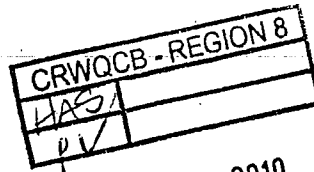


Public Works
Department



SEP 03 2010



September 3, 2010

Ms. Hope Smythe
Senior Environmental Scientist
California Regional Water Quality Control Board
Santa Ana Region
3737 Main Street, Suite 500
Riverside, CA 92501-3348

RECEIVED

SEP 13 2010

DIVISION OF WATER QUALITY

**SUBJECT: Supplemental Information of the City of Riverside Water Quality Control Plant's
~~Dissolved Cadmium, Copper, and Lead Santa Ana River Sampling Events~~**

Enclosed is Supplemental Information for the Santa Ana River special sampling events conducted by the City of Riverside Water Quality Control Plant on August 27th through August 30th of 2010.

If there are any questions concerning this special study, please contact me at (951)351-6080 or at email efiladelfia@riversideca.gov.

Sincerely,

Edward Filadelfia
Regulatory Affairs and Compliance Manager

Enclosures

cc: Gary Stewart, Regional Water Quality Control Board
File

City of Riverside Water Quality Control Plant's Dissolved Cadmium, Copper, and Lead Santa Ana River Sampling Events.

Supplemental Information

The City of Riverside's Water Quality Control Plant (RWQCP) conducted a Santa Ana River special study from August 27th through August 30th of 2010. Two samples were collected each day; upstream and downstream of the RWQCP outfall. Upstream sample was collected just below the Metropolitan Water District pipeline and the downstream was collected near Structure 1. Please see attached map provided in the report.

Sampling:

RWQCP's Operations Staff collected the samples using 1 gallon size clean plastic container. The samples were brought to the laboratory and laboratory personnel received the sample. A one-page chain of custody is included in the report.

Sampling Handling and Preservation:

Samples for dissolved metals were filtered immediately through acid-washed 0.45 μ m membrane filter paper. Please see attached email correspondence regarding training lab analyst on this procedure (Attachment 1).

Samples for dissolved organic carbon were filtered immediately through 0.45 μ m membrane filtered paper which was previously rinsed three times with 50 mL of reverse-osmosis water followed by three rinses with 50 mL portions of the sample. Please see attached email regarding this as well (Attachment 1).

Samples were then preserved as follows:

Parameter	Container	Preservation
Total and dissolved Cd, Cu, and Pb	Plastic	HNO ₃ to pH <2, Cool
Ca, Mg, K, Na	Plastic	HNO ₃ to pH <2, Cool
Total and Dissolved Organic Carbon	Glass	HCl to pH <2, Cool
Sulfate	Plastic	Cool
Chloride	Plastic	Cool
Alkalinity	Plastic	Cool
Hardness	Plastic	HNO ₃ to pH <2, Cool

Analyses:

The pH and temperature of the upstream and downstream samples were analyzed with a portable pH meter by Operations staff. The pH and temperature readings were recorded in the Chain of Custody sheet. Please see Attachment 2.

The following parameters were analyzed by the RWQCP laboratory which is located at the treatment plant facility:

- Total and dissolved organic carbon
- Sulfate
- Chloride
- Alkalinity

Metals Analyses:

Samples for total and dissolved metals (cadmium, copper, and lead), calcium, magnesium, sodium, and potassium were digested by the RWQCP's laboratory and were analyzed by E. S. Babcock and Sons, Inc., a contract laboratory.

Additional Information:

Analyses for total and dissolved metals (cadmium, copper, and lead), calcium, magnesium, sodium, and potassium were initially planned to be performed by RWQCP's laboratory. Due to unforeseen instrument breakdown and urgency of the results, the digested samples were sent to E.S. Babcock and Sons, Inc. for analyses on a rush basis.

Below is a cross reference of samples submitted to E.S. Babcock and Sons, Inc. as recorded in City of Riverside's and E.S. Babcock and Sons, Inc.'s Chain of Custody (COC) (Attachment 3).

E.S. Babcock and Sons, Inc COC	City of Riverside COC
UP RIVER 8/27/10 MATRIX	Upstream River 8/27/10
d-UP RIVER 8/27	Dissolved Upstream River 8/27/10
DOWN RIVER 8/27	Downstream River 8/27/10
d-DOWN RIVER 8/27	Dissolved Downstream River 8/27/10
UP RIVER 8/28	Upstream River 8/28/10
d-UP RIVER 8/28	Dissolved Upstream River 8/28/10
DOWN RIVER 8/28	Downstream River 8/28/10
d-DOWN RIVER 8/28	Dissolved Downstream River 8/28/10
UP RIVER 8/29	Upstream River 8/29/10
d-UP RIVER 8/29	Dissolved Upstream River 8/29/10
DOWN RIVER 8/29	Downstream River 8/29/10
d-DOWN RIVER 8/29	Dissolved Downstream River 8/29/10
UP RIVER 8/30	Upstream River 8/30/10
d-UP RIVER 8/30	Dissolved Upstream River 8/30/10
DOWN RIVER 8/30	Downstream River 8/30/10
d-DOWN RIVER 8/30	Dissolved Downstream River 8/30/10

NOTE: Samples that don't have the term "dissolved" were analyzed as total or total recoverable.

Below is the relevant timeline for total and dissolved metals analyses on 8/31/2010. Please see attached email correspondence regarding this (Attachment 4).

8:44 AM Lab Manager reported instrument breakdown
 8:50 AM Lab Manager contacted E.S. Babcock and Sons, Inc. if they can accommodate our samples
 10:30 AM E.S. Babcock and Sons, Inc. received digested samples from Lab Manager
 1:16 PM A draft report of results was received from E.S. Babcock and Sons, Inc
 1:54 PM E.S. Babcock and Sons, Inc. sent final report to Lab Manager
 2:21 PM Lab Manager requested to verify 8/28 downstream results
 2:35 PM Lab Manager released complete final report
 2:53 PM E.S. Babcock and Sons, Inc reanalyzing 8/28 downstream samples
 4:10 PM E.S. Babcock and Sons, Inc gave update of the reanalysis
 4:23 PM E.S. Babcock and Sons, Inc released amended report.

Corrections to Total and Dissolved Copper and Lead Results:

Following a post review of the results for total and dissolved Cd, Cu, and Pb results, we have identified that the results of the amended report of E.S. Babcock and Sons, Inc. was not captured in our letter submitted on August 31, 2010. The corrected Total and Dissolved Metals table is presented below. Please see attached E.S. Babcock and Sons, Inc. amended report (Attachment 5).

Total and Dissolved Metals

Sample Description/Metals/ Date	Total (µg/L)				Dissolved (µg/L)			
	8/27	8/28	8/29	8/30	8/27	8/28	8/29	8/30
Upstream Cd	ND	ND	ND	ND	ND	ND	ND	ND
Upstream Cu	4.3	4.5	4.2	4.9	3.9	4.0	3.9	4.3
Upstream Pb	0.46	0.31	0.24	0.40	0.095	ND	ND	ND
Downstream Cd	ND	ND	ND	ND	ND	ND	ND	ND
Downstream Cu	4.0	4.4	4.6	4.8	4.0	4.3	4.5	4.7
Downstream Pb	0.18	0.18	0.23	0.26	0.10	0.087	0.11	0.13

NOTE: The results highlighted in red were reported as 5.1 µg/L and 4.7 µg/L in the previous letter.

Attachment 1

Rozenstraten, Norma**From:** Rozenstraten, Norma**Sent:** Friday, August 27, 2010 1:21 PM**To:** Yambot, Annie**Cc:** Street, Kevin; Filadelfia, Edward; Valladao, Gary; Bartle, Brian; Godoy, Virginia; Hoang, Toan; Lazo, Mike; Thill, Jean**Subject:** Special River Sampling

Hi Annie,

The special river sampling [303(d) delisting project] started today and will end on Monday. Operations will collect samples and the laboratory will do analysis. I talked to Jean and Brian and they said that the lab can do all analyses in house. The ICP-ES is ready to go and they are not anticipating any problem.

Here's the list of analyses needed:

- ✓ Cu (Total and Dissolved)
- ✓ Pb (Total and Dissolved)
- ✓ Cd (Total and Dissolved)
- ✓ TOC
- ✓ Dissolved Organic Carbon
- ✓ Mg
- ✓ Na
- ✓ K
- ✓ SO₄
- ✓ Cl
- ✓ Alkalinity
- ✓ pH – OPS will do this
- ✓ Temperature – OPS will do this

Mike will filter the sample for dissolved metals and dissolved organic carbon on Saturday; he will be trained today. I will filter the sample on Sunday since Toan is not trained to do this.

Here are items that Jean, Brian, and I discussed:

- ▶ There are 2 sampling locations (upstream and downstream). A total of 8 samples (2 samples/day x 4 days = 8 samples). Brand new 1-gal size container will be used.
- ▶ All samples for metals will be digested on Monday, August 30th
- ▶ Metal analysis will be performed on Tuesday, August 31st
- ▶ The 0.45 µm membrane filter to be used for filtering sample for dissolved organic carbon will be rinsed 3x with 50 mL NP water followed by 3x with 50 mL sample to minimize carbon contamination from the filter paper.
- ▶ I will create variables for these parameters so we can store results in Hach WIMS.
- ▶ Results are due to Ed on August 31st

Sorry for the short notice. Thanks to Jean, Brian, and Mike for all their help.

Thanks,
Norma

9/3/2010

Attachment 2



City of Riverside, Laboratory Services
Water Quality Control Plant
Special River Sampling (August 27-30, 2010)

Sample ID	Date of Collection	Time of Collection	Initials	pH (SU)	Temperature (degree C)	Relinquished By Date and Time	Received By Date and Time
Upstream River	8/27/2010	11:55	KS	7.72	27.0	8/27/10 12:44 David B. Smith	8/27/10 12:44 David B. Smith
Downstream River	8/27/2010	12:17	KS	7.68	29.6	David B. Smith	
Upstream River	8/28/2010	08:54	DA	7.85	19.5	David B. Smith	Mike Z
Downstream River	8/28/2010	09:27	DA	7.54	28.0	David B. Smith	8/28/10 10:10 Laimonach Manos
Upstream River	8/29/2010	06:39	DO	8.1	19.2	8/29/10 David B. Smith	8/29/10 1-11
Downstream River	8/29/2010	07:23	DO	7.6	26.0		
Upstream River	8/30/2010	09:25	KS	8.30	20.1	8/30/10 David B. Smith	8/30/10 10:27 David B. Smith
Downstream River	8/30/2010	09:54	KS	7.86	26.6	David B. Smith	

NOTES OR COMMENTS:

