



Analytical Resources, Incorporated
Analytical Chemists and Consultants

November 9, 2007

David Gillingham
Anchor Environmental, L.L.C.
1423 3rd Avenue, Suite 300
Seattle, WA 98101

RE: Client Project: Kimberly Clark Anacortes
ARI Job No. LT50

Dear David:

Please find enclosed chain of custody documentation and the final data package for samples from the project referenced above.

Sample receipt and details of the analyses are discussed in the Case Narrative.

An electronic copy of this package will remain on file with ARI. Should you have any questions or problems, please feel free to contact me at your convenience.

Sincerely,

ANALYTICAL RESOURCES, INC.

Susan Dunnihoo
Client Service Manager
sue@arilabs.com
206/695-6207

Enclosures

cc: eFile LT50

SD/sdrd

Chain of Custody Documentation

**Prepared
for**

ANCHOR ENVIRONMENTAL, LLC.

PROJECT: KIMBERLY CLARK ANACORTES

ARI JOB NO. LT50

**Prepared
By**

Analytical Resources, Inc.

Chain of Custody Record & Laboratory Analysis Request

ARI Assigned Number: **LR77** Turn-around Requested: **15 day**

ARI Client Company: **Anchor** Phone: **206-287-9130**

Client Contact: **David Gillingham**

Client Project Name: **Kimberly Clark Anacortes**

Client Project #: **D. Gillingham**

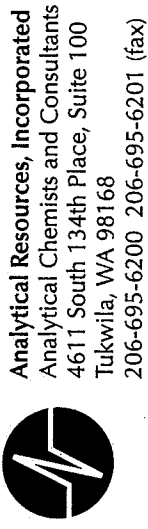
Samplers: **D. Gillingham**

Page: **1** of **2**

Date: **9/29/07**

No. of Coolers: **Ice Present?**

Cooler Temps: **Cooler**



Sample ID	Date	Time	Matrix	No. Containers	Analysis Requested					Notes/Comments		
					Forensics	Amn/sulfide	Grainsize	LOI	TOC/TS		metals	SVOC/PCB
AN-SS-01-070927	09/27/07		Sed	6	X	X	X	X	X	X		
AN-SS-02-070927	09/27/07			6	X	X	X	X	X	X		Please call to Discuss
AN-SS-03-070928	09/28/07			6	X	X	X	X	X	X		TUS Analysis
AN-SS-07-070928	09/28/07			6	X	X	X	X	X	X		
AN-SS-10-070928	09/28/07			6	X	X	X	X	X	X		
AN-SS-11-070928	09/28/07			6	X	X	X	X	X	X		
AN-SS-REF-070928	09/28/07		↓	3	X	X	X	X	X	X		
Comments/Special Instructions	Relinquished by: David Gillingham Signature: <i>David Gillingham</i> Printed Name: David Gillingham Company: Anchor Date & Time: 9/29/07 1000				Relinquished by: Astley Lammiman Signature: <i>Astley Lammiman</i> Printed Name: ASTLEY LAMMIMAN Company: ARI Date & Time: 9/29/07 0955				Received by: ARI Signature: <i>ARI</i> Printed Name: ARI Company: ARI Date & Time: 9/29/07 0955			

Limits of Liability: ARI will perform all requested services in accordance with appropriate methodology following ARI Standard Operating Procedures and the ARI Quality Assurance Program. This program meets standards for the industry. The total liability of ARI, its officers, agents, employees, or successors, arising out of or in connection with the requested services, shall not exceed the invoiced amount for said services. The acceptance by the client of a proposal for services by ARI release ARI from any liability in excess thereof, not withstanding any provision to the contrary in any contract, purchase order or co-signed agreement between ARI and the Client.

Sample Retention Policy: All samples submitted to ARI will be appropriately discarded no sooner than 90 days after receipt or 60 days after submission of hardcopy data, whichever is longer, unless alternate retention schedules have been established by work-order or contract.

Chain of Custody Record & Laboratory Analysis Request

Analytical Resources, Incorporated
 Analytical Chemists and Consultants
 4611 South 134th Place, Suite 100
 Tukwila, WA 98168
 206-695-6200 206-695-6201 (fax)



Page: 2 of 2
 Date: 9/29/07
 Ice Present?
 No. of Coolers:
 Cooler Temps:
 Forewater
 Grain Size
 IOT
 Metals
 PCBs

ARI Assigned Number: 6871
 Turn-around Requested: 15 day
 ARI Client Company: Anchor
 Phone: 206 287 9136
 Client Contact: David Gillingham
 Client Project Name: Kimberly Clark
 Client Project #: Samplers DG

Sample ID	Date	Time	Matrix	No. Containers	Analysis Requested					Notes/Comments
					Formwater	Grain Size	IOT	Metals	PCBs	
AN-SS-04	9/28/07		sed	6	X	X	X	X	X	
AN-SS-05	9/27/07			6	X	X	X	X	X	
AN-SS-06	9/28/07			6	X	X	X	X	X	
AN-SS-08	9/27/07			6	X	X	X	X	X	
AN-SS-09	9/27/07		↓	6	X	X	X	X	X	
Comments/Special Instructions										
Received by: <i>David Gillingham</i> (Signature)					Relinquished by: <i>Julian D.</i> (Signature)					Received by: (Signature)
Printed Name: Anchor					Printed Name: ASTREX CANYON MOUNTAIN					Printed Name:
Company: David Gillingham					Company: ARI					Company:
Date & Time: 9/29/07 1000					Date & Time: 9/29/07 1000					Date & Time:

Limits of Liability: ARI will perform all requested services in accordance with appropriate methodology following ARI Standard Operating Procedures and the ARI Quality Assurance Program. This program meets standards for the industry. The total liability of ARI, its officers, agents, employees, or successors, arising out of or in connection with the requested services, shall not exceed the invoiced amount for said services. The acceptance by the client of a proposal for services by ARI release ARI from any liability in excess thereof, not withstanding any provision to the contrary in any contract, purchase order or co-signed agreement between ARI and the Client.

Sample Retention Policy: All samples submitted to ARI will be appropriately discarded no sooner than 90 days after receipt or 60 days after submission of hardcopy data, whichever is longer, unless alternate retention schedules have been established by work-order or contract.



Cooler Receipt Form

ARI Client: ANCITOR

Project Name: Kimberly Clark Anacortes

COC No: _____

Delivered by: HAND-DELIVERED

Assigned ARI Job No: LR7H

Tracking No: _____

Preliminary Examination Phase:

Were intact, properly signed and dated custody seals attached to the outside of to cooler? YES NO

Were custody papers included with the cooler? YES NO

Were custody papers properly filled out (ink, signed, etc.) YES NO

Record cooler temperature (recommended 2.0-6.0 °C for chemistry) 4.2, 3.8, 3.6, 3.4 °C

Cooler Accepted by: ane Date: 9/29/07 Time: 1000

Complete custody forms and attach all shipping documents

Log-In Phase:

Was a temperature blank included in the cooler? YES NO

What kind of packing material was used? ICE

Was sufficient ice used (if appropriate)? YES NO

Were all bottles sealed in individual plastic bags? YES NO

Did all bottle arrive in good condition (unbroken)? YES NO

Were all bottle labels complete and legible? YES NO

Did all bottle labels and tags agree with custody papers? YES NO

Were all bottles used correct for the requested analyses? YES NO

Do any of the analyses (bottles) require preservation? (attach preservation checklist) YES NO

