



October 2, 2000

Service Request No: K2006704

John Strand
Columbia Biological Assessments
1314 Cedar
Richland, WA 99352

Re: Water/Sediment Quality Monitoring/00-101G

Dear John:

Enclosed are the results of the sample(s) submitted to our laboratory on August 30, 2000. For your reference, these analyses have been assigned our service request number K2006704.

All analyses were performed according to our laboratory's quality assurance program. All results are intended to be considered in their entirety, and Columbia Analytical Services, Inc. (CAS) is not responsible for use of less than the complete report. Results apply only to the samples analyzed.

Please call if you have any questions. My extension is 3316.

Respectfully submitted,

Columbia Analytical Services, Inc.

Jeff Christian
Laboratory Director



JC/gl

Page 1 of 45

Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

00002

AR 021561

Inorganic Data Qualifiers

- The result is an outlier. See case narrative.
- # The control limit criteria is not applicable. See case narrative.
- B The analyte was found in the associated method blank at a level that is significant relative to the sample result.
- E The result is an estimate amount because the value exceeded the instrument calibration range.
- J The result is an estimated concentration that is less than the MRL but greater than or equal to the MDL.
- U The compound was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
- i The MRL/MDL has been elevated due to a matrix interference.
- X See case narrative.

Metals Data Qualifiers

- # The control limit criteria is not applicable. See case narrative.
- B The result is an estimated concentration that is less than the MRL but greater than or equal to the MDL.
- E The reported value is estimated because of the presence of matrix interference.
- M The duplicate injection precision was not met.
- N The Matrix Spike sample recovery is not within control limits. See case narrative.
- S The reported value was determined by the Method of Standard Additions (MSA).
- U The compound was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
- W The post-digestion spike for furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance.
- i The MRL/MDL has been elevated due to a matrix interference.
- X See case narrative.
- * The duplicate analysis not within control limits. See case narrative.
- + The correlation coefficient for the MSA is less than 0.995.

Organic Data Qualifiers

- The result is an outlier. See case narrative.
- # The control limit criteria is not applicable. See case narrative.
- A A tentatively identified compound, a suspected aldol-condensation product.
- B The analyte was found in the associated method blank at a level that is significant relative to the sample result.
- C The analyte was qualitatively confirmed using GC/MS techniques, pattern recognition, or by comparing to historical data.
- D The reported result is from a dilution.
- E The result is an estimate amount because the value exceeded the instrument calibration range.
- J The result is an estimated concentration that is less than the MRL but greater than or equal to the MDL.
- N The result is presumptive. The analyte was tentatively identified, but a confirmation analysis was not performed.
- p The GC or HPLC confirmation criteria was exceeded. The relative percent difference is greater than 40% between the two analytical results (25% for CLP Pesticides).
- U The compound was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
- i The MRL/MDL has been elevated due to a matrix interference.
- X See case narrative.

Additional Petroleum Hydrocarbon Specific Qualifiers

- F The chromatographic fingerprint of the sample matches the elution pattern of the calibration standard.
- L The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of lighter molecular weight constituents than the calibration standard.
- H The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of heavier molecular weight constituents than the calibration standard.
- O The chromatographic fingerprint of the sample resembles an oil, but does not match the calibration standard.
- Y The chromatographic fingerprint of the sample resembles a petroleum product eluting in approximately the correct carbon range, but the elution pattern does not match the calibration standard.
- Z The chromatographic fingerprint does not resemble a petroleum product.

00003

AR 021562

COLUMBIA ANALYTICAL SERVICES, INC.

Client: Airport Communities Coalition
Project: Water/Sediment Quality Monitoring
Sample Matrix: Water/Sediment/Tissue

Service Request No.: K2006704
Date Received: 8/30/00

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of Columbia Analytical Services, Inc. (CAS). This report contains analytical results for sample(s) designated for Tier II data deliverables. When appropriate to the method, method blank results have been reported with each analytical test. Surrogate recoveries have been reported for all applicable organic analyses. Additional quality control analyses reported herein include: Laboratory Duplicate (DUP), Matrix Spike (MS), Matrix/Duplicate Matrix Spike (MS/DMS), and Laboratory Control Sample (LCS).

Turbidity

No anomalies associated with the analysis of these samples were observed.

TSS

Due to an internal tracking error, samples IA-8, IIB-8, IIA-8, and IB-8 were analyzed three days past the EPA recommended hold time. Although the technical ramifications of the extended hold time are probably insignificant, the error is still in violation of the method. The oversight was reported to John Strand (Columbia Biological Assessments). No further corrective action was possible.

Metals

No anomalies associated with the analysis of these samples were observed.

PCB Aroclors

MS Percent Recovery Exceptions:

The control criteria for the Matrix/Duplicate Matrix Spike recovery of AR1016 and AR1260 for the "Batch QC" sample is not applicable. The sample contained an elevated Aroclor 1248 concentration. When Aroclor 1248 is present at significantly high concentration, complete resolution of Aroclors 1016 and 1260 is not possible. Thus, the concentrations listed on the MS/MSD summary page are not applicable. The associated LCS recoveries were within acceptance limits, indicating the analysis was in control.

Elevated MRLs:

Sample IA-6 had to be diluted. The sample was still very dark (i.e. indication of high organic extractables) after GPC clean-up, so the extract was brought to a 4mL final volume rather than the normal 2mL final volume. The reporting limits have been elevated accordingly.

Approved by



Date

10/2/00

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AR 021563

Pesticides

Surrogate Exceptions:

The control criteria were exceeded for the following surrogate(s) in sample K2006693-012MS (i.e. "Batch QC") due to matrix interferences: DCB. The chromatogram showed background matrix components that could not be completely resolved from the surrogate peak. The contribution from the matrix is reflected in the elevated recovery. The quality of the data is not impacted by the surrogate recovery of 123%.

Elevated MRLs:

Sample IA-6 had to be diluted. The sample was still very dark (i.e. indication of high organic extractables) after GPC clean-up, so the extract was brought to a 4mL final volume rather than the normal 2mL final volume. The reporting limits have been elevated accordingly.

Fuel Identification and Quantification (FIO)

No anomalies associated with the analysis of these samples were observed.

Approved by _____



Date _____

10/2/00

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AR 021564

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Airport Communities Coalition
Project: Water/Sediment Quality Monitoring/00-101G
Sample Matrix: Sediment

Service Request: K2006704
Date Collected: 8/29/00
Date Received: 8/30/00

Total Solids

Prep Method: NONE
Analysis Method: 160.3M
Test Notes:

Units: Percent
Basis: WET

Sample Name	Lab Code	Date Analyzed	Result	Result Notes
IA-4	K2006704-004	9/6/00	71.5	
IA-5	K2006704-005	9/6/00	68.9	
IA-6	K2006704-006	9/6/00	77.1	
IIB-4	K2006704-013	9/6/00	78.7	
IIB-5	K2006704-014	9/6/00	65.7	
IIB-6	K2006704-015	9/6/00	78.9	
IIA-4	K2006704-022	9/6/00	19.8	
IIA-5	K2006704-023	9/6/00	53.1	
IIA-6	K2006704-024	9/6/00	40.7	
IB-4	K2006704-034	9/6/00	71.0	
IB-5	K2006704-035	9/6/00	75.1	
IB-6	K2006704-036	9/6/00	69.3	

Approved By: *WJ*

Date: 9/13/00

Total Solids/0402095

06704(CP.AB1) - Total Solids 9/8/00

00005

AR 021565

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Airport Communities Coalition
Project: Water/Sediment Quality Monitoring
Sample Matrix: Water

Service Request: K2006704
Date Collected: 8/28,29/00
Date Received: 8/30/00
Date Extracted: NA

Inorganic Parameters
Units: mg/L (ppm)

Analyte:	Solids, Total	Turbidity (NTU)
EPA Method:	Suspended	180.1
Method Reporting Limit:	5	0.1
Date Analyzed:	9/2,8/00	9/5/00

Sample Name	Lab Code		
IA-8 <i>52518</i>	K2006704-008	ND	1.5
IIB-8 <i>5200thS</i>	K2006704-017	ND	0.8
IIA-8 <i>Site DM Remedial PK</i>	K2006704-025	ND	1.3
IIIA-1 <i>Industrial PK - DM</i>	K2006704-030	29	8.6
IB-8 <i>5157th PI</i>	K2006704-038	7	1.6
Method Blank	K2006704-MB	ND	ND

Approved By: _____

Date: *9/4/00*

3ADW/061694
06704WET.PW1 - 3_Tests 9/9/00

00007 Page No:

AR 021566

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Airport Communities Coalition
 Project: Water/Sediment Quality Monitoring/00-101G
 Sample Matrix: Water

Service Request: K2006704
 Date Collected: 8/29/00
 Date Received: 8/30/00
 Date Extracted: 9/22/00

Total Metals
 Units: µg/L (ppb)

Analyte:	Copper	Lead	Zinc
EPA Method:	200.8	200.8	200.8
Method Reporting Limit:	0.1	0.02	0.5
Date Analyzed:	9/24/00	9/24/00	9/24/00

Sample Name	Lab Code	Copper	Lead	Zinc
IA-1 } SR-514	K2006704-001	1.3	0.66	6.9
IA-2 }	K2006704-002	1.4	0.61	7.2
IA-3 }	K2006704-003	1.4	0.67	7.1
IIB-1 } S 200th St	K2006704-010	2.8	2.06	14.1
IIB-2 }	K2006704-011	1.3	0.18	5.2
IIA-1 }	K2006704-019	0.7	0.15	3.6
IIA-2 } ditch at Des Moines	K2006704-020	0.7	0.04	3.6
IIA-3 } Memorial Parkway	K2006704-021	0.8	0.04	4.3
IIVA-1 } Daniels Creek (cottage lk)	K2006704-027	3.3	0.22	2.8
IB-1 } S 157th Pl	K2006704-031	1.2	0.65	3.7
IB-2 }	K2006704-032	1.8	2.46	16.4
IB-3 }	K2006704-033	1.0	0.52	3.3
Method Blank	K2006704-MB	ND	ND	ND

* lower down on west branch of Des Moines Creek, yet above Tyea Golf L.

