



Analytica Alaska Southeast
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6/26/2008

Admiralty Environmental, LLC
431 N. Franklin St.
Suite 101
Juneau, AK 99801
Attn: David Wetzel

Work Order #: J0806179
Date: 6/26/2008
Work ID: Star Princess
Date Received: 6/20/2008

Sample Identification

Lab Sample Number	Client Description	Lab Sample Number	Client Description
J0806179-01	Ketchikan Bunker Water Conn		

Enclosed are the analytical results for the submitted sample(s). Please review the CASE NARRATIVE for a discussion of any data and/or quality control issues. Listings of data qualifiers, analytical codes, key dates, and QC relationships are provided at the end of the report.

Sincerely,

A handwritten signature in black ink that reads "Claire Toon".

Claire Toon
Project Manager

"The Science of Analysis, The Art of Service"

Case Narrative

Analytica Alaska Southeast

Work Order: J0806179

Samples were prepared and analyzed according to EPA or equivalent methods outlined in the following references:

Methods for the Determination of Metals in Environmental Samples, EPA/600/R-94/111, May 1994.

SAMPLE RECEIPT:

One (1) sample was received on 6/20/2008 at 4:50:00 PM, at a temperature of 5.9°C, in cooler 1 at Analytica-Juneau. The cooler was opened on 6/20/08. The sample was received in good condition and in order per chain of custody.

The sample was transferred for analysis to Analytica Environmental Laboratories (AEL), 12189 Pennsylvania St., Thornton, Colorado 80241, where it was received at a temperature of 2.3°C, in good condition and in order per chain of custody on 6/24/08.

REVIEW FOR COMPLIANCE WITH ANALYTICA QA PLAN

A summary of our review is shown below, organized by test:

Test Method: 200.8 - Metals by ICP/MS - Dissolved - Aqueous

HOLDING TIMES:

Holding times were met for this test.

SAMPLE PREPARATION ISSUES AND OBSERVATIONS:

There were no unusual observations.

INSTRUMENT PERFORMANCE CHECKS:

Instrument checks were within method criteria.

INITIAL CALIBRATIONS:

Initial calibrations were within method criteria.

OPENING CONTINUING CALIBRATIONS:

Opening continuing calibrations were within method criteria.

CLOSING CONTINUING CALIBRATIONS:

Closing continuing calibrations were within method criteria or not applicable.

METHOD BLANK OUTLIERS:

There are no method blank outliers.

LCS OUTLIERS:

There are no LCS outliers.

MS/MSD and DUP OUTLIERS:

There are no MS/MSD or DUP outliers.

Test Method: In-lab filtration for dissolved metals - Aqueous

HOLDING TIMES:

Per the 40CFR Part 136, filtration for dissolved targets should be performed in the field, within 15 minutes of sampling. Per client request, filtration was performed as soon as possible upon sample receipt.

Summary of Detected Analytes

Analytica Alaska Southeast

Workorder (SDG): **J0806179**
Project: **Star Princess**
Client: **Admiralty Environmental, LLC**
Client Project Number: **AE 2049**

Client Sample Name: **Ketchikan Bunker Water Connection**

Matrix: Aqueous

Collection Date: 6/17/2008 7:09:00AM

<u>Analyte</u>	<u>Result</u>	<u>PQL</u>	<u>Units</u>	<u>Analysis Date</u>	<u>Flags</u>	<u>Analyst</u>	<u>Method</u>
Copper	3.62	0.10	ug/L	6/25/08 17:48		GY	200.8 - Metals by ICP/MS - Dissolved
Nickel	0.212	0.15	ug/L	6/25/08 17:48		GY	200.8 - Metals by ICP/MS - Dissolved
Zinc	4.14	0.25	ug/L	6/25/08 17:48		GY	200.8 - Metals by ICP/MS - Dissolved
Filtration	1.0	1.0	Date	6/20/08 17:00		al	In-lab filtration for dissolved metals

Detailed Analytical Report

Analytica Alaska Southeast

Workorder (SDG): J0806179

Project: Star Princess

Client: Admiralty Environmental, LLC

Client Project Number: AE 2049

Report Section: Client Sample Report

Client Sample Name: **Ketchikan Bunker Water Connection**

Matrix: Aqueous Collection Date: 6/17/2008 7:09:00AM

The following test was conducted by: Analytica - Juneau

Lab Sample Number: J0806179-01A Analysis Date: 6/20/2008 5:00:00PM
Prep Date: 6/20/2008 Instrument: Filter
Analytical Method ID: In-lab filtration for dissolved metals File Name:
Prep Method ID: Filtration Dilution Factor: 1
Prep Batch Number: J080624003
Report Basis: As Received Analyst Initials: al
Sample prep wt./vol: 1.00 ml Prep Extract Vol: 1.00 ml

<u>Analyte</u>	<u>CASNo</u>	<u>Result</u>	<u>Flags</u>	<u>Units</u>	<u>PQL</u>	<u>MDL</u>	<u>Rerun #:</u>
Filtration		1.0		Date	1.0	1.0	1

The following test was conducted by: Analytica - Thornton

Lab Sample Number: J0806179-01A Analysis Date: 6/25/2008 5:48:19PM
Prep Date: 6/25/2008 Instrument: Elan
Analytical Method ID: 200.8 - Metals by ICP/MS - Dissolved File Name: 062508asam.re
Prep Method ID: 200.8 Dilution Factor: 1
Prep Batch Number: T080625011
Report Basis: As Received Analyst Initials: GY
Sample prep wt./vol: 50.00 ml Prep Extract Vol: 50.00 ml

<u>Analyte</u>	<u>CASNo</u>	<u>Result</u>	<u>Flags</u>	<u>Units</u>	<u>PQL</u>	<u>MDL</u>	<u>Rerun #:</u>
Copper	7440-50-8	3.62		ug/L	0.10	0.034	1
Nickel	7440-02-0	0.212		ug/L	0.15	0.050	
Zinc	7440-66-6	4.14		ug/L	0.25	0.084	

Detailed Analytical Report

Analytica Environmental Laboratories, Inc.

Workorder (SDG): J0806179

Project: Star Princess

Client: Admiralty Environmental, LLC

Client Project Number: AE 2049

Report Section: Method Blank Report

Client Sample Name: **MB**

Matrix: Aqueous Collection Date: 6/25/2008 12:00:00AM

The following test was conducted by: Analytica - Thornton

Lab Sample Number: T080625011-MB Analysis Date: 6/25/2008 2:09:14PM
Prep Date: 6/25/2008 Instrument: Elan
Analytical Method ID: 200.8 - Metals by ICP/MS - Dissolved File Name: 062508asam.re
Prep Method ID: 200.8 Dilution Factor: 1
Prep Batch Number: T080625011
Report Basis: Dry Weight Basis Analyst Initials: GY
Sample prep wt./vol: 50.00 ml Prep Extract Vol: 50.00 ml

<u>Analyte</u>	<u>CASNo</u>	<u>Result</u>	<u>Flags</u>	<u>Units</u>	<u>PQL</u>	<u>MDL</u>	<u>Rerun #:</u>
Copper	7440-50-8	ND		ug/L	0.10	0.034	1
Nickel	7440-02-0	ND		ug/L	0.15	0.050	
Zinc	7440-66-6	ND		ug/L	0.25	0.084	

Detailed Analytical Report

Analytica Environmental Laboratories, Inc.

Workorder (SDG): J0806179

Project: Star Princess

Client: Admiralty Environmental, LLC

Client Project Number: AE 2049

Tests Run at: Analytica Environmental Laboratories - Thornton, Colorado

Workorder (SDG): J0806179

Project: Star Princess

Project Number:

QUALITY CONTROL REPORT

Prep Batch: T080625011

SAMPLE DUPLICATE REPORT

Analysis: 200.8 - Metals by ICP/MS - Dissolved

Base Sample: F0806238-02D

Prep Date: 6/25/2008

Samp. Anal. Date: 6/25/2008 4:51:15PM

Units: ug/L

DUP Anal. Date: 6/25/2008 4:55:41PM

Matrix: Aqueous

<u>Analyte Name</u>	<u>SampResult</u>	<u>DUPRes.</u>	<u>RPD</u>	<u>RPDLim</u>	<u>Flag</u>
Arsenic	5.16	5.11	1.0	20	

LCS/LCSD REPORT

Analysis: 200.8 - Metals by ICP/MS - Dissolved

MB: T080625011-MB

Prep Date: 6/25/2008

MB Anal. Date: 6/25/2008 2:09:14PM

Units: ug/L

LCS Anal. Date: 6/25/2008 2:13:40PM LCSD Anal. Date: 6/25/2008 2:18:05PM Matrix: Aqueous

<u>Analyte Name</u>	<u>SampResult</u>	<u>LCSRes.</u>	<u>SDRes.</u>	<u>SPLev</u>	<u>SPDLv</u>	<u>Recov.</u>	<u>SD Recov</u>	<u>RPD</u>	<u>Recov Lim</u>	<u>RPDLim</u>	<u>Flag</u>
Nickel	ND	50.4	50.1	50.0	50.0	100.8	100.2	0.6	85 - 115	20	
Copper	ND	51.7	51.2	50.0	50.0	103.4	102.4	1.0	85 - 115	20	
Zinc	ND	51.4	50.0	50.0	50.0	102.8	100.0	2.8	85 - 115	20	

MS/MSD REPORT

Analysis: 200.8 - Metals by ICP/MS - Dissolved

Parent: F0806238-02D

Prep Date: 6/25/2008

Samp. Anal. Date: 6/25/2008 4:51:15PM

Units: ug/L

MS Anal. Date: 6/25/2008 5:00:08PM MSD Anal. Date: 6/25/2008 5:04:34PM Matrix: Aqueous

<u>Analyte Name</u>	<u>SampResult</u>	<u>MSRes.</u>	<u>MSDRes</u>	<u>SPLv</u>	<u>SPDLv</u>	<u>Recov.</u>	<u>MSD Rec.</u>	<u>RPD</u>	<u>Recov Lim</u>	<u>RPDLim</u>	<u>Flag</u>
Arsenic	5.16	58.0	59.0	50.0	50.0	105.7	107.7	1.7	70 - 130	20	

Detailed Analytical Report

Analytica Environmental Laboratories, Inc.

Workorder (SDG): J0806179

Project: Star Princess

Client: Admiralty Environmental, LLC

Client Project Number: AE 2049

FOOTNOTES TO QC REPORT

Note 1: Results are shown to three significant figures to avoid rounding errors in calculations.

Note 2: If the sample concentration is greater than 4 times the spike level, a recovery is not meaningful, and the result should be used as a replicate. In such cases the spike is not as high as expected random measurement variability of the sample result itself.

Note 3: For sample duplicates, if the result is less than the PQL, the duplicate RPD is not applicable. If the sample and duplicate results are not five times the PQL or greater, then the RPD is not expected to fall within the window shown and the comparison should be made on the basis of the absolute difference. Analytica uses the criterion that the absolute difference should be less than the PQL for water or less than 2XPQL for other matrices.

Note 4: For serial dilutions, if the result is less than the PQL, the duplicate RPD is not applicable. If the sample result is not 50 times the MDL or greater, then the fact that the RPD does not meet the 10% criterion has little significance. Otherwise it indicates that a matrix bias may exist at the analytical step.

Detailed Analytical Report

Analytica Environmental Laboratories, Inc.

Workorder (SDG): J0806179

Project: Star Princess

Client: Admiralty Environmental, LLC

Client Project Number: AE 2049

QC BATCH ASSOCIATIONS - BY METHOD BLANK

Lab Project ID: 88,812 Lab Project Number: J0806179

Prep Date: 6/25/2008

Lab Method Blank Id: T080625011-MB

Prep Batch ID: T080625011

Method: 200.8 - Metals by ICP/MS - Dissolved

This Method blank and sample preparation batch are associated with the following samples, spikes, and duplicates:

<u>SampleNum</u>	<u>ClientSampleName</u>	<u>DataFile</u>	<u>AnalysisDate</u>
F0806238-02D	Batch QC	062508asam.rep	6/25/2008 4:51:15PM
J0806179-01A	Ketchikan Bunker Water Connection	062508asam.rep	6/25/2008 5:48:19PM
T080625011-LCS	LCS	062508asam.rep	6/25/2008 2:13:40PM
T080625011-LCSD	LCSD	062508asam.rep	6/25/2008 2:18:05PM
F0806238-02D-DUP	DUP	062508asam.rep	6/25/2008 4:55:41PM
F0806238-02D-MS	MS	062508asam.rep	6/25/2008 5:00:08PM
F0806238-02D-MSD	MSD	062508asam.rep	6/25/2008 5:04:34PM

Detailed Analytical Report

Analytica Environmental Laboratories, Inc.

Workorder (SDG): J0806179

Project: Star Princess

Client: Admiralty Environmental, LLC

Client Project Number: AE 2049

DATA FLAGS AND DEFINITIONS

The PQL is the Method Quantitation Limit as defined by USACE.

Reporting Limit: Limit below which results are shown as "ND". This may be the PQL, MDL, or a value between. See the report conventions below.

Result Field:

ND = Not Detected at or above the Reporting Limit

NA = Analyte not applicable (see Case Narrative for discussion)

Qualifier Fields:

LOW = Recovery is below Lower Control Limit

HIGH = Recovery, RPD, or other parameter is above Upper Control Limit

E = Reported concentration is above the instrument calibration upper range

Organic Analysis Flags:

B = Analyte was detected in the laboratory method blank

J = Analyte was detected above MDL or Reporting Limit but below the Quant Limit (PQL)

Inorganic Analysis Flags:

J = Analyte was detected above the Reporting Limit but below the Quant Limit (PQL)

W = Post digestion spike did not meet criteria

S = Reported value determined by the Method of Standard Additions (MSA)

Other Flags may be applied. See Case Narrative for Description

Detailed Analytical Report

Analytica Environmental Laboratories, Inc.

Workorder (SDG): J0806179

Project: Star Princess

Client: Admiralty Environmental, LLC

Client Project Number: AE 2049

REPORTING CONVENTIONS FOR THIS REPORT

J0806179

<u>Test Name</u>	<u>Basis</u>	<u># Sig Figs</u>	<u>Reporting Limit</u>
200.8/200.8 (Aqueous) - Dissolved	As Received		Report to PQL
Filtration (Aqueous)	As Received		Report to PQL



Analytica Alaska Southeast
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Juneau, AK 99801
(907) 780-6668
Fax (907) 780-6670

7/11/2008

Admiralty Environmental, LLC
431 N. Franklin St.
Suite 101
Juneau, AK 99801
Attn: David Wetzel

Work Order #: J0806209
Date: 7/11/2008
Work ID: Star Princess
Date Received: 6/25/2008

Sample Identification

Lab Sample Number	Client Description	Lab Sample Number	Client Description
J0806209-01	Evaporator 1	J0806209-02	Evaporator 3
J0806209-03	Evaporator 2	J0806209-04	Bunkering Victoria - On Pier
J0806209-05	Bunkering Seattle - Fwd Port		

Enclosed are the analytical results for the submitted sample(s). Please review the CASE NARRATIVE for a discussion of any data and/or quality control issues. Listings of data qualifiers, analytical codes, key dates, and QC relationships are provided at the end of the report.

Sincerely,

Keelin Kistner
Project Manager

"The Science of Analysis, The Art of Service"

Case Narrative

Analytica Alaska Southeast

Work Order: J0806209

Samples were prepared and analyzed according to EPA or equivalent methods outlined in the following references:

Methods for the Determination of Metals in Environmental Samples, EPA/600/R-94/111, May 1994.

SAMPLE RECEIPT:

Five (5) samples were received on 6/25/2008 at 4:25:00 PM, at a temperature of 2.3°C, in cooler 1 at Analytica-Juneau. The cooler was opened on 6/25/2008. The samples were received in good condition and in order per chain of custody.

The sample was transferred for analysis to Analytica Environmental Laboratories (AEL), 12189 Pennsylvania St., Thornton, Colorado 80241, where it was received at a temperature of 2.1°C, in good condition and in order per chain of custody on 6/27/08.

REVIEW FOR COMPLIANCE WITH ANALYTICA QA PLAN

A summary of our review is shown below, organized by test:

Test Method: 200.8 - Metals by ICP/MS - Dissolved - Aqueous

HOLDING TIMES:

Holding times were met for this test.

SAMPLE PREPARATION ISSUES AND OBSERVATIONS:

There were no unusual observations.

INSTRUMENT PERFORMANCE CHECKS:

Instrument checks were within method criteria.

INITIAL CALIBRATIONS:

Initial calibrations were within method criteria.

OPENING CONTINUING CALIBRATIONS:

Opening continuing calibrations were within method criteria.

CLOSING CONTINUING CALIBRATIONS:

Closing continuing calibrations were within method criteria or not applicable.

METHOD BLANK OUTLIERS:

There are no method blank outliers.

LCS OUTLIERS:

There are no LCS outliers.

MS/MSD and DUP OUTLIERS:

There are no MS/MSD or DUP outliers.

Test Method: In-lab filtration for dissolved metals - Aqueous

HOLDING TIMES:

Per the 40CFR Part 136, filtration for dissolved targets should be performed in the field, within 15 minutes of sampling. Per client request, filtration was performed as soon as possible upon sample receipt.

Summary of Detected Analytes

Analytica Alaska Southeast

Workorder (SDG): **J0806209**
 Project: **Star Princess**
 Client: **Admiralty Environmental, LLC**
 Client Project Number: **AE 2049**

Client Sample Name: **Bunkering Seattle - Fwd Port**

Matrix: Aqueous

Collection Date: 6/22/2008 10:29:00AM

<u>Analyte</u>	<u>Result</u>	<u>PQL</u>	<u>Units</u>	<u>Analysis Date</u>	<u>Flags</u>	<u>Analyst</u>	<u>Method</u>
Copper	0.749	0.10	ug/L	7/7/08 22:51		GY	200.8 - Metals by ICP/MS - Dissolved
Nickel	0.390	0.15	ug/L	7/7/08 22:51		GY	200.8 - Metals by ICP/MS - Dissolved
Zinc	5.85	0.25	ug/L	7/7/08 22:51		GY	200.8 - Metals by ICP/MS - Dissolved
Filtration	1.0	1.0	mg/L	6/25/08 16:45		AL	In-lab filtration for dissolved metals

Client Sample Name: **Bunkering Victoria - On Pier**

Matrix: Aqueous

Collection Date: 6/21/2008 5:50:00PM

<u>Analyte</u>	<u>Result</u>	<u>PQL</u>	<u>Units</u>	<u>Analysis Date</u>	<u>Flags</u>	<u>Analyst</u>	<u>Method</u>
Copper	2.47	0.10	ug/L	7/7/08 22:25		GY	200.8 - Metals by ICP/MS - Dissolved
Nickel	0.431	0.15	ug/L	7/7/08 22:25		GY	200.8 - Metals by ICP/MS - Dissolved
Zinc	8.92	0.25	ug/L	7/7/08 22:25		GY	200.8 - Metals by ICP/MS - Dissolved
Filtration	1.0	1.0	mg/L	6/25/08 16:45		AL	In-lab filtration for dissolved metals

Client Sample Name: **Evaporator 1**

Matrix: Aqueous

Collection Date: 6/20/2008 3:20:00PM

<u>Analyte</u>	<u>Result</u>	<u>PQL</u>	<u>Units</u>	<u>Analysis Date</u>	<u>Flags</u>	<u>Analyst</u>	<u>Method</u>
Copper	49.7	0.10	ug/L	7/7/08 22:12		GY	200.8 - Metals by ICP/MS - Dissolved
Nickel	3.13	0.15	ug/L	7/7/08 22:12		GY	200.8 - Metals by ICP/MS - Dissolved
Zinc	15.4	0.25	ug/L	7/7/08 22:12		GY	200.8 - Metals by ICP/MS - Dissolved
Filtration	1.0	1.0	mg/L	6/25/08 16:45		AL	In-lab filtration for dissolved metals

Client Sample Name: **Evaporator 2**

Matrix: Aqueous

Collection Date: 6/23/2008 3:45:00PM

<u>Analyte</u>	<u>Result</u>	<u>PQL</u>	<u>Units</u>	<u>Analysis Date</u>	<u>Flags</u>	<u>Analyst</u>	<u>Method</u>
Copper	50.3	0.10	ug/L	7/7/08 22:21		GY	200.8 - Metals by ICP/MS - Dissolved
Nickel	1.00	0.15	ug/L	7/7/08 22:21		GY	200.8 - Metals by ICP/MS - Dissolved
Zinc	28.1	0.25	ug/L	7/7/08 22:21		GY	200.8 - Metals by ICP/MS - Dissolved
Filtration	1.0	1.0	mg/L	6/25/08 16:45		AL	In-lab filtration for dissolved metals

Client Sample Name: **Evaporator 3**

Matrix: Aqueous

Collection Date: 6/20/2008 3:25:00PM

<u>Analyte</u>	<u>Result</u>	<u>PQL</u>	<u>Units</u>	<u>Analysis Date</u>	<u>Flags</u>	<u>Analyst</u>	<u>Method</u>
Copper	42.5	0.10	ug/L	7/7/08 22:16		GY	200.8 - Metals by ICP/MS - Dissolved
Nickel	1.04	0.15	ug/L	7/7/08 22:16		GY	200.8 - Metals by ICP/MS - Dissolved
Zinc	51.8	0.25	ug/L	7/7/08 22:16		GY	200.8 - Metals by ICP/MS - Dissolved
Filtration	1.0	1.0	mg/L	6/25/08 16:45		AL	In-lab filtration for dissolved metals

Detailed Analytical Report

Analytica Alaska Southeast

Workorder (SDG): J0806209

Project: Star Princess

Client: Admiralty Environmental, LLC

Client Project Number: AE 2049

Report Section: Client Sample Report

Client Sample Name: **Evaporator 1**

Matrix: Aqueous Collection Date: 6/20/2008 3:20:00PM

The following test was conducted by: Analytica - Juneau

Lab Sample Number: J0806209-01A Analysis Date: 6/25/2008 4:45:00PM
Prep Date: 6/25/2008 Instrument: Filter
Analytical Method ID: In-lab filtration for dissolved metals File Name:
Prep Method ID: Filtration Dilution Factor: 1
Prep Batch Number: J080710015 Analyst Initials: AL
Report Basis: As Received Prep Extract Vol: 250.00 ml
Sample prep wt./vol: 250.00 ml

<u>Analyte</u>	<u>CASNo</u>	<u>Result</u>	<u>Flags</u>	<u>Units</u>	<u>PQL</u>	<u>MDL</u>	<u>Rerun #:</u>
Filtration		1.0		mg/L	1.0	1.0	1

The following test was conducted by: Analytica - Thornton

Lab Sample Number: J0806209-01A Analysis Date: 7/7/2008 10:12:12PM
Prep Date: 7/7/2008 Instrument: Elan
Analytical Method ID: 200.8 - Metals by ICP/MS - Dissolved File Name: 070708bsam.re
Prep Method ID: 200.8 Dilution Factor: 1
Prep Batch Number: T080707007 Analyst Initials: GY
Report Basis: As Received Prep Extract Vol: 50.00 ml
Sample prep wt./vol: 50.00 ml