Were all VOC vials free of air bubbles? NA YES NO

Was sufficient amount of sample sent in each bottle? YES NO

Samples Logged by: ane Date: 9/29/07 Time: 1315

**** Notify Project Manager of discrepancies or concerns ****

Explain discrepancies or negative responses:

By: _____

Date: _____



Client: Anchor Environmental, LLC

ARI Project No.: LR71

Client Project: Kimberly Clark Anacortes

Case Narrative

1. Twelve samples were received on September 29, 2007. Eleven samples were submitted for Pore Water Extraction in general guidance with the Corp of Engineers draft interim guide lines, total organic matter by ignition by ASTM D2974 and grain size analysis by PSEP methodology. Sample AN-SS-REF-070928 was submitted only for grain size distribution and pore water extraction.
2. The sediment for pore water extraction was in 32 oz wide mouth glass jars. The sediment sample jars were placed in the nitrogen chamber along with centrifuge jars, spoons, preserved 40 mL vials and a balance, and the chamber was sealed and filled with nitrogen. The centrifuge jars and vials were opened to allow them to come to equilibrium with the chamber. The oxygen level in the chamber was less than 1%.
3. All centrifuge bottles were pre-rinsed with Hexane and allowed to dry completely. All spoons were pre-rinsed with deionized water.
4. All samples were centrifuged in a pre-cooled centrifuge (4°C) at 1,200 x g for 30 minutes, decanted in the nitrogen chamber, and then placed in another pre-cooled centrifuge (4°C) and spun at 7,000-x g for 15 minutes. The pore water was then decanted into two separate preserved 40 mL vials for ammonia and sulfide testing.
5. Some of the samples had "floaters," material that was floating on the top (or within the water) and could not be separated by centrifuging.
6. Sample AN-SS-06 contained live worms.
7. The samples for total organic matter by ignition were received in 16 oz plastic jars.
8. The grain size analysis samples were received in 16 oz plastic jars.
9. The samples were run in a single batch and sample AN-SS-REF-070928 was chosen for triplicate analysis. The triplicate data is reported on the QA summary.
10. Samples AN-SS-05, AN-SS-06 and AN-SS-09 contained fewer than the 5 grams required in the pipette portion of the analysis. Our balance has a capacity of about 200 g. (by 0.0001) and a sample size that would give 5 g. of fines could not be split and stay within the capacity of the balance.
11. The pipette readings on sample AN-SS-09 were below the level required for accurate weighing, resulting in negative weights. This result was likely due to the minimal amount of fines in the sample or the large wood chunks within the sample, which could have interfered with the moisture content. The total sample weight was adjusted to eliminate the negative values.
12. Samples AN-SS-01-070927, AN-SS-02-070927, AN-SS-03-070928, AN-SS-05, AN-SS-08 and AN-SS-09 contained organic matter and/or large wood chunks. This material may have broken down during the sieving process, affecting grain size analysis.
13. Samples AN-SS-01-070927, AN-SS-02-070927, AN-SS-03-070928, AN-SS-07-070928, AN-SS-10-070928, AN-SS-11-070928 and AN-SS-06 contained shells or shell fragments.
14. The data is provided in summary tables and plots.
15. There were no other anomalies in the samples or methods on this project.

Approved by:
Title:

Taylor McKenzie
Lead Technician

Date:

10/18/07

Case Narrative

**Prepared
for**

ANCHOR ENVIRONMENTAL, LLC.

PROJECT: KIMBERLY CLARK ANACORTES

ARI JOB NO. LT50

**Prepared
By**

Analytical Resources, Inc.



Case Narrative

Client: Anchor Environmental
Project: Kimberly Clark Anacortes
Matrix: Sediment
ARI Job No. LT50

Sample receipt

Twelve sediment samples were received September 29, 2007 under ARI Job LR71. Sample container temperatures measured by IR Thermometer following ARI SOP were 3.4 to 4.2°C and samples were well iced. Samples were received in good condition with no discrepancies in paperwork.

Pore waters were extracted following USACE/EPA techniques, and are reported here under ARI Job LT50.

Conventional Parameters (Ammonia and Sulfide)

Samples were prepared and analyzed within the required holding time from pore water preparation.

The method blank was clean for both parameters. The LCS was within limits for both sulfide batches.

Standard reference recoveries were within limits for the Ammonia.

The replicates had acceptable RPD for both parameters.

Limited sample volume was available and no Matrix Spike was analyzed for the pore waters.

There were no incidents of note.



Data Reporting Qualifiers

Effective 12/28/04

Inorganic Data

- U Indicates that the target analyte was not detected at the reported concentration
- * Duplicate RPD is not within established control limits
- B Reported value is less than the CRDL but \geq the Reporting Limit
- N Matrix Spike recovery not within established control limits
- NA Not Applicable, analyte not spiked
- H The natural concentration of the spiked element is so much greater than the concentration spiked that an accurate determination of spike recovery is not possible
- L Analyte concentration is ≤ 5 times the Reporting Limit and the replicate control limit defaults to ± 1 RL instead of the normal 20% RPD

Organic Data

- U Indicates that the target analyte was not detected at the reported concentration
- * Flagged value is not within established control limits
- B Analyte detected in an associated Method Blank at a concentration greater than one-half of ARI's Reporting Limit or 5% of the regulatory limit or 5% of the analyte concentration in the sample.
- J Estimated concentration when the value is less than ARI's established reporting limits
- D The spiked compound was not detected due to sample extract dilution
- NR Spiked compound recovery is not reported due to chromatographic interference
- E Estimated concentration calculated for an analyte response above the valid instrument calibration range. A dilution is required to obtain an accurate quantification of the analyte.
- S Indicates an analyte response that has saturated the detector. The calculated concentration is not valid; a dilution is required to obtain valid quantification of the analyte
- NA The flagged analyte was not analyzed for



- NS The flagged analyte was not spiked into the sample
- M Estimated value for an analyte detected and confirmed by an analyst but with low spectral match parameters. This flag is used only for GC-MS analyses
- N The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification"
- Y The analyte is not detected at or above the reported concentration. The reporting limit is raised due to chromatographic interference. The Y flag is equivalent to the U flag with a raised reporting limit.
- C The analyte was positively identified on only one of two chromatographic columns. Chromatographic interference prevented a positive identification on the second column
- P The analyte was detected on both chromatographic columns but the quantified values differ by $\geq 40\%$ RPD with no obvious chromatographic interference

Geotechnical Data

- A The total of all fines fractions. This flag is used to report total fines when only sieve analysis is requested and balances total grain size with sample weight.
- F Samples were frozen prior to particle size determination
- SM Sample matrix was not appropriate for the requested analysis. This normally refers to samples contaminated with an organic product that interferes with the sieving process and/or moisture content, porosity and saturation calculations
- SS Sample did not contain the proportion of "fines" required to perform the pipette portion of the grain size analysis
- W Weight of sample in some pipette aliquots was below the level required for accurate weighting

Data Summary Package

**Prepared
for**

ANCHOR ENVIRONMENTAL, LLC.

PROJECT: KIMBERLY CLARK ANACORTES

ARI JOB NO. LT50

**Prepared
By**

Analytical Resources, Inc.

SAMPLE RESULTS-CONVENTIONALS
LT50-Anchor Environmental, LLC



Matrix: Pore Water
Data Release Authorized
Reported: 11/12/07

A handwritten signature in black ink, appearing to be 'A. Clark', written over the 'Data Release Authorized' text.