Approved By: _____

Date: 9/30/00

3A-EPA/102694

06704ICP.BR.1 - Sample 9/27/00

00008

Page No.

AR 021567

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Airport Communities Coalition
Project: Water/Sediment Quality Monitoring/00-101G
Sample Matrix: Sediment

Service Request: K2006704
Date Collected: 8/29/00
Date Received: 8/30/00
Date Extracted: 9/14/00

Total Metals
 Units: mg/Kg (ppm)
 Dry Weight Basis

Analyte:	Copper	Lead	Zinc
EPA Method:	200.8	200.8	200.8
Method Reporting Limit:	0.1	0.05	0.5
Date Analyzed:	9/15/00	9/15/00	9/15/00

Sample Name	Lab Code			
IA-4 } <i>SR 5A</i>	K2006704-004	13.4	47.9	91.1
	K2006704-005	11.9	44.3	85.1
	K2006704-006	12.4	38.2	79.7
IIIB-4 } <i>S 200th St North</i>	K2006704-013	7.3	7.08	39.2
IIIB-5 } <i>" " South 1</i>	K2006704-014	13.2	20.8	79.2
IIIB-6 } <i>" " South 2</i>	K2006704-015	6.5	9.41	55.1
IIA-4 } <i>Hotel Des Mines</i>	K2006704-022	36.2	128	308
IIA-5 } <i>Memorial Parkway</i>	K2006704-023	23.3	43.1	120
IIA-6 } <i>Memorial Parkway</i>	K2006704-024	42.4	73.5	170
IB-4 } <i>S 157th Pl</i>	K2006704-034	21.5	19.4	81.8
	K2006704-035	8.1	27.6	77.5
	K2006704-036	7.9	19.6	95.3
Method Blank	K2006704-MB	ND	ND	ND

Approved By: _____ *JL* Date: 9/20/02

3A/EPA/102694
 06704/CP.BR2 - Sample 9/27/00

Page No.:
00009

AR 021568

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Airport Communities Coalition
Project: Water/Sediment Quality Monitoring/00-101G
Sample Matrix: Tissue

Service Request: K2006704
Date Collected: 8/29/00
Date Received: 8/30/00


Solids, Total

Prep Method: NONE
Analysis Method: Freeze Dry
Test Notes:

Units: PERCENT
Basis: Wet

Sample Name	Lab Code	Date Analyzed	Result	Result Notes
IA-7	K2006704-007	9/14/00	20.1	
IB-7	K2006704-016	9/14/00	25.0	
IYA-3 <i>Sediment Co (Lebanon, OH)</i>	K2006704-029	9/14/00	26.6	
IB-7	K2006704-037	9/14/00	23.7	

Approved By: _____



Date: _____



IA/052595

06704/CP.JC1 - Sample 9/20/00

00010

Page No.

AR 021569

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Airport Communities Coalition
 Project: Water/Sediment Quality Monitoring/00-101G
 Sample Matrix: Tissue

Service Request: K2006704
 Date Collected: 8/29/00
 Date Received: 8/30/00
 Date Extracted: 9/22/00

Total Metals
 Units: mg/Kg (ppm)
 Dry Weight Basis

Analyte:	Copper	Lead	Zinc
EPA Method:	200.8	200.8	200.8
Method Reporting Limit:	0.1	0.02	0.5
Date Analyzed:	9/26/00	9/26/00	9/26/00

Sample Name	Lab Code	Copper	Lead	Zinc
IA-7 <i>S 157th Pl - cutthroat</i>	K2006704-007	6.5	0.31	145
IB-7 <i>13th Ave - crayfish</i>	K2006704-016	128	0.36	68.5
IVA-3 <i>Dumais Cr. cutthroat</i>	K2006704-029	2.0	0.04	71.3
IB-7 <i>S 157th Pl - crayfish</i>	K2006704-037	116	1.41	81.7
Method Blank	K2006704-MB	ND	ND	ND

Approved By: _____ *JK* Date: 9/30/00

3A-EPA/102694

06704CP.BR3 - Sample 9/27/00

Page No.:

00011

AR 021570

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Airport Communities Coalition
 Project: Water/Sediment Quality Monitoring/00-101G
 Sample Matrix: Sediment

Service Request: K2006704
 Date Collected: 8/8/99
 Date Received: 9/1/00

Organochlorine Pesticides

Sample Name: IA-6 *20514*
 Lab Code: K2006704-006
 Test Notes: X

Units: ug/Kg (ppb)
 Basis: Dry

Analyte	Prep Method	Analysis Method	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
alpha-BHC	EPA 3540C	8081A	2	0.3	1	9/6/00	9/23/00	ND	
beta-BHC	EPA 3540C	8081A	2	0.3	1	9/6/00	9/23/00	ND	
gamma-BHC (Lindane)	EPA 3540C	8081A	2	0.5	1	9/6/00	9/23/00	ND	
delta-BHC	EPA 3540C	8081A	2	0.3	1	9/6/00	9/23/00	ND	
Heptachlor	EPA 3540C	8081A	2	0.4	1	9/6/00	9/23/00	ND	
Aldrin	EPA 3540C	8081A	2	0.5	1	9/6/00	9/23/00	ND	
Heptachlor Epoxide	EPA 3540C	8081A	2	0.6	1	9/6/00	9/23/00	ND	
gamma-Chlordane	EPA 3540C	8081A	2	0.4	1	9/6/00	9/23/00	ND	
Endosulfan I	EPA 3540C	8081A	2	0.2	1	9/6/00	9/23/00	ND	
alpha-Chlordane	EPA 3540C	8081A	2	0.3	1	9/6/00	9/23/00	ND	
Dieldrin	EPA 3540C	8081A	2	0.4	1	9/6/00	9/23/00	ND	
4,4'-DDE	EPA 3540C	8081A	2	0.3	1	9/6/00	9/23/00	ND	
Endrin	EPA 3540C	8081A	2	0.3	1	9/6/00	9/23/00	ND	
Endosulfan II	EPA 3540C	8081A	2	0.4	1	9/6/00	9/23/00	ND	
4,4'-DDD	EPA 3540C	8081A	2	0.5	1	9/6/00	9/23/00	ND	
Endrin Aldehyde	EPA 3540C	8081A	2	0.3	1	9/6/00	9/23/00	ND	
Endosulfan Sulfate	EPA 3540C	8081A	2	0.4	1	9/6/00	9/23/00	ND	
4,4'-DDT	EPA 3540C	8081A	2	0.2	1	9/6/00	9/23/00	ND	
Endrin Ketone	EPA 3540C	8081A	2	0.4	1	9/6/00	9/23/00	ND	
Methoxychlor	EPA 3540C	8081A	2	0.6	1	9/6/00	9/23/00	ND	
Toxaphene	EPA 3540C	8081A	100	10	1	9/6/00	9/23/00	ND	

Approved By: VN

Date: 9-27-00

1522/020597p

067045VG.AY1 - 6/9/26/00

00012 Page No.:

AR 021571

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Airport Communities Coalition
Project: Water/Sediment Quality Monitoring/00-101G
Sample Matrix: Sediment

Service Request: K2006704
Date Collected: NA
Date Received: NA

Organochlorine Pesticides

Sample Name: Method Blank
Lab Code: KWG2003820-7
Test Notes:

Units: ug/Kg (ppb)
Basis: Dry

Analyte	Prep Method	Analysis Method	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
alpha-BHC	EPA 3540C	8081A	1	0.3	1	9/6/00	9/21/00	ND	
beta-BHC	EPA 3540C	8081A	1	0.3	1	9/6/00	9/21/00	ND	
gamma-BHC (Lindane)	EPA 3540C	8081A	1	0.5	1	9/6/00	9/21/00	ND	
delta-BHC	EPA 3540C	8081A	1	0.3	1	9/6/00	9/21/00	ND	
Heptachlor	EPA 3540C	8081A	1	0.4	1	9/6/00	9/21/00	ND	
Aldrin	EPA 3540C	8081A	1	0.5	1	9/6/00	9/21/00	ND	
Heptachlor Epoxide	EPA 3540C	8081A	1	0.6	1	9/6/00	9/21/00	ND	
gamma-Chlordane	EPA 3540C	8081A	1	0.4	1	9/6/00	9/21/00	ND	
Endosulfan I	EPA 3540C	8081A	1	0.2	1	9/6/00	9/21/00	ND	
alpha-Chlordane	EPA 3540C	8081A	1	0.3	1	9/6/00	9/21/00	ND	
Dieldrin	EPA 3540C	8081A	1	0.4	1	9/6/00	9/21/00	ND	
4,4'-DDE	EPA 3540C	8081A	1	0.3	1	9/6/00	9/21/00	ND	
Endrin	EPA 3540C	8081A	1	0.3	1	9/6/00	9/21/00	ND	
Endosulfan II	EPA 3540C	8081A	1	0.4	1	9/6/00	9/21/00	ND	
4,4'-DDD	EPA 3540C	8081A	1	0.5	1	9/6/00	9/21/00	ND	
Endrin Aldehyde	EPA 3540C	8081A	1	0.3	1	9/6/00	9/21/00	ND	
Endosulfan Sulfate	EPA 3540C	8081A	1	0.4	1	9/6/00	9/21/00	ND	
4,4'-DDT	EPA 3540C	8081A	1	0.2	1	9/6/00	9/21/00	ND	
Endrin Ketone	EPA 3540C	8081A	1	0.4	1	9/6/00	9/21/00	ND	
Methoxychlor	EPA 3540C	8081A	1	0.6	1	9/6/00	9/21/00	ND	
Toxaphene	EPA 3540C	8081A	50	10	1	9/6/00	9/21/00	ND	