<u>Analyte</u>	<u>CASNo</u>	<u>Result</u>	<u>Flags</u>	<u>Units</u>	<u>PQL</u>	<u>MDL</u>	<u>Rerun #:</u>
Copper	7440-50-8	49.7		ug/L	0.10	0.034	1
Nickel	7440-02-0	3.13		ug/L	0.15	0.050	
Zinc	7440-66-6	15.4		ug/L	0.25	0.084	

Detailed Analytical Report

Analytica Alaska Southeast

Workorder (SDG): J0806209

Project: Star Princess

Client: Admiralty Environmental, LLC

Client Project Number: AE 2049

Report Section: Client Sample Report

Client Sample Name: **Evaporator 3**

Matrix: Aqueous Collection Date: 6/20/2008 3:25:00PM

The following test was conducted by: Analytica - Juneau

Lab Sample Number: J0806209-02A Analysis Date: 6/25/2008 4:45:00PM
Prep Date: 6/25/2008 Instrument: Filter
Analytical Method ID: In-lab filtration for dissolved metals File Name:
Prep Method ID: Filtration Dilution Factor: 1
Prep Batch Number: J080710015
Report Basis: As Received Analyst Initials: AL
Sample prep wt./vol: 250.00 ml Prep Extract Vol: 250.00 ml

<u>Analyte</u>	<u>CASNo</u>	<u>Result</u>	<u>Flags</u>	<u>Units</u>	<u>PQL</u>	<u>MDL</u>	<u>Rerun #:</u>
Filtration		1.0		mg/L	1.0	1.0	1

The following test was conducted by: Analytica - Thornton

Lab Sample Number: J0806209-02A Analysis Date: 7/7/2008 10:16:43PM
Prep Date: 7/7/2008 Instrument: Elan
Analytical Method ID: 200.8 - Metals by ICP/MS - Dissolved File Name: 070708bsam.re
Prep Method ID: 200.8 Dilution Factor: 1
Prep Batch Number: T080707007
Report Basis: As Received Analyst Initials: GY
Sample prep wt./vol: 50.00 ml Prep Extract Vol: 50.00 ml

<u>Analyte</u>	<u>CASNo</u>	<u>Result</u>	<u>Flags</u>	<u>Units</u>	<u>PQL</u>	<u>MDL</u>	<u>Rerun #:</u>
Copper	7440-50-8	42.5		ug/L	0.10	0.034	1
Nickel	7440-02-0	1.04		ug/L	0.15	0.050	
Zinc	7440-66-6	51.8		ug/L	0.25	0.084	

Detailed Analytical Report

Analytica Alaska Southeast

Workorder (SDG): J0806209

Project: Star Princess

Client: Admiralty Environmental, LLC

Client Project Number: AE 2049

Report Section: Client Sample Report

Client Sample Name: **Evaporator 2**

Matrix: Aqueous Collection Date: 6/23/2008 3:45:00PM

The following test was conducted by: Analytica - Juneau

Lab Sample Number: J0806209-03A Analysis Date: 6/25/2008 4:45:00PM
Prep Date: 6/25/2008 Instrument: Filter
Analytical Method ID: In-lab filtration for dissolved metals File Name:
Prep Method ID: Filtration Dilution Factor: 1
Prep Batch Number: J080710015
Report Basis: As Received Analyst Initials: AL
Sample prep wt./vol: 250.00 ml Prep Extract Vol: 250.00 ml

<u>Analyte</u>	<u>CASNo</u>	<u>Result</u>	<u>Flags</u>	<u>Units</u>	<u>PQL</u>	<u>MDL</u>	<u>Rerun #:</u>
Filtration		1.0		mg/L	1.0	1.0	1

The following test was conducted by: Analytica - Thornton

Lab Sample Number: J0806209-03A Analysis Date: 7/7/2008 10:21:13PM
Prep Date: 7/7/2008 Instrument: Elan
Analytical Method ID: 200.8 - Metals by ICP/MS - Dissolved File Name: 070708bsam.re
Prep Method ID: 200.8 Dilution Factor: 1
Prep Batch Number: T080707007
Report Basis: As Received Analyst Initials: GY
Sample prep wt./vol: 50.00 ml Prep Extract Vol: 50.00 ml

<u>Analyte</u>	<u>CASNo</u>	<u>Result</u>	<u>Flags</u>	<u>Units</u>	<u>PQL</u>	<u>MDL</u>	<u>Rerun #:</u>
Copper	7440-50-8	50.3		ug/L	0.10	0.034	1
Nickel	7440-02-0	1.00		ug/L	0.15	0.050	
Zinc	7440-66-6	28.1		ug/L	0.25	0.084	

Detailed Analytical Report

Analytica Alaska Southeast

Workorder (SDG): J0806209

Project: Star Princess

Client: Admiralty Environmental, LLC

Client Project Number: AE 2049

Report Section: Client Sample Report

Client Sample Name: **Bunkering Victoria - On Pier**

Matrix: Aqueous Collection Date: 6/21/2008 5:50:00PM

The following test was conducted by: Analytica - Juneau

Lab Sample Number: J0806209-04A Analysis Date: 6/25/2008 4:45:00PM
Prep Date: 6/25/2008 Instrument: Filter
Analytical Method ID: In-lab filtration for dissolved metals File Name:
Prep Method ID: Filtration Dilution Factor: 1
Prep Batch Number: J080710015 Analyst Initials: AL
Report Basis: As Received Prep Extract Vol: 250.00 ml
Sample prep wt./vol: 250.00 ml

<u>Analyte</u>	<u>CASNo</u>	<u>Result</u>	<u>Flags</u>	<u>Units</u>	<u>PQL</u>	<u>MDL</u>	<u>Rerun #:</u>
Filtration		1.0		mg/L	1.0	1.0	1

The following test was conducted by: Analytica - Thornton

Lab Sample Number: J0806209-04A Analysis Date: 7/7/2008 10:25:43PM
Prep Date: 7/7/2008 Instrument: Elan
Analytical Method ID: 200.8 - Metals by ICP/MS - Dissolved File Name: 070708bsam.re
Prep Method ID: 200.8 Dilution Factor: 1
Prep Batch Number: T080707007 Analyst Initials: GY
Report Basis: As Received Prep Extract Vol: 50.00 ml
Sample prep wt./vol: 50.00 ml

<u>Analyte</u>	<u>CASNo</u>	<u>Result</u>	<u>Flags</u>	<u>Units</u>	<u>PQL</u>	<u>MDL</u>	<u>Rerun #:</u>
Copper	7440-50-8	2.47		ug/L	0.10	0.034	1
Nickel	7440-02-0	0.431		ug/L	0.15	0.050	
Zinc	7440-66-6	8.92		ug/L	0.25	0.084	

Detailed Analytical Report

Analytica Alaska Southeast

Workorder (SDG): J0806209

Project: Star Princess

Client: Admiralty Environmental, LLC

Client Project Number: AE 2049

Report Section: Client Sample Report

Client Sample Name: **Bunkering Seattle - Fwd Port**

Matrix: Aqueous Collection Date: 6/22/2008 10:29:00AM

The following test was conducted by: Analytica - Juneau

Lab Sample Number: J0806209-05A Analysis Date: 6/25/2008 4:45:00PM
Prep Date: 6/25/2008 Instrument: Filter
Analytical Method ID: In-lab filtration for dissolved metals File Name:
Prep Method ID: Filtration Dilution Factor: 1
Prep Batch Number: J080710015 Analyst Initials: AL
Report Basis: As Received Prep Extract Vol: 250.00 ml
Sample prep wt./vol: 250.00 ml

<u>Analyte</u>	<u>CASNo</u>	<u>Result</u>	<u>Flags</u>	<u>Units</u>	<u>PQL</u>	<u>MDL</u>	<u>Rerun #:</u>
Filtration		1.0		mg/L	1.0	1.0	1

The following test was conducted by: Analytica - Thornton

Lab Sample Number: J0806209-05A Analysis Date: 7/7/2008 10:51:53PM
Prep Date: 7/7/2008 Instrument: Elan
Analytical Method ID: 200.8 - Metals by ICP/MS - Dissolved File Name: 070708bsam.re
Prep Method ID: 200.8 Dilution Factor: 1
Prep Batch Number: T080707007 Analyst Initials: GY
Report Basis: As Received Prep Extract Vol: 50.00 ml
Sample prep wt./vol: 50.00 ml

<u>Analyte</u>	<u>CASNo</u>	<u>Result</u>	<u>Flags</u>	<u>Units</u>	<u>PQL</u>	<u>MDL</u>	<u>Rerun #:</u>
Copper	7440-50-8	0.749		ug/L	0.10	0.034	1
Nickel	7440-02-0	0.390		ug/L	0.15	0.050	
Zinc	7440-66-6	5.85		ug/L	0.25	0.084	

Detailed Analytical Report

Analytica Environmental Laboratories, Inc.

Workorder (SDG): J0806209

Project: Star Princess

Client: Admiralty Environmental, LLC

Client Project Number: AE 2049

Report Section: Method Blank Report

Client Sample Name: **MB**

Matrix: Aqueous Collection Date: 7/7/2008 12:00:00AM

The following test was conducted by: Analytica - Thornton

Lab Sample Number: T080707007-MB Analysis Date: 7/7/2008 3:35:36PM
Prep Date: 7/7/2008 Instrument: Elan
Analytical Method ID: 200.8 - Metals by ICP/MS - Dissolved File Name: 070708bsam.re
Prep Method ID: 200.8 Dilution Factor: 1
Prep Batch Number: T080707007
Report Basis: Dry Weight Basis Analyst Initials: GY
Sample prep wt./vol: 50.00 ml Prep Extract Vol: 50.00 ml

<u>Analyte</u>	<u>CASNo</u>	<u>Result</u>	<u>Flags</u>	<u>Units</u>	<u>PQL</u>	<u>MDL</u>	<u>Rerun #:</u>
Copper	7440-50-8	ND		ug/L	0.10	0.034	1
Nickel	7440-02-0	ND		ug/L	0.15	0.050	
Zinc	7440-66-6	ND		ug/L	0.25	0.084	

Detailed Analytical Report

Analytica Environmental Laboratories, Inc.

Workorder (SDG): J0806209

Project: Star Princess

Client: Admiralty Environmental, LLC

Client Project Number: AE 2049

Tests Run at: Analytica Environmental Laboratories - Thornton, Colorado

Workorder (SDG): J0806209

Project: Star Princess

Project Number:

QUALITY CONTROL REPORT

Prep Batch: T080707007

SAMPLE DUPLICATE REPORT

Analysis: 200.8 - Metals by ICP/MS - Dissolved

Base Sample: F0806396-02A

Prep Date: 7/7/2008

Samp. Anal. Date: 7/7/2008 9:05:03PM

Units: ug/L

DUP Anal. Date: 7/7/2008 9:09:33PM

Matrix: Aqueous

Analyte Name	SampResult	DUPRes.	RPD	RPDLim	Flag
Copper	648	648	0.0	20	
Lead	7.31	7.29	0.3	20	

LCS/LCSD REPORT

Analysis: 200.8 - Metals by ICP/MS - Dissolved

MB: T080707007-MB

Prep Date: 7/7/2008

MB Anal. Date: 7/7/2008 3:35:36PM

Units: ug/L

LCS Anal. Date: 7/7/2008 3:40:05PM LCSD Anal. Date: 7/7/2008 3:45:04PM

Matrix: Aqueous

Analyte Name	SampResult	LCSRes.	SDRes.	SPLev	SPDLev	Recov.	SD Recov	RPD	Recov Lim	RPDLim	Flag
Nickel	ND	52.1	52.3	50.0	50.0	104.2	104.6	0.4	85 - 115	20	
Copper	ND	53.2	53.6	50.0	50.0	106.4	107.2	0.7	85 - 115	20	
Zinc	ND	51.4	51.9	50.0	50.0	102.8	103.8	1.0	85 - 115	20	

MS/MSD REPORT

Analysis: 200.8 - Metals by ICP/MS - Dissolved

Parent: F0806396-02A

Prep Date: 7/7/2008

Samp. Anal. Date: 7/7/2008 9:05:03PM

Units: ug/L

MS Anal. Date: 7/7/2008 9:14:03PM MSD Anal. Date: 7/7/2008 9:19:03PM

Matrix: Aqueous

Analyte Name	SampResult	MSRes.	MSDRes	SPLev	SPDLev	Recov.	MSD Rec.	RPD	Recov Lim	RPDLim	Flag
Copper	648	688	686	50.0	50.0	80.0	76.0	0.3	70 - 130	20	NOTE 2 NOTE 2
Lead	7.31	59.3	60.5	50.0	50.0	104.0	106.4	2.0	70 - 130	20	

Detailed Analytical Report

Analytica Environmental Laboratories, Inc.

Workorder (SDG): J0806209

Project: Star Princess

Client: Admiralty Environmental, LLC

Client Project Number: AE 2049

FOOTNOTES TO QC REPORT

Note 1: Results are shown to three significant figures to avoid rounding errors in calculations.

Note 2: If the sample concentration is greater than 4 times the spike level, a recovery is not meaningful, and the result should be used as a replicate. In such cases the spike is not as high as expected random measurement variability of the sample result itself.

Note 3: For sample duplicates, if the result is less than the PQL, the duplicate RPD is not applicable. If the sample and duplicate results are not five times the PQL or greater, then the RPD is not expected to fall within the window shown and the comparison should be made on the basis of the absolute difference. Analytica uses the criterion that the absolute difference should be less than the PQL for water or less than 2XPQL for other matrices.

Note 4: For serial dilutions, if the result is less than the PQL, the duplicate RPD is not applicable. If the sample result is not 50 times the MDL or greater, then the fact that the RPD does not meet the 10% criterion has little significance. Otherwise it indicates that a matrix bias may exist at the analytical step.

Detailed Analytical Report

Analytica Environmental Laboratories, Inc.

Workorder (SDG): J0806209

Project: Star Princess

Client: Admiralty Environmental, LLC

Client Project Number: AE 2049

QC BATCH ASSOCIATIONS - BY METHOD BLANK

Lab Project ID: 88,987 Lab Project Number: J0806209

Prep Date: 7/7/2008

Lab Method Blank Id: T080707007-MB

Prep Batch ID: T080707007

Method: 200.8 - Metals by ICP/MS - Dissolved

This Method blank and sample preparation batch are associated with the following samples, spikes, and duplicates:

<u>SampleNum</u>	<u>ClientSampleName</u>	<u>DataFile</u>	<u>AnalysisDate</u>
F0806396-02A	Batch QC	070708bsam.rep	7/7/2008 9:05:03PM
J0806209-01A	Evaporator 1	070708bsam.rep	7/7/2008 10:12:12PM
J0806209-02A	Evaporator 3	070708bsam.rep	7/7/2008 10:16:43PM
J0806209-03A	Evaporator 2	070708bsam.rep	7/7/2008 10:21:13PM
J0806209-04A	Bunkering Victoria - On Pier	070708bsam.rep	7/7/2008 10:25:43PM
J0806209-05A	Bunkering Seattle - Fwd Port	070708bsam.rep	7/7/2008 10:51:53PM
T080707007-LCS	LCS	070708bsam.rep	7/7/2008 3:40:05PM
T080707007-LCSD	LCSD	070708bsam.rep	7/7/2008 3:45:04PM
F0806396-02A-DUP	DUP	070708bsam.rep	7/7/2008 9:09:33PM
F0806396-02A-MS	MS	070708bsam.rep	7/7/2008 9:14:03PM
F0806396-02A-MSD	MSD	070708bsam.rep	7/7/2008 9:19:03PM

Detailed Analytical Report

Analytica Environmental Laboratories, Inc.

Workorder (SDG): J0806209

Project: Star Princess

Client: Admiralty Environmental, LLC

Client Project Number: AE 2049

DATA FLAGS AND DEFINITIONS

The PQL is the Method Quantitation Limit as defined by USACE.

Reporting Limit: Limit below which results are shown as "ND". This may be the PQL, MDL, or a value between. See the report conventions below.

Result Field:

ND = Not Detected at or above the Reporting Limit

NA = Analyte not applicable (see Case Narrative for discussion)

Qualifier Fields:

LOW = Recovery is below Lower Control Limit

HIGH = Recovery, RPD, or other parameter is above Upper Control Limit

E = Reported concentration is above the instrument calibration upper range

Organic Analysis Flags:

B = Analyte was detected in the laboratory method blank

J = Analyte was detected above MDL or Reporting Limit but below the Quant Limit (PQL)

Inorganic Analysis Flags:

J = Analyte was detected above the Reporting Limit but below the Quant Limit (PQL)

W = Post digestion spike did not meet criteria

S = Reported value determined by the Method of Standard Additions (MSA)

Other Flags may be applied. See Case Narrative for Description

Detailed Analytical Report

Analytica Environmental Laboratories, Inc.

Workorder (SDG): J0806209

Project: Star Princess

Client: Admiralty Environmental, LLC

Client Project Number: AE 2049

REPORTING CONVENTIONS FOR THIS REPORT

J0806209

<u>Test Name</u>	<u>Basis</u>	<u># Sig Figs</u>	<u>Reporting Limit</u>
200.8/200.8 (Aqueous) - Dissolved	As Received		Report to PQL
Filtration (Aqueous)	As Received		Report to PQL



Analytica Alaska Southeast
5438 Shaune Drive
Juneau, AK 99801
(907) 780-6668
Fax (907) 780-6670

7/3/2008

Admiralty Environmental, LLC
431 N. Franklin St.
Suite 101
Juneau, AK 99801
Attn: David Wetzel

Work Order #: J0806164
Date: 7/3/2008
Work ID: Star Princess
Date Received: 6/19/2008

Sample Identification

Lab Sample Number	Client Description	Lab Sample Number	Client Description
J0806164-01	Bunkered Water Skagway St. F	J0806164-02	Potable Water Tk (8+9) after R
J0806164-03	Bunkered Water - Ketchikan - S	J0806164-04	Tap Water - Bridge Pantry Dec
J0806164-05	Crew Cabin Deck 10 Fwd Port (J0806164-06	Pax Cabin Deck 8 Fwd Stbd (h
J0806164-07	Pax Cabin Deck 11 Port Midshi	J0806164-08	Crew Cabin Deck 4 Port
J0806164-09	Tap Water - Crew Galley Deck 5	J0806164-10	Influent MBR Black Water - Ev
J0806164-11	Influent MBR Gray Water - Buff	J0806164-12	Potable Water Tk (11-12) after R
J0806164-13	Bunkered Water - Juneau -AJ D	J0806164-14	Alternate OB Sample Point

Enclosed are the analytical results for the submitted sample(s). Please review the CASE NARRATIVE for a discussion of any data and/or quality control issues. Listings of data qualifiers, analytical codes, key dates, and QC relationships are provided at the end of the report.

Sincerely,

Keelin Kistner
Project Manager

"The Science of Analysis, The Art of Service"

Case Narrative

Analytica Alaska Southeast

Work Order: J0806164

Samples were prepared and analyzed according to EPA or equivalent methods outlined in the following references:

Methods for the Determination of Metals in Environmental Samples, EPA/600/R-94/111, May 1994.

SAMPLE RECEIPT:

Fourteen (14) samples were received on 6/19/2008 at 7:00:00 AM, at a temperature of 5.6°C, in cooler 1 at Analytica-Juneau. The cooler was opened on 6/19/2008. The samples were received in good condition and in order per chain of custody.

The samples were transferred for analysis to Analytica Environmental Laboratories (AEL), 12189 Pennsylvania St., Thornton, Colorado 80241, where they were received at a temperature of 5.1°C, in good condition and in order per chain of custody on 6/24/08.

REVIEW FOR COMPLIANCE WITH ANALYTICA QA PLAN

A summary of our review is shown below, organized by test:

Test Method: 200.8 - Metals by ICP/MS - Dissolved - Aqueous

HOLDING TIMES:

Holding times were met for this test.

SAMPLE PREPARATION ISSUES AND OBSERVATIONS:

There were no unusual observations.

INSTRUMENT PERFORMANCE CHECKS:

Instrument checks were within method criteria.

INITIAL CALIBRATIONS:

Initial calibrations were within method criteria.

OPENING CONTINUING CALIBRATIONS:

Opening continuing calibrations were within method criteria.

CLOSING CONTINUING CALIBRATIONS:

Closing continuing calibrations were within method criteria or not applicable.

METHOD BLANK OUTLIERS:

There are no method blank outliers.

LCS OUTLIERS:

There are no LCS outliers.

MS/MSD and DUP OUTLIERS:

There are no MS/MSD or DUP outliers.

Test Method: In-lab filtration for dissolved metals - Aqueous

HOLDING TIMES:

Per the 40CFR Part 136, filtration for dissolved targets should be performed in the field, within 15 minutes of sampling. Per client request, filtration was performed as soon as possible upon sample receipt.