Attachment 3

Client: Riverside City-WQCP		Contact: Anicia Yambot		Phone No. (951)351-6016	
FAX No.		Email: AYambot@riversideca.gov		Additional Reporting Requests Include QC Data Package: ☐ Yes ☐ No FAX Results: ☐ Yes ☐ No Email Results: ☐ Yes ☐ No State EDT: ☐ Yes ☐ No (Include Source Number in Notes)	
Project Name: RWQCP-SARDA		Turn Around Time: Routine		*24 Hour Rush	
Project Location:		*3-5 Day Rush		*Additional Charges May Apply	
*Lab TAT Approval: By:		Analysis Requested		Matrix	
Sampler Information Name: _____ Employer: _____ Signature: _____		Sample Type		DW = Drinking Water WW = Wastewater GW = Groundwater S = Soil SG = Sludge L = Liquid M = Miscellaneous	
		# of Containers & Preservatives Unpreserved H2SO4 HCl HNO3 Na2S2O3 NaOH NaOH/ZnAcetate NH4Cl MCAA			
Total # of Containers		Analysis Requested		Notes	
Time		Ca, Mg, Na, and K		DW = Drinking Water WW = Wastewater GW = Groundwater S = Soil SG = Sludge L = Liquid M = Miscellaneous	
Date		Cu, Pb, Cd			
BLANK		Total Hardness			
8/30/10					
BLANK SPIKE					
8/30/10					
UP RIVER 8/27/10 MATRIX					
8/27/10					
UP RIVER 8/27 SPIKE A					
8/27/10					
UP RIVER 8/27 SPIKE B					
8/27/10					
d-UP RIVER 8/27 A					
8/27/10					
d-UP RIVER 8/27 B					
8/27/10					
DOWN RIVER 8/27					
8/27/10					
d-DOWN RIVER 8/27					
8/27/10					
UP RIVER 8/28					
8/28/10					
d-UP RIVER 8/28					
8/28/10					

Relinquished By (sign)		Print Name / Company	
Brian Bantle RWQCP Anicia Yambot RWQCP		Received By (Sign) C. Madrid/ESB	
Date / Time		Print Name / Company	
8/31/10 0945			
8/31/10 1030			

(For Lab Use Only)		Sample Integrity Upon Receipt	
Sample(s) Submitted on Ice?	Yes ☐ No ☒	Temperature	21 °C
Custody Seal(s) Intact?	Yes ☐ No ☒		
Sample(s) Intact?	Yes ☒ No ☐		

E.S. Babcock & Sons, Inc. Environmental Laboratories
 (951) 653-3351 FAX (951) 653-1662
 www.babcocklabs.com

Chain of Custody & Sample Information Record

Client: Riverside City-WQCP		Contact: Anicia Yambot		Phone No. (951)351-6016	
FAX No. (951) 653-3351		Email: AYambot@riversideca.gov		Additional Recording Requests Include OC Data Package: ☐ Yes ☐ No FAX Results: ☐ Yes ☐ No Email Results: ☐ Yes ☐ No State EDT: ☐ Yes ☐ No (Include Source Number in Notes)	
Project Name: RWQCP-SARDA		Turn Around Time: 3-5 Day		Rush ☐ Rush ☐	
Project Location: Lab: TATA		Sample Type: Routine		*24 Hour Rush ☐	
Sampler Information		# of Containers & Preservatives		Matrix	
Name: _____		Total # of Containers		DW = Drinking Water	
Employer: _____		H2SO4		WW = Wastewater	
Signature: _____		HCl		GW = Groundwater	
		HNO3		S = Soil	
		NaOH		SG = Sludge	
		NaOH/Acetate		L = Liquid	
		NH4Cl		M = Miscellaneous	
		MCAA			
Sample ID	Date	Time	Unpreserved	Analysis Requested	Notes
DOWN RIVER 8/28	8/28/10	0927	X	Cu, Pb, Cd	1-0 day 1-0 day 1-0 day 1-0 day 1-0 day 1-0 day 1-0 day 1-0 day 1-0 day 1-0 day 1-0 day
d-DOWN RIVER 8/28	8/28/10	0927	X	Total Hardness	
UP RIVER 8/29	8/29/10	0639	X	Cu, Pb, Cd	
d-UP RIVER 8/29	8/29/10	0639	X	Cu, Pb, Cd	
DOWN RIVER 8/29	8/29/10	0723	X	Cu, Pb, Cd	
d-DOWN RIVER 8/29	8/29/10	0723	X	Cu, Pb, Cd	
UP RIVER 8/30	8/30/10	0925	X	Cu, Pb, Cd	
d-UP RIVER 8/30	8/30/10	0925	X	Cu, Pb, Cd	
DOWN RIVER 8/30	8/30/10	0954	X	Cu, Pb, Cd	
d-DOWN RIVER 8/30	8/30/10	0954	X	Cu, Pb, Cd	
Relinquished By (sign)		Print Name / Company		Date / Time	
<i>Anicia Yambot</i>		Brianna R. W. O.C.P.		8/31/10 0945	
<i>Annie Yambot</i>		Annie Yambot Riverside		8/31/10 1030	
Received By (Sign)		Print Name / Company		Date / Time	
<i>Annie Yambot</i>		Annie Yambot Riverside		8/31/10 1030	

Lab No. **A0H3111** Page **2** of **2**

'AUG 31 2010

Sample Integrity Upon Receipt		Lab Notes	
Sample Submitted on time?	Yes ☐ No ☐	1-0 day 1-0 day 1-0 day 1-0 day 1-0 day 1-0 day 1-0 day 1-0 day 1-0 day 1-0 day	
Sample Sealed Intact?	Yes ☐ No ☐		
Sample(s) Intact?	Yes ☐ No ☐		

Attachment 4

Rozenstraten, Norma

From: Yambot, Annie
Sent: Tuesday, August 31, 2010 8:44 AM
To: Street, Kevin
Cc: Rozenstraten, Norma; Filadelfia, Edward
Subject: BAD NEWS on ICAP
Importance: High

Kevin,

As Brian was starting up the run this morning the ICAP's coil and torch tube got burned again. I am awaiting Babcock's response if they can run our digested samples and have the results by noon or early afternoon. Metals may be sent out to Babcock.

Thanks,

Anicia E. Yambot

Laboratory Manager
City of Riverside, RWQCP

5950 Acorn St.,
Riverside, CA 92504
Office (951) 351 - 6016
Cell (951) 288 - 2997
E-Mail: ayambot@riversideca.gov



Dept. of Public Works

9/3/2010

Rozenstraten, Norma

From: Yambot, Annie
Sent: Tuesday, August 31, 2010 8:50 AM
To: Street, Kevin
Cc: Filadelfia, Edward; Rozenstraten, Norma
Subject: FW: BAD NEWS on ICAP
Importance: High

Babcock can accommodate our digested samples. I'll bring them to Babcock now. Results may be available early afternoon. Was pushing for 12 noon but they can't.

Thank you,
Annie Yambot

From: Yambot, Annie
Sent: Tuesday, August 31, 2010 8:44 AM
To: Street, Kevin
Cc: Rozenstraten, Norma; Filadelfia, Edward
Subject: BAD NEWS on ICAP
Importance: High

Kevin,

As Brian was starting up the run this morning the ICAP's coil and torch tube got burned again. I am awaiting Babcock's response if they can run our digested samples and have the results by noon or early afternoon. Metals may be sent out to Babcock.

Thanks,

Anicia E. Yambot

Laboratory Manager
City of Riverside, RWQCP
5950 Acorn St.,
Riverside, CA 92504
Office (951) 351 - 6016
Cell (951) 288 - 2997
E-Mail: ayambot@riversideca.gov



Dept. of Public Works

Rozenstraten, Norma

From: Yambot, Annie
Sent: Tuesday, August 31, 2010 1:41 PM
To: Filadelfia, Edward
Cc: Rozenstraten, Norma
Subject: FW: re[2]: Preliminary Data
Attachments: A0H3111 Draft Report.pdf

Just FYI, in case you want to see these data.

Thank you,
 Annie Yambot

From: Robin Glenney [mailto:rglenney@babcocklabs.com]
Sent: Tuesday, August 31, 2010 1:16 PM
To: Yambot, Annie; Justin Troup
Subject: re[2]: Preliminary Data

Attached you will find the draft report, I will send the final report out if it is completed before Justin returns. Please let me know if you need anything else. Have a great day!

Robin Glenney | Project Manager

E.S.BABCOCK&Sons, Inc. | Environmental Laboratories *Since 1906*

P 951 653 3351 x236 F 951 653 1662

www.babcocklabs.com

Unparalleled Environmental Laboratory Services

Did E.S. Babcock & Sons meet your expectations? Please visit us at Project Feedback and rate the service you received.

 Note: The information in this message may be privileged and confidential and protected from disclosure. If the reader of this message is not the intended recipient, or an employee or agent responsible for delivering this message to the intended recipient, you are hereby notified that any dissemination, distribution or copying of this communication is strictly prohibited. If you received this communication in error, please notify us immediately by replying to the message and deleting it from your computer. Thank you.

 Please consider the environment before printing this e-mail

Original Message

From: "Yambot, Annie" <AYambot@riversideca.gov>
To: Justin Troup <jtroup@babcocklabs.com>
Cc: Robin Glenney <rglenney@babcocklabs.com>
Date: Tue, 31 Aug 2010 13:04:50 -0700

" Subject: RE: Preliminary Data

Justin,

Can't find attachment.

Thank you,
Annie Yambot

From: Justin Troup [mailto:jtroup@babcocklabs.com]
Sent: Tuesday, August 31, 2010 1:03 PM
To: Yambot, Annie
Cc: Robin Glenney
Subject: RE: Preliminary Data

Annie, attached you will find a draft report of the samples. I'm still waiting on lead and copper. Robin Glenney will email you the final report when it is ready. I have to go off site for a meeting at 1:30p and probably won't return until 3:00p or so. If you have any further questions Robin can be reached at x236. Thanks.

Please feel free to contact me should you have any further questions. Thanks!

Justin Troup | Project Manager
E.S.BABCOCK&Sons, Inc. | Environmental Laboratories since 1906
P 951 653 3351 x 249 F 951 653 1662
www.babcocklabs.com
Unparalleled Environmental Laboratory Services

Did E.S. Babcock & Sons meet your expectations? Please visit us at Project Feedback and rate the service you received.

Note: The information in this message may be privileged and confidential and protected from disclosure. If the reader of this message is not the intended recipient, or an employee or agent responsible for delivering this message to the intended recipient, you are hereby notified that any dissemination, distribution or copying of this communication is strictly prohibited. If you received this communication in error, please notify us immediately by replying to the message and deleting it from your computer. Thank you.

 Please consider the environment before printing this e-mail

From: Yambot, Annie [mailto:AYambot@riversideca.gov]
Sent: Tuesday, August 31, 2010 12:58 PM
To: Justin Troup
Subject: Preliminary Data
Importance: High

9/3/2010

Justin,

Is it possible to get the preliminary results?

Thanks,

Anicia E. Yambot

Laboratory Manager

City of Riverside, RWQCP

5950 Acorn St.,

Riverside, CA 92504

Office (951) 351 - 6016

Cell (951) 288 - 2997

E-Mail: ayambot@riversideca.gov



Dept. of Public Works

9/3/2010

Rozenstraten, Norma

From: Yambot, Annie
Sent: Tuesday, August 31, 2010 2:51 PM
To: Rozenstraten, Norma
Subject: RE: River Special Study

They are in ppb, I'm making notes on the report.

Thank you,
 Annie Yambot

From: Rozenstraten, Norma
Sent: Tuesday, August 31, 2010 2:40 PM
To: Yambot, Annie
Cc: Street, Kevin; Filadelfia, Edward
Subject: RE: River Special Study

Are Cd, Cu, and Pb results in ppm?

Thanks,
 Norma

From: Yambot, Annie
Sent: Tuesday, August 31, 2010 2:35 PM
To: Filadelfia, Edward
Cc: Rozenstraten, Norma; Street, Kevin
Subject: River Special Study

Here's the complete data with copper and lead. Requested Babcock to verify data highlighted in yellow. They looked switched.

