



A3C0011

03/14/2013

Invoice
A306154

Calvin Yang
Central Valley RWQCB
11020 Sun Center Drive, Suite 200
Rancho Cordova, CA 95670

Dear Calvin Yang,

Thank you for selecting BSK Associates for your analytical testing needs. We have prepared this report in response to your request for analytical services. Enclosed are the results of analyses for samples received by the laboratory on 03/01/2013 09:30.

If additional clarification of any information is required, please contact your Client Services Representative, Stephane Maupas at (800) 877-8310 or (559) 497-2888.

BSK ASSOCIATES

Stephane Maupas
Project Manager

Case Narrative

Work Order Information

Client Name: Central Valley RWQCB	Submitted by: Calvin Yang
Client Code: centr4730	Shipped by: ONTRAC
Work Order: A3C0011	COC Number:
Project: Evaluation WQ in Ag Dominated Water Bodies	TAT: 10
	PO #: 11-123-555

Sample Receipt Conditions

Cooler:	Cooler #2	Temp. °C:	0.2
Containers Intact			
COC/Labels Agree			
Received On Wet Ice			
Packing Material - Bubble Wrap			
Packing Material - Foam			
Sample(s) were received in temperature range.			
Initial receipt at BSK-SAC			

Cooler:	Default Cooler	Temp. °C:	0.3
Containers Intact			
COC/Labels Agree			
Received On Wet Ice			
Packing Material - Bubble Wrap			
Packing Material - Foam			
Sample(s) were received in temperature range.			
Initial receipt at BSK-SAC			

Report Manager

Calvin Yang

Report Format

Final.rpt



Certificate of Analysis

Calvin Yang
 Central Valley RWQCB
 11020 Sun Center Drive, Suite 200
 Rancho Cordova, CA 95670

Report Issue Date: 03/14/2013 18:46
Received Date: 03/01/2013
Received Time: 09:30

Lab Sample ID: A3C0011-01
Sample Date: 02/28/2013 07:30
Sample Type: Grab

Sampled by: Calvin Yang
Matrix: Surface Water

Sample Description: CCY130228-10

General Chemistry

Analyte	Method	Result	MDL	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Chloride	EPA 300.0	57	0.89	2.0	mg/L	2	A302238	03/01/13	03/01/13	B2.4
Nitrate as N	EPA 300.0	0.53	0.18	0.44	mg/L	2	A302238	03/01/13 14:43	03/01/13 14:43	B2.3
Sulfate as SO4	EPA 300.0	160	0.76	4.0	mg/L	2	A302238	03/01/13	03/01/13	B2.4
Total Dissolved Solids	SM 2540C	640		5.0	mg/L	1	A302330	03/05/13	03/07/13	

Metals

Analyte	Method	Result	MDL	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
*Boron	EPA 200.8	340	4.5	10	ug/L	1	A302283	03/04/13	03/13/13	
Calcium	EPA 200.7	53	0.046	0.10	mg/L	1	A302283	03/04/13	03/07/13	
Hardness as CaCO3	SM 2340B	300		0.41	mg/L					
Magnesium	EPA 200.7	42	0.046	0.10	mg/L	1	A302283	03/04/13	03/07/13	
Sodium	EPA 200.7	140	0.45	1.0	mg/L	1	A302283	03/04/13	03/07/13	



Certificate of Analysis

Calvin Yang
 Central Valley RWQCB
 11020 Sun Center Drive, Suite 200
 Rancho Cordova, CA 95670

Report Issue Date: 03/14/2013 18:46
Received Date: 03/01/2013
Received Time: 09:30

Lab Sample ID: A3C0011-02
Sample Date: 02/28/2013 08:50
Sample Type: Grab

Sampled by: Calvin Yang
Matrix: Surface Water

Sample Description: CCY130228-11

General Chemistry

Analyte	Method	Result	MDL	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Chloride	EPA 300.0	66	2.2	5.0	mg/L	5	A302238	03/01/13	03/01/13	B2.4
Nitrate as N	EPA 300.0	0.73	0.45	1.1	mg/L	5	A302238	03/01/13 14:53	03/01/13 14:53	B2.2, DL01, J
Sulfate as SO4	EPA 300.0	630	3.8	20	mg/L	10	A302291	03/04/13	03/04/13	B2.4
Total Dissolved Solids	SM 2540C	1400		5.0	mg/L	1	A302330	03/05/13	03/07/13	

Metals

Analyte	Method	Result	MDL	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
*Boron	EPA 200.8	500	4.5	10	ug/L	1	A302283	03/04/13	03/13/13	
Calcium	EPA 200.7	100	0.046	0.10	mg/L	1	A302283	03/04/13	03/07/13	
Hardness as CaCO3	SM 2340B	570		0.41	mg/L					
Magnesium	EPA 200.7	78	0.046	0.10	mg/L	1	A302283	03/04/13	03/07/13	
Sodium	EPA 200.7	280	0.45	1.0	mg/L	1	A302283	03/04/13	03/07/13	



Certificate of Analysis

Calvin Yang
 Central Valley RWQCB
 11020 Sun Center Drive, Suite 200
 Rancho Cordova, CA 95670

Report Issue Date: 03/14/2013 18:46
Received Date: 03/01/2013
Received Time: 09:30

Lab Sample ID: A3C0011-03
Sample Date: 02/28/2013 09:06
Sample Type: Grab

Sampled by: Calvin Yang
Matrix: Waste Water

Sample Description: CCY130228-12

General Chemistry

Analyte	Method	Result	MDL	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Chloride	EPA 300.0	81	0.89	2.0	mg/L	2	A302238	03/01/13	03/01/13	B2.4
Nitrate as N	EPA 300.0	25	0.18	0.44	mg/L	2	A302238	03/01/13 15:03	03/01/13 15:03	B2.4
Sulfate as SO4	EPA 300.0	44	0.76	4.0	mg/L	2	A302238	03/01/13	03/01/13	B2.4
Total Dissolved Solids	SM 2540C	580		5.0	mg/L	1	A302330	03/05/13	03/07/13	

Metals

Analyte	Method	Result	MDL	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
*Boron	EPA 200.8	430	4.5	10	ug/L	1	A302283	03/04/13	03/13/13	
Calcium	EPA 200.7	19	0.046	0.10	mg/L	1	A302283	03/04/13	03/07/13	
Hardness as CaCO3	SM 2340B	97		0.41	mg/L					
Magnesium	EPA 200.7	12	0.046	0.10	mg/L	1	A302283	03/04/13	03/07/13	
Sodium	EPA 200.7	160	0.45	1.0	mg/L	1	A302283	03/04/13	03/07/13	