Summary of Detected Analytes

Analytica Alaska Southeast

Workorder (SDG): J0806164
Project: Star Princess
Client: Admiralty Environmental, LLC
Client Project Number: AE 2049

Client Sample Name: **Alternate OB Sample Point**

Matrix: Aqueous

Collection Date: 6/18/2008 5:20:00PM

<u>Analyte</u>	<u>Result</u>	<u>PQL</u>	<u>Units</u>	<u>Analysis Date</u>	<u>Flags</u>	<u>Analyst</u>	<u>Method</u>
Copper	116	1.0	ug/L	6/27/08 0:53		GY	200.8 - Metals by ICP/MS - Dissolved
Nickel	258	1.5	ug/L	6/27/08 0:53		GY	200.8 - Metals by ICP/MS - Dissolved
Zinc	183	2.5	ug/L	6/27/08 0:53		GY	200.8 - Metals by ICP/MS - Dissolved
Filtration	1.0	1.0	Date	6/19/08 9:00		al	In-lab filtration for dissolved metals

Client Sample Name: **Bunkered Water - Juneau -AJ Dock**

Matrix: Aqueous

Collection Date: 6/18/2008 5:30:00PM

<u>Analyte</u>	<u>Result</u>	<u>PQL</u>	<u>Units</u>	<u>Analysis Date</u>	<u>Flags</u>	<u>Analyst</u>	<u>Method</u>
Copper	28.1	0.10	ug/L	6/26/08 18:09		GY	200.8 - Metals by ICP/MS - Dissolved
Nickel	1.24	0.15	ug/L	6/26/08 18:09		GY	200.8 - Metals by ICP/MS - Dissolved
Zinc	13.7	0.25	ug/L	6/26/08 18:09		GY	200.8 - Metals by ICP/MS - Dissolved
Filtration	1.0	1.0	Date	6/19/08 9:00		al	In-lab filtration for dissolved metals

Client Sample Name: **Bunkered Water - Ketchikan - St. Fwd Port**

Matrix: Aqueous

Collection Date: 6/17/2008 11:30:00AM

<u>Analyte</u>	<u>Result</u>	<u>PQL</u>	<u>Units</u>	<u>Analysis Date</u>	<u>Flags</u>	<u>Analyst</u>	<u>Method</u>
Copper	0.430	0.10	ug/L	6/26/08 17:12		GY	200.8 - Metals by ICP/MS - Dissolved
Nickel	0.200	0.15	ug/L	6/26/08 17:12		GY	200.8 - Metals by ICP/MS - Dissolved
Zinc	6.49	0.25	ug/L	6/26/08 17:12		GY	200.8 - Metals by ICP/MS - Dissolved
Filtration	1.0	1.0	Date	6/19/08 9:00		al	In-lab filtration for dissolved metals

Client Sample Name: **Bunkered Water Skagway St. Fwd Port**

Matrix: Aqueous

Collection Date: 6/12/2008 8:35:00AM

<u>Analyte</u>	<u>Result</u>	<u>PQL</u>	<u>Units</u>	<u>Analysis Date</u>	<u>Flags</u>	<u>Analyst</u>	<u>Method</u>
Copper	0.688	0.10	ug/L	6/26/08 16:29		GY	200.8 - Metals by ICP/MS - Dissolved
Nickel	1.48	0.15	ug/L	6/26/08 16:29		GY	200.8 - Metals by ICP/MS - Dissolved
Zinc	6.53	0.25	ug/L	6/26/08 16:29		GY	200.8 - Metals by ICP/MS - Dissolved
Filtration	1.0	1.0	Date	6/19/08 9:00		al	In-lab filtration for dissolved metals

Client Sample Name: **Crew Cabin Deck 10 Fwd Port (hot water)**

Matrix: Aqueous

Collection Date: 6/17/2008 11:45:00AM

<u>Analyte</u>	<u>Result</u>	<u>PQL</u>	<u>Units</u>	<u>Analysis Date</u>	<u>Flags</u>	<u>Analyst</u>	<u>Method</u>
Copper	52.3	0.10	ug/L	6/26/08 17:19		GY	200.8 - Metals by ICP/MS - Dissolved
Nickel	8.27	0.15	ug/L	6/26/08 17:19		GY	200.8 - Metals by ICP/MS - Dissolved
Zinc	33.5	0.25	ug/L	6/26/08 17:19		GY	200.8 - Metals by ICP/MS - Dissolved
Filtration	1.0	1.0	Date	6/19/08 9:00		al	In-lab filtration for dissolved metals

Summary of Detected Analytes

Analytica Alaska Southeast

Workorder (SDG): J0806164
Project: Star Princess
Client: Admiralty Environmental, LLC
Client Project Number: AE 2049

Client Sample Name: **Crew Cabin Deck 4 Port**

Matrix: Aqueous

Collection Date: 6/17/2008 12:00:00PM

<u>Analyte</u>	<u>Result</u>	<u>PQL</u>	<u>Units</u>	<u>Analysis Date</u>	<u>Flags</u>	<u>Analyst</u>	<u>Method</u>
Copper	41.6	0.10	ug/L	6/26/08 17:34		GY	200.8 - Metals by ICP/MS - Dissolved
Nickel	1.85	0.15	ug/L	6/26/08 17:34		GY	200.8 - Metals by ICP/MS - Dissolved
Zinc	40.0	0.25	ug/L	6/26/08 17:34		GY	200.8 - Metals by ICP/MS - Dissolved
Filtration	1.0	1.0	Date	6/19/08 9:00		al	In-lab filtration for dissolved metals

Client Sample Name: **Influent MBR Black Water - Evac 4**

Matrix: Aqueous

Collection Date: 6/18/2008 11:35:00AM

<u>Analyte</u>	<u>Result</u>	<u>PQL</u>	<u>Units</u>	<u>Analysis Date</u>	<u>Flags</u>	<u>Analyst</u>	<u>Method</u>
Copper	17.0	1.4	ug/L	6/27/08 0:49		GY	200.8 - Metals by ICP/MS - Dissolved
Nickel	8.58	2.1	ug/L	6/27/08 0:49		GY	200.8 - Metals by ICP/MS - Dissolved
Zinc	115	3.6	ug/L	6/27/08 0:49		GY	200.8 - Metals by ICP/MS - Dissolved
Filtration	1.0	1.0	Date	6/19/08 9:00		al	In-lab filtration for dissolved metals

Client Sample Name: **Influent MBR Gray Water - Buffer Tk**

Matrix: Aqueous

Collection Date: 6/18/2008 11:45:00AM

<u>Analyte</u>	<u>Result</u>	<u>PQL</u>	<u>Units</u>	<u>Analysis Date</u>	<u>Flags</u>	<u>Analyst</u>	<u>Method</u>
Copper	22.5	0.10	ug/L	6/26/08 18:01		GY	200.8 - Metals by ICP/MS - Dissolved
Nickel	7.64	0.15	ug/L	6/26/08 18:01		GY	200.8 - Metals by ICP/MS - Dissolved
Zinc	94.6	0.25	ug/L	6/26/08 18:01		GY	200.8 - Metals by ICP/MS - Dissolved
Filtration	1.0	1.0	Date	6/19/08 9:00		al	In-lab filtration for dissolved metals

Client Sample Name: **Pax Cabin Deck 11 Port Midship**

Matrix: Aqueous

Collection Date: 6/17/2008 11:55:00AM

<u>Analyte</u>	<u>Result</u>	<u>PQL</u>	<u>Units</u>	<u>Analysis Date</u>	<u>Flags</u>	<u>Analyst</u>	<u>Method</u>
Copper	44.7	0.10	ug/L	6/26/08 17:31		GY	200.8 - Metals by ICP/MS - Dissolved
Nickel	2.21	0.15	ug/L	6/26/08 17:31		GY	200.8 - Metals by ICP/MS - Dissolved
Zinc	33.7	0.25	ug/L	6/26/08 17:31		GY	200.8 - Metals by ICP/MS - Dissolved
Filtration	1.0	1.0	Date	6/19/08 9:00		al	In-lab filtration for dissolved metals

Client Sample Name: **Pax Cabin Deck 8 Fwd Stbd (hot water)**

Matrix: Aqueous

Collection Date: 6/17/2008 11:50:00AM

<u>Analyte</u>	<u>Result</u>	<u>PQL</u>	<u>Units</u>	<u>Analysis Date</u>	<u>Flags</u>	<u>Analyst</u>	<u>Method</u>
Copper	56.3	0.10	ug/L	6/26/08 17:27		GY	200.8 - Metals by ICP/MS - Dissolved
Nickel	8.20	0.15	ug/L	6/26/08 17:27		GY	200.8 - Metals by ICP/MS - Dissolved
Zinc	34.9	0.25	ug/L	6/26/08 17:27		GY	200.8 - Metals by ICP/MS - Dissolved
Filtration	1.0	1.0	Date	6/19/08 9:00		al	In-lab filtration for dissolved metals

Summary of Detected Analytes

Analytica Alaska Southeast

Workorder (SDG): **J0806164**
 Project: **Star Princess**
 Client: **Admiralty Environmental, LLC**
 Client Project Number: **AE 2049**

Client Sample Name: **Potable Water Tk (11-12) after Retention**

Matrix: Aqueous

Collection Date: 6/18/2008 11:55:00AM

<u>Analyte</u>	<u>Result</u>	<u>PQL</u>	<u>Units</u>	<u>Analysis Date</u>	<u>Flags</u>	<u>Analyst</u>	<u>Method</u>
Copper	17.6	0.10	ug/L	6/26/08 18:05		GY	200.8 - Metals by ICP/MS - Dissolved
Nickel	1.48	0.15	ug/L	6/26/08 18:05		GY	200.8 - Metals by ICP/MS - Dissolved
Zinc	18.0	0.25	ug/L	6/26/08 18:05		GY	200.8 - Metals by ICP/MS - Dissolved
Filtration	1.0	1.0	Date	6/19/08 9:00		al	In-lab filtration for dissolved metals

Client Sample Name: **Potable Water Tk (8+9) after Retention**

Matrix: Aqueous

Collection Date: 6/17/2008 11:20:00AM

<u>Analyte</u>	<u>Result</u>	<u>PQL</u>	<u>Units</u>	<u>Analysis Date</u>	<u>Flags</u>	<u>Analyst</u>	<u>Method</u>
Copper	15.3	0.10	ug/L	6/26/08 17:08		GY	200.8 - Metals by ICP/MS - Dissolved
Nickel	1.74	0.15	ug/L	6/26/08 17:08		GY	200.8 - Metals by ICP/MS - Dissolved
Zinc	17.8	0.25	ug/L	6/26/08 17:08		GY	200.8 - Metals by ICP/MS - Dissolved
Filtration	1.0	1.0	Date	6/19/08 9:00		al	In-lab filtration for dissolved metals

Client Sample Name: **Tap Water - Bridge Pantry Deck 14**

Matrix: Aqueous

Collection Date: 6/17/2008 11:35:00AM

<u>Analyte</u>	<u>Result</u>	<u>PQL</u>	<u>Units</u>	<u>Analysis Date</u>	<u>Flags</u>	<u>Analyst</u>	<u>Method</u>
Copper	19.5	0.10	ug/L	6/26/08 17:15		GY	200.8 - Metals by ICP/MS - Dissolved
Nickel	1.87	0.15	ug/L	6/26/08 17:15		GY	200.8 - Metals by ICP/MS - Dissolved
Zinc	26.9	0.25	ug/L	6/26/08 17:15		GY	200.8 - Metals by ICP/MS - Dissolved
Filtration	1.0	1.0	Date	6/19/08 9:00		al	In-lab filtration for dissolved metals

Client Sample Name: **Tap Water - Crew Galley Deck 5 Aft (Hot)**

Matrix: Aqueous

Collection Date: 6/17/2008 12:05:00PM

<u>Analyte</u>	<u>Result</u>	<u>PQL</u>	<u>Units</u>	<u>Analysis Date</u>	<u>Flags</u>	<u>Analyst</u>	<u>Method</u>
Copper	26.3	0.10	ug/L	6/26/08 17:38		GY	200.8 - Metals by ICP/MS - Dissolved
Nickel	10.4	0.15	ug/L	6/26/08 17:38		GY	200.8 - Metals by ICP/MS - Dissolved
Zinc	25.2	0.25	ug/L	6/26/08 17:38		GY	200.8 - Metals by ICP/MS - Dissolved
Filtration	1.0	1.0	Date	6/19/08 9:00		al	In-lab filtration for dissolved metals

Detailed Analytical Report

Analytica Alaska Southeast

Workorder (SDG): J0806164

Project: Star Princess

Client: Admiralty Environmental, LLC

Client Project Number: AE 2049

Report Section: Client Sample Report

Client Sample Name: **Bunkered Water Skagway St. Fwd Port**

Matrix: Aqueous Collection Date: 6/12/2008 8:35:00AM

The following test was conducted by: Analytica - Juneau

Lab Sample Number: J0806164-01A Analysis Date: 6/19/2008 9:00:00AM
Prep Date: 6/19/2008 Instrument: Filter
Analytical Method ID: In-lab filtration for dissolved metals File Name:
Prep Method ID: Filtration Dilution Factor: 1
Prep Batch Number: J080620006 Analyst Initials: al
Report Basis: As Received Prep Extract Vol: 1.00 ml
Sample prep wt./vol: 1.00 ml

<u>Analyte</u>	<u>CASNo</u>	<u>Result</u>	<u>Flags</u>	<u>Units</u>	<u>PQL</u>	<u>MDL</u>	<u>Rerun #:</u>
Filtration		1.0		Date	1.0	1.0	1

The following test was conducted by: Analytica - Thornton

Lab Sample Number: J0806164-01A Analysis Date: 6/26/2008 4:29:22PM
Prep Date: 6/26/2008 Instrument: Elan
Analytical Method ID: 200.8 - Metals by ICP/MS - Dissolved File Name: 062608asam.re
Prep Method ID: 200.8 Dilution Factor: 1
Prep Batch Number: T080626010 Analyst Initials: GY
Report Basis: As Received Prep Extract Vol: 50.00 ml
Sample prep wt./vol: 50.00 ml

<u>Analyte</u>	<u>CASNo</u>	<u>Result</u>	<u>Flags</u>	<u>Units</u>	<u>PQL</u>	<u>MDL</u>	<u>Rerun #:</u>
Copper	7440-50-8	0.688		ug/L	0.10	0.034	1
Nickel	7440-02-0	1.48		ug/L	0.15	0.050	
Zinc	7440-66-6	6.53		ug/L	0.25	0.084	

Detailed Analytical Report

Analytica Alaska Southeast

Workorder (SDG): J0806164

Project: Star Princess

Client: Admiralty Environmental, LLC

Client Project Number: AE 2049

Report Section: Client Sample Report

Client Sample Name: **Potable Water Tk (8+9) after Retention**

Matrix: Aqueous Collection Date: 6/17/2008 11:20:00AM

The following test was conducted by: Analytica - Juneau

Lab Sample Number: J0806164-02A Analysis Date: 6/19/2008 9:00:00AM
Prep Date: 6/19/2008 Instrument: Filter
Analytical Method ID: In-lab filtration for dissolved metals File Name:
Prep Method ID: Filtration Dilution Factor: 1
Prep Batch Number: J080620006 Analyst Initials: al
Report Basis: As Received Prep Extract Vol: 1.00 ml
Sample prep wt./vol: 1.00 ml

<u>Analyte</u>	<u>CASNo</u>	<u>Result</u>	<u>Flags</u>	<u>Units</u>	<u>PQL</u>	<u>MDL</u>	<u>Rerun #:</u>
Filtration		1.0		Date	1.0	1.0	1

The following test was conducted by: Analytica - Thornton

Lab Sample Number: J0806164-02A Analysis Date: 6/26/2008 5:08:11PM
Prep Date: 6/26/2008 Instrument: Elan
Analytical Method ID: 200.8 - Metals by ICP/MS - Dissolved File Name: 062608asam.re
Prep Method ID: 200.8 Dilution Factor: 1
Prep Batch Number: T080626010 Analyst Initials: GY
Report Basis: As Received Prep Extract Vol: 50.00 ml
Sample prep wt./vol: 50.00 ml

<u>Analyte</u>	<u>CASNo</u>	<u>Result</u>	<u>Flags</u>	<u>Units</u>	<u>PQL</u>	<u>MDL</u>	<u>Rerun #:</u>
Copper	7440-50-8	15.3		ug/L	0.10	0.034	1
Nickel	7440-02-0	1.74		ug/L	0.15	0.050	
Zinc	7440-66-6	17.8		ug/L	0.25	0.084	

Detailed Analytical Report

Analytica Alaska Southeast

Workorder (SDG): J0806164

Project: Star Princess

Client: Admiralty Environmental, LLC

Client Project Number: AE 2049

Report Section: Client Sample Report

Client Sample Name: **Bunkered Water - Ketchikan - St. Fwd**

Matrix: Aqueous **Port** Collection Date: 6/17/2008 11:30:00AM

The following test was conducted by: Analytica - Juneau

Lab Sample Number: J0806164-03A	Analysis Date: 6/19/2008 9:00:00AM
Prep Date: 6/19/2008	Instrument: Filter
Analytical Method ID: In-lab filtration for dissolved metals	File Name:
Prep Method ID: Filtration	Dilution Factor: 1
Prep Batch Number: J080620006	Analyst Initials: al
Report Basis: As Received	Prep Extract Vol: 1.00 ml
Sample prep wt./vol: 1.00 ml	

<u>Analyte</u>	<u>CASNo</u>	<u>Result</u>	<u>Flags</u>	<u>Units</u>	<u>PQL</u>	<u>MDL</u>	<u>Rerun #:</u>
Filtration		1.0		Date	1.0	1.0	1

The following test was conducted by: Analytica - Thornton

Lab Sample Number: J0806164-03A	Analysis Date: 6/26/2008 5:12:00PM
Prep Date: 6/26/2008	Instrument: Elan
Analytical Method ID: 200.8 - Metals by ICP/MS - Dissolved	File Name: 062608asam.re
Prep Method ID: 200.8	Dilution Factor: 1
Prep Batch Number: T080626010	Analyst Initials: GY
Report Basis: As Received	Prep Extract Vol: 50.00 ml
Sample prep wt./vol: 50.00 ml	

<u>Analyte</u>	<u>CASNo</u>	<u>Result</u>	<u>Flags</u>	<u>Units</u>	<u>PQL</u>	<u>MDL</u>	<u>Rerun #:</u>
Copper	7440-50-8	0.430		ug/L	0.10	0.034	1
Nickel	7440-02-0	0.200		ug/L	0.15	0.050	
Zinc	7440-66-6	6.49		ug/L	0.25	0.084	

Detailed Analytical Report

Analytica Alaska Southeast

Workorder (SDG): J0806164

Project: Star Princess

Client: Admiralty Environmental, LLC

Client Project Number: AE 2049

Report Section: Client Sample Report

Client Sample Name: **Tap Water - Bridge Pantry Deck 14**

Matrix: Aqueous Collection Date: 6/17/2008 11:35:00AM

The following test was conducted by: Analytica - Juneau

Lab Sample Number: J0806164-04A Analysis Date: 6/19/2008 9:00:00AM
Prep Date: 6/19/2008 Instrument: Filter
Analytical Method ID: In-lab filtration for dissolved metals File Name:
Prep Method ID: Filtration Dilution Factor: 1
Prep Batch Number: J080620006 Analyst Initials: al
Report Basis: As Received Prep Extract Vol: 1.00 ml
Sample prep wt./vol: 1.00 ml

<u>Analyte</u>	<u>CASNo</u>	<u>Result</u>	<u>Flags</u>	<u>Units</u>	<u>PQL</u>	<u>MDL</u>	<u>Rerun #:</u>
Filtration		1.0		Date	1.0	1.0	1

The following test was conducted by: Analytica - Thornton

Lab Sample Number: J0806164-04A Analysis Date: 6/26/2008 5:15:49PM
Prep Date: 6/26/2008 Instrument: Elan
Analytical Method ID: 200.8 - Metals by ICP/MS - Dissolved File Name: 062608asam.re
Prep Method ID: 200.8 Dilution Factor: 1
Prep Batch Number: T080626010 Analyst Initials: GY
Report Basis: As Received Prep Extract Vol: 50.00 ml
Sample prep wt./vol: 50.00 ml

<u>Analyte</u>	<u>CASNo</u>	<u>Result</u>	<u>Flags</u>	<u>Units</u>	<u>PQL</u>	<u>MDL</u>	<u>Rerun #:</u>
Copper	7440-50-8	19.5		ug/L	0.10	0.034	1
Nickel	7440-02-0	1.87		ug/L	0.15	0.050	
Zinc	7440-66-6	26.9		ug/L	0.25	0.084	

Detailed Analytical Report

Analytica Alaska Southeast

Workorder (SDG): J0806164

Project: Star Princess

Client: Admiralty Environmental, LLC

Client Project Number: AE 2049

Report Section: Client Sample Report

Client Sample Name: Crew Cabin Deck 10 Fwd Port (hot water)

Matrix: Aqueous Collection Date: 6/17/2008 11:45:00AM

The following test was conducted by: Analytica - Juneau

Lab Sample Number: J0806164-05A Analysis Date: 6/19/2008 9:00:00AM
Prep Date: 6/19/2008 Instrument: Filter
Analytical Method ID: In-lab filtration for dissolved metals File Name:
Prep Method ID: Filtration Dilution Factor: 1
Prep Batch Number: J080620006 Analyst Initials: al
Report Basis: As Received Prep Extract Vol: 1.00 ml
Sample prep wt./vol: 1.00 ml

<u>Analyte</u>	<u>CASNo</u>	<u>Result</u>	<u>Flags</u>	<u>Units</u>	<u>PQL</u>	<u>MDL</u>	<u>Rerun #:</u>
Filtration		1.0		Date	1.0	1.0	1

The following test was conducted by: Analytica - Thornton

Lab Sample Number: J0806164-05A Analysis Date: 6/26/2008 5:19:38PM
Prep Date: 6/26/2008 Instrument: Elan
Analytical Method ID: 200.8 - Metals by ICP/MS - Dissolved File Name: 062608asam.re
Prep Method ID: 200.8 Dilution Factor: 1
Prep Batch Number: T080626010 Analyst Initials: GY
Report Basis: As Received Prep Extract Vol: 50.00 ml
Sample prep wt./vol: 50.00 ml

<u>Analyte</u>	<u>CASNo</u>	<u>Result</u>	<u>Flags</u>	<u>Units</u>	<u>PQL</u>	<u>MDL</u>	<u>Rerun #:</u>
Copper	7440-50-8	52.3		ug/L	0.10	0.034	1
Nickel	7440-02-0	8.27		ug/L	0.15	0.050	
Zinc	7440-66-6	33.5		ug/L	0.25	0.084	

Detailed Analytical Report

Analytica Alaska Southeast

Workorder (SDG): J0806164

Project: Star Princess

Client: Admiralty Environmental, LLC

Client Project Number: AE 2049

Report Section: Client Sample Report

Client Sample Name: Pax Cabin Deck 8 Fwd Stbd (hot water)

Matrix: Aqueous Collection Date: 6/17/2008 11:50:00AM

The following test was conducted by: Analytica - Juneau

Lab Sample Number: J0806164-06A Analysis Date: 6/19/2008 9:00:00AM
Prep Date: 6/19/2008 Instrument: Filter
Analytical Method ID: In-lab filtration for dissolved metals File Name:
Prep Method ID: Filtration Dilution Factor: 1
Prep Batch Number: J080620006 Analyst Initials: al
Report Basis: As Received Prep Extract Vol: 1.00 ml
Sample prep wt./vol: 1.00 ml

<u>Analyte</u>	<u>CASNo</u>	<u>Result</u>	<u>Flags</u>	<u>Units</u>	<u>PQL</u>	<u>MDL</u>	<u>Rerun #:</u>
Filtration		1.0		Date	1.0	1.0	1

The following test was conducted by: Analytica - Thornton

Lab Sample Number: J0806164-06A Analysis Date: 6/26/2008 5:27:17PM
Prep Date: 6/26/2008 Instrument: Elan
Analytical Method ID: 200.8 - Metals by ICP/MS - Dissolved File Name: 062608asam.re
Prep Method ID: 200.8 Dilution Factor: 1
Prep Batch Number: T080626010 Analyst Initials: GY
Report Basis: As Received Prep Extract Vol: 50.00 ml
Sample prep wt./vol: 50.00 ml

<u>Analyte</u>	<u>CASNo</u>	<u>Result</u>	<u>Flags</u>	<u>Units</u>	<u>PQL</u>	<u>MDL</u>	<u>Rerun #:</u>
Copper	7440-50-8	56.3		ug/L	0.10	0.034	1
Nickel	7440-02-0	8.20		ug/L	0.15	0.050	
Zinc	7440-66-6	34.9		ug/L	0.25	0.084	

Detailed Analytical Report

Analytica Alaska Southeast

Workorder (SDG): J0806164

Project: Star Princess

Client: Admiralty Environmental, LLC

Client Project Number: AE 2049

Report Section: Client Sample Report

Client Sample Name: Pax Cabin Deck 11 Port Midship

Matrix: Aqueous Collection Date: 6/17/2008 11:55:00AM

The following test was conducted by: Analytica - Juneau

Lab Sample Number: J0806164-07A Analysis Date: 6/19/2008 9:00:00AM
Prep Date: 6/19/2008 Instrument: Filter
Analytical Method ID: In-lab filtration for dissolved metals File Name:
Prep Method ID: Filtration Dilution Factor: 1
Prep Batch Number: J080620006 Analyst Initials: al
Report Basis: As Received Prep Extract Vol: 1.00 ml
Sample prep wt./vol: 1.00 ml

<u>Analyte</u>	<u>CASNo</u>	<u>Result</u>	<u>Flags</u>	<u>Units</u>	<u>PQL</u>	<u>MDL</u>	<u>Rerun #:</u>
Filtration		1.0		Date	1.0	1.0	1