Project: Kimberly Clark Anacortes
Event: NA
Date Sampled: 10/01/07
Date Received: 10/03/07

Client ID: AN-SS-01-070927
ARI ID: 07-21717 LT50A

Analyte	Date Batch	Method	Units	RL	Sample
N-Ammonia	10/16/07 101607#1	EPA 350.1M	mg-N/L	0.100	8.06
Sulfide	10/04/07 100407#2	EPA 376.2	mg/L	2.50	26.4

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
LT50-Anchor Environmental, LLC



Matrix: Pore Water
Data Release Authorized: *[Signature]*
Reported: 11/12/07

Project: Kimberly Clark Anacortes
Event: NA
Date Sampled: 10/01/07
Date Received: 10/03/07

Client ID: AN-SS-02-070927
ARI ID: 07-21718 LT50B

Analyte	Date Batch	Method	Units	RL	Sample
N-Ammonia	10/16/07 101607#1	EPA 350.1M	mg-N/L	0.100	7.40
Sulfide	10/04/07 100407#2	EPA 376.2	mg/L	2.50	34.2

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
LT50-Anchor Environmental, LLC



Matrix: Pore Water
Data Release Authorized
Reported: 11/12/07

A handwritten signature in black ink, appearing to be 'M. J. ...', written over the 'Data Release Authorized' text.

Project: Kimberly Clark Anacortes
Event: NA
Date Sampled: 10/01/07
Date Received: 10/03/07

Client ID: AN-SS-03-070928
ARI ID: 07-21719 LT50C

Analyte	Date Batch	Method	Units	RL	Sample
N-Ammonia	10/16/07 101607#1	EPA 350.1M	mg-N/L	0.100	9.79
Sulfide	10/04/07 100407#2	EPA 376.2	mg/L	2.50	22.8

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
LT50-Anchor Environmental, LLC



Matrix: Pore Water
Data Release Authorized
Reported: 11/12/07

A handwritten signature in black ink, appearing to be 'AK' or similar, written over the 'Data Release Authorized' text.

Project: Kimberly Clark Anacortes
Event: NA
Date Sampled: 10/01/07
Date Received: 10/03/07

Client ID: AN-SS-07-070928
ARI ID: 07-21720 LT50D

Analyte	Date Batch	Method	Units	RL	Sample
N-Ammonia	10/16/07 101607#1	EPA 350.1M	mg-N/L	0.200	13.0
Sulfide	10/04/07 100407#2	EPA 376.2	mg/L	2.50	38.7

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
LT50-Anchor Environmental, LLC



Matrix: Pore Water
Data Release Authorized
Reported: 11/12/07

A handwritten signature in black ink, appearing to be 'AS', written over the 'Data Release Authorized' text.

Project: Kimberly Clark Anacortes
Event: NA
Date Sampled: 10/01/07
Date Received: 10/03/07

Client ID: AN-SS-10-070928
ARI ID: 07-21721 LT50E

Analyte	Date Batch	Method	Units	RL	Sample
N-Ammonia	10/16/07 101607#1	EPA 350.1M	mg-N/L	0.200	13.1
Sulfide	10/04/07 100407#2	EPA 376.2	mg/L	2.50	44.0

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
LT50-Anchor Environmental, LLC



Matrix: Pore Water
Data Release Authorized: *[Signature]*
Reported: 11/12/07

Project: Kimberly Clark Anacortes
Event: NA
Date Sampled: 10/01/07
Date Received: 10/03/07

Client ID: AN-SS-11-070928
ARI ID: 07-21722 LT50F

Analyte	Date Batch	Method	Units	RL	Sample
N-Ammonia	10/16/07 101607#1	EPA 350.1M	mg-N/L	0.100	2.34
Sulfide	10/04/07 100407#2	EPA 376.2	mg/L	2.50	30.2

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
LT50-Anchor Environmental, LLC



Matrix: Pore Water
Data Release Authorized *[Signature]*
Reported: 11/12/07

Project: Kimberly Clark Anacortes
Event: NA
Date Sampled: 10/01/07
Date Received: 10/03/07

Client ID: AN-SS-REF-070928
ARI ID: 07-21723 LT50G

Analyte	Date Batch	Method	Units	RL	Sample
N-Ammonia	10/16/07 101607#1	EPA 350.1M	mg-N/L	0.100	6.13

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
LT50-Anchor Environmental, LLC



Matrix: Pore Water
Data Release Authorized
Reported: 11/12/07

A handwritten signature in black ink, appearing to be 'AK', written over the 'Data Release Authorized' text.

Project: Kimberly Clark Anacortes
Event: NA
Date Sampled: 10/01/07
Date Received: 10/03/07

Client ID: AN-SS-04
ARI ID: 07-21724 LT50H

Analyte	Date Batch	Method	Units	RL	Sample
N-Ammonia	10/16/07 101607#1	EPA 350.1M	mg-N/L	0.100	0.888

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
LT50-Anchor Environmental, LLC



Matrix: Pore Water
Data Release Authorized: *[Signature]*
Reported: 11/12/07

Project: Kimberly Clark Anacortes
Event: NA
Date Sampled: 10/02/07
Date Received: 10/03/07

Client ID: AN-SS-05
ARI ID: 07-21725 LT50I

Analyte	Date Batch	Method	Units	RL	Sample
N-Ammonia	10/16/07 101607#1	EPA 350.1M	mg-N/L	0.500	16.3
Sulfide	10/04/07 100407#2	EPA 376.2	mg/L	2.50	43.0

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
LT50-Anchor Environmental, LLC



Matrix: Pore Water
Data Release Authorized
Reported: 11/12/07

A handwritten signature in black ink, appearing to be 'AK', is written over the 'Data Release Authorized' text.

Project: Kimberly Clark Anacortes
Event: NA
Date Sampled: 10/02/07
Date Received: 10/03/07

Client ID: AN-SS-06
ARI ID: 07-21726 LT50J

Analyte	Date Batch	Method	Units	RL	Sample
N-Ammonia	10/16/07 101607#1	EPA 350.1M	mg-N/L	0.100	9.98
Sulfide	10/05/07 100507#2	EPA 376.2	mg/L	1.00	14.2

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
LT50-Anchor Environmental, LLC



Matrix: Pore Water
Data Release Authorized: *[Signature]*
Reported: 11/12/07

Project: Kimberly Clark Anacortes
Event: NA
Date Sampled: 10/02/07
Date Received: 10/03/07


Client ID: AN-SS-09
ARI ID: 07-21728 LT50L

Analyte	Date Batch	Method	Units	RL	Sample
N-Ammonia	10/16/07 101607#1	EPA 350.1M	mg-N/L	0.100	8.46

RL Analytical reporting limit
U Undetected at reported detection limit

METHOD BLANK RESULTS-CONVENTIONALS
LT50-Anchor Environmental, LLC



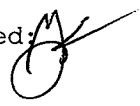
Matrix: Pore Water
Data Release Authorized: 
Reported: 11/12/07

Project: Kimberly Clark Anacortes
Event: NA
Date Sampled: NA
Date Received: NA

Analyte	Method	Date	Units	Blank
N-Ammonia	EPA 350.1M	10/16/07	mg-N/L	< 0.010 U
Sulfide	EPA 376.2	10/04/07 10/05/07	mg/L	< 0.05 U < 0.05 U