Certificate of Analysis

Calvin Yang
 Central Valley RWQCB
 11020 Sun Center Drive, Suite 200
 Rancho Cordova, CA 95670

Report Issue Date: 03/14/2013 18:46
Received Date: 03/01/2013
Received Time: 09:30

Lab Sample ID: A3C0011-04
Sample Date: 02/28/2013 09:21
Sample Type: Grab

Sampled by: Calvin Yang
Matrix: Surface Water

Sample Description: CCY130228-13

General Chemistry

Analyte	Method	Result	MDL	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Chloride	EPA 300.0	130	4.5	10	mg/L	10	A302238	03/01/13	03/01/13	B2.4
Nitrate as N	EPA 300.0	1.2	0.90	2.2	mg/L	10	A302238	03/01/13 15:13	03/01/13 15:13	B2.2, DL01, J
Sulfate as SO4	EPA 300.0	1200	7.6	40	mg/L	20	A302291	03/04/13	03/04/13	B2.4
Total Dissolved Solids	SM 2540C	2400		5.0	mg/L	1	A302330	03/05/13	03/07/13	

Metals

Analyte	Method	Result	MDL	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
*Boron	EPA 200.8	1500	4.5	10	ug/L	1	A302283	03/04/13	03/13/13	
Calcium	EPA 200.7	150	0.046	0.10	mg/L	1	A302283	03/04/13	03/07/13	
Hardness as CaCO3	SM 2340B	740		0.41	mg/L					
Magnesium	EPA 200.7	91	0.046	0.10	mg/L	1	A302283	03/04/13	03/07/13	
Sodium	EPA 200.7	620	0.45	1.0	mg/L	1	A302283	03/04/13	03/07/13	



Certificate of Analysis

Calvin Yang
 Central Valley RWQCB
 11020 Sun Center Drive, Suite 200
 Rancho Cordova, CA 95670

Report Issue Date: 03/14/2013 18:46
Received Date: 03/01/2013
Received Time: 09:30

Lab Sample ID: A3C0011-05
Sample Date: 02/28/2013 09:28
Sample Type: Grab

Sampled by: Calvin Yang
Matrix: Surface Water

Sample Description: CCY130228-14

General Chemistry

Analyte	Method	Result	MDL	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Chloride	EPA 300.0	65	2.2	5.0	mg/L	5	A302238	03/01/13	03/01/13	B2.4
Nitrate as N	EPA 300.0	ND	0.45	1.1	mg/L	5	A302238	03/01/13 15:23	03/01/13 15:23	B2.1, DL01
Sulfate as SO4	EPA 300.0	390	1.9	10	mg/L	5	A302238	03/01/13	03/01/13	B2.4
Total Dissolved Solids	SM 2540C	1100		5.0	mg/L	1	A302330	03/05/13	03/07/13	

Metals

Analyte	Method	Result	MDL	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
*Boron	EPA 200.8	630	4.5	10	ug/L	1	A302283	03/04/13	03/13/13	
Calcium	EPA 200.7	65	0.046	0.10	mg/L	1	A302283	03/04/13	03/07/13	
Hardness as CaCO3	SM 2340B	420		0.41	mg/L					
Magnesium	EPA 200.7	63	0.046	0.10	mg/L	1	A302283	03/04/13	03/07/13	
Sodium	EPA 200.7	290	0.45	1.0	mg/L	1	A302283	03/04/13	03/07/13	



Certificate of Analysis

Calvin Yang
 Central Valley RWQCB
 11020 Sun Center Drive, Suite 200
 Rancho Cordova, CA 95670

Report Issue Date: 03/14/2013 18:46
Received Date: 03/01/2013
Received Time: 09:30

Lab Sample ID: A3C0011-06
Sample Date: 02/28/2013 09:36
Sample Type: Grab

Sampled by: Calvin Yang
Matrix: Surface Water

Sample Description: CCY130228-15

General Chemistry

Analyte	Method	Result	MDL	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Chloride	EPA 300.0	110	4.5	10	mg/L	10	A302238	03/01/13	03/01/13	B2.4
Nitrate as N	EPA 300.0	5.0	0.90	2.2	mg/L	10	A302238	03/01/13 15:33	03/01/13 15:33	B2.4
Sulfate as SO4	EPA 300.0	740	3.8	20	mg/L	10	A302238	03/01/13	03/01/13	B2.4
Total Dissolved Solids	SM 2540C	1700		5.0	mg/L	1	A302330	03/05/13	03/07/13	

Metals

Analyte	Method	Result	MDL	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
*Boron	EPA 200.8	850	4.5	10	ug/L	1	A302283	03/04/13	03/13/13	
Calcium	EPA 200.7	79	0.046	0.10	mg/L	1	A302283	03/04/13	03/07/13	
Hardness as CaCO3	SM 2340B	480		0.41	mg/L					
Magnesium	EPA 200.7	68	0.046	0.10	mg/L	1	A302283	03/04/13	03/07/13	
Sodium	EPA 200.7	440	0.45	1.0	mg/L	1	A302283	03/04/13	03/07/13	



Certificate of Analysis

Calvin Yang
 Central Valley RWQCB
 11020 Sun Center Drive, Suite 200
 Rancho Cordova, CA 95670

Report Issue Date: 03/14/2013 18:46
Received Date: 03/01/2013
Received Time: 09:30

Lab Sample ID: A3C0011-07
Sample Date: 02/28/2013 09:48
Sample Type: Grab

Sampled by: Calvin Yang
Matrix: Surface Water

Sample Description: CCY130228-16

General Chemistry

Analyte	Method	Result	MDL	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Chloride	EPA 300.0	88	2.2	5.0	mg/L	5	A302238	03/01/13	03/01/13	B2.4
Nitrate as N	EPA 300.0	ND	0.45	1.1	mg/L	5	A302238	03/01/13 15:43	03/01/13 15:43	B2.1, DL01
Sulfate as SO4	EPA 300.0	570	3.8	20	mg/L	10	A302291	03/04/13	03/04/13	B2.4
Total Dissolved Solids	SM 2540C	1300		5.0	mg/L	1	A302330	03/05/13	03/07/13	

Metals

Analyte	Method	Result	MDL	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
*Boron	EPA 200.8	520	4.5	10	ug/L	1	A302283	03/04/13	03/13/13	
Calcium	EPA 200.7	86	0.046	0.10	mg/L	1	A302283	03/04/13	03/07/13	
Hardness as CaCO3	SM 2340B	540		0.41	mg/L					
Magnesium	EPA 200.7	80	0.046	0.10	mg/L	1	A302283	03/04/13	03/07/13	
Sodium	EPA 200.7	290	0.45	1.0	mg/L	1	A302283	03/04/13	03/07/13	