The following test was conducted by: Analytica - Thornton

Lab Sample Number: J0806164-07A Analysis Date: 6/26/2008 5:31:06PM
Prep Date: 6/26/2008 Instrument: Elan
Analytical Method ID: 200.8 - Metals by ICP/MS - Dissolved File Name: 062608asam.re
Prep Method ID: 200.8 Dilution Factor: 1
Prep Batch Number: T080626010 Analyst Initials: GY
Report Basis: As Received Prep Extract Vol: 50.00 ml
Sample prep wt./vol: 50.00 ml

<u>Analyte</u>	<u>CASNo</u>	<u>Result</u>	<u>Flags</u>	<u>Units</u>	<u>PQL</u>	<u>MDL</u>	<u>Rerun #:</u>
Copper	7440-50-8	44.7		ug/L	0.10	0.034	1
Nickel	7440-02-0	2.21		ug/L	0.15	0.050	
Zinc	7440-66-6	33.7		ug/L	0.25	0.084	

Detailed Analytical Report

Analytica Alaska Southeast

Workorder (SDG): J0806164

Project: Star Princess

Client: Admiralty Environmental, LLC

Client Project Number: AE 2049

Report Section: Client Sample Report

Client Sample Name: **Crew Cabin Deck 4 Port**

Matrix: Aqueous

Collection Date: 6/17/2008 12:00:00PM

The following test was conducted by: Analytica - Juneau

Lab Sample Number: J0806164-08A

Prep Date: 6/19/2008

Analytical Method ID: In-lab filtration for dissolved metals

Prep Method ID: Filtration

Prep Batch Number: J080620006

Report Basis: As Received

Sample prep wt./vol: 1.00 ml

Analysis Date: 6/19/2008 9:00:00AM

Instrument: Filter

File Name:

Dilution Factor: 1

Analyst Initials: al

Prep Extract Vol: 1.00 ml

<u>Analyte</u>	<u>CASNo</u>	<u>Result</u>	<u>Flags</u>	<u>Units</u>	<u>PQL</u>	<u>MDL</u>	<u>Rerun #:</u>
Filtration		1.0		Date	1.0	1.0	1

The following test was conducted by: Analytica - Thornton

Lab Sample Number: J0806164-08A

Prep Date: 6/26/2008

Analytical Method ID: 200.8 - Metals by ICP/MS - Dissolved

Prep Method ID: 200.8

Prep Batch Number: T080626010

Report Basis: As Received

Sample prep wt./vol: 50.00 ml

Analysis Date: 6/26/2008 5:34:55PM

Instrument: Elan

File Name: 062608asam.re

Dilution Factor: 1

Analyst Initials: GY

Prep Extract Vol: 50.00 ml

<u>Analyte</u>	<u>CASNo</u>	<u>Result</u>	<u>Flags</u>	<u>Units</u>	<u>PQL</u>	<u>MDL</u>	<u>Rerun #:</u>
Copper	7440-50-8	41.6		ug/L	0.10	0.034	1
Nickel	7440-02-0	1.85		ug/L	0.15	0.050	
Zinc	7440-66-6	40.0		ug/L	0.25	0.084	

Detailed Analytical Report

Analytica Alaska Southeast

Workorder (SDG): J0806164

Project: Star Princess

Client: Admiralty Environmental, LLC

Client Project Number: AE 2049

Report Section: Client Sample Report

Client Sample Name: Tap Water - Crew Galley Deck 5 Aft

(Hot)

Matrix: Aqueous Collection Date: 6/17/2008 12:05:00PM

The following test was conducted by: Analytica - Juneau

Lab Sample Number: J0806164-09A	Analysis Date: 6/19/2008 9:00:00AM
Prep Date: 6/19/2008	Instrument: Filter
Analytical Method ID: In-lab filtration for dissolved metals	File Name:
Prep Method ID: Filtration	Dilution Factor: 1
Prep Batch Number: J080620006	Analyst Initials: al
Report Basis: As Received	Prep Extract Vol: 1.00 ml
Sample prep wt./vol: 1.00 ml	

<u>Analyte</u>	<u>CASNo</u>	<u>Result</u>	<u>Flags</u>	<u>Units</u>	<u>PQL</u>	<u>MDL</u>	<u>Rerun #:</u>
Filtration		1.0		Date	1.0	1.0	1

The following test was conducted by: Analytica - Thornton

Lab Sample Number: J0806164-09A	Analysis Date: 6/26/2008 5:38:44PM
Prep Date: 6/26/2008	Instrument: Elan
Analytical Method ID: 200.8 - Metals by ICP/MS - Dissolved	File Name: 062608asam.re
Prep Method ID: 200.8	Dilution Factor: 1
Prep Batch Number: T080626010	Analyst Initials: GY
Report Basis: As Received	Prep Extract Vol: 50.00 ml
Sample prep wt./vol: 50.00 ml	

<u>Analyte</u>	<u>CASNo</u>	<u>Result</u>	<u>Flags</u>	<u>Units</u>	<u>PQL</u>	<u>MDL</u>	<u>Rerun #:</u>
Copper	7440-50-8	26.3		ug/L	0.10	0.034	1
Nickel	7440-02-0	10.4		ug/L	0.15	0.050	
Zinc	7440-66-6	25.2		ug/L	0.25	0.084	

Detailed Analytical Report

Analytica Alaska Southeast

Workorder (SDG): J0806164

Project: Star Princess

Client: Admiralty Environmental, LLC

Client Project Number: AE 2049

Report Section: Client Sample Report

Client Sample Name: **Influent MBR Black Water - Evac 4**

Matrix: Aqueous Collection Date: 6/18/2008 11:35:00AM

The following test was conducted by: Analytica - Juneau

Lab Sample Number: J0806164-10A Analysis Date: 6/19/2008 9:00:00AM
Prep Date: 6/19/2008 Instrument: Filter
Analytical Method ID: In-lab filtration for dissolved metals File Name:
Prep Method ID: Filtration Dilution Factor: 1
Prep Batch Number: J080620006 Analyst Initials: al
Report Basis: As Received Prep Extract Vol: 1.00 ml
Sample prep wt./vol: 1.00 ml

<u>Analyte</u>	<u>CASNo</u>	<u>Result</u>	<u>Flags</u>	<u>Units</u>	<u>PQL</u>	<u>MDL</u>	<u>Rerun #:</u>
Filtration		1.0		Date	1.0	1.0	1

The following test was conducted by: Analytica - Thornton

Lab Sample Number: J0806164-10A Analysis Date: 6/27/2008 12:49:47AM
Prep Date: 6/25/2008 Instrument: Elan
Analytical Method ID: 200.8 - Metals by ICP/MS - Dissolved File Name: 062608asam.re
Prep Method ID: 200.2_ICPMS Dilution Factor: 10
Prep Batch Number: T080625012 Analyst Initials: GY
Report Basis: As Received Prep Extract Vol: 50.00 ml
Sample prep wt./vol: 35.00 ml

<u>Analyte</u>	<u>CASNo</u>	<u>Result</u>	<u>Flags</u>	<u>Units</u>	<u>PQL</u>	<u>MDL</u>	<u>Rerun #:</u>
Copper	7440-50-8	17.0		ug/L	1.4	0.49	1
Nickel	7440-02-0	8.58		ug/L	2.1	0.71	
Zinc	7440-66-6	115		ug/L	3.6	1.2	

Detailed Analytical Report

Analytica Alaska Southeast

Workorder (SDG): J0806164

Project: Star Princess

Client: Admiralty Environmental, LLC

Client Project Number: AE 2049

Report Section: Client Sample Report

Client Sample Name: **Influent MBR Gray Water - Buffer Tk**

Matrix: Aqueous Collection Date: 6/18/2008 11:45:00AM

The following test was conducted by: Analytica - Juneau

Lab Sample Number: J0806164-11A Analysis Date: 6/19/2008 9:00:00AM
Prep Date: 6/19/2008 Instrument: Filter
Analytical Method ID: In-lab filtration for dissolved metals File Name:
Prep Method ID: Filtration Dilution Factor: 1
Prep Batch Number: J080620006 Analyst Initials: al
Report Basis: As Received Prep Extract Vol: 1.00 ml
Sample prep wt./vol: 1.00 ml

<u>Analyte</u>	<u>CASNo</u>	<u>Result</u>	<u>Flags</u>	<u>Units</u>	<u>PQL</u>	<u>MDL</u>	<u>Rerun #:</u>
Filtration		1.0		Date	1.0	1.0	1

The following test was conducted by: Analytica - Thornton

Lab Sample Number: J0806164-11A Analysis Date: 6/26/2008 6:01:34PM
Prep Date: 6/26/2008 Instrument: Elan
Analytical Method ID: 200.8 - Metals by ICP/MS - Dissolved File Name: 062608asam.re
Prep Method ID: 200.8 Dilution Factor: 1
Prep Batch Number: T080626010 Analyst Initials: GY
Report Basis: As Received Prep Extract Vol: 50.00 ml
Sample prep wt./vol: 50.00 ml

<u>Analyte</u>	<u>CASNo</u>	<u>Result</u>	<u>Flags</u>	<u>Units</u>	<u>PQL</u>	<u>MDL</u>	<u>Rerun #:</u>
Copper	7440-50-8	22.5		ug/L	0.10	0.034	1
Nickel	7440-02-0	7.64		ug/L	0.15	0.050	
Zinc	7440-66-6	94.6		ug/L	0.25	0.084	

Detailed Analytical Report

Analytica Alaska Southeast

Workorder (SDG): J0806164

Project: Star Princess

Client: Admiralty Environmental, LLC

Client Project Number: AE 2049

Report Section: Client Sample Report

Client Sample Name: **Potable Water Tk (11-12) after Retention**

Matrix: Aqueous Collection Date: 6/18/2008 11:55:00AM

The following test was conducted by: Analytica - Juneau

Lab Sample Number: J0806164-12A	Analysis Date: 6/19/2008 9:00:00AM
Prep Date: 6/19/2008	Instrument: Filter
Analytical Method ID: In-lab filtration for dissolved metals	File Name:
Prep Method ID: Filtration	Dilution Factor: 1
Prep Batch Number: J080620006	Analyst Initials: al
Report Basis: As Received	Prep Extract Vol: 1.00 ml
Sample prep wt./vol: 1.00 ml	

<u>Analyte</u>	<u>CASNo</u>	<u>Result</u>	<u>Flags</u>	<u>Units</u>	<u>PQL</u>	<u>MDL</u>	<u>Rerun #:</u>
Filtration		1.0		Date	1.0	1.0	1

The following test was conducted by: Analytica - Thornton

Lab Sample Number: J0806164-12A	Analysis Date: 6/26/2008 6:05:23PM
Prep Date: 6/26/2008	Instrument: Elan
Analytical Method ID: 200.8 - Metals by ICP/MS - Dissolved	File Name: 062608asam.re
Prep Method ID: 200.8	Dilution Factor: 1
Prep Batch Number: T080626010	Analyst Initials: GY
Report Basis: As Received	Prep Extract Vol: 50.00 ml
Sample prep wt./vol: 50.00 ml	

<u>Analyte</u>	<u>CASNo</u>	<u>Result</u>	<u>Flags</u>	<u>Units</u>	<u>PQL</u>	<u>MDL</u>	<u>Rerun #:</u>
Copper	7440-50-8	17.6		ug/L	0.10	0.034	1
Nickel	7440-02-0	1.48		ug/L	0.15	0.050	
Zinc	7440-66-6	18.0		ug/L	0.25	0.084	

Detailed Analytical Report

Analytica Alaska Southeast

Workorder (SDG): J0806164

Project: Star Princess

Client: Admiralty Environmental, LLC

Client Project Number: AE 2049

Report Section: Client Sample Report

Client Sample Name: **Bunkered Water - Juneau -AJ Dock**

Matrix: Aqueous Collection Date: 6/18/2008 5:30:00PM

The following test was conducted by: Analytica - Juneau

Lab Sample Number: J0806164-13A Analysis Date: 6/19/2008 9:00:00AM
Prep Date: 6/19/2008 Instrument: Filter
Analytical Method ID: In-lab filtration for dissolved metals File Name:
Prep Method ID: Filtration Dilution Factor: 1
Prep Batch Number: J080620006 Analyst Initials: al
Report Basis: As Received Prep Extract Vol: 1.00 ml
Sample prep wt./vol: 1.00 ml

<u>Analyte</u>	<u>CASNo</u>	<u>Result</u>	<u>Flags</u>	<u>Units</u>	<u>PQL</u>	<u>MDL</u>	<u>Rerun #:</u>
Filtration		1.0		Date	1.0	1.0	1

The following test was conducted by: Analytica - Thornton

Lab Sample Number: J0806164-13A Analysis Date: 6/26/2008 6:09:14PM
Prep Date: 6/26/2008 Instrument: Elan
Analytical Method ID: 200.8 - Metals by ICP/MS - Dissolved File Name: 062608asam.re
Prep Method ID: 200.8 Dilution Factor: 1
Prep Batch Number: T080626010 Analyst Initials: GY
Report Basis: As Received Prep Extract Vol: 50.00 ml
Sample prep wt./vol: 50.00 ml

<u>Analyte</u>	<u>CASNo</u>	<u>Result</u>	<u>Flags</u>	<u>Units</u>	<u>PQL</u>	<u>MDL</u>	<u>Rerun #:</u>
Copper	7440-50-8	28.1		ug/L	0.10	0.034	1
Nickel	7440-02-0	1.24		ug/L	0.15	0.050	
Zinc	7440-66-6	13.7		ug/L	0.25	0.084	

Detailed Analytical Report

Analytica Alaska Southeast

Workorder (SDG): J0806164

Project: Star Princess

Client: Admiralty Environmental, LLC

Client Project Number: AE 2049

Report Section: Client Sample Report

Client Sample Name: **Alternate OB Sample Point**

Matrix: Aqueous Collection Date: 6/18/2008 5:20:00PM

The following test was conducted by: Analytica - Juneau

Lab Sample Number: J0806164-14A Analysis Date: 6/19/2008 9:00:00AM
Prep Date: 6/19/2008 Instrument: Filter
Analytical Method ID: In-lab filtration for dissolved metals File Name:
Prep Method ID: Filtration Dilution Factor: 1
Prep Batch Number: J080620006 Analyst Initials: al
Report Basis: As Received Prep Extract Vol: 1.00 ml
Sample prep wt./vol: 1.00 ml

<u>Analyte</u>	<u>CASNo</u>	<u>Result</u>	<u>Flags</u>	<u>Units</u>	<u>PQL</u>	<u>MDL</u>	<u>Rerun #:</u>
Filtration		1.0		Date	1.0	1.0	1

The following test was conducted by: Analytica - Thornton

Lab Sample Number: J0806164-14A Analysis Date: 6/27/2008 12:53:38AM
Prep Date: 6/25/2008 Instrument: Elan
Analytical Method ID: 200.8 - Metals by ICP/MS - Dissolved File Name: 062608asam.re
Prep Method ID: 200.2_ICPMS Dilution Factor: 10
Prep Batch Number: T080625012 Analyst Initials: GY
Report Basis: As Received Prep Extract Vol: 50.00 ml
Sample prep wt./vol: 50.00 ml

<u>Analyte</u>	<u>CASNo</u>	<u>Result</u>	<u>Flags</u>	<u>Units</u>	<u>PQL</u>	<u>MDL</u>	<u>Rerun #:</u>
Copper	7440-50-8	116		ug/L	1.0	0.34	1
Nickel	7440-02-0	258		ug/L	1.5	0.50	
Zinc	7440-66-6	183		ug/L	2.5	0.84	

Detailed Analytical Report

Analytica Environmental Laboratories, Inc.

Workorder (SDG): J0806164

Project: Star Princess

Client: Admiralty Environmental, LLC

Client Project Number: AE 2049

Report Section: Method Blank Report

Client Sample Name:

MB

Matrix: Aqueous

Collection Date: 6/25/2008 12:00:00AM

The following test was conducted by: Analytica - Thornton

Lab Sample Number: T080625012-MB

Analysis Date: 6/26/2008 4:09:30PM

Prep Date: 6/25/2008

Instrument: Elan

Analytical Method ID: 200.8 - Metals by ICP/MS - Dissolved

File Name: 062608asam.re

Prep Method ID: 200.2_ICPMS

Dilution Factor: 1

Prep Batch Number: T080625012

Report Basis: Dry Weight Basis

Analyst Initials: GY

Sample prep wt./vol: 50.00 ml

Prep Extract Vol: 50.00 ml

<u>Analyte</u>	<u>CASNo</u>	<u>Result</u>	<u>Flags</u>	<u>Units</u>	<u>PQL</u>	<u>MDL</u>	<u>Rerun #:</u>
Copper	7440-50-8	ND		ug/L	0.10	0.034	1
Nickel	7440-02-0	ND		ug/L	0.15	0.050	
Zinc	7440-66-6	ND		ug/L	0.25	0.084	

Lab Sample Number: T080626010-MB

Analysis Date: 6/26/2008 3:49:43PM

Prep Date: 6/26/2008

Instrument: Elan

Analytical Method ID: 200.8 - Metals by ICP/MS - Dissolved

File Name: 062608asam.re

Prep Method ID: 200.8

Dilution Factor: 1

Prep Batch Number: T080626010

Report Basis: Dry Weight Basis

Analyst Initials: GY

Sample prep wt./vol: 50.00 ml

Prep Extract Vol: 50.00 ml

<u>Analyte</u>	<u>CASNo</u>	<u>Result</u>	<u>Flags</u>	<u>Units</u>	<u>PQL</u>	<u>MDL</u>	<u>Rerun #:</u>
Copper	7440-50-8	ND		ug/L	0.10	0.034	1
Nickel	7440-02-0	ND		ug/L	0.15	0.050	
Zinc	7440-66-6	ND		ug/L	0.25	0.084	

Detailed Analytical Report

Analytica Environmental Laboratories, Inc.

Workorder (SDG): J0806164

Project: Star Princess

Client: Admiralty Environmental, LLC

Client Project Number: AE 2049

Tests Run at: Analytica Environmental Laboratories - Thornton, Colorado

Workorder (SDG): J0806164

Project: Star Princess

Project Number:

Prep Batch: T080625012

QUALITY CONTROL REPORT

SAMPLE DUPLICATE REPORT

Analysis: 200.8 - Metals by ICP/MS - Dissolved

Base Sample: J0806157-01A
Prep Date: 6/25/2008

Samp. Anal. Date: 6/27/2008 12:26:06AM

Units: ug/L

DUP Anal. Date: 6/27/2008 12:29:56AM

Matrix: Aqueous

Analyte Name	SampResult	DUPRes.	RPD	RPDLim	Flag
Nickel	13.6	13.9	2.2	20	
Copper	59.2	58.4	1.4	20	
Zinc	123	122	0.8	20	

LCS/LCSD REPORT

Analysis: 200.8 - Metals by ICP/MS - Dissolved

MB: T080625012-MB

Prep Date: 6/25/2008

MB Anal. Date: 6/26/2008 4:09:30PM

Units: ug/L

LCS Anal. Date: 6/26/2008 4:13:21PM LCSD Anal. Date: 6/26/2008 4:17:12PM Matrix: Aqueous

Analyte Name	SampResult	LCSRes.	SDRes.	SPLev	SPDLev	Recov.	SD Recov	RPD	Recov Lim	RPDLim	Flag
Nickel	ND	54.3	54.8	50.0	50.0	108.6	109.6	0.9	85 - 115	20	
Copper	ND	54.9	55.2	50.0	50.0	109.8	110.4	0.5	85 - 115	20	
Zinc	ND	54.9	55.6	50.0	50.0	109.8	111.2	1.3	85 - 115	20	

MS/MSD REPORT

Analysis: 200.8 - Metals by ICP/MS - Dissolved

Parent: J0806157-01A

Prep Date: 6/25/2008

Samp. Anal. Date: 6/27/2008 12:26:06AM

Units: ug/L

MS Anal. Date: 6/27/2008 12:33:47AM MSD Anal. Date: 6/27/2008 12:37:38AM Matrix: Aqueous

Analyte Name	SampResult	MSRes.	MSDRes	SPLev	SPDLev	Recov.	MSD Rec.	RPD	Recov Lim	RPDLim	Flag
Nickel	13.6	69.2	68.8	50.0	50.0	111.2	110.4	0.6	70 - 130	20	
Copper	59.2	116	115	50.0	50.0	113.6	111.6	0.9	70 - 130	20	
Zinc	123	178	176	50.0	50.0	110.0	106.0	1.1	70 - 130	20	

Prep Batch: T080626010

SAMPLE DUPLICATE REPORT

Detailed Analytical Report

Analytica Environmental Laboratories, Inc.

Workorder (SDG): J0806164

Project: Star Princess

Client: Admiralty Environmental, LLC

Client Project Number: AE 2049

Tests Run at: Analytica Environmental Laboratories - Thornton, Colorado

Workorder (SDG): J0806164

Project: Star Princess

Project Number:

Prep Batch: T080626010

QUALITY CONTROL REPORT

SAMPLE DUPLICATE REPORT

Analysis: 200.8 - Metals by ICP/MS - Dissolved

Base Sample: J0806164-01A

Prep Date: 6/26/2008

Samp. Anal. Date: 6/26/2008 4:29:22PM

Units: ug/L

DUP Anal. Date: 6/26/2008 4:33:12PM

Matrix: Aqueous

<u>Analyte Name</u>	<u>SampResult</u>	<u>DUPRes.</u>	<u>RPD</u>	<u>RPDLim</u>	<u>Flag</u>
Nickel	1.48	1.37	7.7	20	
Copper	0.688	0.612	11.7	20	
Zinc	6.53	6.39	2.2	20	

LCS/LCSD REPORT

Analysis: 200.8 - Metals by ICP/MS - Dissolved

MB: T080626010-MB

Prep Date: 6/26/2008

MB Anal. Date: 6/26/2008 3:49:43PM

Units: ug/L

LCS Anal. Date: 6/26/2008 3:53:31PM LCSD Anal. Date: 6/26/2008 3:57:20PM Matrix: Aqueous

<u>Analyte Name</u>	<u>SampResult</u>	<u>LCSRes.</u>	<u>SDRes.</u>	<u>SPLev</u>	<u>SPDLev</u>	<u>Recov.</u>	<u>SD Recov</u>	<u>RPD</u>	<u>Recov Lim</u>	<u>RPDLim</u>	<u>Flag</u>
Nickel	ND	55.2	53.8	50.0	50.0	110.4	107.6	2.6	85 - 115	20	
Copper	ND	55.8	55.0	50.0	50.0	111.6	110.0	1.4	85 - 115	20	
Zinc	ND	56.1	55.5	50.0	50.0	112.2	111.0	1.1	85 - 115	20	

MS/MSD REPORT

Analysis: 200.8 - Metals by ICP/MS - Dissolved

Parent: J0806164-01A

Prep Date: 6/26/2008

Samp. Anal. Date: 6/26/2008 4:29:22PM

Units: ug/L

MS Anal. Date: 6/26/2008 4:37:02PM MSD Anal. Date: 6/26/2008 4:40:52PM Matrix: Aqueous

<u>Analyte Name</u>	<u>SampResult</u>	<u>MSRes.</u>	<u>MSDRes</u>	<u>SPLev</u>	<u>SPDLev</u>	<u>Recov.</u>	<u>MSD Rec.</u>	<u>RPD</u>	<u>Recov Lim</u>	<u>RPDLim</u>	<u>Flag</u>
Nickel	1.48	54.6	55.4	50.0	50.0	106.2	107.8	1.5	70 - 130	20	
Copper	0.688	54.6	55.7	50.0	50.0	107.8	110.0	2.0	70 - 130	20	
Zinc	6.53	66.1	66.7	50.0	50.0	119.1	120.3	0.9	70 - 130	20	

Detailed Analytical Report

Analytica Environmental Laboratories, Inc.