Constituents	Upstream in ppm (Total)	Upstream in ppm (Dissolved)	Downstream in ppm (Total)	Downstream in ppm (Dissolved)
Sample Date: 08/27/2010				
Alkalinity	271		197	
Total Organic Carbon (TOC)	2.3	2.1	6.0	6.0
Chloride (Cl)	114		117	
Sulfate (SO ₄)	115		93	
Cadmium (Cd)	ND		ND	ND
Copper (Cu)	4.3	3.9	4.0	4.0
Lead (Pb)	0.46	0.095	0.18	0.10
Calcium (Ca)	110	110	70	70
Magnesium (Mg)	23	23	14	14
Potassium (K)	9.1	9	18	18

Sodium (Na)	100	100	110	110
Total Hardness	370	365	230	230
pH	7.72		7.68	
Temperature, °C	27		29.6	

Sample Date: 08/28/2011

Alkalinity	263		188	
Total Organic Carbon (TOC)	2.2	2.6	7.2	6.0
Chloride (Cl)	113		124	
Sulfate (SO ₄)	113		106	
Cadmium (Cd)	ND	ND	ND	ND
Copper (Cu)	4.5	4	4.4	5.1
Lead (Pb)	0.31	ND	0.18	4.7
Calcium (Ca)	110	110	71	72
Magnesium (Mg)	23	23	15	15
Potassium (K)	9.3	9.3	17	18
Sodium (Na)	100	100	110	120
Total Hardness	360	360	240	240
pH	7.85		7.54	
Temperature, °C	19.5		28	

Sample Date: 08/29/2012

Alkalinity	269		197	
Total Organic Carbon (TOC)	4.2	3.1	7.9	7.6
Chloride (Cl)	112		126	
Sulfate (SO ₄)	112		96	
Cadmium (Cd)	ND	ND	ND	ND
Copper (Cu)	4.2	3.9	4.6	4.5
Lead (Pb)	0.24	ND	0.23	0.11
Calcium (Ca)	110	110	72	72
Magnesium (Mg)	22	22	15	15
Potassium (K)	9.7	9.7	16	16
Sodium (Na)	100	100	110	110
Total Hardness	360	360	240	240
pH	8.1		7.6	
Temperature, °C	19.2		26	

Sample Date: 08/30/2013

Alkalinity	263		202	
Total Organic Carbon (TOC)	3.8	3.7	8.0	6.9
Chloride (Cl)	112		121	
Sulfate (SO ₄)	112		102	
Cadmium (Cd)	ND	ND	ND	ND
Copper (Cu)	4.9	4.3	4.8	4.7
Lead (Pb)	0.4	ND	0.26	0.13
Calcium (Ca)	100	100	76	73

Magnesium (Mg)	21	21	16	15
Potassium (K)	10	9.8	14	14
Sodium (Na)	100	99	110	110
Total Hardness	350	340	260	250
pH	8.3		7.86	
Temperature, °C	20.1		26.6	

Rozenstraten, Norma**From:** Yambot, Annie**Sent:** Tuesday, August 31, 2010 2:35 PM**To:** Filadelfia, Edward**Cc:** Rozenstraten, Norma; Street, Kevin**Subject:** River Special Study

Here's the complete data with copper and lead. Requested Babcock to verify data highlighted in yellow. They looked switched.

Constituents	Upstream in ppm (Total)	Upstream in ppm (Dissolved)	Downstream in ppm (Total)	Downstream in ppm (Dissolved)
Sample Date: 08/27/2010				
Alkalinity	271		197	
Total Organic Carbon (TOC)	2.3	2.1	6.0	6.0
Chloride (Cl)	114		117	
Sulfate (SO ₄)	115		93	
Cadmium (Cd)	ND		ND	ND
Copper (Cu)	4.3	3.9	4.0	4.0
Lead (Pb)	0.46	0.095	0.18	0.10
Calcium (Ca)	110	110	70	70
Magnesium (Mg)	23	23	14	14
Potassium (K)	9.1	9	18	18
Sodium (Na)	100	100	110	110
Total Hardness	370	365	230	230
pH	7.72		7.68	
Temperature, °C	27		29.6	
Sample Date: 08/28/2011				
Alkalinity	263		188	
Total Organic Carbon (TOC)	2.2	2.6	7.2	6.0
Chloride (Cl)	113		124	
Sulfate (SO ₄)	113		106	
Cadmium (Cd)	ND	ND	ND	ND
Copper (Cu)	4.5	4	4.4	5.1
Lead (Pb)	0.31	ND	0.18	4.7
Calcium (Ca)	110	110	71	72
Magnesium (Mg)	23	23	15	15
Potassium (K)	9.3	9.3	17	18
Sodium (Na)	100	100	110	120
Total Hardness	360	360	240	240
pH	7.85		7.54	

Temperature, °C	19.5		28	
Sample Date: 08/29/2012				
Alkalinity	269		197	
Total Organic Carbon (TOC)	4.2	3.1	7.9	7.6
Chloride (Cl)	112		126	
Sulfate (SO ₄)	112		96	
Cadmium (Cd)	ND	ND	ND	ND
Copper (Cu)	4.2	3.9	4.6	4.5
Lead (Pb)	0.24	ND	0.23	0.11
Calcium (Ca)	110	110	72	72
Magnesium (Mg)	22	22	15	15
Potassium (K)	9.7	9.7	16	16
Sodium (Na)	100	100	110	110
Total Hardness	360	360	240	240
pH	8.1		7.6	
Temperature, °C	19.2		26	

Sample Date: 08/30/2013

Alkalinity	263		202	
Total Organic Carbon (TOC)	3.8	3.7	8.0	6.9
Chloride (Cl)	112		121	
Sulfate (SO ₄)	112		102	
Cadmium (Cd)	ND	ND	ND	ND
Copper (Cu)	4.9	4.3	4.8	4.7
Lead (Pb)	0.4	ND	0.26	0.13
Calcium (Ca)	100	100	76	73
Magnesium (Mg)	21	21	16	15
Potassium (K)	10	9.8	14	14
Sodium (Na)	100	99	110	110
Total Hardness	350	340	260	250
pH	8.3		7.86	
Temperature, °C	20.1		26.6	

Rozenstraten, Norma

From: Yambot, Annie
Sent: Tuesday, August 31, 2010 2:55 PM
To: Street, Kevin; Filadelfia, Edward
Cc: Rozenstraten, Norma
Subject: FW: re[2]: Preliminary Data

Just FYI...

Thank you,
Annie Yambot

From: Robin Glenney [mailto:rglenney@babcocklabs.com]
Sent: Tuesday, August 31, 2010 2:53 PM
To: Yambot, Annie
Cc: Justin Troup
Subject: RE: re[2]: Preliminary Data

We are reanalyzing these samples right now I will let you know as soon as we get results. I checked the labels and they are labeled correctly.

Robin Glenney | Project Manager

E.S.BABCOCK&Sons, Inc. | Environmental Laboratories since 1906
P 951 653 3351 x236 F 951 653 1662

www.babcocklabs.com

Unparalleled Environmental Laboratory Services

Did E.S. Babcock & Sons meet your expectations? Please visit us at **Project Feedback** and rate the service you received.

Note: The information in this message may be privileged and confidential and protected from disclosure. If the reader of this message is not the intended recipient, or an employee or agent responsible for delivering this message to the intended recipient, you are hereby notified that any dissemination, distribution or copying of this communication is strictly prohibited. If you received this communication in error, please notify us immediately by replying to the message and deleting it from your computer. Thank you.

From: Yambot, Annie [mailto:AYambot@riversideca.gov]
Sent: Tuesday, August 31, 2010 2:21 PM
To: Robin Glenney
Subject: RE: re[2]: Preliminary Data
Importance: High

Hi Robin,

Could you please verify data for A0H3111-12 and -13? They looked switched.

Thank you,
Annie Yambot

From: Robin Glenney [mailto:rglenney@babcocklabs.com]
Sent: Tuesday, August 31, 2010 1:54 PM
To: Yambot, Annie; Justin Troup
Subject: re[2]: Preliminary Data

Hello,

Attached is the final report and invoice for A0H3111. Please let me know if you need anything else. Have a great day!

Robin Glenney | Project Manager
E.S.BABCOCK&Sons, Inc. | Environmental Laboratories *since 1906*
P 951 653 3351 x236 F 951 653 1662
www.babcocklabs.com
Unparalleled Environmental Laboratory Services

Did E.S. Babcock & Sons meet your expectations? Please visit us at Project Feedback and rate the service you received.

Note: The information in this message may be privileged and confidential and protected from disclosure. If the reader of this message is not the intended recipient, or an employee or agent responsible for delivering this message to the intended recipient, you are hereby notified that any dissemination, distribution or copying of this communication is strictly prohibited. If you received this communication in error, please notify us immediately by replying to the message and deleting it from your computer. Thank you.



Please consider the environment before printing this e-mail

----- Original Message -----

From: "Yambot, Annie" <AYambot@riversideca.gov>
To: Justin Troup <jtroup@babcocklabs.com>
Cc: Robin Glenney <rglenney@babcocklabs.com>
Date: Tue, 31 Aug 2010 13:04:50 -0700
Subject: RE: Preliminary Data

Justin,

Can't find attachment.

Thank you,
Annie Yambot

9/3/2010

From: Justin Troup [mailto:jtroup@babcocklabs.com]
Sent: Tuesday, August 31, 2010 1:03 PM
To: Yambot, Annie
Cc: Robin Glenney
Subject: RE: Preliminary Data

Annie, attached you will find a draft report of the samples. I'm still waiting on lead and copper. Robin Glenney will email you the final report when it is ready. I have to go off site for a meeting at 1:30p and probably won't return until 3:00p or so. If you have any further questions Robin can be reached at x236. Thanks.

Please feel free to contact me should you have any further questions. Thanks!

Justin Troup | Project Manager
E.S.BABCOCK&Sons, Inc. | Environmental Laboratories since 1906
P 951 653 3351 x 249 F 951 653 1662
www.babcocklabs.com
Unparalleled Environmental Laboratory Services

Did E.S. Babcock & Sons meet your expectations? Please visit us at Project Feedback and rate the service you received.

Note: The information in this message may be privileged and confidential and protected from disclosure. If the reader of this message is not the intended recipient, or an employee or agent responsible for delivering this message to the intended recipient, you are hereby notified that any dissemination, distribution or copying of this communication is strictly prohibited. If you received this communication in error, please notify us immediately by replying to the message and deleting it from your computer. Thank you.



Please consider the environment before printing this e-mail

From: Yambot, Annie [mailto:AYambot@riversideca.gov]
Sent: Tuesday, August 31, 2010 12:58 PM
To: Justin Troup
Subject: Preliminary Data
Importance: High

Justin,

Is it possible to get the preliminary results?

Thanks,

Anicia E. Yambot
Laboratory Manager

City of Riverside, RWQCP

5950 Acorn St.,

Riverside, CA 92504

Office (951) 351 - 6016

Cell (951) 288 - 2997

E-Mail: ayambot@riversideca.gov



Dept. of Public Works

Attachment 5



E.S.BABCOCK&Sons,Inc.

Environmental Laboratories est. 1966

AMENDED

Client Name: Riverside City - WQCP
Contact: Anicia Yambot
Address: 5950 Acorn St.
Riverside, CA 92504

Analytical Report: Page 1 of 29
Project Name: RWQCP-SARDA
Project Number: SARDA

Work Order Number: A0H3111

Report Date: 31-Aug-2010

Received on Ice (Y/N): No Temp: 21 °C

Attached is the analytical report for the sample(s) received for your project. Below is a list of the individual sample descriptions with the corresponding laboratory number(s). Also, enclosed is a copy of the Chain of Custody document (if received with your sample(s)). Please note any unused portion of the sample(s) may be responsibly discarded after 30 days from the above report date, unless you have requested otherwise.