Certificate of Analysis

Calvin Yang
 Central Valley RWQCB
 11020 Sun Center Drive, Suite 200
 Rancho Cordova, CA 95670

Report Issue Date: 03/14/2013 18:46
Received Date: 03/01/2013
Received Time: 09:30

Lab Sample ID: A3C0011-08
Sample Date: 02/28/2013 10:00
Sample Type: Grab

Sampled by: Calvin Yang
Matrix: Surface Water

Sample Description: CCY130228-17

General Chemistry

Analyte	Method	Result	MDL	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Chloride	EPA 300.0	92	2.2	5.0	mg/L	5	A302245	03/01/13	03/01/13	B2.4
Nitrate as N	EPA 300.0	0.56	0.45	1.1	mg/L	5	A302245	03/01/13 17:03	03/01/13 17:03	DL01, J
Sulfate as SO4	EPA 300.0	610	3.8	20	mg/L	10	A302291	03/04/13	03/04/13	B2.4
Total Dissolved Solids	SM 2540C	1400		5.0	mg/L	1	A302330	03/05/13	03/07/13	

Metals

Analyte	Method	Result	MDL	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
*Boron	EPA 200.8	570	4.5	10	ug/L	1	A302283	03/04/13	03/13/13	
Calcium	EPA 200.7	87	0.046	0.10	mg/L	1	A302283	03/04/13	03/07/13	
Hardness as CaCO3	SM 2340B	550		0.41	mg/L					
Magnesium	EPA 200.7	81	0.046	0.10	mg/L	1	A302283	03/04/13	03/07/13	
Sodium	EPA 200.7	310	0.45	1.0	mg/L	1	A302283	03/04/13	03/07/13	



Certificate of Analysis

Calvin Yang
 Central Valley RWQCB
 11020 Sun Center Drive, Suite 200
 Rancho Cordova, CA 95670

Report Issue Date: 03/14/2013 18:46
Received Date: 03/01/2013
Received Time: 09:30

Lab Sample ID: A3C0011-09
Sample Date: 02/28/2013 10:17
Sample Type: Grab

Sampled by: Calvin Yang
Matrix: Surface Water

Sample Description: CCY130228-18

General Chemistry

Analyte	Method	Result	MDL	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Chloride	EPA 300.0	56	0.89	2.0	mg/L	2	A302245	03/01/13	03/01/13	B2.4
Nitrate as N	EPA 300.0	0.45	0.18	0.44	mg/L	2	A302245	03/01/13 17:13	03/01/13 17:13	
Sulfate as SO4	EPA 300.0	200	0.76	4.0	mg/L	2	A302245	03/01/13	03/01/13	B2.4
Total Dissolved Solids	SM 2540C	720		5.0	mg/L	1	A302330	03/05/13	03/07/13	

Metals

Analyte	Method	Result	MDL	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
*Boron	EPA 200.8	370	4.5	10	ug/L	1	A302283	03/04/13	03/13/13	
Calcium	EPA 200.7	58	0.046	0.10	mg/L	1	A302283	03/04/13	03/07/13	
Hardness as CaCO3	SM 2340B	340		0.41	mg/L					
Magnesium	EPA 200.7	46	0.046	0.10	mg/L	1	A302283	03/04/13	03/07/13	
Sodium	EPA 200.7	150	0.45	1.0	mg/L	1	A302283	03/04/13	03/07/13	



Certificate of Analysis

Calvin Yang
 Central Valley RWQCB
 11020 Sun Center Drive, Suite 200
 Rancho Cordova, CA 95670

Report Issue Date: 03/14/2013 18:46
Received Date: 03/01/2013
Received Time: 09:30

Lab Sample ID: A3C0011-10
Sample Date: 02/28/2013 11:04
Sample Type: Grab

Sampled by: Calvin Yang
Matrix: Surface Water

Sample Description: CCY130228-19

General Chemistry

Analyte	Method	Result	MDL	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Chloride	EPA 300.0	39	0.45	1.0	mg/L	1	A302238	03/01/13	03/01/13	B2.4
Nitrate as N	EPA 300.0	0.72	0.090	0.22	mg/L	1	A302238	03/01/13 13:18	03/01/13 13:18	B2.3
Sulfate as SO4	EPA 300.0	60	0.38	2.0	mg/L	1	A302238	03/01/13	03/01/13	B2.4
Total Dissolved Solids	SM 2540C	340		5.0	mg/L	1	A302330	03/05/13	03/07/13	

Metals

Analyte	Method	Result	MDL	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
*Boron	EPA 200.8	180	4.5	10	ug/L	1	A302283	03/04/13	03/13/13	
Calcium	EPA 200.7	35	0.046	0.10	mg/L	1	A302283	03/04/13	03/07/13	
Hardness as CaCO3	SM 2340B	170		0.41	mg/L					
Magnesium	EPA 200.7	21	0.046	0.10	mg/L	1	A302283	03/04/13	03/07/13	
Sodium	EPA 200.7	69	0.45	1.0	mg/L	1	A302283	03/04/13	03/07/13	



Certificate of Analysis

Calvin Yang
 Central Valley RWQCB
 11020 Sun Center Drive, Suite 200
 Rancho Cordova, CA 95670

Report Issue Date: 03/14/2013 18:46
Received Date: 03/01/2013
Received Time: 09:30

Lab Sample ID: A3C0011-11
Sample Date: 02/28/2013 11:14
Sample Type: Grab

Sampled by: Calvin Yang
Matrix: Surface Water

Sample Description: CCY130228-20

General Chemistry

Analyte	Method	Result	MDL	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Chloride	EPA 300.0	22	0.89	2.0	mg/L	2	A302245	03/01/13	03/01/13	B2.4
Nitrate as N	EPA 300.0	0.40	0.18	0.44	mg/L	2	A302245	03/01/13 17:23	03/01/13 17:23	DL01, J
Sulfate as SO4	EPA 300.0	140	0.76	4.0	mg/L	2	A302245	03/01/13	03/01/13	B2.4
Total Dissolved Solids	SM 2540C	520		5.0	mg/L	1	A302330	03/05/13	03/07/13	

Metals

Analyte	Method	Result	MDL	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
*Boron	EPA 200.8	300	4.5	10	ug/L	1	A302283	03/04/13	03/13/13	
Calcium	EPA 200.7	34	0.046	0.10	mg/L	1	A302283	03/04/13	03/07/13	
Hardness as CaCO3	SM 2340B	220		0.41	mg/L					
Magnesium	EPA 200.7	32	0.046	0.10	mg/L	1	A302283	03/04/13	03/07/13	
Sodium	EPA 200.7	110	0.45	1.0	mg/L	1	A302283	03/04/13	03/07/13	



