PCB	SULFUR CLEANUP: YES

GC Column : J&W, NARROWBORE CAPILLARY, DB-1, 30M; ID: 0.25mm

NEA Form ID: S:\FORMS\CATBYH2O_GC11_100202

NEA File ID: S:\CERT02\02090028_GC11_8082W.XLS 1D-1-

CAS NO.	COMPOUND	CONCENTRATION UNITS:	Q
		(µg/L)	
12674-11-2	Aroclor 1016	0.0250	U
11104-28-2	Aroclor 1221	0.0250	U
11141-16-5	Aroclor 1232	0.0250	U
53469-21-9	Aroclor 1242	0.0250	U
12672-29-6	Aroclor 1248	0.0250	U
11097-69-1	Aroclor 1254	0.0250	U
11096-82-5	Aroclor 1260	0.0250	U

¹ Form based upon Form 1-CLP-PEST

1D-1¹
PCB ANALYSIS DATA SHEET

Northeast Analytical Inc.		SDG No.:	020906ALCAN
ELAP ID No.:	11078	CLIENT ID:	OU3SDRB01
Matrix:	WATER	LAB SAMPLE ID:	AF07512
Sample wt/vol:	1.050 (L)	LAB FILE ID:	AF07512R
% Moisture:		DATE RECEIVED:	9/6/02
Extraction :	CLLE	DATE EXTRACTED:	9/10/02
Conc. Extract Volume:	5000 (µL)	DATE ANALYZED:	10/14/02
Injection Volume:	0.4 (µL)	DILUTION FACTOR:	1
Method:	SW-846 8082 PCB	SULFUR CLEANUP:	YES

GC Column : J&W, NARROWBORE CAPILLARY, DB-1, 30M; ID: 0.25mm

NEA Form ID: S:\FORMS\CATBI\H2O_GC11_100202

NEA File ID: S:\CERT02\02090028_GC11_8082W.XLS 1D-1-2

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L)	Q
12674-11-2	Aroclor 1016	0.0250	U
11104-28-2	Aroclor 1221	0.0250	U
11141-16-5	Aroclor 1232	0.0250	U
53469-21-9	Aroclor 1242	0.0250	U
12672-29-6	Aroclor 1248	0.0250	U
11097-69-1	Aroclor 1254	0.0250	U
11096-82-5	Aroclor 1260	0.0250	U

¹ Form based upon Form 1-CLP-PEST

1D-1¹
PCB ANALYSIS DATA SHEET

Northeast Analytical Inc.

SDG No.:

020906ALCAN

ELAP ID No.:

11078

CLIENT ID:

OU3SD13

Matrix:

SEDIMENT

LAB SAMPLE ID:

AF07513

Sample wt/vol:

0.919395 (g)

LAB FILE ID:

AF07513

% Moisture:

91.1

DATE RECEIVED:

9/6/2002

Extraction :

SW 846 METHOD 3545 (ASE)

DATE EXTRACTED:

9/17/2002

Conc. Extract Volume:

50000 (µL)

DATE ANALYZED:

10/11/2002

Injection Volume:

1.3 (µL)

DILUTION FACTOR:

1

Method:

SW-846 8082 (PCB)

SULFUR CLEANUP:

YES

GC Column : J&W, NARROWBORE CAPILLARY, DB-1, 30M; ID:0.25mm

NEA Form ID: S:\FORMS\CATB\SOIL_GC_07_100702.XLS

NEA File ID: S:\CERT02\02090028_GC7_8082SED.X

CAS NO.	COMPOUND	CONCENTRATION UNITS:	Q
		(µg/g)	
12674-11-2	Aroclor 1016	1.09	U
11104-28-2	Aroclor 1221	1.09	U
11141-16-5	Aroclor 1232	1.09	U
53469-21-9	Aroclor 1242	1.09	U
12672-29-6	Aroclor 1248	1.09	U
11097-69-1	Aroclor 1254	1.09	U
11096-82-5	Aroclor 1260	1.09	U

¹ Form based upon NYS-DEC Form 1-CLP-PEST

1D-1¹
PCB ANALYSIS DATA SHEET

Northeast Analytical Inc.

ELAP ID No.:

11078

Matrix:

SEDIMENT

Sample wt/vol:

1.15648 (g)

% Moisture:

88.6

Extraction :

SW 846 METHOD 3545 (ASE)

Conc. Extract Volume:

50000 (µL)

Injection Volume:

1.2 (µL)

Method:

SW-846 8082 (PCB)

SDG No.:

020906ALCAN

CLIENT ID:

OU3SD14

LAB SAMPLE ID:

AF07515

LAB FILE ID:

AF07515

DATE RECEIVED:

9/6/2002

DATE EXTRACTED:

9/19/2002

DATE ANALYZED:

10/10/2002

DILUTION FACTOR:

1

SULFUR CLEANUP:

YES

GC Column : J&W, NARROWBORE CAPILLARY, DB-1, 30M; ID:0.25mm

NEA Form ID: S:\FORMS\CATB\SOIL_GC_18F_100902A.XLS

NEA File ID: S:\CERTQ2\02090028_GC18F_8082SEC

CAS NO.	COMPOUND	CONCENTRATION UNITS:	Q
		(µg/g)	
12674-11-2	Aroclor 1016	0.865	U
11104-28-2	Aroclor 1221	0.865	U
11141-16-5	Aroclor 1232	0.865	U
53469-21-9	Aroclor 1242	0.865	U
12672-29-6	Aroclor 1248	0.865	U
11097-69-1	Aroclor 1254	0.865	U
11096-82-5	Aroclor 1260	0.865	U

¹ Form based upon NYS-DEC Form 1-CLP-PEST

FORM I-CLP-PCB (NEA)

1D-1¹
PCB ANALYSIS DATA SHEET

Northeast Analytical Inc.

ELAP ID No.:

11078

Matrix:

SEDIMENT

Sample wt/vol:

1.36101 (g)

% Moisture:

86.4

Extraction :

SW 846 METHOD 3545 (ASE)

Conc. Extract Volume:

50000 (µL)

Injection Volume:

1.2 (µL)

Method:

SW-846 8082 (PCB)

SDG No.:

020906ALCAN

CLIENT ID:

OU3SD15

LAB SAMPLE ID:

AF07516

LAB FILE ID:

AF07516

DATE RECEIVED:

9/6/2002

DATE EXTRACTED:

9/19/2002

DATE ANALYZED:

10/10/2002

DILUTION FACTOR:

1

SULFUR CLEANUP:

YES

GC Column : J&W, NARROWBORE CAPILLARY, DB-1, 30M; ID:0.25mm

NEA Form ID: S:\FORMS\CATB\SOIL_GC_18F_100902A.XLS

NEA File ID: S:\CERT02\02090028_GC18F_8082SEC

CAS NO.	COMPOUND	CONCENTRATION UNITS:	Q
		(µg/g)	
12674-11-2	Aroclor 1016	0.735	U
11104-28-2	Aroclor 1221	0.735	U
11141-16-5	Aroclor 1232	0.735	U
53469-21-9	Aroclor 1242	0.735	U
12672-29-6	Aroclor 1248	0.735	U
11097-69-1	Aroclor 1254	0.735	U
11096-82-5	Aroclor 1260	0.735	U

¹ Form based upon NYS-DEC Form 1-CLP-PEST

1D-1¹
PCB ANALYSIS DATA SHEET

Northeast Analytical Inc.

ELAP ID No.:

11078

SDG No.:

020906ALCAN

CLIENT ID:

OU3SDDUP1

Matrix:

SEDIMENT

LAB SAMPLE ID:

AF07517

Sample wt/vol:

0.76934 (g)

LAB FILE ID:

AF07517

% Moisture:

92.5

DATE RECEIVED:

9/6/2002

Extraction :

SW 846 METHOD 3545 (ASE)

DATE EXTRACTED:

9/19/2002

Conc. Extract Volume:

50000 (µL)

DATE ANALYZED:

10/10/2002

Injection Volume:

1.2 (µL)

DILUTION FACTOR:

1

Method:

SW-846 8082 (PCB)

SULFUR CLEANUP:

YES

GC Column : J&W, NARROWBORE CAPILLARY, DB-1, 30M; ID:0.25mm

NEA Form ID: S:\FORMS\CATB\SOIL_GC_18F_100902A.XLS

NEA File ID: S:\CERT02\02090028_GC18F_8082SEC

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/g)	Q
12674-11-2	Aroclor 1016	1.30	U
11104-28-2	Aroclor 1221	1.30	U
11141-16-5	Aroclor 1232	1.30	U
53469-21-9	Aroclor 1242	1.30	U
12672-29-6	Aroclor 1248	1.30	U
11097-69-1	Aroclor 1254	1.30	U
11096-82-5	Aroclor 1260	1.30	U

¹ Form based upon NYS-DEC Form 1-CLP-PEST

FORM I-CLP-PCB (NEA)

1D-1¹
PCB ANALYSIS DATA SHEET

Northeast Analytical Inc.

ELAP ID No.:

11078

Matrix:

SEDIMENT

Sample wt/vol:

2.29361 (g)

% Moisture:

77.4

Extraction :

SW 846 METHOD 3545 (ASE)

Conc. Extract Volume:

50000 (μL)

Injection Volume:

1.2 (μL)

Method:

SW-846 8082 (PCB)

SDG No.:

020906ALCAN

CLIENT ID:

OU3SD16

LAB SAMPLE ID:

AF07518

LAB FILE ID:

AF07518

DATE RECEIVED:

9/6/2002

DATE EXTRACTED:

9/19/2002

DATE ANALYZED:

10/10/2002

DILUTION FACTOR:

1

SULFUR CLEANUP:

YES

GC Column : J&W, NARROWBORE CAPILLARY, DB-1, 30M; ID:0.25mm

NEA Form ID: S:\FORMS\CATB\SOIL_GC_18F_100902A.XLS

NEA File ID: S:\CERT02\02090028_GC18F_8082SEC

CAS NO.	COMPOUND	CONCENTRATION UNITS: (μg/g)	Q
12674-11-2	Aroclor 1016	0.436	U
11104-28-2	Aroclor 1221	0.436	U
11141-16-5	Aroclor 1232	0.436	U
53469-21-9	Aroclor 1242	0.436	U
12672-29-6	Aroclor 1248	0.436	U
11097-69-1	Aroclor 1254	0.436	U
11096-82-5	Aroclor 1260	0.436	U

¹ Form based upon NYS-DEC Form 1-CLP-PEST

FORM I-CLP-PCB (NEA)

1D-1¹
PCB ANALYSIS DATA SHEET

Northeast Analytical Inc.

ELAP ID No. :

11078

Matrix :

SEDIMENT

Sample wt/vol :

7.10664 (g)

% Moisture :

33.8

Extraction :

SW 846 METHOD 3545 (ASE)

Conc. Extract Volume :

50000 (µL)

Injection Volume :

1.2 (µL)

Method :

SW-846 8082 (PCB)

SDG No. :

020906ALCAN

CLIENT ID :

OU3SD20

LAB SAMPLE ID :

AF07519

LAB FILE ID :

AF07519

DATE RECEIVED :

9/6/2002

DATE EXTRACTED :

9/19/2002

DATE ANALYZED :

10/10/2002

DILUTION FACTOR :

1

SULFUR CLEANUP :

YES

GC Column : J&W, NARROWBORE CAPILLARY, DB-1, 30M; ID:0.25mm

NEA Form ID: S:\FORMS\CAT\B\SOIL_GC_18F_100902A.XLS

NEA File ID: S:\CERT02\02090028_GC18F_8082SEC

CAS NO.	COMPOUND	CONCENTRATION UNITS:	Q
		(µg/g)	
12674-11-2	Aroclor 1016	0.141	U
11104-28-2	Aroclor 1221	0.141	U
11141-16-5	Aroclor 1232	0.141	U
53469-21-9	Aroclor 1242	0.141	U
12672-29-6	Aroclor 1248	0.141	U
11097-69-1	Aroclor 1254	0.141	U
11096-82-5	Aroclor 1260	0.141	U

¹ Form based upon NYS-DEC Form 1-CLP-PEST

1D-1¹
PCB ANALYSIS DATA SHEET

Northeast Analytical Inc.

SDG No.:

020906ALCAN

ELAP ID No.:

11078

CLIENT ID:

OU3SD11

Matrix:

SEDIMENT

LAB SAMPLE ID:

AF07520

Sample wt/vol:

7.104 (g)

LAB FILE ID:

AF07520

% Moisture:

31.5

DATE RECEIVED:

9/6/2002

Extraction :

SW 846 METHOD 3545 (ASE)

DATE EXTRACTED:

9/19/2002

Conc. Extract Volume:

50000 (µL)

DATE ANALYZED:

10/11/2002

Injection Volume:

1.2 (µL)

DILUTION FACTOR:

1

Method:

SW-846 8082 (PCB)

SULFUR CLEANUP:

YES

GC Column : J&W, NARROWBORE CAPILLARY, DB-1, 30M; ID:0.25mm

NEA Form ID: S:\FORMS\CATB\SOIL_GC_18F_100902A.XLS

NEA File ID: S:\CERT02\02090028_GC18F_8082SEC

CAS NO.	COMPOUND	CONCENTRATION UNITS:	Q
		(µg/g)	
12674-11-2	Aroclor 1016	0.141	U
11104-28-2	Aroclor 1221	0.141	U
11141-16-5	Aroclor 1232	0.141	U
53469-21-9	Aroclor 1242	0.141	U
12672-29-6	Aroclor 1248	0.141	U
11097-69-1	Aroclor 1254	0.141	U
11096-82-5	Aroclor 1260	0.141	U

¹ Form based upon NYS-DEC Form 1-CLP-PEST

FORM I-CLP-PCB (NEA)

1D-1¹
PCB ANALYSIS DATA SHEET

Northeast Analytical Inc.

ELAP ID No.:

11078

SDG No.:

020906ALCAN

CLIENT ID:

OU3SD09

Matrix:

SEDIMENT

LAB SAMPLE ID:

AF07521

Sample wt/vol:

6.39548 (g)

LAB FILE ID:

AF07521

% Moisture:

36.3

DATE RECEIVED:

9/6/2002

Extraction :

SW 846 METHOD 3545 (ASE)

DATE EXTRACTED:

9/19/2002

Conc. Extract Volume:

50000 (µL)

DATE ANALYZED:

10/11/2002

Injection Volume:

1.2 (µL)

DILUTION FACTOR:

1

Method:

SW-846 8082 (PCB)

SULFUR CLEANUP:

YES

GC Column : J&W, NARROWBORE CAPILLARY, DB-1, 30M; ID:0.25mm

NEA Form ID: S:\FORMS\CATB\SOIL_GC_18F_100902A.XLS

NEA File ID: S:\CERT02\02090028_GC18F_8082SEC

CAS NO.	COMPOUND	CONCENTRATION UNITS:	Q
		(µg/g)	
12674-11-2	Aroclor 1016	0.156	U
11104-28-2	Aroclor 1221	0.156	U
11141-16-5	Aroclor 1232	0.156	U
53469-21-9	Aroclor 1242	0.156	U
12672-29-6	Aroclor 1248	0.156	U
11097-69-1	Aroclor 1254	0.256	<i>✓</i>
11096-82-5	Aroclor 1260	0.281	<i>✓, P</i>

- i Aroclor 1254 is being used to report an altered PCB pattern exhibited by the sample.
Actual Aroclor 1254 is not present in the sample, but is reported to more accurately quantify PCB present in sample that has undergone environmental alteration.
- ii Aroclor 1260 is being reported as the best Aroclor match.
The sample exhibits an altered PCB pattern.

¹ Form based upon NYS-DEC Form 1-CLP-PEST

1D-1¹
PCB ANALYSIS DATA SHEET

Northeast Analytical Inc.

ELAP ID No.:

11078

Matrix:

SEDIMENT

Sample wt/vol:

2.92806 (g)

% Moisture:

72.2

Extraction :

SW 846 METHOD 3545 (ASE)

Conc. Extract Volume:

50000 (µL)

Injection Volume:

1.2 (µL)

Method:

SW-846 8082 (PCB)

SDG No.:

020906ALCAN

CLIENT ID:

OU3SD21

LAB SAMPLE ID:

AF07522

LAB FILE ID:

AF07522

DATE RECEIVED:

9/6/2002

DATE EXTRACTED:

9/19/2002

DATE ANALYZED:

10/11/2002

DILUTION FACTOR:

1

SULFUR CLEANUP:

YES

GC Column : J&W, NARROWBORE CAPILLARY, DB-1, 30M; ID:0.25mm

NEA Form ID: S:\FORMS\CATB\SOIL_GC_18F_100902A.XLS

NEA File ID: S:\CERT02\02090028_GC18F_8082SET

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/g)	Q
12674-11-2	Aroclor 1016	0.342	U
11104-28-2	Aroclor 1221	0.342	U
11141-16-5	Aroclor 1232	0.342	U
53469-21-9	Aroclor 1242	0.342	U
12672-29-6	Aroclor 1248	0.342	U
11097-69-1	Aroclor 1254	1.62	X
11096-82-5	Aroclor 1260	1.72	X

- i Aroclor 1254 is being used to report an altered PCB pattern exhibited by the sample.
Actual Aroclor 1254 is not present in the sample, but is reported to more accurately quantify PCB present in sample that has undergone environmental alteration.
- ii Aroclor 1260 is being reported as the best Aroclor match.
The sample exhibits an altered PCB pattern.

1D-1¹
PCB ANALYSIS DATA SHEET

Northeast Analytical Inc.

SDG No.:

020906ALCAN

ELAP ID No.:

11078

CLIENT ID:

OU3SD08

Matrix:

SEDIMENT

LAB SAMPLE ID:

AF07523

Sample wt/vol:

6.18974 (g)

LAB FILE ID:

AF07523

% Moisture:

43.5

DATE RECEIVED:

9/6/2002

Extraction :

SW 846 METHOD 3545 (ASE)

DATE EXTRACTED:

9/19/2002

Conc. Extract Volume:

50000 (μL)

DATE ANALYZED:

10/11/2002

Injection Volume:

1.2 (μL)

DILUTION FACTOR:

1

Method:

SW-846 8082 (PCB)

SULFUR CLEANUP:

YES

GC Column : J&W, NARROWBORE CAPILLARY, DB-1, 30M; ID:0.25mm

NEA Form ID: S:\FORMS\CATB\SOIL_GC_18F_100902A.XLS

NEA File ID: S:\CERT02\02090028_GC18F_8082SEC

CAS NO.	COMPOUND	CONCENTRATION UNITS: (μg/g)	Q
12674-11-2	Aroclor 1016	0.162	U
11104-28-2	Aroclor 1221	0.162	U
11141-16-5	Aroclor 1232	0.162	U
53469-21-9	Aroclor 1242	0.252	X.P.S
12672-29-6	Aroclor 1248	0.162	U
11097-69-1	Aroclor 1254	2.01	ii
11096-82-5	Aroclor 1260	2.49	iii.P

- i Aroclor 1242 is being used to report an altered PCB pattern exhibited by the sample.
Actual Aroclor 1242 is not present in the sample, but is reported to more accurately quantify PCB present in sample that has undergone environmental alteration.
- ii Aroclor 1254 is being used to report an altered PCB pattern exhibited by the sample.
Actual Aroclor 1254 is not present in the sample, but is reported to more accurately quantify PCB present in sample that has undergone environmental alteration.
- iii Aroclor 1260 is being reported as the best Aroclor match.
The sample exhibits an altered PCB pattern.

¹ Form based upon NYS-DEC Form 1-CLP-PEST

1D-1¹
PCB ANALYSIS DATA SHEET

Northeast Analytical Inc.

ELAP ID No.:

11078

SDG No.:

020906ALCAN

CLIENT ID:

OU3SD07

Matrix:

SEDIMENT

LAB SAMPLE ID:

AF07524

Sample wt/vol:

4.94477 (g)

LAB FILE ID:

AF07524

% Moisture:

52.0

DATE RECEIVED:

9/6/2002

Extraction :

SW 846 METHOD 3545 (ASE)

DATE EXTRACTED:

9/19/2002

Conc. Extract Volume:

50000 (μL)

DATE ANALYZED:

10/11/2002

Injection Volume:

1.2 (μL)

DILUTION FACTOR:

3

Method:

SW-846 8082 (PCB)

SULFUR CLEANUP:

YES

GC Column : J&W, NARROWBORE CAPILLARY, DB-1, 30M; ID:0.25mm

NEA Form ID: S:\FORMS\CATB\SOIL_GC_18F_100902A.XLS

NEA File ID: S:\CERT02\02090028_GC18F_8082SEC

CAS NO.	COMPOUND	CONCENTRATION UNITS: (μg/g)	Q
12674-11-2	Aroclor 1016	0.607	U
11104-28-2	Aroclor 1221	0.607	U
11141-16-5	Aroclor 1232	0.607	U
53469-21-9	Aroclor 1242	3.20	X
12672-29-6	Aroclor 1248	0.607	U
11097-69-1	Aroclor 1254	9.66 9.77	X
11096-82-5	Aroclor 1260	10.6	X

- i Aroclor 1242 is being used to report an altered PCB pattern exhibited by the sample.
Actual Aroclor 1242 is not present in the sample, but is reported to more accurately quantify PCB present in sample that has undergone environmental alteration.
- ii Aroclor 1254 is being used to report an altered PCB pattern exhibited by the sample.
Actual Aroclor 1254 is not present in the sample, but is reported to more accurately quantify PCB present in sample that has undergone environmental alteration.
- iii Aroclor 1260 is being reported as the best Aroclor match.
The sample exhibits an altered PCB pattern.