Approved By: VN

Date: 9-27-00

1S22/020597p

067045VG.AY1 - MB 9/26/00

Page No.:

00013

AR 021572

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Airport Communities Coalition
Project: Water/Sediment Quality Monitoring/00-101G
Sample Matrix: Sediment

Service Request: K2006704
Date Collected: 8/29/00
Date Received: 8/30/00

Polychlorinated Biphenyls (PCBs)

Sample Name: IA-6
Lab Code: K2006704-006
Test Notes: X

Units: ug/Kg (ppb)
Basis: Dry

Analyte	Prep Method	Analysis Method	MRL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Aroclor 1016	EPA 3540C	8082	20	1	9/6/00	9/20/00	ND	
Aroclor 1221	EPA 3540C	8082	40	1	9/6/00	9/20/00	ND	
Aroclor 1232	EPA 3540C	8082	20	1	9/6/00	9/20/00	ND	
Aroclor 1242	EPA 3540C	8082	20	1	9/6/00	9/20/00	ND	
Aroclor 1248	EPA 3540C	8082	20	1	9/6/00	9/20/00	ND	
Aroclor 1254	EPA 3540C	8082	20	1	9/6/00	9/20/00	ND	
Aroclor 1260	EPA 3540C	8082	20	1	9/6/00	9/20/00	ND	

Approved By: *TS* Date: 9/22/00

1S22/020597p

067045VG.VN1 - 1 9/22/00

00014

Page No.:

AR 021573

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Airport Communities Coalition
Project: Water/Sediment Quality Monitoring/00-101G
Sample Matrix: Sediment

Service Request: K2006704
Date Collected: NA
Date Received: NA

Polychlorinated Biphenyls (PCBs)

Sample Name: Method Blank
Lab Code: KWG2003820-7
Test Notes:

Units: ug/Kg (ppb)
Basis: Dry

Analyte	Prep Method	Analysis Method	MRL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Aroclor 1016	EPA 3540C	8082	10	1	9/6/00	9/20/00	ND	
Aroclor 1221	EPA 3540C	8082	20	1	9/6/00	9/20/00	ND	
Aroclor 1232	EPA 3540C	8082	10	1	9/6/00	9/20/00	ND	
Aroclor 1242	EPA 3540C	8082	10	1	9/6/00	9/20/00	ND	
Aroclor 1248	EPA 3540C	8082	10	1	9/6/00	9/20/00	ND	
Aroclor 1254	EPA 3540C	8082	10	1	9/6/00	9/20/00	ND	
Aroclor 1260	EPA 3540C	8082	10	1	9/6/00	9/20/00	ND	

Approved By: _____ Date: 9/22/00

1522/020597p

06704SVG.VN1 - MB 9/22/00

00015 Page No.:

AR 021574

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Airport Communities Coalition
 Project: Water/Sediment Quality Monitoring/00-101G
 Sample Matrix: Water

Service Request: K2006704
 Date Collected: 8/29/00
 Date Received: 8/30/00

Semivolatile Petroleum Products
 Fuel Identification and Quantitation (FIQ) Hydrocarbon Scan

Sample Name: IA-9 *SR08*
 Lab Code: K2006704-009
 Test Notes:

Units: ug/L (ppb)
 Basis: NA

Analyte	Prep Method	Analysis Method	MRL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Gasoline	EPA 3510C	8015B	100	1	9/1/00	9/14/00	ND	*
Naphtha Distillate	EPA 3510C	8015B	100	1	9/1/00	9/14/00	ND	*
Jet Fuel as JP-4	EPA 3510C	8015B	100	1	9/1/00	9/14/00	ND	*
Mineral Spirits	EPA 3510C	8015B	100	1	9/1/00	9/14/00	ND	
Jet Fuel as Jet A	EPA 3510C	8015B	100	1	9/1/00	9/14/00	ND	
Kerosene	EPA 3510C	8015B	100	1	9/1/00	9/14/00	ND	
Diesel	EPA 3510C	8015B	100	1	9/1/00	9/14/00	ND	
Heavy Fuel Oil	EPA 3510C	8015B	250	1	9/1/00	9/14/00	ND	
Lube Oil	EPA 3510C	8015B	250	1	9/1/00	9/14/00	ND	
PHC as Diesel	EPA 3510C	8015B	250	1	9/1/00	9/14/00	ND	
Non-PHC as Diesel	EPA 3510C	8015B	500	1	9/1/00	9/14/00	ND	

* Semi-quantitative. Results are expected to exhibit a low bias due to the extraction procedure.
 PHC as Diesel Fuel: Extractable Petroleum Hydrocarbon fingerprint not matching any of the target analytes.
 Non-PHC as Diesel: Non-Petroleum Hydrocarbon components eluting in the extractable range of n-C8 - n-C44.

Approved By: _____ *W* Date: 9/29/00

1522/020597p

06704PHCLL1 - 9 9/29/00

Page No.:

00016

AR 021575

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Airport Communities Coalition
 Project: Water/Sediment Quality Monitoring/00-101G
 Sample Matrix: Water

Service Request: K2006704
 Date Collected: 8/29/00
 Date Received: 8/30/00

Semivolatile Petroleum Products
 Fuel Identification and Quantitation (FIQ) Hydrocarbon Scan

Sample Name: IIB-9 *S200st*
 Lab Code: K2006704-018
 Test Notes:

Units: ug/L (ppb)
 Basis: NA

Analyte	Prep Method	Analysis Method	MRL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Gasoline	EPA 3510C	8015B	100	1	9/1/00	9/14/00	ND	*
Naphtha Distillate	EPA 3510C	8015B	100	1	9/1/00	9/14/00	ND	*
Jet Fuel as JP-4	EPA 3510C	8015B	100	1	9/1/00	9/14/00	ND	*
Mineral Spirits	EPA 3510C	8015B	100	1	9/1/00	9/14/00	ND	
Jet Fuel as Jet A	EPA 3510C	8015B	100	1	9/1/00	9/14/00	ND	
Kerosene	EPA 3510C	8015B	100	1	9/1/00	9/14/00	ND	
Diesel	EPA 3510C	8015B	100	1	9/1/00	9/14/00	ND	
Heavy Fuel Oil	EPA 3510C	8015B	250	1	9/1/00	9/14/00	ND	
Lube Oil	EPA 3510C	8015B	250	1	9/1/00	9/14/00	ND	
PHC as Diesel	EPA 3510C	8015B	250	1	9/1/00	9/14/00	ND	
Non-PHC as Diesel	EPA 3510C	8015B	500	1	9/1/00	9/14/00	ND	

* Semi-quantitative. Results are expected to exhibit a low bias due to the extraction procedure.
 PHC as Diesel Fuel: Extractable Petroleum Hydrocarbon fingerprint not matching any of the target analytes.
 Non-PHC as Diesel: Non-Petroleum Hydrocarbon components eluting in the extractable range of n-C8 - n-C44.

Approved By: _____ *W* _____ Date: 9/21/00

1822/020597p

06704PHC.LL1 - 18 9/29/00

00017

Page No.:

AR 021576

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:
Project:
Sample Matrix:

Airport Communities Coalition
Water/Sediment Quality Monitoring/00-101G
Water

Service Request: K2006704
Date Collected: 8/29/00
Date Received: 8/30/00

Semivolatile Petroleum Products
Fuel Identification and Quantitation (FIQ) Hydrocarbon Scan

Sample Name:
Lab Code:
Test Notes:

IIA-9 31574 AL
K2006704-026

Units: ug/L (ppb)
Basis: NA

Analyte	Prep Method	Analysis Method	MRL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Gasoline	EPA 3510C	8015B	100	1	9/1/00	9/15/00	ND	*
Naphtha Distillate	EPA 3510C	8015B	100	1	9/1/00	9/15/00	ND	*
Jet Fuel as JP-4	EPA 3510C	8015B	100	1	9/1/00	9/15/00	ND	*
Mineral Spirits	EPA 3510C	8015B	100	1	9/1/00	9/15/00	ND	
Jet Fuel as Jet A	EPA 3510C	8015B	100	1	9/1/00	9/15/00	ND	
Kerosene	EPA 3510C	8015B	100	1	9/1/00	9/15/00	ND	
Diesel	EPA 3510C	8015B	100	1	9/1/00	9/15/00	ND	
Heavy Fuel Oil	EPA 3510C	8015B	250	1	9/1/00	9/15/00	ND	
Lube Oil	EPA 3510C	8015B	250	1	9/1/00	9/15/00	ND	
PHC as Diesel	EPA 3510C	8015B	250	1	9/1/00	9/15/00	ND	
Non-PHC as Diesel	EPA 3510C	8015B	500	1	9/1/00	9/15/00	ND	

* Semi-quantitative. Results are expected to exhibit a low bias due to the extraction procedure.
PHC as Diesel Fuel: Extractable Petroleum Hydrocarbon fingerprint not matching any of the target analytes.
Non-PHC as Diesel: Non-Petroleum Hydrocarbon components eluting in the extractable range of n-C8 - n-C44.