Certificate of Analysis

Calvin Yang
 Central Valley RWQCB
 11020 Sun Center Drive, Suite 200
 Rancho Cordova, CA 95670

Report Issue Date: 03/14/2013 18:46
Received Date: 03/01/2013
Received Time: 09:30

Lab Sample ID: A3C0011-12
Sample Date: 02/28/2013 11:42
Sample Type: Grab

Sampled by: Calvin Yang
Matrix: Surface Water

Sample Description: CCY130228-21

General Chemistry

Analyte	Method	Result	MDL	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Chloride	EPA 300.0	7.8	0.45	1.0	mg/L	1	A302238	03/01/13	03/01/13	B2.3
Nitrate as N	EPA 300.0	0.19	0.090	0.22	mg/L	1	A302238	03/01/13 15:53	03/01/13 15:53	B2.2, J
Sulfate as SO4	EPA 300.0	21	0.38	2.0	mg/L	1	A302238	03/01/13	03/01/13	B2.4
Total Dissolved Solids	SM 2540C	440		5.0	mg/L	1	A302330	03/05/13	03/07/13	

Metals

Analyte	Method	Result	MDL	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
*Boron	EPA 200.8	180	4.5	10	ug/L	1	A302283	03/04/13	03/13/13	
Calcium	EPA 200.7	55	0.046	0.10	mg/L	1	A302283	03/04/13	03/07/13	
Hardness as CaCO3	SM 2340B	330		0.41	mg/L					
Magnesium	EPA 200.7	47	0.046	0.10	mg/L	1	A302283	03/04/13	03/07/13	
Sodium	EPA 200.7	34	0.45	1.0	mg/L	1	A302283	03/04/13	03/07/13	



Certificate of Analysis

Calvin Yang
 Central Valley RWQCB
 11020 Sun Center Drive, Suite 200
 Rancho Cordova, CA 95670

Report Issue Date: 03/14/2013 18:46
Received Date: 03/01/2013
Received Time: 09:30

Lab Sample ID: A3C0011-13
Sample Date: 02/28/2013 11:55
Sample Type: Grab

Sampled by: Calvin Yang
Matrix: Surface Water

Sample Description: CCY130228-22

General Chemistry

Analyte	Method	Result	MDL	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Chloride	EPA 300.0	6.6	0.45	1.0	mg/L	1	A302245	03/01/13	03/01/13	B2.4
Nitrate as N	EPA 300.0	0.14	0.090	0.22	mg/L	1	A302245	03/01/13 18:33	03/01/13 18:33	J
Sulfate as SO4	EPA 300.0	20	0.38	2.0	mg/L	1	A302245	03/01/13	03/01/13	B2.4
Total Dissolved Solids	SM 2540C	340		5.0	mg/L	1	A302330	03/05/13	03/07/13	

Metals

Analyte	Method	Result	MDL	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
*Boron	EPA 200.8	130	4.5	10	ug/L	1	A302283	03/04/13	03/13/13	
Calcium	EPA 200.7	55	0.046	0.10	mg/L	1	A302283	03/04/13	03/07/13	
Hardness as CaCO3	SM 2340B	310		0.41	mg/L					
Magnesium	EPA 200.7	42	0.046	0.10	mg/L	1	A302283	03/04/13	03/07/13	
Sodium	EPA 200.7	30	0.45	1.0	mg/L	1	A302283	03/04/13	03/07/13	



Certificate of Analysis

Calvin Yang
 Central Valley RWQCB
 11020 Sun Center Drive, Suite 200
 Rancho Cordova, CA 95670

Report Issue Date: 03/14/2013 18:46
Received Date: 03/01/2013
Received Time: 09:30

Lab Sample ID: A3C0011-14
Sample Date: 02/28/2013 12:15
Sample Type: Grab

Sampled by: Calvin Yang
Matrix: Surface Water

Sample Description: CCY130228-23

General Chemistry

Analyte	Method	Result	MDL	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Chloride	EPA 300.0	15	0.89	2.0	mg/L	2	A302245	03/01/13	03/01/13	B2.4
Nitrate as N	EPA 300.0	3.0	0.18	0.44	mg/L	2	A302245	03/01/13 17:33	03/01/13 17:33	
Sulfate as SO4	EPA 300.0	94	0.76	4.0	mg/L	2	A302245	03/01/13	03/01/13	B2.4
Total Dissolved Solids	SM 2540C	440		5.0	mg/L	1	A302330	03/05/13	03/07/13	

Metals

Analyte	Method	Result	MDL	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
*Boron	EPA 200.8	270	4.5	10	ug/L	1	A302283	03/04/13	03/13/13	
Calcium	EPA 200.7	36	0.046	0.10	mg/L	1	A302283	03/04/13	03/07/13	
Hardness as CaCO3	SM 2340B	230		0.41	mg/L					
Magnesium	EPA 200.7	33	0.046	0.10	mg/L	1	A302283	03/04/13	03/07/13	
Sodium	EPA 200.7	79	0.45	1.0	mg/L	1	A302283	03/04/13	03/07/13	



Certificate of Analysis

Calvin Yang
 Central Valley RWQCB
 11020 Sun Center Drive, Suite 200
 Rancho Cordova, CA 95670

Report Issue Date: 03/14/2013 18:46
Received Date: 03/01/2013
Received Time: 09:30

Lab Sample ID: A3C0011-15
Sample Date: 02/28/2013 12:26
Sample Type: Grab

Sampled by: Calvin Yang
Matrix: Surface Water

Sample Description: CCY130228-24

General Chemistry

Analyte	Method	Result	MDL	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Chloride	EPA 300.0	10	0.45	1.0	mg/L	1	A302245	03/01/13	03/01/13	B2.4
Nitrate as N	EPA 300.0	0.71	0.090	0.22	mg/L	1	A302245	03/01/13 19:33	03/01/13 19:33	
Sulfate as SO4	EPA 300.0	65	0.38	2.0	mg/L	1	A302245	03/01/13	03/01/13	B2.4
Total Dissolved Solids	SM 2540C	390		5.0	mg/L	1	A302330	03/05/13	03/07/13	

Metals

Analyte	Method	Result	MDL	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
*Boron	EPA 200.8	230	4.5	10	ug/L	1	A302283	03/04/13	03/13/13	
Calcium	EPA 200.7	38	0.046	0.10	mg/L	1	A302283	03/04/13	03/07/13	
Hardness as CaCO3	SM 2340B	230		0.41	mg/L					
Magnesium	EPA 200.7	32	0.046	0.10	mg/L	1	A302283	03/04/13	03/07/13	
Sodium	EPA 200.7	67	0.45	1.0	mg/L	1	A302283	03/04/13	03/07/13	