Thank you for the opportunity to serve your analytical needs. If you have any questions or concerns regarding this report please contact our client service department.

Sample Identification

Lab Sample #	Client Sample ID	Matrix	Date Sampled	By	Date Submitted	By
A0H3111-01	Blank Wastewater	Liquid	08/30/10 00:00	-	08/31/10 10:30	Annie Yambot
A0H3111-02	Blank Spike Wastewater	Liquid	08/30/10 00:00	-	08/31/10 10:30	Annie Yambot
A0H3111-03	Up River 8/27/10 Matrix Wastewater	Liquid	08/27/10 11:55	-	08/31/10 10:30	Annie Yambot
A0H3111-04	Up River 8/27 Spike A Wastewater	Liquid	08/27/10 11:55	-	08/31/10 10:30	Annie Yambot
A0H3111-05	Up River 8/27 Spike B Wastewater	Liquid	08/27/10 11:55	-	08/31/10 10:30	Annie Yambot
A0H3111-06	d-Up River 8/27 A Wastewater	Liquid	08/27/10 11:55	-	08/31/10 10:30	Annie Yambot
A0H3111-07	d-Up River 8/27 B Wastewater	Liquid	08/27/10 11:55	-	08/31/10 10:30	Annie Yambot
A0H3111-08	Down River 8/27 Wastewater	Liquid	08/27/10 12:17	-	08/31/10 10:30	Annie Yambot
A0H3111-09	d-Down River 8/27 Wastewater	Liquid	08/27/10 12:17	-	08/31/10 10:30	Annie Yambot
A0H3111-10	Up River 8/28 Wastewater	Liquid	08/28/10 08:54	-	08/31/10 10:30	Annie Yambot
A0H3111-11	d-Up River 8/28 Wastewater	Liquid	08/28/10 08:54	-	08/31/10 10:30	Annie Yambot
A0H3111-12	Down River 8/28 Wastewater	Liquid	08/28/10 09:27	-	08/31/10 10:30	Annie Yambot

mailing
P.O Box 432
Riverside, CA 92502-0432

location
6100 Quail Valley Court
Riverside, CA 92507-0704

P 951-653-3351
F 951-653-1662
www.babcocklabs.com

NELAP no. 02101CA
CA ELAP no. 2698
EPA no. CA00102



E.S.BABCOCK&Sons, Inc.

Environmental Laboratories est. 1976

AMENDED

Client Name: Riverside City - WQCP
Contact: Anicia Yambot
Address: 5950 Acorn St.
Riverside, CA 92504

Analytical Report: Page 2 of 29
Project Name: RWQCP-SARDA
Project Number: SARDA

Work Order Number: A0H3111

Report Date: 31-Aug-2010

Received on Ice (Y/N): No Temp: 21 °C

Attached is the analytical report for the sample(s) received for your project. Below is a list of the individual sample descriptions with the corresponding laboratory number(s). Also, enclosed is a copy of the Chain of Custody document (if received with your sample(s)). Please note any unused portion of the sample(s) may be responsibly discarded after 30 days from the above report date, unless you have requested otherwise.

Thank you for the opportunity to serve your analytical needs. If you have any questions or concerns regarding this report please contact our client service department.

Sample Identification

<u>Lab Sample #</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Date Sampled</u>	<u>By</u>	<u>Date Submitted</u>	<u>By</u>
A0H3111-13	d-Down River 8/28 Wastewater	Liquid	08/28/10 09:27	-	08/31/10 10:30	Annie Yambot
A0H3111-14	Up River 8/29 Wastewater	Liquid	08/29/10 06:39	-	08/31/10 10:30	Annie Yambot
A0H3111-15	d-Up River 8/29 Wastewater	Liquid	08/29/10 06:39	-	08/31/10 10:30	Annie Yambot
A0H3111-16	Down River 8/29 Wastewater	Liquid	08/29/10 07:23	-	08/31/10 10:30	Annie Yambot
A0H3111-17	d-Down River 8/29 Wastewater	Liquid	08/29/10 07:23	-	08/31/10 10:30	Annie Yambot
A0H3111-18	Up River 8/30 Wastewater	Liquid	08/30/10 09:25	-	08/31/10 10:30	Annie Yambot
A0H3111-19	d-Up River 8/30 Wastewater	Liquid	08/30/10 09:25	-	08/31/10 10:30	Annie Yambot
A0H3111-20	Down River 8/30 Wastewater	Liquid	08/30/10 09:54	-	08/31/10 10:30	Annie Yambot
A0H3111-21	d-Down River 8/30 Wastewater	Liquid	08/30/10 09:54	-	08/31/10 10:30	Annie Yambot

mailing

P.O. Box 432
Riverside, CA 92502-0432

location

6100 Quail Valley Court
Riverside, CA 92507-0704

P 951 653 3351

F 951 653 1662

www.babcocklabs.com

NELAP no. 02101CA

CA ELAP no. 2698

EPA no. CA00102



E.S.BABCOCK&Sons,Inc.

Environmental Laboratories *est 1906*

AMENDED

Client Name: Riverside City - WQCP
Contact: Anicia Yambot
Address: 5950 Acorn St.
Riverside, CA 92504

Analytical Report: Page 3 of 29
Project Name: RWQCP-SARDA
Project Number: SARDA

Work Order Number: A0H3111

Report Date: 31-Aug-2010

Received on Ice (Y/N): No Temp: 21 °C

Included in this Data Package please find an amended report for the laboratory number(s) referenced below.

Laboratory Number: A0H3111-(-012 & -13)

For A0H3111-12:

At the client's request, the analysis for lead/copper was redone. Both batches met the quality control acceptance criteria of the laboratory, the original result was confirmed.

For A0H3111-13

As per client request, the analysis for lead/copper was redone. Although all batches met the quality control acceptance criteria of the laboratory, the original result could not be duplicated. The retest result was confirmed by a duplicate and the result of the retest appears on this report.

This report supersedes the report issued on 31-Aug-2010.

mailing

P.O.Box 432
Riverside, CA 92502-0432

location

6100 Quail Valley Court
Riverside, CA 92507-0704

P 951 653 3351

F 951 653 1662

www.babcocklabs.com

NELAP no. 02101CA

CA ELAP no. 2698

EPA no. CA00102



E.S.BABCOCK&Sons,Inc.

Environmental Laboratories *est. 1906*

AMENDED

Client Name: Riverside City - WQCP
Contact: Anicia Yambot
Address: 5950 Acorn St.
Riverside, CA 92504

Analytical Report: Page 4 of 29
Project Name: RWQCP-SARDA
Project Number: SARDA

Work Order Number: A0H3111

Report Date: 31-Aug-2010

Received on Ice (Y/N): No Temp: 21 °C

Laboratory Reference Number

A0H3111-01

Sample Description

Blank

Matrix

Liquid

Sampled Date/Time

08/30/10 00:00

Received Date/Time

08/31/10 10:30

Analyte(s)	Result	RDL	MDL	Units	Method	Analysis Date	Analyst	Flag
Cations								
Total Hardness	ND	3.0	0.35	mg/L	SM 3120B	08/31/10 11:28	lmt	
Calcium	ND	1.0	0.50	mg/L	EPA 200.7	08/31/10 11:28	lmt	
Magnesium	ND	1.0	0.50	mg/L	EPA 200.7	08/31/10 11:28	lmt	
Sodium	ND	1.0	0.50	mg/L	EPA 200.7	08/31/10 11:28	lmt	
Potassium	ND	1.0	0.50	mg/L	EPA 200.7	08/31/10 11:28	lmt	
Metals and Metalloids								
Cadmium	ND	5.0	0.73	ug/L	EPA 200.7	08/31/10 11:28	lmt	
Copper	ND	10	1.9	ug/L	EPA 200.8	08/31/10 11:52	krv	
Lead	0.11	10	0.084	ug/L	EPA 200.8	08/31/10 11:52	krv	J

mailing

P.O Box 482
Riverside, CA 92502-0432

location

6100 Quail Valley Court
Riverside, CA 92507-0704

P 951 653 3351

F 951 653 1662

www.babcocklabs.com

NELAP no. 02101CA

CA ELAP no. 2698

EPA no. CA00102



E.S.BABCOCK & Sons, Inc.
Environmental Laboratories *est. 1926*

AMENDED

Client Name: Riverside City - WQCP
Contact: Anicia Yambot
Address: 5950 Acorn St.
Riverside, CA 92504

Analytical Report: Page 5 of 29
Project Name: RWQCP-SARDA
Project Number: SARDA

Work Order Number: A0H3111

Report Date: 31-Aug-2010

Received on Ice (Y/N): No Temp: 21 °C

Laboratory Reference Number
A0H3111-02

Sample Description
Blank Spike

Matrix
Liquid

Sampled Date/Time
08/30/10 00:00

Received Date/Time
08/31/10 10:30

Analyte(s)	Result	RDL	MDL	Units	Method	Analysis Date	Analyst	Flag
Cations								
Total Hardness	110	3.0	0.35	mg/L	SM 3120B	08/31/10 11:30	lmt	
Calcium	26	1.0	0.50	mg/L	EPA 200.7	08/31/10 11:30	lmt	
Magnesium	10	1.0	0.50	mg/L	EPA 200.7	08/31/10 11:30	lmt	
Sodium	25	1.0	0.50	mg/L	EPA 200.7	08/31/10 11:30	lmt	
Potassium	10	1.0	0.50	mg/L	EPA 200.7	08/31/10 11:30	lmt	
Metals and Metalloids								
Cadmium	130	5.0	0.73	ug/L	EPA 200.7	08/31/10 11:30	lmt	
Copper	120	10	1.9	ug/L	EPA 200.8	08/31/10 11:54	krv	
Lead	480	10	0.084	ug/L	EPA 200.8	08/31/10 11:54	krv	

mailing
P.O. Box 432
Riverside, CA 92502-0432

location
6100 Quail Valley Court
Riverside, CA 92507-0704

P 951 653 3351
F 951 653 1662
www.babcocklabs.com

NELAP no. 02101CA
CA ELAP no. 2698
EPA no. CA00102



E.S.BABCOCK & Sons, Inc.
Environmental Laboratories est. 1906

AMENDED

Client Name: Riverside City - WQCP
Contact: Anicia Yambot
Address: 5950 Acorn St.
Riverside, CA 92504

Analytical Report: Page 6 of 29
Project Name: RWQCP-SARDA
Project Number: SARDA

Work Order Number: A0H3111

Report Date: 31-Aug-2010

Received on Ice (Y/N): No Temp: 21 °C

Laboratory Reference Number

A0H3111-03

<u>Sample Description</u>	<u>Matrix</u>	<u>Sampled Date/Time</u>	<u>Received Date/Time</u>
Up River 8/27/10 Matrix	Liquid	08/27/10 11:55	08/31/10 10:30

Analyte(s)	Result	RDL	MDL	Units	Method	Analysis Date	Analyst	Flag
Cations								
Total Hardness	370	3.0	0.35	mg/L	SM 3120B	08/31/10 11:31	lmt	
Calcium	110	1.0	0.50	mg/L	EPA 200.7	08/31/10 11:31	lmt	
Magnesium	23	1.0	0.50	mg/L	EPA 200.7	08/31/10 11:31	lmt	
Sodium	100	1.0	0.50	mg/L	EPA 200.7	08/31/10 11:31	lmt	
Potassium	9.1	1.0	0.50	mg/L	EPA 200.7	08/31/10 11:31	lmt	
Metals and Metalloids								
Cadmium	ND	5.0	0.73	ug/L	EPA 200.7	08/31/10 11:32	lmt	
Copper	4.3	10	1.9	ug/L	EPA 200.8	08/31/10 11:55	krv	J
Lead	0.46	10	0.084	ug/L	EPA 200.8	08/31/10 11:55	krv	J

mailing
P.O Box 432
Riverside, CA 92502-0432

location
6100 Quail Valley Court
Riverside, CA 92507-0704

P 951 653 3351
F 951 653 1662
www.babcocklabs.com

NELAP no. 02101CA
CA ELAP no. 2698
EPA no. CA00102



E.S.BABCOCK & Sons, Inc.