Approved By: _____

JW

Date: 9/29/00

1522/020597p

06704PHC.LL1 - 26 9/29/00

Page No.:

00018

AR 021577

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Airport Communities Coalition
Project: Water/Sediment Quality Monitoring/00-101G
Sample Matrix: Water

Service Request: K2006704
Date Collected: 8/28/00
Date Received: 8/30/00

Semivolatile Petroleum Products
 Fuel Identification and Quantitation (FIQ) Hydrocarbon Scan

Sample Name: IVA-2 *Demato Co (Cottage K)*
Lab Code: K2006704-028
Test Notes:

Units: ug/L (ppb)
Basis: NA

Analyte	Prep Method	Analysis Method	MRL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Gasoline	EPA 3510C	8015B	100	1	9/1/00	9/15/00	ND	*
Naphtha Distillate	EPA 3510C	8015B	100	1	9/1/00	9/15/00	ND	*
Jet Fuel as JP-4	EPA 3510C	8015B	100	1	9/1/00	9/15/00	ND	*
Mineral Spirits	EPA 3510C	8015B	100	1	9/1/00	9/15/00	ND	
Jet Fuel as Jet A	EPA 3510C	8015B	100	1	9/1/00	9/15/00	ND	
Kerosene	EPA 3510C	8015B	100	1	9/1/00	9/15/00	ND	
Diesel	EPA 3510C	8015B	100	1	9/1/00	9/15/00	ND	
Heavy Fuel Oil	EPA 3510C	8015B	250	1	9/1/00	9/15/00	ND	
Lube Oil	EPA 3510C	8015B	250	1	9/1/00	9/15/00	ND	
PHC as Diesel	EPA 3510C	8015B	250	1	9/1/00	9/15/00	ND	
Non-PHC as Diesel	EPA 3510C	8015B	500	1	9/1/00	9/15/00	ND	

* Semi-quantitative. Results are expected to exhibit a low bias due to the extraction procedure.
 PHC as Diesel Fuel: Extractable Petroleum Hydrocarbon fingerprint not matching any of the target analytes.
 Non-PHC as Diesel: Non-Petroleum Hydrocarbon components eluting in the extractable range of n-C8 - n-C44.

Approved By: _____ *74* Date: *9/29/00*

1S22/020597p

06704PHCLL1 - 28 9/29/00

Page No.:

00019

AR 021578

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Airport Communities Coalition
 Project: Water/Sediment Quality Monitoring/00-101G
 Sample Matrix: Water

Service Request: K2006704
 Date Collected: 8/29/00
 Date Received: 8/30/00

Semivolatile Petroleum Products
 Fuel Identification and Quantitation (FIQ) Hydrocarbon Scan

Sample Name: IB-9 *5157th A*
 Lab Code: K2006704-039
 Test Notes:

Units: ug/L (ppb)
 Basis: NA

Analyte	Prep Method	Analysis Method	MRL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Gasoline	EPA 3510C	8015B	100	1	9/1/00	9/15/00	ND	*
Naphtha Distillate	EPA 3510C	8015B	100	1	9/1/00	9/15/00	ND	*
Jet Fuel as JP-4	EPA 3510C	8015B	100	1	9/1/00	9/15/00	ND	*
Mineral Spirits	EPA 3510C	8015B	100	1	9/1/00	9/15/00	ND	
Jet Fuel as Jet A	EPA 3510C	8015B	100	1	9/1/00	9/15/00	ND	
Kerosene	EPA 3510C	8015B	100	1	9/1/00	9/15/00	ND	
Diesel	EPA 3510C	8015B	100	1	9/1/00	9/15/00	ND	
Heavy Fuel Oil	EPA 3510C	8015B	250	1	9/1/00	9/15/00	ND	
Lube Oil	EPA 3510C	8015B	250	1	9/1/00	9/15/00	ND	
PHC as Diesel	EPA 3510C	8015B	250	1	9/1/00	9/15/00	ND	
Non-PHC as Diesel	EPA 3510C	8015B	500	1	9/1/00	9/15/00	ND	

* Semi-quantitative. Results are expected to exhibit a low bias due to the extraction procedure.
 PHC as Diesel Fuel: Extractable Petroleum Hydrocarbon fingerprint not matching any of the target analytes.
 Non-PHC as Diesel: Non-Petroleum Hydrocarbon components eluting in the extractable range of n-C8 - n-C44.

Approved By: _____ *TL* Date: 10/2/00

1822/020597p

06704PHC.LL1 - 39 10/2/00

Page No.:

00020

AR 021579

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Airport Communities Coalition
Project: Water/Sediment Quality Monitoring/00-101G
Sample Matrix: Water

Service Request: K2006704
Date Collected: NA
Date Received: NA

**Semivolatile Petroleum Products
 Fuel Identification and Quantitation (FIQ) Hydrocarbon Scan**

Sample Name: Method Blank
Lab Code: K000901-WB
Test Notes:

Units: ug/L (ppb)
Basis: NA

Analyte	Prep Method	Analysis Method	MRL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Gasoline	EPA 3510C	8015B	100	1	9/1/00	9/14/00	ND	*
Naphtha Distillate	EPA 3510C	8015B	100	1	9/1/00	9/14/00	ND	*
Jet Fuel as JP-4	EPA 3510C	8015B	100	1	9/1/00	9/14/00	ND	*
Mineral Spirits	EPA 3510C	8015B	100	1	9/1/00	9/14/00	ND	
Jet Fuel as Jet A	EPA 3510C	8015B	100	1	9/1/00	9/14/00	ND	
Kerosene	EPA 3510C	8015B	100	1	9/1/00	9/14/00	ND	
Diesel	EPA 3510C	8015B	100	1	9/1/00	9/14/00	ND	
Heavy Fuel Oil	EPA 3510C	8015B	250	1	9/1/00	9/14/00	ND	
Lube Oil	EPA 3510C	8015B	250	1	9/1/00	9/14/00	ND	
PHC as Diesel	EPA 3510C	8015B	250	1	9/1/00	9/14/00	ND	
Non-PHC as Diesel	EPA 3510C	8015B	500	1	9/1/00	9/14/00	ND	

* Semi-quantitative. Results are expected to exhibit a low bias due to the extraction procedure.
 PHC as Diesel Fuel: Extractable Petroleum Hydrocarbon fingerprint not matching any of the target analytes.
 Non-PHC as Diesel: Non-Petroleum Hydrocarbon components eluting in the extractable range of n-C8 - n-C44.

Approved By: _____ *TV* Date: 10/2/00

1572/020597p

06704PHC.LL1 - MB 9/29/00

Page No.:

00021

AR 021580

**APPENDIX A
QA/QC RESULTS**

00022

AR 021581

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Airport Communities Coalition
Project: Water/Sediment Quality Monitoring/00-101G
Sample Matrix: Sediment

Service Request: K2006704
Date Collected: 8/29/00
Date Received: 8/30/00

Duplicate Summary
Total Solids

Prep Method: NONE
Analysis Method: 160.3M
Test Notes:

Units: PERCENT
Basis: WET

Sample Name	Lab Code	Date Analyzed	Sample Result	Duplicate Sample Result	Average	Relative Percent Difference	Result Notes
IA-4	K2006704-004DUP	9/6/00	71.5	73.0	72.3	2	

Approved By: 

Date: 9/13/00

Total Solids/060995
06704ICP.AB1 - TS DUP 9/8/00

00023

Page No.:

AR 021582

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Airport Communities Coalition
Project: Water/Sediment Quality Monitoring
Sample Matrix: Water

Service Request: K2006704
Date Collected: 8/28,29/00
Date Received: 8/30/00
Date Extracted: NA

Duplicate Summary
Inorganic Parameters
Units: mg/L (ppm)

Sample Name: IIIA-1
Lab Code: K2006704-030DUP

Analyte	EPA Method	MRL	Sample Result	Duplicate Sample Result	Average	Relative Percent Difference
Solids, Total Dissolved (TDS)	160.1	5	29	26	28	11
Turbidity (NTU)	180.1	0.1	8.6	8.5	8.6	1

Approved By: _____



Date: _____

9/14/00

DUP1SEPA/102194

06704WET.PW1 - MixedDup 9/9/00

Page No.:

00024

AR 021583

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Airport Communities Coalition
Project: Water/Sediment Quality Monitoring/00-101G
Sample Matrix: Water

Service Request: K2006704
Date Collected: 8/29/00
Date Received: 8/30/00
Date Extracted: 9/22/00
Date Analyzed: 9/24/00

Duplicate Summary
Total Metals
Units: µg/L (ppb)

Sample Name: IIB-1
Lab Code: K2006704-010DUP

Analyte	EPA Method	MRL	Sample Result	Duplicate Sample Result	Average	Relative Percent Difference
Copper	200.8	0.1	2.7	2.7	2.7	<1
Lead	200.8	0.02	2.06	2.09	2.08	1
Zinc	200.8	0.5	14.1	14.2	14.2	<1

Approved By: _____



Date: _____

9/30/00

DUP1SEPA/102194

06704C7.BR1 - DUP 9/27/00

Page No.:

00025

AR 021584

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Airport Communities Coalition
Project: Water/Sediment Quality Monitoring/00-101G
Sample Matrix: Water

Service Request: K2006704
Date Collected: 8/29/00
Date Received: 8/30/00
Date Extracted: 9/22/00
Date Analyzed: 9/24/00

Matrix Spike Summary
Total Metals
Units: µg/L (ppb)

Sample Name: IIB-1
Lab Code: K2006704-010MS

Analyte	MRL	Spike Level	Sample Result	Spiked Sample Result	Percent Recovery	CAS Percent Recovery Acceptance Limits
Copper	0.1	20	2.7	21.4	94	75-125
Lead	0.02	20	2.06	21.2	96	75-125
Zinc	0.5	20	14.1	32.4	92	75-125