Certificate of Analysis

Calvin Yang
 Central Valley RWQCB
 11020 Sun Center Drive, Suite 200
 Rancho Cordova, CA 95670

Report Issue Date: 03/14/2013 18:46
Received Date: 03/01/2013
Received Time: 09:30

Lab Sample ID: A3C0011-16
Sample Date: 02/28/2013 12:33
Sample Type: Grab

Sampled by: Calvin Yang
Matrix: Surface Water

Sample Description: CCY130228-25

General Chemistry

Analyte	Method	Result	MDL	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Chloride	EPA 300.0	19	0.89	2.0	mg/L	2	A302245	03/01/13	03/01/13	B2.4
Nitrate as N	EPA 300.0	4.7	0.18	0.44	mg/L	2	A302245	03/01/13 17:43	03/01/13 17:43	
Sulfate as SO4	EPA 300.0	81	0.76	4.0	mg/L	2	A302245	03/01/13	03/01/13	B2.4
Total Dissolved Solids	SM 2540C	430		5.0	mg/L	1	A302330	03/05/13	03/07/13	

Metals

Analyte	Method	Result	MDL	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
*Boron	EPA 200.8	250	4.5	10	ug/L	1	A302283	03/04/13	03/13/13	
Calcium	EPA 200.7	38	0.046	0.10	mg/L	1	A302283	03/04/13	03/07/13	
Hardness as CaCO3	SM 2340B	230		0.41	mg/L					
Magnesium	EPA 200.7	33	0.046	0.10	mg/L	1	A302283	03/04/13	03/07/13	
Sodium	EPA 200.7	81	0.45	1.0	mg/L	1	A302283	03/04/13	03/07/13	



Certificate of Analysis

Calvin Yang
 Central Valley RWQCB
 11020 Sun Center Drive, Suite 200
 Rancho Cordova, CA 95670

Report Issue Date: 03/14/2013 18:46
Received Date: 03/01/2013
Received Time: 09:30

Lab Sample ID: A3C0011-17
Sample Date: 02/28/2013 12:47
Sample Type: Grab

Sampled by: Calvin Yang
Matrix: Waste Water

Sample Description: CCY130228-26

General Chemistry

Analyte	Method	Result	MDL	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Chloride	EPA 300.0	49	0.89	2.0	mg/L	2	A302245	03/01/13	03/01/13	B2.4
Nitrate as N	EPA 300.0	20	0.18	0.44	mg/L	2	A302245	03/01/13 17:53	03/01/13 17:53	
Sulfate as SO4	EPA 300.0	100	0.76	4.0	mg/L	2	A302245	03/01/13	03/01/13	B2.4
Total Dissolved Solids	SM 2540C	560		5.0	mg/L	1	A302330	03/05/13	03/07/13	

Metals

Analyte	Method	Result	MDL	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
*Boron	EPA 200.8	280	4.5	10	ug/L	1	A302283	03/04/13	03/13/13	
Calcium	EPA 200.7	34	0.046	0.10	mg/L	1	A302283	03/04/13	03/07/13	
Hardness as CaCO3	SM 2340B	200		0.41	mg/L					
Magnesium	EPA 200.7	29	0.046	0.10	mg/L	1	A302283	03/04/13	03/07/13	
Sodium	EPA 200.7	110	0.45	1.0	mg/L	1	A302283	03/04/13	03/07/13	



General Chemistry Quality Control Report

Analyte	Result	MDL	RL	Units	Spike Level	Source Result	%REC	Limits	RPD	Limit	Date Analyzed	Qual
---------	--------	-----	----	-------	-------------	---------------	------	--------	-----	-------	---------------	------

Batch: A302238

Analyst: AJT

Prepared: 03/01/2013

Blank (A302238-BLK1) EPA 300.0 - Quality Control

Chloride	0.65	0.45	1.0	mg/L							03/01/13	B2.0, J
Nitrate as N	0.10	0.090	0.22	mg/L							03/01/13	B2.0, J
Sulfate as SO4	0.56	0.38	2.0	mg/L							03/01/13	B2.0, J

Blank Spike (A302238-BS1) EPA 300.0 - Quality Control

Chloride	49	0.45	1.0	mg/L	50		99	90-110			03/01/13	
Nitrate as N	11	0.090	0.22	mg/L	11		97	90-110			03/01/13	
Sulfate as SO4	49	0.38	2.0	mg/L	50		99	90-110			03/01/13	

Blank Spike Dup (A302238-BSD1) EPA 300.0 - Quality Control

Chloride	50	0.45	1.0	mg/L	50		100	90-110	2	20	03/01/13	
Nitrate as N	11	0.090	0.22	mg/L	11		100	90-110	2	20	03/01/13	
Sulfate as SO4	50	0.38	2.0	mg/L	50		101	90-110	2	20	03/01/13	

Matrix Spike (A302238-MS1) EPA 300.0 - Quality Control

Source: A3C0011-10

Chloride	130	0.89	2.0	mg/L	100	39	95	80-120			03/01/13	
Nitrate as N	22	0.18	0.44	mg/L	23	0.72	93	80-120			03/01/13	
Sulfate as SO4	160	0.76	4.0	mg/L	100	60	96	80-120			03/01/13	

Matrix Spike (A302238-MS2) EPA 300.0 - Quality Control

Source: A3C0011-12

Chloride	100	0.89	2.0	mg/L	100	7.8	94	80-120			03/01/13	
Nitrate as N	21	0.18	0.44	mg/L	23	0.19	92	80-120			03/01/13	
Sulfate as SO4	120	0.76	4.0	mg/L	100	21	96	80-120			03/01/13	

Matrix Spike Dup (A302238-MSD1) EPA 300.0 - Quality Control

Source: A3C0011-10

Chloride	140	0.89	2.0	mg/L	100	39	96	80-120	1	20	03/01/13	
Nitrate as N	22	0.18	0.44	mg/L	23	0.72	95	80-120	2	20	03/01/13	
Sulfate as SO4	160	0.76	4.0	mg/L	100	60	97	80-120	1	20	03/01/13	

Matrix Spike Dup (A302238-MSD2) EPA 300.0 - Quality Control

Source: A3C0011-12

Chloride	100	0.89	2.0	mg/L	100	7.8	95	80-120	0	20	03/01/13	
Nitrate as N	21	0.18	0.44	mg/L	23	0.19	93	80-120	1	20	03/01/13	
Sulfate as SO4	120	0.76	4.0	mg/L	100	21	96	80-120	1	20	03/01/13	