1D-1¹
PCB ANALYSIS DATA SHEET

Northeast Analytical Inc.		SDG No.:	020906ALCAN
ELAP ID No.:	11078	CLIENT ID:	OU3SDRB02
Matrix:	WATER	LAB SAMPLE ID:	AF07525
Sample wt/vol:	1.080 (L)	LAB FILE ID:	AF07525R
% Moisture:		DATE RECEIVED:	9/6/02
Extraction :	CLLE	DATE EXTRACTED:	9/10/02
Conc. Extract Volume:	5000 (µL)	DATE ANALYZED:	10/14/02
Injection Volume:	0.4 (µL)	DILUTION FACTOR:	1
Method:	SW-846 8082 PCB	SULFUR CLEANUP:	YES

GC Column : J&W, NARROWBORE CAPILLARY, DB-1, 30M; ID: 0.25mm

NEA Form ID: S:\FORMS\CATB\H2O_GC11_100202

NEA File ID: S:\CERT02\02090028_GC11_8082W.XLS 1D-1-3

CAS NO.	COMPOUND	CONCENTRATION UNITS:	Q
		(µg/L)	
12674-11-2	Aroclor 1016	0.0250	U
11104-28-2	Aroclor 1221	0.0250	U
11141-16-5	Aroclor 1232	0.0250	U
53469-21-9	Aroclor 1242	0.0250	U
12672-29-6	Aroclor 1248	0.0250	U
11097-69-1	Aroclor 1254	0.0250	U
11096-82-5	Aroclor 1260	0.0250	U

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2190 Technology Drive, Schenectady, NY 12308

(518) 346-4592 • FAX: (518) 381-6055

CERTIFICATE OF ANALYSIS 10/02/2002

ALCAN ALUMINUM CORPORATION
OSWEGO WORKS, PO BOX 28
448 COUNTY ROUTE 1A
OSWEGO, NY 13126
CONTACT: DAVID NEUNER

MATRIX : SEDIMENT DATE SAMPLED: 09/04/2002 TIME: 15:15
DATE RECEIVED: 09/06/2002 TIME: 10:30 PROJECT: OU1 SEDIMENT INVESTIGATION
SAMPLED BY: J. GUTKOWSKI LOCATION: OSWEGO, NY
CUSTOMER PO: N/A LAB ELAP #: 11078

NEA ID	CUSTOMER ID	METHOD	RESULTS	PQL	UNITS	DATE ANALYZED	FLAG
AF07504	OU3SD17 (0-0.5')	Method 8015 DRO for Solids	2470	227	µg/g	09/30/2002	
AF07505	OU3SD17 (0.5-1.1')	Method 8015 DRO for Solids	1120	134	µg/g	09/30/2002	
AF07506	OU3SD18 (0-0.5')	Method 8015 DRO for Solids	1550	261	µg/g	09/30/2002	
AF07507	OU3SD18 (0.5-1.0')	Method 8015 DRO for Solids	445	178	µg/g	09/30/2002	
AF07508	OU3SD19 (0-0.5')	Method 8015 DRO for Solids	1380	219	µg/g	10/01/2002	
AF07509	OU3SD19 (0.5-1.0')	Method 8015 DRO for Solids	1450	182	µg/g	10/01/2003	

Note: ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL

PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample

AUTHORIZED SIGNATURE:

Northeast Analytical, Inc.
Robert E. Wagner, Laboratory Director



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ENVIRONMENTAL LAB SERVICES

2190 Technology Drive, Schenectady, NY 12308

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10/02/2002

ALCAN ALUMINUM CORPORATION

OSWEGO WORKS, PO BOX 28

448 COUNTY ROUTE 1A

OSWEGO, NY 13126

CONTACT: DAVID NEUNER

MATRIX : WATER

DATE SAMPLED: 09/04/2002

TIME: 16:00

DATE RECEIVED: 09/06/2002 TIME: 10:30

PROJECT: OU1 SEDIMENT INVESTIGATION

SAMPLED BY: J. GUTKOWSKI

LOCATION: OSWEGO, NY

CUSTOMER PO: N/A

LAB ELAP #: 11078

NEA ID	CUSTOMER ID	METHOD	RESULTS	PQL	UNITS	DATE ANALYZED	FLAG
AF07512	OU3SDR01	Method 8015 DRO for Water	ND	100	µg/L	09/27/2002	

Note: ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL

PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample

AUTHORIZED SIGNATURE:

Northeast Analytical, Inc.

Robert E. Wagner, Laboratory Director



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09/19/2002

ALCAN ALUMINUM CORPORATION

OSWEGO WORKS, PO BOX 28

448 COUNTY ROUTE 1A

OSWEGO, NY 13126

CONTACT: DAVID NEUNER

MATRIX : SEDIMENT

DATE SAMPLED: 09/04/2002

DATE RECEIVED: 09/06/2002 TIME: 10:30

PROJECT: OU1 SEDIMENT INVESTIGATION

SAMPLED BY: J. GUTKOWSKI

LOCATION: OSWEGO, NY

CUSTOMER PO: N/A

LAB ELAP #: 11078

NEA ID:	CUSTOMER ID :	METHOD:	RESULTS	PQL	UNITS	DATE ANALYZED
AF07504	OU3SD17 (0-0.5')	Method 8015 GRO for Solids	ND	22700	µg/kg	09/11/2002
AF07505	OU3SD17 (0.5-1.1')	Method 8015 GRO for Solids	ND	14300	µg/kg	09/11/2002
AF07506	OU3SD18 (0-0.5')	Method 8015 GRO for Solids	ND	26400	µg/kg	09/11/2002
AF07507	OU3SD18 (0.5-1.0')	Method 8015 GRO for Solids	ND	15900	µg/kg	09/11/2002
AF07508	OU3SD19 (0-0.5')	Method 8015 GRO for Solids	ND	22200	µg/kg	09/11/2002
AF07509	OU3SD19 (0.5-1.0')	Method 8015 GRO for Solids	ND	17200	µg/kg	09/11/2002

Note: ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL

PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample

AUTHORIZED SIGNATURE:

Northeast Analytical, Inc.

Robert E. Wagner, Laboratory Director



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ENVIRONMENTAL LAB SERVICES

2190 Technology Drive, Schenectady, NY 12308

(518) 346-4592 • FAX: (518) 381-6055

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09/19/2002

ALCAN ALUMINUM CORPORATION

OSWEGO WORKS, PO BOX 28

448 COUNTY ROUTE 1A

OSWEGO, NY 13126

CONTACT: DAVID NEUNER

MATRIX : WATER DATE SAMPLED: 09/04/2002
DATE RECEIVED: 09/06/2002 TIME: 10:30 PROJECT: OU1 SEDIMENT INVESTIGATION
SAMPLED BY: J. GUTKOWSKI LOCATION: OSWEGO, NY
CUSTOMER PO: N/A LAB ELAP #: 11078

NEA ID:	CUSTOMER ID :	METHOD:	RESULTS	PQL	UNITS	DATE ANALYZED
AF07512	OU3SDRB01	Method 8015 GRO for Water	ND	100	µg/L	09/12/2002

Note: ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL

PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample

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09/19/2002

ALCAN ALUMINUM CORPORATION

OSWEGO WORKS, PO BOX 28

448 COUNTY ROUTE 1A

OSWEGO, NY 13126

CONTACT: DAVID NEUNER

MATRIX : SEDIMENT **PROJECT:** OU1 SEDIMENT INVESTIGATION
DATE RECEIVED: 09/06/2002 **TIME:** 10:30 **LOCATION:** OSWEGO, NY
SAMPLED BY: J. GUTKOWSKI **LAB ELAP #:** 11078
CUSTOMER PO: N/A

NEA ID	CUSTOMER ID	METHOD	DATE SAMPLED	TIME SAMPLED	RESULTS	PQL	UNITS	DATE ANALYZED
Total Organic Carbon								
AF07495	OU1SD20 (0-0.5')	EPA Lloyd Kahn	09/03/2002	09:00	42000	801	mg/kg	09/19/2002
AF07496	OU1SD20 (0.5-0.7')	EPA Lloyd Kahn	09/03/2002	09:00	30000	753	mg/kg	09/19/2002
AF07497	OU1SD19 (0-0.5')	EPA Lloyd Kahn	09/03/2002	10:00	57800	911	mg/kg	09/19/2002
AF07498	OU1SD19 (0.5-1.0')	EPA Lloyd Kahn	09/03/2002	10:00	27300	618	mg/kg	09/19/2002
AF07499	OU1SD19 (1.0-1.5')	EPA Lloyd Kahn	09/03/2002	10:00	21500	453	mg/kg	09/19/2002
AF07500	OU1SD19 (1.5-2.0')	EPA Lloyd Kahn	09/03/2002	10:00	9270	396	mg/kg	09/19/2002
AF07501	OU1SD15 (0-0.5')	EPA Lloyd Kahn	09/03/2002	12:30	91100	3970	mg/kg	09/19/2002
AF07502	OU1SD15 (0.5-1.0')	EPA Lloyd Kahn	09/03/2002	12:30	13600	402	mg/kg	09/19/2002
AF07503	OU1SD DUP6	EPA Lloyd Kahn	09/03/2002	N/A	79800	766	mg/kg	09/19/2002
AF07510	OU3SD12	EPA Lloyd Kahn	09/04/2002	14:00	10300	433	mg/kg	09/19/2002
AF07513	OU3SD13	EPA Lloyd Kahn	09/05/2002	09:30	533000	12800	mg/kg	09/19/2002

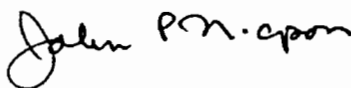
Note: ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL

PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample

AUTHORIZED SIGNATURE:

Northeast Analytical, Inc.

Robert E. Wagner, Laboratory Director



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09/23/2002

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OSWEGO WORKS, PO BOX 28

448 COUNTY ROUTE 1A

OSWEGO, NY 13126

CONTACT: DAVID NEUNER

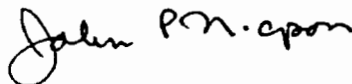
MATRIX : SEDIMENT **PROJECT:** OU1 SEDIMENT INVESTIGATION
DATE RECEIVED: 09/06/2002 **TIME:** 10:30 **LOCATION:** OSWEGO, NY
SAMPLED BY: J. GUTKOWSKI **LAB ELAP #:** 11078
CUSTOMER PO: N/A

NEA ID	CUSTOMER ID	METHOD	DATE SAMPLED	TIME SAMPLED	RESULTS	PQL	UNITS	DATE ANALYZED
Total Organic Carbon								
AF07516	OU3SD15	EPA Lloyd Kahn	09/05/2002	10:00	457000	11500	mg/kg	09/19/2002
AF07517	OU3SDDUP1	EPA Lloyd Kahn	09/05/2002	N/A	348000	11200	mg/kg	09/19/2002
AF07518	OU3SD16	EPA Lloyd Kahn	09/05/2002	11:30	162000	4410	mg/kg	09/19/2002
AF07519	OU3SD20	EPA Lloyd Kahn	09/05/2002	12:00	13700	507	mg/kg	09/19/2002
AF07520	OU3SD11	EPA Lloyd Kahn	09/05/2002	12:15	6980	558	mg/kg	09/19/2002
AF07521	OU3SD09	EPA Lloyd Kahn	09/05/2002	13:15	12200	469	mg/kg	09/19/2002
AF07522	OU3SD21	EPA Lloyd Kahn	09/05/2002	13:50	28100	3810	mg/kg	09/19/2002
AF07523	OU3SD08	EPA Lloyd Kahn	09/05/2002	15:00	10100	860	mg/kg	09/19/2002
AF07524	OU3SD07	EPA Lloyd Kahn	09/05/2002	15:30	22300	1980	mg/kg	09/19/2002

Note: ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL

PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample

AUTHORIZED SIGNATURE:



Northeast Analytical, Inc.

Robert E. Wagner, Laboratory Director

NORTHEAST ANALYTICAL

ENVIRONMENTAL LAB SERVICES

2190 Technology Drive, Schenectady, NY 12308

(518) 346-4592 • FAX: (518) 381-6055

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ALCAN ALUMINUM CORPORATION

OSWEGO WORKS, PO BOX 28

448 COUNTY ROUTE 1A

OSWEGO, NY 13126

CONTACT: DAVID NEUNER

MATRIX : WATER **PROJECT:** OU1 SEDIMENT INVESTIGATION

DATE RECEIVED: 09/06/2002 **TIME:** 10:30 **LOCATION:** OSWEGO, NY

SAMPLED BY: J. GUTKOWSKI **LAB ELAP #:** 11078

CUSTOMER PO: N/A

NEA ID	CUSTOMER ID	METHOD	DATE SAMPLED	TIME SAMPLED	RESULTS	PQL	UNITS	DATE ANALYZED
Total Organic Carbon								
AF07511	OU1SDRB07	EPA 415.1	09/03/2002	17:45	ND	0.966	mg/L	09/23/2002
AF07512	OU3SDRB01	EPA 415.1	09/04/2002	16:00	ND	0.966	mg/L	09/23/2002
AF07525	OU3SDRB02	EPA 415.1	09/05/2002	17:00	ND	0.966	mg/L	09/23/2002

Note: ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL

PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample

AUTHORIZED SIGNATURE:



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Robert E. Wagner, Laboratory Director

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ENVIRONMENTAL LAB SERVICES

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10/01/2002

ALCAN ALUMINUM CORPORATION

OSWEGO WORKS, PO BOX 28

448 COUNTY ROUTE 1A

OSWEGO, NY 13126

CONTACT: DAVID NEUNER

MATRIX : SEDIMENT

DATE SAMPLED: 09/03/2002

DATE RECEIVED: 09/06/2002 TIME: 10:30

PROJECT: OU1 SEDIMENT INVESTIGATION

SAMPLED BY: J. GUTKOWSKI

LOCATION: OSWEGO, NY

CUSTOMER PO #: N/A

LAB ELAP #: 11078

NEA ID	CUSTOMER ID	METHOD	RESULTS	DATE ANALYZED
Specific Gravity 20°C				
AF07495	OU1SD20 (0-0.5')	ASTM D854-00	2.54	09/30/2002
AF07496	OU1SD20 (0.5-0.7')	ASTM D854-00	2.09	09/30/2002
AF07513	OU3SD13	ASTM D854-00	1.69	10/01/2002
AF07514	OU3SDGSDUP1	ASTM D854-00	1.58	10/01/2002
AF07515	OU3SD14	ASTM D854-00	1.23	10/01/2002
AF07521	OU3SD09	ASTM D854-00	2.62	10/01/2002

Note: ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL

PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample

AUTHORIZED SIGNATURE:



Northeast Analytical, Inc.

Robert E. Wagner, Laboratory Director

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ENVIRONMENTAL LAB SERVICES

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CERTIFICATE OF ANALYSIS

09/18/2002

ALCAN ALUMINUM CORPORATION

OSWEGO WORKS, PO BOX 28

448 COUNTY ROUTE 1A

OSWEGO, NY 13126

CONTACT: DAVID NEUNER

MATRIX : SEDIMENT **PROJECT:** OU1 SEDIMENT INVESTIGATION
DATE RECEIVED: 09/06/2002 **TIME:** 10:30 **LOCATION:** OSWEGO, NY
SAMPLED BY: J. GUTKOWSKI **LAB ELAP #:** 11078
CUSTOMER PO: N/A

NEA ID	CUSTOMER ID	METHOD	DATE SAMPLED	TIME SAMPLED	RESULTS	PQL	UNITS	DATE ANALYZED
Percent Organic Content								
AF07495	OU1SD20 (0-0.5')	ASTM D2974	09/03/2002	9:00	6.05	N/A	%	09/13/2002
AF07496	OU1SD20 (0.5-0.7')	ASTM D2974	09/03/2002	9:00	32.5	N/A	%	09/13/2002
AF07513	OU3SD13	ASTM D2974	09/05/2002	9:30	78.8	N/A	%	09/17/2002
AF07514	OU3SDGSDUP1	ASTM D2974	09/05/2002	N/A	80.3	N/A	%	09/13/2002
AF07515	OU3SD14	ASTM D2974	09/05/2002	10:30	73.1	N/A	%	09/13/2002
AF07521	OU3SD09	ASTM D2974	09/05/2002	13:15	3.27	N/A	%	09/13/2002

Note: ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL

PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample

AUTHORIZED SIGNATURE:



Northeast Analytical, Inc.

Robert E. Wagner, Laboratory Director

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October 28, 2002

Sample Delivery Group Case Narrative

This sample delivery group consists of sediment samples and associated aqueous rinse blank samples received for analysis on September 6, 2002 and includes assigned Sample Delivery Group: 020906ALCAN. The samples are from Project Name: ALCAN OUI Sediment Investigation, Project Location: ALCAN, Oswego, NY. The samples were delivered to the lab via FEDEX delivery service on September 6, 2002. All samples were received by the laboratory intact and within holding times.

This sample delivery group consists of the following samples:

<u>NEA Sample ID:</u>	<u>Client Sample ID:</u>
AF07495	OU1SD20 (0-0.5')
AF07496	OU1SD20 (0.5-0.7')
AF07497	OU1SD19 (0-0.5')
AF07498	OU1SD19 (0.5-1.0')
AF07499	OU1SD19 (1.0-1.5')
AF07500	OU1SD19 (1.5-2.0')
AF07501	OU1SD15 (0-0.5')
AF07502	OU1SD15 (0.5-1.0')
AF07503	OU1SD DUP6
AF07504	OU3SD17 (0-0.5')
AF07505	OU3SD17 (0.5-1.1')
AF07506	OU3SD18 (0-0.5')
AF07507	OU3SD18 (0.5-1.0')
AF07508	OU3SD19 (0-0.5')
AF07509	OU3SD19 (0.5-1.0')
AF07510	OU3SD12
AF07511	OU1SDRB07
AF07512	OU3SDRB01
AF07513	OU3SD13
AF07514	OU3SDGSDUP1
AF07515	OU3SD14
AF07516	OU3SD15
AF07517	OU3SDDUP1
AF07518	OU3SD16
AF07519	OU3SD20
AF07520	OU3SD11
AF07521	OU3SD09
AF07522	OU3SD21
AF07523	OU3SD08
AF07524	OU3SD07
AF07525	OU3SDRB02

PCB Analysis EPA Method 8082/SURCO Cleanup Method

Analysis for PCB Aroclors was performed by EPA Method 8082 with secondary GC column confirmation analysis. The Accelerated Solvent Extraction Method (EPA 3545) was employed for the sediment samples and the Continuous Liquid Liquid Extraction Method (EPA 3520C) was employed for the aqueous rinse blank samples.

An Alumina Column Extract Cleanup/Separation procedure developed by Dr. James Pagano of the State University College at Oswego (SUNY-ERC Method) was employed for the samples. This cleanup

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procedure was performed to reduce chromatographic interference from petroleum hydrocarbons and polychlorinated terphenyls (PCTs) known to be present at the study site. Reference chromatograms for PCT and the PCT Surrogate "Sentinel" are provided for visual comparison to actual samples for assessment of PCT breakthrough during the Alumina column cleanup process.

The following technical and administrative items were noted for the analysis:

- 1.) The percent recoveries for both TCMX and DCBP surrogate compounds were diluted out for several samples due to the high concentration of PCB contained in the samples (please see Form 2 for details).
- 2.) The percent recovery for the DCBP or TCMX surrogate was below lab-established limits for several samples for the primary G.C. Column analysis or the secondary confirmation G.C. column analysis. (please see Form 2 for details).
- 3.) The percent difference between the concentrations for the Primary and Secondary G.C. column exceeded the protocol default limit (25%) for several samples. The affected concentration results were flagged (P) on the associated Form 1. Please see Forms 10 and Forms 1 for details for the samples.
- 4.) Aroclor quantitation notes (footnotes: "i", "ii", and "iii") were applied to several samples to denote that altered Aroclor patterns were observed, and to describe the total Aroclor quantitation scheme that was employed for the samples. Please see Forms 1 for details.
- 5.) The aqueous samples (NEA ID: AF07511, AF07512 and AF07525) were re-processed through the cleanup procedures (acid wash, florisil, and sulfur removal) due to non-target chromatographic interference present in the initial analysis. Results for the re-analyzed samples are included in this data summary package.
- 6.) The Matrix Spike/matrix Spike Duplicate Relative Percent Difference was outside lab-established limits for the MS/MSD samples (NEA ID: AF07516M & AF07615K).

Total Organic Carbon Analysis

Analysis for TOC was performed by US-EPA Lloyd Kahn Method for sediment samples and USEPA 415.1 for the aqueous rinse blank sample. The following technical and administrative items were noted for the analysis:

All quality assurance parameters were met for the analysis.

Diesel Range Organics Analysis

Analysis for Diesel Range Organics was performed by EPA Method 8015. The Accelerated Solvent Extraction Method (EPA 3545) was employed for the sediment samples and the Continuous Liquid Liquid Extraction Method (EPA 3520C) was employed for the aqueous rinse blank samples. The following technical and administrative items were noted for the analysis:

- (1.) The percent recovery for both DRO surrogate compounds were above lab established limits for all site sediment samples due to chromatographic interference from the sample matrix. (please see Form 2 for details)

Gasoline Range Organics Analysis

Analysis for Gasoline Range Organics was performed by EPA Method 8015. The low-level purge and trap method was employed for the sediment and aqueous rinse-blank sample. The following technical and administrative items were noted for the analysis:

All quality assurance parameters were met for the analysis.