Approved By: _____



Date: _____

9/30/00

MS1S/102194

06704ICP.BR.1 - Spike 9/27/00

Page No:

00026

AR 021585

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Airport Communities Coalition
Project: Water/Sediment Quality Monitoring/00-101G
Sample Matrix: Sediment

Service Request: K2006704
Date Collected: 8/29/00
Date Received: 8/30/00
Date Extracted: 9/14/00
Date Analyzed: 9/15/00

Duplicate Summary
Total Metals
Units: mg/Kg (ppm)
Dry Weight Basis

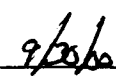
Sample Name: IA-4
Lab Code: K2006704-004MS

Analyte	EPA Method	MRL	Sample Result	Duplicate Sample Result	Average	Relative Percent Difference
Copper	200.8	0.1	13.4	12.3	12.8	9
Lead	200.8	0.05	47.9	52.7	50.3	10
Zinc	200.8	0.5	91.1	95.9	93.5	5

Approved By: _____



Date: _____



DUP1SEPA/102194

06704CP.BR2 - DUP 9/30/00

Page No.:

00027

AR 021586

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Airport Communities Coalition
Project: Water/Sediment Quality Monitoring/00-101G
Sample Matrix: Sediment

Service Request: K2006704
Date Collected: 8/29/00
Date Received: 8/30/00
Date Extracted: 9/14/00
Date Analyzed: 9/15/00

Matrix Spike Summary
Total Metals
Units: mg/Kg (ppm)
Dry Weight Basis

Sample Name: IA-4
Lab Code: K2006704-004MS

Analyte	MRL	Spike Level	Sample Result	Spiked Sample Result	Percent Recovery	CAS Percent Recovery Acceptance Limits
Copper	0.1	43	13.4	64.6	119	70-130
Lead	0.05	120	47.9	161	94	70-130
Zinc	0.5	120	91.1	190	82	70-130

Approved By: _____



Date: _____

9/30/00

MS1S/102194

06704ICP.BR2 - Spike 9/27/00

00028

Page No.

AR 021587

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Airport Communities Coalition
Project: Water/Sediment Quality Monitoring/00-101G
Sample Matrix: Tissue

Service Request: K2006704
Date Collected: 8/29/00
Date Received: 8/30/00
Date Extracted: NA
Date Analyzed: 9/14/00

Duplicate Summary
Total Metals

Sample Name: IVA-3
Lab Code: K2006704-029
Test Notes:

Units: PERCENT
Basis: Wet

Analyte	Prep Method	Analysis Method	Sample Result	Duplicate Sample Result	Average	Relative Percent Difference	Result Notes
Solids, Total	NA	Freeze Dry	26.6	26.2	26.4	2	

Approved By: _____ Date: 9/25/00

DUP/052595
06704/CP.JC1 - DUP 9/20/00

00029

Page No.:

AR 021588

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Airport Communities Coalition
Project: Water/Sediment Quality Monitoring/00-101G
Sample Matrix: Tissue

Service Request: K2006704
Date Collected: 8/29/00
Date Received: 8/30/00
Date Extracted: 9/22/00
Date Analyzed: 9/26/00

Duplicate Summary
Total Metals
Units: mg/Kg (ppm)
Dry Weight Basis

Sample Name: IVA-3
Lab Code: K2006704-029DUP

Analyte	EPA Method	MRL	Sample Result	Duplicate Sample Result	Average	Relative Percent Difference
Copper	200.8	0.1	2.0	1.8	1.9	10
Lead	200.8	0.02	0.04	0.04	0.04	<1
Zinc	200.8	0.5	71.3	72.0	71.6	<1

Approved By: _____



Date: _____

9/20/00

DUP1SEPA/102194

06704CP.BR3 - DUP 9/27/00

Page No.:

00030

AR 021589

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Airport Communities Coalition
Project: Water/Sediment Quality Monitoring/00-101G
Sample Matrix: Tissue

Service Request: K2006704
Date Collected: 8/29/00
Date Received: 8/30/00
Date Extracted: 9/22/00
Date Analyzed: 9/26/00

Matrix Spike Summary
Total Metals
Units: mg/Kg (ppm)
Dry Weight Basis

Sample Name: IVA-3
Lab Code: K2006704-029DUP

Analyte	MRL	Spike Level	Sample Result	Spiked Sample Result	Percent Recovery	CAS Percent Recovery Acceptance Limits
Copper	0.1	25	2.0	24.8	91	70-130
Lead	0.02	50	0.04	50.0	100	70-130
Zinc	0.5	50	71.3	124	105	70-130

Approved By: _____



Date: _____

9/30/00

MS1S/102194

06704ICP.BR3 - Spike 9/27/00

00031

Page No.:

AR 021590

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Airport Communities Coalition
Project: Water/Sediment Quality Monitoring/00-101G
Sample Matrix: Sediment

Service Request: K2006704
Date Collected: 8/8/99
Date Received: 9/1/00
Date Extracted: 9/6/00
Date Analyzed: 9/21 - 23/00

Surrogate Recovery Summary
Organochlorine Pesticides

Prep Method: EPA 3540C
Analysis Method: 8081A

Units: PERCENT
Basis: NA

Sample Name	Lab Code	Test Notes	Percent Recovery	
			Tetrachloro-m-xylene	Decachlorobiphenyl
IA-6	K2006704-006		96	92
Batch QC	K2006693-012		93	117
Batch QC	K2006693-012MS		88	123 *
Batch QC	K2006693-012DMS		82	99
Method Blank	KWG2003820-7		97	112

CAS Acceptance Limits: 19-130 43-119

Approved By: VN Date: 9-27-00

SUR2/111397p
067045VG.AY1 - SUR2 9/26/00

Page No.:

00032

AR 021591

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Airport Communities Coalition
 Project: Water/Sediment Quality Monitoring/00-101G
 Sample Matrix: Sediment

Service Request: K2006704
 Date Collected: NA
 Date Received: NA
 Date Extracted: 9/6/00
 Date Analyzed: 9/22/00

Matrix Spike/Duplicate Matrix Spike Summary
 Organochlorine Pesticides

Sample Name: Batch QC
 Lab Code: K2006693-012MS, K2006693-012DMS
 Test Notes: X

Units: ug/Kg (ppb)
 Basis: Dry

Analyte	Prep Method	Analysis Method	MRL	Spike Level		Sample Result	Spike Result		Percent Recovery		CAS Acceptance Limits	Relative Percent Difference	Result Notes
				MS	DMS		MS	DMS	MS	DMS			
alpha-BHC	EPA 3540C	8081A	2	20	20	ND	22	21	110	105	35-150	5	
beta-BHC	EPA 3540C	8081A	2	20	20	ND	15	14	75	70	35-150	7	
gamma-BHC (Lindane)	EPA 3540C	8081A	2	20	20	ND	21	18	105	90	49-132	15	
delta-BHC	EPA 3540C	8081A	2	20	20	ND	24	24	120	120	35-150	<1	
Heptachlor	EPA 3540C	8081A	2	20	20	ND	21	19	105	95	34-142	10	
Aldrin	EPA 3540C	8081A	2	20	20	ND	14	13	70	65	38-153	7	
Heptachlor Epoxide	EPA 3540C	8081A	2	20	20	ND	24	21	120	105	35-150	13	
gamma-Chlordane	EPA 3540C	8081A	2	20	20	10	27	26	85	80	35-150	4	
Endosulfan I	EPA 3540C	8081A	2	20	20	ND	23	22	115	110	35-150	4	
alpha-Chlordane	EPA 3540C	8081A	2	20	20	8.5	38	36	148	138	35-150	5	
Dieldrin	EPA 3540C	8081A	2	20	20	8.7	28	27	97	92	40-156	4	
4,4'-DDE	EPA 3540C	8081A	2	20	20	2.5	44	44	95	95	35-150	<1	
Endrin	EPA 3540C	8081A	2	20	20	2.5	20	17	88	72	46-151	16	
Endosulfan II	EPA 3540C	8081A	2	20	20	ND	24	23	120	115	35-150	4	
4,4'-DDD	EPA 3540C	8081A	2	20	20	29	55	52	130	115	35-150	6	
Endrin Aldehyde	EPA 3540C	8081A	2	20	20	ND	15	15	75	75	35-150	<1	
Endosulfan Sulfate	EPA 3540C	8081A	2	20	20	ND	18	20	90	100	35-150	11	
4,4'-DDT	EPA 3540C	8081A	2	20	20	10	25	25	75	75	37-161	<1	
Endrin Ketone	EPA 3540C	8081A	2	20	20	ND	23	24	115	120	35-150	4	
Methoxychlor	EPA 3540C	8081A	2	20	20	ND	24	23	120	115	35-150	4	

Approved By: VN Date: 9-27-00

DMS/020597p
 06704SVG.AY1 - DMS 9/26/00

Page No.:
00033

AR 021592

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Airport Communities Coalition
Project: Water/Sediment Quality Monitoring/00-101G
Sample Matrix: Sediment

Service Request: K2006704
Date Collected: 8/29/00
Date Received: 8/30/00
Date Extracted: 9/6/00
Date Analyzed: 9/20/00

Surrogate Recovery Summary
Polychlorinated Biphenyls (PCBs)

Prep Method: EPA 3540C
Analysis Method: 8082

Units: PERCENT
Basis: NA

Sample Name	Lab Code	Test Notes	Percent Recovery Decachlorobiphenyl
IA-6	K2006704-006		90
Batch QC	K2006693-012		114
Batch QC	K2006693-012MS		96
Batch QC	K2006693-012DMS		96
Method Blank	KWG2003820-7		85