Batch: A302245

Analyst: AJT

Prepared: 03/01/2013

Blank (A302245-BLK1) EPA 300.0 - Quality Control

Chloride	0.66	0.45	1.0	mg/L							03/01/13	B2.0, J
Nitrate as N	ND	0.090	0.22	mg/L							03/01/13	
Sulfate as SO4	0.59	0.38	2.0	mg/L							03/01/13	B2.0, J

Blank Spike (A302245-BS1) EPA 300.0 - Quality Control

Chloride	48	0.45	1.0	mg/L	50		96	90-110			03/01/13	
Nitrate as N	11	0.090	0.22	mg/L	11		96	90-110			03/01/13	

A3C0011 FINAL 03142013 1846

1414 Stanislaus Street

Fresno, CA 93706

(559) 497-2888

FAX (559) 485-6935

www.bsklabs.com

An Employee-Owned Company | Analytical Testing | Construction Observation
Environmental Engineering | Geotechnical Engineering | Materials Testing



General Chemistry Quality Control Report

Analyte	Result	MDL	RL	Units	Spike	Source	%REC	RPD	Date	Qual
					Level	Result	%REC	Limits	RPD	

Batch: A302245

Analyst: AJT

Prepared: 03/01/2013

Blank Spike (A302245-BS1) EPA 300.0 - Quality Control

Sulfate as SO4	49	0.38	2.0	mg/L	50		97	90-110			03/01/13
----------------	----	------	-----	------	----	--	----	--------	--	--	----------

Blank Spike Dup (A302245-BSD1) EPA 300.0 - Quality Control

Chloride	48	0.45	1.0	mg/L	50		95	90-110	1	20	03/01/13
Nitrate as N	11	0.090	0.22	mg/L	11		96	90-110	1	20	03/01/13
Sulfate as SO4	48	0.38	2.0	mg/L	50		96	90-110	1	20	03/01/13

Matrix Spike (A302245-MS1) EPA 300.0 - Quality Control

Source: A3C0011-13

Chloride	100	0.89	2.0	mg/L	100	6.6	95	80-120			03/01/13
Nitrate as N	22	0.18	0.44	mg/L	23	0.14	95	80-120			03/01/13
Sulfate as SO4	120	0.76	4.0	mg/L	100	20	97	80-120			03/01/13

Matrix Spike (A302245-MS2) EPA 300.0 - Quality Control

Source: A3C0011-15

Chloride	100	0.89	2.0	mg/L	100	10	94	80-120			03/01/13
Nitrate as N	22	0.18	0.44	mg/L	23	0.71	95	80-120			03/01/13
Sulfate as SO4	160	0.76	4.0	mg/L	100	65	95	80-120			03/01/13

Matrix Spike Dup (A302245-MSD1) EPA 300.0 - Quality Control

Source: A3C0011-13

Chloride	100	0.89	2.0	mg/L	100	6.6	96	80-120	0	20	03/01/13
Nitrate as N	22	0.18	0.44	mg/L	23	0.14	95	80-120	1	20	03/01/13
Sulfate as SO4	120	0.76	4.0	mg/L	100	20	98	80-120	1	20	03/01/13

Matrix Spike Dup (A302245-MSD2) EPA 300.0 - Quality Control

Source: A3C0011-15

Chloride	100	0.89	2.0	mg/L	100	10	95	80-120	1	20	03/01/13
Nitrate as N	22	0.18	0.44	mg/L	23	0.71	95	80-120	1	20	03/01/13
Sulfate as SO4	170	0.76	4.0	mg/L	100	65	103	80-120	5	20	03/01/13

Batch: A302291

Analyst: AJT

Prepared: 03/04/2013

Blank (A302291-BLK1) EPA 300.0 - Quality Control

Sulfate as SO4	0.62	0.38	2.0	mg/L							03/04/13	B2.0, J
----------------	------	------	-----	------	--	--	--	--	--	--	----------	------------

Blank Spike (A302291-BS1) EPA 300.0 - Quality Control

Sulfate as SO4	50	0.38	2.0	mg/L	50		100	90-110			03/04/13
----------------	----	------	-----	------	----	--	-----	--------	--	--	----------

Blank Spike Dup (A302291-BSD1) EPA 300.0 - Quality Control

Sulfate as SO4	50	0.38	2.0	mg/L	50		101	90-110	0	20	03/04/13
----------------	----	------	-----	------	----	--	-----	--------	---	----	----------

Matrix Spike (A302291-MS1) EPA 300.0 - Quality Control

Source: A3C0089-01

Sulfate as SO4	150	0.76	4.0	mg/L	100	47	99	80-120			03/04/13
----------------	-----	------	-----	------	-----	----	----	--------	--	--	----------

Matrix Spike (A302291-MS2) EPA 300.0 - Quality Control

Source: A3C0123-01

Sulfate as SO4	120	0.76	4.0	mg/L	100	25	100	80-120			03/04/13
----------------	-----	------	-----	------	-----	----	-----	--------	--	--	----------

Matrix Spike Dup (A302291-MSD1) EPA 300.0 - Quality Control

Source: A3C0089-01

Sulfate as SO4	150	0.76	4.0	mg/L	100	47	99	80-120	0	20	03/04/13
----------------	-----	------	-----	------	-----	----	----	--------	---	----	----------

A3C0011 FINAL 03142013 1846

1414 Stanislaus Street

Fresno, CA 93706

(559) 497-2888

FAX (559) 485-6935

www.bsklabs.com

An Employee-Owned Company | Analytical Testing | Construction Observation
Environmental Engineering | Geotechnical Engineering | Materials Testing



General Chemistry Quality Control Report

Analyte	Result	MDL	RL	Units	Spike Level	Source Result	%REC	Limits	RPD	Limit	Date Analyzed	Qual
Batch: A302291					Analyst: AJT			Prepared: 03/04/2013				
Matrix Spike Dup (A302291-MSD2) EPA 300.0 - Quality Control					Source: A3C0123-01							
Sulfate as SO4	130	0.76	4.0	mg/L	100	25	100	80-120	0	20	03/04/13	
Batch: A302330					Analyst: DEH			Prepared: 03/05/2013				
Blank (A302330-BLK1) SM 2540C - Quality Control												
Total Dissolved Solids	ND		5.0	mg/L							03/07/13	
Blank (A302330-BLK2) SM 2540C - Quality Control												
Total Dissolved Solids	ND		5.0	mg/L							03/07/13	
Duplicate (A302330-DUP1) SM 2540C - Quality Control					Source: A3B2013-01							
Total Dissolved Solids	100		5.0	mg/L		110			6	20	03/07/13	
Duplicate (A302330-DUP2) SM 2540C - Quality Control					Source: A3C0011-08							
Total Dissolved Solids	1400		5.0	mg/L		1400			0	20	03/07/13	