Qualifier Summary:

I. CLP Standard Organic and Inorganic analysis qualifiers were used for all analyses.

This Case Narrative was prepared by,



William A. Kotas

Quality Assurance Officer

S:\forms\catb\casen\102802A.doc

Sediment Analytical Data Reports

SDG #020907ALCAN

9/5/02

9/6/02

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BLASLAND, BOUCK & LEE, INC.
engineers & scientists

DATA VALIDATION REPORT

ALCAN ALUMINUM CORPORATION
OSWEGO, NY

SDG# 020907ALCAN

SEDIMENT SAMPLING

PCB, TOC, SPECIFIC GRAVITY AND
ORGANIC CONTENT ANALYSES

Analyses performed by:

Northeast Analytical, Inc.
Schenectady, New York

Review performed by:



Blasland, Bouck & Lee, Inc.
Syracuse, New York

Summary

The following is an assessment of the SDG# 020907ALCAN for biota and sediment sampling at the ALCAN Aluminum Corporation site in Oswego, New York. Included with this assessment are the data review check sheets used in the review of the package and corrected sample results. Analyses were performed on the following samples:

[illegible]

1 MS/MSD analysis performed on sample

Sample Analysis: PCBs

Quality Control Checks

	YES	NO	NA
1. Field Chain-of-Custody complete	<u>X</u>	<u> </u>	<u> </u>
2. Proper methods for analysis used	<u>X</u>	<u> </u>	<u> </u>
3. All documentation supplied	<u>X</u>	<u> </u>	<u> </u>
4. Samples analyzed within specified holding times	<u>X</u>	<u> </u>	<u> </u>
5. The minimum number of field and laboratory QC samples analyzed	<u>X</u>	<u> </u>	<u> </u>
6. Accuracy maintained within established ranges for the following:			
Initial calibration (%RSD, R2, RF)	<u>X</u>	<u> </u>	<u> </u>
Continuing calibration (%D, RF)	<u>X</u>	<u> </u>	<u> </u>
Surrogate (%Recovery)	<u> </u>	<u>X</u>	<u> </u>
Matrix spike (%Recovery)	<u>X</u>	<u> </u>	<u> </u>
Blank spike (%Recovery)	<u> </u>	<u>X</u>	<u> </u>
Control sample (%Recovery)	<u> </u>	<u> </u>	<u>X</u>
7. Precision maintained within established ranges for the following:			
Matrix spike (RPD)	<u>X</u>	<u> </u>	<u> </u>
Laboratory duplicate (RPD)	<u> </u>	<u> </u>	<u>X</u>
Field duplicate (RPD)	<u>X</u>	<u> </u>	<u> </u>
8. Target analyte concentrations below detection limit in all blank samples	<u>X</u>	<u> </u>	<u> </u>

Notes

Surrogates were diluted beyond the range of quantitation in the matrix spike and matrix spike duplicate samples. No data have been qualified based on the diluted surrogates. Recovery for one surrogate was below control limits in samples OU3SD10, OU3SD05, OU3SD DUP2 and OU3SD06. Since recoveries for the second surrogate was within control limits, no data have been qualified based on the deviations. All other surrogate recoveries were within control limits.

The sediment matrix spike blank recoveries were below control limits.

Aroclor 1221 was reported as present in sample OU3SD05 and OU3SD DUP2. An examination of the sample chromatograms showed no pattern match for this Aroclor. Data for Aroclor 1221 have, therefore, been qualified as undetected in the listed samples.

Based on the differences between quantitated results for the two analytical columns, data for Aroclor 1242 in sample OU3SD05 and Aroclor 1260 in samples OU3SD05, OU3SD06 and OU3SD DUP2 have been qualified as estimated with a potential high bias.

Other than for the deviations noted, all data quality parameters were within method-specified limits and the data is acceptable for use as reported by the laboratory.

Sample Analysis: Total Organic Carbon

Quality Control Checks

	YES	NO	NA
1. Field Chain-of-Custody complete	<u>X</u>	<u> </u>	<u> </u>
2. Proper methods for analysis used	<u>X</u>	<u> </u>	<u> </u>
3. All documentation supplied	<u>X</u>	<u> </u>	<u> </u>
4. Samples analyzed within specified holding times	<u>X</u>	<u> </u>	<u> </u>
5. The minimum number of field and laboratory QC samples analyzed	<u>X</u>	<u> </u>	<u> </u>
6. Accuracy maintained within established ranges for the following:			
Initial calibration (%R, R2)	<u>X</u>	<u> </u>	<u> </u>
Continuing calibration (%R)	<u>X</u>	<u> </u>	<u> </u>
Matrix spike (%Recovery)	<u> </u>	<u>X</u>	<u> </u>
Blank spike (%Recovery)	<u> </u>	<u> </u>	<u>X</u>
Control sample (%Recovery)	<u> </u>	<u> </u>	<u>X</u>
7. Precision maintained within established ranges for the following:			
Matrix spike (RPD)	<u> </u>	<u> </u>	<u>X</u>
Laboratory duplicate (RPD)	<u>X</u>	<u> </u>	<u> </u>
Field duplicate (RPD)	<u>X</u>	<u> </u>	<u> </u>
8. Target analyte concentrations below detection limit in all blank samples	<u>X</u>	<u> </u>	<u> </u>

Notes

The sediment matrix spike recovery was below control limits for TOC. All sediment TOC data have been qualified as estimated based on the recovery.

Other than for the deviation noted, all data quality parameters were within method-specified limits and the data is acceptable for use as reported by the laboratory.

SAMPLE COMPLIANCE REPORT

Sample Delivery	Sampling Date	ASP Protocol	Sample ID	Matrix	Compliance ¹				Noncompliance
					VOA	BNA	PCB	TOC	
020907ALCAN	9/05/02	2000	OU3SD04	Sediment	--	--	yes	no	TOC - MS
020907ALCAN	9/06/02	2000	OU3SD10	Sediment	--	--	no	no	PCB - %D TOC - MS
020907ALCAN	9/06/02	2000	OU3SD05	Sediment	--	--	no	no	PCB - %D, ID TOC - MS
020907ALCAN	9/06/02	2000	OU3SD06	Sediment	--	--	no	no	PCB - %D TOC - MS
020907ALCAN	9/06/02	2000	OU3SD03	Sediment	--	--	yes	no	TOC - MS
020907ALCAN	9/06/02	2000	OU3SD02	Sediment	--	--	yes	no	TOC - MS
020907ALCAN	9/06/02	2000	OU3SD01	Sediment	--	--	yes	no	PCB - %D, ID TOC - MS
020907ALCAN	9/06/02	2000	OU3SD01	Sediment	--	--	yes	no	TOC - MS
020907ALCAN	9/06/02	2000	OU3SDRB03	Water	--	--	yes	yes	

¹ Samples which are compliant with no added validation qualifiers are listed as "yes". Samples which are non-compliant or which have added qualifiers are listed as "no". A "no" designation does not necessarily indicate that the data have been rejected or are otherwise unusable.

1D-1¹
PCB ANALYSIS DATA SHEET

Northeast Analytical Inc.

SDG No.:

020907ALCAN

ELAP ID No.:

11078

CLIENT ID:

OU3SD04

Matrix:

SEDIMENT

LAB SAMPLE ID:

AF07610

Sample wt/vol:

8.71106 (g)

LAB FILE ID:

AF07610

% Moisture:

15.7

DATE RECEIVED:

9/7/2002

Extraction :

SW 846 METHOD 3545 (ASE)

DATE EXTRACTED:

9/19/2002

Conc. Extract Volume:

50000 (µL)

DATE ANALYZED:

10/12/2002

Injection Volume:

1.2 (µL)

DILUTION FACTOR:

1

Method:

SW-846 8082 (PCB)

SULFUR CLEANUP:

YES

GC Column : J&W, NARROWBORE CAPILLARY, DB-1, 30M; ID:0.25mm

NEA Form ID: S:\FORMS\CATB\SOIL_GC_18F_100902A.XLS

NEA File ID: S:\CERT02\02090040_GC18F.XLS 1D-

CAS NO.	COMPOUND	CONCENTRATION UNITS:	Q
		(µg/g)	
12674-11-2	Aroclor 1016	0.115	U
11104-28-2	Aroclor 1221	0.115	U
11141-16-5	Aroclor 1232	0.115	U
53469-21-9	Aroclor 1242	0.115	U
12672-29-6	Aroclor 1248	0.115	U
11097-69-1	Aroclor 1254	0.115	U
11096-82-5	Aroclor 1260	0.115	U

¹ Form based upon NYS-DEC Form 1-CLP-PEST

1D-1¹
PCB ANALYSIS DATA SHEET

Northeast Analytical Inc.

ELAP ID No.:

11078

Matrix:

SEDIMENT

Sample wt/vol:

7.84013 (g)

% Moisture:

27.0

Extraction :

SW 846 METHOD 3545 (ASE)

Conc. Extract Volume:

50000 (µL)

Injection Volume:

1.2 (µL)

Method:

SW-846 8082 (PCB)

SDG No.:

020907ALCAN

CLIENT ID:

OU3SD10

LAB SAMPLE ID:

AF07611

LAB FILE ID:

AF07611

DATE RECEIVED:

9/7/2002

DATE EXTRACTED:

9/19/2002

DATE ANALYZED:

10/12/2002

DILUTION FACTOR:

1

SULFUR CLEANUP:

YES

GC Column : J&W. NARROWBORE CAPILLARY, DB-1. 30M; ID:0.25mm

NEA Form ID : S:\FORMS\CATB\SOIL_GC_18F_100902A.XLS

NEA File ID : S:\CERT02\02090040_GC18F.XLS 1D-

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/g)	Q
12674-11-2	Aroclor 1016	0.128	U
11104-28-2	Aroclor 1221	0.128	U
11141-16-5	Aroclor 1232	0.128	U
53469-21-9	Aroclor 1242	0.128	U
12672-29-6	Aroclor 1248	0.128	U
11097-69-1	Aroclor 1254	1.12 1.27	✓
11096-82-5	Aroclor 1260	1.18	✓

i Aroclor 1254 is being reported as the best Aroclor match.
The sample exhibits an altered PCB pattern.

ii Aroclor 1260 is being reported as the best Aroclor match.
The sample exhibits an altered PCB pattern.

¹ Form based upon NYS-DEC Form 1-CLP-PEST

1D-1¹
PCB ANALYSIS DATA SHEET

Northeast Analytical Inc.

ELAP ID No.:

11078

SDG No.:

020907ALCAN

Matrix:

SEDIMENT

CLIENT ID:

OU3SD05

Sample wt/vol:

6.72412 (g)

LAB SAMPLE ID:

AF07612

% Moisture:

33.1

LAB FILE ID:

AF07612

Extraction :

SW 846 METHOD 3545 (ASE)

DATE RECEIVED:

9/7/2002

Conc. Extract Volume:

50000 (µL)

DATE EXTRACTED:

9/19/2002

Injection Volume:

1.2 (µL)

DATE ANALYZED:

10/12/2002

Method:

SW-846 8082 (PCB)

DILUTION FACTOR:

1

SULFUR CLEANUP:

YES

GC Column : J&W, NARROWBORE CAPILLARY, DB-1, 30M; ID:0.25mm

NEA Form ID: S:\FORMS\CATB\SOIL_GC_18F_1C0902A.XLS

NEA File ID: S:\CERT02\02090040_GC18F.XLS 1D-

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/g)	Q
12674-11-2	Aroclor 1016	0.149	U
11104-28-2	Aroclor 1221	0.247 0.149	U <i>HP J</i>
11141-16-5	Aroclor 1232	0.149	U
53469-21-9	Aroclor 1242	0.568	U <i>HP J</i>
12672-29-6	Aroclor 1248	0.149	U
11097-69-1	Aroclor 1254	0.149	U
11096-82-5	Aroclor 1260	0.662	U <i>HP J</i>

- i Aroclor 1221 is being used to report an altered PCB pattern exhibited by the sample.
Actual Aroclor 1221 is not present in the sample, but is reported to more accurately quantify PCB present in sample that has undergone environmental alteration.
- ii Aroclor 1242 is being reported as the best Aroclor match.
The sample exhibits an altered PCB pattern.
- iii Aroclor 1260 is being reported as the best Aroclor match.
The sample exhibits an altered PCB pattern.
- ii It is not possible to distinguish if Aroclor 1242 or Aroclor 1248 was the original Aroclor in this sample that exhibits a highly altered PCB pattern. To better quantify total PCBs, Aroclor 1242 is being reported.

1D-1¹
PCB ANALYSIS DATA SHEET

Northeast Analytical Inc.

ELAP ID No.:

11078

SDG No.:

020907ALCAN

CLIENT ID:

OU3SD06

Matrix:

SEDIMENT

LAB SAMPLE ID:

AF07613

Sample wt/vol:

1.69981 (g)

LAB FILE ID:

AF07613

% Moisture:

83.4

DATE RECEIVED:

9/7/2002

Extraction :

SW 846 METHOD 3545 (ASE)

DATE EXTRACTED:

9/19/2002

Conc. Extract Volume:

50000 (µL)

DATE ANALYZED:

10/12/2002

Injection Volume:

1.2 (µL)

DILUTION FACTOR:

4

Method:

SW-846 8082 (PCB)

SULFUR CLEANUP:

YES

GC Column : J&W, NARROWBORE CAPILLARY, DB-1, 30M; ID:0.25mm

NEA Form ID: S:\FORMS\CATB\SOIL_GC_18F_100902A.XLS

NEA File ID: S:\CERT02\02090040_GC18F.XLS 1D-

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/g)	Q
12674-11-2	Aroclor 1016	2.35	U
11104-28-2	Aroclor 1221	2.35	U
11141-16-5	Aroclor 1232	2.35	U
53469-21-9	Aroclor 1242	2.35	U
12672-29-6	Aroclor 1248	70.5	JP
11097-69-1	Aroclor 1254	2.35	U
11096-82-5	Aroclor 1260	37.4	JPJ

- i Aroclor 1248 is being reported as the best Aroclor match.
The sample exhibits an altered PCB pattern.
- ii Aroclor 1260 is being reported as the best Aroclor match.
The sample exhibits an altered PCB pattern.
- i It is not possible to distinguish if Aroclor 1242 or Aroclor 1248 was the original Aroclor in this sample that exhibits a highly altered PCB pattern. To better quantify total PCBs, Aroclor 1248 is being reported.

¹ Form based upon NYS-DEC Form 1-CLP-PEST

1D-1¹
PCB ANALYSIS DATA SHEET

Northeast Analytical Inc.

ELAP ID No. :

11078

SDG No. :

020907ALCAN

CLIENT ID :

OU3SD03

Matrix :

SEDIMENT

LAB SAMPLE ID :

AF07614

Sample wt/vol :

7.43651 (g)

LAB FILE ID :

AF07614

% Moisture :

29.4

DATE RECEIVED :

9/7/2002

Extraction :

SW 846 METHOD 3545 (ASE)

DATE EXTRACTED :

9/19/2002

Conc. Extract Volume :

50000 (µL)

DATE ANALYZED :

10/12/2002

Injection Volume :

1.2 (µL)

DILUTION FACTOR :

1

Method :

SW-846 8082 (PCB)

SULFUR CLEANUP :

YES

GC Column : J&W, NARROWBORE CAPILLARY, DB-1, 30M; ID:0.25mm

NEA Form ID: S:\FORMS\CATB\SOIL_GC_18F_100902A.XLS

NEA File ID: S:\CERT02\02090040_GC18F.XLS 1D-

CAS NO.	COMPOUND	CONCENTRATION UNITS:	Q
		(µg/g)	
12674-11-2	Aroclor 1016	0.134	U
11104-28-2	Aroclor 1221	0.134	U
11141-16-5	Aroclor 1232	0.134	U
53469-21-9	Aroclor 1242	0.134	U
12672-29-6	Aroclor 1248	0.134	U
11097-69-1	Aroclor 1254	0.134	U
11096-82-5	Aroclor 1260	0.134	U

1D-1¹
PCB ANALYSIS DATA SHEET

Northeast Analytical Inc.

ELAP ID No.:	11078	SDG No.:	020907ALCAN
Matrix:	SEDIMENT	CLIENT ID:	OU3SD02
Sample wt/vol:	7.3409 (g)	LAB SAMPLE ID:	AF07615
% Moisture:	32.5	LAB FILE ID:	AF07615
Extraction :	SW 846 METHOD 3545 (ASE)	DATE RECEIVED:	9/7/2002
Conc. Extract Volume:	50000 (µL)	DATE EXTRACTED:	9/19/2002
Injection Volume:	1.2 (µL)	DATE ANALYZED:	10/12/2002
Method:	SW-846 8082 (PCB)	DILUTION FACTOR:	1
		SULFUR CLEANUP:	YES

GC Column : J&W, NARROWBORE CAPILLARY, DB-1, 30M: ID:0.25mm

NEA Form ID: S:\FORMS\CATB\SOIL_GC_18F_100902A.XLS

NEA File ID: S:\CERT02\02090040_GC18F.XLS 1D-

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/g)	Q
12674-11-2	Aroclor 1016	0.136	U
11104-28-2	Aroclor 1221	0.136	U
11141-16-5	Aroclor 1232	0.136	U
53469-21-9	Aroclor 1242	0.136	U
12672-29-6	Aroclor 1248	0.136	U
11097-69-1	Aroclor 1254	0.136	U
11096-82-5	Aroclor 1260	0.136	U

¹ Form based upon NYS-DEC Form 1-CLP-PEST FORM I-CLP-PCB (NEA)

000088

1D-1¹
PCB ANALYSIS DATA SHEET

Northeast Analytical Inc.

ELAP ID No.:

11078

SDG No.:

020907ALCAN

CLIENT ID:

OU3SDDUP2

Matrix:

SEDIMENT

LAB SAMPLE ID:

AF07616

Sample wt/vol:

4.99559 (g)

LAB FILE ID:

AF07616

% Moisture:

52.7

DATE RECEIVED:

9/7/2002

Extraction :

SW 846 METHOD 3545 (ASE)

DATE EXTRACTED:

9/19/2002

Conc. Extract Volume:

50000 (µL)

DATE ANALYZED:

10/12/2002

Injection Volume:

1.2 (µL)

DILUTION FACTOR:

1

Method:

SW-846 8082 (PCB)

SULFUR CLEANUP:

YES

GC Column : J&W, NARROWBORE CAPILLARY, DB-1, 30M: ID:0.25mm

NEA Form ID: S:\FORMS\CATB\SOIL_GC_18F_100902A.XLS

NEA File ID: S:\CERT02\02090040_GC18F.XLS 1D-

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/g)	Q
12674-11-2	Aroclor 1016	0.200	U
11104-28-2	Aroclor 1221	0.205 0.200	U <i>IPU</i>
11141-16-5	Aroclor 1232	0.200	U
53469-21-9	Aroclor 1242	0.907	U <i>IP</i>
12672-29-6	Aroclor 1248	0.200	U
11097-69-1	Aroclor 1254	0.200	U
11096-82-5	Aroclor 1260	1.66	U <i>IPJ</i>

- i Aroclor 1221 is being used to report an altered PCB pattern exhibited by the sample.
Actual Aroclor 1221 is not present in the sample, but is reported to more accurately quantify PCB present in sample that has undergone environmental alteration.
- ii Aroclor 1242 is being reported as the best Aroclor match.
The sample exhibits an altered PCB pattern.
- iii Aroclor 1260 is being reported as the best Aroclor match.
The sample exhibits an altered PCB pattern.
- ii It is not possible to distinguish if Aroclor 1242 or Aroclor 1248 was the original Aroclor in this sample that exhibits a highly altered PCB pattern. To better quantify total PCBs, Aroclor 1242 is being reported.

¹ Form based upon NYS-DEC Form 1-CLP-PEST

1D-1¹
PCB ANALYSIS DATA SHEET

Northeast Analytical Inc.

SDG No.:

020907ALCAN

ELAP ID No.:

11078

CLIENT ID:

OU3SD01

Matrix:

SEDIMENT

LAB SAMPLE ID:

AF07618

Sample wt/vol:

8.22338 (g)

LAB FILE ID:

AF07618

% Moisture:

23.7

DATE RECEIVED:

9/7/2002

Extraction :

SW 846 METHOD 3545 (ASE)

DATE EXTRACTED:

9/19/2002

Conc. Extract Volume:

50000 (µL)

DATE ANALYZED:

10/12/2002

Injection Volume:

1.2 (µL)

DILUTION FACTOR:

1

Method:

SW-846 8082 (PCB)

SULFUR CLEANUP:

YES

GC Column : J&W, NARROWBORE CAPILLARY, DB-1, 30M; ID:0.25mm

NEA Form ID: S:\FORMS\CAT\SOIL_GC_18F_100902A.XLS

NEA File ID: S:\CERT02\02090040_GC18F.XLS 1D-

CAS NO.	COMPOUND	CONCENTRATION UNITS:	Q
		(µg/g)	
12674-11-2	Aroclor 1016	0.122	U
11104-28-2	Aroclor 1221	0.122	U
11141-16-5	Aroclor 1232	0.122	U
53469-21-9	Aroclor 1242	0.122	U
12672-29-6	Aroclor 1248	0.122	U
11097-69-1	Aroclor 1254	0.122	U
11096-82-5	Aroclor 1260	0.122	U

¹ Form based upon NYS-DEC Form 1-CLP-PEST

FORM I-CLP-PCB (NEA)

000106

1D-1¹
PCB ANALYSIS DATA SHEET

Northeast Analytical Inc.

ELAP ID No.:

11078

SDG No.:

020907ALCAN

CLIENT ID:

OU3SDRB03

Matrix:

WATER

LAB SAMPLE ID:

AF07619

Sample wt/vol:

1.060 (L)

LAB FILE ID:

AF07619R

% Moisture:

DATE RECEIVED:

9/7/02

Extraction :

CLLE

DATE EXTRACTED:

9/11/02

Conc. Extract Volume:

5000 (µL)

DATE ANALYZED:

10/15/02

Injection Volume:

0.4 (µL)

DILUTION FACTOR:

1

Method:

SW-846 8082 PCB

SULFUR CLEANUP:

YES

GC Column : J&W, NARROWBORE CAPILLARY, DB-1, 30M; ID: 0.25mm

NEA Form ID: S:\FORMS\CAT\BH20_GC11_100202

NEA File ID: S:\CERT02\02090040_GC11_8082W XLS 1D-1-

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L)	Q
12674-11-2	Aroclor 1016	0.0250	U
11104-28-2	Aroclor 1221	0.0250	U
11141-16-5	Aroclor 1232	0.0250	U
53469-21-9	Aroclor 1242	0.0250	U
12672-29-6	Aroclor 1248	0.0250	U
11097-69-1	Aroclor 1254	0.0250	U
11096-82-5	Aroclor 1260	0.0250	U

¹ Form based upon Form 1-CLP-PEST

NORTHEAST ANALYTICAL

ENVIRONMENTAL LAB SERVICES

2190 Technology Drive, Schenectady, NY 12308

(518) 346-4592 • FAX: (518) 381-6055

CERTIFICATE OF ANALYSIS

09/23/2002

ALCAN ALUMINUM CORPORATION

OSWEGO WORKS, PO BOX 28

448 COUNTY ROUTE 1A

OSWEGO, NY 13126

CONTACT: DAVID NEUNER

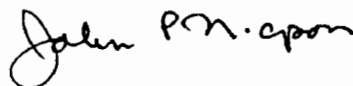
MATRIX : SEDIMENT PROJECT: ALCAN OU3 SEDIMENT INVESTIGATION
DATE RECEIVED: 09/09/2002 TIME: 08:00 LOCATION: OSWEGO, NY
SAMPLED BY: R. KUHN LAB ELAP #: 11078
CUSTOMER PO: N/A

NEA ID	CUSTOMER ID	METHOD	DATE SAMPLED	TIME SAMPLED	RESULTS	PQL	UNITS	DATE ANALYZED
Total Organic Carbon								
AF07610	OU3SD04	EPA Lloyd Kahn	09/05/2002	16:40	15300	1470	mg/kg	09/20/2002
AF07611	OU3SD10	EPA Lloyd Kahn	09/06/2002	08:30	15200	1910	mg/kg	09/20/2002
AF07612	OU3SD05	EPA Lloyd Kahn	09/06/2002	12:00	17400	1460	mg/kg	09/20/2002
AF07613	OU3SD06	EPA Lloyd Kahn	09/06/2002	12:45	110000	9140	mg/kg	09/20/2002
AF07614	OU3SD03	EPA Lloyd Kahn	09/06/2002	09:40	8440	1450	mg/kg	09/20/2002
AF07615	OU3SD02	EPA Lloyd Kahn	09/06/2002	11:00	6850	2550	mg/kg	09/20/2002
AF07616	OU3SDDUP2	EPA Lloyd Kahn	09/06/2002	N/A	21600	4210	mg/kg	09/20/2002
AF07618	OU3SD01	EPA Lloyd Kahn	09/06/2002	11:15	7240	1850	mg/kg	09/20/2002

Note: ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL

PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample

AUTHORIZED SIGNATURE:



Northeast Analytical, Inc.