LAB CONTROL RESULTS-CONVENTIONALS
LT50-Anchor Environmental, LLC




Matrix: Pore Water
Data Release Authorized: 
Reported: 11/12/07

Project: Kimberly Clark Anacortes
Event: NA
Date Sampled: NA
Date Received: NA

Analyte	Method	Date	Units	LCS	Spike Added	Recovery
Sulfide	EPA 376.2	10/04/07	mg/L	0.41	0.38	108.5%
		10/05/07		0.38	0.38	100.5%

STANDARD REFERENCE RESULTS-CONVENTIONALS
LT50-Anchor Environmental, LLC



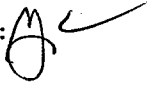
Matrix: Pore Water
Data Release Authorized: 
Reported: 11/12/07

Project: Kimberly Clark Anacortes
Event: NA
Date Sampled: NA
Date Received: NA

Analyte/SRM ID	Method	Date	Units	SRM	True Value	Recovery
N-Ammonia ERA #15125	EPA 350.1M	10/16/07	mg-N/L	0.516	0.500	103.2%

REPLICATE RESULTS-CONVENTIONALS
LT50-Anchor Environmental, LLC



Matrix: Pore Water
Data Release Authorized: 
Reported: 11/12/07

Project: Kimberly Clark Anacortes
Event: NA
Date Sampled: 10/01/07
Date Received: 10/03/07

Analyte	Method	Date	Units	Sample	Replicate(s)	RPD/RSD
ARI ID: LT50D	Client ID: AN-SS-07-070928					
N-Ammonia	EPA 350.1M	10/16/07	mg-N/L	13.0	13.0	0.0%
ARI ID: LT50J	Client ID: AN-SS-06					
N-Ammonia	EPA 350.1M	10/16/07	mg-N/L	9.98	9.97	0.1%

Laboratory Data Package

**prepared
for**

ANCHOR ENVIRONMENTAL, LLC.

PROJECT: KIMBERLY CLARK ANACORTES

ARI JOB NO. LT50

**Prepared
By**

Analytical Resources, Inc.

**General Chemistry Analysis
QC Summary Data**

**Prepared
for**

ANCHOR ENVIRONMENTAL, LLC.

PROJECT: KIMBERLY CLARK ANACORTES

ARI JOB NO. LT50

**Prepared
By**

Analytical Resources, Inc.

METHOD BLANK RESULTS-CONVENTIONALS
LT50-Anchor Environmental, LLC




Matrix: Pore Water
Data Release Authorized: *[Signature]*
Reported: 11/12/07

Project: Kimberly Clark Anacortes
Event: NA
Date Sampled: NA
Date Received: NA

Analyte	Method	Date	Units	Blank
N-Ammonia	EPA 350.1M	10/16/07	mg-N/L	< 0.010 U
Sulfide	EPA 376.2	10/04/07 10/05/07	mg/L	< 0.05 U < 0.05 U

LAB CONTROL RESULTS-CONVENTIONALS
LT50-Anchor Environmental, LLC




Matrix: Pore Water
Data Release Authorized: 
Reported: 11/12/07

Project: Kimberly Clark Anacortes
Event: NA
Date Sampled: NA
Date Received: NA

Analyte	Method	Date	Units	LCS	Spike Added	Recovery
Sulfide	EPA 376.2	10/04/07	mg/L	0.41	0.38	108.5%
		10/05/07		0.38	0.38	100.5%

STANDARD REFERENCE RESULTS-CONVENTIONALS
LT50-Anchor Environmental, LLC




Matrix: Pore Water
Data Release Authorized: 
Reported: 11/12/07

Project: Kimberly Clark Anacortes
Event: NA
Date Sampled: NA
Date Received: NA

Analyte/SRM ID	Method	Date	Units	SRM	True Value	Recovery
N-Ammonia ERA #15125	EPA 350.1M	10/16/07	mg-N/L	0.516	0.500	103.2%

REPLICATE RESULTS-CONVENTIONALS
LT50-Anchor Environmental, LLC



Matrix: Pore Water
Data Release Authorized: 
Reported: 11/12/07

Project: Kimberly Clark Anacortes
Event: NA
Date Sampled: 10/01/07
Date Received: 10/03/07

Analyte	Method	Date	Units	Sample	Replicate(s)	RPD/RSD
ARI ID: LT50D	Client ID: AN-SS-07-070928					
N-Ammonia	EPA 350.1M	10/16/07	mg-N/L	13.0	13.0	0.0%
ARI ID: LT50J	Client ID: AN-SS-06					
N-Ammonia	EPA 350.1M	10/16/07	mg-N/L	9.98	9.97	0.1%

**General Chemistry Analysis
Sample Data**

**Prepared
for**

ANCHOR ENVIRONMENTAL, LLC.

PROJECT: KIMBERLY CLARK ANACORTES

ARI JOB NO. LT50

**Prepared
By**

Analytical Resources, Inc.

SAMPLE RESULTS-CONVENTIONALS
LT50-Anchor Environmental, LLC



Matrix: Pore Water
Data Release Authorized
Reported: 11/12/07

A handwritten signature in black ink, appearing to be 'M' followed by a flourish.

Project: Kimberly Clark Anacortes
Event: NA
Date Sampled: 10/01/07
Date Received: 10/03/07


Client ID: AN-SS-01-070927
ARI ID: 07-21717 LT50A

Analyte	Date Batch	Method	Units	RL	Sample
N-Ammonia	10/16/07 101607#1	EPA 350.1M	mg-N/L	0.100	8.06
Sulfide	10/04/07 100407#2	EPA 376.2	mg/L	2.50	26.4

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
LT50-Anchor Environmental, LLC



Matrix: Pore Water
Data Release Authorized: 
Reported: 11/12/07

Project: Kimberly Clark Anacortes
Event: NA
Date Sampled: 10/01/07
Date Received: 10/03/07

Client ID: AN-SS-02-070927
ARI ID: 07-21718 LT50B

Analyte	Date Batch	Method	Units	RL	Sample
N-Ammonia	10/16/07 101607#1	EPA 350.1M	mg-N/L	0.100	7.40
Sulfide	10/04/07 100407#2	EPA 376.2	mg/L	2.50	34.2

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
LT50-Anchor Environmental, LLC



Matrix: Pore Water
Data Release Authorized
Reported: 11/12/07

A handwritten signature in black ink, appearing to be 'A. J.', written over the 'Data Release Authorized' text.

Project: Kimberly Clark Anacortes
Event: NA
Date Sampled: 10/01/07
Date Received: 10/03/07

Client ID: AN-SS-03-070928
ARI ID: 07-21719 LT50C

Analyte	Date Batch	Method	Units	RL	Sample
N-Ammonia	10/16/07 101607#1	EPA 350.1M	mg-N/L	0.100	9.79
Sulfide	10/04/07 100407#2	EPA 376.2	mg/L	2.50	22.8

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
LT50-Anchor Environmental, LLC



Matrix: Pore Water
Data Release Authorized
Reported: 11/12/07

A handwritten signature in black ink, appearing to be 'MK', written over the 'Data Release Authorized' text.