CAS Acceptance Limits: 72-137

Approved By: 

Date: 9/22/00

SUR.I/110697p
067045VG.VN1 - SUR 9/22/00

00034 Page No.:

AR 021593

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Airport Communities Coalition
Project: Water/Sediment Quality Monitoring/00-101G
Sample Matrix: Sediment

Service Request: K2006704
Date Collected: NA
Date Received: NA
Date Extracted: 9/6/00
Date Analyzed: 9/20/00

Matrix Spike/Duplicate Matrix Spike Summary
 Polychlorinated Biphenyls (PCBs)

Sample Name: Batch QC
Lab Code: K2006693-012MS, K2006693-012DMS
Test Notes: D

Units: ug/Kg (ppb)
Basis: Dry

Analyte	Prep Method	Analysis Method	Percent Recovery								CAS Acceptance Limits	Relative Percent Difference	Result Notes	
			Spike Level		Sample Result	Spike Result		MS DMS						
			MRL	MS		DMS	MS	DMS	MS	DMS	MS	DMS		
Aroclor 1016	EPA 3540C	8082	100	190	190	ND	640	630	337	332	45-140	2	*	
Aroclor 1260	EPA 3540C	8082	100	190	190	ND	460	440	242	232	50-148	4	*	

Approved By: _____

TJ

Date: _____

9/22/02

DMS/020597p

06704SVG.VNI - DMS 9/22/00

00035

Page No.

AR 021594

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Airport Communities Coalition
Project: Water/Sediment Quality Monitoring/00-101G
LCS Matrix: Sediment

Service Request: K2006704
Date Collected: NA
Date Received: NA
Date Extracted: 9/6/00
Date Analyzed: 9/20/00

Laboratory Control Sample Summary
Polychlorinated Biphenyls (PCBs)

Sample Name: Lab Control Sample
Lab Code: KWG2003820-6
Test Notes:

Units: ug/Kg (ppb)
Basis: Dry

Analyte	Prep Method	Analysis Method	True Value	Result	Percent Recovery	CAS Percent Recovery Acceptance Limits	Result Notes
Aroclor 1016	EPA 3540C	8082	200	220	110	39-138	
Aroclor 1260	EPA 3540C	8082	200	230	115	48-149	

Approved By: TJ Date: 9/22/00

LCS/080797p
067045VG.VN1 - LCS(NR) 9/22/00

00036

Page No.:

AR 021595

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Airport Communities Coalition
 Project: Water/Sediment Quality Monitoring/00-101G
 Sample Matrix: Water

Service Request: K2006704
 Date Collected: 8/28-29/00
 Date Received: 8/30/00
 Date Extracted: 9/1/00
 Date Analyzed: 9/14-15/00

Surrogate Recovery Summary
 Fuel Identification and Quantitation (FIQ) Hydrocarbon Scan

Prep Method: EPA 3510C
 Analysis Method: 8015B

Units: PERCENT
 Basis: NA

Sample Name	Lab Code	Test Notes	P e r c e n t R e c o v e r y		
			o-Terphenyl	4-Bromofluorobenzene	n-Triacontane
IA-9	K2006704-009		67	50	68
IIB-9	K2006704-018		67	51	69
IIA-9	K2006704-026		69	51	69
IVA-2	K2006704-028		69	50	69
IB-9	K2006704-039		70	48	71
Batch QC	K2006718-004		69	51	69
Batch QC	K2006718-004MS		69	63	70
Batch QC	K2006718-004DMS		67	58	69
Method Blank	K000901-WB		59	39	57

CAS Acceptance Limits: 50-150 D-141 50-150

Approved By: _____ *TH* Date: 10/2/00

SUR3/020597p
 06704PHCLL1 - SUR 10/2/00

00037

Page No.:

AR 021596

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Airport Communities Coalition
 Project: Water/Sediment Quality Monitoring/00-101G
 Sample Matrix: Water

Service Request: K2006704
 Date Collected: 8/29/00
 Date Received: 8/30/00
 Date Extracted: 9/1/00
 Date Analyzed: 9/14/00

Matrix Spike/Duplicate Matrix Spike Summary
 Fuel Identification and Quantitation (FIQ) Hydrocarbon Scan

Sample Name: Batch QC
 Lab Code: K2006718-004MS, K2006718-004DMS
 Test Notes:

Units: ug/L (ppb)
 Basis: NA

Analyte	Prep Method	Analysis Method	Percent Recovery										Result Notes
			Spike Level		Sample Result	Spike Result		CAS Acceptance		Relative Percent Difference			
			MRL	MS		DMS	MS	DMS	MS		DMS	Limits	
Diesel	EPA 3510C	8015B	100	1600	1600	100	1600	1500	94	88	60-140	6	
Lube Oil	EPA 3510C	8015B	250	1600	1600	140	1300	1300	72	72	60-140	<1	

Approved By: _____ *TM* Date: 10/2/00

DMS/032297/06704PHCLL1 - DMS 10/2/00

00036 Page No.:

AR 021597

APPENDIX B
CHAIN-OF-CUSTODY INFORMATION

00039

AR 021598



Columbia Analytical Services, Inc.
An Employee-Owned Company

1317 South 13th Ave. • Kelso, WA 98626 • (360) 577-7222 • (800) 695-7222 • FAX (360) 636-1088

CHAIN OF CUSTODY

SR#: K2006704

PAGE 1 OF 1 CQC #

PROJECT NAME: Water Quality Assessment
 PROJECT NUMBER: 06-1014
 PROJECT MANAGER: [Signature]
 COMPANY ADDRESS: Alleport Communities Coalition
21632 11th St S, Des Moines, WA 98108
 PHONE: 509-243-4347
 SALES REPRESENTATIVE: [Signature]

SAMPLE I.D.	DATE	TIME	LAB I.D.	MATRIX	NUMBER OF CONTAINERS		REMARKS
					GCMS	GCMS-SIM	
IA-1	8/29	1015	1	W	1	1	TPH (Total) <u>506</u> TSS Total by <u>506.35</u> <u>0.000</u> (0.000)
IA-2	8/29	"	2	W	1	1	
IA-3	8/29	"	3	W	1	1	
IA-4	8/29	"	4	S	1	1	
IA-5	8/29	"	5	S	1	1	
IA-6	8/29	"	6	S	1	1	
IA-7	8/29	"	7	W	1	1	
IA-8	8/29	"	8	W	1	1	
IA-9	8/29	"	9	W	1	1	
			10				

REPORT REQUIREMENTS
 I. Routine Report: Method Blank, Surrogate, as required
 II. Report Dup., MS, MSD as required
 III. Data Validation Report (includes all raw data)
 IV. CLP Deliverable Report
 V. EDD

INVOICE INFORMATION
 P.O. # _____
 Bill To: _____

TURNAROUND REQUIREMENTS
 24 hr. _____ 48 hr. _____
 5 Day _____
 Standard (10-15 working days)
 Provide FAX Results
 Requested Report Date _____

RELEASING BY: [Signature] Date/Time: 08/29/00 1500
 Signature: [Signature] Date/Time: _____
 Printed Name: _____ Firm: _____

RELINQUISHED BY: [Signature] Date/Time: _____
 Signature: [Signature] Date/Time: _____
 Printed Name: _____ Firm: _____

Circle which metals are to be analyzed:
 Total Metals: Al As Sb Ba Be B Ca Cd Co Cr (C) Fe (B) Mg Mn Mo Ni K Ag Na Se Sr Ti Sn V (Z) Hg
 Dissolved Metals: Al As Sb Ba Be B Ca Cd Co Cr Cu Fe Pb Mg Mn Mo Ni K Ag Na Se Sr Ti Sn V Zn Hg

*INDICATE STATE HYDROCARBON PROCEDURE: AK CA WI NORTHWEST OTHER: (CIRCLE ONE)

SPECIAL INSTRUCTIONS/COMMENTS:
W = water
S = sediment
T = tissue
IA-7 (tissue - fish)
TSS



CHAIN OF CUSTODY

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SR#: K2006704
PAGE ____ OF ____
COC # _____

PROJECT NAME	PROJECT NUMBER	PROJECT MANAGER	DATE	TIME	LAB I.D.	MATRIX	NUMBER OF CONTAINERS	REMARKS
<i>Watered, Analytical Laboratory</i>	<i>10-1019</i>	<i>Don Steward, Airport Comm. Evaluation</i>	<i>8/15</i>	<i>8:29</i>	<i>10</i>	<i>W</i>		<i>TPH (fulls scan) 506</i>
<i>Don Steward, Airport Comm. Evaluation</i>	<i>10-1019</i>	<i>Don Steward, Airport Comm. Evaluation</i>	<i>8/29</i>	<i>8:15</i>	<i>11</i>	<i>W</i>		<i>TPH (fulls scan) 506</i>
<i>Send report: 1314 Cedar Ave. Kelso, WA 98626</i>	<i>10-1019</i>	<i>Don Steward, Airport Comm. Evaluation</i>	<i>"</i>	<i>"</i>	<i>12</i>	<i>W</i>		<i>TPH (fulls scan) 506</i>
<i>PHONES: 360-577-7222</i>	<i>10-1019</i>	<i>Don Steward, Airport Comm. Evaluation</i>	<i>"</i>	<i>"</i>	<i>13</i>	<i>S</i>		<i>TPH (fulls scan) 506</i>
<i>SAMPLES SIGNATURE</i>	<i>10-1019</i>	<i>Don Steward, Airport Comm. Evaluation</i>	<i>"</i>	<i>"</i>	<i>14</i>	<i>S</i>		<i>TPH (fulls scan) 506</i>
<i>RT-9101</i>	<i>10-1019</i>	<i>Don Steward, Airport Comm. Evaluation</i>	<i>"</i>	<i>"</i>	<i>15</i>	<i>S</i>		<i>TPH (fulls scan) 506</i>
<i>TPH (fulls scan) 506</i>	<i>10-1019</i>	<i>Don Steward, Airport Comm. Evaluation</i>	<i>"</i>	<i>"</i>	<i>16</i>	<i>T</i>		<i>TPH (fulls scan) 506</i>
<i>TPH (fulls scan) 506</i>	<i>10-1019</i>	<i>Don Steward, Airport Comm. Evaluation</i>	<i>"</i>	<i>"</i>	<i>17</i>	<i>W</i>		<i>TPH (fulls scan) 506</i>
<i>TPH (fulls scan) 506</i>	<i>10-1019</i>	<i>Don Steward, Airport Comm. Evaluation</i>	<i>"</i>	<i>"</i>	<i>18</i>	<i>W</i>		<i>TPH (fulls scan) 506</i>