Robert E. Wagner, Laboratory Director

NORTHEAST ANALYTICAL

ENVIRONMENTAL LAB SERVICES

2190 Technology Drive, Schenectady, NY 12308

(518) 346-4592 • FAX: (518) 381-6055

CERTIFICATE OF ANALYSIS

09/23/2002

ALCAN ALUMINUM CORPORATION

OSWEGO WORKS, PO BOX 28

448 COUNTY ROUTE 1A

OSWEGO, NY 13126

CONTACT: DAVID NEUNER


MATRIX : WATER PROJECT: ALCAN OU3 SEDIMENT INVESTIGATION
DATE RECEIVED: 09/09/2002 TIME: 08:00 LOCATION: OSWEGO, NY
SAMPLED BY: R. KUHN LAB ELAP #: 11078
CUSTOMER PO: N/A

NEA ID	CUSTOMER ID	METHOD	DATE SAMPLED	TIME SAMPLED	RESULTS	PQL	UNITS	DATE ANALYZED
Total Organic Carbon								
AF07619	OU3SDRB03	EPA 415.1	09/06/2002	14:00	ND	0.966	mg/L	09/23/2002

Note: ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL

PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample

AUTHORIZED SIGNATURE:



Northeast Analytical, Inc.
Robert E. Wagner, Laboratory Director

NORTHEAST ANALYTICAL

ENVIRONMENTAL LAB SERVICES

2190 Technology Drive, Schenectady, NY 12308

(518) 346-4592 • FAX: (518) 381-6055

CERTIFICATE OF ANALYSIS

09/18/2002

ALCAN ALUMINUM CORPORATION

OSWEGO WORKS, PO BOX 28

448 COUNTY ROUTE 1A

OSWEGO, NY 13126

CONTACT: DAVID NEUNER

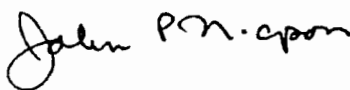
MATRIX : SEDIMENT **PROJECT:** ALCAN OU3 SEDIMENT INVESTIGATION
DATE RECEIVED: 09/09/2002 **TIME:** 8:00 **LOCATION:** OSWEGO, NY
SAMPLED BY: R. KUHN **LAB ELAP #:** 11078
CUSTOMER PO: N/A

NEA ID	CUSTOMER ID	METHOD	DATE SAMPLED	TIME SAMPLED	RESULTS	PQL	UNITS	DATE ANALYZED
Percent Organic Content								
AF07611	OU3SD10	ASTM D2974	09/06/2002	8:30	6.11	N/A	%	09/13/2002
AF07612	OU3SD05	ASTM D2974	09/06/2002	12:00	10.0	N/A	%	09/13/2002
AF07613	OU3SD06	ASTM D2974	09/06/2002	12:45	30.6	N/A	%	09/13/2002
AF07615	OU3SD02	ASTM D2974	09/06/2002	11:00	1.32	N/A	%	09/13/2002
AF07617	OU3SDGSDUP2	ASTM D2974	09/06/2002	N/A	30.7	N/A	%	09/13/2002
AF07618	OU3SD01	ASTM D2974	09/06/2002	11:15	0.918	N/A	%	09/13/2002

Note: ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL.

PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample

AUTHORIZED SIGNATURE:



Northeast Analytical, Inc.

Robert F. Wagner, Laboratory Director

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NORTHEAST ANALYTICAL

ENVIRONMENTAL LAB SERVICES

2190 Technology Drive, Schenectady, NY 12308

(518) 346-4592 • FAX: (518) 381-6055

CERTIFICATE OF ANALYSIS

10/02/2002

ALCAN ALUMINUM CORPORATION

OSWEGO WORKS, PO BOX 28

448 COUNTY ROUTE 1A

OSWEGO, NY 13126

CONTACT: DAVID NEUNER

MATRIX : SEDIMENT

DATE SAMPLED: 09/06/2002

DATE RECEIVED: 09/09/2002 TIME: 08:00

PROJECT: ALCAN OU3 SEDIMENT INVESTIGATION

SAMPLED BY: R. KUHN

LOCATION: OSWEGO, NY

CUSTOMER PO #: N/A

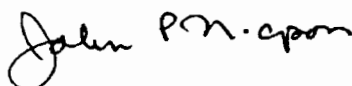
LAB ELAP #: 11078

NEA ID	CUSTOMER ID	METHOD	RESULTS	DATE ANALYZED
Specific Gravity 20°C				
AF07611	OU3SD10	ASTM D854-00	2.52	10/01/2002
AF07612	OU3SD05	ASTM D854-00	2.47	10/01/2002
AF07613	OU3SD06	ASTM D854-00	1.25	10/02/2002
AF07615	OU3SD02	ASTM D854-00	2.64	10/02/2002
AF07617	OU3SDGSDUP2	ASTM D854-00	1.92	10/02/2002
AF07618	OU3SD01	ASTM D854-00	2.66	10/02/2002

Note: ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL

PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample

AUTHORIZED SIGNATURE:



Northeast Analytical, Inc.

Robert E. Wagner, Laboratory Director

000596

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Page 1 of 1

Sediment Analytical Data Reports

SDG #AG13304-23

9/2/03

9/3/03

BBL[®]
BLASLAND, BOUCK & LEE, INC.
engineers & scientists

DATA REVIEW FOR
ALCAN ALUMINUM CORPORATION
OSWEGO, NY

SDG# AG13304-23

SOIL SAMPLING

PCB ANALYSES

Analyses performed by:

Northeast Analytical, Inc.
Schenectady, New York

Review performed by:



Blasland, Bouck & Lee, Inc.
Syracuse, New York

Summary

The following is an assessment of the data package for SDG# AG13304-23 for sampling at the ALCAN Aluminum Corporation Site in Oswego, NY. Included with this assessment are the data review check sheets used in the review of the package and corrected sample results. Analyses were performed on the following samples:

Sample ID	Lab ID	Matrix	Sample Date	Analysis				
				VOA	BNA	PCB	TAL	TOC
SEG-B3B (2-2.4')	AG13304	soil	9/03/03			x		
IJ13.5A (2-2.5')	AG13305	soil	9/02/03			x		
IJ13.5A (2.5-3')	AG13306	soil	9/02/03			x		
IJ13.5A (3-3.5')	AG13307	soil	9/02/03			x		
IJ13.5A (3.5-4')	AG13308	soil	9/02/03			x		
IJ13.5A (4-4.6')	AG13309	soil	9/02/03			x		
DE06.5A (2-2.5')	AG13310	soil	9/02/03			x		
DE06.5A (2.5-3')	AG13311	soil	9/02/03			x		
DE06.5A (3-3.4')	AG13312	soil	9/02/03			x		
NPIT-J (0-0.5') ¹	AG13313	soil	9/02/03			x		
NPIT-J (0.5-1')	AG13314	soil	9/02/03			x		
NPIT-J (1-1.5')	AG13315	soil	9/02/03			x		
NPIT-J (1.5-2')	AG13316	soil	9/02/03			x		
NPIT-J (2-2.5)	AG13317	soil	9/02/03			x		
NPIT-J (2.5-3')	AG13318	soil	9/02/03			x		
NPIT-J (3-3.5')	AG13319	soil	9/02/03			x		
NPIT-J (3.5-4')	AG13320	soil	9/02/03			x		
GH03.5 (0-0.5')	AG13321	soil	9/02/03			x		
GH03.5 (0.5-1') ¹	AG13322	soil	9/02/03			x		
GH03.5 (1-1.5')	AG13323	soil	9/02/03			x		

1 MS/MSD analyses performed on sample.

PCB ANALYSES

Introduction

Analyses were performed according to USEPA SW-846 Method 8082 as referenced in NYSDEC-ASP.

The data review process is an evaluation of data on a technical basis rather than a determination of contract compliance. As such, the standards against which the data are being weighed may differ from those specified in the analytical method. It is assumed that the data package represents the best efforts of the laboratory and had already been subjected to adequate and sufficient quality review prior to submission. During the review process, laboratory qualified and unqualified data are verified against the supporting documentation. Based on this evaluation, qualifier codes may be added, deleted, or modified by the data reviewer. Results are qualified with the following codes in accordance with National Functional Guidelines:

- U The compound was analyzed for but not detected. The associated value is the compound quantitation limit.
- J The compound was positively identified; however, the associated numerical value is an estimated concentration only.
- B The compound has been found in the sample as well as its associated blank, its presence in the sample may be suspect.
- N The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification.
- JN The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification. The associated numerical value is an estimated concentration only.
- E The compound was quantitated above the calibration range.
- D Concentration is based on a diluted sample analysis.
- C Identification confirmed by GC/MS.
- UJ The compound was not detected above the reported sample quantitation limit. However, the reported limit is approximate and may or may not represent the actual limit of quantitation.
- R The sample results are rejected.

Two facts should be noted by all data users. First, the "R" flag means that the associated value is unusable. In other words, due to significant QC problems, the analysis is invalid and provides no information as to whether the compound is present or not. "R" values should not appear on data tables because they cannot be relied upon, even as a last resort. The second fact to keep in mind is that no compound concentration, even if it has passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data but any value potentially contains error.

Data Assessment

1. Holding Time

The specified holding times for PCB analyses under NYSASP are 5 days from sample receipt to extraction and 40 days to analysis. The technical holding times for soils are 14 days from sample collection to extraction and 40 days to analysis.

All samples were extracted within the technical holding time.

2. Blank Contamination

Quality assurance blanks (i.e., method, field, or rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Field and rinse blanks measure contamination of samples during field operations.

No Aroclors were detected in the method blank.

3. System Performance

System performance and column resolution were acceptable.

4. Calibration

Satisfactory instrument calibration is established to insure that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of acceptable performance at the beginning of an experimental sequence. The continuing calibration verifies that the instrument daily performance is satisfactory.

4.1 Initial Calibration

A maximum RSD of 20% is allowed. The initial calibration was within the specified limit for all Aroclors.

4.2 Continuing Calibration

A maximum %D of 15 is allowed. All continuing calibration standards were within the specified limit.

5. Surrogates / System Monitoring Compounds

All samples to be analyzed for organic compounds are spiked with surrogate compounds prior to sample preparation to evaluate overall laboratory performance and efficiency of the analytical technique.

Surrogates were diluted beyond the range of quantitation in samples DE06.5A (2-2.5'), NPIT-J (0-0.5')MS, NPIT-J (0-0.5')MSD, NPIT-J (2-2.5'), NPIT-J (2.5-3'), NPIT-J (3-3.5'), GH03.5 (0.5-1')MS and GH03.5 (0.5-1')MSD. No data have been

qualified based on the diluted surrogates. Recovery for one surrogate was below control limits in samples NPIT-J (1-1.5') and GH03.5 (1-1.5') and above control limits in sample NPIT-J (3.5-4'). Since recoveries for the remaining surrogates were within control limits, no data have been qualified based on the deviations. All other surrogate recoveries were within control limits.

6. Compound Identification

The retention times of all quantitated peaks must fall within the calculated retention time windows for both the primary and confirmation columns.

Based on the differences in quantitated results between the two analytical columns, data for Aroclor 1260 in samples DE06.5A (3-3.4'), NPIT-J (1.5-2'), GH03.5 (0-0.5') and GH03.5 (1-1.5') have been qualified as estimated with a potential low bias.

7. Matrix Spike/Matrix Spike Duplicate (MS/MSD)

MS and MSD data are used to assess the precision and accuracy of the analytical method independent of matrix interferences.

The MS/MSD recoveries were above control limits for sample GH 03.5 (0.5- 1'). The total PCB content of the sample was greater than four times the amount of MS PCB added to the MS/MSD samples. Therefore there was no qualification of the sample data. All other MS/MSD recoveries and relative percent difference between recoveries were within control limits.

8. Matrix Spike Blank

The matrix spike blank recoveries were within control limits.

9. Field Duplicates

No field duplicates were included with the samples in this data set.

10. General Comments

Aroclor 1221 was reported as present in samples NPIT-J (1.5-2'), NPIT-J (2-2.5'), NPIT-J (2.5-3'), NPIT-J (3-3.5'), NPIT-J (3.5-4'), GH03.5 (0-0.5'), GH03.5 (0.5-1') and GH03.5 (1-1.5'). An examination of the sample chromatograms showed no pattern match for this Aroclor. Data for Aroclor 1221 have, therefore, been qualified as undetected in the listed samples.

11. System Performance and Overall Assessment

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines listed in the analytical method.

Data Validation Checklist

PCB Data Validation Checklist

	YES	NO	NA
<u>Data Completeness and Deliverables</u>			
Have any missing deliverables been received and added to the data package?	<u> </u>	<u> X </u>	<u> </u>
Is there a narrative or cover letter present?	<u> X </u>	<u> </u>	<u> </u>
Are the sample numbers included in the narrative?	<u> X </u>	<u> </u>	<u> </u>
Are the sample chain-of-custodies present?	<u> X </u>	<u> </u>	<u> </u>
Do the chain-of-custodies indicate any problems with sample receipt or sample condition?	<u> </u>	<u> X </u>	<u> </u>
<u>Holding Times</u>			
Have any holding times been exceeded?	<u> </u>	<u> X </u>	<u> </u>
<u>Surrogate Recovery</u>			
Are the surrogate recovery forms present?	<u> X </u>	<u> </u>	<u> </u>
Are all samples listed on the surrogate recovery form?	<u> X </u>	<u> </u>	<u> </u>
Were recoveries of any surrogate outside control limits for any sample or blank?	<u> X </u>	<u> </u>	<u> </u>
If yes, were the samples reanalyzed?	<u> </u>	<u> X </u>	<u> </u>
Are there any transcription/calculation errors between the raw data and the summary form?	<u> </u>	<u> X </u>	<u> </u>
<u>Matrix Spikes</u>			
Is there a matrix spike recovery form present?	<u> X </u>	<u> </u>	<u> </u>
Were matrix spikes analyzed at the required frequency?	<u> X </u>	<u> </u>	<u> </u>
How many spike recoveries were outside of QC limits?			
<u> 2 </u> out of <u> 4 </u>			
How many RPDs for matrix spike and matrix spike duplicate were outside of QC limits?			
<u> 0 </u> out of <u> 2 </u>			
<u>Blanks</u>			
Is a method blank summary form present?	<u> X </u>	<u> </u>	<u> </u>
Has a method blank been extracted for each set of samples or for each 20 samples, whichever is more frequent?	<u> X </u>	<u> </u>	<u> </u>
Do any method/instrument blanks have positive results?	<u> </u>	<u> X </u>	<u> </u>
Are field/rinse blanks associated with every sample?	<u> </u>	<u> X </u>	<u> </u>
Do any field/rinse blanks have positive results?	<u> </u>	<u> </u>	<u> X </u>

PCB Data Validation Checklist - Page 2

	YES	NO	NA
<u>Calibration and GC Performance</u>			
Are the following chromatograms and integration reports present?			
peak resolution check	<u> </u>	<u> X </u>	<u> </u>
Aroclor 1016/1260	<u> X </u>	<u> </u>	<u> </u>
Aroclors 1221, 1232, 1242, 1248, and 1254	<u> X </u>	<u> </u>	<u> </u>
Is a calibration summary form present and complete for each analytical sequence?	<u> X </u>	<u> </u>	<u> </u>
Are there any transcription/calculation errors between the raw data and the forms?	<u> </u>	<u> X </u>	<u> </u>
Are the initial calibration %RSD within acceptable limits for all analytes?	<u> X </u>	<u> </u>	<u> </u>
Is the resolution between any two adjacent peaks in the resolution check mixture > 60%?	<u> </u>	<u> </u>	<u> X </u>
Have all samples been injected within a 12 hour period beginning with the injection of a calibration standard?	<u> X </u>	<u> </u>	<u> </u>
Is a continuing calibration summary form present and complete for each continuing standard analyzed?	<u> X </u>	<u> </u>	<u> </u>
Are there any transcription/calculation errors between the raw data and the form?	<u> </u>	<u> X </u>	<u> </u>
Are all continuing calibration standard %D within acceptable limits?	<u> X </u>	<u> </u>	<u> </u>
<u>Analytical Sequence</u>			
Is an analytical sequence summary form present and complete for each column and each period of analyses?	<u> X </u>	<u> </u>	<u> </u>
Was the proper analytical sequence followed?	<u> X </u>	<u> </u>	<u> </u>
<u>Cleanup Efficiency Verification</u>			
Are percent recoveries of the compounds used to check the efficiency of the cleanup procedure within QC limits?	<u> X </u>	<u> </u>	<u> </u>
<u>PCB Identification</u>			
Are RT of sample compounds within the established RT windows?	<u> X </u>	<u> </u>	<u> </u>
Were all positively identified compounds confirmed on a second column?	<u> X </u>	<u> </u>	<u> </u>
Was GC/MS confirmation provided when required?	<u> </u>	<u> </u>	<u> X </u>
Were there any false negatives?	<u> </u>	<u> X </u>	<u> </u>

PCB Data Validation Checklist - Page 3

	YES	NO	NA
<u>Compound Quantitation and Reported Detection Limits</u>			
Are there any transcription/calculation errors in the Form 1 results?	_____	_____X_____	_____
Are the reporting limits adjusted to reflect sample dilutions and, for soils, sample moisture?	_____X_____	_____	_____
<u>Chromatogram Quality</u>			
Were the baselines stable?	_____X_____	_____	_____
Were any electronegative displacement (negative peaks) or unusual peaks detected?	_____	_____X_____	_____
<u>Field Duplicates</u>			
Were field duplicates submitted with the samples?	_____	_____X_____	_____

**PCB Qualifier Summary
Holding Time and Surrogates**

Sample ID	Holding Time*	Surrogates*			
		TCX-1	TCX-2	DCB-1	DCB-2
SEG-B3B (2-2.4')					
IJ13.5A (2-2.5')					
IJ13.5A (2.5-3')					
IJ13.5A (3-3.5')					
IJ13.5A (3.5-4')					
IJ13.5A (4-4.6')					
DE06.5A (2-2.5')		D	D	D	D
DE06.5A (2.5-3')					
DE06.5A (3-3.4')					
NPIT-J (0-0.5')					
NPIT-J (0-0.5')MS		D	D	D	D
NPIT-J (0-0.5')MSD		D	D	D	D
NPIT-J (0.5-1')					
NPIT-J (1-1.5')				I	
NPIT-J (1.5-2')					
NPIT-J (2-2.5)		D	D	D	D
NPIT-J (2.5-3')		D	D	D	D
NPIT-J (3-3.5')		D	D	D	D
NPIT-J (3.5-4')			I		
GH03.5 (0-0.5')					
GH03.5 (0.5-1')					
GH03.5 (0.5-1')MS		D	D	D	D
GH03.5 (0.5-1')MSD		D	D	D	D
GH03.5 (1-1.5')				I	

Surrogates:

TCX Tetrachloro-m-xylene
DCB Decachlorobiphenyl
na Not applicable

Qualifiers:

D Surrogate diluted out
I Recovery high
I Recovery low

* Unless otherwise noted, all parameters are within specified limits.