Project: Kimberly Clark Anacortes
Event: NA
Date Sampled: 10/01/07
Date Received: 10/03/07


Client ID: AN-SS-07-070928
ARI ID: 07-21720 LT50D

Analyte	Date Batch	Method	Units	RL	Sample
N-Ammonia	10/16/07 101607#1	EPA 350.1M	mg-N/L	0.200	13.0
Sulfide	10/04/07 100407#2	EPA 376.2	mg/L	2.50	38.7

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
LT50-Anchor Environmental, LLC



Matrix: Pore Water
Data Release Authorized: 
Reported: 11/12/07

Project: Kimberly Clark Anacortes
Event: NA
Date Sampled: 10/01/07
Date Received: 10/03/07

Client ID: AN-SS-10-070928
ARI ID: 07-21721 LT50E

Analyte	Date Batch	Method	Units	RL	Sample
N-Ammonia	10/16/07 101607#1	EPA 350.1M	mg-N/L	0.200	13.1
Sulfide	10/04/07 100407#2	EPA 376.2	mg/L	2.50	44.0

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONAL
LT50-Anchor Environmental, LLC



Matrix: Pore Water
Data Release Authorized: *[Signature]*
Reported: 11/12/07

Project: Kimberly Clark Anacortes
Event: NA
Date Sampled: 10/01/07
Date Received: 10/03/07

Client ID: AN-SS-11-070928
ARI ID: 07-21722 LT50F

Analyte	Date Batch	Method	Units	RL	Sample
N-Ammonia	10/16/07 101607#1	EPA 350.1M	mg-N/L	0.100	2.34
Sulfide	10/04/07 100407#2	EPA 376.2	mg/L	2.50	30.2

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONAL
LT50-Anchor Environmental, LLC



Matrix: Pore Water
Data Release Authorized
Reported: 11/12/07

A handwritten signature in black ink, appearing to be 'AK', is written over the 'Data Release Authorized' text.

Project: Kimberly Clark Anacortes
Event: NA
Date Sampled: 10/01/07
Date Received: 10/03/07


Client ID: AN-SS-REF-070928
ARI ID: 07-21723 LT50G

Analyte	Date Batch	Method	Units	RL	Sample
N-Ammonia	10/16/07 101607#1	EPA 350.1M	mg-N/L	0.100	6.13

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONAL
LT50-Anchor Environmental, LLC



Matrix: Pore Water
Data Release Authorized: 
Reported: 11/12/07

Project: Kimberly Clark Anacortes
Event: NA
Date Sampled: 10/01/07
Date Received: 10/03/07


Client ID: AN-SS-04
ARI ID: 07-21724 LT50H

Analyte	Date Batch	Method	Units	RL	Sample
N-Ammonia	10/16/07 101607#1	EPA 350.1M	mg-N/L	0.100	0.888

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
LT50-Anchor Environmental, LLC



Matrix: Pore Water
Data Release Authorized: 
Reported: 11/12/07

Project: Kimberly Clark Anacortes
Event: NA
Date Sampled: 10/02/07
Date Received: 10/03/07

Client ID: AN-SS-05
ARI ID: 07-21725 LT50I

Analyte	Date Batch	Method	Units	RL	Sample
N-Ammonia	10/16/07 101607#1	EPA 350.1M	mg-N/L	0.500	16.3
Sulfide	10/04/07 100407#2	EPA 376.2	mg/L	2.50	43.0

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
LT50-Anchor Environmental, LLC



Matrix: Pore Water
Data Release Authorized
Reported: 11/12/07

A handwritten signature in black ink, appearing to be 'AK', written over the 'Data Release Authorized' text.

Project: Kimberly Clark Anacortes
Event: NA
Date Sampled: 10/02/07
Date Received: 10/03/07

Client ID: AN-SS-06
ARI ID: 07-21726 LT50J

Analyte	Date Batch	Method	Units	RL	Sample
N-Ammonia	10/16/07 101607#1	EPA 350.1M	mg-N/L	0.100	9.98
Sulfide	10/05/07 100507#2	EPA 376.2	mg/L	1.00	14.2

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
LT50-Anchor Environmental, LLC



Matrix: Pore Water
Data Release Authorized: *[Signature]*
Reported: 11/12/07

Project: Kimberly Clark Anacortes
Event: NA
Date Sampled: 10/02/07
Date Received: 10/03/07

Client ID: AN-SS-09
ARI ID: 07-21728 LT50L

Analyte	Date Batch	Method	Units	RL	Sample
N-Ammonia	10/16/07 101607#1	EPA 350.1M	mg-N/L	0.100	8.46

RL Analytical reporting limit
U Undetected at reported detection limit

**General Chemistry Analysis
Instrument Raw Data**

**Prepared
for**

ANCHOR ENVIRONMENTAL, LLC.

PROJECT: KIMBERLY CLARK ANACORTES

ARI JOB NO. LT50

**Prepared
By**

Analytical Resources, Inc.

Sulfide EPA 376.2
 Data Analyst: Mike Perkins
 Comments:
 Print Date: 10/12/07 13:56

No: 3333
 Analyzed by: MAP
 Date Analyzed: 10/ 4/07
 Time Analyzed: 13:00

MP
 10-12-07

ARI ID	SMP/DGST	DF	Raw	Calc	Q	RL	SPK	REC/RPD
1. ICB		1.0	-0.015	< 0.05	U	0.050		
2. ICVR		1.0	0.407	0.41		0.050	0.38	108.47
3. LT50H								
	50.0	10.	0.143	Comment NR		0.500		
	50.0							
4. LT50L								
	50.0	1.0	0.035	Comment NR		0.050		
	50.0							
5. LT50G								
	50.0	2.5	0.009	Comment NR		0.125		
	50.0							
6. LT50A								
	50.0	50.	0.528	26.4		2.50		
	50.0							
7. LT50B								
	50.0	50.	0.684	34.2		2.50		
	50.0							
8. LT50C								
	50.0	50.	0.455	22.8		2.50		
	50.0							
9. LT50D								
	50.0	50.	0.774	38.7		2.50		
	50.0							
10. LT50E								
	50.0	50.	0.879	44.0		2.50		
	50.0							
11. LT50F								
	50.0	50.	0.605	30.2		2.50		
	50.0							
12. LT50I								
	50.0	50.	0.859	43.0		2.50		
	50.0							
13. LT50K								
	50.0	1.0	_____	Comment NR		0.050		
	50.0							
14. CCB		1.0	-0.011	< 0.05	U	0.050		
15. CCVR		1.0	0.400	0.40		0.050	0.38	105.82