Workorder (SDG): J0806164

Project: Star Princess

Client: Admiralty Environmental, LLC

Client Project Number: AE 2049

FOOTNOTES TO QC REPORT

Note 1: Results are shown to three significant figures to avoid rounding errors in calculations.

Note 2: If the sample concentration is greater than 4 times the spike level, a recovery is not meaningful, and the result should be used as a replicate. In such cases the spike is not as high as expected random measurement variability of the sample result itself.

Note 3: For sample duplicates, if the result is less than the PQL, the duplicate RPD is not applicable. If the sample and duplicate results are not five times the PQL or greater, then the RPD is not expected to fall within the window shown and the comparison should be made on the basis of the absolute difference. Analytica uses the criterion that the absolute difference should be less than the PQL for water or less than 2XPQL for other matrices.

Note 4: For serial dilutions, if the result is less than the PQL, the duplicate RPD is not applicable. If the sample result is not 50 times the MDL or greater, then the fact that the RPD does not meet the 10% criterion has little significance. Otherwise it indicates that a matrix bias may exist at the analytical step.

Detailed Analytical Report

Analytica Environmental Laboratories, Inc.

Workorder (SDG): J0806164

Project: Star Princess

Client: Admiralty Environmental, LLC

Client Project Number: AE 2049

QC BATCH ASSOCIATIONS - BY METHOD BLANK

Lab Project ID: 88,730 Lab Project Number: J0806164

Prep Date: 6/25/2008

Lab Method Blank Id: T080625012-MB

Prep Batch ID: T080625012

Method: 200.8 - Metals by ICP/MS - Dissolved

This Method blank and sample preparation batch are associated with the following samples, spikes, and duplicates:

<u>SampleNum</u>	<u>ClientSampleName</u>	<u>DataFile</u>	<u>AnalysisDate</u>
J0806157-01A	Batch QC	062608asam.rep	6/27/2008 12:26:06AM
J0806164-10A	Influent MBR Black Water - Evac 4	062608asam.rep	6/27/2008 12:49:47AM
J0806164-14A	Alternate OB Sample Point	062608asam.rep	6/27/2008 12:53:38AM
T080625012-LCS	LCS	062608asam.rep	6/26/2008 4:13:21PM
T080625012-LCSD	LCSD	062608asam.rep	6/26/2008 4:17:12PM
J0806157-01A-DUP	DUP	062608asam.rep	6/27/2008 12:29:56AM
J0806157-01A-MS	MS	062608asam.rep	6/27/2008 12:33:47AM
J0806157-01A-MSD	MSD	062608asam.rep	6/27/2008 12:37:38AM

Detailed Analytical Report

Analytica Environmental Laboratories, Inc.

Workorder (SDG): J0806164

Project: Star Princess

Client: Admiralty Environmental, LLC

Client Project Number: AE 2049

QC BATCH ASSOCIATIONS - BY METHOD BLANK

Lab Project ID: 88,730 Lab Project Number: J0806164

Prep Date: 6/26/2008

Lab Method Blank Id: T080626010-MB

Prep Batch ID: T080626010

Method: 200.8 - Metals by ICP/MS - Dissolved

This Method blank and sample preparation batch are associated with the following samples, spikes, and duplicates:

<u>SampleNum</u>	<u>ClientSampleName</u>	<u>DataFile</u>	<u>AnalysisDate</u>
J0806164-01A	Bunkered Water Skagway St. Fwd Port	062608asam.rep	6/26/2008 4:29:22PM
J0806164-02A	Potable Water Tk (8+9) after Retention	062608asam.rep	6/26/2008 5:08:11PM
J0806164-03A	Bunkered Water - Ketchikan - St. Fwd Port	062608asam.rep	6/26/2008 5:12:00PM
J0806164-04A	Tap Water - Bridge Pantry Deck 14	062608asam.rep	6/26/2008 5:15:49PM
J0806164-05A	Crew Cabin Deck 10 Fwd Port (hot water)	062608asam.rep	6/26/2008 5:19:38PM
J0806164-06A	Pax Cabin Deck 8 Fwd Stbd (hot water)	062608asam.rep	6/26/2008 5:27:17PM
J0806164-07A	Pax Cabin Deck 11 Port Midship	062608asam.rep	6/26/2008 5:31:06PM
J0806164-08A	Crew Cabin Deck 4 Port	062608asam.rep	6/26/2008 5:34:55PM
J0806164-09A	Tap Water - Crew Galley Deck 5 Aft (Hot)	062608asam.rep	6/26/2008 5:38:44PM
J0806164-11A	Influent MBR Gray Water - Buffer Tk	062608asam.rep	6/26/2008 6:01:34PM
J0806164-12A	Potable Water Tk (11-12) after Retention	062608asam.rep	6/26/2008 6:05:23PM
J0806164-13A	Bunkered Water - Juneau -AJ Dock	062608asam.rep	6/26/2008 6:09:14PM
T080626010-LCS	LCS	062608asam.rep	6/26/2008 3:53:31PM
T080626010-LCSD	LCSD	062608asam.rep	6/26/2008 3:57:20PM
J0806164-01A-DUP	DUP	062608asam.rep	6/26/2008 4:33:12PM
J0806164-01A-MS	MS	062608asam.rep	6/26/2008 4:37:02PM
J0806164-01A-MSD	MSD	062608asam.rep	6/26/2008 4:40:52PM
T080626010-LCS	LCS	062708asam.rep	6/27/2008 12:02:14PM
T080626010-LCSD	LCSD	062708asam.rep	6/27/2008 12:05:35PM

Detailed Analytical Report

Analytica Environmental Laboratories, Inc.

Workorder (SDG): J0806164

Project: Star Princess

Client: Admiralty Environmental, LLC

Client Project Number: AE 2049

DATA FLAGS AND DEFINITIONS

The PQL is the Method Quantitation Limit as defined by USACE.

Reporting Limit: Limit below which results are shown as "ND". This may be the PQL, MDL, or a value between. See the report conventions below.

Result Field:

ND = Not Detected at or above the Reporting Limit

NA = Analyte not applicable (see Case Narrative for discussion)

Qualifier Fields:

LOW = Recovery is below Lower Control Limit

HIGH = Recovery, RPD, or other parameter is above Upper Control Limit

E = Reported concentration is above the instrument calibration upper range

Organic Analysis Flags:

B = Analyte was detected in the laboratory method blank

J = Analyte was detected above MDL or Reporting Limit but below the Quant Limit (PQL)

Inorganic Analysis Flags:

J = Analyte was detected above the Reporting Limit but below the Quant Limit (PQL)

W = Post digestion spike did not meet criteria

S = Reported value determined by the Method of Standard Additions (MSA)

Other Flags may be applied. See Case Narrative for Description

Detailed Analytical Report

Analytica Environmental Laboratories, Inc.

Workorder (SDG): J0806164

Project: Star Princess

Client: Admiralty Environmental, LLC

Client Project Number: AE 2049

REPORTING CONVENTIONS FOR THIS REPORT

J0806164

<u>Test Name</u>	<u>Basis</u>	<u># Sig Figs</u>	<u>Reporting Limit</u>
200.8/200.8 (Aqueous) - Dissolved	As Received		Report to PQL
Filtration (Aqueous)	As Received		Report to PQL



Analytica Alaska Southeast
5438 Shaune Drive
Juneau, AK 99801
(907) 780-6668
Fax (907) 780-6670

7/11/2008

Admiralty Environmental, LLC
431 N. Franklin St.
Suite 101
Juneau, AK 99801
Attn: David Wetzel

Work Order #: J0806214
Date: 7/11/2008
Work ID: Princess Metals Investigation
Date Received: 6/25/2008

Sample Identification

Lab Sample Number	Client Description	Lab Sample Number	Client Description
J0806214-01	Bunker Water connection (JN		

Enclosed are the analytical results for the submitted sample(s). Please review the CASE NARRATIVE for a discussion of any data and/or quality control issues. Listings of data qualifiers, analytical codes, key dates, and QC relationships are provided at the end of the report.

Sincerely,

Keelin Kistner
Project Manager

"The Science of Analysis, The Art of Service"

Case Narrative

Analytica Alaska Southeast

Work Order: J0806214

Samples were prepared and analyzed according to EPA or equivalent methods outlined in the following references:

SAMPLE RECEIPT:

One (1) sample was received on 6/25/2008 12:45:00 PM, at a temperature of 1.5°C, in cooler 1 at Analytica-Juneau. The cooler was opened on 6/25/2008. The sample was received in good condition and in order per chain of custody.

The sample was transferred for analysis to Analytica Environmental Laboratories (AEL), 12189 Pennsylvania St., Thornton, Colorado 80241, where it was received at a temperature of 2.1°C, in good condition and in order per chain of custody on 6/27/08.

REVIEW FOR COMPLIANCE WITH ANALYTICA QA PLAN

A summary of our review is shown below, organized by test:

Test Method: 200.8 - Metals by ICP/MS - Dissolved - Aqueous

HOLDING TIMES:

Holding times were met for this test.

SAMPLE PREPARATION ISSUES AND OBSERVATIONS:

There were no unusual observations.

INSTRUMENT PERFORMANCE CHECKS:

Instrument checks were within method criteria.

INITIAL CALIBRATIONS:

Initial calibrations were within method criteria.

OPENING CONTINUING CALIBRATIONS:

Opening continuing calibrations were within method criteria.

CLOSING CONTINUING CALIBRATIONS:

Closing continuing calibrations were within method criteria or not applicable.

METHOD BLANK OUTLIERS:

There are no method blank outliers.

LCS OUTLIERS:

There are no LCS outliers.

MS/MSD and DUP OUTLIERS:

There are no MS/MSD or DUP outliers.

Test Method: In-lab filtration for dissolved metals - Aqueous

HOLDING TIMES:

Per the 40CFR Part 136, filtration for dissolved targets should be performed in the field, within 15 minutes of sampling. Per client request, filtration was performed as soon as possible upon sample receipt.

Summary of Detected Analytes

Analytica Alaska Southeast

Workorder (SDG): **J0806214**
Project: **Princess Metals Investigation**
Client: **Admiralty Environmental, LLC**
Client Project Number: **AE 2091**

Client Sample Name: **Bunker Water connection (JNU Dock)**

Matrix: Aqueous

Collection Date: 6/25/2008 10:15:00AM

<u>Analyte</u>	<u>Result</u>	<u>PQL</u>	<u>Units</u>	<u>Analysis Date</u>	<u>Flags</u>	<u>Analyst</u>	<u>Method</u>
Copper	41.7	0.10	ug/L	7/7/08 23:00		GY	200.8 - Metals by ICP/MS - Dissolved
Nickel	2.35	0.15	ug/L	7/7/08 23:00		GY	200.8 - Metals by ICP/MS - Dissolved
Zinc	16.0	0.25	ug/L	7/7/08 23:00		GY	200.8 - Metals by ICP/MS - Dissolved
Filtration	1.0	1.0	mg/L	6/25/08 14:00		AL	In-lab filtration for dissolved metals

Detailed Analytical Report

Analytica Alaska Southeast

Workorder (SDG): J0806214

Project: Princess Metals Investigation
Client: Admiralty Environmental, LLC
Client Project Number: AE 2091
Report Section: Client Sample Report

Client Sample Name: **Bunker Water connection (JNU Dock)**

Matrix: Aqueous Collection Date: 6/25/2008 10:15:00AM

The following test was conducted by: Analytica - Juneau

Lab Sample Number: J0806214-01A Analysis Date: 6/25/2008 2:00:00PM
Prep Date: 6/25/2008 Instrument: Filter
Analytical Method ID: In-lab filtration for dissolved metals File Name:
Prep Method ID: Filtration Dilution Factor: 1
Prep Batch Number: J080711003 Analyst Initials: AL
Report Basis: As Received Prep Extract Vol: 250.00 ml
Sample prep wt./vol: 250.00 ml

<u>Analyte</u>	<u>CASNo</u>	<u>Result</u>	<u>Flags</u>	<u>Units</u>	<u>PQL</u>	<u>MDL</u>	<u>Rerun #:</u>
Filtration		1.0		mg/L	1.0	1.0	1

The following test was conducted by: Analytica - Thornton

Lab Sample Number: J0806214-01A Analysis Date: 7/7/2008 11:00:54PM
Prep Date: 7/7/2008 Instrument: Elan
Analytical Method ID: 200.8 - Metals by ICP/MS - Dissolved File Name: 070708bsam.re
Prep Method ID: 200.8 Dilution Factor: 1
Prep Batch Number: T080707007 Analyst Initials: GY
Report Basis: As Received Prep Extract Vol: 50.00 ml
Sample prep wt./vol: 50.00 ml

<u>Analyte</u>	<u>CASNo</u>	<u>Result</u>	<u>Flags</u>	<u>Units</u>	<u>PQL</u>	<u>MDL</u>	<u>Rerun #:</u>
Copper	7440-50-8	41.7		ug/L	0.10	0.034	1
Nickel	7440-02-0	2.35		ug/L	0.15	0.050	
Zinc	7440-66-6	16.0		ug/L	0.25	0.084	

Detailed Analytical Report

Analytica Environmental Laboratories, Inc.

Workorder (SDG): J0806214

Project: Princess Metals Investigation
Client: Admiralty Environmental, LLC
Client Project Number: AE 2091
Report Section: Method Blank Report

Client Sample Name: MB

Matrix: Aqueous Collection Date: 7/7/2008 12:00:00AM

The following test was conducted by: Analytica - Thornton

Lab Sample Number: T080707007-MB Analysis Date: 7/7/2008 3:35:36PM
Prep Date: 7/7/2008 Instrument: Elan
Analytical Method ID: 200.8 - Metals by ICP/MS - Dissolved File Name: 070708bsam.re
Prep Method ID: 200.8 Dilution Factor: 1
Prep Batch Number: T080707007
Report Basis: Dry Weight Basis Analyst Initials: GY
Sample prep wt./vol: 50.00 ml Prep Extract Vol: 50.00 ml

<u>Analyte</u>	<u>CASNo</u>	<u>Result</u>	<u>Flags</u>	<u>Units</u>	<u>PQL</u>	<u>MDL</u>	<u>Rerun #:</u>
Copper	7440-50-8	ND		ug/L	0.10	0.034	1
Nickel	7440-02-0	ND		ug/L	0.15	0.050	
Zinc	7440-66-6	ND		ug/L	0.25	0.084	

Detailed Analytical Report

Analytica Environmental Laboratories, Inc.

Workorder (SDG): J0806214

Project: Princess Metals Investigation

Client: Admiralty Environmental, LLC

Client Project Number: AE 2091

Tests Run at: Analytica Environmental Laboratories - Thornton, Colorado
 Workorder (SDG): J0806214
 Project: Princess Metals Investigation
 Project Number: **QUALITY CONTROL REPORT**
 Prep Batch: **T080707007**

SAMPLE DUPLICATE REPORT

Analysis: 200.8 - Metals by ICP/MS - Dissolved Base Sample: F0806396-02A
 Prep Date: 7/7/2008

Samp. Anal. Date: 7/7/2008 9:05:03PM Units: ug/L
 DUP Anal. Date: 7/7/2008 9:09:33PM Matrix: Aqueous

Analyte Name	SampResult	DUPRes.	RPD	RPDLim	Flag
Copper	648	648	0.0	20	
Lead	7.31	7.29	0.3	20	

LCS/LCSD REPORT

Analysis: 200.8 - Metals by ICP/MS - Dissolved MB: T080707007-MB
 Prep Date: 7/7/2008

MB Anal. Date: 7/7/2008 3:35:36PM Units: ug/L
 LCS Anal. Date: 7/7/2008 3:40:05PM LCSD Anal. Date: 7/7/2008 3:45:04PM Matrix: Aqueous

Analyte Name	SampResult	LCSRes.	SDRes.	SPLev	SPDLev	Recov.	SD Recov	RPD	Recov Lim	RPDLim	Flag
Nickel	ND	52.1	52.3	50.0	50.0	104.2	104.6	0.4	85 - 115	20	
Copper	ND	53.2	53.6	50.0	50.0	106.4	107.2	0.7	85 - 115	20	
Zinc	ND	51.4	51.9	50.0	50.0	102.8	103.8	1.0	85 - 115	20	

MS/MSD REPORT

Analysis: 200.8 - Metals by ICP/MS - Dissolved Parent: F0806396-02A
 Prep Date: 7/7/2008

Samp. Anal. Date: 7/7/2008 9:05:03PM Units: ug/L
 MS Anal. Date: 7/7/2008 9:14:03PM MSD Anal. Date: 7/7/2008 9:19:03PM Matrix: Aqueous

Analyte Name	SampResult	MSRes.	MSDRes	SPLev	SPDLev	Recov.	MSD Rec.	RPD	Recov Lim	RPDLim	Flag
Copper	648	688	686	50.0	50.0	80.0	76.0	0.3	70 - 130	20	NOTE 2 NOTE 2
Lead	7.31	59.3	60.5	50.0	50.0	104.0	106.4	2.0	70 - 130	20	

Detailed Analytical Report

Analytica Environmental Laboratories, Inc.

Workorder (SDG): J0806214

Project: Princess Metals Investigation

Client: Admiralty Environmental, LLC

Client Project Number: AE 2091

FOOTNOTES TO QC REPORT

Note 1: Results are shown to three significant figures to avoid rounding errors in calculations.

Note 2: If the sample concentration is greater than 4 times the spike level, a recovery is not meaningful, and the result should be used as a replicate. In such cases the spike is not as high as expected random measurement variability of the sample result itself.

Note 3: For sample duplicates, if the result is less than the PQL, the duplicate RPD is not applicable. If the sample and duplicate results are not five times the PQL or greater, then the RPD is not expected to fall within the window shown and the comparison should be made on the basis of the absolute difference. Analytica uses the criterion that the absolute difference should be less than the PQL for water or less than 2XPQL for other matrices.

Note 4: For serial dilutions, if the result is less than the PQL, the duplicate RPD is not applicable. If the sample result is not 50 times the MDL or greater, then the fact that the RPD does not meet the 10% criterion has little significance. Otherwise it indicates that a matrix bias may exist at the analytical step.

Detailed Analytical Report

Analytica Environmental Laboratories, Inc.

Workorder (SDG): J0806214

Project: Princess Metals Investigation
Client: Admiralty Environmental, LLC
Client Project Number: AE 2091

QC BATCH ASSOCIATIONS - BY METHOD BLANK

Lab Project ID: 88,993 **Lab Project Number:** J0806214

Prep Date: 7/7/2008

Lab Method Blank Id: T080707007-MB
Prep Batch ID: T080707007
Method: 200.8 - Metals by ICP/MS - Dissolved

This Method blank and sample preparation batch are associated with the following samples, spikes, and duplicates:

<u>SampleNum</u>	<u>ClientSampleName</u>	<u>DataFile</u>	<u>AnalysisDate</u>
F0806396-02A	Batch QC	070708bsam.rep	7/7/2008 9:05:03PM
J0806214-01A	Bunker Water connection (JNU Dock)	070708bsam.rep	7/7/2008 11:00:54PM
T080707007-LCS	LCS	070708bsam.rep	7/7/2008 3:40:05PM
T080707007-LCSD	LCSD	070708bsam.rep	7/7/2008 3:45:04PM
F0806396-02A-DUP	DUP	070708bsam.rep	7/7/2008 9:09:33PM
F0806396-02A-MS	MS	070708bsam.rep	7/7/2008 9:14:03PM
F0806396-02A-MSD	MSD	070708bsam.rep	7/7/2008 9:19:03PM

Detailed Analytical Report

Analytica Environmental Laboratories, Inc.

Workorder (SDG): J0806214

Project: Princess Metals Investigation
Client: Admiralty Environmental, LLC
Client Project Number: AE 2091

DATA FLAGS AND DEFINITIONS

The PQL is the Method Quantitation Limit as defined by USACE.

Reporting Limit: Limit below which results are shown as "ND". This may be the PQL, MDL, or a value between. See the report conventions below.

Result Field:

- ND = Not Detected at or above the Reporting Limit
- NA = Analyte not applicable (see Case Narrative for discussion)

Qualifier Fields:

- LOW = Recovery is below Lower Control Limit
- HIGH = Recovery, RPD, or other parameter is above Upper Control Limit
- E = Reported concentration is above the instrument calibration upper range

Organic Analysis Flags:

- B = Analyte was detected in the laboratory method blank
- J = Analyte was detected above MDL or Reporting Limit but below the Quant Limit (PQL)

Inorganic Analysis Flags:

- J = Analyte was detected above the Reporting Limit but below the Quant Limit (PQL)
- W = Post digestion spike did not meet criteria
- S = Reported value determined by the Method of Standard Additions (MSA)

Other Flags may be applied. See Case Narrative for Description

Detailed Analytical Report

Analytica Environmental Laboratories, Inc.

Workorder (SDG): J0806214

Project: Princess Metals Investigation

Client: Admiralty Environmental, LLC

Client Project Number: AE 2091

REPORTING CONVENTIONS FOR THIS REPORT

J0806214

<u>Test Name</u>	<u>Basis</u>	<u># Sig Figs</u>	<u>Reporting Limit</u>
200.8/200.8 (Aqueous) - Dissolved	As Received		Report to PQL
Filtration (Aqueous)	As Received		Report to PQL

Certificate of Analysis

Client: Admiralty Environmental
431 N Franklin Street Suite 101
Juneau, AK 99801

ATTN: David Wetzel

Work ID: Princess Dock AE 2100

SDG Number: ADENV080607

Taken By: ERIN EVANS

Date Received: 06/30/2008

Transported By: ERIN EVANS

Date Reported: 07/03/2008

Sample Identification:

<u>Lab Sample ID</u>	<u>Sample Description</u>	<u>Collection Date /Time</u>		<u>Type</u>
ADENV080607-001	North Bunker Water-Prince	06/30/2008	12:45	Water

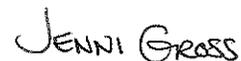
Comments:

There were no discrepancies noted upon receipt of the samples. The temperature blank was measured at < 6.0 C.

All sampling and sample handling procedures were conducted in accordance with the NWCA "2007 Operating Season Quality Assurance/Quality Control Plan For Sampling and Analysis of Treated Sewage and Graywater From Commercial Passenger Vessels", January 15, 2007.

Unless otherwise instructed all samples with the exception of samples which are consumed during the analysis, such as microbiological samples, will be disposed of on or after 8/26/08

Respectfully submitted,
Pace Analytical Services, Inc.



Jennifer Gross

Date Printed: 7/3/2008 16:07

REPORT OF LABORATORY ANALYSIS

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without the written consent of Pace Analytical Services, Inc.



Pace Analytical Services, Inc.
 940 Harney St.
 Seattle, WA 98108
 Phone: 206.767.5060
 Fax: 206.767.5063

Pace Analytical Services, Inc.