PCB Calibration Summary

Instrument: GC07

Column: DB-1

Date:	7/29/03-7/30/03	7/30/03	7/30/03	7/30/03	7/30/03	7/30/03	7/30/03	7/30/03	10/2/03	10/2/03
Time:		1352	1426	1500	1535	1609	1643	1717	1217	1833
	Initial Cal.	Cont Cal.	Cont Cal.	Cont Cal.	Cont Cal.	Cont Cal.	Cont Cal.	Cont Cal.	Cont Cal.	Cont Cal.
	%RSD	%D	%D	%D	%D	%D	%D	%D	%D	%D
Aroclor 1016	ok	ok								
Aroclor 1221	ok		ok							
Aroclor 1232	ok			ok					ok	
Aroclor 1242	ok				ok					ok
Aroclor 1248	ok					ok				
Aroclor 1254	ok						ok			
Aroclor 1260	ok							ok		
Tetrachloro-m-xylene	ok									
Decachlorobiphenyl	ok									
Affected Samples:										

PCB Calibration Summary - Page 2

[illegible]

PCB Calibration Summary - Page 3

Instrument: GC05

Column: DB-5

[illegible]

PCB Calibration Summary - Page 4

[illegible]

Corrected Sample Analysis Data Sheets

1D-1¹
PCB ANALYSIS DATA SHEET

Northeast Analytical Inc.		SDG No.:	03090042
ELAP ID No.:	11078	CLIENT ID:	SEG-B3B (2-2.4')
Matrix:	SOLID	LAB SAMPLE ID:	AG13304
Sample wt/vol:	9.6028 (g)	LAB FILE ID:	AG13304
% Moisture:	11.2	DATE RECEIVED:	9/4/2003
Extraction :	SOXHLET	DATE EXTRACTED:	9/15/2003
Conc. Extract Volume:	50000 (μL)	DATE ANALYZED:	10/2/2003
Injection Volume:	1.2 (μL)	DILUTION FACTOR:	1
Method:	SW-846 8082 (PCB)	SULFUR CLEANUP:	YES

GC Column : J&W, NARROWBORE CAPILLARY, DB-1, 30M; ID:0.25mm

NEA Form ID: S:\FORMS\CAT\SOIL_GC_07_072903.XLS

NEA File ID: S:\CERT03\03090042_GC7_2.XLS 1D-1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (μg/g)	Q
12674-11-2	Aroclor 1016	0.104	U
11104-28-2	Aroclor 1221	0.104	U
11141-16-5	Aroclor 1232	0.104	U
53469-21-9	Aroclor 1242	0.104	U
12672-29-6	Aroclor 1248	0.104	U
11097-69-1	Aroclor 1254	0.104	U
11096-82-5	Aroclor 1260	0.104	U

¹ Form based upon NYS-DEC Form 1-CLP-PEST FORM I-CLP-PCB (NEA)

000045

1D-1¹
PCB ANALYSIS DATA SHEET

Northeast Analytical Inc.

ELAP ID No.:

11078

SDG No.:

03090042

CLIENT ID:

IJ13.5A (2-2.5')

Matrix:

SOLID

LAB SAMPLE ID:

AG13305

Sample wt/vol:

2.4378 (g)

LAB FILE ID:

AG13305

% Moisture:

77.8

DATE RECEIVED:

9/4/2003

Extraction :

SOXHLET

DATE EXTRACTED:

9/15/2003

Conc. Extract Volume:

50000 (µL)

DATE ANALYZED:

10/2/2003

Injection Volume:

1.2 (µL)

DILUTION FACTOR:

1

Method:

SW-846 8082 (PCB)

SULFUR CLEANUP:

YES

GC Column : J&W, NARROWBORE CAPILLARY, DB-1, 30M; ID:0.25mm

NEA Form ID: S:\FORMS\CATB\SOIL_GC_07_072903.XLS

NEA File ID: S:\CERT03\03090042_GC7_2.XLS 1D-1

CAS NO.	COMPOUND	CONCENTRATION UNITS:	Q
		(µg/g)	
12674-11-2	Aroclor 1016	0.410	U
11104-28-2	Aroclor 1221	0.410	U
11141-16-5	Aroclor 1232	0.410	U
53469-21-9	Aroclor 1242	0.410	U
12672-29-6	Aroclor 1248	0.410	U
11097-69-1	Aroclor 1254	0.410	U
11096-82-5	Aroclor 1260	0.410	U

¹ Form based upon NYS-DEC Form 1-CLP-PEST

FORM I-CLP-PCB (NEA)

000051

1D-1¹
PCB ANALYSIS DATA SHEET

Northeast Analytical Inc.

ELAP ID No.:

11078

SDG No.:

03090042

CLIENT ID:

IJ13.5A (2.5-3')

Matrix:

SOLID

LAB SAMPLE ID:

AG13306

Sample wt/vol:

4.5279 (g)

LAB FILE ID:

AG13306

% Moisture:

55.7

DATE RECEIVED:

9/4/2003

Extraction :

SOXHLET

DATE EXTRACTED:

9/15/2003

Conc. Extract Volume:

50000 (µL)

DATE ANALYZED:

10/3/2003

Injection Volume:

1.2 (µL)

DILUTION FACTOR:

1

Method:

SW-846 8082 (PCB)

SULFUR CLEANUP:

YES

GC Column : J&W, NARROWBORE CAPILLARY, DB-1, 30M; ID:0.25mm

NEA Form ID: S:\FORMS\CATB\SOIL_GC_07_072903.XLS

NEA File ID: S:\CERT03\03090042_GC7_2.XLS 1D-1

CAS NO.	COMPOUND	CONCENTRATION UNITS:	Q
		(µg/g)	
12674-11-2	Aroclor 1016	0.221	U
11104-28-2	Aroclor 1221	0.221	U
11141-16-5	Aroclor 1232	0.221	U
53469-21-9	Aroclor 1242	0.221	U
12672-29-6	Aroclor 1248	0.221	U
11097-69-1	Aroclor 1254	0.221	U
11096-82-5	Aroclor 1260	0.221	U

¹ Form based upon NYS-DEC Form 1-CLP-PEST

FORM I-CLP-PCB (NEA)

000057

1D-1¹
PCB ANALYSIS DATA SHEET

Northeast Analytical Inc.

ELAP ID No.:

11078

SDG No.:

03090042

CLIENT ID:

IJ13.5A (3-3.5')

Matrix:

SOLID

LAB SAMPLE ID:

AG13307

Sample wt/vol:

5.6459 (g)

LAB FILE ID:

AG13307

% Moisture:

45.9

DATE RECEIVED:

9/4/2003

Extraction :

SOXHLET

DATE EXTRACTED:

9/15/2003

Conc. Extract Volume:

50000 (µL)

DATE ANALYZED:

10/2/2003

Injection Volume:

1.2 (µL)

DILUTION FACTOR:

1

Method:

SW-846 8082 (PCB)

SULFUR CLEANUP:

YES

GC Column : J&W, NARROWBORE CAPILLARY, DB-1, 30M; ID:0.25mm

NEA Form ID: S:\FORMS\CATB\SOIL_GC_07_072903.XLS

NEA File ID: S:\CERT03\03090042_GC7_2.XLS 1D-1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/g)	Q
12674-11-2	Aroclor 1016	0.177	U
11104-28-2	Aroclor 1221	0.177	U
11141-16-5	Aroclor 1232	0.177	U
53469-21-9	Aroclor 1242	0.177	U
12672-29-6	Aroclor 1248	0.177	U
11097-69-1	Aroclor 1254	0.177	U
11096-82-5	Aroclor 1260	0.177	U

¹ Form based upon NYS-DEC Form 1-CLP-PEST

FORM I-CLP-PCB (NEA)

000063

1D-1¹
PCB ANALYSIS DATA SHEET

Northeast Analytical Inc.

ELAP ID No. :

11078

SDG No. :

03090042

CLIENT ID :

IJ13.5A (3.5-4')

Matrix :

SOLID

LAB SAMPLE ID :

AG13308

Sample wt/vol :

1.5508 (g)

LAB FILE ID :

AG13308

% Moisture :

85.7

DATE RECEIVED :

9/4/2003

Extraction :

SOXHLET

DATE EXTRACTED :

9/15/2003

Conc. Extract Volume :

50000 (µL)

DATE ANALYZED :

10/2/2003

Injection Volume :

1.2 (µL)

DILUTION FACTOR :

1

Method :

SW-846 8082 (PCB)

SULFUR CLEANUP :

YES

GC Column : J&W, NARROWBORE CAPILLARY, DB-1, 30M; ID:0.25mm

NEA Form ID: S:\FORMS\CATB\SOIL_GC_07_072903.XLS

NEA File ID: S:\CERT03\03090042_GC7_2.XLS 1D-1

CAS NO.	COMPOUND	CONCENTRATION UNITS:	Q
		(µg/g)	
12674-11-2	Aroclor 1016	0.645	U
11104-28-2	Aroclor 1221	0.645	U
11141-16-5	Aroclor 1232	0.645	U
53469-21-9	Aroclor 1242	0.645	U
12672-29-6	Aroclor 1248	0.645	U
11097-69-1	Aroclor 1254	0.645	U
11096-82-5	Aroclor 1260	0.645	U

¹ Form based upon NYS-DEC Form 1-CLP-PEST FORM I-CLP-PCB (NEA)

000069

1D-1¹
PCB ANALYSIS DATA SHEET

Northeast Analytical Inc.

ELAP ID No.:

11078

SDG No.:

03090042

CLIENT ID:

IJ13.5A (4-4.6')

Matrix:

SOLID

LAB SAMPLE ID:

AG13309

Sample wt/vol:

1.9257 (g)

LAB FILE ID:

AG13309

% Moisture:

82.1

DATE RECEIVED:

9/4/2003

Extraction :

SOXHLET

DATE EXTRACTED:

9/15/2003

Conc. Extract Volume:

50000 (µL)

DATE ANALYZED:

10/2/2003

Injection Volume:

1.2 (µL)

DILUTION FACTOR:

1

Method:

SW-846 8082 (PCB)

SULFUR CLEANUP:

YES

GC Column : J&W, NARROWBORE CAPILLARY, DB-1, 30M; ID:0.25mm

NEA Form ID: S:\FORMS\CATB\SOIL_GC_07_072903.XLS

NEA File ID: S:\CERT03\03090042_GC7_2.XLS 1D-1

CAS NO.	COMPOUND	CONCENTRATION UNITS:	Q
		(µg/g)	
12674-11-2	Aroclor 1016	0.519	U
11104-28-2	Aroclor 1221	0.519	U
11141-16-5	Aroclor 1232	0.519	U
53469-21-9	Aroclor 1242	0.519	U
12672-29-6	Aroclor 1248	0.519	U
11097-69-1	Aroclor 1254	0.519	U
11096-82-5	Aroclor 1260	0.519	U

¹ Form based upon NYS-DEC Form 1-CLP-PEST

FORM I-CLP-PCB (NEA)

000075

1D-1¹
PCB ANALYSIS DATA SHEET

Northeast Analytical Inc.

ELAP ID No.:

11078

SDG No.:

03090042

CLIENT ID:

DE06.5A (2-2.5')

Matrix:

SOLID

LAB SAMPLE ID:

AG13310

Sample wt/vol:

2.6028 (g)

LAB FILE ID:

AG13310

% Moisture:

75.9

DATE RECEIVED:

9/4/2003

Extraction :

SOXHLET

DATE EXTRACTED:

9/15/2003

Conc. Extract Volume:

50000 (µL)

DATE ANALYZED:

10/2/2003

Injection Volume:

1.2 (µL)

DILUTION FACTOR:

10

Method:

SW-846 8082 (PCB)

SULFUR CLEANUP:

YES

GC Column : J&W, NARROWBORE CAPILLARY, DB-1, 30M; ID:0.25mm

NEA Form ID: S:\FORMS\CATB\SOIL_GC_07_072903.XLS

NEA File ID: S:\CERT03\03090042_GC7_2.XLS 1D-1

CAS NO.	COMPOUND	CONCENTRATION UNITS:	Q
		(µg/g)	
12674-11-2	Aroclor 1016	3.84	U
11104-28-2	Aroclor 1221	3.84	U
11141-16-5	Aroclor 1232	3.84	U
53469-21-9	Aroclor 1242	3.84	U
12672-29-6	Aroclor 1248	52.6	i
11097-69-1	Aroclor 1254	3.84	U
11096-82-5	Aroclor 1260	19.8	ii

- i Aroclor 1248 is being reported as the best Aroclor match.

The sample exhibits an altered PCB pattern.

It is not possible to distinguish if Aroclor 1242 or Aroclor 1248 was the original Aroclor in this sample that exhibits a highly altered PCB pattern. To better quantify total PCBs, Aroclor 1248 is being reported.

- ii Aroclor 1260 is being reported as the best Aroclor match.

The sample exhibits an altered PCB pattern.

There were several non-target peaks.

¹ Form based upon NYS-DEC Form 1-CLP-PEST

FORM I-CLP-PCB (NEA)

000081

1D-1¹
PCB ANALYSIS DATA SHEET

Northeast Analytical Inc.

ELAP ID No.:

11078

SDG No.:

03090042

CLIENT ID:

DE06.5A (2.5-3')

Matrix:

SOLID

LAB SAMPLE ID:

AG13311

Sample wt/vol:

1.8892 (g)

LAB FILE ID:

AG13311

% Moisture:

82.4

DATE RECEIVED:

9/4/2003

Extraction :

SOXHLET

DATE EXTRACTED:

9/15/2003

Conc. Extract Volume:

50000 (µL)

DATE ANALYZED:

10/2/2003

Injection Volume:

1.2 (µL)

DILUTION FACTOR:

3

Method:

SW-846 8082 (PCB)

SULFUR CLEANUP:

YES

GC Column : J&W, NARROWBORE CAPILLARY, DB-1, 30M; ID:0.25mm

NEA Form ID: S:\FORMS\CAT\SOIL_GC_07_072903.XLS

NEA File ID: S:\CERT03\03090042_GC7_2.XLS 1D-1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/g)	Q
12674-11-2	Aroclor 1016	1.59	U
11104-28-2	Aroclor 1221	1.59	U
11141-16-5	Aroclor 1232	1.59	U
53469-21-9	Aroclor 1242	1.59	U
12672-29-6	Aroclor 1248	30.9	i
11097-69-1	Aroclor 1254	1.59	U
11096-82-5	Aroclor 1260	12.2	ii

- i Aroclor 1248 is being reported as the best Aroclor match.

The sample exhibits an altered PCB pattern.

It is not possible to distinguish if Aroclor 1242 or Aroclor 1248 was the original Aroclor in this sample that exhibits a highly altered PCB pattern. To better quantify total PCBs, Aroclor 1248 is being reported.

- ii Aroclor 1260 is being reported as the best Aroclor match.

The sample exhibits an altered PCB pattern.

There were several non-target peaks.

¹ Form based upon NYS-DEC Form 1-CLP-PEST

1D-1¹
PCB ANALYSIS DATA SHEET

Northeast Analytical Inc.

SDG No.:

03090042

ELAP ID No.:

11078

CLIENT ID:

DE06.5A (3-3.4')

Matrix:

SOLID

LAB SAMPLE ID:

AG13312

Sample wt/vol:

1.3502 (g)

LAB FILE ID:

AG13312

% Moisture:

87.5

DATE RECEIVED:

9/4/2003

Extraction :

SOXHLET

DATE EXTRACTED:

9/15/2003

Conc. Extract Volume:

50000 (µL)

DATE ANALYZED:

10/2/2003

Injection Volume:

1.2 (µL)

DILUTION FACTOR:

1

Method:

SW-846 8082 (PCB)

SULFUR CLEANUP:

YES

GC Column : J&W, NARROWBORE CAPILLARY, DB-1, 30M; ID:0.25mm

NEA Form ID: S:\FORMS\CAT\SOIL_GC_07_072903.XLS

NEA File ID: S:\CERT03\03090042_GC7_2.XLS 1D-1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/g)	Q
12674-11-2	Aroclor 1016	0.741	U
11104-28-2	Aroclor 1221	0.741	U
11141-16-5	Aroclor 1232	0.741	U
53469-21-9	Aroclor 1242	0.741	U
12672-29-6	Aroclor 1248	12.3	i
11097-69-1	Aroclor 1254	0.741	U
11096-82-5	Aroclor 1260	4.35	ii, P J

i Aroclor 1248 is being reported as the best Aroclor match.

The sample exhibits an altered PCB pattern.

It is not possible to distinguish if Aroclor 1242 or Aroclor 1248 was the original Aroclor in this sample that exhibits a highly altered PCB pattern. To better quantify total PCBs, Aroclor 1248 is being reported.

ii Aroclor 1260 is being reported as the best Aroclor match.

The sample exhibits an altered PCB pattern.

There were several non-target peaks.

1D-1¹
PCB ANALYSIS DATA SHEET

Northeast Analytical Inc.

ELAP ID No.:

11078

SDG No.:

03090042

CLIENT ID:

NPIT-J (0-0.5')

Matrix:

SOLID

LAB SAMPLE ID:

AG13313

Sample wt/vol:

3.0818 (g)

LAB FILE ID:

AG13313

% Moisture:

71.3

DATE RECEIVED:

9/4/2003

Extraction :

SOXHLET

DATE EXTRACTED:

9/16/2003

Conc. Extract Volume:

50000 (µL)

DATE ANALYZED:

10/3/2003

Injection Volume:

1.2 (µL)

DILUTION FACTOR:

1

Method:

SW-846 8082 (PCB)

SULFUR CLEANUP:

YES

GC Column : J&W, NARROWBORE CAPILLARY, DB-1, 30M; ID:0.25mm

NEA Form ID: S:\FORMS\CAT\SOIL_GC_07_072903.XLS

NEA File ID: S:\CERT03\03090042_GC7_2.XLS 1D-1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/g)	Q
12674-11-2	Aroclor 1016	0.324	U
11104-28-2	Aroclor 1221	0.324	U
11141-16-5	Aroclor 1232	0.324	U
53469-21-9	Aroclor 1242	0.324	U
12672-29-6	Aroclor 1248	1.20	i
11097-69-1	Aroclor 1254	0.324	U
11096-82-5	Aroclor 1260	0.556	ii

- i Aroclor 1248 is being reported as the best Aroclor match.

The sample exhibits an altered PCB pattern.

It is not possible to distinguish if Aroclor 1242 or Aroclor 1248 was the original Aroclor in this sample that exhibits a highly altered PCB pattern. To better quantify total PCBs, Aroclor 1248 is being reported.

- ii Aroclor 1260 is being reported as the best Aroclor match.

The sample exhibits an altered PCB pattern.

There were several non-target peaks.

¹ Form based upon NYS-DEC Form 1-CLP-PEST

FORM I-CLP-PCB (NEA)

1D-1¹
PCB ANALYSIS DATA SHEET

Northeast Analytical Inc.

ELAP ID No.:

11078

SDG No.:

03090042

CLIENT ID:

NPIT-J (0.5-1')

Matrix:

SOLID

LAB SAMPLE ID:

AG13314

Sample wt/vol:

3.2814 (g)

LAB FILE ID:

AG13314

% Moisture:

69.6

DATE RECEIVED:

9/4/2003

Extraction :

SOXHLET

DATE EXTRACTED:

9/15/2003

Conc. Extract Volume:

50000 (µL)

DATE ANALYZED:

10/2/2003

Injection Volume:

1.2 (µL)

DILUTION FACTOR:

1

Method:

SW-846 8082 (PCB)

SULFUR CLEANUP:

YES

GC Column : J&W, NARROWBORE CAPILLARY, DB-1, 30M; ID:0.25mm

NEA Form ID: S:\FORMS\CATB\SOIL_GC_07_072903.XLS

NEA File ID: S:\CERT03\03090042_GC7_2.XLS 1D-1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/g)	Q
12674-11-2	Aroclor 1016	0.305	U
11104-28-2	Aroclor 1221	0.305	U
11141-16-5	Aroclor 1232	0.305	U
53469-21-9	Aroclor 1242	0.305	U
12672-29-6	Aroclor 1248	1.51	i
11097-69-1	Aroclor 1254	0.305	U
11096-82-5	Aroclor 1260	0.678	ii

- i Aroclor 1248 is being reported as the best Aroclor match.

The sample exhibits an altered PCB pattern.

It is not possible to distinguish if Aroclor 1242 or Aroclor 1248 was the original Aroclor in this sample that exhibits a highly altered PCB pattern. To better quantify total PCBs, Aroclor 1248 is being reported.

- ii Aroclor 1260 is being reported as the best Aroclor match.

The sample exhibits an altered PCB pattern.

There were several non-target peaks.

¹ Form based upon NYS-DEC Form 1-CLP-PEST

FORM I-CLP-PCB (NEA)

1D-1¹
PCB ANALYSIS DATA SHEET

Northeast Analytical Inc.

ELAP ID No.:

11078

SDG No.:

03090042

CLIENT ID:

NPIT-J (1-1.5')

Matrix:

SOLID

LAB SAMPLE ID:

AG13315

Sample wt/vol:

3.32 (g)

LAB FILE ID:

AG13315

% Moisture:

69.6

DATE RECEIVED:

9/4/2003

Extraction :

SOXHLET

DATE EXTRACTED:

9/15/2003

Conc. Extract Volume:

50000 (µL)

DATE ANALYZED:

10/2/2003

Injection Volume:

1.2 (µL)

DILUTION FACTOR:

1

Method:

SW-846 8082 (PCB)

SULFUR CLEANUP:

YES

GC Column : J&W, NARROWBORE CAPILLARY, DB-1, 30M; ID:0.25mm

NEA Form ID: S:\FORMS\CATB\SOIL_GC_07_072903.XLS

NEA File ID: S:\CERT03\03090042_GC7_2.XLS 1D-1

CAS NO.	COMPOUND	CONCENTRATION UNITS:	Q
		(µg/g)	
12674-11-2	Aroclor 1016	0.301	U
11104-28-2	Aroclor 1221	0.301	U
11141-16-5	Aroclor 1232	0.301	U
53469-21-9	Aroclor 1242	0.301	U
12672-29-6	Aroclor 1248	2.47	i
11097-69-1	Aroclor 1254	0.301	U
11096-82-5	Aroclor 1260	0.712	ii

- i Aroclor 1248 is being reported as the best Aroclor match.

The sample exhibits an altered PCB pattern.

It is not possible to distinguish if Aroclor 1242 or Aroclor 1248 was the original Aroclor in this sample that exhibits a highly altered PCB pattern. To better quantify total PCBs, Aroclor 1248 is being reported.

- ii Aroclor 1260 is being reported as the best Aroclor match.

The sample exhibits an altered PCB pattern.

There were several non-target peaks.

¹ Form based upon NYS-DEC Form 1-CLP-PEST

FORM I-CLP-PCB (NEA)

1D-1¹
PCB ANALYSIS DATA SHEET

Northeast Analytical Inc.