LR71 Pure Waters

SULFIDE BENCHSHEET (Spectrophotometric, EPA 376.2)				Date / Time	Analyst	
Aqueous Samples		Distillation Finish		10/4/07 13:00	MAP	
If distilled, specify procedure <u>NA</u>						
1. Standardization of sodium thiosulfate titrant			Buret used for titrations: <u>DIGITAL III</u>			
Thiosulfate ID: _____			Titration from 10/2/07 RR			
Bi-iodate ID: <u>0071-11</u>			Titration of bi-iodate with thiosulfate			
Stock bi-iodate =	<u>0.4065</u> grams to	<u>500</u> mL	ml bi-iodate =	<u>2.00</u>	<u>2.00</u>	
Normality =	<u>0.025</u>		ml thiosulfate =	<u>2.04</u>	<u>2.05</u>	
Normality thiosulfate = (mL bi-iodate*normality) / mL thiosulfate =				<u>0.025</u>	<u>0.024</u>	
				<u>0.024</u>	<u>0.024</u>	
2. Normality of Iodine			Titration of Iodine with thiosulfate			
Iodine ID: <u>5777 C</u>			mL Iodine =	<u>3.00</u>	<u>3.00</u>	
			mL thiosulfate =	<u>2.860</u>	<u>2.840</u>	
Normality iodine = (mL thiosulfate*normality) / mL iodine =				<u>0.023</u>	<u>0.023</u>	
3. Standardization of sodium sulfide stock			Titration of standard with thiosulfate			
Stock ID = <u>0073-8</u>			mL Standard =	<u>1.00</u>	<u>1.00</u>	
Approx conc in 100ml			mL Iodine =	<u>3.00</u>	<u>3.00</u>	
g Na2S	<u>0.5273</u> mg/mL =	<u>0.704</u>	mL thiosulfate =	<u>1.06</u>	<u>1.04</u>	
Sulfide (mg/mL) = {(mL iodine*ni)-(mL thio *nthio)*16} / mL standard =				<u>0.695</u>	<u>0.703</u>	
				<u>0.699</u>	<u>0.699</u>	
Intermediate Standard						
Add	<u>1.8</u> ml stk to	<u>50</u> ml 0.01 M NaOH =	<u>0.025</u> mg/mL			
5.0 Calibration Standard Curve spectrophotometer used						
Volume Intermediate (ml)	FINAL VOLUME (ml)	CONC (mg S/L)	ABSORBANCE @ 650 nm			REGRESSION DATA intercept 0.008 slope 0.493 r= 0.9994 Comment: Calibration OK! maxabs = 0.498
			1	2	Avg	
0.00	50	0.000	0.002		0.002	
0.10	50	0.050	0.031		0.031	
0.25	50	0.126	0.069		0.069	
0.50	50	0.252	0.134		0.134	
1.00	50	0.503	0.267		0.267	
2.00	50	1.007	0.498		0.498	
Calib Verif Std =		0.75 ml int to	50 ml ZnOAc =	<u>0.378</u> mg/L		
Distillation Std =		0.5 ml Stk to	50 =	<u>6.993</u> mg/L		
SAMPLE DATA enter dilution factor as ml final/mL sample						
SAMPLE ID	DISTILL DATA		SPECTROPHOTOMETRIC DATA			SAMPLE DATA
	Sample Volume	Distill Volume (mL)	Dilution factor	ABS @ 650 nm	BKG ABS	Regressed Conc (mg S/L)
Cal Blk		n/a	1.00	0.004		-0.007
ICV		n/a	1.00	0.183		0.356
LR72 A1	50.0		1.00	0.003		-0.009
LR72 B1	50.0		1.00	0.001		-0.013
LR72 C1	50.0		1.00	0.000		-0.015
LR72 D1	50.0		1.00	0.000		-0.015
LR72 E1	50.0		1.00	0.003		-0.009
LR72 F1	50.0		1.00	0.067	0.065	-0.011
LR72 G1	50.0		1.00	0.220	0.218	-0.011
LR72 H1	50.0		1.00	0.000		-0.015
LR72 C1ms	50.0		1.00	0.006		-0.003
Spike at		0.05 ml INT to	5.00 ml sample =			0.25 mg/l
LR72 C1 msd	50.0		1.00	0.006		-0.003
Spike at		0.05 ml INT to	5.00 ml sample =			0.25 mg/l
LR72 G1ms	50.0		1.00	0.276	0.218	0.102
Spike at		0.05 ml INT to	5.00 ml sample =			0.25 mg/l
LR72 G1 msd	50.0		1.00	0.276	0.218	0.102
Spike at		0.05 ml INT to	5.00 ml sample =			0.25 mg/l
Cal Blk	50.0	n/a	1.00	0.000		-0.015
CCV	50.0	n/a	1.00	0.208		0.407

SAMPLE DATA

enter dilution factor as ml final/mL sample

SAMPLE ID	DISTILL DATA		SPECTROPHOTOMETRIC DATA				SAMPLE DATA	
	Sample Volume	Distill Volume (mL)	Dilution factor	ABS @ 650 nm	BKG ABS	Regressed Conc (mg S/L)	Final Conc mg S/L	
LR71 A	50.0		10.00	0.878		1.765	17.7	offscale dilute
LR71 B	50.0		10.00	1.100		2.216	22.2	offscale dilute
LR71 C	50.0		10.00	0.819		1.646	16.5	offscale dilute
LR71 D	50.0		10.00	1.114		2.244	22.4	offscale dilute
LR 71 E	50.0		10.00	1.291		2.603	26.0	offscale dilute
LR71 F	50.0		10.00	1.055		2.124	21.2	offscale dilute
LR71 G	50.0		10.00	0.014		0.013	< 0.5	
21724 LR71 H	50.0		10.00	0.078		0.143	1.43	
LR71 I	50.0		10.00	1.112		2.240	22.4	offscale dilute
LR71 J	50.0		10.00	0.640		1.283	12.8	offscale dilute
Cal Bk	50.0	n/a	1.00	0.008		0.001	< 0.05	OK!
CCV	50.0	n/a	1.00	0.223		0.437	0.44	Err @116%
Cal Bk	50.0	n/a	1.00	0.009		0.003	< 0.05	OK!
CCV	50.0	n/a	1.00	0.219		0.429	0.43	Err @114%
LR71 K	50.0		1.00	0.025		0.005	< 0.05	
LR71 L	50.0		2.50	0.012		0.009	< 0.13	
LR71 H	50.0		2.50	NR				dirty sample limited volume
LR71 L	50.0		3.33	NR				limited volume, end of sample
Cal Bk	50.0	n/a	1.00	0.003		-0.009	< 0.05	OK!
CCV	50.0	n/a	1.00	0.211		0.413	0.41	109.28%
LR71 A	50.0		50.00	0.268		0.528	26.4	
LR71 B	50.0		50.00	0.345		0.684	34.2	
LR71 C	50.0		50.00	0.232		0.455	22.8	
LR71 D	50.0		50.00	0.389		0.774	38.7	
LR71 E	50.0		50.00	0.441		0.879	44.0	
LR71 F	50.0		50.00	0.306		0.605	30.3	
LR71 G	50.0		5.00	0.011		0.007	< 0.25	
LR71 I	50.0		50.00	0.431		0.859	42.9	
LR71 J	50.0		10.00	0.625		1.252	12.5	offscale dilute
Cal Bk	50.0	n/a	1.00	0.002		-0.011	< 0.05	OK!
CCV	50.0	n/a	1.00	0.205		0.400	0.40	106.05%

Sulfide EPA 376.2
Data Analyst: Mike Perkins
Comments:
Print Date: 10/12/07 13:37

No: 3337
Analyzed by: MAP
Date Analyzed: 10/ 5/07
Time Analyzed: 9:45

MAP
10-12-07

ARI ID	SMP/DGST	DF	Raw	Calc	Q	RL	SPK	REC/RPD
1. ICB		1.0	-0.014	< 0.05	U	0.050		
2. ICVR		1.0	0.385	0.38		0.050	0.38	100.53
3. LT50J								
	50.0	20.	0.712	14.2		1.00		
	50.0							
4. CCB		1.0	-0.017	< 0.05	U	0.050		
5. CCVR		1.0	0.383	0.38		0.050	0.38	100.53

SULFIDE BENCHSHEET (Spectrophotometric, EPA 376.2) Aqueous Samples	Date / Time	Analyst
	Distillate	
	Finish	10/5/07 9:45