Metals Quality Control Report

Analyte	Result	MDL	RL	Units	Spike Level	Source Result	%REC	Limits	RPD	Limit	Date Analyzed	Qual
---------	--------	-----	----	-------	-------------	---------------	------	--------	-----	-------	---------------	------

Batch: A302283

Analyst: KKC

Prepared: 03/04/2013

Blank (A302283-BLK2) EPA 200.7 - Quality Control

Calcium	ND	0.046	0.10	mg/L							03/07/13	
Magnesium	ND	0.046	0.10	mg/L							03/07/13	
Sodium	ND	0.45	1.0	mg/L							03/07/13	

Blank Spike (A302283-BS2) EPA 200.7 - Quality Control

Calcium	10	0.046	0.10	mg/L	10		101	85-115			03/07/13	
Magnesium	10	0.046	0.10	mg/L	10		100	85-115			03/07/13	
Sodium	10	0.45	1.0	mg/L	10		102	85-115			03/07/13	

Blank Spike Dup (A302283-BSD2) EPA 200.7 - Quality Control

Calcium	10	0.046	0.10	mg/L	10		105	85-115	3	20	03/07/13	
Magnesium	10	0.046	0.10	mg/L	10		103	85-115	3	20	03/07/13	
Sodium	10	0.45	1.0	mg/L	10		105	85-115	3	20	03/07/13	

Matrix Spike (A302283-MS3) EPA 200.7 - Quality Control

Source: A3C0011-01

Calcium	64	0.046	0.10	mg/L	10	53	112	70-130			03/07/13	
Magnesium	52	0.046	0.10	mg/L	10	42	109	70-130			03/07/13	
Sodium	150	0.45	1.0	mg/L	10	140	121	70-130			03/07/13	

Matrix Spike (A302283-MS4) EPA 200.7 - Quality Control

Source: A3C0011-11

Calcium	45	0.046	0.10	mg/L	10	34	107	70-130			03/07/13	
Magnesium	42	0.046	0.10	mg/L	10	32	103	70-130			03/07/13	
Sodium	120	0.45	1.0	mg/L	10	110	104	70-130			03/07/13	

Matrix Spike Dup (A302283-MSD3) EPA 200.7 - Quality Control

Source: A3C0011-01

Calcium	62	0.046	0.10	mg/L	10	53	88	70-130	4	20	03/07/13	
Magnesium	51	0.046	0.10	mg/L	10	42	92	70-130	3	20	03/07/13	
Sodium	140	0.45	1.0	mg/L	10	140	84	70-130	3	20	03/07/13	

Matrix Spike Dup (A302283-MSD4) EPA 200.7 - Quality Control

Source: A3C0011-11

Calcium	45	0.046	0.10	mg/L	10	34	107	70-130	0	20	03/07/13	
Magnesium	43	0.046	0.10	mg/L	10	32	107	70-130	1	20	03/07/13	
Sodium	120	0.45	1.0	mg/L	10	110	117	70-130	1	20	03/07/13	

Blank (A302283-BLK1) EPA 200.8 - Quality Control

Boron	ND	4.5	10	ug/L							03/13/13	
-------	----	-----	----	------	--	--	--	--	--	--	----------	--

Blank Spike (A302283-BS1) EPA 200.8 - Quality Control

Boron	620	4.5	10	ug/L	600		104	85-115			03/13/13	
-------	-----	-----	----	------	-----	--	-----	--------	--	--	----------	--

Blank Spike Dup (A302283-BSD1) EPA 200.8 - Quality Control

Boron	620	4.5	10	ug/L	600		104	85-115	0	20	03/13/13	
-------	-----	-----	----	------	-----	--	-----	--------	---	----	----------	--

Matrix Spike (A302283-MS1) EPA 200.8 - Quality Control

Source: A3C0011-01

Boron	950	4.5	10	ug/L	600	340	102	70-130			03/13/13	
-------	-----	-----	----	------	-----	-----	-----	--------	--	--	----------	--

Matrix Spike (A302283-MS2) EPA 200.8 - Quality Control

Source: A3C0011-11

Boron	910	4.5	10	ug/L	600	300	102	70-130			03/13/13	
-------	-----	-----	----	------	-----	-----	-----	--------	--	--	----------	--

A3C0011 FINAL 03142013 1846



Metals Quality Control Report

Analyte	Result	MDL	RL	Units	Spike Level	Source Result	%REC	Limits	RPD	Limit	Date Analyzed	Qual
---------	--------	-----	----	-------	-------------	---------------	------	--------	-----	-------	---------------	------

Batch: A302283

Analyst: MAS

Prepared: 03/04/2013

Matrix Spike Dup (A302283-MSD1)	EPA 200.8 - Quality Control						Source: A3C0011-01					
Boron	950	4.5	10	ug/L	600	340	102	70-130	0	20	03/13/13	

Matrix Spike Dup (A302283-MSD2)	EPA 200.8 - Quality Control						Source: A3C0011-11					
Boron	880	4.5	10	ug/L	600	300	97	70-130	3	20	03/13/13	



Certificate of Analysis

03/14/2013

Notes:

- The Chain of Custody document and Sample Integrity Sheet are part of the analytical report.
- Any remaining sample(s) for testing will be disposed of one month from the final report date unless other arrangements are made in advance.
- Sample(s) received, prepared, and analyzed within the method specified criteria unless otherwise noted within this report.
- The results relate only to the samples analyzed in accordance with test(s) requested by the client on the Chain of Custody document. Any analytical quality control exceptions to method criteria that are to be considered when evaluating these results have been flagged and are defined in the data qualifiers section.
- All results are expressed on wet weight basis unless otherwise specified.
- All positive results for EPA Methods 504.1 and 524.2 require the analysis of a Field Reagent Blank (FRB) to confirm that the results are not a contamination error from field sampling steps. If Field Reagent Blanks were not submitted with the samples, this method requirement has not been performed.
- Results contained in this analytical report must be reproduced in its entirety.
- Samples collected by BSK Analytical Laboratories were collected in accordance with the BSK Sampling and Collection Standard Operating Procedures.
- BSK Analytical Laboratories certifies that the test results contained in this report meet all requirements of the NELAC Standards for applicable certified drinking water chemistry analyses unless qualified or noted in the Case Narrative.
- Analytical data contained in this report may be used for regulatory purposes to meet the requirements of the Federal or State drinking water, wastewater, and hazardous waste programs.
- J-value is equivalent to DNQ (Detected, not quantified) which is a trace value. A trace value is an analyte detected between the MDL and the laboratory reporting limit. This result is of an unknown data quality and is only qualitative (estimated). Baseline noise, calibration curve extrapolation below the lowest calibrator, method blank detections, and integration artifacts can all produce apparent DNQ values, which contribute to the un-reliability of these values.
- (1) - Residual chlorine and pH analysis have a 15 minute holding time for both drinking and waste water samples as defined by the EPA and 40 CFR 136. Waste water and ground water (monitoring well) samples must be field filtered to meet the 15 minute holding time for dissolved metals.
- * - This is not a NELAP accredited analyte.
- Summations of analytes (i.e. Total Trihalomethanes) may appear to add individual amounts incorrectly, due to rounding of analyte values occurring before or after the total value is calculated, as well as rounding of the total value.
- RL Multiplier is the factor used to adjust the reporting limit (RL) due to variations in sample preparation procedures and dilutions required for matrix interferences.