ELAP ID No.:

11078

SDG No.:

03090042

CLIENT ID:

NPIT-J (1.5-2')

Matrix:

SOLID

LAB SAMPLE ID:

AG13316

Sample wt/vol:

3.5926 (g)

LAB FILE ID:

AG13316

% Moisture:

67.2

DATE RECEIVED:

9/4/2003

Extraction :

SOXHLET

DATE EXTRACTED:

9/15/2003

Conc. Extract Volume:

50000 (µL)

DATE ANALYZED:

10/2/2003

Injection Volume:

1.2 (µL)

DILUTION FACTOR:

3

Method:

SW-846 8082 (PCB)

SULFUR CLEANUP:

YES

GC Column : J&W, NARROWBORE CAPILLARY, DB-1, 30M; ID:0.25mm

NEA Form ID: S:\FORMS\CATB\SOIL_GC_07_072903.XLS

NEA File ID: S:\CERT03\03090042_GC7_2.XLS 1D-1

CAS NO.	COMPOUND	CONCENTRATION UNITS:	Q
		(µg/g)	
12674-11-2	Aroclor 1016	0.835	U
11104-28-2	Aroclor 1221	2.71 0.835	1.P U
11141-16-5	Aroclor 1232	0.835	U
53469-21-9	Aroclor 1242	19.7	ii
12672-29-6	Aroclor 1248	0.835	U
11097-69-1	Aroclor 1254	0.835	U
11096-82-5	Aroclor 1260	2.88	iii.P J

- i Aroclor 1221 is being used to report an altered PCB pattern exhibited by the sample.
Actual Aroclor 1221 is not present in the sample, but is reported to more accurately quantify PCB present in sample that has undergone environmental alteration.
- ii Aroclor 1242 is being reported as the best Aroclor match.
The sample exhibits an altered PCB pattern.
It is not possible to distinguish if Aroclor 1242 or Aroclor 1248 was the original Aroclor in this sample that exhibits a highly altered PCB pattern. To better quantify total PCBs, Aroclor 1242 is being reported.
- iii Aroclor 1260 is being reported as the best Aroclor match.
The sample exhibits an altered PCB pattern.

There were several non-target peaks.

¹ Form based upon NYS-DEC Form 1-CLP-PEST

FORM I-CLP-PCB (NEA)

1D-1¹
PCB ANALYSIS DATA SHEET

Northeast Analytical Inc.

ELAP ID No.:

11078

SDG No.:

03090042

CLIENT ID:

NPIT-J (2-2.5')

Matrix:

SOLID

LAB SAMPLE ID:

AG13317

Sample wt/vol:

4.8208 (g)

LAB FILE ID:

AG13317

% Moisture:

53.1

DATE RECEIVED:

9/4/2003

Extraction :

SOXHLET

DATE EXTRACTED:

9/15/2003

Conc. Extract Volume:

50000 (µL)

DATE ANALYZED:

10/2/2003

Injection Volume:

1.2 (µL)

DILUTION FACTOR:

40

Method:

SW-846 8082 (PCB)

SULFUR CLEANUP:

YES

GC Column : J&W, NARROWBORE CAPILLARY, DB-1, 30M; ID:0.25mm

NEA Form ID: S:\FORMS\CAT\SOIL_GC_07_072903.XLS

NEA File ID: S:\CERT03\03090042_GC7_2.XLS 1D-1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/g)	Q
12674-11-2	Aroclor 1016	8.30	U
11104-28-2	Aroclor 1221	55.1 8.30	<i>U</i>
11141-16-5	Aroclor 1232	8.30	U
53469-21-9	Aroclor 1242	66.5	ii
12672-29-6	Aroclor 1248	8.30	U
11097-69-1	Aroclor 1254	8.30	U
11096-82-5	Aroclor 1260	12.9	iii

- i Aroclor 1221 is being used to report an altered PCB pattern exhibited by the sample.
Actual Aroclor 1221 is not present in the sample, but is reported to more accurately quantify PCB present in sample that has undergone environmental alteration.
- ii Aroclor 1242 is being reported as the best Aroclor match.
The sample exhibits an altered PCB pattern.
It is not possible to distinguish if Aroclor 1242 or Aroclor 1248 was the original Aroclor in this sample that exhibits a highly altered PCB pattern. To better quantify total PCBs, Aroclor 1242 is being reported.
- iii Aroclor 1260 is being reported as the best Aroclor match.
The sample exhibits an altered PCB pattern.

There were several non-target peaks.

¹ Form based upon NYS-DEC Form 1-CLP-PEST

1D-1¹
PCB ANALYSIS DATA SHEET

Northeast Analytical Inc.

SDG No.:

03090042

ELAP ID No.:

11078

CLIENT ID:

NPIT-J (2.5-3')

Matrix:

SOLID

LAB SAMPLE ID:

AG13318

Sample wt/vol:

6.0833 (g)

LAB FILE ID:

AG13318

% Moisture:

42.3

DATE RECEIVED:

9/4/2003

Extraction :

SOXHLET

DATE EXTRACTED:

9/15/2003

Conc. Extract Volume:

50000 (µL)

DATE ANALYZED:

10/2/2003

Injection Volume:

1.2 (µL)

DILUTION FACTOR:

50

Method:

SW-846 8082 (PCB)

SULFUR CLEANUP:

YES

GC Column : J&W, NARROWBORE CAPILLARY, DB-1, 30M; ID:0.25mm

NEA Form ID: S:\FORMS\CATB\SOIL_GC_07_072903.XLS

NEA File ID: S:\CERT03\03090042_GC7_2.XLS 1D-1

CAS NO.	COMPOUND	CONCENTRATION UNITS:	Q
		(µg/g)	
12674-11-2	Aroclor 1016	8.22	U
11104-28-2	Aroclor 1221	80.5 8.22	i.P U
11141-16-5	Aroclor 1232	8.22	U
53469-21-9	Aroclor 1242	84.6	ii
12672-29-6	Aroclor 1248	8.22	U
11097-69-1	Aroclor 1254	8.22	U
11096-82-5	Aroclor 1260	9.48	iii

- i Aroclor 1221 is being used to report an altered PCB pattern exhibited by the sample.
Actual Aroclor 1221 is not present in the sample, but is reported to more accurately quantify PCB present in sample that has undergone environmental alteration.
- ii Aroclor 1242 is being reported as the best Aroclor match.
The sample exhibits an altered PCB pattern.
- iii Aroclor 1260 is being reported as the best Aroclor match.
The sample exhibits an altered PCB pattern.

¹ Form based upon NYS-DEC Form 1-CLP-PEST

1D-1¹
PCB ANALYSIS DATA SHEET

Northeast Analytical Inc.

ELAP ID No.:

11078

SDG No.:

03090042

CLIENT ID:

NPIT-J (3-3.5')

Matrix:

SOLID

LAB SAMPLE ID:

AG13319

Sample wt/vol:

8.1032 (g)

LAB FILE ID:

AG13319

% Moisture:

22.9

DATE RECEIVED:

9/4/2003

Extraction :

SOXHLET

DATE EXTRACTED:

9/15/2003

Conc. Extract Volume:

50000 (µL)

DATE ANALYZED:

10/2/2003

Injection Volume:

1.2 (µL)

DILUTION FACTOR:

40

Method:

SW-846 8082 (PCB)

SULFUR CLEANUP:

YES

GC Column : J&W, NARROWBORE CAPILLARY, DB-1, 30M; ID:0.25mm

NEA Form ID: S:\FORMS\CATB\SOIL_GC_07_072903.XLS

NEA File ID: S:\CERT03\03090042_GC7_2.XLS 1D-1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/g)	Q
12674-11-2	Aroclor 1016	4.94	U
11104-28-2	Aroclor 1221	37.7 4.94	i, P u
11141-16-5	Aroclor 1232	4.94	U
53469-21-9	Aroclor 1242	41.2	ii
12672-29-6	Aroclor 1248	4.94	U
11097-69-1	Aroclor 1254	4.94	U
11096-82-5	Aroclor 1260	6.20	iii

- i Aroclor 1221 is being used to report an altered PCB pattern exhibited by the sample.
Actual Aroclor 1221 is not present in the sample, but is reported to more accurately quantify PCB present in sample that has undergone environmental alteration.
- ii Aroclor 1242 is being reported as the best Aroclor match.
The sample exhibits an altered PCB pattern.
- iii Aroclor 1260 is being reported as the best Aroclor match.
The sample exhibits an altered PCB pattern.

1D-1¹
PCB ANALYSIS DATA SHEET

Northeast Analytical Inc.

ELAP ID No.:

11078

SDG No.:

03090042

CLIENT ID:

NPIT-J (3.5-4')

Matrix:

SOLID

LAB SAMPLE ID:

AG13320

Sample wt/vol:

8.5556 (g)

LAB FILE ID:

AG13320

% Moisture:

17.0

DATE RECEIVED:

9/4/2003

Extraction :

SOXHLET

DATE EXTRACTED:

9/15/2003

Conc. Extract Volume:

50000 (µL)

DATE ANALYZED:

10/3/2003

Injection Volume:

1.2 (µL)

DILUTION FACTOR:

4

Method:

SW-846 8082 (PCB)

SULFUR CLEANUP:

YES

GC Column : J&W, NARROWBORE CAPILLARY, DB-1, 30M; ID:0.25mm

NEA Form ID: S:\FORMS\CATB\SOIL_GC_07_072903.XLS

NEA File ID: S:\CERT03\03090042_GC7_2.XLS 1D-1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/g)	Q
12674-11-2	Aroclor 1016	0.468	U
11104-28-2	Aroclor 1221	10.1 0.168	IP U
11141-16-5	Aroclor 1232	0.468	U
53469-21-9	Aroclor 1242	7.39	ii
12672-29-6	Aroclor 1248	0.468	U
11097-69-1	Aroclor 1254	0.468	U
11096-82-5	Aroclor 1260	0.903	iii

- i Aroclor 1221 is being used to report an altered PCB pattern exhibited by the sample.
Actual Aroclor 1221 is not present in the sample, but is reported to more accurately quantify PCB present in sample that has undergone environmental alteration.
- ii Aroclor 1242 is being reported as the best Aroclor match.
The sample exhibits an altered PCB pattern.
- iii Aroclor 1260 is being reported as the best Aroclor match.
The sample exhibits an altered PCB pattern.

1D-1¹
PCB ANALYSIS DATA SHEET

Northeast Analytical Inc.

ELAP ID No.:

11078

SDG No.:

03090042

CLIENT ID:

GH03.5 (0-0.5')

Matrix:

SOLID

LAB SAMPLE ID:

AG13321

Sample wt/vol:

1.6143 (g)

LAB FILE ID:

AG13321

% Moisture:

84.4

DATE RECEIVED:

9/4/2003

Extraction :

SOXHLET

DATE EXTRACTED:

9/15/2003

Conc. Extract Volume:

50000 (µL)

DATE ANALYZED:

10/2/2003

Injection Volume:

1.2 (µL)

DILUTION FACTOR:

1

Method:

SW-846 8082 (PCB)

SULFUR CLEANUP:

YES

GC Column : J&W, NARROWBORE CAPILLARY, DB-1, 30M; ID:0.25mm

NEA Form ID: S:\FORMS\CATB\SOIL_GC_07_072903.XLS

NEA File ID: S:\CERT03\03090042_GC7_2.XLS 1D-1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/g)	Q
12674-11-2	Aroclor 1016	0.620	U
11104-28-2	Aroclor 1221	2.18 0.620	IP U
11141-16-5	Aroclor 1232	0.620	U
53469-21-9	Aroclor 1242	0.620	U
12672-29-6	Aroclor 1248	7.99	ii
11097-69-1	Aroclor 1254	0.620	U
11096-82-5	Aroclor 1260	4.60	iii P J

- i Aroclor 1221 is being used to report an altered PCB pattern exhibited by the sample.
Actual Aroclor 1221 is not present in the sample, but is reported to more accurately quantify PCB present in sample that has undergone environmental alteration.
- ii Aroclor 1248 is being reported as the best Aroclor match.
The sample exhibits an altered PCB pattern.
It is not possible to distinguish if Aroclor 1242 or Aroclor 1248 was the original Aroclor in this sample that exhibits a highly altered PCB pattern. To better quantify total PCBs, Aroclor 1248 is being reported.
- iii Aroclor 1260 is being reported as the best Aroclor match.
The sample exhibits an altered PCB pattern.

There were several non-target peaks.

1D-1¹
PCB ANALYSIS DATA SHEET

Northeast Analytical Inc.

ELAP ID No.:

11078

SDG No.:

03090042

CLIENT ID:

GH03.5 (0.5-1')

Matrix:

SOLID

LAB SAMPLE ID:

AG13322

Sample wt/vol:

1.8494 (g)

LAB FILE ID:

AG13322

% Moisture:

82.6

DATE RECEIVED:

9/4/2003

Extraction :

SOXHLET

DATE EXTRACTED:

9/15/2003

Conc. Extract Volume:

50000 (µL)

DATE ANALYZED:

10/3/2003

Injection Volume:

1.2 (µL)

DILUTION FACTOR:

1

Method:

SW-846 8082 (PCB)

SULFUR CLEANUP:

YES

GC Column : J&W, NARROWBORE CAPILLARY, DB-1, 30M; ID:0.25mm

NEA Form ID: S:\FORMS\CATB\SOIL_GC_07_072903.XLS

NEA File ID: S:\CERT03\03090042_GC7_2.XLS 1D-1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/g)	Q
12674-11-2	Aroclor 1016	0.541	U
11104-28-2	Aroclor 1221	2.56 0.541	IP U
11141-16-5	Aroclor 1232	0.541	U
53469-21-9	Aroclor 1242	0.541	U
12672-29-6	Aroclor 1248	8.14	ii
11097-69-1	Aroclor 1254	0.541	U
11096-82-5	Aroclor 1260	3.16	iii MM

- i Aroclor 1221 is being used to report an altered PCB pattern exhibited by the sample.
Actual Aroclor 1221 is not present in the sample, but is reported to more accurately quantify PCB present in sample that has undergone environmental alteration.
- ii Aroclor 1248 is being reported as the best Aroclor match.
The sample exhibits an altered PCB pattern.
It is not possible to distinguish if Aroclor 1242 or Aroclor 1248 was the original Aroclor in this sample that exhibits a highly altered PCB pattern. To better quantify total PCBs, Aroclor 1248 is being reported.
- iii Aroclor 1260 is being reported as the best Aroclor match.
The sample exhibits an altered PCB pattern.

¹ Form based upon NYS-DEC Form 1-CLP-PEST

FORM I-CLP-PCB (NEA)

1D-1¹
PCB ANALYSIS DATA SHEET

Northeast Analytical Inc.

ELAP ID No.:

11078

SDG No.:

03090042

CLIENT ID:

GH03.5 (1-1.5')

Matrix:

SOLID

LAB SAMPLE ID:

AG13323

Sample wt/vol:

1.675 (g)

LAB FILE ID:

AG13323

% Moisture:

83.9

DATE RECEIVED:

9/4/2003

Extraction :

SOXHLET

DATE EXTRACTED:

9/15/2003

Conc. Extract Volume:

50000 (µL)

DATE ANALYZED:

10/3/2003

Injection Volume:

1.2 (µL)

DILUTION FACTOR:

1

Method:

SW-846 8082 (PCB)

SULFUR CLEANUP:

YES

GC Column : J&W, NARROWBORE CAPILLARY, DB-1, 30M; ID:0.25mm

NEA Form ID: S:\FORMS\CATB\SOIL_GC_07_072903.XLS

NEA File ID: S:\CERT03\03090042_GC7_2.XLS 1D-1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/g)	Q
12674-11-2	Aroclor 1016	0.597	U
11104-28-2	Aroclor 1221	2.46 0.597	U i, P U
11141-16-5	Aroclor 1232	0.597	U
53469-21-9	Aroclor 1242	0.597	U
12672-29-6	Aroclor 1248	16.4	ii
11097-69-1	Aroclor 1254	0.597	U
11096-82-5	Aroclor 1260	5.98	iii, P J

- i Aroclor 1221 is being used to report an altered PCB pattern exhibited by the sample.
Actual Aroclor 1221 is not present in the sample, but is reported to more accurately quantify PCB present in sample that has undergone environmental alteration.
- ii Aroclor 1248 is being reported as the best Aroclor match.
The sample exhibits an altered PCB pattern.
It is not possible to distinguish if Aroclor 1242 or Aroclor 1248 was the original Aroclor in this sample that exhibits a highly altered PCB pattern. To better quantify total PCBs, Aroclor 1248 is being reported.
- iii Aroclor 1260 is being reported as the best Aroclor match.
The sample exhibits an altered PCB pattern.

There were many non-target peaks.

¹ Form based upon NYS-DEC Form 1-CLP-PEST

Laboratory Narrative

October 28, 2003

Sample Delivery Group Case Narrative

This sample delivery group consists of soil samples received for Polychlorinated Biphenyl (PCB) analysis on September 4, 2003 and includes assigned Sample Delivery Group: 03090042. The samples are from Project Name: ALCAN Additional Focused RI Activities, Project Number: 722.07.019. The samples were delivered to the laboratory via UPS delivery service on September 4, 2003. All samples were received by the laboratory intact and within holding times.

This sample delivery group consists of the following samples:

<u>NEA Sample ID:</u>	<u>Client Sample ID:</u>
AG13304	SEG-B3A (2-2.4')
AG13305	IJ13.5A (2-2.5')
AG13306	IJ13.5A (2.5-3')
AG13307	IJ13.5A (3-3.5')
AG13308	IJ13.5A (3.5-4')
AG13309	IJ13.5A (4-4.6')
AG13310	DE06.5A (2-2.5')
AG13311	DE06.5A (2.5-3')
AG13312	DE06.5A (3-3.4)
AG13313	NPIT-J (0-0.5')
AG13314	NPIT-J (0.5-1')
AG13315	NPIT-J (1-1.5')
AG13316	NPIT-J (1.5-2')
AG13317	NPIT-J (2-2.5')
AG13318	NPIT-J (2.5-3')
AG13319	NPIT-J (3-3.5')
AG13320	NPIT-J (3.5-4')
AG13321	GH03.5 (0-0.5')
AG13322	GH03.5 (0.5-1')
AG13323	GH03.5 (1-1.5')

PCB Analysis EPA Method 8082/SURCO Cleanup Method

Analysis for PCB Aroclors was performed by EPA Method 8082 with secondary GC column confirmation analysis. The Soxhlet Extraction Method Method (EPA 3540) was employed for the soil samples.

An Alumina Column Extract Cleanup/Separation procedure developed by Dr. James Pagano of the State University College at Oswego (SUNY-ERC Method) was employed for the samples. This cleanup procedure was performed to reduce chromatographic interference from petroleum hydrocarbons and polychlorinated terphenyls (PCTs) known to be present at the study site. Reference chromatograms for PCT and the PCT Surrogate "Sentinel" are provided for visual comparison to actual samples for assessment of PCT breakthrough during the Alumina column cleanup process.

The following technical and administrative items were noted for the analysis:

- 1.) The surrogate compounds DCBP and TCMX were diluted out for several samples in this Delivery Group due to the high concentration of PCB contained in the samples. (Please see Form 2 for details.)
- 2.) The percent recovery for the Surrogate Compound (DCBP) was below lab established limits for samples (NEA ID: AG13315 and AG13323) for the primary column analysis. The alternate TCMX surrogate recovery was within acceptance limits for the samples.

000004

- 3.) The percent recovery for the Surrogate Compound (DCBP) was below lab established limits for sample (NEA ID: AG13313) for the secondary column analysis. The alternate TCMX surrogate recovery was within acceptance limits for the sample.
- 4.) The percent recovery for the Matrix Spike Sample (NEA ID: AG13261M) and Matrix Spike Duplicate Sample (NEA ID: AG13261K) exceeded lab established limits for the primary GC column analysis. (Please see Form 3 for details)
- 5.) The percent difference between the concentrations for the Primary and Secondary G.C. column exceeded the protocol default limit (25%) for one or more Aroclor for samples (NEA ID: AG13312, AG13316, AG13318, AG13319, AG13320, AG13321, AG13322 and AG13323). The affected concentration results were flagged (P) on the associated Form 1. Please see Forms 10 and Forms 1 for details.
- 6.) The effective Aroclor 1221 contribution to the PCB pattern observed in samples (NEA ID: AG13316, AG13317, AG13318, AG13319, AG13320, AG13321, AG13322, and AG13323) were quantified with four quantitation peaks for the Primary GC column and 3 quantitation peaks for the secondary GC column due to Aroclor Pattern overlap. (Actual Aroclor 1221 was not observed in the samples).
- 7.) Aroclor pattern quantitation notes (footnotes: "i" and "ii") were applied to several samples in this delivery group to denote that altered Aroclor patterns were observed, and to describe the total Aroclor quantitation scheme that was employed for the samples. Please see Form 1 Concentration Summaries for specific details.

PCB Analysis Qualifier Summary:

I. CLP Organic analysis qualifiers were used for all Organics analyses.

This Case Narrative was prepared by,



William A. Kotas
Quality Assurance Officer
S:\forms\catb\casen\102803E.doc

Sample Compliance Report

SAMPLE COMPLIANCE REPORT

Sample Delivery Group	Sampling Date	ASP Protocol	Sample ID	Matrix	Compliance ¹				Noncompliance
					VOA	BNA	PCB	TOC	
AG13304-23	9/02/03	2000	SEG-B3B (2-2.4')	soil	--	--	yes	--	
AG13304-23	9/02/03	2000	IJ13.5A (2-2.5')	soil	--	--	yes	--	
AG13304-23	9/02/03	2000	IJ13.5A (2.5-3')	soil	--	--	yes	--	
AG13304-23	9/02/03	2000	IJ13.5A (3-3.5')	soil	--	--	yes	--	
AG13304-23	9/02/03	2000	IJ13.5A (3.5-4')	soil	--	--	yes	--	
AG13304-23	9/02/03	2000	IJ13.5A (4-4.6')	soil	--	--	yes	--	
AG13304-23	9/02/03	2000	DE06.5A (2-2.5')	soil	--	--	yes	--	
AG13304-23	9/02/03	2000	DE06.5A (2.5-3')	soil	--	--	yes	--	
AG13304-23	9/02/03	2000	DE06.5A (3-3.4')	soil	--	--	no	--	PCB - %D
AG13304-23	9/02/03	2000	NPIT-J (0-0.5')	soil	--	--	yes	--	
AG13304-23	9/02/03	2000	NPIT-J (0.5-1')	soil	--	--	yes	--	
AG13304-23	9/03/03	2000	NPIT-J (1-1.5')	soil	--	--	yes	--	
AG13304-23	9/03/03	2000	NPIT-J (1.5-2')	soil	--	--	no	--	PCB - %D, ID
AG13304-23	9/03/03	2000	NPIT-J (2-2.5)	soil	--	--	no	--	PCB - ID
AG13304-23	9/03/03	2000	NPIT-J (2.5-3')	soil	--	--	no	--	PCB - ID
AG13304-23	9/03/03	2000	NPIT-J (3-3.5')	soil	--	--	no	--	PCB - ID
AG13304-23	9/03/03	2000	NPIT-J (3.5-4')	soil	--	--	no	--	PCB - ID
AG13304-23	9/03/03	2000	GH03.5 (0-0.5')	soil	--	--	no	--	PCB - %D, ID
AG13304-23	9/03/03	2000	GH03.5 (0.5-1')	soil	--	--	no	--	PCB - MS, ID
AG13304-23	9/03/03	2000	GH03.5 (1-1.5')	soil	--	--	no	--	PCB - %D, ID

1 Samples which are compliant with no added validation qualifiers are listed as "yes". Samples which are non-compliant or which have added qualifiers are listed as "no". A "no" designation does not necessarily indicate that the data have been rejected or are otherwise unusable.