Final Results

Client:	Admiralty Environmental	Project:	Cruise Ship Sampling
SDG Number:	ADENV080607	Work Description:	Princess Dock AE 2100
Sample Number:	North Bunker Water-Princess	Date/Time Collected:	06/30/2008 12:45
Lab Sample ID:	ADENV080607-001	Date/Time Received:	06/30/2008 13:10
Method:	E200.8	Holding Time:	180 Days
		Unit:	mg/L

Lab Tests

Analyte	DF	Result	Q	PQL	MDL	Prepared	Analyzed	Run Seq.
Dissolved, Nickel	1	0.0013		0.0010	0.000026	07/02/2008 11:00	07/02/2008 14:33	R029378
Dissolved, Zinc	1	2.6		0.020	0.00021	07/02/2008 11:00	07/02/2008 14:33	R029378
Dissolved, Copper	1	0.034		0.0010	0.000089	07/02/2008 11:00	07/02/2008 14:33	R029378

REPORT OF LABORATORY ANALYSIS

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REVISED
 JO 7/7/08





Pace Analytical Services, Inc.
940 South Harney St.
Seattle, WA 98108
Phone: 206.767.5060
Fax: 206.767.5063

Appendix
Quality Control Report

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
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Pace Analytical Services, Inc.

Blank Report

Test: 200.8 - Diss. Cu, Ni, Zn Drinking Water by ICP/MS
Lab Sample ID: B070208ICPMSW10
SDG ID: ADENV080607
Preparation Date: 7/2/2008
Run Sequence ID: R029378
Analysis Date: 07/02/2008 13:32
Units: mg/L
Matrix: Water

Analyte	Reported	Flag	Limit
Dissolved, Nickel	0.0010	U	0.05
Dissolved, Zinc	0.020	U	0.01

Associated Samples	
<u>Lab Sample ID</u>	<u>Client Sample ID</u>
ADENV080607-001	North Bunker Water-Princess

U = The analyte of interest was not detected, to the limit of detection indicated

* Measured blank concentration exceeded the established control limit

Mr. David Wetzel
Admiralty Environmental, LLC
431 N. Franklin Street, Suite 101
Juneau, AK 99801

3942-A Valley Avenue
Pleasanton, CA 94566-4715
925.462.2771 • Fax: 925.462.2775
www.cercoanalytical.com

Sample Source:
Project Number: Not indicated
Project Name: Bunker Water Investigation
Date Sampled: 07/16/08
Date Received: 07/16/08
Matrix: Water

23 July 2008
Job No.0807123
Sample No.001
Cust. No.11972

Analyte	Results*	Reporting Limit	Method	Date Analyzed
Lab No.001				
Sample I.D.: Fresh Water Bunker Connection – Pier #				
Copper, Dissolved	0.83	0.5 ug/L	EPA 200.8	07/16/08
Nickel, Dissolved	N.D.	0.5 ug/L	EPA 200.8	07/16/08
Zinc, Dissolved	N.D.	5.0 ug/L	EPA 200.8	07/16/08

*Subcontracted to a State Certified Laboratory


Cheryl McMillen
Laboratory Director



McC Campbell Analytical, Inc.

"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Web: www.mcccampbell.com E-mail: main@mcccampbell.com
Telephone: 877-252-9262 Fax: 925-252-9269

QC SUMMARY REPORT FOR E200.8

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 36962

WorkOrder: 0807389

EPA Method: E200.8		Extraction: E200.8							Spiked Sample ID: 0807372-001A			
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
Copper	9.8	10	96.3	102	2.69	99.1	93.4	5.88	70 - 130	20	80 - 120	20
Nickel	1.6	10	92	96.1	3.71	96.3	93.1	3.32	70 - 130	20	80 - 120	20
Zinc	53	100	87.5	98.8	7.74	93.9	90.5	3.63	70 - 130	20	80 - 120	20

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
NONE

BATCH 36962 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0807389-001A	07/16/08 11:34 AM	07/16/08	07/16/08 11:55 PM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.
 % Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).
 MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.
 N/A = not applicable to this method.
 NR = matrix interference and/or analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

 QA/QC Officer



Admiralty Environmental
431 N. Franklin, Suite 101
Juneau, AK 99801
(907) 463-4415 fax (480) 247-4476

CHAIN OF CUSTODY/TRANSMITTAL RECORD
PAGE 1 OF 1

PROJECT NAME: San Francisco Bunker Connection				Bunker Water Investigation				LGN # _____			
REPORT TO: Admiralty Environmental				PHONE#: (907) 463-4415				AE <u>Initial Temp. (°C)</u> Small Temp. Blank: _____ Large Temp. Blank: _____ <div style="font-size: 2em; font-family: cursive;">CA0807123</div>			
ADDRESS: 431 N. Franklin St., Suite 101, Juneau, AK 99801				SAMPLED BY: T. Davidson							
Samples taken in the presence of:				# of Bottles							
				Dissolved Cu, Ni, Zn							
DATE	TIME	SITE DESCRIPTION / IDENTIFIER	MATRIX	#	#						
7/16/08	1134	Fresh Water Bunker Connection - Pier #	H ₂ O	1	1						
DATE	RELINQUISHED BY: (signature)	RECEIVED BY: (signature)	DATE	Section to be completed by Receiving Laboratory							
7/16/08	<i>[Signature]</i>	<i>[Signature]</i>		Temp/Loc: _____ Thermo ID#: _____ Condition of Costody Seals: _____ Initialed By: _____ Shipped Via: _____							
TIME	RELINQUISHED BY: (print)	RECEIVED BY: (print)	TIME								
7/16/08	Kevin Wong	Tessina Davidson									
DATE	RELINQUISHED BY: (signature)	RECEIVED BY: (signature)	DATE								
7/16/08	<i>[Signature]</i>	<i>[Signature]</i>	7/16/08								
TIME	RELINQUISHED BY: (print)	RECEIVED BY: (print)	TIME								
	Tessina Davidson	<i>[Signature]</i>									

Analysis Report



CANTEST LTD.

Professional
Analytical
Services

4606 Canada Way
Burnaby, B.C.
V5G 1K5

FAX: 604 731 2386

TEL: 604 734 7276

1 800 665 8566

REPORT ON: Analysis of Water Samples

REPORTED TO: Admiralty Environmental LLC
431 North Franklin Street
Suite 101
Juneau, AK
99801

Att'n: David Wetzel

CHAIN OF CUSTODY: 2118884
PROJECT NAME: Vancouver Bunker Connection

The following samples were taken by a CANTEST field representative, Mr. Steven Chan, on July 24, 2008.

NUMBER OF SAMPLES: 3

REPORT DATE: August 3, 2008

DATE SUBMITTED: July 24, 2008

GROUP NUMBER: 90724070

SAMPLE TYPE: Water

NOTE: Results contained in this report refer only to the testing of samples as submitted. Other information is available on request.

TEST METHODS:

Dissolved Metals in Water - Samples were filtered in the laboratory and quantitatively determined using Inductively Coupled Plasma Optical Emission Spectroscopy (ICP) and/or Inductively Coupled Plasma-Mass Spectroscopy (ICP/MS).

Metals Analysis in Water

CLIENT SAMPLE IDENTIFICATION:	SAMPLE DATE	CANTEST ID	Dissolved Copper Cu	Dissolved Nickel Ni	Dissolved Zinc Zn
Van. Potable Water North Grab	Jul 24/08	807240237	0.0015	<	0.009
Van. Potable H2O Central Grab	Jul 24/08	807240250	0.015	<	0.28
Van. Potable Water South Grab	Jul 24/08	807240252	0.0078	<	0.006
DETECTION LIMIT UNITS			0.0002 mg/L	0.0002 mg/L	0.001 mg/L

mg/L = milligrams per liter

< = Less than detection limit

CANTEST LTD.

Anna Becalska, PhD
Coordinator, Trace Metals

A Member of the **CANAM** Group
www.testing-labs.com

Page 1



Analytica Alaska Southeast
5438 Shaune Drive
Juneau, AK 99801
(907) 780-6668
Fax (907) 780-6670

8/8/2008

Admiralty Environmental, LLC
431 N. Franklin St.
Suite 101
Juneau, AK 99801
Attn: David Wetzel

Work Order #: J0807222
Date: 8/8/2008
Work ID: Whittier Bunker Connection
Date Received: 7/28/2008

Sample Identification

Lab Sample Number	Client Description	Lab Sample Number	Client Description
J0807222-01	FW Bunker Connection		

Enclosed are the analytical results for the submitted sample(s). Please review the CASE NARRATIVE for a discussion of any data and/or quality control issues. Listings of data qualifiers, analytical codes, key dates, and QC relationships are provided at the end of the report.

Sincerely,

A handwritten signature in blue ink that reads "Claire Toon".

Claire Toon
Project Manager

"The Science of Analysis, The Art of Service"

Case Narrative

Analytica Alaska Southeast

Work Order: J0807222

Samples were prepared and analyzed according to EPA or equivalent methods outlined in the following references:

Methods for the Determination of Metals in Environmental Samples, EPA/600/R-94/111, May 1994.

SAMPLE RECEIPT:

One (1) sample was received on 7/28/2008 4:30:00 PM, at a temperature of 1.7°C, in cooler 1 at Analytica-Juneau. The cooler was opened on 7/28/2008. The sample was received in good condition and in order per chain of custody.

The sample was transferred for analysis to Analytica Environmental Laboratories (AEL), 12189 Pennsylvania St., Thornton, Colorado 80241, where it was received at a temperature of 3.7°C, in good condition and in order per chain of custody on 7/31/2008.

REVIEW FOR COMPLIANCE WITH ANALYTICA QA PLAN

A summary of our review is shown below, organized by test:

Test Method: 200.8 - Metals by ICP/MS - Dissolved - Aqueous

HOLDING TIMES:

Holding times were met for this test.

SAMPLE PREPARATION ISSUES AND OBSERVATIONS:

There were no unusual observations.

INSTRUMENT PERFORMANCE CHECKS:

Instrument checks were within method criteria.

INITIAL CALIBRATIONS:

Initial calibrations were within method criteria.

OPENING CONTINUING CALIBRATIONS:

Opening continuing calibrations were within method criteria.

CLOSING CONTINUING CALIBRATIONS:

Closing continuing calibrations were within method criteria or not applicable.

METHOD BLANK OUTLIERS:

There are no method blank outliers.

LCS OUTLIERS:

There are no LCS outliers.

MS/MSD and DUP OUTLIERS:

There are no MS/MSD or DUP outliers.

Test Method: Filtration for dissolved metals - Lab Filtration - Aqueous

HOLDING TIMES:

Per the 40CFR Part 136, filtration for dissolved targets should be performed in the field, within 15 minutes of sampling. Per client request, filtration was performed as soon as possible upon sample receipt.

Summary of Detected Analytes

Analytica Alaska Southeast

Workorder (SDG): **J0807222**
Project: **Whittier Bunker Connection**
Client: **Admiralty Environmental, LLC**
Client Project Number: **AE 2195**

Client Sample Name: **FW Bunker Connection**

Matrix: Aqueous

Collection Date: 7/24/2008 9:02:00AM

<u>Analyte</u>	<u>Result</u>	<u>PQL</u>	<u>Units</u>	<u>Analysis Date</u>	<u>Flags</u>	<u>Analyst</u>	<u>Method</u>
Copper	1.30	0.10	ug/L	8/6/08 17:10		GY	200.8 - Metals by ICP/MS - Dissolved
Nickel	0.345	0.15	ug/L	8/6/08 17:10		GY	200.8 - Metals by ICP/MS - Dissolved
Zinc	17.5	0.25	ug/L	8/6/08 17:10		GY	200.8 - Metals by ICP/MS - Dissolved
Filtration	1.0	1.0	Date	7/28/08 17:15		al	Filtration for dissolved metals - Lab Filtration

Detailed Analytical Report

Analytica Alaska Southeast

Workorder (SDG): J0807222

Project: Whittier Bunker Connection
Client: Admiralty Environmental, LLC
Client Project Number: AE 2195
Report Section: Client Sample Report

Client Sample Name: **FW Bunker Connection**

Matrix: Aqueous Collection Date: 7/24/2008 9:02:00AM

The following test was conducted by: Analytica - Juneau

Lab Sample Number: J0807222-01A Analysis Date: 7/28/2008 5:15:00PM
Prep Date: 7/28/2008 Instrument: Filter
Analytical Method ID: Filtration for dissolved metals - Lab Filtration File Name:
Prep Method ID: Filtration Dilution Factor: 1
Prep Batch Number: J080731006
Report Basis: As Received Analyst Initials: al
Sample prep wt./vol: 1.00 ml Prep Extract Vol: 1.00 ml

<u>Analyte</u>	<u>CASNo</u>	<u>Result</u>	<u>Flags</u>	<u>Units</u>	<u>PQL</u>	<u>MDL</u>	<u>Rerun #:</u>
Filtration		1.0		Date	1.0	1.0	1

The following test was conducted by: Analytica - Thornton

Lab Sample Number: J0807222-01A Analysis Date: 8/6/2008 5:10:24PM
Prep Date: 8/5/2008 Instrument: Elan
Analytical Method ID: 200.8 - Metals by ICP/MS - Dissolved File Name: 080608asam.re
Prep Method ID: 200.8 Dilution Factor: 1
Prep Batch Number: T080805014
Report Basis: As Received Analyst Initials: GY
Sample prep wt./vol: 50.00 ml Prep Extract Vol: 50.00 ml

<u>Analyte</u>	<u>CASNo</u>	<u>Result</u>	<u>Flags</u>	<u>Units</u>	<u>PQL</u>	<u>MDL</u>	<u>Rerun #:</u>
Copper	7440-50-8	1.30		ug/L	0.10	0.034	1
Nickel	7440-02-0	0.345		ug/L	0.15	0.050	
Zinc	7440-66-6	17.5		ug/L	0.25	0.084	

Detailed Analytical Report

Analytica Environmental Laboratories, Inc.

Workorder (SDG): J0807222

Project: Whittier Bunker Connection
Client: Admiralty Environmental, LLC
Client Project Number: AE 2195
Report Section: Method Blank Report

Client Sample Name: MB

Matrix: Aqueous Collection Date: 8/5/2008 12:00:00AM

The following test was conducted by: Analytica - Thornton

Lab Sample Number: T080805014-MB Analysis Date: 8/6/2008 3:31:21PM
Prep Date: 8/5/2008 Instrument: Elan
Analytical Method ID: 200.8 - Metals by ICP/MS - Dissolved File Name: 080608asam.re
Prep Method ID: 200.8 Dilution Factor: 1
Prep Batch Number: T080805014
Report Basis: Dry Weight Basis Analyst Initials: GY
Sample prep wt./vol: 50.00 ml Prep Extract Vol: 50.00 ml

<u>Analyte</u>	<u>CASNo</u>	<u>Result</u>	<u>Flags</u>	<u>Units</u>	<u>PQL</u>	<u>MDL</u>	<u>Rerun #:</u>
Copper	7440-50-8	ND		ug/L	0.10	0.034	1
Nickel	7440-02-0	ND		ug/L	0.15	0.050	
Zinc	7440-66-6	ND		ug/L	0.25	0.084	

Detailed Analytical Report

Analytica Environmental Laboratories, Inc.

Workorder (SDG): J0807222

Project: Whittier Bunker Connection

Client: Admiralty Environmental, LLC

Client Project Number: AE 2195

Tests Run at: Analytica Environmental Laboratories - Thornton, Colorado
 Workorder (SDG): J0807222
 Project: Whittier Bunker Connection
 Project Number: **QUALITY CONTROL REPORT**
 Prep Batch: **T080805014**

SAMPLE DUPLICATE REPORT

Analysis: 200.8 - Metals by ICP/MS - Dissolved
 Base Sample: J0807220-01A
 Prep Date: 8/5/2008
 Samp. Anal. Date: 8/6/2008 4:18:35PM Units: ug/L
 DUP Anal. Date: 8/6/2008 4:39:27PM Matrix: Aqueous

Analyte Name	SampResult	DUPRes.	RPD	RPDLim	Flag
Nickel	0.152	ND	0.0	20	
Copper	0.953	0.935	1.9	20	
Zinc	3.98	4.01	0.8	20	

LCS/LCSD REPORT

Analysis: 200.8 - Metals by ICP/MS - Dissolved
 MB: T080805014-MB
 Prep Date: 8/5/2008
 MB Anal. Date: 8/6/2008 3:31:21PM Units: ug/L
 LCS Anal. Date: 8/6/2008 3:35:37PM LCSD Anal. Date: 8/6/2008 3:40:22PM Matrix: Aqueous

Analyte Name	SampResult	LCSRes.	SDRes.	SPLev	SPDLev	Recov.	SD Recov	RPD	Recov Lim	RPDLim	Flag
Nickel	ND	51.4	51.8	50.0	50.0	102.8	103.6	0.8	85 - 115	20	
Copper	ND	53.0	53.5	50.0	50.0	106.0	107.0	0.9	85 - 115	20	
Zinc	ND	53.1	52.8	50.0	50.0	106.2	105.6	0.6	85 - 115	20	

MS/MSD REPORT

Analysis: 200.8 - Metals by ICP/MS - Dissolved
 Parent: J0807220-01A
 Prep Date: 8/5/2008
 Samp. Anal. Date: 8/6/2008 4:18:35PM Units: ug/L
 MS Anal. Date: 8/6/2008 4:43:44PM MSD Anal. Date: 8/6/2008 4:48:30PM Matrix: Aqueous

Analyte Name	SampResult	MSRes.	MSDRes	SPLev	SPDLev	Recov.	MSD Rec.	RPD	Recov Lim	RPDLim	Flag
Nickel	0.152	49.7	49.4	50.0	50.0	99.1	98.5	0.6	70 - 130	20	
Copper	0.953	52.9	52.8	50.0	50.0	103.9	103.7	0.2	70 - 130	20	
Zinc	3.98	58.1	58.3	50.0	50.0	108.2	108.6	0.3	70 - 130	20	

Detailed Analytical Report

Analytica Environmental Laboratories, Inc.

Workorder (SDG): J0807222

Project: Whittier Bunker Connection

Client: Admiralty Environmental, LLC

Client Project Number: AE 2195

FOOTNOTES TO QC REPORT

Note 1: Results are shown to three significant figures to avoid rounding errors in calculations.

Note 2: If the sample concentration is greater than 4 times the spike level, a recovery is not meaningful, and the result should be used as a replicate. In such cases the spike is not as high as expected random measurement variability of the sample result itself.

Note 3: For sample duplicates, if the result is less than the PQL, the duplicate RPD is not applicable. If the sample and duplicate results are not five times the PQL or greater, then the RPD is not expected to fall within the window shown and the comparison should be made on the basis of the absolute difference. Analytica uses the criterion that the absolute difference should be less than the PQL for water or less than 2XPQL for other matrices.

Note 4: For serial dilutions, if the result is less than the PQL, the duplicate RPD is not applicable. If the sample result is not 50 times the MDL or greater, then the fact that the RPD does not meet the 10% criterion has little significance. Otherwise it indicates that a matrix bias may exist at the analytical step.

Detailed Analytical Report

Analytica Environmental Laboratories, Inc.

Workorder (SDG): J0807222

Project: Whittier Bunker Connection
Client: Admiralty Environmental, LLC
Client Project Number: AE 2195

QC BATCH ASSOCIATIONS - BY METHOD BLANK

Lab Project ID: 90,324 **Lab Project Number:** J0807222

Prep Date: 8/5/2008

Lab Method Blank Id: T080805014-MB
Prep Batch ID: T080805014
Method: 200.8 - Metals by ICP/MS - Dissolved

This Method blank and sample preparation batch are associated with the following samples, spikes, and duplicates:

<u>SampleNum</u>	<u>ClientSampleName</u>	<u>DataFile</u>	<u>AnalysisDate</u>
J0807220-01A	Batch QC	080608asam.rep	8/6/2008 4:18:35PM
J0807222-01A	FW Bunker Connection	080608asam.rep	8/6/2008 5:10:24PM
T080805014-LCS	LCS	080608asam.rep	8/6/2008 3:35:37PM
T080805014-LCSD	LCSD	080608asam.rep	8/6/2008 3:40:22PM
J0807220-01A-DUP	DUP	080608asam.rep	8/6/2008 4:39:27PM
J0807220-01A-MS	MS	080608asam.rep	8/6/2008 4:43:44PM
J0807220-01A-MSD	MSD	080608asam.rep	8/6/2008 4:48:30PM

Detailed Analytical Report

Analytica Environmental Laboratories, Inc.

Workorder (SDG): J0807222

Project: Whittier Bunker Connection
Client: Admiralty Environmental, LLC
Client Project Number: AE 2195

DATA FLAGS AND DEFINITIONS

The PQL is the Method Quantitation Limit as defined by USACE.

Reporting Limit: Limit below which results are shown as "ND". This may be the PQL, MDL, or a value between. See the report conventions below.

Result Field:

ND = Not Detected at or above the Reporting Limit
NA = Analyte not applicable (see Case Narrative for discussion)

Qualifier Fields:

LOW = Recovery is below Lower Control Limit
HIGH = Recovery, RPD, or other parameter is above Upper Control Limit
E = Reported concentration is above the instrument calibration upper range

Organic Analysis Flags:

B = Analyte was detected in the laboratory method blank
J = Analyte was detected above MDL or Reporting Limit but below the Quant Limit (PQL)

Inorganic Analysis Flags:

J = Analyte was detected above the Reporting Limit but below the Quant Limit (PQL)
W = Post digestion spike did not meet criteria
S = Reported value determined by the Method of Standard Additions (MSA)

Other Flags may be applied. See Case Narrative for Description

Detailed Analytical Report

Analytica Environmental Laboratories, Inc.