If distilled, specify procedure NA

1. Standardization of sodium thiosulfate titrant	Buret used for titrations: <u>DIGITAL III</u>			
Thiosulfate ID: _____	STANDARD FROM 10/2/07			
Bi-iodate ID: <u>0071-11</u>	Titration of bi-iodate with thiosulfate			
Stock bi-iodate = <u>0.4065</u> grams to <u>500</u> mL	ml bi-iodate = <table border="1"><tr><td>2.000</td><td>2.000</td><td>2.000</td></tr></table>	2.000	2.000	2.000
2.000	2.000	2.000		
Normality = <u>0.025</u>	ml thiosulfate = <table border="1"><tr><td>2.040</td><td>2.050</td><td>2.070</td></tr></table> <i>nthio</i>	2.040	2.050	2.070
2.040	2.050	2.070		
Normality thiosulfate = (mL bi-iodate*normality) / mL thiosulfate =	<table border="1"><tr><td>0.025</td><td>0.024</td><td>0.024</td></tr></table> 0.024	0.025	0.024	0.024
0.025	0.024	0.024		

2. Normality of Iodine	Titration of Iodine with thiosulfate			
Iodine ID: <u>5777 C</u>	mL Iodine = <table border="1"><tr><td>3.000</td><td>3.000</td><td>3.000</td></tr></table>	3.000	3.000	3.000
3.000	3.000	3.000		
	mL thiosulfate = <table border="1"><tr><td>2.860</td><td>2.840</td><td>2.830</td></tr></table> <i>ni</i>	2.860	2.840	2.830
2.860	2.840	2.830		
Normality iodine = (mL thiosulfate*normality) / mL iodine =	<table border="1"><tr><td>0.023</td><td>0.023</td><td>0.023</td></tr></table> 0.023	0.023	0.023	0.023
0.023	0.023	0.023		

3. Standardization of sodium sulfide stock	Titration of standard with Thiosulfate			
Stock ID = <u>0073-8</u>	mL Standard = <table border="1"><tr><td>1.00</td><td>1.00</td><td>1.00</td></tr></table>	1.00	1.00	1.00
1.00	1.00	1.00		
Approx conc in 100ml	mL iodine = <table border="1"><tr><td>3.00</td><td>3.00</td><td>3.00</td></tr></table>	3.00	3.00	3.00
3.00	3.00	3.00		
g Na ₂ S <u>0.5316</u> mg/mL = <u>0.710</u>	mL thiosulfate = <table border="1"><tr><td>1.06</td><td>1.04</td><td>1.05</td></tr></table> <i>stkconc (mg/mL)</i>	1.06	1.04	1.05
1.06	1.04	1.05		
Sulfide (mg/mL) = {[(mL iodine*ni)-(mL thio*nthio)]*16} / mL standard =	<table border="1"><tr><td>0.70</td><td>0.70</td><td>0.70</td></tr></table> 0.699	0.70	0.70	0.70
0.70	0.70	0.70		

Intermediate Standard
Add 1.8 ml stk to 50 ml 0.01 M NaOH = 0.025 mg/mL

5.0 Calibration Standard Curve							spectrophotometer used	
Volume Intermediate (ml)	FINAL VOLUME (ml)	CONC (mg S/L)	ABSORBANCE @ 650 nm			REGRESSION DATA		
			1	2	Avg			
0.00	50	0.000	0.001		0.001	intercept	0.011	
0.10	50	0.050	0.032		0.032	slope	0.496	
0.25	50	0.126	0.073		0.073	r=	0.9986	
0.50	50	0.252	0.146		0.146	Comment: Calibration OK!		
1.00	50	0.503	0.275		0.275			
2.00	50	1.007	0.501		0.501	maxabs =	0.501	
Calib Verif Std =		0.75 ml int to	50 ml ZnOAc =	0.378 mg/L				
Distillation Std =		0.5 ml Stk to	50	6.993 mg/L				

SAMPLE DATA enter dilution factor as ml final/mL sample

SAMPLE ID	DISTILL DATA		SPECTROPHOTOMETRIC DATA				SAMPLE DATA	
	Sample Volume	Distill Volume (mL)	Dilution factor	ABS @ 650 nm	BKG ABS	Regressed Conc (mg S/L)	Final Conc mg S/L	
Cal Bk		n/a	1.00	0.004		-0.014	< 0.05	OK!
ICV		n/a	1.00	0.202		0.385	0.38	101.94%
LR71 J			20.00	0.364		0.712	14.2	
LR71 J dup			20.00	0.383		0.750	15.0	RPD=5.2%
LS41 A36			1.00	0.757		1.505	1.50	offscale dilute
LS41 A36 dup			1.00	0.783		1.557	1.56	offscale dilute RPD=3.4%
LS41 A36 ms			1.00	0.899		1.791	1.79	offscale dilute 56.9%
Spike at		0.10 ml int to	5.00 ml sample =			0.50 mg/l		
LS41 B39	50.0		1.00	1.117		2.231	2.23	offscale dilute
LS41 C16	50.0		1.00	1.367		2.735	2.74	offscale dilute
Cal Bk	50.0	n/a	1.00	0.003		-0.017	< 0.05	OK!
CCV	50.0	n/a	1.00	0.201		0.383	0.38	101.40%

SAMPLE DATA

enter dilution factor as ml final/mL sample

SAMPLE ID	DISTILL DATA		SPECTROPHOTOMETRIC DATA				SAMPLE DATA	
	Sample Volume	Distill Volume (mL)	Dilution factor	ABS @ 650 nm	BKG ABS	Regressed Conc (mg S/L)	Final Conc mg S/L	
LS41 A36			10.00	0.098		0.175	1.75	
LS41 A36 dup			10.00	0.093		0.165	1.65	RPD=5.9%
LS41 A36 ms			10.00	0.220		0.421	4.21	97.8%
<i>Spike at</i>		<i>0.50 ml int to</i>	<i>5.00 ml sample =</i>			<i>2.52 mg/l</i>		
LS41 B39			50.00	0.169		0.318	15.9	
LS41 B39 dup			50.00	0.162		0.304	15.2	RPD=4.5%
LS41 C16			50.00	0.100		0.179	9.0	
LS41 C16 dup			50.00	0.110		0.199	10.0	RPD=10.7%
Cal Blk	50.0	n/a	1.00	0.001		-0.021	< 0.05	OK!
CCV	50.0	n/a	1.00	0.216		0.413	0.41	109.42%
CCV	50.0	n/a	1.00	0.202		0.385	0.38	101.94%

Sulfide EPA 376.2
 Data Analyst: Mike Perkins
 Comments:
 Print Date: 10/ 5/07 12:16

No: 888
 Analyzed by: MAP
 Date Analyzed: 10/ 5/07
 Time Analyzed: 9:45

MAP
 10-5-07

ARI ID	SMP/DGST	DF	Raw	Calc	Q	RL	SPK	REC/RPD
1. ICB		1.0	-0.014	< 0.05	U	0.050		
2. ICVR		1.0	0.385	0.38		0.050	0.38	100.53
3. LS41A								
	50.0	10.	0.175	1.75		0.500		
	50.0							
4. LS41A DUP								
	50.0	10.	0.165	1.65		0.500		5.88
	50.0							
5. LS41A MS								
	50.0	10.	0.421	4.21		0.500	2.52	97.62
	50.0							
6. LS41B								
	50.0	50.	0.318	15.9		2.50		
	50.0							
7. LS41B DUP								
	50.0	50.	0.304	15.2		2.50		4.50
	50.0							
8. LS41C								
	50.0	50.	0.179	8.95		2.50		
	50.0							
9. LS41C DUP								
	50.0	50.	0.199	9.95		2.50		10.58
	50.0							
10. CCB		1.0	-0.021	< 0.05	U	0.050		
11. CCVR		1.0	0.413	0.41		0.050	0.38	108.47