Environmental Laboratories est 1906

AMENDED

Client Name: Riverside City - WQCP
Contact: Anicia Yambot
Address: 5950 Acorn St.
Riverside, CA 92504

Analytical Report: Page 7 of 29
Project Name: RWQCP-SARDA
Project Number: SARDA

Work Order Number: A0H3111

Report Date: 31-Aug-2010

Received on Ice (Y/N): No Temp: 21 °C

Laboratory Reference Number

A0H3111-04

Sample Description
Up River 8/27 Spike A

Matrix
Liquid

Sampled Date/Time
08/27/10 11:55

Received Date/Time
08/31/10 10:30

Analyte(s)	Result	RDL	MDL	Units	Method	Analysis Date	Analyst	Flag
Cations								
Total Hardness	500	3.0	0.35	mg/L	SM 3120B	08/31/10 11:33	lmt	
Calcium	140	1.0	0.50	mg/L	EPA 200.7	08/31/10 11:33	lmt	
Magnesium	35	1.0	0.50	mg/L	EPA 200.7	08/31/10 11:33	lmt	
Sodium	130	1.0	0.50	mg/L	EPA 200.7	08/31/10 11:33	lmt	
Potassium	20	1.0	0.50	mg/L	EPA 200.7	08/31/10 11:33	lmt	
Metals and Metalloids								
Cadmium	130	5.0	0.73	ug/L	EPA 200.7	08/31/10 11:34	lmt	
Copper	120	10	1.9	ug/L	EPA 200.8	08/31/10 11:57	krv	
Lead	460	10	0.084	ug/L	EPA 200.8	08/31/10 11:57	krv	

mailing

P.O. Box 432
Riverside, CA 92502-0432

location

6100 Quail Valley Court
Riverside, CA 92507-0704

P 951 653 3351

F 951 653 1662

www.babcocklabs.com

NELAP no. 02101CA

CA ELAP no. 2698

EPA no. CA00102



E.S.BABCOCK&Sons,Inc.

Environmental Laboratories *est. 1966*

AMENDED

Client Name: Riverside City - WQCP
Contact: Anicia Yambot
Address: 5950 Acorn St.
Riverside, CA 92504

Analytical Report: Page 8 of 29
Project Name: RWQCP-SARDA
Project Number: SARDA

Work Order Number: A0H3111

Report Date: 31-Aug-2010

Received on Ice (Y/N): No Temp: 21 °C

Laboratory Reference Number

A0H3111-05

Sample Description
Up River 8/27 Spike B

Matrix
Liquid

Sampled Date/Time
08/27/10 11:55

Received Date/Time
08/31/10 10:30

Analyte(s)	Result	RDL	MDL	Units	Method	Analysis Date	Analyst	Flag
Cations								
Total Hardness	470	3.0	0.35	mg/L	SM 3120B	08/31/10 11:35	lmt	
Calcium	130	1.0	0.50	mg/L	EPA 200.7	08/31/10 11:35	lmt	
Magnesium	33	1.0	0.50	mg/L	EPA 200.7	08/31/10 11:35	lmt	
Sodium	130	1.0	0.50	mg/L	EPA 200.7	08/31/10 11:35	lmt	
Potassium	19	1.0	0.50	mg/L	EPA 200.7	08/31/10 11:35	lmt	
Metals and Metalloids								
Cadmium	130	5.0	0.73	ug/L	EPA 200.7	08/31/10 11:35	lmt	
Copper	120	10	1.9	ug/L	EPA 200.8	08/31/10 12:06	krv	
Lead	470	10	0.084	ug/L	EPA 200.8	08/31/10 12:06	krv	

mailing
P.O. Box 432
Riverside, CA 92502-0432

location
6100 Quail Valley Court
Riverside, CA 92507-0704

P 951 653 3351
F 951 653 1662
www.babcocklabs.com

NELAP no. 02101CA
CA ELAP no. 2698
EPA no. CA00102



E.S.BABCOCK & Sons, Inc.

Environmental Laboratories est 1906

AMENDED

Client Name: Riverside City - WQCP
Contact: Anicia Yambot
Address: 5950 Acorn St.
Riverside, CA 92504

Analytical Report: Page 9 of 29
Project Name: RWQCP-SARDA
Project Number: SARDA

Work Order Number: A0H3111

Report Date: 31-Aug-2010

Received on Ice (Y/N): No Temp: 21 °C

Laboratory Reference Number

A0H3111-06

Sample Description
d-Up River 8/27 A

Matrix
Liquid

Sampled Date/Time
08/27/10 11:55

Received Date/Time
08/31/10 10:30

Analyte(s)	Result	RDL	MDL	Units	Method	Analysis Date	Analyst	Flag
Cations								
Total Hardness	360	3.0	0.35	mg/L	SM 3120B	08/31/10 11:36	lmt	
Calcium	110	1.0	0.50	mg/L	EPA 200.7	08/31/10 11:36	lmt	
Magnesium	23	1.0	0.50	mg/L	EPA 200.7	08/31/10 11:36	lmt	
Sodium	100	1.0	0.50	mg/L	EPA 200.7	08/31/10 11:36	lmt	
Potassium	9.0	1.0	0.50	mg/L	EPA 200.7	08/31/10 11:36	lmt	
Metals and Metalloids								
Cadmium	ND	5.0	0.73	ug/L	EPA 200.7	08/31/10 11:37	lmt	
Copper	4.0	10	1.9	ug/L	EPA 200.8	08/31/10 12:08	krv	J
Lead	0.19	10	0.084	ug/L	EPA 200.8	08/31/10 12:08	krv	J

mailing

P.O. Box 432
Riverside, CA 92502-0432

location

6100 Quail Valley Court
Riverside, CA 92507-0704

P 951 653 3351

F 951 653 1662

www.babcocklabs.com

NELAP no. 02101CA

CA ELAP no. 2698

EPA no. CA00102



E.S.BABCOCK & Sons, Inc.

Environmental Laboratories est. 1926

AMENDED

Client Name: Riverside City - WQCP
Contact: Anicia Yambot
Address: 5950 Acorn St.
Riverside, CA 92504

Analytical Report: Page 10 of 29
Project Name: RWQCP-SARDA
Project Number: SARDA

Work Order Number: A0H3111

Report Date: 31-Aug-2010

Received on Ice (Y/N): No Temp: 21 °C

Laboratory Reference Number

A0H3111-07

Sample Description
d-Up River 8/27 B

Matrix
Liquid

Sampled Date/Time
08/27/10 11:55

Received Date/Time
08/31/10 10:30

Analyte(s)	Result	RDL	MDL	Units	Method	Analysis Date	Analyst	Flag
Cations								
Total Hardness	370	3.0	0.35	mg/L	SM 3120B	08/31/10 11:38	lmt	
Calcium	110	1.0	0.50	mg/L	EPA 200.7	08/31/10 11:38	lmt	
Magnesium	23	1.0	0.50	mg/L	EPA 200.7	08/31/10 11:38	lmt	
Sodium	100	1.0	0.50	mg/L	EPA 200.7	08/31/10 11:38	lmt	
Potassium	9.1	1.0	0.50	mg/L	EPA 200.7	08/31/10 11:38	lmt	
Metals and Metalloids								
Cadmium	0.94	5.0	0.73	ug/L	EPA 200.7	08/31/10 11:39	lmt	J
Copper	3.8	10	1.9	ug/L	EPA 200.8	08/31/10 12:10	krv	J
Lead	ND	10	0.084	ug/L	EPA 200.8	08/31/10 12:10	krv	

mailing
P.O. Box 432
Riverside, CA 92502-0432

location
6100 Quail Valley Court
Riverside, CA 92507-0704

P 951 653-3351
F 951 653-1662
www.babcocklabs.com

NELAP no. 02101CA
CA ELAP no. 2698
EPA no. CA00102



E.S.BABCOCK & Sons, Inc.

Environmental Laboratories est. 1906

AMENDED

Client Name: Riverside City - WQCP

Contact: Anicia Yambot

Address: 5950 Acorn St.

Riverside, CA 92504

Analytical Report: Page 11 of 29

Project Name: RWQCP-SARDA

Project Number: SARDA

Work Order Number: A0H3111

Report Date: 31-Aug-2010

Received on Ice (Y/N): No

Temp: 21 °C

Laboratory Reference Number

A0H3111-08

Sample Description

Down River 8/27

Matrix

Liquid

Sampled Date/Time

08/27/10 12:17

Received Date/Time

08/31/10 10:30

Analyte(s)	Result	RDL	MDL	Units	Method	Analysis Date	Analyst	Flag
Cations								
Total Hardness	230	3.0	0.35	mg/L	SM 3120B	08/31/10 11:40	lmt	
Calcium	70	1.0	0.50	mg/L	EPA 200.7	08/31/10 11:40	lmt	
Magnesium	14	1.0	0.50	mg/L	EPA 200.7	08/31/10 11:40	lmt	
Sodium	110	1.0	0.50	mg/L	EPA 200.7	08/31/10 11:40	lmt	
Potassium	18	1.0	0.50	mg/L	EPA 200.7	08/31/10 11:40	lmt	
Metals and Metalloids								
Cadmium	ND	5.0	0.73	ug/L	EPA 200.7	08/31/10 11:40	lmt	
Copper	4.0	10	1.9	ug/L	EPA 200.8	08/31/10 12:11	krv	J
Lead	0.18	10	0.084	ug/L	EPA 200.8	08/31/10 12:11	krv	J

mailing

P.O. Box 432
Riverside, CA 92502-0432

location

6100 Quail Valley Court
Riverside, CA 92507-0704

P 951 653 3351

F 951 653 1662

www.babcocklabs.com

NELAP no. 02101CA

CA ELAP no. 2698

EPA no. CA00102



E.S.BABCOCK&Sons,Inc.