PH Cond. Cl. SO₄, PO₄, F, NO₃, NO₂, BOD, TSS, TDS (circle)
 Hex-Chrom
 Cyanide
 Metals, Total or Dissolved (See list below)
 PAH
 GCMS-SIM
 PAHS 8310 SIM
 TH Tetr
 Chlrophenolics - 8151M
 808 8081A 8141A
 Pesticides/Herbicides
 Congeners
 PCB's
 Andors 1664 SGT
 Oil & Grease/TPH 413.1 418.1
 Fuel Fingerprint (FIO)
 MW-HCID Screen
 Diesel Oil
 Hydrocarbons (see below)
 8021 BTEX
 Volatile Organics
 824 8260
 Semivolatile Organics by GCMS
 825 8270

Circle which metals are to be analyzed:
 Total Metals: Al As Sb Ba Be B Ca Cd Co Cr Cu Fe Mg Mn Mo Ni K Ag Na Se Sr Ti Sn V Hg
 Dissolved Metals: Al As Sb Ba Be B Ca Cd Co Cr Cu Fe Pb Mg Mn Mo Ni K Ag Na Se Sr Ti Sn V Zn Hg

*INDICATE STATE HYDROCARBON PROCEDURE: AK CA WI NORHTWEST OTHER: _____ (CIRCLE ONE)
 SPECIAL INSTRUCTIONS/COMMENTS:
 W = water
 S = sediment
 T = tissue

REPORT REQUIREMENTS
 I. Routine Report: Method Blank, Surrogate, as required
 II. Report Dup., MS, MSD as required
 III. Data Validation Report (includes all raw data)
 IV. CLP Deliverable Report
 V. EDD

TURNAROUND REQUIREMENTS
 24 hr. _____ 48 hr. _____
 5 Day _____
 Standard (10-15 working days)
 Provide FAX Results
 Requested Report Date _____

INVOICE INFORMATION
 P.O. # _____
 Bill To: _____

REQUISITIONED BY:
 Signature: *[Signature]* Date/Time: _____
 Printed Name: _____ Firm: _____

REINQUISHED BY:
 Signature: _____ Date/Time: _____
 Printed Name: _____ Firm: _____

RECEIVED BY:
 Signature: *[Signature]* Date/Time: _____
 Printed Name: _____ Firm: _____

REQUISITIONED BY:
 Signature: _____ Date/Time: _____
 Printed Name: _____ Firm: _____



CHAIN OF CUSTODY

1317 South 13th Ave. • Kelso, WA 98628 • (360) 577-7222 • (800) 695-7222 • FAX (360) 698-1068

SR#: K2006704

PAGE OF COC #

PROJECT NAME PROJECT NUMBER PROJECT MANAGER COMPANY ADDRESS Send report to: 1314 Colby Ave., Richland, WA 1314-943-4347 SAMPLE SIGNATURE <i>[Signature]</i>	DATE	TIME	LAB I.D.	MATRIX	NUMBER OF CONTAINERS	REMARKS	
						PH, Cond, Cl, SO ₄ , PO ₄ , F, NO ₃ , NO ₂ , BOD, TSS, TDS (circle)	Turbidity
IIA-1	8/29	0830	19	W	1		TSS
IIA-2	"	"	20	W	1		TPH (Total Solids)
IIA-3	"	"	21	W	1		
IIA-4	"	"	22	S	1		
IIA-5	"	"	23	S	1		
IIA-6	"	"	24	S	1		
IIA-7	"	"	"	"	1		
IIA-8	"	"	25	W	1		
IIA-9	"	"	26	W	1		

Circle which metals are to be analyzed:

Total Metals: Al As Sb Ba Be B Ca Cd Co Cr **Cu** Fe **Pb** Mg Mn Mo Ni K Ag Na Se Sr Ti Sn V **Zn** Hg

Dissolved Metals: Al As Sb Ba Be B Ca Cd Co Cr Cu Fe Pb Mg Mn Mo Ni K Ag Na Se Sr Ti Sn V Zn H

*INDICATE STATE HYDROCARBON PROCEDURE: AK CA WI NORHTWEST OTHER: (CIRCLE ONE)

SPECIAL INSTRUCTIONS/COMMENTS:
 F = Tissue
 W = water
 S = sediment

INVOICE INFORMATION
 P.O. # _____
 Bill To: _____

TURNAROUND REQUIREMENTS
 24 hr. _____ 48 hr. _____
 5 Day _____
 Standard (10-15 working days)
 Provide FAX Results
 Requested Report Date _____

REPORT REQUIREMENTS
 I. Routine Report: Method Blank, Surrogate, as required
 II. Report Dup., MS, MSD as required
 III. Data Validation Report (includes all raw data)
 IV. CLP Deliverable Report
 V. EDD

RELINQUISHED BY: <i>[Signature]</i> Signature Date/Time: <u>8/29/00 1500</u> Date/Time Firm: _____ Firm	RECEIVED BY: <i>[Signature]</i> Signature Date/Time: _____ Date/Time Firm: _____ Firm
RELINQUISHED BY: Signature _____ Date/Time _____ Firm _____	RECEIVED BY: Signature _____ Date/Time _____ Firm _____

AR 021601

Fed

Columbia Analytical Services Inc.
Cooler Receipt And Preservation Form

SHORT HOLD TIME

Asses - Work Order K20

Cooler received on 8.20.00 and opened on 8.30.00 by LS

1. Were custody seals on outside of cooler?
If yes, how many and where? FRONT YES NO
2. Were seals intact and signature & date correct? YES NO
3. COC # 522 143 142 529 430
Temperature of cooler(s) upon receipt: 6.9 7.4 --- --- ---
Temperature Blank: 1.0 6.0 --- --- --- YES NO
4. Were custody papers properly filled out (ink, signed, etc.)? YES NO
5. Type of packing material present 10 foam insert
6. Did all bottles arrive in good condition (unbroken)? YES NO
7. Were all bottle labels complete (i.e. analysis, preservation, etc.)? YES NO
8. Did all bottle labels and tags agree with custody papers? YES NO
9. Were the correct types of bottles used for the tests indicated? YES NO
10. Were all of the preserved bottles received at the lab with the appropriate pH? YES NO
11. Were VOA vials checked for absence of air bubbles, and if present, noted below? YES NO
12. Did the bottles originate from CAS/K or a branch laboratory? YES NO

Explain any discrepancies sample # 113 3 MISSING (did not rec.)

Samples that required preservation or received out of temperature:

Sample ID	Reagent	Volume	Lot Number	Bottle Type	Rec'd out of Temperature	Initials



CHAIN OF CUSTODY

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SR#: K2006704

PAGE OF COC #

PROJECT NAME	PROJECT NUMBER	PROJECT MANAGER	COMPANY ADDRESS	PHONE	DATE	TIME	LAB I.D.	MATRIX	NUMBER OF CONTAINERS	REMARKS
<u>W/Dr/Sediment Quality Monitoring</u>	<u>00-186</u>	<u>Alan Strand</u>	<u>Airport Communities Club</u>	<u>316 30 11 74 Ave S, Des Moines WA 98198</u>	<u>8/25</u>	<u>2000</u>	<u>27</u>	<u>W</u>	<u>1</u>	<u>TPH (Full Scan)</u> <u>TSS</u> <u>Turbidity</u>
<u>Report to 1314 Cedar Ave, Richland, WA 99352</u>	<u>5291943-4347</u>	<u>Alan Strand</u>	<u>Airport Communities Club</u>	<u>316 30 11 74 Ave S, Des Moines WA 98198</u>	<u>8/26</u>	<u>2000</u>	<u>28</u>	<u>W</u>	<u>1</u>	
<u>Report to 1314 Cedar Ave, Richland, WA 99352</u>	<u>5291943-4347</u>	<u>Alan Strand</u>	<u>Airport Communities Club</u>	<u>316 30 11 74 Ave S, Des Moines WA 98198</u>	<u>8/28</u>	<u>2000</u>	<u>29</u>	<u>T</u>	<u>1</u>	
<u>Report to 1314 Cedar Ave, Richland, WA 99352</u>	<u>5291943-4347</u>	<u>Alan Strand</u>	<u>Airport Communities Club</u>	<u>316 30 11 74 Ave S, Des Moines WA 98198</u>	<u>8/28</u>	<u>0700</u>	<u>30</u>	<u>W</u>	<u>1</u>	