Workorder (SDG): J0807222

Project: Whittier Bunker Connection

Client: Admiralty Environmental, LLC

Client Project Number: AE 2195

REPORTING CONVENTIONS FOR THIS REPORT

J0807222

<u>Test Name</u>	<u>Basis</u>	<u># Sig Figs</u>	<u>Reporting Limit</u>
200.8/200.8 (Aqueous) - Dissolved	As Received		Report to PQL
Filtration (Aqueous) - Lab Filtration	As Received		Report to PQL



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PROJECT NAME: Whittier Bunker Connection				Bunker Water Investigation		LGN # <u>JD867222</u>	
REPORT TO: Admiralty Environmental		PHONE#: (907) 463-4415		Dissolved Metals		AE 2195	
ADDRESS: 431 N. Franklin St., Suite 101 Juneau, AK 99801		SAMPLED BY: <u>Ben Eleniz</u>		# of Bottles Dissolved Cu, Ni, Zn			
Samples taken in the presence of: <u>CHRISTOPHER C. BENDER</u>							
						Large Temp. Blank: _____	
DATE	TIME	SITE DESCRIPTION / IDENTIFIER	MATRIX				
<u>7-24-08</u>	<u>9:02 AM</u>	<u>Fresh Water Bunker Connection</u>	<u>H₂O</u>	<u>1</u>	<u>1</u>		
DATE	RELINQUISHED BY: (signature)	RECEIVED BY: (signature)	DATE	Section to Be Completed by Receiving Laboratory			
<u>7-24-08</u>	<u>Ben Eleniz</u>	<u>Melissa Goldstein</u>	<u>07/28/08</u>				
TIME	RELINQUISHED BY: (print)	RECEIVED BY: (print)	TIME	Temp/Loc: _____ <u>1.77/61k</u>			
		<u>Melissa Goldstein</u>	<u>1045</u>				
DATE	RELINQUISHED BY: (signature)	RECEIVED BY: (signature)	DATE	Condition of Custody Seals: _____			
<u>07/28/08</u>	<u>Melissa Goldstein</u>	<u>Amy Lamarica</u>	<u>7/28/08</u>				
TIME	RELINQUISHED BY: (print)	RECEIVED BY: (print)	TIME	Shipped Via: _____ <u>cedid</u>			
<u>1630</u>	<u>Melissa Goldstein</u>	<u>Amy Lamarica</u>	<u>1630</u>				

Filtered 7/28/08 17:15 AL



Cooler Receipt Form

Client: Admiralty Environmental, LLC Client Code: 801002
Project: Whittier Bunker Connection

Order #: J0807222

Cooler ID: 1

A. Preliminary Examination Phase:

Date cooler opened: 7/28/2008
Cooler opened by: al

Signature: al

1. Was airbill Attached? N/A

Airbill #:

Carrier Name: Client

2. Custody Seals? N/A

How many? 0

Location:

Seal Name:

3. Seals intact? N/A

4. COC Attached? Yes

Properly Completed? Yes

Signed by AEL employee? Yes

5. Project Identification from custody paper:

6. Preservative:

Temperature: 1.7 deg. C

Designated person initial here to acknowledge receipt: al

Date: 7/30/08

COMMENTS:

B. Log-In Phase: Samples Log-in Date: 7/28/2008 Log-in By: al

1. Packing Type:

2. Were samples in separate bags? Yes

3. Were containers intact? Yes

Labels agree with COC? Yes

4. Number of bottles received: 1

Number of samples received: 1

5. Correct containers used? Yes

Correct preservatives added? N/A

6. Sufficient sample volume? N/A

7. Bubbles in VOA samples? N/A

8. Was Project manager called and status discussed? No

9. Was anyone called? No Who was called? _____ By whom? _____ Date: _____

COMMENTS:



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CHAIN OF CUSTODY/TRANSMITTAL RECORD
 PAGE 1 OF 1

PROJECT NAME: Whittier Bunker Connection				Bunker Water Investigation		LGN # <u>50807222</u>	
REPORT TO: Admiralty Environmental		PHONE#: (907) 463-4415		Dissolved Metals			
ADDRESS: 431 N. Franklin St., Suite 101, Juneau, AK 99801		SAMPLED BY: <u>Ben Eleniz</u>					
Samples taken in the presence of: <u>CHRISTOPHER C. BENDER</u>				# of Bottles Dissolved Cu, Ni, Zn			
DATE	TIME	SITE DESCRIPTION / IDENTIFIER	MATRIX				
7-24-08	9:02 AM	Fresh Water Bunker Connection	H ₂ O	1	1		
DATE	RELINQUISHED BY: (signature)	RECEIVED BY: (signature)	DATE	Temp/Loc: <u>THO</u> <u>3.7</u> <u>1.7°/btk</u> Thermo ID#: _____ <u>PS1</u> Condition of Costody Seals: <u>Y</u> _____ Initialed By: <u>BD</u> _____ Shipped Via: <u>F</u> <u>chris</u>			
7-24-08	<u>[Signature]</u>	<u>[Signature]</u>	07/28/08				
TIME	RELINQUISHED BY: (print)	RECEIVED BY: (print)	TIME				
		Melissa Goldstein	1045				
DATE	RELINQUISHED BY: (signature)	RECEIVED BY: (signature)	DATE				
07/28/08	<u>[Signature]</u>	<u>[Signature]</u>	7/28/08				
TIME	RELINQUISHED BY: (print)	RECEIVED BY: (print)	TIME				
1630	Melissa Goldstein	Amy Lamerica	1630				

7/3-108
8:00

Amy Lamerica
Amy Lamerica

[Signature] 7/31/08
Glenn Pizzullo 09:25

Filtered 7/28/08 17:15 AL



Cooler Receipt Form

Client: Admiralty Environmental, LLC Client Code: 801002
Project: Whittier Bunker Connection

Order #: J0807222

Cooler ID: 2

A. Preliminary Examination Phase:

Date cooler opened: 7/31/2008
Cooler opened by: gp

Signature: GP

1. Was airbill Attached? N/A

Airbill #:

Carrier Name: FedEx

2. Custody Seals? N/A

How many? 0

Location:

Seal Name:

3. Seals intact? Yes

4. COC Attached? Yes

Properly Completed? Yes

Signed by AEL employee? Yes

5. Project Identification from custody paper: Whittier Bunker Connection

6. Preservative: Temperature: 3.7 deg. C

Designated person initial here to acknowledge receipt:

GP Date: 7/31/08

COMMENTS:

B. Log-in Phase: Samples Log-in Date: 8/4/2008 Log-in By: gp

1. Packing Type:

2. Were samples in separate bags? Yes

3. Were containers intact? Yes

Labels agree with COC? Yes

4. Number of bottles received: 1

Number of samples received: 1

5. Correct containers used? Yes

Correct preservatives added? N/A

6. Sufficient sample volume? N/A

7. Bubbles in VOA samples? N/A

8. Was Project manager called and status discussed? No

9. Was anyone called? No Who was called? _____ By whom? _____ Date: _____

COMMENTS:



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2008 Cruise Ship Sampling Field Notes

Date: Monday, June 30, 2008

AE 2100

Vessel Name: Princess Dock

Sampler(s): Erin Evans

Sample Port ID #1: N. Bunker Water
~~Overboard Discharge~~ ^{ESE 6/30/08} (Grab) Composite) DRINKING WATER
 (Blackwater / Graywater / Mixed)

Notes: 335.1 miles - 849.0 miles ≈ 14 miles Princess office # (206) 336-5824
Saw Dan onsite @ Princess office for sample location

Sample Port ID #2: NA (Grab / Composite) (Blackwater / Graywater / Mixed)

Notes: ESE 6/30/08

Sample Port ID #3: _____ (Grab / Composite) (Blackwater / Graywater / Mixed)

Notes: _____

Sample Port ID #4: _____ (Grab / Composite) (Blackwater / Graywater / Mixed)

Notes: _____

Field Test Results

	#1	#2	#3	#4
Time, 24-hour	<u>NA</u>	:	:	:
pH, units				<u>ESE 6/30/08</u>
Temp, C				
Free Chlorine, mg/L				
Total Chlorine, mg/L				

As the accompanying shipboard personnel, I hereby acknowledge that I have witnessed this sampling event and can attest that the samples were collected from the correct sampling port(s) as designated in this vessel's Vessel Specific Sampling Plan (VSSP):

[Signature]
 Signature

Pelicia Marcel
 Printed Name

2008 Cruise Ship Sampling Checklist



Vessel Name: Princess Dock
Sampler Name: Erin Evans
Date: Monday, June 30, 2008
Sampling Event ID #: AE 2100

I. Notification

- ADEC project manager notified 36 hours prior to the sampling event

II. Type of Sampling

- Conventional pollutants only
- Conventional and priority pollutants.
 - If 2nd unannounced sample, must be > 21 days after the first sampling event.
- USCG Continuous Compliance/ADEC Permit compliance Parameters
 - If 2nd continuous compliance sample for month, must be ≥ 24 hrs after first sample
- ADEC Metals and Ammonia testing

III. Sampling Notes (to include:)

- Vessel name
- Names of sampling personnel
- Names of shipboard assistants
- Signature or initials by the vessel crew indicating that the sample port is correct
- Sample ID clearly stating where the sample was taken
- Sample date and times recorded on COC
- Field measurements: pH, chlorine residual, and temp recorded on COC
- Records collected on discharge flow rates (always) and holding tank volumes (for underway sampling only)
- Sample ports within 50 feet of the point of overboard discharge
- Nature of sample recorded (composite or grab)
- Waste type recorded (blackwater, graywater, or mixed) DRINKING WATER
- If deviations from VSSP and/or QA/QCP noted, reported to ADEC/USCG
- Photographs taken of samples and sampling port
- If unannounced sampling, sampler verified that vessel is discharging
- Latitude/longitude and speed at time of discharge being sampled is recorded (for underway sampling only)
- Copy of the Discharge record for the sampled discharge included
- Chain of custody properly completed
- Samples delivered to laboratory within holding times for analyses

Alaska Cruise Ship Data Review Checklist

Vessel Name PRINCESS DOCK AE 2100
Date 7/1/08
Location SEATTLE, WA
Sampling Team ERIN EVANS
Laboratory PACE ANALYTICAL

Sample Type:

- Continued Compliance
- Random Unannounced

Final Report Package Includes:

- Sampling event summary sheet
- Analytical Report
 - Ship name
 - Sample ID's
 - Sample date and time collected
 - Parameter names and method references
 - Analytical results
 - Method Detection Limits (MDL's)
 - Practical Quantitation Limits (PQL's/reporting limits)
 - Date and time of sample preparation
 - Date and time of analysis
 - Verification that holding times were met
 - Quality control information: blank results, spiked blank of laboratory control standard recovery, matrix spike/spike duplicate recoveries, relative percent differences between duplicate spike analyses
 - Case narrative describing deviations from methods, procedural problems with sample analysis, explanation of data abnormalities, and any additional information that is necessary for describing the sample. This narrative should explain when results are outside the precision and accuracy limits and the corrective actions taken to rectify QC problems.
- Chain of custody form
- Cooler receipt forms with temperature indicated
- Discharge logs covering time of sampling. (For recirculated samples, provide discharge logs back to the time of last discharge)
- Field notes.
- Latitude and longitude information pertaining to each sample including which overboard port the waste was discharged through and the speed the vessel was traveling (*unannounced samples only*)
- Completed sampling checklist
- Completed data review checklist



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CHAIN OF CUSTODY/TRANSMITTAL RECORD
 PAGE 1 OF 1

PROJECT NAME: Star Princess Metals Investigation				ADEC Compliance				LGN # <u>J0806179</u>							
REPORT TO: Admiralty Environmental				PHONE#: (907) 463-4415				AE 2049 Initial Temp. (°C) Small Temp. Blank: _____ Large Temp. Blank: _____							
ADDRESS: 431 N. Franklin St., Suite 101 Juneau, AK 99801				SAMPLED BY: W. Schulz											
Samples taken in the presence of:				# of Bottles	Dissolved Cu, Ni, Zn							Field Results			
DATE	TIME	SITE DESCRIPTION /IDENTIFIER	MATRIX									pH	Temp	Total Cl	Free Cl
06/17/08	0709	Ketchikan Bunker Water Connection	H ₂ O	2	1							16.0	0.3	0.3	
DATE	RELINQUISHED BY: (signature)	RECEIVED BY: (signature)	DATE	Section to Be Completed by Receiving Laboratory											
06-17-08	<i>William Schulz</i>	<i>[Signature]</i>	6/20/08												
TIME	RELINQUISHED BY: (print)	RECEIVED BY: (print)	TIME												
1200	William Schulz	Trevor Fritz	16:50												
DATE	RELINQUISHED BY: (signature)	RECEIVED BY: (signature)	DATE	Temp/Loc: _____ 59 _____ Thermo ID#: _____ F12 _____ Condition of Custody Seals _____ N/A _____ Initialed By: _____ _____ Shipped Via: _____ Clait											
6/20/08	<i>[Signature]</i>	<i>[Signature]</i>	6/20/08												
TIME	RELINQUISHED BY: (print)	RECEIVED BY: (print)	TIME												
16:50	Trevor Fritz	Amy Lamoreaux	16:50												

Filtered 6/20/08 AL 17:00



Cooler Receipt Form

Client: Admiralty Environmental, LLC Client Code: 801002
Project: Star Princess

Order #: J0806179

Cooler ID: 1

A. Preliminary Examination Phase:

Date cooler opened: 6/20/2008
Cooler opened by: al

Signature: AL

1. Was airbill Attached? N/A

Airbill #:

Carrier Name: Client

2. Custody Seals? N/A

How many? 0

Location:

Seal Name:

3. Seals intact? N/A

4. COC Attached? Yes

Properly Completed? Yes

Signed by AEL employee? Yes

5. Project Identification from custody paper:

6. Preservative:

Temperature: 5.9 deg. C

Designated person initial here to acknowledge receipt: AL

Date: 6/22/08

COMMENTS: Mailed metals sample from R&M Engineering. A part of the Star Princess Metals Investigation.

B. Log-In Phase:

Samples Log-in Date: 6/20/2008 Log-in By: al

AL

1. Packing Type:

2. Were samples in separate bags? Yes

3. Were containers intact? Yes

Labels agree with COC? Yes

4. Number of bottles received: 2

Number of samples received: 1

5. Correct containers used? Yes

Correct preservatives added? N/A

6. Sufficient sample volume? N/A

7. Bubbles in VOA samples? N/A

8. Was Project manager called and status discussed? No

9. Was anyone called? No Who was called? _____ By whom? _____ Date: _____

COMMENTS:



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CHAIN OF CUSTODY/TRANSMITTAL RECORD
 PAGE 1 OF 1

PROJECT NAME: Star Princess Metals Investigation				ADEC Compliance				LGN# <u>J0806179</u>					
REPORT TO: Admiralty Environmental				PHONE#: (907) 463-4415				AE 2049 <u>Initial Temp. (°C)</u> Small Temp. Blank: _____ Large Temp. Blank: _____					
ADDRESS: 431 N. Franklin St., Suite 101 Juneau, AK 99801				SAMPLED BY: W. Schulz									
Samples taken in the presence of:				# of Bottles	Dissolved Cu, Ni, Zn					Field Results			
DATE	TIME	SITE DESCRIPTION / IDENTIFIER	MATRIX			pH	Temp	Total Cl	Free Cl				
06/17/08	0709	Ketchikan Bunker Water Connection	H ₂ O	2	1					16.0	0.3	0.3	

DATE 06-17-08	RELINQUISHED BY: (signature) <i>William Schulz</i>	RECEIVED BY: (signature) <i>Trevor Fritz</i>	DATE 6/20/08
TIME 1200	RELINQUISHED BY: (print) William Schulz	RECEIVED BY: (print) Trevor Fritz	TIME 16:50
DATE 6/20/08	RELINQUISHED BY: (signature) <i>Trevor Fritz</i>	RECEIVED BY: (signature) <i>Amy Lomora</i>	DATE 6/20/08
TIME 16:50	RELINQUISHED BY: (print) Trevor Fritz	RECEIVED BY: (print) Amy Lomora	TIME 16:50

Section to be Completed by Receiving Laboratory			
Temp/Loc:	<u>Tho</u>	<u>2.3</u>	<u>59</u>
Thermo ID#:			<u>FL2</u>
Condition of Custody Seals	<u>Y</u>		<u>N/A</u>
Initialed By:	<u>AL</u>		
Shipped Via:	<u>F</u>		<u>Client</u>

6/23/08 8:15
Amy Lomora
Amy Lomora

N. Lober 6/24/08

Filtered 6/20/08 AL 17:00



Cooler Receipt Form

Client: Admiralty Environmental, LLC Client Code: 801002
Project: Star Princess

Order #: J0806179

Cooler ID: 2

A. Preliminary Examination Phase:

Date cooler opened: 6/24/2008

Cooler opened by: NL

Signature: NL

1. Was airbill Attached? N/A

Airbill #:

Carrier Name: FedEx

2. Custody Seals? N/A

How many? 0

Location:

Seal Name:

3. Seals intact? Yes

4. COC Attached? Yes

Properly Completed? Yes

Signed by AEL employee? Yes

5. Project Identification from custody paper:

6. Preservative:

Temperature: 2.3 deg. C

Designated person initial here to acknowledge receipt:

NL

Date:

6/24/08

COMMENTS:

B. Log-In Phase:

Samples Log-in Date: 6/24/2008

Log-in By: NL

1. Packing Type:

2. Were samples in separate bags? N/A

3. Were containers intact? Yes

Labels agree with COC? Yes

4. Number of bottles received: 1

Number of samples received: 1

5. Correct containers used? Yes

Correct preservatives added? N/A

6. Sufficient sample volume? N/A

7. Bubbles in VOA samples? N/A

8. Was Project manager called and status discussed? No

9. Was anyone called? No

Who was called?

By whom?

Date:

COMMENTS:



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CHAIN OF CUSTODY/TRANSMITTAL RECORD
 PAGE 1 OF 1

PROJECT NAME: Star Princess					Dissolved Cu, Ni, Zn					LGN # <u>JD806209</u>				
REPORT TO: Admiralty Environmental					PHONE#: (907) 463-4415					AE 2049 <u>Initial Temp. (°C)</u> Small Temp. Blank: _____ Large Temp. Blank: _____				
ADDRESS: 431 N. Franklin St., Suite 101, Juneau, AK 99801					SAMPLED BY: V. Stirbois									
Samples taken in the presence of:										# of Bottles Dissolved Cu, Ni, Zn	Field Results			
DATE	TIME	SITE DESCRIPTION / IDENTIFIER	MATRIX								pH	Temp	Total Cl	Free Cl
JUN 20, 08	1520	EVAPORATOR 1	H ₂ O	1	1						7.90			
JUN 20, 08	1525	EVAPORATOR 2	H ₂ O	1	1						7.79			
JUN 21, 08	1750	BUNKERING VICTORIA - On Pier	H ₂ O	1	1						8.14			
JUN 22, 08	1029	BUNKERING SEATTLE - Fire Post	H ₂ O	1	1						8.28			
JUN 23, 08	1545	EVAPORATOR 2	H ₂ O	1	1						7.27			
			H ₂ O	1	1									
DATE	RELINQUISHED BY: (signature)	RECEIVED BY: (signature)	DATE	Section to Be Completed by Receiving Laboratory										
JUN 25, 08	<i>[Signature]</i>	<i>[Signature]</i>	6/25/08											
TIME	RELINQUISHED BY: (print)	RECEIVED BY: (print)	TIME											
1545	Vigornie S. Stein	Trevor Fritz	15:45											
DATE	RELINQUISHED BY: (signature)	RECEIVED BY: (signature)	DATE	Temp/Loc: _____ <u>2.3°/6K</u> Thermo ID#: _____ <u>FR2</u> Condition of Custody Seals: _____ Initialed By: _____ Shipped Via: _____ <u>direct</u>										
6/25/08	<i>[Signature]</i>	<i>[Signature]</i>	6/25/08											
TIME	RELINQUISHED BY: (print)	RECEIVED BY: (print)	TIME											
16:25	Trevor Fritz	Amy Lamson	16:25											



Cooler Receipt Form

Client: Admiralty Environmental, LLC Client Code: 801002
Project: Star Princess

Order #: J0806209

Cooler ID: 1

A. Preliminary Examination Phase:

Date cooler opened: 6/25/2008
Cooler opened by: al

Signature: AL

- 1. Was airbill Attached? N/A
- 2. Custody Seals? N/A
- 3. Seals intact? N/A
- 4. COC Attached? Yes

Airbill #: _____
How many? 0 Location: _____

Carrier Name: Client
Seal Name: _____

Properly Completed? Yes Signed by AEL employee? Yes

5. Project Identification from custody paper:

6. Preservative: _____ Temperature: 2.3 deg. C

Designated person initial here to acknowledge receipt: AL Date: 6/26/09

COMMENTS:

B. Log-In Phase: Samples Log-in Date: 6/25/2008 Log-in By: al AL

1. Packing Type:

- 2. Were samples in separate bags? Yes
- 3. Were containers intact? Yes Labels agree with COC? Yes
- 4. Number of bottles received: 5 Number of samples received: 5
- 5. Correct containers used? Yes Correct preservatives added? N/A
- 6. Sufficient sample volume? N/A
- 7. Bubbles in VOA samples? N/A
- 8. Was Project manager called and status discussed? No
- 9. Was anyone called? No Who was called? _____ By whom? _____ Date: _____

COMMENTS:



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 Juneau, AK 99801
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CHAIN OF CUSTODY/TRANSMITTAL RECORD
 PAGE 1 OF 1

PROJECT NAME: Star Princess				Dissolved Cu, Ni, Zn				LGN # <u>J0806209</u>						
REPORT TO: Admiralty Environmental				PHONE#: (907) 463-4415				Metals Investigation						
ADDRESS: 431 N. Franklin St., Suite 101, Juneau, AK 99801				SAMPLED BY: V. Stirbois										
Samples taken in the presence of:				# of Bottles	Dissolved Cu, Ni, Zn	Initial Temp. (°C) Small Temp. Blank: _____ Large Temp. Blank: _____								
Field Results														
DATE	TIME	SITE DESCRIPTION / IDENTIFIER	MATRIX							pH	Temp	Total Cl	Free Cl	
JUN 20, 08	1520	EVAPORATOR 1	H ₂ O							1	1			7.90
JUN 20, 08	1525	EVAPORATOR 3	H ₂ O							1	1			7.79
JUN 21, 08	1750	BUNKERING VICTORIA - On Pier	H ₂ O							1	1			8.14
JUN 22, 08	1029	BUNKERING SEATTLE - Fwd Port	H ₂ O							1	1			8.28
JUN 23, 08	1545	EVAPORATOR 2	H ₂ O	1	1			7.22						
			H ₂ O	1	1									
DATE	RELINQUISHED BY: (signature)	RECEIVED BY: (signature)	DATE	Chain to be completed by Receiving Laboratory										
JUN 25, 08	<i>[Signature]</i>	<i>[Signature]</i>	6/25/08											
TIME	RELINQUISHED BY: (print)	RECEIVED BY: (print)	TIME											
1545	Vigornie St. Louis	TREVOR FEITZ	15:45											
DATE	RELINQUISHED BY: (signature)	RECEIVED BY: (signature)	DATE	Temp/Loc:	2.1	2.3°/W								
6/25/08	<i>[Signature]</i>	<i>[Signature]</i>	6/25/08	Thermo ID#:		F02								
TIME	RELINQUISHED BY: (print)	RECEIVED BY: (print)	TIME	Condition of Custody Seals	Y									
16:25	TREVOR FEITZ	AMY LAMONICA	16:25	Initialed By:	FL									
				Shipped Via:	F	direct								

6/24/08 8:15 *[Signature]* N. Laber 8:50



Cooler Receipt Form

Client: Admiralty Environmental, LLC Client Code: 801002
Project: Star Princess

Order #: J0806209

Cooler ID: 2

A. Preliminary Examination Phase:

Date cooler opened: 6/27/2008
Cooler opened by: NL

Signature: NL

- 1. Was airbill Attached? N/A Airbill #: Carrier Name: FedEx
- 2. Custody Seals? N/A How many? 0 Location: Seal Name:
- 3. Seals intact? Yes
- 4. COC Attached? Yes Properly Completed? Yes Signed by AEL employee? Yes
- 5. Project Identification from custody paper:
- 6. Preservative: Temperature: 2.1 deg. C

Designated person initial here to acknowledge receipt:

NL Date: 6/27/08

COMMENTS:

B. Log-In Phase: Samples Log-in Date: 6/27/2008 Log-in By: NL

- 1. Packing Type:
- 2. Were samples in separate bags? N/A
- 3. Were containers intact? Yes Labels agree with COC? Yes
- 4. Number of bottles received: 5 Number of samples received: 5
- 5. Correct containers used? Yes Correct preservatives added? N/A
- 6. Sufficient sample volume? N/A
- 7. Bubbles in VOA samples? N/A
- 8. Was Project manager called and status discussed? No
- 9. Was anyone called? No Who was called? _____ By whom? _____ Date: _____

COMMENTS:



Admiralty Environmental
 431 N. Franklin, Suite 101
 Juneau, AK 99801
 (907) 463-4415 fax (480) 247-4476