W
10-17-07

Original Run Filename: OM_10-16-2007_01-30-46PM.OMN created 10/16/2007 1:30:46 PM

Original Run Author's Signature: RR

Current Run Filename: 101607NH3A.omn last modified 10/16/2007 4:19:39 PM

Description: Default New Run

Standards made from ARI Stock# 0068-12

Sample	Cup No.	Channel 1		Detection Time	MANUAL DILUTION FACTOR
		NH3			
		Conc. (mg N/L)	Area (Vs)		
STD 1.0	S1	1	38.3020	10/16/2007@1:31:49 PM	
STD 0.8	S2	0.8	30.1303	10/16/2007@1:33:00 PM	
STD 0.5	S3	0.5	18.3678	10/16/2007@1:34:11 PM	
STD 0.2	S4	0.2	7.3401	10/16/2007@1:35:21 PM	
STD 0.05	S5	0.05	1.3569	10/16/2007@1:36:31 PM	
STD 0.02	S6	0.02	0.4766	10/16/2007@1:37:43 PM	
STD 0.01	S7	0.01	0.2736	10/16/2007@1:38:54 PM	
BLANK	S8	0	0.0821	10/16/2007@1:40:05 PM	
ICV ERA 21017	9	0.5163	19.4490	10/16/2007@1:41:15 PM	
Known Conc:		0.5			
Calibration:		Table/Fig. 1			
ICB	10	0.0099	0.0927	10/16/2007@1:47:12 PM	
Known Conc:		0			
LOW	11	0.0117	0.1604	10/16/2007@1:53:10 PM	
Known Conc:		0.01			
FILTERBLK	12	0.0063	-0.0465	10/16/2007@1:59:08 PM	
LT50 A1	13	8.0598	30.5240	10/16/2007@2:00:18 PM	10.0000
LS37 A1	44	-0.0381	-1.7436	10/16/2007@2:01:29 PM	-
LS37 B1	15	0.4074	15.2870	10/16/2007@2:02:40 PM	
LS37 B1 DUP	15	0.4073	15.2843	10/16/2007@2:03:50 PM	

% R = 103.26

% R = 117

% RPD = 0.02

LS37 B1	15	0.4091	15.3502	10/16/2007@2:05:01 PM	
LS37 B1 MS	16	0.9044	34.2861	10/16/2007@2:06:12 PM	
Spike Level:		0.5			
LS37 C1	19	0.1228	4.4062	10/16/2007@2:07:23 PM	
LS63 P3	20	-0.0466	-2.0672	10/16/2007@2:08:34 PM	-
CCV	17	0.5239	19.7407	10/16/2007@2:09:45 PM	
Known Conc:		0.5			
CCB	18	0.004	-0.1355	10/16/2007@2:15:43 PM	
Known Conc:		0			
LS37 A1	14	-0.0381	-1.7441	10/16/2007@2:21:40 PM	-
LS63 P3	20	-0.0444	-1.9854	10/16/2007@2:22:51 PM	-
LT50 B1	21	7.3981	27.9945	10/16/2007@2:24:03 PM	10.0000
LT50 C1	22	9.7908	37.1415	10/16/2007@2:25:14 PM	10.0000
LT50 D1	23	12.8715	48.9184	10/16/2007@2:26:26 PM	10.0000
LT50 E1	24	12.8734	48.9258	10/16/2007@2:27:38 PM	10.0000
LT50 F1	25	2.3402	8.6587	10/16/2007@2:28:48 PM	10.0000
LT50 G1	26	6.1293	23.1439	10/16/2007@2:30:01 PM	10.0000
LT50 H1	27	0.8884	3.1087	10/16/2007@2:31:13 PM	10.0000
LT50 I1	28	15.8127	60.1622	10/16/2007@2:32:25 PM	10.0000
CCV	17	0.5193	19.5664	10/16/2007@2:33:37 PM	
Known Conc:		0.5			
CCB	18	0.0110	0.1322	10/16/2007@2:39:33 PM	-
Known Conc:		0			
LT50 J1	29	9.9800	37.8645	10/16/2007@2:45:41 PM	10.0000
Sample36	4	1.0141	38.4799	10/16/2007@2:47:08 PM	-
DI	36	0.0096	0.0778	10/16/2007@2:48:20 PM	

% R = 99.40
0.25 ml * 1000 ppm / 10 ml

% R = 104.78

% R = 103.86

LT50 L1	30	8.4585	32.0480	10/16/2007@2:49:31 PM	10.0000
LS37 A1 2X	31	-0.0591	-1.4174	10/16/2007@2:50:43 PM	2.0000
LS63 P3 2X	32	-0.0672	-1.5726	10/16/2007@2:51:55 PM	2.0000
LT50 D1	33	12.9634	24.4912	10/16/2007@2:53:06 PM	20.0000
LT50 D1 DUP	33	13.0139	24.5876	10/16/2007@2:54:18 PM	20.0000
LT50 E1	34	13.1240	24.7980	10/16/2007@2:55:30 PM	20.0000
LT50 I1	35	16.2626	12.1464	10/16/2007@2:56:41 PM	50.0000
CCV	17	0.5206	19.6151	10/16/2007@2:57:52 PM	
Known Conc:		0.5			
CCB	18	0.0092	0.0645	10/16/2007@3:03:50 PM	
Known Conc:		0			
LT50 J1	36	9.9688	18.7671	10/16/2007@3:09:49 PM	20.0000
LS37 A1 20X	37	0.0343	-0.2219	10/16/2007@3:11:02 PM	20.0000
LS63 P3 20X	38	-0.0082	-0.3033	10/16/2007@3:12:14 PM	20.0000
DI	39	0.0103	0.1057	10/16/2007@3:13:25 PM	-
DI	40	0.0066	-0.0367	10/16/2007@3:14:37 PM	
CCV	17	0.5112	19.2551	10/16/2007@3:20:34 PM	
Known Conc:		0.5			
CCB	18	0.0122	0.1777	10/16/2007@3:26:33 PM	-
Known Conc:		0			

% RPD = 0.39

% R = 104.12

% R = 102.24



ANALYST NOTES

ARI Job No: LT50

Client Name: Anchor Env.

Parameter: NH₃

Client Project: _____

Samples not run with full QC due to limited volume.
Dup was run but not enough sample for a spike.

Analyst: *PK*

Date Analyzed: 10/16/07



ANALYST NOTES

ARI Job No: LR71 (LT50)

Client Name: _____

Parameter: Pore Water Sulfide

Client Project: _____

No sample K - GeoTech unable to extract
pore water
No data, samples H, L, G - very limited
volume of highly turbid
samples - no sulfide detected
at dilutions used to reduce
turbidity but could not
differentiate from background

W/S

Samples originally received from
GeoTech as LR71 - samples were
of varying turbidity and volume -
samples were split for sulfide
and ammonia analysis - ammonia
samples given to consultants for analysis
on lactat -

Analyst: _____

Date Analyzed: _____