Sediment Analytical Data Reports

SDG #AG13324-36

9/2/03

BBL[®]
BLASLAND, BOUCK & LEE, INC.
engineers & scientists

DATA REVIEW FOR
ALCAN ALUMINUM CORPORATION
OSWEGO, NY

SDG# AG13324-36

SOIL SAMPLING
PCB ANALYSES

Analyses performed by:

Northeast Analytical, Inc.
Schenectady, New York

Review performed by:



Blasland, Bouck & Lee, Inc.
Syracuse, New York

Summary

The following is an assessment of the data package for SDG# AG13324-36 for sampling at the ALCAN Aluminum Corporation Site in Oswego, NY. Included with this assessment are the data review check sheets used in the review of the package and corrected sample results. Analyses were performed on the following samples:

[illegible]

- 1 Duplicate analysis of sample NPIT-J (1.5-2'). The original sample is included in SDG AG13304-23.
2 Duplicate analysis of sample GH03.5 (2-2.5').

PCB ANALYSES

Introduction

Analyses were performed according to USEPA SW-846 Method 8082 as referenced in NYSDEC-ASP.

The data review process is an evaluation of data on a technical basis rather than a determination of contract compliance. As such, the standards against which the data are being weighed may differ from those specified in the analytical method. It is assumed that the data package represents the best efforts of the laboratory and had already been subjected to adequate and sufficient quality review prior to submission. During the review process, laboratory qualified and unqualified data are verified against the supporting documentation. Based on this evaluation, qualifier codes may be added, deleted, or modified by the data reviewer. Results are qualified with the following codes in accordance with National Functional Guidelines:

- U The compound was analyzed for but not detected. The associated value is the compound quantitation limit.
- J The compound was positively identified; however, the associated numerical value is an estimated concentration only.
- B The compound has been found in the sample as well as its associated blank, its presence in the sample may be suspect.
- N The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification.
- JN The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification. The associated numerical value is an estimated concentration only.
- E The compound was quantitated above the calibration range.
- D Concentration is based on a diluted sample analysis.
- C Identification confirmed by GC/MS.
- UJ The compound was not detected above the reported sample quantitation limit. However, the reported limit is approximate and may or may not represent the actual limit of quantitation.
- R The sample results are rejected.

Two facts should be noted by all data users. First, the "R" flag means that the associated value is unusable. In other words, due to significant QC problems, the analysis is invalid and provides no information as to whether the compound is present or not. "R" values should not appear on data tables because they cannot be relied upon, even as a last resort. The second fact to keep in mind is that no compound concentration, even if it has passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data but any value potentially contains error.

Data Assessment

1. Holding Time

The specified holding times for PCB analyses under NYSASP are 5 days from sample receipt to extraction and 40 days to analysis. The technical holding times for waters are 14 days from sample collection to extraction and 40 days to analysis.

All samples were extracted within the technical holding time.

2. Blank Contamination

Quality assurance blanks (i.e., method, field, or rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Field and rinse blanks measure contamination of samples during field operations.

No Aroclors were detected in the method blanks.

3. System Performance

System performance and column resolution were acceptable.

4. Calibration

Satisfactory instrument calibration is established to insure that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of acceptable performance at the beginning of an experimental sequence. The continuing calibration verifies that the instrument daily performance is satisfactory.

4.1 Initial Calibration

A maximum RSD of 20% is allowed. The initial calibration was within the specified limit for all Aroclors.

4.2 Continuing Calibration

A maximum %D of 15 is allowed. All continuing calibration standards were within the specified limit.

5. Surrogates / System Monitoring Compounds

All samples to be analyzed for organic compounds are spiked with surrogate compounds prior to sample preparation to evaluate overall laboratory performance and efficiency of the analytical technique.

Surrogates were diluted beyond the range of quantitation in samples GH03.5 (2.5-3'), GH03.5 (3-3.5'), GH03.5 (3.5-4'), GH03.5 (4-4.5') and GH03.5 (4.5-5'). No

data have been qualified based on the diluted surrogates. Recovery for one surrogate was above control limits in samples GH03.5 (2-2.5'), GH03.5 (5-5.5') and DUP-3. Since recoveries for the remaining surrogates were within control limits, no data have been qualified based on the deviations. All other surrogate recoveries were within control limits.

6. Compound Identification

The retention times of all quantitated peaks must fall within the calculated retention time windows for both the primary and confirmation columns.

All identified compounds met the specified criteria.

7. Matrix Spike/Matrix Spike Duplicate (MS/MSD)

Matrix spike and matrix spike duplicate data are used to assess the precision and accuracy of the analytical method independent of matrix interferences.

No MS/MSD was performed on the samples in this data set.

8. Matrix Spike Blank

The matrix spike blank recoveries were within control limits.

9. Field Duplicates

Results for duplicate samples are summarized as follows:

Sample ID/ Duplicate ID	Analyte	Sample Result	Duplicate Result	RPD
NPIT-J (1.5-2') / DUP-2	Aroclor 1242	19.7	22.2	11.9%
	Aroclor 1260	2.88	1.65	54.3%
GH03.5 (2-2.5') / DUP-3	Aroclor 1242	55.3	53.9	2.6%
	Aroclor 1260	11.1	11.2	0.8%

Duplicate results are acceptable.

10. General Comments

Aroclor 1221 was reported as present in samples DUP-2, GH03.5 (2-2.5'), GH03.5 (2.5-3'), GH03.5 (3-3.5'), GH03.5 (3.5-4'), GH03.5 (4-4.5'), GH03.5 (4.5-5'), GH03.5 (5-5.5') and DUP-3. An examination of the sample chromatograms showed no pattern match for this Aroclor. Data for Aroclor 1221 have, therefore, been qualified as undetected in the listed samples.

11. System Performance and Overall Assessment

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines listed in the analytical method.

Data Validation Checklist

PCB Data Validation Checklist

	YES	NO	NA
<u>Data Completeness and Deliverables</u>			
Have any missing deliverables been received and added to the data package?	<u> </u>	<u> X </u>	<u> </u>
Is there a narrative or cover letter present?	<u> X </u>	<u> </u>	<u> </u>
Are the sample numbers included in the narrative?	<u> X </u>	<u> </u>	<u> </u>
Are the sample chain-of-custodies present?	<u> X </u>	<u> </u>	<u> </u>
Do the chain-of-custodies indicate any problems with sample receipt or sample condition?	<u> </u>	<u> X </u>	<u> </u>
<u>Holding Times</u>			
Have any holding times been exceeded?	<u> </u>	<u> X </u>	<u> </u>
<u>Surrogate Recovery</u>			
Are the surrogate recovery forms present?	<u> X </u>	<u> </u>	<u> </u>
Are all samples listed on the surrogate recovery form?	<u> X </u>	<u> </u>	<u> </u>
Were recoveries of any surrogate outside control limits for any sample or blank?	<u> X </u>	<u> </u>	<u> </u>
If yes, were the samples reanalyzed?	<u> </u>	<u> X </u>	<u> </u>
Are there any transcription/calculation errors between the raw data and the summary form?	<u> </u>	<u> X </u>	<u> </u>
<u>Matrix Spikes</u>			
Is there a matrix spike recovery form present?	<u> </u>	<u> X </u>	<u> </u>
Were matrix spikes analyzed at the required frequency?	<u> </u>	<u> </u>	<u> X </u>
How many spike recoveries were outside of QC limits?			
<u> NA </u> out of <u> NA </u>			
How many RPDs for matrix spike and matrix spike duplicate were outside of QC limits?			
<u> NA </u> out of <u> NA </u>			
<u>Blanks</u>			
Is a method blank summary form present?	<u> X </u>	<u> </u>	<u> </u>
Has a method blank been extracted for each set of samples or for each 20 samples, whichever is more frequent?	<u> X </u>	<u> </u>	<u> </u>
Do any method/instrument blanks have positive results?	<u> </u>	<u> X </u>	<u> </u>
Are field/rinse blanks associated with every sample?	<u> </u>	<u> X </u>	<u> </u>
Do any field/rinse blanks have positive results?	<u> </u>	<u> </u>	<u> X </u>

PCB Data Validation Checklist - Page 2

	YES	NO	NA
<u>Calibration and GC Performance</u>			
Are the following chromatograms and integration reports present?			
peak resolution check	<u> </u>	<u> X </u>	<u> </u>
Aroclor 1016/1260	<u> X </u>	<u> </u>	<u> </u>
Aroclors 1221, 1232, 1242, 1248, and 1254	<u> X </u>	<u> </u>	<u> </u>
Is a calibration summary form present and complete for each analytical sequence?	<u> X </u>	<u> </u>	<u> </u>
Are there any transcription/calculation errors between the raw data and the forms?	<u> </u>	<u> X </u>	<u> </u>
Are the initial calibration %RSD within acceptable limits for all analytes?	<u> X </u>	<u> </u>	<u> </u>
Is the resolution between any two adjacent peaks in the resolution check mixture > 60%?	<u> </u>	<u> </u>	<u> X </u>
Have all samples been injected within a 12 hour period beginning with the injection of a calibration standard?	<u> X </u>	<u> </u>	<u> </u>
Is a continuing calibration summary form present and complete for each continuing standard analyzed?	<u> X </u>	<u> </u>	<u> </u>
Are there any transcription/calculation errors between the raw data and the form?	<u> </u>	<u> X </u>	<u> </u>
Are all continuing calibration standard %D within acceptable limits?	<u> X </u>	<u> </u>	<u> </u>
<u>Analytical Sequence</u>			
Is an analytical sequence summary form present and complete for each column and each period of analyses?	<u> X </u>	<u> </u>	<u> </u>
Was the proper analytical sequence followed?	<u> X </u>	<u> </u>	<u> </u>
<u>Cleanup Efficiency Verification</u>			
Are percent recoveries of the compounds used to check the efficiency of the cleanup procedure within QC limits?	<u> X </u>	<u> </u>	<u> </u>
<u>PCB Identification</u>			
Are RT of sample compounds within the established RT windows?	<u> X </u>	<u> </u>	<u> </u>
Were all positively identified compounds confirmed on a second column?	<u> X </u>	<u> </u>	<u> </u>
Was GC/MS confirmation provided when required?	<u> </u>	<u> </u>	<u> X </u>
Were there any false negatives?	<u> </u>	<u> X </u>	<u> </u>

PCB Data Validation Checklist - Page 3

	YES	NO	NA
<u>Compound Quantitation and Reported Detection Limits</u>			
Are there any transcription/calculation errors in the Form 1 results?	<u> </u>	<u> X </u>	<u> </u>
Are the reporting limits adjusted to reflect sample dilutions and, for soils, sample moisture?	<u> X </u>	<u> </u>	<u> </u>
<u>Chromatogram Quality</u>			
Were the baselines stable?	<u> X </u>	<u> </u>	<u> </u>
Were any electronegative displacement (negative peaks) or unusual peaks detected?	<u> </u>	<u> X </u>	<u> </u>
<u>Field Duplicates</u>			
Were field duplicates submitted with the samples?	<u> X </u>	<u> </u>	<u> </u>

PCB Qualifier Summary

Holding Time and Surrogates

[illegible]

Surrogates:
TCX Tetrachloro-m-xylene
DCB Decachlorobiphenyl
na Not applicable

Qualifiers:

D	Surrogate diluted out
↑	Recovery high
↓	Recovery low

* Unless otherwise noted, all parameters are within specified limits.

PCB Calibration Summary

Instrument: GC07

Column: DB-1

[illegible]

PCB Calibration Summary - Page 2

Date:	10/4/03	10/4/03								
Time:	0006	0406								
	Cont Cal.	Cont Cal.	Cont Cal.	Cont Cal.	Cont Cal.	Cont Cal.	Cont Cal.	Cont Cal.	Cont Cal.	Cont Cal.
	%D	%D	%D	%D	%D	%D	%D	%D	%D	%D
Aroclor 1016										
Aroclor 1221	ok									
Aroclor 1232		ok								
Aroclor 1242										
Aroclor 1248										
Aroclor 1254										
Aroclor 1260										
Tetrachloro-m-xylene										
Decachlorobiphenyl										
Affected Samples:										

PCB Calibration Summary - Page 3

Instrument: GC05

Column: DB-5

Date:	9/22/03-9/23/03	9/23/03	9/23/03	9/23/03	9/23/03	9/23/03	9/23/03	9/23/03	10/2/03	10/2/03
Time:		1342	1416	1450	1524	1559	1633	1707	1354	2208
	Initial Cal.	Cont Cal.	Cont Cal.	Cont Cal.	Cont Cal.	Cont Cal.	Cont Cal.	Cont Cal.	Cont Cal.	Cont Cal.
	%RSD	%D	%D	%D	%D	%D	%D	%D	%D	%D
Aroclor 1016	ok	ok								
Aroclor 1221	ok		ok							
Aroclor 1232	ok			ok						
Aroclor 1242	ok				ok					
Aroclor 1248	ok					ok			ok	
Aroclor 1254	ok						ok			ok
Aroclor 1260	ok							ok		
Tetrachloro-m-xylene	ok									
Decachlorobiphenyl	ok									
Affected Samples:										

PCB Calibration Summary - Page 4

[illegible]

Corrected Sample Analysis Data Sheets

1D-1¹
PCB ANALYSIS DATA SHEET

Northeast Analytical Inc.

ELAP ID No.:

11078

SDG No.:

03090042

CLIENT ID:

GH03.5 (1.5-2')

Matrix:

SOLID

LAB SAMPLE ID:

AG13324

Sample wt/vol:

1.85298 (g)

LAB FILE ID:

AG13324

% Moisture:

82.2

DATE RECEIVED:

9/4/2003

Extraction :

SOXHLET

DATE EXTRACTED:

9/16/2003

Conc. Extract Volume:

50000 (µL)

DATE ANALYZED:

10/3/2003

Injection Volume:

1.2 (µL)

DILUTION FACTOR:

3

Method:

SW-846 8082 (PCB)

SULFUR CLEANUP:

YES

GC Column : J&W, NARROWBORE CAPILLARY, DB-1, 30M; ID:0.25mm

NEA Form ID: S:\FORMS\CATB\SOIL_GC_07_072903.XLS

NEA File ID: S:\CERT03\03090042_GC7_3.XLS 1D-1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/g)	Q
12674-11-2	Aroclor 1016	1.62	U
11104-28-2	Aroclor 1221	1.62	U
11141-16-5	Aroclor 1232	1.62	U
53469-21-9	Aroclor 1242	1.62	U
12672-29-6	Aroclor 1248	45.1	i
11097-69-1	Aroclor 1254	1.62	U
11096-82-5	Aroclor 1260	8.22	ii

- i Aroclor 1248 is being reported as the best Aroclor match.

The sample exhibits an altered PCB pattern.

It is not possible to distinguish if Aroclor 1242 or Aroclor 1248 was the original Aroclor in this sample that exhibits a highly altered PCB pattern. To better quantify total PCBs, Aroclor 1248 is being reported.

- ii Aroclor 1260 is being reported as the best Aroclor match.

The sample exhibits an altered PCB pattern.

1D-1¹
PCB ANALYSIS DATA SHEET

Northeast Analytical Inc.

ELAP ID No.:

11078

SDG No.:

03090042

CLIENT ID:

DUP-2

Matrix:

SOLID

LAB SAMPLE ID:

AG13325

Sample wt/vol:

3.43889 (g)

LAB FILE ID:

AG13325

% Moisture:

66.7

DATE RECEIVED:

9/4/2003

Extraction :

SOXHLET

DATE EXTRACTED:

9/16/2003

Conc. Extract Volume:

50000 (µL)

DATE ANALYZED:

10/3/2003

Injection Volume:

1.2 (µL)

DILUTION FACTOR:

2

Method:

SW-846 8082 (PCB)

SULFUR CLEANUP:

YES

GC Column : J&W, NARROWBORE CAPILLARY, DB-1, 30M; ID:0.25mm

NEA Form ID: S:\FORMS\CATB\SOIL_GC_07_072903.XLS

NEA File ID: S:\CERT03\03090042_GC7_3.XLS 1D-1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/g)	Q
12674-11-2	Aroclor 1016	0.582	U
11104-28-2	Aroclor 1221	9.98	i
11141-16-5	Aroclor 1232	0.582	U
53469-21-9	Aroclor 1242	22.2	ii
12672-29-6	Aroclor 1248	0.582	U
11097-69-1	Aroclor 1254	0.582	U
11096-82-5	Aroclor 1260	1.65	iii

- i Aroclor 1221 is being used to report an altered PCB pattern exhibited by the sample.
Actual Aroclor 1221 is not present in the sample, but is reported to more accurately quantify PCB present in sample that has undergone environmental alteration.
- ii Aroclor 1242 is being reported as the best Aroclor match.
The sample exhibits an altered PCB pattern.
It is not possible to distinguish if Aroclor 1242 or Aroclor 1248 was the original Aroclor in this sample that exhibits a highly altered PCB pattern. To better quantify total PCBs, Aroclor 1242 is being reported.
- iii Aroclor 1260 is being reported as the best Aroclor match.
The sample exhibits an altered PCB pattern.

There were many non-target peaks.

1D-1¹
PCB ANALYSIS DATA SHEET

Northeast Analytical Inc.

ELAP ID No.:

11078

SDG No.:

03090042

CLIENT ID:

GH03.5 (2-2.5')

Matrix:

SOLID

LAB SAMPLE ID:

AG13326

Sample wt/vol:

2.29936 (g)

LAB FILE ID:

AG13326

% Moisture:

77.6

DATE RECEIVED:

9/4/2003

Extraction :

SOXHLET

DATE EXTRACTED:

9/16/2003

Conc. Extract Volume:

50000 (μL)

DATE ANALYZED:

10/3/2003

Injection Volume:

1.2 (μL)

DILUTION FACTOR:

6

Method:

SW-846 8082 (PCB)

SULFUR CLEANUP:

YES

GC Column : J&W, NARROWBORE CAPILLARY, DB-1, 30M; ID:0.25mm

NEA Form ID: S:\FORMS\CATB\SOIL_GC_07_072903.XLS

NEA File ID: S:\CERT03\03090042_GC7_3.XLS 1D-1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (μg/g)	Q
12674-11-2	Aroclor 1016	2.61	U
11104-28-2	Aroclor 1221	16.3 2.61	i, P ✓
11141-16-5	Aroclor 1232	2.61	U
53469-21-9	Aroclor 1242	55.3	ii
12672-29-6	Aroclor 1248	2.61	U
11097-69-1	Aroclor 1254	2.61	U
11096-82-5	Aroclor 1260	11.1	iii

i Aroclor 1221 is being used to report an altered PCB pattern exhibited by the sample.

Actual Aroclor 1221 is not present in the sample, but is reported to more accurately quantify PCB present in sample that has undergone environmental alteration.

ii Aroclor 1242 is being reported as the best Aroclor match.

The sample exhibits an altered PCB pattern.

It is not possible to distinguish if Aroclor 1242 or Aroclor 1248 was the original Aroclor in this sample that exhibits a highly altered PCB pattern. To better quantify total PCBs, Aroclor 1242 is being reported.

iii Aroclor 1260 is being reported as the best Aroclor match.

The sample exhibits an altered PCB pattern.

1D-1¹
PCB ANALYSIS DATA SHEET

Northeast Analytical Inc.

ELAP ID No.:

11078

SDG No.:

03090042

CLIENT ID:

GH03.5 (2.5-3')

Matrix:

SOLID

LAB SAMPLE ID:

AG13327

Sample wt/vol:

3.27036 (g)

LAB FILE ID:

AG13327

% Moisture:

69.8

DATE RECEIVED:

9/4/2003

Extraction :

SOXHLET

DATE EXTRACTED:

9/16/2003

Conc. Extract Volume:

50000 (µL)

DATE ANALYZED:

10/3/2003

Injection Volume:

1.2 (µL)

DILUTION FACTOR:

20

Method:

SW-846 8082 (PCB)

SULFUR CLEANUP:

YES

GC Column : J&W, NARROWBORE CAPILLARY, DB-1, 30M; ID:0.25mm

NEA Form ID: S:\FORMS\CATB\SOIL_GC_07_072903.XLS

NEA File ID: S:\CERT03\03090042_GC7_3.XLS 1D-1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/g)	Q
12674-11-2	Aroclor 1016	6.12	U
11104-28-2	Aroclor 1221	29.2 6.12	U i-P
11141-16-5	Aroclor 1232	6.12	U
53469-21-9	Aroclor 1242	90.0	ii
12672-29-6	Aroclor 1248	6.12	U
11097-69-1	Aroclor 1254	6.12	U
11096-82-5	Aroclor 1260	19.1	iii

- i Aroclor 1221 is being used to report an altered PCB pattern exhibited by the sample.

Actual Aroclor 1221 is not present in the sample, but is reported to more accurately quantify PCB present in sample that has undergone environmental alteration.

- ii Aroclor 1242 is being reported as the best Aroclor match.

The sample exhibits an altered PCB pattern.

It is not possible to distinguish if Aroclor 1242 or Aroclor 1248 was the original Aroclor in this sample that exhibits a highly altered PCB pattern. To better quantify total PCBs, Aroclor 1242 is being reported.