00043

AOX 1650
 506
 TOC 9020
 DOC (direct)
 NH₃-N, COD, Total-P, TKN, TOC
 NO₃, BOD, TSS, PO₄-P, NO₂
 Hex-Chrom
 Cyanide
 Metals, Total or Dissolved (see list below)
 Phenol
 PAHs
 GCMs-SIM
 PAHs 8310
 SIM
 PCP
 TMs
 Tera
 PAHs 8151M
 8151A
 8141A
 8141M
 Chlorophenols
 8081A
 8141A
 Pesticides/Herbicides
 Congeners
 608
 8081A
 8141A
 Andors
 PCBs
 1864 SGT
 418.1
 418.1
 Oil & Grease/TPH
 413.1
 Fuel Fingerprint (FIO)
 Fuel Fingerprint (FIO)
 NW-HCID Screen
 Gas
 Diesel
 BTEX
 8021
 8260
 8270
 Volatile Organics by GCMS
 625
 8270
 Semivolatile Organics by GCMS

TOC 9020
 AOX 1650
 506
 DOC (direct)
 NH₃-N, COD, Total-P, TKN, TOC
 NO₃, BOD, TSS, PO₄-P, NO₂
 Hex-Chrom
 Cyanide
 Metals, Total or Dissolved (see list below)
 Phenol
 PAHs
 GCMs-SIM
 PAHs 8310
 SIM
 PCP
 TMs
 Tera
 PAHs 8151M
 8151A
 8141A
 8141M
 Chlorophenols
 8081A
 8141A
 Pesticides/Herbicides
 Congeners
 608
 8081A
 8141A
 Andors
 PCBs
 1864 SGT
 418.1
 418.1
 Oil & Grease/TPH
 413.1
 Fuel Fingerprint (FIO)
 Fuel Fingerprint (FIO)
 NW-HCID Screen
 Gas
 Diesel
 BTEX
 8021
 8260
 8270
 Volatile Organics by GCMS
 625
 8270
 Semivolatile Organics by GCMS

TOC 9020
 AOX 1650
 506
 DOC (direct)
 NH₃-N, COD, Total-P, TKN, TOC
 NO₃, BOD, TSS, PO₄-P, NO₂
 Hex-Chrom
 Cyanide
 Metals, Total or Dissolved (see list below)
 Phenol
 PAHs
 GCMs-SIM
 PAHs 8310
 SIM
 PCP
 TMs
 Tera
 PAHs 8151M
 8151A
 8141A
 8141M
 Chlorophenols
 8081A
 8141A
 Pesticides/Herbicides
 Congeners
 608
 8081A
 8141A
 Andors
 PCBs
 1864 SGT
 418.1
 418.1
 Oil & Grease/TPH
 413.1
 Fuel Fingerprint (FIO)
 Fuel Fingerprint (FIO)
 NW-HCID Screen
 Gas
 Diesel
 BTEX
 8021
 8260
 8270
 Volatile Organics by GCMS
 625
 8270
 Semivolatile Organics by GCMS

TOC 9020
 AOX 1650
 506
 DOC (direct)
 NH₃-N, COD, Total-P, TKN, TOC
 NO₃, BOD, TSS, PO₄-P, NO₂
 Hex-Chrom
 Cyanide
 Metals, Total or Dissolved (see list below)
 Phenol
 PAHs
 GCMs-SIM
 PAHs 8310
 SIM
 PCP
 TMs
 Tera
 PAHs 8151M
 8151A
 8141A
 8141M
 Chlorophenols
 8081A
 8141A
 Pesticides/Herbicides
 Congeners
 608
 8081A
 8141A
 Andors
 PCBs
 1864 SGT
 418.1
 418.1
 Oil & Grease/TPH
 413.1
 Fuel Fingerprint (FIO)
 Fuel Fingerprint (FIO)
 NW-HCID Screen
 Gas
 Diesel
 BTEX
 8021
 8260
 8270
 Volatile Organics by GCMS
 625
 8270
 Semivolatile Organics by GCMS

TOC 9020
 AOX 1650
 506
 DOC (direct)
 NH₃-N, COD, Total-P, TKN, TOC
 NO₃, BOD, TSS, PO₄-P, NO₂
 Hex-Chrom
 Cyanide
 Metals, Total or Dissolved (see list below)
 Phenol
 PAHs
 GCMs-SIM
 PAHs 8310
 SIM
 PCP
 TMs
 Tera
 PAHs 8151M
 8151A
 8141A
 8141M
 Chlorophenols
 8081A
 8141A
 Pesticides/Herbicides
 Congeners
 608
 8081A
 8141A
 Andors
 PCBs
 1864 SGT
 418.1
 418.1
 Oil & Grease/TPH
 413.1
 Fuel Fingerprint (FIO)
 Fuel Fingerprint (FIO)
 NW-HCID Screen
 Gas
 Diesel
 BTEX
 8021
 8260
 8270
 Volatile Organics by GCMS
 625
 8270
 Semivolatile Organics by GCMS

Circle which metals are to be analyzed:

Total Metals: Al As Sb Be B Ca Cd Co Cr Cu Fe Pb Mg Mn Mo Ni K Ag Na Se Sr Ti Sn V Zn Hg
 Dissolved Metals: Al As Sb Be B Ca Cd Co Cr Cu Fe Pb Mg Mn Mo Ni K Ag Na Se Sr Ti Sn V Zn Hg

INDICATE STATE HYDROCARBON PROCEDURE: AK CA WI NORHTWEST OTHER: _____ (CIRCLE ONE)

W = water
 T = tissue

REPORT REQUIREMENTS
 I. Routine Report: Method Blank, Surrogate, as required
 II. Report Dup., MS, MSD as required
 III. Data Validation Report (includes all raw data)
 IV. CLP Deliverable Report
 V. EDD

INVOICE INFORMATION
 P.O. # _____
 Bill To: _____

TURNAROUND REQUIREMENTS
 24 hr. _____ 48 hr. _____
 5 Day _____
 Standard (10-15 working days)
 Provide FAX Results
 Requested Report Date _____

RELINQUISHED BY:
 Signature: _____ Date/Time: 8/29 1500
 Printed Name: _____ Firm: _____

RECEIVED BY:
 Signature: _____ Date/Time: _____
 Printed Name: _____ Firm: _____



CHAIN OF CUSTODY

1317 South 13th Ave. • Kelso, WA 98626 • (360) 577-7222 • (509) 685-7222 • FAX (360) 636-1088

SR#: 12016704 PAGE OF COC #

PROJECT NAME: Highway Quality Monitoring

PROJECT NUMBER: 01-1073

PROJECT MANAGER: John Stroud

COMPANY ADDRESS: 1174 W.S. Des Lomas, W. 98608

PHONE: 360 543-9347

SAMPLER'S SIGNATURE: [Signature]

SAMPLE I.D.	DATE	TIME	LAB I.D.	MATRIX	NUMBER OF CONTAINERS	REMARKS	
						506	506
IB-1	8/25	11:15	31	W	1	TPH (FrodoScan)	TPH (FrodoScan) ✓
IB-2	"	"	32	W	1	TOC 9020	TOC 9020 ✓
IB-3	"	"	33	W	1	NH3-N, COD, Total-P, TKN, TOC, DOC (crude)	NH3-N, COD, Total-P, TKN, TOC, DOC (crude) ✓
IB-4	"	"	34	S	1	PH, Cond, Cl, SO4, PO4, F, NO2, NO3, BOD, TSS, TDS (crude)	PH, Cond, Cl, SO4, PO4, F, NO2, NO3, BOD, TSS, TDS (crude) ✓
IB-5	"	"	35	S	1	Hex-Chrom	Hex-Chrom ✓
IB-6	"	"	36	S	1	Cyanide	Cyanide ✓
IB-7	"	"	37	T	1	Metals, Total or Dissolved (See list below)	Metals, Total or Dissolved (See list below) ✓
IB-8	"	"	38	W	1	PAHs 8310 SIM	PAHs 8310 SIM ✓
IB-9	"	"	39	W	1	GC/MS-SIM	GC/MS-SIM ✓

Circle which metals are to be analyzed:

Total Metals: Al As Sb Ba Be B Ca Cd Co Cr **Cu** Fe **Pb** Mg Mn Mo Ni K Ag Na Se Sr Ti Sn V **Zn** Hg

Dissolved Metals: Al As Sb Ba Be B Ca Cd Co Cr Cu Fe Pb Mg Mn Mo Ni K Ag Na Se Sr Ti Sn V Zn Hg

*INDICATE STATE HYDROCARBON PROCEDURE: AK CA WI NORTHWEST OTHER: (CIRCLE ONE)

SPECIAL INSTRUCTIONS/COMMENTS:
W = water
S = sediment
T = trace

REPORT REQUIREMENTS
 I. Routine Report: Method Blank, Surrogate, as required
 II. Report Dup., MS, MSD as required
 III. Data Validation Report (includes all raw data)
 IV. CLP Deliverable Report
 V. EDD

TURNAROUND REQUIREMENTS
 24 hr. 48 hr.
 5 Day
 Standard (10-15 working days)
 Provide FAX Results

INVOICE INFORMATION
 P.O. #
 Bill To:

RECEIVED BY: [Signature] Date/Time: 8/25/02 15:00

RELINQUISHED BY: [Signature] Date/Time: 8/25/02 15:00

RECEIVED BY:	RELINQUISHED BY:
Signature: <u>[Signature]</u> Date/Time: <u>8/25/02 15:00</u> Printed Name: <u>John Stroud</u> Firm: <u>AS</u>	Signature: <u>[Signature]</u> Date/Time: <u>8/25/02 15:00</u> Printed Name: <u>John Stroud</u> Firm: <u>AS</u>