Certifications: Please refer to our website for a copy of our Accredited Fields of Testing for each certification.

State of California - ELAP	1180	State of Nevada	CA000792009A
State of California - ELAP (Rancho Cordova)	2435	State of Hawaii	04227CA
State of California - NELAP	04227CA	State of Oregon	4017
		State of Washington	C997

Definitions and Flags for Data Qualifiers

mg/L:	Milligrams/Liter (ppm)	MDL:	Method Detection Limit	MDA95:	Min. Detected Activity
mg/Kg:	Milligrams/Kilogram (ppm)	RL:	Reporting Limit: DL x Dilution	MPN:	Most Probable Number
µg/L:	Micrograms/Liter (ppb)	ND:	None Detected at RL	CFU:	Colony Forming Unit
µg/Kg:	Micrograms/Kilogram (ppb)	pCi/L:	Picocuries per Liter	Absent:	Less than 1 CFU/100mLs
%:	Percent Recovered (surrogates)	RL Mult:	RL Multiplier	Present:	1 or more CFU/100mLs
NR:	Non-Reportable				

J DNQ (Detected, not quantified) or trace value. Analyte was detected between MDL and laboratory reporting limit (estimated value).

Certificate of Analysis

03/14/2013

- DL01 Sample required dilution due to matrix or high concentration of non-target analyte.
- B2.4 Analyte detected in associated method blank below the reporting limit. Sample concentration exceeds 10x the amount present and is not materially impacted by this condition.
- B2.3 Analyte detected in associated method blank below the reporting limit. Sample result may be, in part, attributable to ambient laboratory background.
- B2.2 Analyte detected in associated method blank below the reporting limit. Sample result may be attributable to ambient laboratory background.
- B2.1 Analyte detected in associated method blank below the reporting limit. No material impact on reported result as sample is ND for this parameter.
- B2.0 Analyte present in the method blank above the method detection limit (MDL). Laboratory does not determine batch acceptance on detections below the reporting limit (RL).

A3C0011



Central Valley RWQCB

centr4730



03012013

Turnaround: Standard
Due Date: 3/15/2013



Sample Integrity

BSK Bottles: Yes No Page 1 of 1

COC Info	Was temperature within range? Chemistry $\leq 6^{\circ}\text{C}$ Micro $< 10^{\circ}\text{C}$	<input checked="" type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> NA	Were correct containers and preservatives received for the tests requested?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> NA
	If samples were taken today, is there evidence that chilling has begun?	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> NA	Were there bubbles in the VOA vials? (Volatiles Only)	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> NA
	Did all bottles arrive unbroken and intact?	<input checked="" type="radio"/> Yes	<input type="radio"/> No		Was a sufficient amount of sample received?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
	Did all bottle labels agree with COC?	<input checked="" type="radio"/> Yes	<input type="radio"/> No		Do samples have a hold time <72 hours?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
	Was sodium thiosulfate added to CN sample(s) until chlorine was no longer present?	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> NA	Was PM notified of discrepancies? PM: _____ By/Time: _____	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> NA
Bottles Received "—" means preservation/chlorine checks are either N/A or are performed in the lab	250ml(A) 500ml(B) 1Liter(C) 40ml VOA(V)	Checks	Passed?		1-17			
	Bacti $\text{Na}_2\text{S}_2\text{O}_3$	—	—					
	None (P) ^{White Cap}	—	—		1C			
	Cr6 Buffer (P) ^{Blue Cap}	pH 9-9.5	Y	N				
	HNO_3 (P) ^{Red Cap}	—	—		1B			
	H_2SO_4 (P) ^{Yellow Cap}	pH ≤ 2	Y	N				
	NaOH (P) ^{Green Cap}	Cl, pH ≥ 12	Y	N				
	NaOH + ZnAc (P)	pH ≥ 9	Y	N				
	Dissolved Oxygen 300ml (g)	—	—					
	None (AG) 608/8081/8082, 625, 632/8321, 8151, 8270	—	—					
	H_2SO_4 (AG) ^{Yellow Label} O&G, Diesel	—	—					
	$\text{Na}_2\text{S}_2\text{O}_3$ 1 Liter (Brown P) 549	—	—					
	$\text{Na}_2\text{S}_2\text{O}_3$ (AG) ^{Blue Label} 547, 515, 525, 548	—	—					
	$\text{Na}_2\text{S}_2\text{O}_3$ (AG) ^{Blue Label} THMs 524.2 or 524.3	—	—					
	$\text{Na}_2\text{S}_2\text{O}_3$ (CG) ^{Blue Label} 504, 505	—	—					
	$\text{Na}_2\text{S}_2\text{O}_3$ + MCAA (CG) ^{Orange Label} 531	pH = 3	Y	N				
	NH_4Cl (AG) ^{Purple Label} 552	—	—					
	EDA (AG) ^{Brown Label} DBPs	—	—					
	Ascorbic + Maleic (AG) ^{LI Green Label} 524.3	—	—					
	HCL (CG) 524.2, BTEX, Gas, MTBE, 8260/624	—	—					
	Buffer pH 4 (CG)	—	—					
	None (CG)	—	—					
	H_3PO_4 (CG) ^{Salmon Label}	—	—					
	Other:							
	Asbestos 1Liter Plastic w/ Foil	—	—					
Low Level Hg / Metals Double Baggie	—	—						
Bottled Water	—	—						
Clear Glass Jar: 250 / 500 / 1 Liter	—	—						
Soil Tube Brass / Steel / Plastic	—	—						
Tedlar Bag / Plastic Bag	—	—						
Split	Container	Preservative	Date/Time/Initials		Container	Preservative	Date/Time/Initials	
	S P				S P			
	S P				S P			
Comments								

MSA
2/11/13