Environmental Laboratories est 1900

AMENDED

Client Name: Riverside City - WQCP
Contact: Anicia Yambot
Address: 5950 Acorn St.
Riverside, CA 92504

Analytical Report: Page 12 of 29
Project Name: RWQCP-SARDA
Project Number: SARDA

Work Order Number: A0H3111

Report Date: 31-Aug-2010

Received on Ice (Y/N): No Temp: 21 °C

Laboratory Reference Number

A0H3111-09

Sample Description	Matrix	Sampled Date/Time	Received Date/Time
d-Down River 8/27	Liquid	08/27/10 12:17	08/31/10 10:30

Analyte(s)	Result	RDL	MDL	Units	Method	Analysis Date	Analyst	Flag
Cations								
Total Hardness	230	3.0	0.35	mg/L	SM 3120B	08/31/10 11:41	lmt	
Calcium	70	1.0	0.50	mg/L	EPA 200.7	08/31/10 11:41	lmt	
Magnesium	14	1.0	0.50	mg/L	EPA 200.7	08/31/10 11:41	lmt	
Sodium	110	1.0	0.50	mg/L	EPA 200.7	08/31/10 11:41	lmt	
Potassium	18	1.0	0.50	mg/L	EPA 200.7	08/31/10 11:41	lmt	
Metals and Metalloids								
Cadmium	ND	5.0	0.73	ug/L	EPA 200.7	08/31/10 11:42	lmt	
Copper	4.0	10	1.9	ug/L	EPA 200.8	08/31/10 12:13	krv	J
Lead	0.10	10	0.084	ug/L	EPA 200.8	08/31/10 12:13	krv	J

mailing
P.O Box 432
Riverside, CA 92502-0432

location
6100 Quail Valley Court
Riverside, CA 92507-0704

P 951 653 3351
F 951 653 1662
www.babcocklabs.com

NELAP no. 02101CA
CA ELAP no. 2698
EPA no. CA00102



E.S.BABCOCK & Sons, Inc.

Environmental Laboratories est. 1906

AMENDED

Client Name: Riverside City - WQCP
Contact: Anicia Yambot
Address: 5950 Acorn St.
Riverside, CA 92504

Analytical Report: Page 13 of 29
Project Name: RWQCP-SARDA
Project Number: SARDA

Work Order Number: A0H3111

Report Date: 31-Aug-2010

Received on Ice (Y/N): No Temp: 21 °C

Laboratory Reference Number

A0H3111-10

Sample Description

Up River 8/28

Matrix

Liquid

Sampled Date/Time

08/28/10 08:54

Received Date/Time

08/31/10 10:30

Analyte(s)	Result	RDL	MDL	Units	Method	Analysis Date	Analyst	Flag
Cations								
Total Hardness	360	3.0	0.35	mg/L	SM 3120B	08/31/10 11:43	lmt	
Calcium	110	1.0	0.50	mg/L	EPA 200.7	08/31/10 11:43	lmt	
Magnesium	23	1.0	0.50	mg/L	EPA 200.7	08/31/10 11:43	lmt	
Sodium	100	1.0	0.50	mg/L	EPA 200.7	08/31/10 11:43	lmt	
Potassium	9.3	1.0	0.50	mg/L	EPA 200.7	08/31/10 11:43	lmt	
Metals and Metalloids								
Cadmium	ND	5.0	0.73	ug/L	EPA 200.7	08/31/10 11:44	lmt	
Copper	4.5	10	1.9	ug/L	EPA 200.8	08/31/10 12:15	krv	J
Lead	0.31	10	0.084	ug/L	EPA 200.8	08/31/10 12:15	krv	J

mailing

P.O. Box 432
Riverside, CA 92502-0432

location

6100 Quail Valley Court
Riverside, CA 92507-0704

P 951 653 3351

F 951 653 1662

www.babcocklabs.com

NELAP no. 02101CA

CA ELAP no. 2698

EPA no. CA00102



E.S.BABCOCK&Sons,Inc.

Environmental Laboratories est 1970

AMENDED

Client Name: Riverside City - WQCP
Contact: Anicia Yambot
Address: 5950 Acorn St.
Riverside, CA 92504

Analytical Report: Page 14 of 29
Project Name: RWQCP-SARDA
Project Number: SARDA

Work Order Number: A0H3111

Report Date: 31-Aug-2010

Received on Ice (Y/N): No Temp: 21 °C

Laboratory Reference Number

A0H3111-11

Sample Description	Matrix	Sampled Date/Time	Received Date/Time
d-Up River 8/28	Liquid	08/28/10 08:54	08/31/10 10:30

Analyte(s)	Result	RDL	MDL	Units	Method	Analysis Date	Analyst	Flag
Cations								
Total Hardness	360	3.0	0.35	mg/L	SM 3120B	08/31/10 11:49	lmt	
Calcium	110	1.0	0.50	mg/L	EPA 200.7	08/31/10 11:49	lmt	
Magnesium	23	1.0	0.50	mg/L	EPA 200.7	08/31/10 11:49	lmt	
Sodium	100	1.0	0.50	mg/L	EPA 200.7	08/31/10 11:49	lmt	
Potassium	9.3	1.0	0.50	mg/L	EPA 200.7	08/31/10 11:49	lmt	
Metals and Metalloids								
Cadmium	ND	5.0	0.73	ug/L	EPA 200.7	08/31/10 11:49	lmt	
Copper	4.0	10	1.9	ug/L	EPA 200.8	08/31/10 12:17	krv	J
Lead	ND	10	0.084	ug/L	EPA 200.8	08/31/10 12:17	krv	

mailing

P.O Box 432
Riverside, CA 92502-0432

location

6100 Quail Valley Court
Riverside, CA 92507-0704

P 951 653 3351

F 951 653 1662

www.babcocklabs.com

NELAP no. 02101CA

CA ELAP no. 2698

EPA no. CA00102



E.S.BABCOCK & Sons, Inc.
Environmental Laboratories *est. 1906*

AMENDED

Client Name: Riverside City - WQCP
Contact: Anicia Yambot
Address: 5950 Acorn St.
Riverside, CA 92504

Analytical Report: Page 15 of 29
Project Name: RWQCP-SARDA
Project Number: SARDA

Work Order Number: A0H3111

Report Date: 31-Aug-2010

Received on Ice (Y/N): No Temp: 21 °C

Laboratory Reference Number
A0H3111-12

Sample Description
Down River 8/28

Matrix
Liquid

Sampled Date/Time
08/28/10 09:27

Received Date/Time
08/31/10 10:30

Analyte(s)	Result	RDL	MDL	Units	Method	Analysis Date	Analyst	Flag
Cations								
Total Hardness	240	3.0	0.35	mg/L	SM 3120B	08/31/10 11:50	lmt	
Calcium	71	1.0	0.50	mg/L	EPA 200.7	08/31/10 11:50	lmt	
Magnesium	15	1.0	0.50	mg/L	EPA 200.7	08/31/10 11:50	lmt	
Sodium	110	1.0	0.50	mg/L	EPA 200.7	08/31/10 11:50	lmt	
Potassium	17	1.0	0.50	mg/L	EPA 200.7	08/31/10 11:50	lmt	
Metals and Metalloids								
Cadmium	ND	5.0	0.73	ug/L	EPA 200.7	08/31/10 11:51	lmt	
Copper	4.4	10	1.9	ug/L	EPA 200.8	08/31/10 12:18	krv	J
Lead	0.18	10	0.084	ug/L	EPA 200.8	08/31/10 12:18	krv	J

mailing
P.O. Box 432
Riverside, CA 92502-0432

location
6100 Quail Valley Court
Riverside, CA 92507-0704

P 951 653 3351
F 951 653 1662
www.babcocklabs.com

NELAP no. 02101CA
CA ELAP no. 2698
EPA no. CA00102



E.S.BABCOCK&Sons, Inc.

Environmental Laboratories est. 1970

AMENDED

Client Name: Riverside City - WQCP
Contact: Anicia Yambot
Address: 5950 Acorn St.
Riverside, CA 92504

Analytical Report: Page 16 of 29
Project Name: RWQCP-SARDA
Project Number: SARDA

Work Order Number: A0H3111

Report Date: 31-Aug-2010

Received on Ice (Y/N): No Temp: 21 °C

Laboratory Reference Number

A0H3111-13

Sample Description
d-Down River 8/28

Matrix
Liquid

Sampled Date/Time
08/28/10 09:27

Received Date/Time
08/31/10 10:30

Analyte(s)	Result	RDL	MDL	Units	Method	Analysis Date	Analyst	Flag
Cations								
Total Hardness	240	3.0	0.35	mg/L	SM 3120B	08/31/10 11:52	lmt	
Calcium	72	1.0	0.50	mg/L	EPA 200.7	08/31/10 11:52	lmt	
Magnesium	15	1.0	0.50	mg/L	EPA 200.7	08/31/10 11:52	lmt	
Sodium	120	1.0	0.50	mg/L	EPA 200.7	08/31/10 11:52	lmt	
Potassium	18	1.0	0.50	mg/L	EPA 200.7	08/31/10 11:52	lmt	
Metals and Metalloids								
Cadmium	ND	5.0	0.73	ug/L	EPA 200.7	08/31/10 11:53	lmt	
Copper	4.3	10	1.9	ug/L	EPA 200.8	08/31/10 14:59	krv	J
Lead	0.087	10	0.084	ug/L	EPA 200.8	08/31/10 14:59	krv	J

mailing
P O Box 482
Riverside, CA 92502-0482

location
6100 Quail Valley Court
Riverside, CA 92507-0704

P 951 653 3351
F 951 653 1662
www.babcocklabs.com

NELAP no. 02101CA
CA ELAP no. 2698
EPA no. CA00102



E.S.BABCOCK&Sons,Inc.

Environmental Laboratories est. 1906

AMENDED

Client Name: Riverside City - WQCP
Contact: Anicia Yambot
Address: 5950 Acorn St.
Riverside, CA 92504

Analytical Report: Page 17 of 29
Project Name: RWQCP-SARDA
Project Number: SARDA

Work Order Number: A0H3111

Report Date: 31-Aug-2010

Received on Ice (Y/N): No Temp: 21 °C

Laboratory Reference Number

A0H3111-14

Sample Description
Up River 8/29

Matrix
Liquid

Sampled Date/Time
08/29/10 06:39

Received Date/Time
08/31/10 10:30

Analyte(s)	Result	RDL	MDL	Units	Method	Analysis Date	Analyst	Flag
Cations								
Total Hardness	360	3.0	0.35	mg/L	SM 3120B	08/31/10 11:54	lmt	
Calcium	110	1.0	0.50	mg/L	EPA 200.7	08/31/10 11:54	lmt	
Magnesium	22	1.0	0.50	mg/L	EPA 200.7	08/31/10 11:54	lmt	
Sodium	100	1.0	0.50	mg/L	EPA 200.7	08/31/10 11:54	lmt	
Potassium	9.7	1.0	0.50	mg/L	EPA 200.7	08/31/10 11:54	lmt	
Metals and Metalloids								
Cadmium	ND	5.0	0.73	ug/L	EPA 200.7	08/31/10 11:54	lmt	
Copper	4.2	10	1.9	ug/L	EPA 200.8	08/31/10 12:22	krv	J
Lead	0.24	10	0.084	ug/L	EPA 200.8	08/31/10 12:22	krv	J

mailing
P.O. Box 432
Riverside, CA 92502-0432

location
6100 Quail Valley Court
Riverside, CA 92507-0704

P 951 653 3351
F 951 653 1662
www.babcocklabs.com

NEIAP no. 02101CA
CA ELAP no. 2698
EPA no. CA00102



E.S.BABCOCK&Sons,Inc.

Environmental Laboratories *est 1906*

AMENDED

Client Name: Riverside City - WQCP
Contact: Anicia Yambot
Address: 5950 Acorn St.
Riverside, CA 92504

Analytical Report: Page 18 of 29
Project Name: RWQCP-SARDA
Project Number: SARDA

Work Order Number: A0H3111

Report Date: 31-Aug-2010

Received on Ice (Y/N): No Temp: 21 °C

Laboratory Reference Number

A0H3111-15

Sample Description

d-Up River 8/29

Matrix

Liquid

Sampled Date/Time

08/29/10 06:39

Received Date/Time

08/31/10 10:30

Analyte(s)	Result	RDL	MDL	Units	Method	Analysis Date	Analyst	Flag
Cations								
Total Hardness	360	3.0	0.35	mg/L	SM 3120B	08/31/10 11:55	lmt	
Calcium	110	1.0	0.50	mg/L	EPA 200.7	08/31/10 11:55	lmt	
Magnesium	22	1.0	0.50	mg/L	EPA 200.7	08/31/10 11:55	lmt	
Sodium	100	1.0	0.50	mg/L	EPA 200.7	08/31/10 11:55	lmt	
Potassium	9.7	1.0	0.50	mg/L	EPA 200.7	08/31/10 11:55	lmt	
Metals and Metalloids								
Cadmium	ND	5.0	0.73	ug/L	EPA 200.7	08/31/10 11:56	lmt	
Copper	3.9	10	1.9	ug/L	EPA 200.8	08/31/10 12:31	krv	J
Lead	ND	10	0.084	ug/L	EPA 200.8	08/31/10 12:31	krv	

mailing

P.O Box 432
Riverside, CA 92502-0432

location

6100 Quail Valley Court
Riverside, CA 92507-0704

P 951 653 3351

F 951 653 1662

www.babcocklabs.com

NELAP no. 02101CA

CA-ELAP no. 2698

EPA no. CA00102



E.S.BABCOCK&Sons,Inc.

Environmental Laboratories est. 1906

AMENDED

Client Name: Riverside City - WQCP
Contact: Anicia Yambot
Address: 5950 Acorn St.
Riverside, CA 92504

Analytical Report: Page 19 of 29
Project Name: RWQCP-SARDA
Project Number: SARDA

Work Order Number: A0H3111

Report Date: 31-Aug-2010

Received on Ice (Y/N): No Temp: 21 °C

Laboratory Reference Number

A0H3111-16

Sample Description
Down River 8/29

Matrix
Liquid

Sampled Date/Time
08/29/10 07:23

Received Date/Time
08/31/10 10:30

Analyte(s)	Result	RDL	MDL	Units	Method	Analysis Date	Analyst	Flag
Cations								
Total Hardness	240	3.0	0.35	mg/L	SM 3120B	08/31/10 11:57	lmt	
Calcium	72	1.0	0.50	mg/L	EPA 200.7	08/31/10 11:57	lmt	
Magnesium	15	1.0	0.50	mg/L	EPA 200.7	08/31/10 11:57	lmt	
Sodium	110	1.0	0.50	mg/L	EPA 200.7	08/31/10 11:57	lmt	
Potassium	16	1.0	0.50	mg/L	EPA 200.7	08/31/10 11:57	lmt	
Metals and Metalloids								
Cadmium	ND	5.0	0.73	ug/L	EPA 200.7	08/31/10 11:58	lmt	
Copper	4.6	10	1.9	ug/L	EPA 200.8	08/31/10 12:32	krv	J
Lead	0.23	10	0.084	ug/L	EPA 200.8	08/31/10 12:32	krv	J

mailing
P.O. Box 432
Riverside, CA 92502-0432

location
6100 Quail Valley Court
Riverside, CA 92507-0704

P 951 653 3351
F 951 653 1662
www.babcocklabs.com

NELAP no. 02101CA
CA ELAP no. 2698
EPA no. CA00102



E.S.BABCOCK&Sons,Inc.

Environmental Laboratories est. 1966

AMENDED

Client Name: Riverside City - WQCP
Contact: Anicia Yambot
Address: 5950 Acorn St.
Riverside, CA 92504

Analytical Report: Page 20 of 29
Project Name: RWQCP-SARDA
Project Number: SARDA

Work Order Number: A0H3111

Report Date: 31-Aug-2010

Received on Ice (Y/N): No Temp: 21 °C

Laboratory Reference Number

A0H3111-17

<u>Sample Description</u>	<u>Matrix</u>	<u>Sampled Date/Time</u>	<u>Received Date/Time</u>
d-Down River 8/29	Liquid	08/29/10 07:23	08/31/10 10:30

Analyte(s)	Result	RDL	MDL	Units	Method	Analysis Date	Analyst	Flag
Cations								
Total Hardness	240	3.0	0.35	mg/L	SM 3120B	08/31/10 11:59	lmt	
Calcium	72	1.0	0.50	mg/L	EPA 200.7	08/31/10 11:59	lmt	
Magnesium	15	1.0	0.50	mg/L	EPA 200.7	08/31/10 11:59	lmt	
Sodium	110	1.0	0.50	mg/L	EPA 200.7	08/31/10 11:59	lmt	
Potassium	16	1.0	0.50	mg/L	EPA 200.7	08/31/10 11:59	lmt	
Metals and Metalloids								
Cadmium	ND	5.0	0.73	ug/L	EPA 200.7	08/31/10 11:59	lmt	
Copper	4.5	10	1.9	ug/L	EPA 200.8	08/31/10 12:34	krv	J
Lead	0.11	10	0.084	ug/L	EPA 200.8	08/31/10 12:34	krv	J

mailing
P.O. Box 482
Riverside, CA 92502-0432

location
6100 Quail Valley Court
Riverside, CA 92507-0704

P 951 653 3351
F 951 653 1662
www.babcocklabs.com

NELAP no. 02101CA
CA ELAP no. 2698
EPA no. CA00102



E.S.BABCOCK&Sons,Inc.

Environmental Laboratories est. 1906

AMENDED

Client Name: Riverside City - WQCP
Contact: Anicia Yambot
Address: 5950 Acorn St.
Riverside, CA 92504

Analytical Report: Page 21 of 29
Project Name: RWQCP-SARDA
Project Number: SARDA

Work Order Number: A0H3111

Report Date: 31-Aug-2010

Received on Ice (Y/N): No Temp: 21 °C

Laboratory Reference Number

A0H3111-18

Sample Description
Up River 8/30

Matrix
Liquid

Sampled Date/Time
08/30/10 09:25

Received Date/Time
08/31/10 10:30

Analyte(s)	Result	RDL	MDL	Units	Method	Analysis Date	Analyst	Flag
Cations								
Total Hardness	350	3.0	0.35	mg/L	SM 3120B	08/31/10 12:00	lmt	
Calcium	100	1.0	0.50	mg/L	EPA 200.7	08/31/10 12:00	lmt	
Magnesium	21	1.0	0.50	mg/L	EPA 200.7	08/31/10 12:00	lmt	
Sodium	100	1.0	0.50	mg/L	EPA 200.7	08/31/10 12:00	lmt	
Potassium	10	1.0	0.50	mg/L	EPA 200.7	08/31/10 12:00	lmt	
Metals and Metalloids								
Cadmium	ND	5.0	0.73	ug/L	EPA 200.7	08/31/10 12:01	lmt	
Copper	4.9	10	1.9	ug/L	EPA 200.8	08/31/10 12:36	krv	J
Lead	0.40	10	0.084	ug/L	EPA 200.8	08/31/10 12:36	krv	J

mailing
P.O Box 432
Riverside, CA 92502-0432

location
6100 Quail Valley Court
Riverside, CA 92507-0704

P 951 653 3351
F 951 653 1662
www.babcocklabs.com

NELAP no. 02101CA
CA ELAP no. 2698
EPA no. CA00102



E.S.BABCOCK&Sons, Inc.

Environmental Laboratories est 1926

AMENDED

Client Name: Riverside City - WQCP
Contact: Anicia Yambot
Address: 5950 Acorn St.
Riverside, CA 92504

Analytical Report: Page 22 of 29
Project Name: RWQCP-SARDA
Project Number: SARDA

Work Order Number: A0H3111

Report Date: 31-Aug-2010

Received on Ice (Y/N): No Temp: 21 °C

Laboratory Reference Number

A0H3111-19

Sample Description

d-Up River 8/30

Matrix

Liquid

Sampled Date/Time

08/30/10 09:25

Received Date/Time

08/31/10 10:30

Analyte(s)	Result	RDL	MDL	Units	Method	Analysis Date	Analyst	Flag
Cations								
Total Hardness	340	3.0	0.35	mg/L	SM 3120B	08/31/10 12:02	lmt	
Calcium	100	1.0	0.50	mg/L	EPA 200.7	08/31/10 12:02	lmt	
Magnesium	21	1.0	0.50	mg/L	EPA 200.7	08/31/10 12:02	lmt	
Sodium	99	1.0	0.50	mg/L	EPA 200.7	08/31/10 12:02	lmt	
Potassium	9.8	1.0	0.50	mg/L	EPA 200.7	08/31/10 12:02	lmt	
Metals and Metalloids								
Cadmium	ND	5.0	0.73	ug/L	EPA 200.7	08/31/10 12:03	lmt	
Copper	4.3	10	1.9	ug/L	EPA 200.8	08/31/10 12:38	krv	J
Lead	ND	10	0.084	ug/L	EPA 200.8	08/31/10 12:38	krv	

mailing

P.O Box 432
Riverside, CA 92502-0432

location

6100 Quail Valley Court
Riverside, CA 92507-0704

P 951 653 3351

F 951 653 1662

www.babcocklabs.com

NELAP no. 02101CA

CA ELAP no. 2698

EPA no. CA00102



E.S. BABCOCK & Sons, Inc.
Environmental Laboratories *est. 1906*

AMENDED

Client Name: Riverside City - WQCP
Contact: Anicia Yambot
Address: 5950 Acorn St.
Riverside, CA 92504

Analytical Report: Page 23 of 29
Project Name: RWQCP-SARDA
Project Number: SARDA

Work Order Number: A0H3111

Report Date: 31-Aug-2010

Received on Ice (Y/N): No Temp: 21 °C

Laboratory Reference Number
A0H3111-20

<u>Sample Description</u>	<u>Matrix</u>	<u>Sampled Date/Time</u>	<u>Received Date/Time</u>
Down River 8/30	Liquid	08/30/10 09:54	08/31/10 10:30

Analyte(s)	Result	RDL	MDL	Units	Method	Analysis Date	Analyst	Flag
Cations								
Total Hardness	260	3.0	0.35	mg/L	SM 3120B	08/31/10 12:04	lmt	
Calcium	76	1.0	0.50	mg/L	EPA 200.7	08/31/10 12:03	lmt	
Magnesium	16	1.0	0.50	mg/L	EPA 200.7	08/31/10 12:04	lmt	
Sodium	110	1.0	0.50	mg/L	EPA 200.7	08/31/10 12:03	lmt	
Potassium	14	1.0	0.50	mg/L	EPA 200.7	08/31/10 12:03	lmt	
Metals and Metalloids								
Cadmium	ND	5.0	0.73	ug/L	EPA 200.7	08/31/10 12:04	lmt	
Copper	4.8	10	1.9	ug/L	EPA 200.8	08/31/10 12:39	krv	J
Lead	0.26	10	0.084	ug/L	EPA 200.8	08/31/10 12:39	krv	J

mailing
P.O. Box 432
Riverside, CA 92502-0432

location
6100 Quail Valley Court
Riverside, CA 92507-0704

P 951 653 3351
F 951 653 1662
www.babcocklabs.com

NELAP no. 02101CA
CA ELAP no. 2698
EPA no. CA00102



E.S.BABCOCK & Sons, Inc.

Environmental Laboratories est. 1900

AMENDED

Client Name: Riverside City - WQCP
Contact: Anicia Yambot
Address: 5950 Acorn St.
Riverside, CA 92504

Analytical Report: Page 24 of 29
Project Name: RWQCP-SARDA
Project Number: SARDA

Work Order Number: A0H3111

Report Date: 31-Aug-2010

Received on Ice (Y/N): No Temp: 21 °C

Laboratory Reference Number

A0H3111-21

Sample Description

d-Down River 8/30

Matrix

Liquid

Sampled Date/Time

08/30/10 09:54

Received Date/Time

08/31/10 10:30

Analyte(s)	Result	RDL	MDL	Units	Method	Analysis Date	Analyst	Flag
Cations								
Total Hardness	250	3.0	0.35	mg/L	SM 3120B	08/31/10 12:49	lmt	
Calcium	73	1.0	0.50	mg/L	EPA 200.7	08/31/10 12:49	lmt	
Magnesium	15	1.0	0.50	mg/L	EPA 200.7	08/31/10 12:49	lmt	
Sodium	110	1.0	0.50	mg/L	EPA 200.7	08/31/10 12:49	lmt	
Potassium	14	1.0	0.50	mg/L	EPA 200.7	08/31/10 12:49	lmt	
Metals and Metalloids								
Cadmium	ND	5.0	0.73	ug/L	EPA 200.7	08/31/10 12:50	lmt	
Copper	4.7	10	1.9	ug/L	EPA 200.8	08/31/10 12:55	krv	J
Lead	0.13	10	0.084	ug/L	EPA 200.8	08/31/10 12:55	krv	J

mailing

P.O. Box 432
Riverside, CA 92502-0432

location

6100 Quail Valley Court
Riverside, CA 92507-0704

P 951 653 3351
F 951 653 1662
www.babcocklabs.com

NELAP no. 02101CA
CA ELAP no. 2698
EPA no. CA00102



E.S.BABCOCK & Sons, Inc.

Environmental Laboratories est. 1906

AMENDED

Client Name: Riverside City - WQCP
Contact: Anicia Yambot
Address: 5950 Acorn St.
Riverside, CA 92504

Report Date: 31-Aug-2010

Analytical Report: Page 25 of 29
Project Name: RWQCP-SARDA
Project Number: SARDA

Work Order Number: A0H3111

Received on Ice (Y/N): No Temp: 21 °C

Metals and Metalloids - Batch Quality Control

Analyte(s)	Result	RDL	MDL	Units	Spike Level	Source Result	%REC %REC	Limits	RPD RPD	Limit	Flag
Batch 0H31025 - Analyzed as received											
Blank (0H31025-BLK1)					Prepared & Analyzed: 08/31/10						
Copper	ND	10	1.9	ug/L							
Lead	ND	10	0.084	ug/L							
LCS (0H31025-BS1)					Prepared & Analyzed: 08/31/10						
Copper	62.2	10	1.9	ug/L	62.5		99.6	85-115			
Lead	62.1	10	0.084	ug/L	62.5		99.3	85-115			
LCS Dup (0H31025-BSD1)					Prepared & Analyzed: 08/31/10						
Copper	63.5	10	1.9	ug/L	62.5		102	85-115	2.05	20	
Lead	63.2	10	0.084	ug/L	62.5		101	85-115	1.84	20	
Matrix Spike (0H31025-MS1)					Source: A0H3111-10 Prepared & Analyzed: 08/31/10						
Copper	64.8	10	1.9	ug/L	62.5	4.46	96.5	70-130			
Lead	61.0	10	0.084	ug/L	62.5	0.308	97.1	70-130			
Matrix Spike (0H31025-MS2)					Source: A0H3111-20 Prepared & Analyzed: 08/31/10						
Copper	63.9	10	1.9	ug/L	62.5	4.75	94.6	70-130			
Lead	60.2	10	0.084	ug/L	62.5	0.264	95.9	70-130			
Batch 0H31028 - Analyzed as received											
Blank (0H31028-BLK1)					Prepared & Analyzed: 08/31/10						
Copper	ND	10	1.9	ug/L							
Lead	ND	10	0.084	ug/L							
LCS (0H31028-BS1)					Prepared & Analyzed: 08/31/10						
Copper	62.8	10	1.9	ug/L	62.5		101	85-115			
Lead	59.8	10	0.084	ug/L	62.5		95.7	85-115			

mailing
P.O. Box 432
Riverside, CA 92502-0432

location
6100 Quail Valley Court
Riverside, CA 92507-0704

P 951.653.3351
F 951.653.1662
www.babcocklabs.com

NELAP no. 02101CA
CA ELAP no. 2698
EPA no. CA00102



E.S.BABCOCK&Sons,Inc.

Environmental Laboratories *est. 1976*

AMENDED

Client Name: Riverside City - WQCP
Contact: Anicia Yambot
Address: 5950 Acorn St.
Riverside, CA 92504

Analytical Report: Page 26 of 29
Project Name: RWQCP-SARDA
Project Number: SARDA

Work Order Number: A0H3111

Report Date: 31-Aug-2010

Received on Ice (Y/N): No Temp: 21 °C

Metals and Metalloids - Batch Quality Control

Analyte(s)	Result	RDL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
Batch 0H31028 - Analyzed as received											
LCS Dup (0H31028-BSD1)					Prepared & Analyzed: 08/31/10						
Copper	64.3	10	1.9	ug/L	62.5		103	85-115	2.23	20	
Lead	61.3	10	0.084	ug/L	62.5		98.1	85-115	2.44	20	
Matrix Spike (0H31028-MS1)					Source: A0H3111-21 Prepared & Analyzed: 08/31/10						
Copper	65.4	10	1.9	ug/L	62.5	4.70	97.1	70-130			
Lead	58.7	10	0.084	ug/L	62.5	0.126	93.7	70-130			

mailing
P.O. Box 432
Riverside, CA 92502-0432

location
6100 Quail Valley Court
Riverside, CA 92507-0704

P 951 653 3351
F 951 653 1662
www.babcocklabs.com

NELAP no. 02101CA
CA ELAP no. 2698
EPA no. CA00102



E.S.BABCOCK & Sons, Inc.

Environmental Laboratories est. 1906

AMENDED

Client Name: Riverside City - WQCP
Contact: Anicia Yambot
Address: 5950 Acorn St.
Riverside, CA 92504

Analytical Report: Page 27 of 29
Project Name: RWQCP-SARDA
Project Number: SARDA

Work Order Number: A0H3111

Report Date: 31-Aug-2010

Received on Ice (Y/N): No Temp: 21 °C

Notes and Definitions

J Estimated value

ND: Analyte NOT DETECTED at or above the Method Detection Limit (if MDL is reported), otherwise at or above the Reportable Detection Limit (RDL)

NR: Not Reported

RDL: Reportable Detection Limit

MDL: Method Detection Limit

* / (Non-NELAP): NELAP does not offer accreditation for this analyte/method/matrix combination

Approval

Enclosed are the analytical results for the submitted sample(s). Babcock Laboratories certify the data presented as part of this report meet the minimum quality standards in the referenced analytical methods. Any exceptions have been noted. Babcock Laboratories and its officers and employees assume no responsibility and make no warranty, express or implied, for uses or interpretations made by any recipients, intended or unintended, of this report.

Justin C. Troup For Hsin-Yi Lee

Project Manager

cc:

ESB mdl 5.5 Signature Rep

mailing
P.O. Box 432
Riverside, CA 92502-0432

location
6100 Quail Valley Court
Riverside, CA 92507-0704

P 951 653 3351
F 951 653 1662
www.babcocklabs.com

NELAP no. 02101CA
CA ELAP no. 2698
EPA no. CA00102

E.S.BABCOCK & Sons, Inc.

Environmental Laboratories est 1990

AMENDED

Client Name: Riverside City - WQCP
Contact: Anicia Yambot
Address: 5950 Acorn St.
Riverside, CA 92504

Analytical Report: Page 28 of 29
Project Name: RWQCP-SARDA
Project Number: SARDA

Work Order Number: A0H3111

Report Date: 31-Aug-2010

Received on Ice (Y/N): No Temp: 21 °C

Chain of Custody & Sample Information Record

E.S. Babcock & Sons, Inc. Environmental Laboratories
(951) 653-3351 FAX (951) 653-1662
www.babcocklabs.com

[illegible]

For Use Only	Sample Integrity Upon Receipt	Lab Notes
(1) Sample(s) Submitted on Ice ☒ Yes ☐ No (2) Custody Seal(s) intact ☒ Yes ☐ No (3) Sample(s) intact ☒ Yes ☐ No	Temperature <u>71</u> °C ☐ Cool Box	

Lab No. A04311 AB Page 1 of 2 AB

mailing
P.O. Box 432
Riverside, CA 92502-0432

location
6100 Quail Valley Court
Riverside, CA 92507-0704

P 951 653 3351
F 951 653 1662
www.babcocklabs.com

NELAP no. 02101CA
CA ELAP no. 2698
EPA no. CA00102



E.S.BABCOCK & Sons, Inc.

Environmental Laboratories est. 1906

AMENDED

Client Name: Riverside City - WQCP
Contact: Anicia Yambot
Address: 5950 Acorn St.
Riverside, CA 92504

Analytical Report: Page 29 of 29
Project Name: RWQCP-SARDA
Project Number: SARDA

Work Order Number: A0H3111

Report Date: 31-Aug-2010

Received on Ice (Y/N): No Temp: 21 °C

Chain of Custody & Sample Information Record

E.S. Babcock & Sons, Inc. Environmental Laboratories
(951) 653-3351 FAX (951) 653-1662
www.babcocklabs.com

Client: Riverside City-WQCP		Contact: Anicia Yambot		Phone No. (951) 351-4016	
FAX No.		Email: AYambot@riversideca.gov		Additional Reporting Requests Valid OC Data Package ☐ Yes ☐ No FAX Results ☐ Yes ☐ No Email Results ☐ Yes ☐ No Sales EOI ☐ Yes ☐ No (Include Source Number in Notes)	
Project Name: RWQCP-SARDA		Turn Around Time: Routine 3-5 Day Rush 24 Hour		Rush ☐ Rush ☐ Rush ☐	
Project Location:		Lab TAT Approved by:		Signature of Client Representative:	
Sampler Information		# of Containers & Preservatives		Sample Type	
Name:		Total # of Containers		Analysis Requested	
Employer:		Matrix		Notes	
Signature:		Matrix		Notes	
Sample ID		Date		Time	
DOWN RIVER 8/28		8/28/10		0927	
d-DOWN RIVER 8/28		8/28/10		0927	
UP RIVER 8/29		8/29/10		0639	
d-UP RIVER 8/29		8/29/10		0639	
DOWN RIVER 8/29		8/29/10		0723	
d-DOWN RIVER 8/29		8/29/10		0723	
UP RIVER 8/30		8/30/10		0925	
d-UP RIVER 8/30		8/30/10		0925	
DOWN RIVER 8/30		8/30/10		0954	
d-DOWN RIVER 8/30		8/30/10		0954	
Unreserved		Date / Time		Received By (Sign)	
Print Name / Company		Date / Time		Received By (Sign)	
Print Name / Company		Date / Time		Received By (Sign)	

For Lab Use Only: Chain of Custody Receipt	
Sample Submitted on Ice	Yes ☐ No ☐
Chain of Custody Receipt	Yes ☐ No ☐
Signature of Client Representative	Signature of Lab Representative
Signature of Client Representative	Signature of Lab Representative

Lab No. A0H3111
Page 2 of 2
AUG 31 2010

mailing
P.O. Box 432
Riverside, CA 92502-0432

location
6100 Quail Valley Court
Riverside, CA 92507-0704

P 951 653 3351
F 951 653 1662
www.babcocklabs.com

NELAP no. 02101CA
CA ELAP no. 2698
EPA no. CA00102