- iii Aroclor 1260 is being reported as the best Aroclor match.

The sample exhibits an altered PCB pattern.

¹ Form based upon NYS-DEC Form 1-CLP-PEST

1D-1¹
PCB ANALYSIS DATA SHEET

Northeast Analytical Inc.

ELAP ID No. :

11078

Matrix :

SOLID

Sample wt/vol :

3.26581 (g)

% Moisture :

68.9

Extraction :

SOXHLET

Conc. Extract Volume :

50000 (µL)

Injection Volume :

1.2 (µL)

Method :

SW-846 8082 (PCB)

SDG No. :

03090042

CLIENT ID :

GH03.5 (3-3.5')

LAB SAMPLE ID :

AG13328

LAB FILE ID :

AG13328

DATE RECEIVED :

9/4/2003

DATE EXTRACTED :

9/16/2003

DATE ANALYZED :

10/3/2003

DILUTION FACTOR :

30

SULFUR CLEANUP :

YES

GC Column : J&W, NARROWBORE CAPILLARY, DB-1, 30M; ID:0.25mm

NEA Form ID: S:\FORMS\CATB\SOIL_GC_07_072903.XLS

NEA File ID: S:\CERT03\03090042_GC7_3.XLS 1D-1

CAS NO.	COMPOUND	CONCENTRATION UNITS:	Q
		(µg/g)	
12674-11-2	Aroclor 1016	9.19	U
11104-28-2	Aroclor 1221	33.7 9.19	1, P U
11141-16-5	Aroclor 1232	9.19	U
53469-21-9	Aroclor 1242	88.3	ii
12672-29-6	Aroclor 1248	9.19	U
11097-69-1	Aroclor 1254	9.19	U
11096-82-5	Aroclor 1260	25.2	iii

i Aroclor 1221 is being used to report an altered PCB pattern exhibited by the sample.

Actual Aroclor 1221 is not present in the sample, but is reported to more accurately quantify PCB present in sample that has undergone environmental alteration.

ii Aroclor 1242 is being reported as the best Aroclor match.

The sample exhibits an altered PCB pattern.

It is not possible to distinguish if Aroclor 1242 or Aroclor 1248 was the original Aroclor in this sample that exhibits a highly altered PCB pattern. To better quantify total PCBs, Aroclor 1242 is being reported.

iii Aroclor 1260 is being reported as the best Aroclor match.

The sample exhibits an altered PCB pattern.

¹ Form based upon NYS-DEC Form 1-CLP-PEST

FORM I-CLP-PCB (NEA)

1D-1¹ PCB ANALYSIS DATA SHEET

Northeast Analytical Inc.

ELAP ID No.:

11078

SDG No.:

03090042

CLIENT ID:

GH03.5 (3.5-4')

Matrix:

SOLID

LAB SAMPLE ID:

AG13329

Sample wt/vol:

2.43601 (g)

LAB FILE ID:

AG13329

% Moisture:

76.7

DATE RECEIVED:

9/4/2003

Extraction :

SOXHLET

DATE EXTRACTED:

9/16/2003

Conc. Extract Volume:

50000 (μL)

DATE ANALYZED:

10/3/2003

Injection Volume:

1.2 (μL)

DILUTION FACTOR:

70

Method:

SW-846 8082 (PCB)

SULFUR CLEANUP:

YES

GC Column : J&W, NARROWBORE CAPILLARY, DB-1, 30M; ID:0.25mm

NEA Form ID: S:\FORMS\CATB\SOIL_GC_07_072903.XLS

NEA File ID: S:\CERT03\03090042_GC7_3.XLS 1D-1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (μg/g)	Q
12674-11-2	Aroclor 1016	28.7	U
11104-28-2	Aroclor 1221	269 28.7	U ✓
11141-16-5	Aroclor 1232	28.7	U
53469-21-9	Aroclor 1242	260	ii
12672-29-6	Aroclor 1248	28.7	U
11097-69-1	Aroclor 1254	28.7	U
11096-82-5	Aroclor 1260	28.7	U

i Aroclor 1221 is being used to report an altered PCB pattern exhibited by the sample.

Actual Aroclor 1221 is not present in the sample, but is reported to more accurately quantify PCB present in sample that has undergone environmental alteration.

ii Aroclor 1242 is being reported as the best Aroclor match.

The sample exhibits an altered PCB pattern.

It is not possible to distinguish if Aroclor 1242 or Aroclor 1248 was the original Aroclor in this sample that exhibits a highly altered PCB pattern. To better quantify total PCBs, Aroclor 1242 is being reported.

¹ Form based upon NYS-DEC Form 1-CLP-PEST

FORM I-CLP-PCB (NEA)

000074

1D-1¹
PCB ANALYSIS DATA SHEET

Northeast Analytical Inc.

ELAP ID No.:

11078

SDG No.:

03090042

CLIENT ID:

GH03.5 (4-4.5')

Matrix:

SOLID

LAB SAMPLE ID:

AG13330

Sample wt/vol:

1.15445 (g)

LAB FILE ID:

AG13330

% Moisture:

89.4

DATE RECEIVED:

9/4/2003

Extraction :

SOXHLET

DATE EXTRACTED:

9/16/2003

Conc. Extract Volume:

50000 (µL)

DATE ANALYZED:

10/3/2003

Injection Volume:

1.2 (µL)

DILUTION FACTOR:

7

Method:

SW-846 8082 (PCB)

SULFUR CLEANUP:

YES

GC Column : J&W, NARROWBORE CAPILLARY, DB-1, 30M; ID:0.25mm

NEA Form ID: S:\FORMS\CATB\SOIL_GC_07_072903.XLS

NEA File ID: S:\CERT03\03090042_GC7_3.XLS 1D-1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/g)	Q
12674-11-2	Aroclor 1016	6.06	U
11104-28-2	Aroclor 1221	105 6.06	ii U
11141-16-5	Aroclor 1232	6.06	U
53469-21-9	Aroclor 1242	51.3	ii
12672-29-6	Aroclor 1248	6.06	U
11097-69-1	Aroclor 1254	6.06	U
11096-82-5	Aroclor 1260	6.06	U

- i Aroclor 1221 is being used to report an altered PCB pattern exhibited by the sample.

Actual Aroclor 1221 is not present in the sample, but is reported to more accurately quantify PCB present in sample that has undergone environmental alteration.

- ii Aroclor 1242 is being reported as the best Aroclor match.

The sample exhibits an altered PCB pattern.

It is not possible to distinguish if Aroclor 1242 or Aroclor 1248 was the original Aroclor in this sample that exhibits a highly altered PCB pattern. To better quantify total PCBs, Aroclor 1242 is being reported.

1D-1¹
PCB ANALYSIS DATA SHEET

Northeast Analytical Inc.

ELAP ID No.:

11078

SDG No.:

03090042

CLIENT ID:

GH03.5 (4.5-5')

Matrix:

SOLID

LAB SAMPLE ID:

AG13331

Sample wt/vol:

1.23679 (g)

LAB FILE ID:

AG13331

% Moisture:

88.4

DATE RECEIVED:

9/4/2003

Extraction :

SOXHLET

DATE EXTRACTED:

9/16/2003

Conc. Extract Volume:

50000 (µL)

DATE ANALYZED:

10/3/2003

Injection Volume:

1.2 (µL)

DILUTION FACTOR:

5

Method:

SW-846 8082 (PCB)

SULFUR CLEANUP:

YES

GC Column : J&W, NARROWBORE CAPILLARY, DB-1, 30M; ID:0.25mm

NEA Form ID: S:\FORMS\CATB\SOIL_GC_07_072903.XLS

NEA File ID: S:\CERT03\03090042_GC7_3.XLS 1D-1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/g)	Q
12674-11-2	Aroclor 1016	4.04	U
11104-28-2	Aroclor 1221	76.5 4.04	IP J
11141-16-5	Aroclor 1232	4.04	U
53469-21-9	Aroclor 1242	37.9	ii
12672-29-6	Aroclor 1248	4.04	U
11097-69-1	Aroclor 1254	4.04	U
11096-82-5	Aroclor 1260	4.04	U

- i Aroclor 1221 is being used to report an altered PCB pattern exhibited by the sample.

Actual Aroclor 1221 is not present in the sample, but is reported to more accurately quantify PCB present in sample that has undergone environmental alteration.

- ii Aroclor 1242 is being reported as the best Aroclor match.

The sample exhibits an altered PCB pattern.

It is not possible to distinguish if Aroclor 1242 or Aroclor 1248 was the original Aroclor in this sample that exhibits a highly altered PCB pattern. To better quantify total PCBs, Aroclor 1242 is being reported.

There were many non-target peaks.

1D-1¹
PCB ANALYSIS DATA SHEET

Northeast Analytical Inc.

ELAP ID No.:

11078

SDG No.:

03090042

CLIENT ID:

GH03.5 (5-5.5')

Matrix:

SOLID

LAB SAMPLE ID:

AG13332

Sample wt/vol:

1.17979 (g)

LAB FILE ID:

AG13332

% Moisture:

88.6

DATE RECEIVED:

9/4/2003

Extraction :

SOXHLET

DATE EXTRACTED:

9/16/2003

Conc. Extract Volume:

50000 (µL)

DATE ANALYZED:

10/4/2003

Injection Volume:

1.2 (µL)

DILUTION FACTOR:

1

Method:

SW-846 8082 (PCB)

SULFUR CLEANUP:

YES

GC Column : J&W, NARROWBORE CAPILLARY, DB-1, 30M; ID:0.25mm

NEA Form ID: S:\FORMS\CATB\SOIL_GC_07_072903.XLS

NEA File ID: S:\CERT03\03090042_GC7_3.XLS 1D-1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/g)	Q
12674-11-2	Aroclor 1016	0.848	U
11104-28-2	Aroclor 1221	12.1 0.848	IP U
11141-16-5	Aroclor 1232	0.848	U
53469-21-9	Aroclor 1242	2.30	ii
12672-29-6	Aroclor 1248	0.848	U
11097-69-1	Aroclor 1254	0.848	U
11096-82-5	Aroclor 1260	0.848	U

- i Aroclor 1221 is being used to report an altered PCB pattern exhibited by the sample.

Actual Aroclor 1221 is not present in the sample, but is reported to more accurately quantify PCB present in sample that has undergone environmental alteration.

- ii Aroclor 1242 is being reported as the best Aroclor match.

The sample exhibits an altered PCB pattern.

It is not possible to distinguish if Aroclor 1242 or Aroclor 1248 was the original Aroclor in this sample that exhibits a highly altered PCB pattern. To better quantify total PCBs, Aroclor 1242 is being reported.

1D-1¹
PCB ANALYSIS DATA SHEET

Northeast Analytical Inc.

ELAP ID No.:

11078

SDG No.:

03090042

CLIENT ID:

GH03.5 (5.5-6')

Matrix:

SOLID

LAB SAMPLE ID:

AG13333

Sample wt/vol:

5.4093 (g)

LAB FILE ID:

AG13333

% Moisture:

50.6

DATE RECEIVED:

9/4/2003

Extraction :

SOXHLET

DATE EXTRACTED:

9/16/2003

Conc. Extract Volume:

50000 (µL)

DATE ANALYZED:

10/4/2003

Injection Volume:

1.2 (µL)

DILUTION FACTOR:

1

Method:

SW-846 8082 (PCB)

SULFUR CLEANUP:

YES

GC Column : J&W, NARROWBORE CAPILLARY, DB-1, 30M; ID:0.25mm

NEA Form ID: S:\FORMS\CATB\SOIL_GC_07_072903.XLS

NEA File ID: S:\CERT03\03090042_GC7_3.XLS 1D-1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/g)	Q
12674-11-2	Aroclor 1016	0.185	U
11104-28-2	Aroclor 1221	0.185	U
11141-16-5	Aroclor 1232	0.185	U
53469-21-9	Aroclor 1242	0.185	U
12672-29-6	Aroclor 1248	0.185	U
11097-69-1	Aroclor 1254	0.185	U
11096-82-5	Aroclor 1260	0.185	U

¹ Form based upon NYS-DEC Form 1-CLP-PEST

FORM I-CLP-PCB (NEA)

000110

1D-1¹
PCB ANALYSIS DATA SHEET

Northeast Analytical Inc.

ELAP ID No.:

11078

SDG No.:

03090042

CLIENT ID:

GH03.5 (6-6.5')

Matrix:

SOLID

LAB SAMPLE ID:

AG13334

Sample wt/vol:

6.61206 (g)

LAB FILE ID:

AG13334

% Moisture:

36.3

DATE RECEIVED:

9/4/2003

Extraction :

SOXHLET

DATE EXTRACTED:

9/16/2003

Conc. Extract Volume:

50000 (μL)

DATE ANALYZED:

10/4/2003

Injection Volume:

1.2 (μL)

DILUTION FACTOR:

1

Method:

SW-846 8082 (PCB)

SULFUR CLEANUP:

YES

GC Column : J&W, NARROWBORE CAPILLARY, DB-1, 30M; ID:0.25mm

NEA Form ID: S:\FORMS\CATB\SOIL_GC_07_072903.XLS

NEA File ID: S:\CERT03\03090042_GC7_3.XLS 1D-1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (μg/g)	Q
12674-11-2	Aroclor 1016	0.151	U
11104-28-2	Aroclor 1221	0.151	U
11141-16-5	Aroclor 1232	0.151	U
53469-21-9	Aroclor 1242	0.151	U
12672-29-6	Aroclor 1248	0.151	U
11097-69-1	Aroclor 1254	0.151	U
11096-82-5	Aroclor 1260	0.151	U

¹ Form based upon NYS-DEC Form 1-CLP-PEST

FORM I-CLP-PCB (NEA)

000118

1D-1¹
PCB ANALYSIS DATA SHEET

Northeast Analytical Inc.

ELAP ID No.:

11078

SDG No.:

03090042

CLIENT ID:

GH03.5 (6.5-6.8')

Matrix:

SOLID

LAB SAMPLE ID:

AG13335

Sample wt/vol:

8.5329 (g)

LAB FILE ID:

AG13335

% Moisture:

22.4

DATE RECEIVED:

9/4/2003

Extraction :

SOXHLET

DATE EXTRACTED:

9/16/2003

Conc. Extract Volume:

50000 (µL)

DATE ANALYZED:

10/4/2003

Injection Volume:

1.2 (µL)

DILUTION FACTOR:

1

Method:

SW-846 8082 (PCB)

SULFUR CLEANUP:

YES

GC Column : J&W, NARROWBORE CAPILLARY, DB-1, 30M; ID:0.25mm

NEA Form ID: S:\FORMS\CATB\SOIL_GC_07_072903.XLS

NEA File ID: S:\CERT03\03090042_GC7_3.XLS 1D-1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/g)	Q
12674-11-2	Aroclor 1016	0.117	U
11104-28-2	Aroclor 1221	0.117	U
11141-16-5	Aroclor 1232	0.117	U
53469-21-9	Aroclor 1242	0.117	U
12672-29-6	Aroclor 1248	0.117	U
11097-69-1	Aroclor 1254	0.117	U
11096-82-5	Aroclor 1260	0.117	U

¹ Form based upon NYS-DEC Form 1-CLP-PEST

1D-1¹
PCB ANALYSIS DATA SHEET

Northeast Analytical Inc.

SDG No.:	03090042
ELAP ID No.:	DUP-3
Matrix:	AG13336
Sample wt/vol:	AG13336
% Moisture:	9/4/2003
Extraction :	9/16/2003
Conc. Extract Volume:	10/4/2003
Injection Volume:	6
Method:	YES

GC Column : J&W, NARROWBORE CAPILLARY, DB-1, 30M; ID:0.25mm

NEA Form ID: S:\FORMS\CATB\SOIL_GC_07_072903.XLS

NEA File ID: S:\CERT03\03090042_GC7_3.XLS 1D-1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/g)	Q
12674-11-2	Aroclor 1016	2.66	U
11104-28-2	Aroclor 1221	15.9 2.66	1.66 U
11141-16-5	Aroclor 1232	2.66	U
53469-21-9	Aroclor 1242	53.9	ii
12672-29-6	Aroclor 1248	2.66	U
11097-69-1	Aroclor 1254	2.66	U
11096-82-5	Aroclor 1260	11.2	iii

- i Aroclor 1221 is being used to report an altered PCB pattern exhibited by the sample.
Actual Aroclor 1221 is not present in the sample, but is reported to more accurately quantify PCB present in sample that has undergone environmental alteration.
- ii Aroclor 1242 is being reported as the best Aroclor match.
The sample exhibits an altered PCB pattern.
It is not possible to distinguish if Aroclor 1242 or Aroclor 1248 was the original Aroclor in this sample that exhibits a highly altered PCB pattern. To better quantify total PCBs, Aroclor 1242 is being reported.
- iii Aroclor 1260 is being reported as the best Aroclor match.
The sample exhibits an altered PCB pattern.

Laboratory Narrative

October 23, 2003

Sample Delivery Group Case Narrative

This sample delivery group consists of soil samples received for Polychlorinated Biphenyl (PCB) analysis on September 4, 2003 and includes assigned Sample Delivery Group: 03090042. The samples are from Project Name: ALCAN Additional Focused RI Activities, Project Number: 722.07.019. The samples were delivered to the laboratory via FEDEX delivery service on September 4, 2003. All samples were received by the laboratory intact and within holding times.

This sample delivery group consists of the following samples:

<u>NEA Sample ID:</u>	<u>Client Sample ID:</u>
AG13324	GH03.5 (1.5-2')
AG13325	DUP-2
AG13326	GH03.5 (2-2.5')
AG13327	GH03.5 (2.5-3')
AG13328	GH03.5 (3-3.5')
AG13329	GH03.5 (3.5-4')
AG13330	GH03.5 (4-4.5')
AG13331	GH03.5 (4.5-5')
AG13332	GH03.5 (5-5.5')
AG13333	GH03.5 (5.5-6')
AG13334	GH03.5 (6-6.5')
AG13335	GH03.5 (6.5-6.8')
AG13336	DUP-3

PCB Analysis EPA Method 8082/SURCO Cleanup Method

Analysis for PCB Aroclors was performed by EPA Method 8082 with secondary GC column confirmation analysis. The Soxhlet Extraction Method Method (EPA 3540) was employed for the soil samples.

An Alumina Column Extract Cleanup/Separation procedure developed by Dr. James Pagano of the State University College at Oswego (SUNY-ERC Method) was employed for the samples. This cleanup procedure was performed to reduce chromatographic interference from petroleum hydrocarbons and polychlorinated terphenyls (PCTs) known to be present at the study site. Reference chromatograms for PCT and the PCT Surrogate "Sentinel" are provided for visual comparison to actual samples for assessment of PCT breakthrough during the Alumina column cleanup process.

The following technical and administrative items were noted for the analysis:

- 1.) The surrogate compounds DCBP and TCMX were diluted out for several samples in this Delivery Group due to the high concentration of PCB contained in the samples. (Please see Form 2 for details.)
- 2.) The percent recovery for the Surrogate Compound (DCBP) was below lab established limits for samples (NEA ID: AG13262 and AG13269) for the second column analysis. The secondary TCMX surrogate recovery was within acceptance limits for the samples.
- 3.) The percent recovery for the Matrix Spike Sample (NEA ID: AG13261M) exceeded lab established limits (Please see Form 3 for details)
- 4.) The percent difference between the concentrations for the Primary and Secondary G.C. column exceeded the protocol default limit (25%) for one or more Aroclor for samples (NEA ID: AG13326, AG13327, AG13328, AG13329, AG13330, AG13331, AG13332 and AG13336). The affected concentration results were flagged (P) on the associated Form 1. Please see Forms 10 and Forms 1 for details.


000004

- 5.) Aroclor pattern quantitation notes (footnotes: "i" and "ii") were applied to several samples in this delivery group to denote that altered Aroclor patterns were observed, and to describe the total Aroclor quantitation scheme that was employed for the samples. Please see Form 1 Concentration Summaries for specific details.
- 6.) Several samples in this delivery group exhibited chromatographic interference from a late eluting multi-response non-target contaminant present in the sample matrix. Please see associated Chromatograms for details.

PCB Analysis Qualifier Summary:

I. CLP Organic analysis qualifiers were used for all Organics analyses.

This Case Narrative was prepared by,



William A. Kotas
Quality Assurance Officer

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Sample Compliance Report

SAMPLE COMPLIANCE REPORT

Sample Delivery Group	Sampling Date	ASP Protocol	Sample ID	Matrix	Compliance ¹				Noncompliance
					VOA	BNA	PCB	TOC	
AG13324-36	9/02/03	2000	GH03.5 (1.5-2')	soil	--	--	yes	--	
AG13324-36	9/02/03	2000	DUP-2	soil	--	--	no	--	PCB - id
AG13324-36	9/02/03	2000	GH03.5 (2-2.5')	soil	--	--	no	--	PCB - id
AG13324-36	9/02/03	2000	GH03.5 (2.5-3')	soil	--	--	no	--	PCB - id
AG13324-36	9/02/03	2000	GH03.5 (3-3.5')	soil	--	--	no	--	PCB - id
AG13324-36	9/02/03	2000	GH03.5 (3.5-4')	soil	--	--	no	--	PCB - id
AG13324-36	9/02/03	2000	GH03.5 (4-4.5')	soil	--	--	no	--	PCB - id
AG13324-36	9/02/03	2000	GH03.5 (4.5-5')	soil	--	--	no	--	PCB - id
AG13324-36	9/02/03	2000	GH03.5 (5-5.5')	soil	--	--	no	--	PCB - id
AG13324-36	9/02/03	2000	GH03.5 (5.5-6')	soil	--	--	yes	--	
AG13324-36	9/02/03	2000	GH03.5 (6-6.5')	soil	--	--	yes	--	
AG13324-36	9/02/03	2000	GH03.5 (6.5-6.8')	soil	--	--	yes	--	
AG13324-36	9/02/03	2000	DUP-3	soil	--	--	no	--	PCB - id

1 Samples which are compliant with no added validation qualifiers are listed as "yes". Samples which are non-compliant or which have added qualifiers are listed as "no". A "no" designation does not necessarily indicate that the data have been rejected or are otherwise unusable.