CHAIN OF CUSTODY/TRANSMITTAL RECORD
 PAGE 1 OF 1

PROJECT NAME: Star Princess				Dissolved Cu, Ni, Zn				LGN # <u>50806169</u>			
REPORT TO: Admiralty Environmental				PHONE#: (907) 463-4415				AE 2049 Initial Temp. (°C) Small Temp. Blank: _____ Large Temp. Blank: _____			
ADDRESS: 431 N. Franklin St., Suite 101, Juneau, AK 99801				SAMPLED BY: V. Stirbois							
Samples taken in the presence of:				# of Bottles	Dissolved Cu, Ni, Zn	Field Results					
DATE	TIME	SITE DESCRIPTION / IDENTIFIER	MATRIX			pH	Temp	Total Cl	Free Cl		
June 17, 08	0835	Bulked water from Skagway St. Fwd Port	H ₂ O			1	1				
June 17, 08	1120	Potable water IR (B+D) after collection	H ₂ O			1	1				
June 17, 08	1130	Bulked water - Hotelikan - St. Fwd Port	H ₂ O			1	1				
June 17, 08	1135	Tap water - Bridge Partry - Deck 14	H ₂ O			1	1				
June 17, 08	1145	Crew Cabin - Deck 10 Fwd Port (Hot water)	H ₂ O			1	1				
June 17, 08	1150	Pax Cabin - Deck 8 Fwd Stbd (Hot water)	H ₂ O			1	1				
DATE	RELINQUISHED BY: (signature)	RECEIVED BY: (signature)	DATE	Section to Be Completed by Receiving Laboratory							
6/19/08	<i>[Signature]</i>	<i>[Signature]</i>	6/19/08								
TIME	RELINQUISHED BY: (print)	RECEIVED BY: (print)	TIME								
0700	TREVOR FRITZ	BARBARA ROYLL	700								
DATE	RELINQUISHED BY: (signature)	RECEIVED BY: (signature)	DATE	Temp/Loc: _____ <u>5.6</u> _____							
				Thermo ID#: _____ <u>FLZ</u> _____							
				Condition of Costody Seals _____ <u>-</u> _____							
				Initialed By: _____ <u>-</u> _____							
				Shipped Via: _____ <u>clmt</u> _____							

Filed 6/19/08 9:00 AM
 AC



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CHAIN OF CUSTODY/TRANSMITTAL RECORD
 PAGE 1 OF 1

PROJECT NAME: Star Princess					Dissolved Cu, Ni, Zn					LGN # <u>30806164</u>					
REPORT TO: Admiralty Environmental					PHONE#: (907) 463-4415					Metals Investigation					
ADDRESS: 431 N. Franklin St., Suite 101, Juneau, AK 99801					SAMPLED BY: V. Stirbois										
Samples taken in the presence of:										# of Bottles	Dissolved Cu, Ni, Zn	Field Results			
DATE	TIME	SITE DESCRIPTION / IDENTIFIER	MATRIX									pH	Temp	Total Cl	Free Cl
JUN 17, 08	1155	Pan Cabin Deck 11 Port Midship	H ₂ O	1	1								7.29		
JUN 17, 08	1200	Crew Cabin Deck 4 Port	H ₂ O	1	1								7.32		
JUN 17, 08	1205	Tap Water - Crew Galley - Deck 5 aft (Hot)	H ₂ O	1	1								7.31		
JUN 18, 08	1135	Influent WBR - Black Water - Evac 4	H ₂ O	1	1								8.48		
JUN 18, 08	1145	Influent WBR - Grey Water - Buffer 12	H ₂ O	1	1								6.96		
JUN 18, 08	1155	Potable Water 12 (11-12) after oxidation	H ₂ O	1	1						7.29				
DATE	RELINQUISHED BY: (signature)	RECEIVED BY: (signature)	DATE	Section to Be Completed by Receiving Laboratory											
6/19/08	<i>[Signature]</i>	<i>[Signature]</i>	6/19/08												
TIME	RELINQUISHED BY: (print)	RECEIVED BY: (print)	TIME												
0700	TREVOR FRITZ	BRIAN DOYLE	7:00												
DATE	RELINQUISHED BY: (signature)	RECEIVED BY: (signature)	DATE	Temp/Loc: _____ 5.6 _____											
TIME	RELINQUISHED BY: (print)	RECEIVED BY: (print)	TIME												
				Thermo ID#: _____ FVZ _____											
														Condition of Costody Seals: _____ = _____	
				Initialed By: _____ = _____											
														Shipped Via: _____ Client _____	



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CHAIN OF CUSTODY/TRANSMITTAL RECORD
 PAGE 1 OF 1

PROJECT NAME: Star Princess				Dissolved Cu, Ni, Zn				LGN # <u>J0806164</u>					
REPORT TO: Admiralty Environmental				PHONE#: (907) 463-4415				AE 2049 Initial Temp. (°C) Small Temp. Blank: _____ Large Temp. Blank: _____					
ADDRESS: 431 N. Franklin St., Suite 101 Juneau, AK 99801				SAMPLED BY: V. Stirbois									
Samples taken in the presence of:				# of Bottles	Dissolved Cu, Ni, Zn								
DATE	TIME	SITE DESCRIPTION / IDENTIFIER	MATRIX										
5/20/08	1730	Bunkered water - ^{AS Deck} Juneau. St. Fritz Pub	H ₂ O			1	1						
6/18/08	1720	Alternate OB Sample point	H ₂ O			1	1						
			H ₂ O			1	1						
			H ₂ O			1	1						
			H ₂ O			1	1						
DATE: 6/19/08		RELINQUISHED BY: (signature)		RECEIVED BY: (signature)		DATE: 6/19/08		Section to Be Completed by Receiving Laboratory Temp/Loc: _____ <u>56</u> _____ Thermo ID#: _____ <u>FVZ</u> _____ Condition of Costody Seals: _____ <u>-</u> _____ Initialed By: _____ <u>-</u> _____ Shipped Via: _____ <u>clout</u> _____					
TIME: 0700		RELINQUISHED BY: (print)		RECEIVED BY: (print)		TIME: 700							
DATE:		RELINQUISHED BY: (signature)		RECEIVED BY: (signature)		DATE:							
TIME:		RELINQUISHED BY: (print)		RECEIVED BY: (print)		TIME:							



Cooler Receipt Form

Client: Admiralty Environmental, LLC Client Code: 801002
Project: Star Princess

Order #: J0806164

Cooler ID: 1

A. Preliminary Examination Phase:

Date cooler opened: 6/19/2008
Cooler opened by: bd

Signature: 

1. Was airbill Attached? N/A

Airbill #:

Carrier Name: Client

2. Custody Seals? N/A

How many? 0

Location:

Seal Name:

3. Seals intact? N/A

4. COC Attached? Yes

Properly Completed? Yes

Signed by AEL employee? Yes

5. Project Identification from custody paper:

6. Preservative:

Temperature: 5.6 deg. C

Designated person initial here to acknowledge receipt:

 Date: 6/19/08

COMMENTS:

B. Log-In Phase:

Samples Log-in Date: 6/19/2008

Log-in By: al



1. Packing Type:

2. Were samples in separate bags? Yes

3. Were containers intact? Yes

Labels agree with COC? Yes

4. Number of bottles received: 14

Number of samples received: 14

5. Correct containers used? Yes

Correct preservatives added? N/A

6. Sufficient sample volume? N/A

7. Bubbles in VOA samples? N/A

8. Was Project manager called and status discussed? No

9. Was anyone called? No Who was called? _____ By whom? _____ Date: _____

COMMENTS:



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CHAIN OF CUSTODY/TRANSMITTAL RECORD
 PAGE 1 OF 1

PROJECT NAME: Star Princess				Dissolved Cu, Ni, Zn		LGN # <u>JD806169</u>			
REPORT TO: Admiralty Environmental		PHONE#: (907) 463-4415		Metals Investigation		AE 2049			
ADDRESS: 431 N. Franklin St., Suite 101 Juneau, AK 99801		SAMPLED BY: V. Stirbois		# of Bottles		Initial Temp. (°C) Small Temp. Blank: _____ Large Temp. Blank: _____			
Samples taken in the presence of:									
DATE	TIME	SITE DESCRIPTION / IDENTIFIER	MATRIX	Dissolved Cu, Ni, Zn		Field Results			
						pH	Temp	Total Cl	Free Cl
June 17, 08	0835	Bulkhead water from Skagway St. Fwd Port	H ₂ O	1	1	2.1			
June 17, 08	1120	Potable Water TR (8+9) after collection	H ₂ O	1	1	7.53			
June 17, 08	1130	Bulkhead water - Hetchikan - St. Fwd Port	H ₂ O	1	1	8.18			
June 17, 08	1135	Tap water - Bridge Portage Deck 14	H ₂ O	1	1	2.45			
June 17, 08	1145	Crew Cabin Deck 10 Fwd Port (Hot water)	H ₂ O	1	1	2.25			
June 17, 08	1150	Pass Cabin Deck 8 Fwd Stbd (Hot water)	H ₂ O	1	1	2.19			
DATE	RELINQUISHED BY: (signature)	RECEIVED BY: (signature)	DATE	Section to be completed by Receiving Laboratory					
6/19/08	<i>[Signature]</i>	<i>[Signature]</i>	6/19/08	Temp/Loc:	5.1	5.6			
TIME	RELINQUISHED BY: (print)	RECEIVED BY: (print)	TIME	Thermo ID#:		FUZ			
0700	TREVOR FRITZ	BRYAN DOYLE	700	Condition of Costody Seals	Y	-			
DATE	RELINQUISHED BY: (signature)	RECEIVED BY: (signature)	DATE	Initialed By:	AL	-			
6/23/08	<i>[Signature]</i>	<i>[Signature]</i>	6/24/08	Shipped Via:	F	clmt			
TIME	RELINQUISHED BY: (print)	RECEIVED BY: (print)	TIME						
8:15	Amy Lamurda	N Labue	8:45						



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CHAIN OF CUSTODY/TRANSMITTAL RECORD
 PAGE 1 OF 1

PROJECT NAME: Star Princess				Dissolved Cu, Ni, Zn		LGN # <u>JD806164</u>			
REPORT TO: Admiralty Environmental		PHONE#: (907) 463-4415		Metals Investigation		AE 2049 <u>Initial Temp. (°C)</u> Small Temp. Blank: _____ Large Temp. Blank: _____			
ADDRESS: 431 N. Franklin St., Suite 101 Juneau, AK 99801		SAMPLED BY: V. Sturbois		# of Bottles Dissolved Cu, Ni, Zn				Field Results	
Samples taken in the presence of:						pH		Temp	
						Total Cl		Free Cl	
DATE	TIME	SITE DESCRIPTION / IDENTIFIER	MATRIX						
6/18/08	1730	Bunker water - Juneau AT Dock	H ₂ O			1	1		
6/18/08	1730	Alternate OB Sample point	H ₂ O			1	1		
			H ₂ O			1	1		
			H ₂ O			1	1		
			H ₂ O			1	1		
			H ₂ O			1	1		
DATE	RELINQUISHED BY: (signature)	RECEIVED BY: (signature)	DATE	Section to be completed by Receiving Laboratory					
6/19/08	<i>[Signature]</i>	<i>[Signature]</i>	6/19/08						
TIME	RELINQUISHED BY: (print)	RECEIVED BY: (print)	TIME						
0700	Trevor Fritz	Brian Doyle	700						
DATE	RELINQUISHED BY: (signature)	RECEIVED BY: (signature)	DATE	Temp/Loc: <u>5.1</u> <u>5.6</u>					
		<i>N LaBue</i>	6/24/08						
TIME	RELINQUISHED BY: (print)	RECEIVED BY: (print)	TIME	Thermo ID#: <u>FUZ</u> Condition of Custody Seals: <u>Y</u> <u>-</u>					
		<i>N LaBue</i>	8:45						
				Initialed By: <u>AL</u> <u>-</u>					
				Shipped Via: <u>F</u> <u>direct</u>					



Cooler Receipt Form

Client: Admiralty Environmental, LLC Client Code: 801002
Project: Star Princess

Order #: J0806164

Cooler ID: 2

A. Preliminary Examination Phase:

Date cooler opened: 6/24/2008
Cooler opened by: NL

Signature: NL

- 1. Was airbill Attached? N/A Airbill #: Carrier Name: FedEx
- 2. Custody Seals? N/A How many? 0 Location: Seal Name:
- 3. Seals intact? Yes
- 4. COC Attached? Yes Properly Completed? Yes Signed by AEL employee? Yes
- 5. Project Identification from custody paper:
- 6. Preservative: Temperature: 5.1 deg. C

Designated person initial here to acknowledge receipt: NL

Date: 6/24/08

COMMENTS:

B. Log-In Phase: Samples Log-in Date: 6/24/2008 Log-in By: NL

- 1. Packing Type:
- 2. Were samples in separate bags? N/A
- 3. Were containers intact? Yes Labels agree with COC? Yes
- 4. Number of bottles received: 14 Number of samples received: 14
- 5. Correct containers used? Yes Correct preservatives added? N/A
- 6. Sufficient sample volume? N/A
- 7. Bubbles in VOA samples? N/A
- 8. Was Project manager called and status discussed? No
- 9. Was anyone called? No Who was called? _____ By whom? _____ Date: _____

COMMENTS:



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CHAIN OF CUSTODY/TRANSMITTAL RECORD
 PAGE 1 OF 1

PROJECT NAME: Princess Metals Investigation				ADEC Compliance				LGN # <u>JD806214</u>					
REPORT TO: Admiralty Environmental				PHONE#: (907) 463-4415				AE 2091					
ADDRESS: 431 N. Franklin St., Suite 101, Juneau, AK 99801				SAMPLED BY: T. Fritz, K. Goodwin									
Samples taken in the presence of:				# of Bottles Dissolved Cu, Ni, Zn				Initial Temp. (°C)					
								Small Temp. Blank: _____					
				Large Temp. Blank: _____				Field Results					
DATE	TIME	SITE DESCRIPTION /IDENTIFIER	MATRIX							pH	Temp	Total Cl	Free Cl
06/25/08	10:15	Bunker Water Connection (JNU Princess Dock)	H ₂ O	12	2								
DATE	RELINQUISHED BY: (signature)	RECEIVED BY: (signature)	DATE	Section to Be Completed by Receiving Laboratory									
6/25/08	<i>[Signature]</i>	<i>[Signature]</i>	6/25/08										
TIME	RELINQUISHED BY: (print)	RECEIVED BY: (print)	TIME										
12:45	TREVOR FRITZ	BOB DOYLE	1245										
DATE	RELINQUISHED BY: (signature)	RECEIVED BY: (signature)	DATE	Temp/Loc: _____ <u>1.56K</u> _____									
				Thermo ID#: _____ <u>FLZ</u> _____									
				Condition of Costody Seals _____ <u>-</u> _____									
				Initialed By: _____ <u>-</u> _____									
				Shipped Via: _____ <u>CLP</u> _____									

Filtered: 6/25/08 14:00 AL



Cooler Receipt Form

Client: Admiralty Environmental, LLC **Client Code:** 801002
Project: Princess Metals Investigation

Order #: J0806214

Cooler ID: 1

A. Preliminary Examination Phase:

Date cooler opened: 6/25/2008
Cooler opened by: bd

Signature: 

- 1. Was airbill Attached? N/A
- 2. Custody Seals? N/A
- 3. Seals intact? N/A
- 4. COC Attached? Yes

Airbill #:
How many? 0 **Location:**

Carrier Name: Client
Seal Name:

Properly Completed? Yes **Signed by AEL employee?** Yes

5. Project Identification from custody paper:

6. Preservative: **Temperature:** 1.5 deg. C

Designated person initial here to acknowledge receipt:

 **Date:** 6/26/08

COMMENTS:

B. Log-In Phase: **Samples Log-in Date:** 6/25/2008 **Log-in By:** al



1. Packing Type:

- 2. Were samples in separate bags? Yes
- 3. Were containers intact? Yes
- 4. Number of bottles received: 1
- 5. Correct containers used? Yes
- 6. Sufficient sample volume? N/A
- 7. Bubbles in VOA samples? N/A

Labels agree with COC? Yes
Number of samples received: 1
Correct preservatives added? N/A

8. Was Project manager called and status discussed? No

9. Was anyone called? No **Who was called?** _____ **By whom?** _____ **Date:** _____

COMMENTS:



Admiralty Environmental
 431 N. Franklin, Suite 101
 Juneau, AK 99801
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CHAIN OF CUSTODY/TRANSMITTAL RECORD
 PAGE 1 OF 1

PROJECT NAME: Princess Metals Investigation				ADEC Compliance				LGN # <u>JD806214</u>					
REPORT TO: Admiralty Environmental				PHONE#: (907) 463-4415				Dissolved Cu, Ni, Zn					
ADDRESS: 431 N. Franklin St., Suite 101, Juneau, AK 99801				SAMPLED BY: T. Fritz, K. Goodwin									
Samples taken in the presence of:				# of Bottles Dissolved Cu, Ni, Zn				AE 2091 Initial Temp. (°C) Small Temp. Blank: _____ Large Temp. Blank: _____					
								Field Results					
DATE	TIME	SITE DESCRIPTION / IDENTIFIER	MATRIX							pH	Temp	Total Cl	Free Cl
06/25/08	10:15	Bunker Water Connection (JNU Princess Dock)	H ₂ O	12	12								
DATE	RELINQUISHED BY: (signature)	RECEIVED BY: (signature)	DATE	Section to Be Completed by Receiving Laboratory									
6/25/08	<i>[Signature]</i>	<i>[Signature]</i>	6/25/08	Temp/Loc:	2.1	1.5	K						
TIME	RELINQUISHED BY: (print)	RECEIVED BY: (print)	TIME	Thermo ID#:		FLZ							
12:45	TREVOR FRITZ	BRIAN DOYLE	1245	Condition of Costody Seals	Y	-							
DATE	RELINQUISHED BY: (signature)	RECEIVED BY: (signature)	DATE	Initialed By:	AL	-							
6/26/08	<i>[Signature]</i>	N Labue	6/27/08	Shipped Via:	F	4 feet							
TIME	RELINQUISHED BY: (print)	RECEIVED BY: (print)	TIME										
8:15	Amy Lamson	N Labue	8:50										

Filtered: 6/25/08 14:00 AL



Cooler Receipt Form

Client: Admiralty Environmental, LLC Client Code: 801002
Project: Princess Metals Investigation

Order #: J0806214

Cooler ID: 2

A. Preliminary Examination Phase:

Date cooler opened: 6/27/2008
Cooler opened by: NL

Signature: NL

- 1. Was airbill Attached? N/A Airbill #: Carrier Name: FedEx
- 2. Custody Seals? N/A How many? 0 Location: Seal Name:
- 3. Seals intact? Yes
- 4. COC Attached? Yes Properly Completed? Yes Signed by AEL employee? Yes
- 5. Project Identification from custody paper:
- 6. Preservative: Temperature: 2.1 deg. C

Designated person initial here to acknowledge receipt: _____

NL Date: 6/27/08

COMMENTS:

B. Log-In Phase: Samples Log-in Date: 6/27/2008 Log-in By: NL

- 1. Packing Type:
- 2. Were samples in separate bags? N/A
- 3. Were containers intact? Yes Labels agree with COC? Yes
- 4. Number of bottles received: 1 Number of samples received: 1
- 5. Correct containers used? Yes Correct preservatives added? N/A
- 6. Sufficient sample volume? N/A
- 7. Bubbles in VOA samples? N/A
- 8. Was Project manager called and status discussed? No
- 9. Was anyone called? No Who was called? _____ By whom? _____ Date: _____

COMMENTS:



ADENIKOS2607
LS#7679

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: 1 of 1
1199597

Section A Required Client Information		Section B Required Project Information:		Section C Invoice Information:	
Company: <u>Admiralty Environmental</u>		Report To:		Attention:	
Address: <u>481 N. Franklin St, Suite 101</u>		Copy To:		Company Name:	
<u>Juneau, AK 99861</u>				Address:	
Email To:		Purchase Order No.:		REGULATORY AGENCY	
Phone: <u>907-463-4415 Fax (480) 247-4476</u>		Project Name:		<input type="checkbox"/> NPDES <input type="checkbox"/> GROUND WATER <input type="checkbox"/> DRINKING WATER <input type="checkbox"/> UST <input type="checkbox"/> RCRA <input type="checkbox"/> OTHER _____	
Requested Due Date/TAT:		Project Number: <u>AE 2100</u>		Site Location	
				STATE: _____	

ITEM #	Section D Required Client Information	Matrix Codes MATRIX / CODE	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED				SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives							Analysis Test ↓	Requested Analysis Filtered (Y/N)	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.	
					COMPOSITE START		COMPOSITE END/GRAB				Unpreserved	H ₂ SO ₄	HNO ₃	HCl	NaOH	Na ₂ S ₂ O ₃	Methanol					Other
					DATE	TIME	DATE	TIME														
1	North Banker Water - Process			G			6/30/08	1310	1	X												
2																						
3																						
4																						
5																						
6																						
7																						
8																						
9																						
10																						
11																						
12																						

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
	<u>Jim Evans / Pace</u>	<u>6/30/08</u>	<u>1310</u>	<u>Jim Evans / Pace</u>	<u>6/30/08</u>	<u>1310</u>	

ORIGINAL

SAMPLER NAME AND SIGNATURE		Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
PRINT Name of SAMPLER:	<u>FRED EVANS</u>				
SIGNATURE of SAMPLER:	<u>Jim Evans</u>	DATE Signed (MM/DD/YY):	<u>06/30/08</u>		

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

Cooler Receipt Form
Pace Analytical Services, Inc.

SDG: ADENV080607 Taken By: Erin Evans

Cooler: AAD938 Transferred: Erin Evans

COC #: 1199597

Project: Cruise Ship Sampling (Admiralty Environmental)

Date samples were received at the laboratory: 6/30/2008

Date cooler was opened: 6/30/2008 1:10PM

A. PRELIMINARY EXAMINATION PHASE:

1. Did cooler come with a shipping slip (airbill, etc.)? **NO**
if YES, record carrier name and airbill number:
2. Were custody seals unbroken and intact at the date and time of arrival? **ABSENT**
Date On Custody Seal: Custody Seals Description:
3. Were custody papers sealed in a plastic bag and taped inside to the lid? **YES**
4. Did you screen samples for radioactivity using the Geiger Counter? **NO**
5. Were custody papers filled out properly (ink, signed, etc.)? **YES**
6. Did you sign custody papers in the appropriate place? **YES**
7. If required, was enough cooling material present? **YES**
8. Have designated person initial here to acknowledge receipt of cooler: RF

B. LOG-IN PHASE:

Date samples were logged/in: 6/30/2008 4:59PM

Logged-in by Rachel Frank (sign) 

9. Describe type of packing in cooler:
10. Were all bottles sealed in separate plastic bags? **NO**
11. Were labels in good condition? **YES**
12. Were all bottle labels complete (ID,date,time signature,preservative,etc.)? **YES**
13. Did all bottle labels agree with custody papers? **YES**
14. Were correct containers used for the tests indicated? **YES**
15. Were the correct pHs observed? **YES**
16. Was a sufficient amount of sample sent for tests indicated? **YES**
17. Were bubbles absent in VOA samples? **YES**
18. Temperatures: 5.2

DISCREPANCIES: